APPROVED
By Tracy Ransom at 12:58 pm, Nov 07, 2024

Georgia Firefighters' Pension Fund

Actuarial Valuation Report

Prepared as of June 30, 2024

CavMac
Actuarial Consulting Services

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Actuarial Consulting Services

November 6, 2024

Board of Trustees
Georgia Firefighters' Pension Fund
2171 East View Parkway
Conyers, GA 30013-5756

Dear Members of the Board:

We are pleased to submit herewith the results of the annual actuarial valuation of the Georgia Firefighters' Pension Fund (Fund) prepared as of June 30, 2024. The purpose of this report is to provide a summary of the funded status of the Fund as of June 30, 2024 and to recommend an Actuarially Determined Employer Contribution (ADEC) for the fiscal year ending June 30, 2025. The information needed for the Fund under the Governmental Accounting Standards Board Statements No. 67 and 68 will be provided in separate reports. However, for informational purposes only, we have also provided accounting disclosure information in Section VI of the report. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

On the basis of the valuation, the ADEC is $40,500,558 for the fiscal year ending June 30, 2025. This is a decrease of $177,295 from the ADEC for the fiscal year ending June 30, 2024 determined in the previous year's valuation report. This contribution is sufficient to meet the minimum funding requirements under Title 47, Chapter 7 of the Official Code of Georgia.

The promised benefits of the Fund are included in the actuarially calculated contributions which are developed using the entry age cost method. A five-year smoothed market value of plan assets was used for the actuarial value of assets. In accordance with the funding policy adopted by the Board, the remaining balances as of June 30, 2021 of the Transitional UAAL and each New Incremental UAAL from 2015 through 2021 is being amortized over a closed 23-year period beginning with the June 30, 2022 valuation. Gains and losses in subsequent years are amortized within a closed 25-year period from the valuation it is established. The assumptions recommended by the actuary and adopted by the Board are reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund.

Since the previous valuation, a Cost-of-Living Adjustment (COLA) of 1.5% was granted to retired members and beneficiaries and to the benefit rate of future retirees effective as of July 1, 2024.

This is to certify that the independent consulting actuary is a Member of the American Academy of Actuaries and has experience in performing valuations for public retirement funds, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Fund and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Fund.

The employer contributions to the Fund are based on premium tax revenues. Assuming that the premium tax revenues to the Fund are made from year to year in the future at an amount that equals or exceeds the ADEC determined in successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the Fund may be safely anticipated.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

This actuarial valuation was performed to determine the adequacy of statutory contributions to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the system, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the system.

We trust that the report will meet the approval of the Board and will furnish the desired information concerning the financial condition of the Fund.

Respectfully submitted,

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Ben D. Mobley, ASA, FCA, MAAA
Consulting Actuary

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SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the current and preceding valuations are summarized below.

Valuation Date	June 30, 2024	June 30, 2023
Active members:		
Number	13,980	13,621
Retired members and beneficiaries:		
Number	7,273	7,004
Annual allowances	$ 70,593,494	$ 66,969,967
Number of terminated vested members	460	430
Actuarial Accrued Liability	$ 1,456,890,167	$ 1,403,377,671
Assets:		
Market Value	$ 1,257,043,624	$ 1,142,881,316
Actuarial Value	1,222,310,768	1,150,431,503
Unfunded Actuarial Accrued Liability	$ 234,579,399	$ 252,946,168
Blended Amortization Period	21.3 years	22.5 years
Actuarial Value Funded Ratio	83.9%	82.0%
Market Value Funded Ratio	86.0%	81.4%
Fiscal Year Ending	**June 30, 2025**	**June 30, 2024**
Actuarially Determined Employer Contribution:		
Employer Normal Cost*	$ 21,126,353	$ 20,343,085
Actuarial Accrued Liability	19,374,205	20,334,768
Total	$ 40,500,558	$ 40,677,853

* Includes an amount for administrative expenses

2. The major benefit and contribution provisions of the Fund as reflected in the valuation are summarized in Schedule F. A Cost-of-Living Adjustment (COLA) of 1.5% was granted to retired members and beneficiaries and to the benefit rate of future retirees effective as of July 1, 2024. This change increased the actuarial accrued liability by approximately $21.5 million.

3. Schedule D of this report outlines the full set of actuarial assumptions and methods used in the valuation. No changes have been made since the previous valuation.

4. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of the actuarial cost method.

5. Comments on the valuation results as of June 30, 2024 are given in Section IV and further discussion of the contributions is set out in Section V.

6. As shown in the Summary of Principal Results, the funded ratio is the ratio of actuarial value of assets to the accrued liability and is different based on market value of assets. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions toward payment of the unfunded accrued liability. In addition, this funded ratio does not have any relationship to measuring sufficiency if the plan had to settle its liabilities.

SECTION II – MEMBERSHIP

1. Data regarding the membership of the Fund for use as a basis of the valuation were furnished by staff. The valuation included 13,980 active members, which is an increase from last year's active count of approximately 2.64%.

2. The following table shows the number of retired members and beneficiaries as of June 30, 2024 together with the amount of their annual retirement benefits payable under the Fund as of that date.

THE NUMBER AND ANNUAL BENEFITS OF RETIRED MEMBERS AND BENEFICIARIES AS OF JUNE 30, 2024

GROUP	NUMBER*	ANNUAL RETIREMENT BENEFITS
Service Retirements	6,553	$ 64,209,272
Disability Retirements	15	124,560
Beneficiaries of Deceased Members	705	6,259,662
Total	7,273	$ 70,593,494

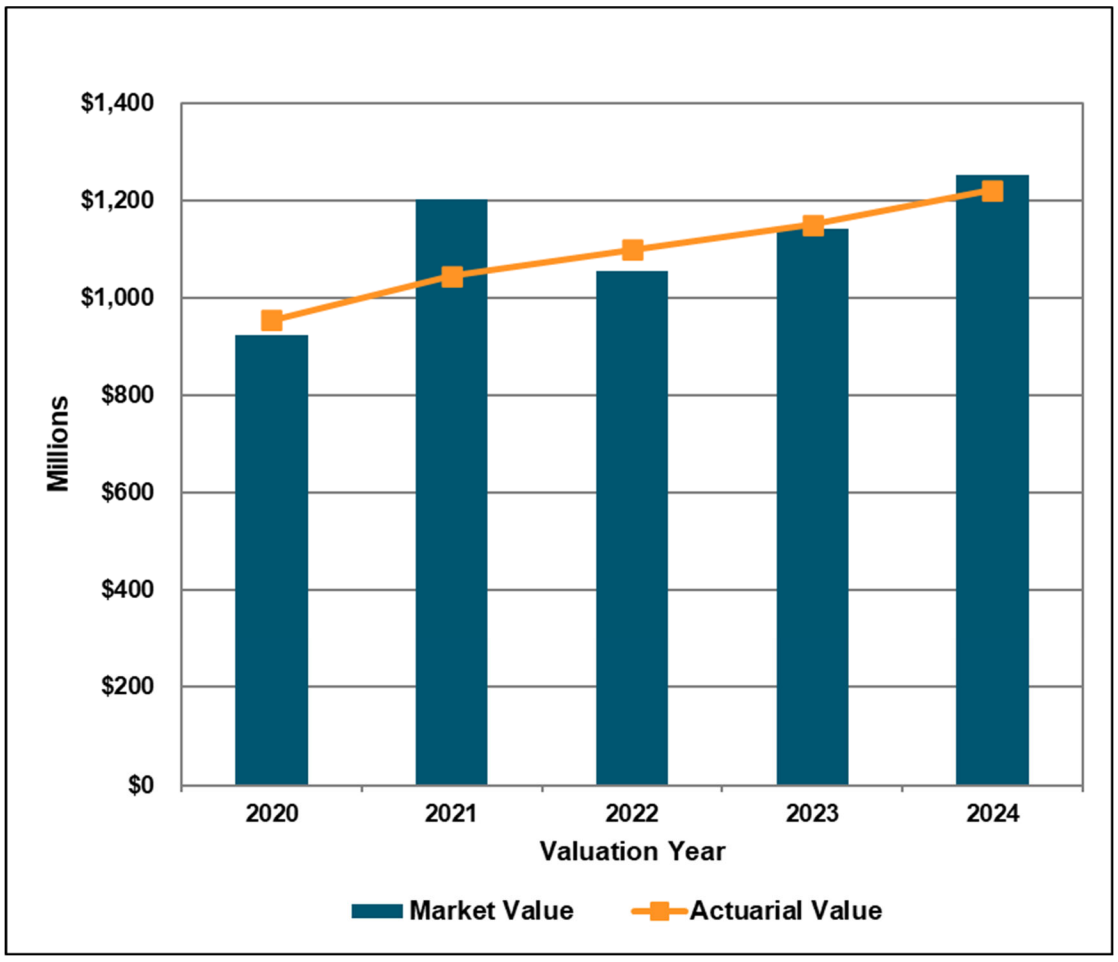
* In addition, there are 460 terminated members entitled to deferred vested benefits and 3,181 inactive members due a refund of their employee contributions.

3. Table 1 of Schedule I shows the status reconciliation since the last valuation. Table 2 of Schedule I shows the distribution by age and years of membership service of the number of active members included in the valuation. Table 3 of Schedule I shows the number and annual benefits of retired members and beneficiaries included in the valuation, distributed by age.

SECTION III – ASSETS

1. As of June 30, 2024, the total market value of assets amounted to $1,257,043,624, as reported by staff. The estimated net investment return, on a market value basis, for the plan year was 10.77%. Schedule C shows the receipts and disbursements of the Fund for the year preceding the valuation date and a reconciliation of the Fund balances at market value.

2. The market-related actuarial value of assets using a five-year smoothing technique of investment gains and losses is $1,222,310,768. The estimated investment return for the plan year ending June 30, 2024 on an actuarial value of assets basis was 7.01%, which can be compared to the investment return assumed for the period of 5.75%. This investment experience resulted in a gain in the unfunded actuarial accrued liability of approximately $14.4 million. Schedule B shows the development of the actuarial value of assets as of June 30, 2024 and the graph below shows the 5-year history of the market value and actuarial value of assets.



SECTION IV – COMMENTS ON VALUATION

1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the Fund as of June 30, 2024. The valuation was prepared in accordance with the actuarial assumptions set forth in Schedule D and the actuarial cost method which is described in Schedule E.

2. The valuation balance sheet shows that the Fund has total prospective liabilities of $1,621,529,605 of which $858,905,341 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, terminated members entitled to deferred benefits, and inactive members entitled to a refund of their employee contributions, and $762,624,264 is for the prospective benefits payable on account of present active members. Against these liabilities, the Fund has a total present actuarial value of assets of $1,222,310,768 as of June 30, 2024. The difference of $399,218,837 between the total liabilities and the total present assets represents the present value of future contributions.

3. The contributions to the Fund consist of normal contributions and actuarial accrued liability contributions. The valuation indicates that normal contributions of $25,025,736 are required to provide the currently accruing benefits of the Fund. Of this amount, $3,899,383 is expected to be paid by the members and the remaining $21,126,353 is required by the Fund.

4. Prospective normal contributions have a present value of $164,639,438. When this amount is subtracted from $399,218,837 which is the present value of the future contributions to be made, there remains $234,579,399 as the amount of unfunded actuarial accrued liability contributions.

5. The funding policy adopted by the Board, as shown in Schedule G, provides that the remaining balances as of June 30, 2021 of the Transitional UAAL and each New Incremental UAAL from 2015 through 2021 will be amortized as a level dollar amount over a closed 23-year period beginning with the June 30, 2022 valuation. Each New Incremental UAAL beginning with the June 30, 2022 valuation will be amortized as a level dollar amount over a closed 25-year period from the date it is established.

6. The funding policy also states that the required contribution amount determined in an actuarial valuation will be sufficient to satisfy the normal cost of the Fund and amortize the UAAL as a level dollar amount over a period not to exceed 25 years (for the UAAL as of the June 30, 2014 valuation and for each successive year of gains and losses incurred following the June 30, 2014 valuation).

SECTION IV – COMMENTS ON VALUATION

7. We have determined that an actuarial accrued liability contribution amount of $19,374,205 will comply with the Board's funding policy.

8. The following table shows the components of the total UAAL and the derivation of the UAAL contribution rate in accordance with the funding policy:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

	Initial Amount	UAAL as of June 30, 2024	Amortization Period (years)	Amortization Payment (5.75%)
Transitional	$168,678,888	$140,946,941	21	$11,730,436
New Incremental 6/30/2015	20,214,603	17,240,038	21	1,434,818
New Incremental 6/30/2016	10,801,257	9,396,953	21	782,070
New Incremental 6/30/2017	(12,816,398)	(11,357,314)	21	(945,223)
New Incremental 6/30/2018	13,221,735	11,918,184	21	991,902
New Incremental 6/30/2019	345,471	316,382	21	26,331
New Incremental 6/30/2020	6,533,831	6,072,399	21	505,381
New Incremental 6/30/2021	10,490,195	9,883,742	21	822,583
New Incremental 6/30/2022	65,900,586	63,340,887	23	5,033,366
New Incremental 6/30/2023	(613,998)	(602,407)	24	(46,896)
New Incremental 6/30/2024	(12,576,406)	(12,576,406)	25	(960,563)
Total UAAL		$234,579,399		$19,374,205
Blended Amortization Period				21.3 years

9. Overall, there was an $12.6 million net gain in the UAAL for the 2024 valuation. A contribution surplus from premium tax revenues exceeding the ADEC for the fiscal year ending June 30, 2024 resulted in an approximately $20.0 million gain. In addition to the contribution surplus, the investment return for fiscal year ending June 30, 2024 exceeded expectation on an actuarial value basis by 1.26% resulting in a $14.4 million gain. Partially offsetting these gains was the 1.5% COLA increase which resulted in a $21.5 million loss. Demographic experience and data changes were largely offsetting with a net loss of approximately $0.3 million. Schedule J of this report provides a more detailed breakdown of the gains and losses of the Fund.

SECTION V – CONTRIBUTIONS PAYABLE

1. The Actuarially Determined Employer Contribution (ADEC) consists of a normal contribution and an actuarial accrued liability contribution as determined by actuarial valuation.

2. The normal contribution is calculated as the annual level dollar amount which, if applied for the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the employer normal contribution is determined to be $21,126,353. This amount includes estimated administrative expenses of $1,850,000.

3. The actuarial accrued liability contribution on the basis of the Board's funding policy is $19,374,205, as shown on the previous page.

4. Therefore, the total Actuarially Determined Employer Contribution is $40,500,558.

5. The methodology of developing the contribution is designed to fund the benefits over a reasonable period with a stable contribution pattern. The current UAAL is expected to be funded within the next 25 years.

6. The following table summarizes the employer contributions which were determined by the June 30, 2024 valuation and are recommended for use for fiscal year ending June 30, 2025.

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)
FOR FISCAL YEAR ENDING JUNE 30, 2025

	CONTRIBUTION
Employer Normal Cost*	$21,126,353
Actuarial Accrued Liability	19,374,205
Total	$40,500,558

* Includes an amount for administrative expenses.

SECTION VI – ACCOUNTING INFORMATION

Governmental Accounting Standards Board (GASB) has issued Statements No. 67 and 68 which replaced Statements No. 25 and 27 for plan years beginning after June 15, 2013. The information required under the new GASB Statements will be issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership, as follows:

NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF JUNE 30, 2024

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	7,273
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	3,641
Active Participants	13,980
Total	24,894

2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)
6/30/2020	$ 953,972,559	$ 1,144,364,448	$ 190,391,889	83.4%
6/30/2021	1,045,113,412	1,242,368,882	197,255,470	84.1%
6/30/2022	1,098,687,874	1,357,734,522	259,046,648	80.9%
6/30/2023	1,150,431,503	1,403,377,671	252,946,168	82.0%
6/30/2024	1,222,310,768	1,456,890,167	234,579,399	83.9%

This is not a pay-related plan, so payroll related information has not been shown.

3. The following shows the schedule of employer contributions. Contributions from tax revenue on insurance premiums in protected areas collected by the State continue to exceed what is actuarially determined based on the Board's funding policy.

Fiscal Year Ending	Actuarially Determined Employer Contribution	Percentage Contributed
June 30, 2020	$ 29,915,586	136%
June 30, 2021	31,677,364	137%
June 30, 2022	33,922,653	136%
June 30, 2023	40,342,307	129%
June 30, 2024	40,677,853	142%
June 30, 2025	40,500,558	N/A

4. Additional information as of June 30, 2024 follows:

Valuation date	6/30/2024
Actuarial cost method	Entry age normal
Amortization period	Level dollar, closed
Blended amortization period	21.3 years
Asset valuation method	Five-year smoothed market value with 15% corridor
Actuarial assumptions:	
Investment rate of return (includes inflation)	5.75%
Projected salary increases (includes inflation)	N/A
Cost-of-living adjustments	N/A

SECTION VII – RISK ASSESSMENT

Overview

Actuarial Standards of Practice (ASOP) No. 51, issued by the Actuarial Standards Board, provides guidance on assessing and disclosing risks related to pension plan funding. This guidance is binding on all credentialed actuaries practicing in the United States. This standard was issued as final in September 2017 with application to measurement dates on or after November 1, 2018.

The term "risk" frequently has a negative connotation, but from an actuarial perspective, it may be thought of as simply the fact that what actually happens in the real world will not always match what was expected, based on actuarial assumptions. Of course, when actual experience is better than expected, the favorable risk is easily absorbed. The risk of unfavorable experience will likely be unpleasant, and so there is an understandable focus on aspects of risk that are negative.

Risk usually can be reduced or eliminated at some cost. Consumers, for example, buy auto and home insurance to reduce the risk of accidents or catastrophes. Another way to express this concept, however, is that there is generally some reward for assuming risk. Thus, retirement plans invest not just in US Treasury bonds which have almost no risk, but also in equities which are considerably riskier – because they have an expected reward of a higher return that justifies the risk.

Under ASOP 51, the actuary is called on to identify the significant risks to the pension plan and provide information to help those sponsoring and administering the plan understand the implications of these risks. In this section, we identify some of the key risks for the Fund and provide information to help interested parties better understand these risks.

SECTION VII – RISK ASSESSMENT

Sensitivity Measures

Valuations are generally performed with a single set of assumptions that reflects the best estimate of future conditions, in the opinion of the actuary and typically the governing board. Note that under actuarial standards of practice, the set of economic assumptions used for funding must be consistent. To enhance the understanding of the importance of an assumption, a sensitivity test can be performed where the valuation results are recalculated using a different assumption or set of assumptions.

The following table contains the key measures for the Fund using the valuation assumption for investment return of 5.75%, along with the results if the assumption were 4.75% or 6.75%. In this analysis, only the investment return assumption is changed. Consequently, there may be inconsistencies between the investment return and other economic assumptions such as inflation or payroll increases. In addition, simply because the valuation results under alternative assumptions are shown here, it should not be implied that CavMac believes that either assumption (4.75% or 6.75%) would comply with actuarial standards of practice ($ in thousands).

As of June 30, 2024	Current Discount Rate (5.75%)	-1% Discount Rate (4.75%)	+1% Discount Rate (6.75%)
Plan's Normal Cost	$21,126	$28,272	$15,857
Accrued Liability	$1,456,890	$1,656,027	$1,293,673
Unfunded Liability	$234,579	$433,716	$71,362
Funded Ratio	83.9%	73.8%	94.5%

SECTION VII – RISK ASSESSMENT

Mortality Risk

The mortality assumption is a significant assumption for valuation results, second only to the investment assumption in most situations. The Georgia Firefighter's Pension Fund's mortality assumption utilizes a mortality table (with separate rates for males and females, as well as different rates by status) and a projection scale for how the mortality table is expected to improve through time. This approach is the current state of the art in retirement actuarial practice, made possible by the increase in computational power over the past 20 years.

The future, however, is not known, and actual mortality improvements may occur at a faster rate than expected, or at a slower rate than expected (or even decline). Although changes in mortality will affect the benefits paid, this assumption is carefully studied during the regular experience studies that the Fund conducts so that incremental changes can be made to smoothly reflect unfolding experience.

Contribution Risk

The Fund is primarily funded by member contributions and premium tax revenues to the trust fund, together with the earnings on those accumulated contributions. Each year in the valuation, the Actuarially Determined Employer Contribution (ADEC) is determined, based on the Fund's funding policy. The Fund may wish to review contribution risk in the future but with current revenues exceeding ADEC's for the foreseeable future, there is no need to review at this time.

SECTION VII – RISK ASSESSMENT

Liquidation Risk

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we must now include a low-default-risk obligation measure of the Fund's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of this plan.

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2024 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a low-default-risk obligation measure liability of approximately $1,425,725,000.

This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.

SCHEDULE A – VALUATION BALANCE SHEET

The present and prospective assets and liabilities of the Fund as of June 30, 2024:

	ACTUARIAL LIABILITIES		
(1)	Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and terminated members entitled to deferred benefits		$858,905,341
(2)	Present value of prospective benefits payable on account of present active members		762,624,264
(3)	Total Actuarial Liabilities		$1,621,529,605
	PRESENT AND PROSPECTIVE ASSETS		
(4)	Actuarial value of assets		$1,222,310,768
(5)	Present value of total future contributions: (3) – (4)	$399,218,837	
(6)	Present value of future normal contributions		164,639,438
(7)	Unfunded actuarial accrued liability contributions: (5) – (6)		234,579,399
(8)	Total Present and Prospective Assets		$1,621,529,605

SCHEDULE B – DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

	07/01/2023 to 6/30/2024
(1) Actuarial Value Beginning of Year	$ 1,150,431,503
(2) Market Value End of Year	$ 1,257,043,624
(3) Market Value Beginning of Year	$ 1,142,881,316
(4) Cash Flow	
(a) Contributions	$ 62,935,567
(b) Benefit Payments	(68,052,068)
(c) Refund of Contributions	(1,503,861)
(d) Administrative Expenses	(1,822,714)
(e) Investment Expenses	(4,549,272)
(f) Net: (4)(a) + (4)(b) + (4)(c) + (4)(d) + (4)(e)	$ (12,992,348)
(5) Investment Income	
(a) Market Total: (2) – (3) – (4)(f)	$ 127,154,656
(b) Assumed Rate	5.75%
(c) Amount for Immediate Recognition: [(3) x (5)(b)]+[[(4)(a)+(4)(b)+(4)(c)+(4)(d)] x (5)(b) x 0.5] –(4)(e)	$ 70,022,210
(d) Amount for Phased-In Recognition: (5)(a) – (5)(c)	$ 57,132,446
(6) Phased-In Recognition of Investment Income	
(a) Current Year: 0.20*(5)(d)	$ 11,426,489
(b) First Prior Year	7,654,191
(c) Second Prior Year	(40,347,275)
(d) Third Prior Year	46,758,877
(e) Fourth Prior Year	(10,642,879)
(f) Total Recognized Investment Gain	$ 14,849,403
(7) Actuarial Value End of Year: (1) + (4)(f) + (5)(c) + (6)(f)	$ 1,222,310,768
(8) Actuarial Value Rate of Return	7.01%

SCHEDULE C – RECONCILIATION OF THE MARKET VALUE OF ASSETS

	For the year ending:	
	June 30, 2023	June 30, 2024
Market Value Beginning of Year	$1,055,714,633	$1,142,881,316
Additions:		
Member Dues	$ 4,838,223	$ 5,007,073
Tax Revenue	51,886,594	57,923,870
Other	642	4,624
Total Contributions	$ 56,725,459	$ 62,935,567
Net Investment Earnings	98,644,560	122,605,384
Total	$ 155,370,019	$ 185,540,951
Disbursements:		
Benefit Payments	$ (65,054,493)	$ (68,052,068)
Refunds	(1,327,276)	(1,503,861)
Administration Expense	(1,821,567)	(1,822,714)
Total	$ (68,203,336)	$ (71,378,643)
Change in Net Assets	$ 87,166,683	$ 114,162,308
Market Value End of Year	$1,142,881,316	$1,257,043,624
Net Investment Rate of Return	9.39%	10.77%

SCHEDULE D – ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation are based on the results of the experience Investigation for the six-year period ending June 30, 2021, which was adopted by the Board September 20, 2022. The combined effect of the assumptions is expected to have no significant bias.

VALUATION INTEREST RATE: 5.75% per annum, net of investment expenses, composed of a 2.50% inflation assumption and a 3.25% real rate of investment return assumption.

PRICE INFLATION: 2.50%

RATES OF WITHDRAWAL: Representative values of the assumed annual rates of withdrawal are as follows.

Years of Service		Years of Service	
1	10.00%	8	5.50%
2	10.00	9	5.00
3	9.00	10	4.25
4	7.50	11	4.00
5	7.00	12	3.50
6	6.50	13+	3.25
7	6.00		

RATES OF RETIREMENT: Representative values of the assumed annual rates of service retirement are as follows.

Age		Age	
50	7.5%	58	20.0%
51	8.0	59	20.0
52	8.5	60	22.0
53	9.0	61	27.0
54	18.5	62	30.0
55	28.0	63	30.0
56	19.0	64	35.0
57	18.0	65	100.0

SCHEDULE D – ACTUARIAL ASSUMPTIONS AND METHODS

RATES OF DEATH BEFORE RETIREMENT: The Pub-2010 Public Safety Headcount Weighted Below Median Table, with no adjustments, projected generationally with the MP-2021 scale is used for both males and females while in active service. Representative values of the assumed annual rates of mortality while in active service are as follows:

Annual Rates of Death*					
Age	Males	Females	Age	Males	Females
20	0.0460%	0.0180%	45	0.1160%	0.0950%
25	0.0540	0.0270	50	0.1680	0.1310
30	0.0600	0.0370	55	0.2470	0.1820
35	0.0680	0.0500	60	0.3790	0.2510
40	0.0850	0.0690	65	0.6050	0.3470

* Base mortality rates as of 2010 before application of the improvement scale

RATES OF DEATH AFTER RETIREMENT: The Pub-2010 Family of Tables, with no adjustments, projected generationally with the MP-2021 scale are used for post-retirement mortality assumptions as follows:

Participant Type	Base Mortality Table
Service Retirements	PubS.H-2010 Healthy Retiree, Below Median
Disability Retirements	PubS.H-2010 Disabled Retiree
Beneficiaries	PubS.H-2010 Contingent Survivor, Below Median

SCHEDULE D – ACTUARIAL ASSUMPTIONS AND METHODS

Representative values of the assumed annual rates of mortality are as follows:

Annual Rates of Death*						
	Service Retirement		Disability Retirement		Beneficiaries	
Age	Males	Females	Males	Females	Males	Females
50	0.4410%	0.1950%	0.4550%	0.3170%	0.9110%	0.5960%
55	0.5470	0.3260	0.6440	0.5450	1.0470	0.7130
60	0.8180	0.5450	0.9380	0.8730	1.2780	0.9210
65	1.2010	0.9110	1.4150	1.2450	1.6790	1.2870
70	1.9780	1.5220	2.2200	1.8920	2.4900	1.8180
75	3.5060	2.5440	3.6340	3.2290	3.8360	2.7320
80	6.2020	4.2530	6.0440	5.3230	5.9520	4.2990
85	10.9510	7.3240	10.3130	8.1390	9.5080	7.1420
90	17.5150	12.6470	16.9040	12.6020	15.1110	12.2300

* Base mortality rates as of 2010 before application of the improvement scale

ADMINISTRATIVE EXPENSES: Estimated to be $1,850,000 per year.

PERCENT MARRIED: 80% of active members are assumed to be married with the male three years older than his spouse.

COST OF LIVING ASSUMPTION: No future COLA's are assumed.

ACTUARIAL VALUE OF ASSETS METHOD: Actuarial value, as developed in Schedule B. Each year the expected return is determined based on the investment return assumption applied to actuarial value. This expected return reflects the timing of contributions and benefit payments during the year. This return is compared to the actual return for the year based on market value. The difference is considered a gain or loss and is amortized over five years.

VALUATION METHOD: Entry age normal cost method.

SCHEDULE E – ACTUARIAL COST METHOD

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 5.75%), of each member's expected benefits at retirement or death is determined, based on age, service and sex. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of members and beneficiaries.

2. The employer contributions required to support the benefits of the Fund are determined following a level funding approach and consist of a normal contribution and an actuarial accrued liability contribution.

3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level dollar which, if applied for the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.

4. The unfunded actuarial accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the Fund.

SCHEDULE F – SUMMARY OF PRINCIPAL PLAN PROVISIONS

Current Plan Provisions: The plan provisions and contribution revenue are established under Chapter 7 of Title 47 of the Official Code of Georgia. The Chapter has established a five-member Board of Trustees to administer the Fund. The Georgia Legislature has sole authority to change plan provisions, except that the Fund's Trustees may approve ad hoc cost-of-living adjustments each six months not exceeding 1½% per increase. The Georgia Legislature also determines sources of revenues to the Fund from the State and from Members. Employers are not required to make contributions to this fund.

Effective Date: 1955

Most Recent Amendment Effective Date: July 1, 2024.

Type of Plan: A defined benefit, public employee retirement system funded by Member contributions and tax revenues on insurance premiums in protected areas.

Eligibility: Any person employed as a firefighter or enrolled as a volunteer firefighter making required monthly dues. Members of Peace Officers' Annuity and Benefit Fund are excluded. Regular employees of the fund are eligible.

Credited Service: All service as a Member of the fund rendered while a firefighter or volunteer firefighter excluding years for volunteer firefighters who do not meet attendance, meeting or drill requirements and excluding any leave of absence time. The Board may calculate Credited Service on a monthly basis.

Normal Retirement Date: Full benefits paid at age 55 with at least 25 years of service. Reduced benefits paid if Member has at least 15 years of service.

Early Retirement Date: Age 50 with at least 15 years of service.

Retirement Benefit at Normal Retirement Date: A monthly retirement income increased 2% for each complete year of service over 25. If credited service is less than 25, the $1,012 per month is reduced by the ratio of credited service divided by 25 years. The $1,012 benefit is derived as follows:

		Change	Total Benefit
Benefit under Code Sec. 47-7-102(3) effective 7/1/1990	=	$570	$570
6% Increase to offset State Income Tax under Code Sec. 47-1-30	=	34	604
3% COLA adjustment on 8/1/1993	=	18	622
1½% COLA adjustment on 1/1/1994	=	9	631
1½% COLA adjustment on 7/1/1994	=	9	640
1½% COLA adjustment on 1/1/1995	=	10	650
1½% COLA adjustment on 7/1/1995	=	10	660

1 1/2% COLA adjustment on 1/1/1996	=	10	670
1 1/2% COLA adjustment on 7/1/1996	=	10	680
1 1/2% COLA adjustment on 1/1/1997	=	10	690
1 1/2% COLA adjustment on 7/1/1997	=	10	700
1 1/2% COLA adjustment on 7/1/1998	=	10	710
1 1/2% COLA adjustment on 7/1/1999	=	11	721
1 1/2% COLA adjustment on 1/1/2000	=	11	732
1 1/2% COLA adjustment on 7/1/2000	=	11	743
1 1/2% COLA adjustment on 7/1/2001	=	11	754
1 1/2% COLA adjustment on 7/1/2003	=	11	765
1 1/2% COLA adjustment on 1/1/2004	=	11	776
1 1/2% COLA adjustment on 7/1/2004	=	12	788
1 1/2% COLA adjustment on 1/1/2005	=	12	800
1 1/2% COLA adjustment on 7/1/2005	=	12	812
1 1/2% COLA adjustment on 1/1/2006	=	12	824
1 1/2% COLA adjustment on 7/1/2006	=	12	836
1 1/2% COLA adjustment on 1/1/2007	=	13	849
1 1/2% COLA adjustment on 7/1/2007	=	13	862
1 1/2% COLA adjustment on 1/1/2008	=	13	875
3/4% COLA adjustment on 7/1/2008	=	7	882
1 1/2% COLA adjustment on 7/1/2016	=	13	895
1% COLA adjustment on 7/1/2017	=	9	904
1% COLA adjustment on 1/1/2018	=	9	913
1% COLA adjustment on 7/1/2018	=	9	922
1% COLA adjustment on 1/1/2019	=	9	931
1% COLA adjustment on 1/1/2020	=	9	940
1% COLA adjustment on 1/1/2021	=	9	949
1 1/2% COLA adjustment on 7/1/2021	=	14	963
1 1/2% COLA adjustment on 1/1/2022	=	14	977
1% COLA adjustment on 7/1/2022	=	10	987
1% COLA adjustment on 7/1/2023	=	10	997
1 1/2% COLA adjustment on 7/1/2024	=	15	1,012
Total benefit amount			$1,012

Retirement Benefit at Early Retirement Date: For retirement between ages 50 and 55, the benefit is reduced by 6% for each year which early retirement precedes age 55.

Disability: There is no longer a disability benefit.

Vesting: After completion of 15 years of service, a participant is 100% vested. If termination occurs prior to vesting, total member contributions are refunded, less 5%.

SCHEDULE F – SUMMARY OF PRINCIPAL PLAN PROVISIONS

Vesting Benefit: The accrued benefit deferred to a minimum age 50.

Death Benefits: Prior to vesting, death benefit equals $10,000.00. After vesting, the death benefit is as prescribed by the Code. A Member with 15 years of creditable service has coverage for his or her spouse in the event the Member dies prior to commencing benefits. The coverage percentage is 100% of what the Member would have received under a joint and 100% survivor option and is payable when the Member would have become age 55. If the Member is not married, his or her beneficiary will receive benefits under the ten-year certain option. The Member's benefit is not reduced to reflect the cost of this option (other than the normal reduction for a joint and survivor annuity).

Member Contributions (Dues): $25 per month. If Member terminates after 25 years of service but is not age 55, dues cease.

Normal Form of Payment: Life annuity.

Optional Forms of Payment: After retirement, the following options are available in exchange for an actuarial reduction in the Member's benefit.

A. Joint and Survivor Option at 100%, 75%, $66^{2}/_{3}$%, or 50 percent continuation
B. Ten Years Certain and Life Option

If a Joint and Survivor is elected and the spouse predeceases or divorces the Member, the benefit is increased (or "pops-up") to the amount that would have been payable if the Joint and Survivor Option had not been elected. There is no charge to the Member for the pop-up provision.

Reduction: Benefits can be reduced if funds are insufficient.

Postemployment Healthcare Benefits: None.

Cost-of-Living Allowance (COLA): There is no automatic provision. The Board of Trustees can make ad hoc increases up to 1 ½% every six months.

SCHEDULE G – BOARD FUNDING POLICY

The purpose of this Funding Policy is to state the overall objectives for the Georgia Firefighters' Pension Fund (Plan), the benchmarks that will be used to measure progress in achieving those goals, and the methods and assumptions that will be employed to develop the benchmarks. It is the intent of the Board that the Funding Policy outlined herein will remain unchanged until the objectives below are met.

I. Funding Objectives

The goal in requiring state and member contributions to the Plan is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement. In meeting this objective, the Plan will strive to meet the following funding objectives:

- To maintain a stable or increasing funded ratio (ratio of actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to obtain a 100% funded ratio over a reasonable period of future years.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demand for liquidity.
- If required contribution amounts are larger than actual contributions or the funding ratio falls below 80%, than any benefit improvements should be funded through increases in contribution amounts.

II. Measures of Funding Progress

To track progress in achieving the Plan's funding objectives, the following measures will be determined annually as of the actuarial valuation date (with due recognition that a single year's results may not be indicative of long-term trends):

- **Funded ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial adjustments.

- **Unfunded Actuarial Accrued Liability (UAAL)**
  - **Transitional UAAL** – The UAAL established as of the initial valuation date of June 30, 2014 for which this funding policy was adopted shall be known as the Transitional UAAL.
  - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuations.

- **UAAL Amortization Period**
  - The Transitional UAAL and each New Incremental UAAL from 2015 through 2021 will be amortized over a closed 23-year period as of the June 30, 2022 valuation.
  - Each New Incremental UAAL on or after the June 30, 2022 valuation shall be amortized over a closed 25-year period beginning with the year it is incurred.
  - The amortization of UAAL will be developed using the level dollar methodology.

- **Contributions**
  - Contributions to the Plan will continue to come from tax revenues on insurance premiums in protected areas collected by the state.
  - In each valuation, the actuary will calculate a minimum required annual contribution amount based on the methods and assumptions outlined in this funding policy. The required state contribution amount will be determined as the summation of the employer normal cost, an estimated administrative expense amount, and the amortization amount for the Transitional UAAL and the individual amortization amount for each of the New Incremental UAAL bases.
  - In no event shall the required contribution amount be less than the employer normal cost plus the estimated administrative expense amount.
  - The valuation methodology, including the amortization of the Unfunded Actuarial Accrued Liability (UAAL), would be expected to maintain reasonably stable contribution amounts.

III. Methods and Assumptions

The annual actuarial valuations providing the measures to assess funding progress will utilize the actuarial methods and assumptions last adopted by the Board based upon the advice and recommendations of the actuary. These include the following primary methods and assumptions:

- The actuarial cost method used to develop the benchmarks will be the Entry Age Normal (EAN) actuarial cost method.
- The long-term annual investment rate of return assumption will be 5.75% net of investment expenses.
- The actuarial value of assets will be determined by recognizing the annual differences between actual and expected market value of assets over a five-year period.

The minimum required contribution amounts determined in an annual actuarial valuation will be at least sufficient to satisfy the annual normal cost of the Plan, the estimated administrative expense amount, and amortize the UAAL as a level dollar amount over a period not to exceed 25 years. However, in no event, shall the contribution amount be less than the employer normal cost plus the estimated administrative expense amount.

SCHEDULE G – BOARD FUNDING POLICY

The actuary shall conduct an investigation into the Plan's experience at least every six years and utilize the results of the investigation to form the basis for recommended assumptions and methods. Any changes to the recommended assumptions and methods that are approved by the Board will be reflected in this Policy.

IV. Funding Policy Progress

The Board will periodically have actuarial projections of the valuation results performed to assess the current and expected future progress towards the overall funding goals of the Plan. These periodic projections will provide the expected valuation results over at least a 30-year period. The projected measures of funding progress and the recent historical trend provided in valuations will provide important information for the Board's assessment of the Plan's funding progress.

Adopted: September 20, 2022

SCHEDULE H – AMORTIZATION OF UAAL

2014 TRANSITIONAL UAAL

Valuation Date	Amortization Period	Balance of Transitional UAAL	Annual Amortization Payment
6/30/2014	30	$168,678,888	$12,916,998
6/30/2015	29	166,726,018	12,267,636
6/30/2016	28	164,461,943	12,267,636
6/30/2017	27	162,062,023	12,267,636
6/30/2018	26	159,518,108	12,267,636
6/30/2019	25	156,821,558	12,267,636
6/30/2020	24	153,963,215	12,267,636
6/30/2021	23	150,933,372	11,993,879
6/30/2022	23	147,618,162	11,730,436
6/30/2023	22	144,375,770	11,730,436
6/30/2024	**21**	**140,946,941**	**11,730,436**
6/30/2025	20	137,320,954	11,730,436
6/30/2026	19	133,486,472	11,730,436
6/30/2027	18	129,431,508	11,730,436
6/30/2028	17	125,143,383	11,730,436
6/30/2029	16	120,608,691	11,730,436
6/30/2030	15	115,813,255	11,730,436
6/30/2031	14	110,742,081	11,730,436
6/30/2032	13	105,379,314	11,730,436
6/30/2033	12	99,708,188	11,730,436
6/30/2034	11	93,710,973	11,730,436
6/30/2035	10	87,368,918	11,730,436
6/30/2036	9	80,662,194	11,730,436
6/30/2037	8	73,569,834	11,730,436
6/30/2038	7	66,069,663	11,730,436
6/30/2039	6	58,138,232	11,730,436
6/30/2040	5	49,750,744	11,730,436
6/30/2041	4	40,880,976	11,730,436
6/30/2042	3	31,501,196	11,730,436
6/30/2043	2	21,582,078	11,730,436
6/30/2044	1	11,092,611	11,730,436
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2015 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2015)	Annual Amortization Payment
6/30/2015	30	$20,214,603	$1,468,569
6/30/2016	29	19,958,910	1,468,569
6/30/2017	28	19,687,876	1,468,569
6/30/2018	27	19,400,580	1,468,569
6/30/2019	26	19,096,046	1,468,569
6/30/2020	25	18,773,240	1,468,569
6/30/2021	24	18,431,065	1,434,818
6/30/2022	23	18,056,034	1,434,818
6/30/2023	22	17,659,438	1,434,818
6/30/2024	**21**	**17,240,038**	**1,434,818**
6/30/2025	20	16,796,523	1,434,818
6/30/2026	19	16,327,505	1,434,818
6/30/2027	18	15,831,519	1,434,818
6/30/2028	17	15,307,013	1,434,818
6/30/2029	16	14,752,349	1,434,818
6/30/2030	15	14,165,791	1,434,818
6/30/2031	14	13,545,506	1,434,818
6/30/2032	13	12,889,555	1,434,818
6/30/2033	12	12,195,887	1,434,818
6/30/2034	11	11,462,333	1,434,818
6/30/2035	10	10,686,599	1,434,818
6/30/2036	9	9,866,261	1,434,818
6/30/2037	8	8,998,753	1,434,818
6/30/2038	7	8,081,364	1,434,818
6/30/2039	6	7,111,225	1,434,818
6/30/2040	5	6,085,302	1,434,818
6/30/2041	4	5,000,389	1,434,818
6/30/2042	3	3,853,094	1,434,818
6/30/2043	2	2,639,829	1,434,818
6/30/2044	1	1,356,802	1,434,818
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2016 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2016)	Annual Amortization Payment
6/30/2016	30	$10,801,257	$784,700
6/30/2017	29	10,664,633	784,700
6/30/2018	28	10,519,811	784,700
6/30/2019	27	10,366,300	784,700
6/30/2020	26	10,203,578	784,700
6/30/2021	25	10,031,093	766,156
6/30/2022	23	9,841,724	782,070
6/30/2023	22	9,625,553	782,070
6/30/2024	**21**	**9,396,953**	**782,070**
6/30/2025	20	9,155,208	782,070
6/30/2026	19	8,899,562	782,070
6/30/2027	18	8,629,217	782,070
6/30/2028	17	8,343,327	782,070
6/30/2029	16	8,040,999	782,070
6/30/2030	15	7,721,286	782,070
6/30/2031	14	7,383,190	782,070
6/30/2032	13	7,025,654	782,070
6/30/2033	12	6,647,559	782,070
6/30/2034	11	6,247,724	782,070
6/30/2035	10	5,824,898	782,070
6/30/2036	9	5,377,760	782,070
6/30/2037	8	4,904,911	782,070
6/30/2038	7	4,404,874	782,070
6/30/2039	6	3,876,084	782,070
6/30/2040	5	3,316,889	782,070
6/30/2041	4	2,725,541	782,070
6/30/2042	3	2,100,189	782,070
6/30/2043	2	1,438,880	782,070
6/30/2044	1	739,546	782,070
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2017 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2017)	Annual Amortization Payment
6/30/2017	30	($12,816,398)	($931,097)
6/30/2018	29	(12,654,285)	(931,097)
6/30/2019	28	(12,482,445)	(931,097)
6/30/2020	27	(12,300,295)	(931,097)
6/30/2021	26	(12,107,216)	(908,509)
6/30/2022	23	(11,894,872)	(945,223)
6/30/2023	22	(11,633,605)	(945,223)
6/30/2024	**21**	**(11,357,314)**	**(945,223)**
6/30/2025	20	(11,065,137)	(945,223)
6/30/2026	19	(10,756,160)	(945,223)
6/30/2027	18	(10,429,416)	(945,223)
6/30/2028	17	(10,083,885)	(945,223)
6/30/2029	16	(9,718,485)	(945,223)
6/30/2030	15	(9,332,076)	(945,223)
6/30/2031	14	(8,923,447)	(945,223)
6/30/2032	13	(8,491,323)	(945,223)
6/30/2033	12	(8,034,351)	(945,223)
6/30/2034	11	(7,551,104)	(945,223)
6/30/2035	10	(7,040,069)	(945,223)
6/30/2036	9	(6,499,651)	(945,223)
6/30/2037	8	(5,928,158)	(945,223)
6/30/2038	7	(5,323,804)	(945,223)
6/30/2039	6	(4,684,700)	(945,223)
6/30/2040	5	(4,008,848)	(945,223)
6/30/2041	4	(3,294,134)	(945,223)
6/30/2042	3	(2,538,324)	(945,223)
6/30/2043	2	(1,739,055)	(945,223)
6/30/2044	1	(893,828)	(945,223)
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2018 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2018)	Annual Amortization Payment
6/30/2018	30	13,221,735	960,545
6/30/2019	29	13,054,494	960,545
6/30/2020	28	12,877,219	960,545
6/30/2021	27	12,689,307	936,653
6/30/2022	23	12,482,289	991,902
6/30/2023	22	12,208,119	991,902
6/30/2024	**21**	**11,918,184**	**991,902**
6/30/2025	20	11,611,578	991,902
6/30/2026	19	11,287,342	991,902
6/30/2027	18	10,944,463	991,902
6/30/2028	17	10,581,868	991,902
6/30/2029	16	10,198,423	991,902
6/30/2030	15	9,792,931	991,902
6/30/2031	14	9,364,123	991,902
6/30/2032	13	8,910,659	991,902
6/30/2033	12	8,431,120	991,902
6/30/2034	11	7,924,008	991,902
6/30/2035	10	7,387,736	991,902
6/30/2036	9	6,820,630	991,902
6/30/2037	8	6,220,914	991,902
6/30/2038	7	5,586,715	991,902
6/30/2039	6	4,916,050	991,902
6/30/2040	5	4,206,821	991,902
6/30/2041	4	3,456,811	991,902
6/30/2042	3	2,663,676	991,902
6/30/2043	2	1,824,936	991,902
6/30/2044	1	937,968	991,902
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2019 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2019)	Annual Amortization Payment
6/30/2019	30	345,471	25,098
6/30/2020	29	341,101	25,098
6/30/2021	28	336,469	24,459
6/30/2022	23	331,357	26,331
6/30/2023	22	324,079	26,331
6/30/2024	**21**	**316,382**	**26,331**
6/30/2025	20	308,243	26,331
6/30/2026	19	299,636	26,331
6/30/2027	18	290,534	26,331
6/30/2028	17	280,908	26,331
6/30/2029	16	270,729	26,331
6/30/2030	15	259,965	26,331
6/30/2031	14	248,582	26,331
6/30/2032	13	236,544	26,331
6/30/2033	12	223,814	26,331
6/30/2034	11	210,352	26,331
6/30/2035	10	196,116	26,331
6/30/2036	9	181,062	26,331
6/30/2037	8	165,142	26,331
6/30/2038	7	148,306	26,331
6/30/2039	6	130,502	26,331
6/30/2040	5	111,675	26,331
6/30/2041	4	91,765	26,331
6/30/2042	3	70,710	26,331
6/30/2043	2	48,445	26,331
6/30/2044	1	24,899	26,331
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2020 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2020)	Annual Amortization Payment
6/30/2020	30	6,533,831	474,676
6/30/2021	29	6,451,185	462,314
6/30/2022	23	6,359,814	505,381
6/30/2023	22	6,220,123	505,381
6/30/2024	**21**	**6,072,399**	**505,381**
6/30/2025	20	5,916,181	505,381
6/30/2026	19	5,750,981	505,381
6/30/2027	18	5,576,281	505,381
6/30/2028	17	5,391,536	505,381
6/30/2029	16	5,196,169	505,381
6/30/2030	15	4,989,568	505,381
6/30/2031	14	4,771,087	505,381
6/30/2032	13	4,540,044	505,381
6/30/2033	12	4,295,715	505,381
6/30/2034	11	4,037,338	505,381
6/30/2035	10	3,764,104	505,381
6/30/2036	9	3,475,159	505,381
6/30/2037	8	3,169,600	505,381
6/30/2038	7	2,846,471	505,381
6/30/2039	6	2,504,762	505,381
6/30/2040	5	2,143,405	505,381
6/30/2041	4	1,761,270	505,381
6/30/2042	3	1,357,162	505,381
6/30/2043	2	929,818	505,381
6/30/2044	1	477,902	505,381
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2021 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2021)	Annual Amortization Payment
6/30/2021	30	10,490,195	741,827
6/30/2022	23	10,351,554	822,583
6/30/2023	22	10,124,185	822,583
6/30/2024	**21**	**9,883,742**	**822,583**
6/30/2025	20	9,629,474	822,583
6/30/2026	19	9,360,586	822,583
6/30/2027	18	9,076,236	822,583
6/30/2028	17	8,775,536	822,583
6/30/2029	16	8,457,546	822,583
6/30/2030	15	8,121,271	822,583
6/30/2031	14	7,765,661	822,583
6/30/2032	13	7,389,603	822,583
6/30/2033	12	6,991,922	822,583
6/30/2034	11	6,571,374	822,583
6/30/2035	10	6,126,645	822,583
6/30/2036	9	5,656,344	822,583
6/30/2037	8	5,159,000	822,583
6/30/2038	7	4,633,059	822,583
6/30/2039	6	4,076,877	822,583
6/30/2040	5	3,488,714	822,583
6/30/2041	4	2,866,731	822,583
6/30/2042	3	2,208,985	822,583
6/30/2043	2	1,513,418	822,583
6/30/2044	1	777,857	822,583
6/30/2045	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2022 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2022)	Annual Amortization Payment
6/30/2022	25	65,900,586	5,033,366
6/30/2023	24	64,656,504	5,033,366
6/30/2024	**23**	**63,340,887**	**5,033,366**
6/30/2025	22	61,949,622	5,033,366
6/30/2026	21	60,478,359	5,033,366
6/30/2027	20	58,922,499	5,033,366
6/30/2028	19	57,277,176	5,033,366
6/30/2029	18	55,537,248	5,033,366
6/30/2030	17	53,697,274	5,033,366
6/30/2031	16	51,751,501	5,033,366
6/30/2032	15	49,693,846	5,033,366
6/30/2033	14	47,517,876	5,033,366
6/30/2034	13	45,216,788	5,033,366
6/30/2035	12	42,783,388	5,033,366
6/30/2036	11	40,210,066	5,033,366
6/30/2037	10	37,488,779	5,033,366
6/30/2038	9	34,611,018	5,033,366
6/30/2039	8	31,567,786	5,033,366
6/30/2040	7	28,349,567	5,033,366
6/30/2041	6	24,946,301	5,033,366
6/30/2042	5	21,347,348	5,033,366
6/30/2043	4	17,541,454	5,033,366
6/30/2044	3	13,516,722	5,033,366
6/30/2045	2	9,260,568	5,033,366
6/30/2046	1	4,759,684	5,033,366
6/30/2047	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2023 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2023)	Annual Amortization Payment
6/30/2023	25	(613,998)	(46,896)
6/30/2024	**24**	**(602,407)**	**(46,896)**
6/30/2025	23	(590,149)	(46,896)
6/30/2026	22	(577,187)	(46,896)
6/30/2027	21	(563,479)	(46,896)
6/30/2028	20	(548,983)	(46,896)
6/30/2029	19	(533,653)	(46,896)
6/30/2030	18	(517,442)	(46,896)
6/30/2031	17	(500,299)	(46,896)
6/30/2032	16	(482,170)	(46,896)
6/30/2033	15	(462,999)	(46,896)
6/30/2034	14	(442,726)	(46,896)
6/30/2035	13	(421,286)	(46,896)
6/30/2036	12	(398,614)	(46,896)
6/30/2037	11	(374,639)	(46,896)
6/30/2038	10	(349,284)	(46,896)
6/30/2039	9	(322,472)	(46,896)
6/30/2040	8	(294,118)	(46,896)
6/30/2041	7	(264,134)	(46,896)
6/30/2042	6	(232,426)	(46,896)
6/30/2043	5	(198,894)	(46,896)
6/30/2044	4	(163,434)	(46,896)
6/30/2045	3	(125,936)	(46,896)
6/30/2046	2	(86,281)	(46,896)
6/30/2047	1	(44,346)	(46,896)
6/30/2048	0	0	0

SCHEDULE H – AMORTIZATION OF UAAL

2024 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL (6/30/2024)	Annual Amortization Payment
6/30/2024	**25**	**(12,576,406)**	**(960,563)**
6/30/2025	24	(12,338,987)	(960,563)
6/30/2026	23	(12,087,915)	(960,563)
6/30/2027	22	(11,822,408)	(960,563)
6/30/2028	21	(11,541,633)	(960,563)
6/30/2029	20	(11,244,714)	(960,563)
6/30/2030	19	(10,930,723)	(960,563)
6/30/2031	18	(10,598,676)	(960,563)
6/30/2032	17	(10,247,537)	(960,563)
6/30/2033	16	(9,876,208)	(960,563)
6/30/2034	15	(9,483,527)	(960,563)
6/30/2035	14	(9,068,267)	(960,563)
6/30/2036	13	(8,629,129)	(960,563)
6/30/2037	12	(8,164,742)	(960,563)
6/30/2038	11	(7,673,651)	(960,563)
6/30/2039	10	(7,154,323)	(960,563)
6/30/2040	9	(6,605,134)	(960,563)
6/30/2041	8	(6,024,367)	(960,563)
6/30/2042	7	(5,410,205)	(960,563)
6/30/2043	6	(4,760,729)	(960,563)
6/30/2044	5	(4,073,908)	(960,563)
6/30/2045	4	(3,347,595)	(960,563)
6/30/2046	3	(2,579,519)	(960,563)
6/30/2047	2	(1,767,278)	(960,563)
6/30/2048	1	(908,334)	(960,563)
6/30/2049	0	0	0

TABLE 1

RECONCILIATION OF DATA

	Actives	Retirees	Beneficiaries	Vested Terms	Total
1. Headcounts as of June 30, 2023	13,621	6,357	647	430	21,055
2. Change in status during the period:					
Death with no Beneficiary	(9)	(58)	(16)		(83)
Death with Beneficiary	(1)	(69)	74	(4)	
Retired	(290)	341		(51)	
Terminated Vested	(87)			87	
Terminated Not Vested	(542)				(542)
Refund	(200)				(200)
Benefit Suspended/Expired					
3. New member due to:					
New Hire	1,349				1,349
Rehire	139	(5)		(8)	126
Adjustment		2		6	8
4. Headcounts as of June 30, 2024	13,980	6,568	705	460	21,713

In addition, there are 3,181 inactive members entitled to their refund of employee contributions.

TABLE 2

DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE GROUPS AS OF JUNE 30, 2024

Attained Age	Completed Years of Service									
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	≥ 35	Total
Under 25	533	668	19							1,220
25 to 29	349	906	538	18						1,811
30 to 34	218	708	768	321	21					2,036
35 to 39	138	438	653	526	444	12				2,211
40 to 44	83	270	398	407	615	236	6			2,015
45 to 49	56	138	221	298	460	418	163	1		1,755
50 to 54	32	102	158	218	330	446	324	83	4	1,697
55 to 59	15	47	82	115	150	182	106	76	26	799
60 to 64	7	19	25	56	60	58	30	27	30	312
65 to 69	2	14	9	17	9	16	8	3	8	86
70 & up		6	10	11	8			1	2	38
Total Count	1,433	3,316	2,881	1,987	2,097	1,368	637	191	70	13,980

TABLE 3

NUMBER OF RETIRED MEMBERS AND BENEFICIARIES AND THEIR BENEFITS BY AGE

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefit
Under 50	10	$ 83,136	$ 8,314
50 – 54	333	2,671,496	8,023
55 – 59	1,282	12,174,218	9,496
60 – 64	1,574	15,453,052	9,818
65 – 69	1,487	14,509,056	9,757
70 – 74	1,202	12,018,636	9,999
75 – 79	777	7,636,644	9,828
80 – 84	403	4,012,692	9,957
85 – 89	140	1,421,664	10,155
90 and Over	65	612,900	9,429
Total	7,273	$ 70,593,494	$ 9,706

SCHEDULE J – ANALYSIS OF EXPERIENCE

Gains & Losses in Actuarial Accrued Liabilities
Resulting from Difference Between
Assumed Experience & Actual Experience
($ Thousands)

Type of Activity	$ Gain (or Loss) For Year Ending June 30, 2023	$ Gain (or Loss) For Year Ending June 30, 2024
Contribution excess/(shortfall). If actual contribution is greater than expected, there is a gain. If less, a loss.	$ 13,293.2	$ 20,019.6
Investment Income. If there is a greater investment income than assumed, there is a gain. If less income, a loss.	376.9	14,415.3
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	(1,001.8)	(166.2)
Withdrawal from Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	1,043.9	1,054.4
Death-in-Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(214.1)	(219.4)
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	1,633.1	(855.4)
Other. Miscellaneous gains and losses resulting from changes in valuation software, data adjustments, timing of financial transactions, entrance of new active members with greater than expected service due to past service, etc.	$ (558.0)	$ (132.9)
Gain (or Loss) During Year from Financial Experience	$ 14,573.2	$ 34,115.4
Non-Recurring Items. Adjustments for plan amendments, assumption changes, or method changes.	(13,959.2)	(21,539.0)
Composite Gain (or Loss) During Year	$ 614.0	$ 12,576.4