

City of Sarasota
Firefighters' Pension Fund
Actuarial Valuation Report
September 30, 2023



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Report of September 30, 2023 Actuarial Valuation

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March 8, 2024

Board of Trustees
City of Sarasota Firefighters' Pension Fund
Sarasota, Florida

Dear Board Members:

The results of the September 30, 2023 Annual Actuarial Valuation of the City of Sarasota Firefighters' Pension Fund are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Pension Fund and those designated or approved by the Board. This report may be provided to parties other than the Fund only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Fund's funding progress and to determine the employer contribution rate for the fiscal year beginning October 1, 2024. Information required by Statement Nos. 67 and 68 of the Governmental Accounting Standards Board (GASB) are provided in two separate reports. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution amount in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report includes risk metrics on pages A-9 through A-10 but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through September 30, 2023. The valuation was based upon information furnished by the City, concerning Pension Fund benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the City.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report was prepared using assumptions adopted by the Board. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. Additional information about the actuarial assumptions is included in Section D of this report. The combined effect of the assumptions, excluding prescribed assumptions or methods set by law, is expected to have no significant bias (i.e., not significantly optimistic or pessimistic).


This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the City of Sarasota Firefighters' Pension Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Brad Lee Armstrong, Jeffrey T. Tebeau and Kevin T. Noelke are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. Our statement by the Enrolled Actuary is contained in Section A.

The signing actuaries are independent of the plan sponsor.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Brad Lee Armstrong, ASA, EA, FCA, MAAA



Jeffrey T. Tebeau, FSA, EA, FCA, MAAA



Kevin T. Noelke, ASA, FCA, MAAA

BLA/JTT/KTN:sc

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SECTION A

VALUATION RESULTS, COMMENTARY AND STATEMENT BY ENROLLED ACTUARY

Actuarial Valuation Process

An actuarial valuation is the process by which a balance between revenues (participant contributions, employer contributions, and investment income) and obligations (benefits and expenses) is determined and funded condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

- A. Covered person information about:
 - Each person receiving pension payments
 - Each former participant with a vested pension not yet payable
 - Each former participant who is not vested and has not claimed a member contribution refund
 - Each active participant
- B. Financial Information (assets, revenues, and expenditures)
- C. Benefit Provisions (Retirement Ordinance)
- D. Actuarial Assumptions about the volume and incidence of future activities
- E. Actuarial Cost Method (entry age) for allocating benefit costs to time periods
- F. Mathematical linking of the person information, financial information, benefit provisions, experience estimates and actuarial cost method
- G. Determination of:
 - Contribution rate for the plan year
 - Current funded condition

Items A, B and C are furnished by the pension office and constitute the current knowns about the Fund. Since the majority of activities will occur in the future, estimates must be made about these future activities (Item D).

Under the Entry Age Actuarial Cost Method, each year's differences between projected and actual Fund activities (experience gains/losses) reduce/increase the Unfunded Actuarial Accrued Liability. This treatment of experience gains/losses leaves the Normal Cost unaffected by year-to-year experience fluctuations and, thereby, more likely to satisfy the level contribution Funding Objective set out on page B-1. Normal Cost changes occur only in response to changes in benefits, actuarial assumptions and/or age at hire patterns.

Observed Experience

The employer contribution requirement for the fiscal year beginning October 1, 2024 is \$2,384,178, an increase of \$776,236 from the fiscal year beginning October 1, 2023. The County no longer contributes to the Pension Fund. As a result, the City's contribution requirement is \$2,384,178 for the fiscal year beginning October 1, 2024.

Experience gains/losses and one-time events (e.g., assumption changes) are amortized using layered amortization, with level-dollar payments over separate 10-year closed bases beginning with the 2022 valuation (for fiscal year 2024). The current Unfunded Actuarial Accrued Liabilities (UAAL) are scheduled to be fully amortized by September 30, 2034.

The funded condition, as measured by the ratio of the funding value of assets to the Actuarial Accrued Liability is 93.7%, a decrease from last year's 97.7%. The funded condition should move towards 100% over the remaining amortization period ending September 30, 2034, contingent upon timely receipt of required contributions and overall long-term experience in line with expectations.

The key elements affecting the overall experience were:

- A recognized rate of investment return on funding value of assets of 5.5% versus 6.85% projected. The investment return experience deviations will likely dominate overall experience for the remainder of the life of the Pension Fund, although investment return or mortality assumption changes or even mortality experience deviations can periodically do this too; and
- Two pension recipients removed versus five expected.

The net result of all economic and demographic activity was an experience loss of \$4.2 million (\$2.2 million due to investments, \$2.0 million due to liabilities). This was amortized over 10 years.

Comments

Comment A

The results presented in this report are based on a closed active participant group (no new participants). The last two active members retired in February 2019.

Comment B

It is the actuary's opinion that the Fund is not "fully funded" under Chapter 175.371(2) and should expect continued receipt of state premium tax monies whenever the Fund is not fully funded.

Comment C

The investment return assumption was lowered from 6.85% to 6.70% for this valuation. This increased liabilities by \$2.6 million and increased the employer contribution requirement by \$342 thousand.

Comment D

As of September 30, 2023, the Funding Value of Assets (FVA) exceeded the Market Value of Assets (MVA) by \$8.3 million. If the MVA were used in this valuation, the funded ratio would have been 89.1%. The funded ratio based on the MVA in the prior valuation was 89.6%. This unfavorable condition means that projected employer contributions are expected to increase, as shown in the projection on page B-10 (assuming all assumptions are met going forward).

Comment E

As of September 30, 2023, the Plan Funding Reserve was \$722,815 as shown on page C-6. Since the Chapter 175 money actually received for FYE 2023 was more than projected, a positive balance exists as of September 30, 2023. The Plan Funding Reserve was \$173,799 as of the prior valuation.

Comment F

Beginning in fiscal year 2015-2016, all premium tax revenues received each year up to \$781,422 shall be used to fund the Pre-2003 Retiree Share Fund. Any remaining balance shall be used to reduce the required employer contributions to the Pension Fund.

One-half of the premium tax revenues received in excess of \$781,422 on fiscal years ending after September 30, 2015 shall be credited to the Post-2003 Retiree Share Fund and the other half shall be used to reduce the Unfunded Actuarial Accrued Liability (UAAL) or the required contributions of the Pension Fund. The premium tax revenue received in fiscal year 2023 was \$126,232 more than this amount. Therefore, the required contribution was reduced by \$63,116 and \$63,116 was credited to the Post-2003 Retiree Share Fund.

Comments

Each year the Post-2003 retirees and active members will receive the same Share Plan payment (or credit to their account) as the Pre-2003 retirees, unless the funds in the Post-2003 Share Fund are insufficient. If the funds are insufficient, the remaining balance, if any, shall be paid in equal amounts to each Post-2003 retiree. Currently, the balance in the Post-2003 Share Account is \$503,562 after crediting \$63,116 and deducting the November 2023 Share distributions.

Comment G

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDRM). Please see page A-6 in this report for more detail regarding the LDRM calculation.

Comment H

At its February 28, 2024 meeting, the Board adopted a 6.70% gross investment return assumption effective with the September 30, 2023 valuation. The Board also adopted a gross investment return assumptions of 6.60% effective with the September 30, 2024 and 6.50% effective with the September 30, 2025 valuation.

Conclusion and Statement by Enrolled Actuary

Conclusion

Pension Fund experience and contribution requirements are expected to fluctuate from year-to-year. The expectation inherent in the funding of a pension fund is that year-to-year fluctuations will tend to cancel over periods of 5 to 10 years and result in realizing long-term assumptions. There are still expected to be mortality and investment experience gains and losses and expenses even after there are no active participants.

It is the actuary's opinion that the required contribution rates determined by this actuarial valuation are sufficient to meet the Fund's funding objective, presuming continued timely receipt of required contributions.

Statement by Enrolled Actuary

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the Pension Fund and/or paid from the Fund's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in fund costs or required contribution rates have been taken into account in the valuation.



Brad Lee Armstrong, ASA, EA, FCA, MAAA [23-5614]

3/8/2024

Date

Low-Default-Risk Obligation Measure

Introduction

In December 2021, the Actuarial Standards Board (ASB) adopted a revision to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. The revised ASOP No. 4 requires the calculation and disclosure of a liability referred to by the ASOP as the “Low-Default-Risk Obligation Measure” (LDRM). The rationale that the ASB cited for the calculation and disclosure of the LDRM was included in the Transmittal Memorandum of ASOP No. 4 and is presented below (emphasis added):

“The ASB believes that the calculation and disclosure of this measure provides **appropriate, useful information for the intended user regarding the funded status of a pension plan**. The calculation and disclosure of this additional measure is **not intended to suggest that this is the “right” liability measure** for a pension plan. However, the ASB does believe that **this additional disclosure provides a more complete assessment of a plan’s funded status and provides additional information regarding the security of benefits that members have earned as of the measurement date.**”

Comparing the Accrued Liabilities and the LDRM

One of the fundamental financial objectives of the Pension Fund is to finance each member’s retirement benefits over the period from the member’s date of hire until the member’s projected date of retirement (entry age actuarial cost method) as a level percentage of payroll. To fulfill this objective, the discount rate that is used to value the accrued liabilities of the Pension Fund is set equal to the **expected return** on the Fund’s diversified portfolio of assets (referred to sometimes as the investment return assumption). For the Firefighters’ Pension Fund, the investment return assumption is 6.70%.

The LDRM is meant to approximately represent the lump sum cost to a plan to purchase low-default-risk fixed income securities whose resulting cash flows essentially replicate in timing and amount the benefits earned (or the costs accrued) as of the measurement date. The LDRM is very dependent upon market interest rates at the time of the LDRM measurement. The lower the market interest rates, the higher the LDRM, and vice versa. The LDRM results presented in this report are based on the entry age actuarial cost method and discount rates based upon the September 2023 Treasury Yield Curve Spot Rates (monthly average). The 1-, 5-, 10- and 30-year rates follow: 5.46%, 4.53%, 4.28% and 4.42%. This measure may not be appropriate for assessing the need for or amount of future contributions. This measure may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan’s benefit obligation.

The difference between the two measures (Valuation and LDRM) is one illustration of the savings the sponsor anticipates by taking on risk in a diversified portfolio:

Valuation Accrued Liabilities	LDRM
\$178,095,460	\$224,173,014

Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Contributions and Funded Status

Given the Pension Fund's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 6.70% on the Funding Value of Assets), it is expected that:

- 1) The employer normal cost is sufficient to cover the cost of the benefits accrued each year. The Unfunded Actuarial Accrued Liabilities (UAAL) will be fully amortized by September 30, 2034; and
- 2) The funded status of the Pension Fund will increase gradually towards a 100% funded ratio.

The computed contribution shown on page B-2 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the Actuarial Accrued Liability (AAL) and the Funding Value of Assets (FVA). Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- 1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction;
- 2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit); and
- 3) The measurement would produce a different result if the Market Value of Assets (MVA) were used instead of the FVA, unless the MVA is used in the measurement.

Limitations of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsors or other contributing entities to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

Other Observations

Risks to Future Employer Contribution Requirements

There are ongoing risks to future employer contribution requirements to which the Pension Fund is exposed, such as:

- Actual and Assumed Investment Rate of Return
- Actual and Assumed Mortality Rates
- Amortization Policy

History of Investment Return Assumption

The following table shows a brief history of the investment return assumption and amortization policy:

<u>Valuation Date</u>	<u>Investment Return Assumption</u>	<u>Amortization Period (in Years)</u>	<u>First Payment Fiscal Year Ending</u>	<u>Last Payment Fiscal Year Ending</u>
9/30/2006	8.00%	15	9/30/2008	9/30/2022
9/30/2007	8.00%	14	9/30/2009	9/30/2022
9/30/2008	8.00%	13	9/30/2010	9/30/2022
9/30/2009	8.00%	12	9/30/2011	9/30/2022
9/30/2010	8.00%	11	9/30/2012	9/30/2022
9/30/2011	7.75%	10	9/30/2013	9/30/2022
9/30/2012	7.50%	9	9/30/2014	9/30/2022
9/30/2013	7.50%	8	9/30/2015	9/30/2022
9/30/2014	7.25%	7	9/30/2016	9/30/2022
9/30/2015	7.00%	7	9/30/2017	9/30/2023 #
9/30/2016	7.00% *	6	9/30/2018	9/30/2023
9/30/2017	7.00%	5	9/30/2019	9/30/2023
9/30/2018	6.85%	4	9/30/2020	9/30/2023
9/30/2019	6.85%	3	9/30/2021	9/30/2023
9/30/2020	6.85% *	2	9/30/2022	9/30/2023
9/30/2021	6.85%	1	9/30/2023	9/30/2023
9/30/2022	6.85%	10 [^]	9/30/2024	9/30/2033
9/30/2023	6.70%	10 [^]	9/30/2025	9/30/2034

[^] The Board adopted a 10-year layered amortization period beginning with the 9/30/2022 valuation.

* Coincident with adoption of FRS mortality mandate.

The amortization period was reset by the Board at the February 24, 2016 Board meeting. In addition, a separate base was used to amortize the portion of the Funding Reserve allocated to reduce the Unfunded Actuarial Accrued Liability (UAAL) per the Share Plan Amendment.

Future of Investment Return Assumption

The investment return assumptions adopted by the Board at its February 28, 2024 meeting are 6.60% for the September 30, 2024 valuation and 6.50% for the September 30, 2025 valuation.

Risk Measures - Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

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 economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; 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 System's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base; and
4. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

Risk Measures

(\$ Amounts in Thousands)

Actuarial Valuation Date (9/30)	(1) Market Value of Assets (MVA)	(2) Funding Value of Assets (FVA)	(3) Actuarial Accrued Liability (AAL)	(4) Unfunded AAL (UAAL) (3) - (2)	(5) FVA Funded Ratio (2) / (3)	(6) MVA Funded Ratio (1) / (3)	(7) Retiree Liabilities (RetLiab)	(8) Non-Invest. Cash Flow (NICF)	(9) NICF / Assets (9)/(2)	(10) Market Rate of Return	(11) 5-Year Trailing Average
2019 *	\$ 154,449	\$ 157,671	\$ 186,944	\$ 29,273	84.3%	82.6%	\$ 186,944	\$ (3,638)	(2.3)%	2.1%	6.3%
2020 *	157,384	162,419	177,382	14,963	91.6%	88.7%	177,382	(3,659)	(2.3)%	4.3%	7.5%
2021	186,037	172,824	175,838	3,014	98.3%	105.8%	175,838	(4,189)	(2.4)%	21.2%	9.5%
2022	156,675	170,789	174,878	4,089	97.7%	89.6%	174,878	(8,798)	(5.2)%	(11.3)%	4.7%
2023 *	158,660	166,954	178,095	11,141	93.7%	89.1%	178,095	(12,882)	(7.7)%	9.9%	4.7%

* Revised actuarial assumptions.

(5) and (6). The funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.

(8) and (9). A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

(10) and (11). Investment return is probably the largest single risk that most systems face. The year-by-year return and the five-year geometric average both give an indication of the reasonableness of the system's assumed return. Of course, past performance is not a guarantee of future results. Market rate shown is based on actuarial estimation method and will differ modestly from figures reported by the investment consultant.

SECTION B

DETAILED VALUATION RESULTS

Funding Objective

The basic funding objective of the Pension Fund is to avoid transfer of the cost of benefit obligations between generations of taxpayers.

The annual actuarial valuation measures the relationship between Pension Fund obligations and assets and determines the contribution rates for the ensuing year. The Pension Fund is supported by member contributions, City contributions, and investment income from Pension Fund assets.

Contribution Rates

The Pension Fund is supported by participant contributions, City contributions, receipts pursuant to Chapter 175, Florida Statutes and investment income on Pension Fund assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

- (1) Cover the costs allocated to the current year (normal cost) by the actuarial cost methods described in Section D; and
- (2) Finance over a period of future years the actuarial cost not covered by present assets and anticipated future normal cost (Unfunded Actuarial Accrued Liability).

Contribution requirements for the plan and fiscal year beginning October 1, 2024 are shown on page B-2.

Contributions to Finance Benefits of the Pension Fund for the Fiscal Year Beginning October 1, 2024 to be Contributed During the Fiscal Year Ending September 30, 2025

Contributions for

Total Normal Cost	\$	0
Unfunded Actuarial Accrued Liability ⁽¹⁾		
Retired participants and beneficiaries		1,325,634
Active and vested terminated participants		0
Total Unfunded Actuarial Accrued Liability		1,325,634
Administrative and Investment Expenses (based on FYE 23)		1,178,691
Total Calculated Contribution Requirement	\$	2,504,325
Adjustments to Calculated Contribution Requirement		
Division of retirement compliance		0
FS 112.64(5) compliance		235,358
Total adjustments		235,358
Total Adjusted Contribution Requirement	\$	2,739,683
Participant portion		0
Chapter 175 portion (based on projected FYE 25) ⁽²⁾		292,389
Half of Premium Tax Revenue in Excess of \$781,422		63,116
City portion ⁽³⁾	\$	2,384,178

FS 112.64 requires City contributions to be deposited not less frequently than quarterly. Member contributions (if any), which are in addition to the City contributions, must be deposited immediately after each pay period. FS 175.131 requires that Chapter 175 monies be deposited within 5 days of receipt.

⁽¹⁾ Please refer to page B-8 for the financing of the UAAL.

⁽²⁾ Projected Chapter 175 premium tax revenue for funding purposes.

⁽³⁾ The Plan Funding Reserve is shown on page C-6. If a positive balance exists, it can be used to offset future employer contributions.

Determining Dollar Contributions

We recommend that the City use the following procedure to meet their contribution requirement.

The City's required contributions is \$2,384,178. Assuming a payment every two weeks corresponding to pay periods, the total bi-weekly contribution should be \$91,699. The contribution requirement payable as a lump-sum on October 1, 2024 is \$2,308,110. This total employer contribution requirement includes interest accrual to reflect the timing of the payment, and is applicable if paid during the first week of October 2024.

Beginning in fiscal year 2015-2016, all premium tax revenues received each year up to \$781,422 shall be used to fund the Pre-2003 Retiree Share Plan. Any balance (as well as half of the excess above \$781,422) shall be used to fund the required contributions. The Fund received premium tax revenue of \$907,654 in fiscal year 2023 which generated an excess of \$126,232. Therefore, the required contribution was reduced by \$63,116 (half of the excess).

Funding Progress Indicators

There is no single all-encompassing measure of a pension plan's funding progress and current funded status.

A traditional indicator has been the relationship of the funding value of assets to Actuarial Accrued Liability - a measure that is influenced by the choice of actuarial cost method. This relationship is shown on page B-5.

We believe a better understanding of funding progress and status can be achieved using the following indicators which are less dependent on the actuarial cost method.

Indicator (1) - The actuarial present value of gains or losses realized in the operation of the Pension Fund. Gains and losses are expected to cancel each other over a period of years but sizable year-to-year fluctuations are common. Further details on the derivation of the gain/(loss) are shown on page B-6.

Indicator (2) - The ratio of funding value of assets to the Actuarial Accrued Liability using the entry age actuarial cost method. The ratio is expected to increase over time but the basic trend may be interrupted by benefit improvements.

Funding Progress Indicators - Historical Comparison

(\$ Amounts in Millions)

Valuation Date	Indicator (1)	Indicator (2)			Indicator (3)		
	Gain/(Loss)	Funding Value of Assets	AAL	Percent Funded	Unfunded AAL	Active Participant Payroll	Percent of Payroll#
September 30, 2006	\$ 2.1	\$ 98.3	\$ 127.5	77.1 %	\$ 29.1	\$ 3.47	838.6 %
September 30, 2007	3.1	106.7	133.1	80.2	26.4	3.54	745.8
September 30, 2008	(4.9)	108.0	138.6	77.9	30.6	3.66	836.1
September 30, 2009 (a)	(7.4)	102.8	140.3	73.3	37.5	3.15	1,190.5
September 30, 2010	(1.3)	109.8	141.3	77.7	31.4	2.94	1,068.0
September 30, 2011 (b)	(6.6)	93.6	144.2	64.9	50.6	2.11	2,398.1
September 30, 2011 (a)	(6.6)	93.6	148.8	62.9	55.2	2.11	2,616.1
September 30, 2012 (b)	3.8	98.7	148.5	66.5	49.7	1.72	2,889.5
September 30, 2012 (a)	3.8	98.7	152.5	64.7	53.8	1.72	3,127.9
September 30, 2013	4.7	109.4	155.1	70.6	45.6	1.30	3,507.7
September 30, 2014 (b)	8.8	123.9	156.4	79.2	32.5	0.81	4,012.3
September 30, 2014 (a)	8.8	123.9	160.6	77.1	36.7	0.81	4,530.9
September 30, 2015 (b)	1.3	132.7	161.6	82.1	28.9	0.56	5,160.7
September 30, 2015 (a)	1.3	132.7	170.1	78.0	37.4	0.56	6,678.6
September 30, 2016 (b)	(0.5)	135.1	170.3	79.4	35.1	0.40	8,775.0
September 30, 2016 (a)	(0.5)	135.1	181.0	74.7	45.9	0.40	11,475.0
September 30, 2017	0.7	139.1	181.5	76.7	42.4	0.28	15,142.9
September 30, 2018 (a)	4.1	150.2	185.9	80.8	35.8	0.19	18,842.1
September 30, 2019	0.3	157.7	186.9	84.3	29.3	0.00	N/A
September 30, 2020 (a)	(3.0)	162.4	177.4	91.6	15.0	0.00	N/A
September 30, 2021	4.6	172.8	175.8	98.3	3.0	0.00	N/A
September 30, 2022	(4.7)	170.8	174.9	97.7	4.1	0.00	N/A
September 30, 2023 (b)	(4.2)	167.0	175.5	95.1	8.6	0.00	N/A
September 30, 2023 (a)	(4.2)	167.0	178.1	93.7	11.1	0.00	N/A

AAL represents Actuarial Accrued Liability calculated using the entry age actuarial cost method.

(a) After changes in actuarial assumptions, actuarial cost method and termination of dedicated bond portfolio.

(b) Before changes in actuarial assumptions and/or benefits and/or cost methods.

For closed groups, this figure can become highly misleading.



Experience Gain/(Loss) Years Ended September 30, 2023 and 2022

Derivation	Year Ended	
	9/30/2023	9/30/2022
(1) UAAL at start of year	\$4,088,297	\$3,013,326
(2) Normal cost for year (City normal cost plus expenses)	1,178,691	1,225,826
(3) Employer contributions for year toward defined benefits	1,200,824	4,922,183
(4) Assumed interest accrual: .0685 x [(1) + ½ [(2) - (3)]]	279,290	79,813
(5) Expected UAAL before changes: [(1) + (2) - (3) + (4)]	4,345,454	(603,218)
(6) Effect of assumption changes	2,569,674	0
(7) Effect of benefit changes	0	0
(8) Effect of cost method changes/ accounting and timing differences	0	0
(9) Expected UAAL after changes	6,915,128	(603,218)
(10) Actual UAAL at end of year	11,141,563	4,088,297
(11) Gain/(loss): (9) - (10)	(4,226,435)	(4,691,515)
(12) % of AAL at start of year	(2.4)%	(2.7)%

*UAAL represents Unfunded Actuarial Accrued Liability.
AAL represents Actuarial Accrued Liability.*

Unfunded Actuarial Accrued Liability

	September 30, 2023	September 30, 2022
A. Actuarial Present Value of Future Benefits	\$178,095,460	\$174,877,723
B. Actuarial Present Value of Future Normal Costs	<u>0</u>	<u>0</u>
C. Actuarial Accrued Liability	178,095,460	174,877,723
D. Net Assets Available for Funding	<u>166,953,897</u>	<u>170,789,426</u>
E. Unfunded Actuarial Accrued Liability	\$ 11,141,563	\$ 4,088,297

Unfunded Actuarial Accrued Liability is not a good measure of the Pension Fund's funded status because the amount is dependent upon the actuarial cost method. The funding progress indicators on pages B-4 and B-5 are independent of the actuarial cost method and are a better guide to funded status and funding progress.

Sources and Financing of Unfunded Actuarial Accrued Liability (UAAL)

Source of UAAL	Unfunded Act. Accrued Liability Initial		Current Amount	Remaining Financing Period as of 9/30/2023	Level \$ Amorization
	Amount	Fin. Period			
<u>Experience</u>					
9/30/2022	\$ 4,088,297	10 yrs	\$ 4,345,454	9 yrs	\$ 637,361
9/30/2023	4,226,435	10 yrs	4,226,435	10 yrs	574,397
<u>Assumption Changes</u>					
9/30/2023	2,569,674	10 yrs	2,569,674	10 yrs	349,234
Totals			<u>\$ 11,141,563</u>		<u>\$ 1,560,992</u>

This is a closed group effective January 1, 1996. FS 112.64(5) compliance results in level dollar amortization of the Unfunded Actuarial Accrued Liability. The amortization payments above reflect the lag between the valuation date and the contribution period. Experience gains/losses and one-time events (e.g., assumption changes) are amortized using layered amortization, with level-dollar payments over separate 10-year closed bases. The total *Level \$ Amortization* shown above is the sum of the Total Unfunded Actuarial Accrued Liability and contribution for FS 112.64(5) compliance amounts shown on page B-2.

Actuarial Balance Sheet - September 30, 2023

Present Resources and Expected Future Resources

A. Net assets available for benefits	
1. Funding value (page C-5)	\$166,953,897
B. Actuarial present value of expected future local Employer and Chapter 175 contributions	
1. For normal costs	0
2. For unfunded actuarial accrued liability	11,141,563
3. Total	<u>11,141,563</u>
C. Actuarial present value of expected future participant contributions	<u>0</u>
D. Total Present and Expected Future Resources	<u><u>\$178,095,460</u></u>

Actuarial Present Value of Expected Future Benefit Payments and Reserves

A. To retired participants and beneficiaries	\$178,095,460
B. To vested terminated participants	0
C. To present active participants	
1. Allocated to service rendered prior to valuation date	0
2. Allocated to service likely to be rendered after valuation date	0
3. Total	<u>0</u>
D. Total actuarial present value of expected future payments	<u><u>\$178,095,460</u></u>

Cash Flow Projections Based on Current Assumptions and Methods - September 30, 2023

(\$ in Thousands)

Fiscal Year	Employer Contributions	Employee Contributions	Admin./Invest. Expenses	Benefit Payments	Net Cash Flow	Actuarial Value of Assets (End of FY)
2023/24	\$ 1,608	\$0	\$1,214	\$13,187	\$ (12,578)	\$155,458
2024/25	2,384	0	1,250	13,402	(11,913)	154,598
2025/26	3,734	0	1,288	13,597	(10,795)	153,629
2026/27	3,639	0	1,327	13,768	(11,099)	152,467
2027/28	3,710	0	1,366	13,913	(11,214)	151,090
2028/29	3,758	0	1,407	14,032	(11,326)	149,508
2029/30	3,809	0	1,450	14,120	(11,405)	147,737
2030/31	3,861	0	1,493	14,177	(11,454)	145,798
2031/32	3,915	0	1,538	14,201	(11,469)	143,714
2032/33	3,971	0	1,584	14,191	(11,448)	141,511
2033/34	4,028	0	1,632	14,144	(11,392)	139,218
2034/35	2,526	0	1,681	14,062	(12,861)	135,253

Based on the September 30, 2023 actuarial valuation and assumes all actuarial assumptions are met in the future, and there are no changes in methods or assumptions.

Please note, a reduction in the 6.70% assumed rate of investment return will increase projected employer contributions.

SECTION C

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

Summary of Benefit Provisions Considered for Actuarial Valuation (as of September 30, 2023)

Participation

All firefighters subject to civil service rules of the classified service for firefighters. The consolidation of the Sarasota County/City Firefighters was effective January 1, 1996.

Average Compensation

One twelfth (1/12) of average salary for the highest 3 years of credited service during the last 10 years of credited service. Salary means total compensation except allowances for clothing and equipment, including amounts deferred under deferred compensation plans. Salary includes lump sum payments for up to 500 hours of accumulated vacation. A year is any period of 12 consecutive months.

Standard Form of Payment

The standard form of payment is 66 2/3 % Joint and Survivor for married members and life only with 10 Years Certain for unmarried members.

Normal Retirement

Eligibility. Age 50 with 10 or more years of credited service; or, any age with 25 or more years of credited service.

Pension Amount. Three percent (3.0%) of average compensation multiplied by credited service, but not to exceed one hundred percent (100%) of average compensation if hired after 1/1/80 and subject to the provisions of Section 415 of the Internal Revenue Code. The normal form of benefit is a benefit payable for life with 10 Years Certain.

Vested Termination Prior To Normal Retirement Eligibility

Eligibility. Termination of participation after 10 or more years of credited service.

Pension Amount. A monthly pension equal to AFC times 2.5% times years of service, payable at age 50 or, if the terminated participant so elects, payment of accumulated participant contributions with interest.

Pension is payable upon satisfying an age and service requirement for normal retirement. If the terminated participant dies prior to retirement, payments to the spouse under the standard form of payment shall commence when the terminated participant would have reached age 50 years.

Disability - Service Connected

Eligibility. Total and permanent disability, incurred in the performance of duty as a firefighter, for duty as a firefighter.

Pension Amount. Seventy-five percent (75%) of average compensation but not less than the amount of accrued normal retirement pension, payable under the standard form of payment.



Summary of Benefit Provisions Considered for Actuarial Valuation (as of September 30, 2023)

Disability – Non-Service Connected

Eligibility. Total and permanent disability for duty as a firefighter.

Pension Amount. 2.5% of average compensation multiplied by credited service, payable under the standard form of payment.

Pre-Retirement Survivor Benefits

Service Connected Death. The amounts under the standard form of payment based on the deceased participant's accrued normal retirement pension calculated using the larger of actual credited service or 25 years.

Non-Service Connected Death. The amounts payable under the standard form of payment based on the deceased participant's accrued non-service connected disability retirement pension.

Participant Contributions

8% of salary.

Non-Employee Contributions

Chapter 175, Florida Statutes. Monies allocated to the Pension Fund pursuant to Chapter 175, Florida Statutes, being premium taxes collected in certain forms of casualty insurance written on property in the City of Sarasota.

City of Sarasota. Amounts determined actuarially in accordance with Chapter 175 and Chapter 112, Florida Statutes. Amounts are shared by an Interlocal agreement as of April 7, 2003.

Post-Retirement Pension Adjustments

Pensions are adjusted at the end of each February by 3.5%. The adjustment will be prorated if the participant retired during the preceding calendar year.

Share Accounts and Supplemental Distributions

A percentage of the actuarial gains and Chapter 175 receipts are distributed to individuals retired or terminated prior to April 7, 2003. Beginning in fiscal year 2015-2016, all premium tax revenues received each year up to \$781,422 shall be used to fund the Pre-2003 Retiree Share Fund. Any remaining balance up to \$781,422 shall be used to reduce the required employer contributions to the Pension Fund.

One-half of the unallocated Chapter 175 premium tax revenues (reserve funds) as of September 30, 2015 was used to reduce the UAAL. The remaining one-half was used to establish a Post-2003 Retiree Share Fund. Post-2003 retirees received a one-time payment equal to the amount the Pre-2003 retirees received attributable to the fiscal year ending September 30, 2015. Active members received a one-time credit to their share accounts equal to the amount the Pre-2003 retirees received attributable to the fiscal year ending September 30, 2015.



Summary of Benefit Provisions Considered for Actuarial Valuation (as of September 30, 2023)

One-half of the premium tax revenues received in excess of \$781,422 on fiscal years ending after September 30, 2015 shall be credited to the Post-2003 Retiree Share Fund and the other half shall be used to reduce the Unfunded Actuarial Accrued Liability (UAAL) or the required contributions of the Pension Fund. Each year the Post-2003 retirees and active members will receive the same payment (or credit to their account) as the Pre-2003 retirees, unless the funds in the Post-2003 Share Fund are insufficient. If the funds are insufficient, the remaining balance shall be paid in equal amounts to each Post-2003 retiree.

Optional Forms of Payment

10-Year Certain and Life (Normal form for Unmarried Members)

A monthly amount paid for the member's lifetime. If the member dies within 120 months of the retirement date, then the remaining portion of the first 120 monthly payments will be paid to the named beneficiary.

Joint and 66 2/3% Survivor Annuity (Normal form for Married Members)

A monthly amount (actuarially adjusted for unmarried members) paid for the member's lifetime. If the member predeceases the beneficiary, then 66 2/3% of the monthly amount is paid to the beneficiary for his/her lifetime.

Straight Life Annuity

An actuarially adjusted monthly amount paid for the member's lifetime. All pension payments and benefits stop upon death of the retired member.

Joint and 100% Survivor Annuity

An actuarially adjusted monthly amount paid for the member's lifetime. If the member predeceases the beneficiary, then 100% of the monthly amount is paid to the beneficiary for his/her lifetime.

Joint and 75% Survivor Annuity

An actuarially adjusted monthly amount paid for the member's lifetime. If the member predeceases the beneficiary, then 75% of the monthly amount is paid to the beneficiary for his/her lifetime.

Joint and 50% Survivor Annuity

An actuarially adjusted monthly amount paid for the member's lifetime. If the member predeceases the beneficiary, then 50% of the monthly amount is paid to the beneficiary for his/her lifetime.



Accounting Information Submitted for the Valuation

Revenues and Expenditures

	Year Ended September 30, 2023	Year Ended September 30, 2022
Additions		
Contributions		
Employees	\$ -	\$ -
City of Sarasota	212,242	1,509,383
Sarasota County	988,582	3,412,800
State of Florida	587,911	449,041
Other	6,732	10,596
Total Contributions	<u>\$ 1,795,467</u>	<u>\$ 5,381,820</u>
Net Investment Income		
Net appreciation (depreciation) in fair market value of investments	\$ 10,714,633	\$ (24,602,143)
Interest	1,532,682	1,225,185
Dividends	1,887,119	2,066,954
Income from real estate separate account	732,226	746,585
Investment income (expense)	<u>\$ 14,866,660</u>	<u>\$ (20,563,419)</u>
Less investment expenses	907,085	965,861
Net investment income (expense)	<u>13,959,575</u>	<u>(21,529,280)</u>
Total additions	<u>\$ 15,755,042</u>	<u>\$ (16,147,460)</u>
Deductions		
Benefits to participants	\$ 13,408,919	\$ 13,013,445
Administrative Expenses	271,606	259,965
Total deductions	<u>\$ 13,680,525</u>	<u>\$ 13,273,410</u>
Net increase (decrease) in net position	\$ 2,074,517	\$ (29,420,870)
Adjustment	(217,890)	(86,025)
Net change in Share Reserve	127,544	145,624

Summary of Assets

	September 30, 2023	September 30, 2022
Cash	\$ 623,110	\$ 147,421
Debt Securities		
Unit Investment Trusts	0	0
Bonds -government	10,406,608	8,415,649
-corporate	21,951,915	20,461,844
-foreign	526,778	295,362
-mortgage backed securities	2,705,342	2,110,363
-Money Market Funds	4,406,917	4,207,710
Equity Securities		
Stocks -common	82,610,512	83,420,064
-mutual funds	1,961,694	1,692,023
Foreign Equities	16,224,789	14,878,397
Real Estate Funds	18,320,451	22,043,991
Prepaid expenses and other	21,981	21,981
Accrued Income Receivable	465,497	386,745
Accounts Receivable	319,742	0
Deferred Revenue	(722,815)	(173,799)
Prepaid contributions	0	(58,858)
Accounts Payable	(659,372)	(542,371)
Total Assets with Reserves	<u>\$159,163,149</u>	<u>\$157,306,522</u>
Share Accounts	(503,562)	(631,106)
Total Assets without Reserves	<u>\$158,659,587</u>	<u>\$156,675,416</u>



Derivation of Funding Value of Pension Fund Assets

	2021	2022	2023	2024	2025
A. Funding Value Beginning of Year	\$162,418,704	\$172,824,178	\$170,789,426		
B. Market Value End of Year *	186,036,687	156,675,416	158,659,587		
C. Market Value Beginning of Year *	157,384,332	186,036,687	156,675,416		
D. Non-Investment Net Cash Flow: (EE+ER cont.)-(Ret Ben.+Refs.+Adm. Exp.+Inv. Exp.)	(4,188,922)	(8,797,852)	(12,882,489)		
E. Investment Income					
E1. Market Total: B-C-D	32,841,277	(20,563,419)	14,866,660		
E2. Assumed Rate	6.85%	6.85%	6.85%	6.70%	
E3. Amount for Immediate Recognition: E2 * (A+D/2)	10,982,211	11,537,130	11,257,850		
E4. Amount for Phased-In Recognition: E1-E3	21,859,066	(32,100,549)	3,608,810		
F. Phased-In Recognition of Investment Income					
F1. Current Year: E4/3	7,286,355	(10,700,183)	1,202,937		
F2. First Prior Year	(1,360,202)	7,286,355	(10,700,183)	\$1,202,937	
F3. Second Prior Year	<u>(2,313,968)</u>	<u>(1,360,202)</u>	<u>7,286,356</u>	<u>(10,700,183)</u>	<u>\$1,202,936</u>
F4. Total Recognized Investment Gain/(Loss)	3,612,185	(4,774,030)	(2,210,890)	(9,497,246)	1,202,936
G. Preliminary Funding Value End of Year: A+D+E3+F4	172,824,178	170,789,426	166,953,897		
G1. Upper Corridor Limit: 115% x B	213,942,190	180,176,728	182,458,525		
G2. Lower Corridor Limit: 85% x B	158,131,184	133,174,104	134,860,649		
H. Adjustment to Remain within 15% Corridor	0	0	0		
I. Final Funding Value End of Year	172,824,178	170,789,426	166,953,897		
J. Difference between Market & Funding Value	13,212,509	(14,114,010)	(8,294,310)		
K. Recognized Rate of Return	9.10%	4.02%	5.50%		
L. Ratio of Funding to Market Value	92.9%	109.0%	105.2%		
M. Market Rate of Return	21.15%	(11.32)%	9.90%		

**The Reserves on page C-6 are excluded from liabilities and assets throughout this report, beginning in 2008 derivation.*

The Funding Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased-in over a closed three-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. The Funding Value of Assets is **unbiased** with respect to Market Value. At any time, it may be either greater or less than Market Value. If actual and assumed rates of investment income are exactly equal for two consecutive years, the Funding Value will become equal to Market Value.

Plan Funding Reserve

Balance from Financial Statement 9/30/2022	\$ 173,799
Chapter 175 funds received or receivable during FYE 2023	907,654
Chapter 175 funds allocated to the Post-2003 Retiree Share Fund for FYE 2023	(63,116)
Subtotal as of 9/30/2023	1,018,337
Disbursed to eligible retirees (93 members)	(295,522)
Allocated to Employer Contributions (including Ch. 175 shortfall)	(1,200,824)
Preliminary Balance as of 9/30/2023	\$ (478,009)
Credit for FYE 2023 Contributions from County/City (excluding deferred revenue)	1,200,824
Preliminary Balance as of 9/30/2023	\$ 722,815
Reserved for FYE 2025 contribution	(63,116)
Accrued share payments	(160,027)
Final Balance as of 9/30/2023	\$ 499,672

Share Reserve Liability

Post-2003 Retiree Share Fund	Share Reserve Liability
Balance as of 9/30/2022	\$ 631,106
One-half of premium tax revenue in excess of \$781,422, if applicable	63,116
Accrued Post-2003 retired	(190,660)
Balance as of 9/30/2023	\$ 503,562



Retired Participant and Beneficiary Data Historical Comparison

Year Ended	Added			Removed		Net Increase		End of Year		Expected Deaths	
	No.	Annual Pensions	COLA Adjustments	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions
9/30/2009	12	\$ 556,795	\$ 228,323	6	\$ 187,717	6	\$ 597,401	143	\$ 7,174,870	4.1	\$ 157,605
9/30/2010	3	160,027	247,120	1	45,086	2	362,061	145	7,536,931	4.0	166,964
9/30/2011	14	833,534	263,387	4	139,980	10	956,941	155	8,493,872	4.4	187,821
9/30/2012	6	345,233	281,243	4	224,338	2	402,138	157	8,896,010	4.3	181,465
9/30/2013	8	449,028	300,422	4	141,340	4	608,110	161	9,504,120	4.5	188,845
9/30/2014	9	475,603	318,646	7	214,449	2	579,800	163	10,083,920	4.6	206,898
9/30/2015	3	209,907	348,966	1	66,778	2	492,095	165	10,576,015	4.4	214,155
9/30/2016	4	201,403	361,142	4	217,712	0	344,833	165	10,920,848	4.7	244,091
9/30/2017	4	234,089	371,379	6	326,595	(2)	278,873	163	11,199,721	4.2	232,456
9/30/2018	2	121,352	386,953	3	116,775	(1)	391,530	162	11,591,251	4.0	236,632
9/30/2019	6	367,032	392,362	6	368,264	0	391,130	162	11,982,381	4.3	262,134
9/30/2020	1	20,064	415,298	3	102,314	(2)	333,048	160	12,315,429	4.2	269,547
9/30/2021	4	181,849	419,089	8	523,253	(4)	77,685	156	12,393,114	4.8	329,131
9/30/2022	0	-	428,371	3	153,947	(3)	274,424	153	12,667,538	4.8	340,187
9/30/2023	1	54,539	438,825	2	129,657	(1)	363,707	152	13,031,245	5.1	380,560
Expected for 9/30/2024										5.4	418,128



Normal and Early Retired Participants

Sept. 30	Number	Averages for All Recipients			New Retired Participants During Prior Year			
		Attained Age	Retirement Age	Current Annual Pension	No.	Averages		
						Ret. Age (Yrs.)	Years of Svc (Yrs.)	Annual Pension
2011	108	63.1 yrs.	51.5 yrs.	\$ 62,847	11	51.5	26.7	\$ 67,472
2012	107	63.0	51.2	65,342	3	51.1	27.1	70,468
2013	113	63.3	49.8	67,559	6	51.7	25.7	66,433
2014	117	63.3	50.5	70,106	6	54.1	24.9	65,339
2015	119	63.9	51.3	72,515	3	49.7	26.6	69,969
2016	120	64.3	51.2	74,634	3	52.2	22.9	52,280
2017	118	65.0	51.2	77,731	1	51.5	27.5	86,447
2018	118	65.9	51.2	80,229	1	52.0	28.5	62,478
2019	115	66.2	51.2	83,783	2	56.0	29.9	86,463
2020	114	67.2	51.3	87,119	0	--	--	0
2021	109	67.7	51.1	90,260	0	--	--	0
2022	108	68.8	51.2	93,511	0	--	--	0
2023	107	69.7	51.1	96,928	0	--	--	0

All Retired Participants and Beneficiaries

Historical Comparison

Valuation Date	% Incr. in Annual Pensions	No. of Partic. Per Retired	Pensions as % of Partic. Payroll	Average Pensions
9/30/2009	9.1 %	0.3	227.5 %	\$ 50,174
9/30/2010	5.0	0.2	256.5	51,979
9/30/2011	12.7	0.2	402.1	54,799
9/30/2012	4.7	0.1	517.2	56,662
9/30/2013	6.8	0.1	731.3	59,032
9/30/2014	6.1	0.1	1,247.8	61,865
9/30/2015	4.9	0.0	1,883.1	64,097
9/30/2016	3.3	0.0	2,763.6	66,187
9/30/2017	2.6	0.0	3,953.8	68,710
9/30/2018	3.5	0.0	5,947.1	71,551
9/30/2019	3.4	0.0	N/A	73,965
9/30/2020	2.8	0.0	N/A	76,971
9/30/2021	0.6	0.0	N/A	79,443
9/30/2022	2.2	0.0	N/A	82,794
9/30/2023	2.9	0.0	N/A	85,732

Retired Participant and Beneficiary Data as of September 30, 2023 Tabulated by Type of Pension Being Paid

Type of Pension Being Paid	No.	Annual Pensions	Actuarial Present Value of Pensions
Age and Service			
Benefit terminating upon death of retirant	23	\$ 2,229,566	\$ 26,316,034
Automatic potential to survivor	84	8,141,708	120,302,196
Surviving Beneficiaries	<u>23</u>	<u>1,293,858</u>	<u>14,214,404</u>
Total Age and Service	130	11,665,132	160,832,634
Disability			
Duty Disability			
Benefit terminating upon death of retirant	1	78,087	843,307
Automatic potential to survivor	11	875,023	11,715,427
Surviving Beneficiaries	<u>5</u>	<u>257,261</u>	<u>2,498,467</u>
Total Duty Disability	17	1,210,371	15,057,201
Non-Duty Disability			
Benefit terminating upon death of retirant	1	25,704	329,097
Automatic potential to survivor	1	22,891	163,167
Surviving Beneficiaries	<u>1</u>	<u>25,331</u>	<u>216,991</u>
Total Non-Duty Disability	3	73,926	709,255
Total Disability Pensions	20	1,284,297	15,766,456
Death-in-Service			
Surviving Beneficiaries	<u>2</u>	<u>81,816</u>	<u>1,496,370</u>
Total Pensions Being Paid	<u>152</u>	<u>\$ 13,031,245</u>	<u>\$ 178,095,460</u>

Retired Participants and Beneficiaries as of September 30, 2023 by Attained Ages

Attained Ages	Retired		Disability		Surviving Beneficiaries		Total	
	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions
52					1	\$ 61,358	1	\$ 61,358
55	1	\$ 114,781					1	114,781
57	3	203,597					3	203,597
58	2	221,352					2	221,352
59	4	336,477					4	336,477
60	4	422,054	2	\$120,752	1	50,127	7	592,933
61	6	525,643			1	100,024	7	625,667
62	5	514,130			1	51,185	6	565,315
63	5	457,840					5	457,840
64	4	411,595					4	411,595
65	9	848,956	1	90,008	1	78,486	11	1,017,450
66	4	320,632			1	93,672	5	414,304
67	3	245,559			1	22,245	4	267,804
68	5	550,997			1	59,260	6	610,257
69	6	666,387	2	165,068	1	45,701	9	877,156
70	5	498,883	1	78,087	2	77,360	8	654,330
71	1	128,221	2	135,742			3	263,963
72	4	332,319	1	86,830	2	112,402	7	531,551
73	5	473,592	1	70,883	2	63,945	8	608,420
74	3	367,692			1	107,050	4	474,742
75	3	354,914					3	354,914
76	3	284,566			1	69,923	4	354,489
77	2	217,964			1	34,694	3	252,658
78	1	150,810	1	112,082			2	262,892
79	5	429,789			3	130,825	8	560,614
80	7	701,900	1	67,322	1	108,296	9	877,518
81	2	234,449					2	234,449
82	1	95,492					1	95,492
83					1	31,414	1	31,414
84	2	133,563	1	22,891			3	156,454
86			1	52,040	1	66,712	2	118,752
87					2	80,828	2	80,828
89					2	103,472	2	103,472
90					1	19,881	1	19,881
91	1	76,586					1	76,586
93	1	50,534			2	89,406	3	139,940
Totals	107	\$10,371,274	14	\$1,001,705	31	\$1,658,266	152	\$13,031,245



Retired Participants and Beneficiaries Pre/Post Schedule as of September 30, 2023

Pre-1996 Retirees	
October 1, 2022	33
Deaths	(2)
Surviving beneficiary	1
October 1, 2023	32

Pre-1998 Retirees	
October 1, 2022	39
Deaths	(2)
Surviving beneficiary	1
October 1, 2023	38

1998 to 2003 Retirees	
October 1, 2022	55
Deaths	
Surviving beneficiary	
October 1, 2023	55

Post-2003 Retirees	
October 1, 2022	59
Deaths	
New	
Surviving beneficiary	
October 1, 2023	59

Total Retirees *	
October 1, 2022	153
October 1, 2023	152

** Excludes one child beneficiary.*

There are no Vested Terminated Participants.

Active and Vested Terminated Participants Included in Valuation

Valuation Date	Active Partic.	Vested Term. Partic.	Participant Valuation Payroll	Average Age	Years of Service	Pay
9/30/2014	9	1	\$808,163	50.3 yrs.	25.6 yrs.	\$89,796
9/30/2015	6	1	561,632	51.8	26.3	93,605
9/30/2016	4	0	395,169	52.3	27.3	98,792
9/30/2017	3	0	283,266	53.7	28.3	94,422
9/30/2018	2	0	194,906	55.5	29.5	97,453
9/30/2019	0	0	0	N/A	N/A	N/A
9/30/2020	0	0	0	N/A	N/A	N/A
9/30/2021	0	0	0	N/A	N/A	N/A
9/30/2022	0	0	0	N/A	N/A	N/A
9/30/2023	0	0	0	N/A	N/A	N/A

Number Added to and Removed from Active Participation

Year Ended	Number Added During Year		Terminations During Year										Active Partic. End of Year	
			Norm/Early Retirement		Disability Retirement		Died-in-Service		Terminations					
	A@	E	A	E	A	E	A	E	Vested	Other	Total			
									A	A*	A	E		
9/30/2014			6	11										9
9/30/2015			3	9										6
9/30/2016			2	6										4
9/30/2017			1	4										3
9/30/2018			1	3										2
9/30/2019			2	2										0
9/30/2020														0
9/30/2021														0
9/30/2022														0
9/30/2023														0
5-Yr. Totals 2019-2023			2	2										
Expected for 9/30/2024														

A Represents actual number.

E Represents expected number.

@ Participants with a hire date of October 1st or later of the fiscal year.

* Balancing item.



SECTION D

ACTUARIAL COST METHOD, ACTUARIAL ASSUMPTIONS AND DEFINITIONS OF TECHNICAL TERMS

Actuarial Valuation Process

An actuarial valuation is the mathematical process by which a pension fund contribution requirement is determined and its actuarial condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

- A. **Covered Person Data**, furnished by the plan administrator including:
 - Retired participants and beneficiaries now receiving benefits
 - Former participants with vested benefits not yet payable (if any)
 - Active participants (if any)

 - B. + **Asset Data** (cash & investments), furnished by the plan administrator

 - C. + **Fund Description Data**, furnished by the plan administrator

 - D. + **Assumptions about various future activities of the plan** (risk elements)

 - E. + **The Actuarial Cost Method** for allocating costs to time periods and determining the long-term planned pattern for employer contributions

 - F. + **Mathematically combining the Data, the Estimates of Future Activities, and the Cost Method**

 - G. = Determination of:
 Employer Contribution Requirement and Actuarial Condition
-

Items A, B and C constitute the current “knowns” about the Fund. A good deal of fund activity which will result in benefit payments has yet to occur. Accordingly, certain assumptions must be made about future fund activity. These assumptions (Item D) may be classified as demographic or fiscal. Demographic assumptions include future mortality rates, disability rates, rates of pre-retirement withdrawal from employment, and retirement ages. Fiscal assumptions consist of future salary increases and rates of investment return.

Actuarial Valuation Process

Demographic assumptions are generally selected on the basis of the Fund's historical activity, modified for expected future differences. Past activity of funds which are similar in nature to the fund being valued may be utilized if fund data or activities are insufficient to be reliable.

Fiscal assumptions, on the other hand, do not lend themselves to prediction on the basis of historical activity -- the reason being that both salary increases and investment return are impacted by inflation. Inflation defies reliable prediction. Fiscal assumptions are generally selected on the basis of what would be expected to occur in an inflation-free environment and then both are increased by some provision for long-term inflation.

This is a case where two wrongs may make a right. If inflation is higher than expected it will probably result in actual rates of salary increase and investment return which exceed the assumed rates. Salaries increasing faster than expected result in unexpected costs. Investment return exceeding the assumed rate result in unanticipated assets. To a large degree, the additional assets will offset the additional cost over the long term.

Once items A, B, C and D are available, the actuarial valuation process begins. The first step is to determine the Fund's **total actuarial present value** for individuals in each of the three covered person categories.

Retired participants now receiving monthly payments;
Vested terminated participants not yet at retirement age; and
Active participants.

The actuarial present value is the value today after taking into account the probabilities of payment and the effect of time, of fund promises to pay benefits in the future on the basis of both service already completed and projected future service.

The total actuarial present value is allocated between projected future service and completed service by the actuarial cost method (Item E) -- the **individual entry age** method being utilized for this valuation. The portion of the total actuarial present value allocated to projected future service is the **actuarial present value of future normal costs** -- normal cost being the series of annual costs, from entry age to retirement age, which will accumulate to the actuarial present value of the individual's benefit at the time of retirement or death. The remainder of the total actuarial present value is the **Actuarial Accrued Liability**.

Actuarial Valuation Process

At this stage determination has been made of:

1. The total actuarial present value;
2. The actuarial present value of future normal cost; and
3. The Actuarial Accrued Liability.

In the typical fund, the Actuarial Accrued Liability may not be covered by the fund's accrued assets -- leaving an ***Unfunded Actuarial Accrued Liability***.

The next step in the valuation process is a determination of the contribution rate (Item G) required to support Fund benefits in accordance with the funding objective (page B-1).

The contribution rate is determined in two basic components:

1. The normal cost component; and
2. The component which will finance (pay-off) the Unfunded Actuarial Accrued Liability over the periods indicated on page B-8.

Since this group closed as of January 1, 1996, the Unfunded Actuarial Accrued Liability was amortized as a level dollar amount. The characteristics of this method are shown on page D-4. Experience gains/losses and one-time events (e.g., assumption changes) are amortized using layered amortization, with level-dollar payments over separate 10-year closed bases.

Actuarial assumptions are established by the Board after consulting with the actuary. The reasonableness of the economic assumptions is based upon capital market expectations provided by various investment consultants and other sources such as the Social Security Trustees report. All actuarial assumptions are based on future expectations, not market measures.

Level Dollar Amortization of Unfunded Actuarial Accrued Liability*

(\$ Amounts in Thousands)

Year Ended	Payroll	Unfunded	Contribution
2024	\$ -	\$ 11,141	\$ 1,561
2025	-	10,276	1,561
2026	-	9,351	1,561
2027	-	8,365	1,561
2028	-	7,313	1,561
2029	-	6,190	1,561
2030	-	4,993	1,561
2031	-	3,714	1,561
2032	-	2,350	1,561
2033	-	895	924
2034	-	-	-

* \$ 6,796,109 over 10 years
 4,345,454 over 9 years
 - over 8 years
 - over 7 years
 - over 6 years
 - over 5 years
 - over 4 years
 - over 3 years
 - over 2 years
 - over 1 year

\$ 11,141,563

Actuarial Assumptions

The actuarial assumptions regarding the INFLATION rate, REAL INVESTMENT RETURN rate, and SALARY INCREASE rates are used, in combination with the other estimates, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish rates of contribution which are expected to remain relatively level as a percent of total valuation payroll. The interest rate used in making the valuation was 6.70% a year compounded yearly. It is composed of inflation and real investment return.

Inflation Rate. 3.00% per annum, effective September 30, 2015 compounded annually. This is the rate at which growth in the supply of money and credit is estimated to exceed growth in the supply of goods and services. It may be thought of as the rate of depreciation of the purchasing power of the dollar. There are a number of indices for measuring the inflation rate. The recent inflation rate as measured by the Consumer Price Index has been:

	Year Ended September 30					Average	
	2023	2022	2021	2020	2019	3-Year	5-Year
Actual	3.70 %	8.20 %	5.39 %	1.37 %	1.71 %	5.76 %	4.07 %
Assumed	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Real Investment Return Rate. 3.70% per annum, compounded annually, based on the funding value of assets, effective September 30, 2023. This is the rate of return estimated to be produced by investing a pool of assets in an inflation-free environment. Recent real rates of investment return on the funding value of assets have been:

	Year Ended September 30					Average	
	2023	2022	2021	2020	2019	3-Year	5-Year
Total Rate	5.50 %	4.02 %	9.10 %	5.39 %	7.52 %	6.21 %	6.31 %
less Inflation Rate	3.70	<u>8.20</u>	<u>5.39</u>	<u>1.37</u>	<u>1.71</u>	<u>5.76</u>	<u>4.07</u>
Actual Real Rate	1.80	(4.18)	3.71	4.02	5.81	0.45	2.24
Projected Real Rate	3.85	3.85	3.85	3.85	3.85	3.85	3.85

The total investment return rate was computed on the funding value of assets using the approximate formula $i = I$ divided by $1/2 (A + B - I)$, where I is actual investment income, A is the beginning of year asset funding value, and B is the end of year asset funding value.

The preceding investment return rates reflect the particular characteristics of this Pension Fund and the method of determining the funding value of assets. They should not be used to measure an investment advisor's performance or for comparison with other retirement systems. Such use will usually mislead.

Actuarial Assumptions

Mortality Table. For healthy participants during employment, PUB-2010 Headcount-Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set-forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post-employment, PUB-2010 Headcount-Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set-forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. Sample values for healthy retirees follow:

PUB-2010 Fully Generational Mortality Tables				
Sample Ages in 2023	Value of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	\$154.10	\$160.58	32.65	36.48
55	145.25	152.61	27.87	31.44
60	134.17	142.91	23.27	26.64
65	121.20	131.29	18.98	22.10
70	105.61	117.36	14.95	17.84
75	88.27	101.18	11.34	13.91
80	70.17	83.51	8.24	10.42

For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table/ 20% PUB-2010 Headcount-Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females.

The margin for future mortality improvements is included in projection scales. 75% of pre-retirement deaths were assumed to be duty related.

Actuarial Assumptions

Expenses. All expenses are included as an additional employer contribution to provide for reimbursement of these expenses. Expenses are assumed to be the same as the preceding year.

Active Participant Group Size. The valuation was based on a closed active participant group.

Cost-of-Living Adjustment. An annual adjustment of 3.50% is assumed.

Prior to October 21, 1998, pensions were adjusted at the end of each February by the percentage change in the Consumer Price Index during the preceding calendar year not to exceed 4.00%. After October 21, 1998, pensions will be adjusted at the end of each February by 3.50% per year unless the old provisions are elected.

	Year Ended September 30					Average
	2023	2022	2021	2020	2019	5-Year
Actual Adjustment	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%

Asset Valuation Method. Smoothed market value (capital value changes are recognized in three equal annual dollar installments).

Incidence of Contributions. Contributions are assumed to be received continuously throughout the year based upon the computed dollar amounts shown in this report.

Definitions of Technical Terms

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as “accrued liability” or “past service liability.”

Actuarial Assumptions. Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement estimates (rates of mortality, disability, turn-over and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic estimates (salary increases and investment income) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future benefit payments” between future normal costs and Actuarial Accrued Liability. Sometimes referred to as the “actuarial valuation cost method.”

Actuarial Equivalent. A single amount or series of amounts of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Present Value. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as “present value.”

Amortization. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying it off with a lump sum payment.

Experience Gain/(Loss). The difference between actual actuarial costs and assumed actuarial costs -- during the period between two valuation dates.

Funding Value of Assets. The value of assets derived by spreading capital value changes (unrealized and realized gains and losses) in equal dollar installments over three years. This treatment removes the timing of investment activities from the valuation process.

Normal Cost. The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as “current service cost.”

Definitions of Technical Terms

Unfunded Actuarial Accrued Liability. The difference between Actuarial Accrued Liability and the actuarial value of system assets. Sometimes referred to as “unfunded past service liability”, “unfunded accrued liability” or “unfunded supplemental present value.”

Most retirement systems have Unfunded Actuarial Accrued Liability. It arises each time new benefits are added and each time an experience loss is realized.

The existence of Unfunded Actuarial Accrued Liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded Actuarial Accrued Liability does not represent a debt that is payable today. What is important is the ability to control the amount of Unfunded Actuarial Accrued Liability and the trend in its amount (after due allowance for devaluation of the dollar).

SECTION E

ADDITIONAL DISCLOSURES

GASB Statements No. 67 and No. 68 are the accounting standards which replaced GASB Statements No. 25 and No. 27. GASB Statement No. 67 is first effective for fiscal year 2014 and GASB Statement No. 68 is first effective for fiscal year 2015. A separate GASB Statements No. 67 and No. 68 report will be issued outside of this report. This section contains historical GASB Statements No. 25 and No. 27 reporting information for prior fiscal years and illustrative information for fiscal year 2015 and after.

Actuarial Accrued Liability

The Actuarial Accrued Liability (AAL) is a measure intended to help users assess (i) a pension fund's funded status on a going-concern basis, and (ii) progress being made toward accumulating the assets needed to pay benefits as due. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the individual entry-age actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the Fund's annual normal cost required contribution between entry-age and assumed exit age. Entry-age was established by subtracting credited service from current age on the valuation date.

The entry age AAL was determined as part of an actuarial valuation of the plan as of September 30, 2023. Significant actuarial assumptions used in determining the entry age AAL include (a) a rate of return on the investment of present and future assets of 6.70% per year compounded annually, and (b) the assumption that benefits will not increase after retirement, except by the operation of the cost-of-living provision (3.50% annual increase assumed and 5.00% impacted by 50% of the Step 8 base pay minimum).

At September 30, 2023, the Unfunded Actuarial Accrued Liability (UAAL) was \$11,141,563 determined as follows:

Actuarial Accrued Liability	
Active participants (0 vested and 0 non-vested)	\$ -
Retired participants and beneficiaries currently receiving benefits (152 recipients)	178,095,460
Vested terminated participants not yet receiving benefits (0 inactive)	-
Total Actuarial Accrued Liability	<u>178,095,460</u>
Actuarial Value of Assets (market value was \$158,659,587)	<u>166,953,897</u>
Unfunded Actuarial Accrued Liability	<u>\$ 11,141,563</u>

During the year ended September 30, 2023, the Fund experienced a net change of \$3,217,737 in the Actuarial Accrued Liability, of which \$2,569,674 was due to assumption changes. There were no changes in benefit provisions.

Contributions Required and Contributions Made

The City's funding policy provides for periodic employer contributions at actuarially determined rates that are designed to accumulate sufficient assets to pay benefits when due. The normal cost and Actuarial Accrued Liability (AAL) are determined using an entry-age actuarial cost method. Unfunded Actuarial Accrued Liability (UAAL) is being amortized as a level dollar amount over a closed period of 10 years to determine the ARC for fiscal year ending September 30, 2025.

During the year ended September 30, 2023, contributions totaling \$1,200,824 -- \$1,200,824 local employers and \$0 employee -- were made in accordance with contribution requirements determined by an actuarial valuation of the Fund as of September 30, 2021. The local employers' contributions consisted of \$1,178,691 for administrative and investment expenses and \$22,133 for amortization of the UAAL.

Schedule of Employer Contributions

Fiscal Year 10-1/9-30	Valuation Date 9-30	Annual Required Contribution	Percentage Contributed
2010-11	2009	\$ 5,725,453	100.0 %
2011-12	2010	6,985,373	100.0
2012-13	2011	8,542,822	100.0 @
2013-14	2012	8,608,953	100.0 @
2014-15	2013	7,802,557	100.0 @
2015-16	2014	6,219,546	100.0 @
2016-17	2015	6,929,674	100.0 @
2017-18	2016	8,995,148	100.0 @*
2018-19	2017	9,420,443	100.0 @
2019-20	2018	9,485,711	100.0 @
2020-21	2019	9,358,622	100.0 @
2021-22	2020	4,922,182	100.0 @
2022-23	2021	1,200,824 #	100.0 @
2023-24	2022	1,607,942	
2024-25	2023	2,384,178	

@ This includes additional contribution from funding reserves.

* Includes accounts receivable of \$53,679.

Lump sum contribution payable in October of the fiscal year.

Required Supplementary Information Schedule of Funding Progress

Actuarial Valuation Date @	Actuarial Value of Assets# (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (b)-(a)	Funded Ratio (a)/(b)	Active Member Covered Payroll (c)	Unfunded AAL as a Percentage of Active Member Covered Payroll ((b-a)/c)
2009 *	\$ 102.82	\$ 140.34	\$ 37.52	73.3 %	\$ 3.15	1,190.5 %
2010	95.58	141.28	45.70	67.7	2.94	1,554.4
2011 *	93.59	148.76	55.17	62.9	2.11	2,616.1
2012 *	98.74	152.55	53.81	64.7	1.95 &	2,759.0
2013	109.44	155.09	45.65	70.6	1.30	3,515.4
2014 *	123.88	160.60	36.72	77.1	0.81	4,530.9
2015 *	132.72	170.10	37.38	78.0	0.56	6,678.6
2016 *	135.11	180.98	45.87	74.7	0.40	11,475.0
2017	139.09	181.46	42.37	76.7	0.28	15,142.9
2018 *	150.15	185.91	35.76	80.8	0.19	18,842.1
2019	157.67	186.94	29.27	84.3	0.00	N/A
2020 *	162.42	177.38	14.96	91.6	0.00	N/A
2021	172.82	175.84	3.02	98.3	0.00	N/A
2022	170.79	174.88	4.09	97.7	0.00	N/A
2023 *	166.95	178.10	11.15	93.7	0.00	N/A

Dollar amounts are in millions.

* After changes in benefits and/or actuarial assumptions and/or actuarial cost methods.

@ The Funding Value of Assets excludes Reserve accounts.

& Amount reported by the City.

Analysis of the dollar amounts of Funding Value of Assets (FVA), Actuarial Accrued Liability (AAL), or Unfunded Actuarial Accrued Liability (UAAL) in isolation can be misleading. Expressing the FVA as a percentage of the AAL provides one indication of the Fund's funded status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. The UAAL and annual covered payroll are both affected by inflation. Expressing the UAAL as a percentage of covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan. *However, for closed groups, this figure can become highly misleading.*

SECTION F

SUMMARY OF VALUATION RESULTS IN STATE FORMAT

Summary of Valuation Results in State Format - (\$ Amounts in Thousands)

	September 30, 2023		September 30, 2022	
	After	Before		
(a) Participant Data:				
(i) Active members				
- number	-	-		-
- annual payroll	\$ -	\$ -		\$ -
(ii) Retired members & beneficiaries (excl. disability)				
- number	132	132		133
- annualized benefit payroll	\$ 11,747	\$ 11,747		\$ 11,427
(iii) Disabled members				
- number	20	20		20
- annualized benefit payroll	\$ 1,284	\$ 1,284		\$ 1,241
(iv) Terminated vested members				
- number	-	-		-
- annualized deferred benefit payroll	\$ -	\$ -		\$ -
(b) Assets:				
(i) Actuarial value for funding	\$ 166,953	\$ 166,954		\$ 170,789
(ii) Market value	158,660	158,660		156,675
(c) Actuarial Liability:				
(i) Actuarial present value of active member benefits				
normal retirement	\$ -	\$ -		\$ -
termination benefits - pension	-	-		-
disability retirement	-	-		-
survivor benefits (post-retirement)	-	-		-
survivor benefits (pre-retirement)	-	-		-
termination benefits - refunds	-	-		-
Total	\$ -	\$ -		\$ -
(ii) Actuarial present value of terminated vested member benefits	-	-		-
(iii) Actuarial present value of retired member & survivors				
normal retirement & survivors	\$ 162,329	\$ 159,967		\$ 159,384
disability retirement	15,766	15,559		15,494
Total	\$ 178,095	175,526		\$ 174,878
(iv) Total actuarial present value of future benefit payments	\$ 178,095	\$ 175,526		\$ 174,878
(v) Payables	none	none		none
(vi) Actuarial Accrued Liability	\$ 178,095	\$ 175,526		\$ 174,877
(vii) Unfunded Actuarial Accrued Liability ⁽¹⁾	11,142	8,572		4,088

⁽¹⁾ Please refer to page B-8 for requested detail.

Summary of Valuation Results in State Format - (\$ Amounts in Thousands)

	September 30, 2023		September 30, 2022
	After	Before	
(d) Actuarial Present Value of Accrued Benefits (calculated in accordance with FASB Statement No. 35):			
(i) Vested accrued benefits:			
Retired participants and beneficiaries	\$ 178,095	\$ 175,526	\$ 174,878
Terminated participants	-	-	-
Funding + Share Account reserves			
Active participants (includes non-forfeitable accum. Partic. Contributions of \$0 & \$0)	-	-	-
Total	\$ 178,095	\$ 175,526	\$ 174,878
(ii) Non-vested accrued benefits	-	-	-
(iii) Total actuarial p.v. of accrued benefits	178,095	175,526	174,878
(iv) Actuarial p.v. of accrued benefits at beginning of year	174,878	174,878	175,838
(v) Changes attributable to:			
Amendments	-	-	-
Assumption change	2,569	-	-
Operation of decrements	14,057	14,057	12,053
Benefit payments	(13,409)	(13,409)	(13,013)
Other	-	-	-
(vi) Net change	\$ 3,217	\$ 648	\$ (960)
(vii) Actuarial p.v. of accrued benefits at end of year	178,095	175,526	174,878
(e) Plan costs for fiscal year beginning October 1, 2024 and October 1, 2023			
(i) Normal costs:			
Service pensions (incl. post-ret. surv. pensions)	\$ -	\$ -	\$ -
Disability pensions (incl. post-ret. surv. pensions)	-	-	-
Survivor pensions (pre-retirement)	-	-	-
Deferred service pensions	-	-	-
Refunds of member contributions	-	-	-
Total normal cost	\$ -	\$ -	\$ -
(ii) Payment to amortize unf'd. act. accr. liab.	1,561	1,219	597
(iii) Administrative and investment expenses and adjustments	1,179	1,179	1,226
(iv) Amount to be paid by members	-	-	-
(v) Ch. 175 Portion	292	292	215
(vi) Plan Funding Reserve	63	63	0
(vii) Expected plan sponsor contribution			
\$ Amount	\$ 2,385	\$ 2,043	\$ 1,608

Summary of Valuation Results in State Format - (\$ Amounts in Thousands)

	September 30, 2023		September 30, 2022
	After	Before	
(f) Past Contributions (fiscal year ending 9/30/22 & 9/30/23)			
(i) Required minimum:			
Fund sponsor	\$ 1,201	\$ 1,201	\$ 4,922
Participants	0	0	0
Total	\$ 1,201	\$ 1,201	\$ 4,922
(ii) Actual:			
Fund sponsor	1,201	1,201	4,922
Chapter 175	588	588	449
Participants	0	0	0
Total	\$ 1,789	\$ 1,789	\$ 5,371
(g) Net Experience Gain/(Loss)	\$ (4,226)	\$ (4,226)	\$ (4,692)
(h) Other Disclosures	none	none	none
(i) Present value of active member future salaries			
from attained age	\$ -	\$ -	\$ -
from entry age			
(j) Present value of active member future contribs.			
from attained age	\$ -	\$ -	\$ -
from entry age			

Reconciliation of Participants for the Plan Year Ended September 30, 2023

	Active Participants	Vested Terminated Participants	Pension Recipients		
			Service Retirees	Disability Retirees	All Beneficiaries
No. at Start of Year	0	0	108	14	31
Increase (Decrease) From:					
Service Retirement					
Disability Retirement					
Deaths			(1)		(1)
Other Pension Terminations					
Vested Terminations					
Surviving Beneficiaries					1
New Entrants/Rehires					
No. at End of Year	0	0	107	14	31