

City of Sarasota General Employees' Pension Fund

Actuarial Valuation Report as of September 30, 2023

Annual Employer Contribution is Determined by This
Valuation for the Fiscal Year Ending September 30, 2025



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January 30, 2024

The Board of Trustees
City of Sarasota General Employees' Pension Fund
Sarasota, Florida

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

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section D of this report. This report includes risk metrics in Section A 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 report was prepared at the request of the Board and is intended for use by the Pension Fund (Plan) and those designated or approved by the Board. This report may be provided to parties other than the Plan 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 Plan's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2025, and to provide the actuarial information for Governmental Accounting Standards Board (GASB) Statements No. 67 for the fiscal year ending September 30, 2023. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2024. 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.

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 or other information through September 30, 2023. The valuation was based upon information furnished by the City and/or auditor concerning Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal 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 or auditor.

In addition, this report was prepared using certain assumptions approved by the Board and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Cost Method, Assumptions and Definitions. The prescribed assumptions are the assumed mortality rates detailed in the Actuarial Assumptions and Methods section in accordance with Chapter 112.63, Florida Statutes. All actuarial assumptions used in this report are reasonable for purposes of this Valuation. The combined effect of the

assumptions, excluding the prescribed assumptions or methods set by law is expected to have no significant bias (i.e. not significantly optimistic or pessimistic).

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 this report 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 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 Retirement Plan as of the valuation date and has no material limitations or known weaknesses. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Nicolas Lahaye are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan'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 plan costs or required contribution rates have been taken into account in the valuation.

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,



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Senior Consultant & Actuary



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Consultant & Actuary



SECTION A

VALUATION RESULTS AND COMMENTARY

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).

ACTUARIAL COST METHOD

Under the Entry Age Actuarial Cost Method, each year's difference 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, is more likely to satisfy the level contribution Funding Objective set out on page B-1. Normal Cost rate changes occur only in response to changes in benefits, experience assumptions and age at hire patterns.

OBSERVED EXPERIENCE

The City's actuarially required contribution for the fiscal year beginning October 1, 2024 is \$7,303,501 (91.58% of current projected member payroll) compared to \$7,293,229 (88.63% of the previous year's projected member payroll) for the fiscal year beginning October 1, 2023. By ordinance, the City must contribute a minimum of 8% of payroll. The Pension Board uses a dollar-based contribution determination method. Therefore, \$7,303,501 is required to be contributed by the City during the fiscal year ending September 30, 2025, and \$7,293,229 is required to be contributed during the fiscal year ending September 30, 2024.

The funded condition, as measured by the ratio of the funding value of assets to the actuarial accrued liability, is 76.4%, an increase from last year's 75.7%.

There was a net experience loss for the year. The key elements of this experience were as follows:

- The rate of return on the funding value of assets was 4.1% versus the projected 6.2% (unfavorable). The rate of return based on the market value of assets was 11.2%.
- Average salary increase was 6.9% versus a temporary one-year average assumption of 8.7% (favorable).
- 6 retirements versus 9 expected (favorable).
- 0 disability retirement versus 0 expected (neutral).
- 1 termination versus 1 expected (neutral).
- 20 deaths, 4 with a continuing beneficiary, so 16 net (with \$570,570 in annual benefits) versus 14.0 deaths (with \$378,549 in annual benefits) expected (favorable).

The net result of all fiscal and demographic activity was an experience loss of \$247,833 (the experience loss on the actuarial value of assets due to investment experience was \$3,423,315). This loss caused a \$26,194 increase in the City's contribution requirement.

Pension payroll is now 167.6% of participant payroll. Because the Plan is closed to new entrants, the pension payroll is expected to increase dramatically with the passage of time. A dollar-based contribution determination method (rather than a percentage of payroll method) is being used in anticipation of this trend.



CHANGES IN BENEFITS

There have been no changes to the Plan's benefit provisions since the last Actuarial Valuation.

CHANGE IN ACTUARIAL ASSUMPTIONS

There have been no changes to the Plan's actuarial assumptions since the last Actuarial Valuation.

REQUIRED CONTRIBUTIONS IN LATER YEARS

The payment on the unfunded accrued liability is projected to be a fixed dollar amount for the next 7 years while covered payroll continues to decline. As a result, the payment on the unfunded accrued liability will increase as a percent of the remaining payroll. The normal cost in dollars will slowly decrease as payroll decreases, but is expected to remain level as a percent of payroll. Therefore, the total required contribution as a percent of covered payroll will tend to increase in the future even if actual experience is in line with the assumptions. The Board is using a dollar-based contribution determination method in order to continue funding the Plan adequately as covered payroll declines.

In the absence of future assumption changes or experience gains/losses, the required City contribution as a dollar amount is expected to be in the \$7.3 to \$8.0 million range over the next couple years as the loss on the market value of assets during FY 2022 continues to be phased in.

Eventually, due to the Plan closure, the investment horizon of the Plan will become short enough and the cash demands large enough that the asset allocation will likely lean more towards fixed income and less towards equities or other volatile asset classes. This transition may eventually require further reductions in the assumed rate of investment return, and thus an increase in liabilities.

RELATIONSHIP TO MARKET VALUE

If Market Value had been the basis for the valuation, the City contribution requirement for the fiscal year ending September 30, 2025 would have been \$7,986,104 (100.13% of current member payroll) and the funded ratio would have been 73.4%. The market value-based funded ratio was 68.3% last year.



RISKS ASSOCIATED WITH THE 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 Plan'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;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

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.

The computed contribution rate shown on page B-2 may be considered as a minimum contribution rate that complies with the Board's funding. 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.



PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	<u>2023</u>	<u>2022</u>
Ratio of the market value of assets to total payroll	20.0	18.2
Ratio of actuarial accrued liability to payroll	27.2	26.6
Ratio of actives to retirees and beneficiaries	0.2	0.2
Ratio of net cash flow to market value of assets	-4.0%	-5.2%

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll. We note that this ratio for Sarasota General (20.0) is significantly higher than it is for most other plans we work with as it is a closed plan, which means the required contributions as a percentage of payroll are more volatile than most other plans.

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll. We note that this ratio for Sarasota General (27.2) is significantly higher than it is for most of the plans we work with, which means the changes in liability and required contributions as a percentage of payroll are more volatile than most other plans.

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0. This ratio for Sarasota General is less than 1.0, indicating it is super-mature (there are more retirees than active members).

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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.

ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

LOW-DEFAULT-RISK OBLIGATION MEASURE

Actuarial Standards of Practice No. 4 (ASOP No. 4) was revised and reissued in December 2021 by the Actuarial Standards Board (ASB). It includes a new calculation called a low-default-risk obligation measure (LDROM) to be prepared and issued annually for defined benefit pension plans. The transmittal memorandum for ASOP No. 4 includes the following explanation:

“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.”

The following information has been prepared in compliance with this new requirement. Unless otherwise noted, the measurement date, actuarial cost methods, and assumptions used are the same as for the funding valuation covered in this actuarial valuation report.

- A. Low-default-risk Obligation Measure of benefits earned as of the measurement date: \$256,571,179
- B. Discount rate used to calculate the LDROM: 4.63% based on Fidelity’s “20-Year Municipal GO AA Index” as of September 29, 2023
- C. Other significant assumptions that differ from those used for the funding valuation: none
- D. Actuarial cost method used to calculate the LDROM: Individual Entry-Age Actuarial Cost Method
- E. Valuation procedures to value any significant plan provisions that are difficult to measure using traditional valuation procedures, and that differ from the procedures used in the funding valuation: none
- F. Commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of participant benefits: The LDROM is a market-based measurement of the pension obligation. It estimates the amount the plan would need to invest in low risk securities to provide the benefits with greater certainty. 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 LDROM) is one illustration of the savings the sponsor anticipates by taking on the risk in a diversified portfolio.



SECTION B

DETAILED VALUATION RESULTS

Funding Objective

The funding objective for the Pension Fund is to establish and receive contributions, which are inherently level from year to year when funding assumptions are realized and benefits are unchanged. This objective meets the requirements of Part VII, Chapter 112, Florida Statutes.

Contribution Rates

The Pension Fund is supported by participant contributions, City contributions 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 costs not covered by present assets and anticipated future normal costs (unfunded actuarial accrued liability).

Initial financing periods used for the unfunded actuarial accrued liability are:

- 30 years for experience gains and losses occurring between 9/30/02 and 9/30/10;
- 25 years for experience gains and losses occurring after 9/30/10;
- 25 years for benefit changes occurring after 9/30/02;
- 25 years for global actuarial assumption/method changes occurring after 9/30/02;
- 10 years for actuarial assumption/method changes occurring after 9/30/02 that apply only to retirees.

Effective September 30, 2014, the maximum number of years remaining to pay off any base was set at 23 years, to be reduced by 1 year at each subsequent valuation date. As of September 30, 2023, new amortization bases have 14 years remaining.

Contribution requirements for the plan and fiscal years beginning October 1, 2023 and October 1, 2024 are shown on page B-2.



Contributions to Finance Benefits of the Pension Fund

Required Contributions for the Fiscal Year Ending

	9/30/2025		9/30/2024	
	\$ (Dollar)	% of Pay	\$ (Dollar)	% of Pay
Normal Cost				
Service pensions	\$1,453,288	18.22 %	\$1,530,725	18.60 %
Disability pensions	23,886	0.30	24,721	0.30
Death-in-service pensions	21,668	0.27	22,741	0.28
Termination Benefits				
Deferred service pensions	81,939	1.03	82,465	1.00
Refunds of member contributions	38,930	0.49	40,372	0.49
Total Normal Cost	\$1,619,711	20.31 %	\$1,701,024	20.67 %
Unfunded Actuarial Accrued Liability	\$5,904,987	74.04 %	\$5,834,166	70.90 %
Administrative Expenses	\$257,326	3.23 %	\$251,771	3.06 %
Total Contribution Requirement	\$7,782,024	97.58 %	\$7,786,961	94.63 %
Expected Member portion	478,523	6.00 %	493,732	6.00 %
City portion @	7,303,501	91.58 %	7,293,229	88.63 %
Expected covered payroll	\$7,975,377		\$8,228,862	

@ The Retirement Ordinance specifies an 8.0% minimum contribution rate.

(1) Please refer to page B-7 for a schedule of financing periods.

FS 112.64 requires City contributions to be deposited not less frequently than quarterly. Member contributions, which are in addition to the City contributions, must be deposited not less frequently than monthly.

Comparative contribution amounts for prior fiscal years are shown on page B-8.



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-6.

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-5.

Indicator (2) - The ratio of the 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 and assumption changes.

Funding Progress Indicators - Historical Comparison (\$ amounts in millions)

Valuation Date	Active Participant Payroll	Indicator (1)		Indicator (2)		
		Gain (Loss)	Funding Value of Assets	AAL	Unfunded AAL	Percent Funded
September 30, 1991	\$ 13.75	\$ N.A.	\$ 31.44	\$ 37.48	6.04	83.9 %
September 30, 1992	14.50	2.38	36.56	40.48	3.92	90.3
September 30, 1993	13.62	1.90	41.18	43.41	2.23	94.9
September 30, 1994	14.37	(2.49)	41.81	48.28	6.47	86.6
September 30, 1995	14.23	7.59	51.45	50.52	(0.93)	101.8
September 30, 1996	14.24	4.22	59.22	54.16	(5.06)	109.3
September 30, 1997	14.76	10.88	74.83	59.61	(15.22)	125.5
September 30, 1998	15.37	(2.61)	78.41	64.86	(13.55)	120.9
September 30, 1999	16.65	0.17	83.57	72.02	(11.55)	116.0
September 30, 2000	17.90	(2.45)	90.53	80.45	(10.08)	112.5
September 30, 2001	18.16	(2.35)	94.03	85.26	(8.77)	110.3
September 30, 2002	18.91	(7.26)	91.77	90.00	(1.77)	102.0
September 30, 2003	19.75	(4.26)	95.30	97.55	2.25	97.7
September 30, 2004	20.25	(3.78)	98.03	108.07	10.04	90.7
September 30, 2005	20.91	(4.77)	100.61	116.27	15.66	86.5
September 30, 2006	21.87	0.81	107.73	123.60	15.87	87.2
September 30, 2007	24.42	3.02	119.06	133.56	14.50	89.1
September 30, 2008	22.90	0.51	123.43	137.93	14.50	89.5
September 30, 2009	22.22	(4.86)	125.83	145.37	19.54	86.6
September 30, 2010	20.64	(7.25)	125.18	155.76	30.58	80.4
September 30, 2011	21.23	(10.18)	122.24	162.51	40.27	75.2
September 30, 2012	15.32	(3.45)	116.88	172.14	55.26	67.9
September 30, 2013	13.80	0.33	120.67	176.88	56.21	68.2
September 30, 2014	13.30	1.84	127.69	182.77	55.08	69.9
September 30, 2015	12.94	(0.13)	132.98	186.89	53.91	71.2
September 30, 2016	12.47	3.70	140.94	197.41	56.47	71.4
September 30, 2017	12.21	1.60	148.32	204.09	55.77	72.7
September 30, 2018	11.51	2.36	154.84	206.54	51.70	75.0
September 30, 2019	10.63	(2.49)	155.91	210.10	54.19	74.2
September 30, 2020	9.99	0.11	159.85	212.73	52.88	75.1
September 30, 2021	8.29	6.61	167.38	218.36	50.98	76.7
September 30, 2022	8.23	(3.94)	165.67	218.93	53.26	75.7
September 30, 2023	7.98	(0.25)	165.92	217.10	51.18	76.4

AAL represents actuarial accrued liability calculated using the entry age actuarial cost method.



Experience Gain (Loss)

DERIVATION	Year Ended	
	9/30/23	9/30/22
(1) UAAL at start of year	\$53,259,805	\$50,977,732
(2) City normal cost for year (Total normal cost plus expenses from last valuation - employee contributions)	1,370,115	1,328,175
(3) Non-employee contributions for year	6,826,608	6,978,144
(4) Interest accrued $.062 \times [(1) + \frac{1}{2} [(2) - (3)]]$	3,132,957	2,985,470
(5) Expected UAAL before changes $[(1) + (2) - (3) + (4)]$	50,936,269	48,313,233
(6) Effect of assumption changes	None	1,003,202
(7) Effect of cost method changes	None	None
(8) Effect of benefit changes	None	None
(9) Expected UAAL after changes	50,936,269	49,316,435
(10) Actual UAAL	51,184,102	53,259,805
(11) Gain (loss) (9) - (10)	(247,833)	(3,943,370)
(12) % of AAL at start of year	(0.1) %	(1.8) %

UAAL represents unfunded actuarial accrued liability.

Unfunded Actuarial Accrued Liability

	<u>September 30, 2023</u>	<u>September 30, 2022</u>
A. Actuarial present value of future benefits	\$ 226,533,449	229,634,529
B. Actuarial present value of future normal costs	<u>9,433,070</u>	<u>10,700,586</u>
C. Actuarial accrued liability	217,100,379	218,933,943
D. Actuarial value of assets	<u>165,916,277</u>	<u>165,674,138</u>
E. Unfunded actuarial accrued liability	<u>51,184,102</u>	<u>53,259,805</u>
F. Funded ratio	76.4%	75.7%

Sources and Financing of Unfunded Actuarial Accrued Liability

Source of Unfunded Act. Accrued Liability	Unfunded Act. Accrued Liability			Remaining Financing Period 9/30/23	Current Contrib.	% of Payroll Contrib.
	Initial		Current Amount			
	Amount	Fin. Prd.				
Experience Changes						
9/30/2003	\$ 4,264,562	30	\$ 3,025,092	10	\$ 402,623	5.05 %
9/30/2004	3,782,178	30	3,309,337	11	411,343	5.16
9/30/2005	4,765,498	30	4,184,810	12	489,687	6.14
9/30/2006	(805,562)	30	(710,449)	13	(78,787)	(0.99)
9/30/2007	(3,016,425)	30	(2,728,264)	14	(288,361)	(3.62)
9/30/2008	(31,334)	30	(441,926)	14	(46,709)	(0.59)
9/30/2009	4,864,544	30	4,186,615	14	442,500	5.55
9/30/2010	7,252,867	30	6,044,659	14	638,884	8.01
9/30/2011	10,176,533	25	7,793,412	13	864,269	10.84
9/30/2012	3,454,235	25	2,653,801	14	280,491	3.52
9/30/2013	(325,573)	25	(244,202)	14	(25,811)	(0.32)
9/30/2014	(1,840,433)	23	(1,399,450)	14	(147,913)	(1.85)
9/30/2015	130,073	22	100,909	14	10,665	0.13
9/30/2016	(3,697,515)	21	(2,935,605)	14	(310,276)	(3.89)
9/30/2017	(1,596,213)	20	(1,290,483)	14	(136,396)	(1.71)
9/30/2018	(2,364,461)	19	(1,963,421)	14	(207,522)	(2.60)
9/30/2019	2,493,432	18	2,147,894	14	227,019	2.85
9/30/2020	(114,404)	17	(101,363)	14	(10,713)	(0.13)
9/30/2021	(6,606,146)	16	(6,093,519)	14	(644,048)	(8.08)
9/30/2022	3,943,370	15	3,805,403	14	402,208	5.04
9/30/2023	247,833	14	247,833	14	26,194	0.33
Benefit Changes						
9/30/2010	(63,410)	25	(48,770)	12	(5,707)	(0.07)
9/30/2011	(7,017,298)	25	(5,374,002)	13	(595,963)	(7.47)
9/30/2021	(525,585)	16	(484,800)	14	(51,240)	(0.64)
Assumption or Cost Method Changes						
9/30/2004	3,968,165	25	2,344,588	6	465,586	5.84
9/30/2007	998,493	25	715,741	9	103,003	1.29
9/30/2010	3,282,127	25	2,524,280	12	295,380	3.70
9/30/2011	5,333,438	25	4,084,466	13	452,957	5.68
9/30/2012	10,520,982	25	8,083,006	14	854,325	10.71
9/30/2014	1,713,475	23	1,302,915	14	137,710	1.73
9/30/2016	7,732,264	21	6,138,959	14	648,851	8.14
9/30/2017	2,166,525	20	1,751,558	14	185,129	2.32
9/30/2018	55,565	19	46,141	14	4,877	0.05
9/30/2019	2,174,917	18	1,873,519	14	198,020	2.48
9/30/2020	646,384	17	572,704	14	60,531	0.76
9/30/2021	7,691,456	16	7,094,611	14	749,858	9.40
9/30/2022	1,003,202	15	968,103	14	102,323	1.28
Totals	64,657,759		51,184,102		5,904,987	74.04



City Contribution Requirement: Historical Comparison (\$ Amount in Millions)

Valuation Date	Applicable Fiscal Year	Percent of Payroll Contribution					Dollar Contributions	
		Normal Cost	Expenses	UAAL *	Adjustments	Total @	Projected	Actual#
		9/30/91	91-92	6.36	1.76	1.88	0.00	10.00
9/30/92	92-93	6.33	1.84	0.02	0.08	8.27	1.24	1.21
9/30/93	93-94	6.29	2.15	(1.63)	0.75	7.56	1.11	1.14
9/30/94	94-95	6.35	2.16	1.00	0.93	10.44	1.53	1.52
9/30/95	95-96	6.88	2.56	(5.27)	(0.02)	4.15	1.16 &	1.18
9/30/96	96-97	6.85	2.89	(9.29)	(0.08)	0.37	1.16 &	1.22
9/30/97	97-98	6.85	3.12	(17.87)	(0.99)	0.00	1.21 &	1.26
9/30/98	98-99	6.84	2.76	(17.59)	(0.70)	0.00	1.26 &	1.29
9/30/99	99-00	6.94	0.53	(19.98)	(0.09)	0.00	1.35 &	1.34
9/30/00	00-01	6.40	0.47	(20.24)	(0.02)	0.00	1.43 &	1.43
9/30/01	01-02	6.50	0.34	(20.41)	0.00	0.00	1.45 &	1.45
9/30/02	02-03	6.76	0.34	(2.09)	(0.02)	4.99	1.51 &	1.50
9/30/03	03-04	6.81	0.33	(1.45)	0.00	5.69	1.58 &	1.58
9/30/03	04-05	6.81	0.33	(1.45)	0.00	5.69	1.64 &	1.60
9/30/04	05-06	7.13	0.50	1.24	0.00	8.87	1.86	1.88
9/30/05	06-07	7.20	0.47	2.65	0.00	10.32	2.23	2.43
9/30/06	07-08	7.35	0.52	2.39	0.00	10.26	2.32	2.37
9/30/07	08-09	8.48	0.39	4.05	0.00	12.92	3.27	2.87
9/30/08	09-10	8.29	0.54	4.44	0.00	13.27	3.14	2.77
9/30/09	10-11	8.30	0.54	6.39	0.00	15.23	3.50	3.04
9/30/10	11-12	8.76	0.57	13.25	0.00	22.58	4.66	3.63
9/30/11	12-13	8.07	0.63	19.74	0.00	28.44	5.05	3.97
9/30/12	13-14	8.56	0.91	29.76	0.00	39.23	6.01	6.01
9/30/13	14-15	8.75	1.11	35.42	0.00	45.28	6.25	6.25
9/30/14	15-16	9.93	1.25	37.10	0.00	48.28	6.42	6.42
9/30/15	16-17	9.95	1.22	38.18	0.00	49.35	6.39	6.39
9/30/16	17-18	10.05	1.47	42.40	0.00	53.92	6.73	6.73
9/30/17	18-19	10.59	1.57	43.63	0.00	55.79	6.81	6.84
9/30/18	19-20	12.48	1.97	44.36	0.00	58.81	6.77	6.79
9/30/19	20-21	12.65	2.26	51.45	0.00	66.36	7.05	7.05
9/30/20	21-22	13.11	2.18	54.55	0.00	69.84	6.98	6.98
9/30/21	22-23	14.47	3.14	64.69	0.00	82.30	6.83	6.83
9/30/22	23-24	14.67	3.06	70.90	0.00	88.63	7.29	
9/30/23	24-25	14.31	3.23	74.04	0.00	91.58	7.30	

* UAAL represents unfunded actuarial accrued liability. A negative amount indicates assets in excess of the actuarial accrued liability.

City contributed a calculated contribution based on the percent-of-payroll contribution rate times actual covered payroll through fiscal year 2012-13.

@ The Retirement Ordinance specifies a minimum contribution of 8.0%.

& Based on 8.0% minimum City contribution.



Actuarial Balance Sheet - September 30, 2023

PRESENT RESOURCES AND EXPECTED FUTURE RESOURCES

A. Net assets available for benefits		
1. Market value	\$	159,457,983
2. Funding value adjustment		6,458,294
3. Funding value of assets		165,916,277
B. Actuarial present value of expected future City contributions		
1. For normal costs		6,563,701
2. For unfunded actuarial accrued liability		51,184,102
3. Total		57,747,803
C. Actuarial present value of expected future member contributions		
		2,869,369
D. Total Present and Future Resources	\$	226,533,449

ACTUARIAL PRESENT VALUE OF EXPECTED FUTURE BENEFIT PAYMENTS AND RESERVES

A. To retired members and beneficiaries	\$	172,415,347
B. To vested terminated participants		3,214,595
C. To present active participants		
1. Allocated to service rendered prior to valuation date		41,470,437
2. Allocated to service likely to be rendered after valuation date		9,433,070
3. Total		50,903,507
D. Total Actuarial Present Value of Expected Future Benefit Payments and Reserves	\$	226,533,449



SECTION C

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

Summary of Provisions Considered for Actuarial Valuation

A. Ordinances

Plan established under the Code of Ordinances for the City of Sarasota, Florida, Chapter 24, Article II, and Division 4 and was most recently amended under Ordinance No. 23-5495 passed and adopted on August 21, 2023. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

November 2, 2009 (Restatement)

C. Plan Year

October 1 through September 30

D. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

E. Eligibility Requirements

All full-time City employees hired prior to September 7, 2011 participate in the plan as a condition of employment, exclusive of the City Manager who may elect not to participate. Temporary and part-time employees, DROP participants, and any persons covered by the police officers' pension fund or the firefighters' pension fund are not eligible to participate.

F. Credited Service

Service is measured as the total number of years and completed months for which a member made Member Contributions to the plan. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation/Earnings

The total compensation reportable on the member's W-2 form, plus all amounts deferred under deferred compensation plans, but excluding allowances for clothing, car or other miscellaneous expenses and all lump sum payments. Overtime earnings after December 28, 2011 in excess of 300 hours in a calendar year are excluded. Compensation will be limited by the provisions of Internal Revenue Code Section 401(a) (17), when applicable.



H. Final Average Compensation (FAC)

One twelfth of the average Compensation for the highest 3 years out of the last 10 years of Credited Service prior to December 28, 2011 or the highest 4 years of Credited Service prior to termination or retirement, whichever is greater. Final Average Compensation for members eligible for normal retirement on December 28, 2011 is the highest 3 years out of the last 10 years of Credited Service.

I. Normal Retirement

Eligibility: A member may retire on the first day of the month coincident with or next following the earlier of:

- (1) age 65 and 10 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Benefit: 2.5% of FAC multiplied by years of Credited Service earned prior to December 28, 2011 and 2.0% of FAC multiplied by years of Credited Service earned after December 28, 2011. For members eligible for normal retirement on December 28, 2011, the benefit is 2.5% of FAC multiplied by years of Credited Service. Benefit will be limited by the provisions of Internal Revenue Code Section 415, when applicable.

Normal Form

of Benefit: Single life annuity; other options are also available.

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 55 and 10 years of Credited Service.

Benefit: FAC multiplied by Credited Service multiplied by the following applicable pension percent:

EARLY RETIREMENT AGE	PENSION PERCENTAGE FOR MEMBERS WITH LESS THAN 25 YEARS OF CREDITED SERVICE		PENSION PERCENTAGE FOR MEMBERS WITH MORE THAN 25, BUT LESS THAN 30, YEARS OF CREDITED SERVICE	
	FOR SERVICE PRIOR TO DECEMBER 28, 2011	FOR SERVICE ON OR AFTER DECEMBER 28, 2011	FOR SERVICE PRIOR TO DECEMBER 28, 2011	FOR SERVICE ON OR AFTER DECEMBER 28, 2011
55	1.836	1.469	2.233	1.786
56	1.925	1.540	2.264	1.811
57	2.014	1.611	2.296	1.837
58	2.101	1.681	2.328	1.862
59	2.190	1.752	2.360	1.888
60	2.279	1.823	2.391	1.913
61	2.368	1.894	2.424	1.939
62	2.455	1.964	2.455	1.964
63	2.470	1.976	2.470	1.976
64	2.485	1.988	2.485	1.988

Normal Form

of Benefit: Single life annuity; other options are also available.

K. Delayed Retirement

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

L. Disability (Service Connected or Non-Service Connected)

Eligibility: Any member who has 10 years of Credited Service and becomes totally and permanently disabled as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: Accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability. There will be no actuarial reduction for the period of time that the date of disability precedes the Normal Retirement date. Disability benefits, when combined with Social Security, Worker's Compensation or any other local, state or federal government benefits, cannot exceed and will be limited to the FAC on the date of disability.



Normal Form
of Benefit: Single life annuity.

Accumulated contributions with interest will be refunded to the beneficiaries of all members with less than 10 years of Credited Service.

M. Preretirement Death (Service Connected or Non-Service Connected)

Eligibility: All members are eligible for survivor benefits after 10 years of Credited Service.

Benefit: The actuarial present value of the member's accrued Normal Retirement Benefit.

Normal Form
of Benefit: Single life annuity paid for the life of the beneficiary. A lump sum option is also available. Alternatively, the beneficiary may choose to withdraw the vested member's accumulated contributions with interest.

Accumulated contributions with interest will be refunded to the beneficiaries of all members with less than 10 years of Credited Service.

N. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are the 10 Year Certain and Life, 15 Year Certain and Life, the 50%, 66 2/3%, 75% and 100% Joint and Survivor options, or a Lump Sum payment of the actuarial present value of the retiree's accrued benefit.

O. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins at age 65. Alternatively, members can elect a reduced Early Retirement benefit any time after age 55. If the terminated member dies prior to retirement, payments will be made to the beneficiary based upon the actuarial present value of the member's accrued Normal Retirement pension payable as of the date of death.

Normal Form
of Benefit: Single life annuity; other options are also available.

Members terminating employment with less than 10 years of Credited Service will receive a refund of their own accumulated contributions with interest.



P. Refunds

Eligibility: All members terminating employment with less than 10 years of Credited Service are eligible. Optionally, vested members (those with 10 or more years of Credited Service) may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions with interest. The current rate of interest is 4.5% annually.

Q. Member Contributions

6% of Compensation

R. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws. By Ordinance, the City must contribute a minimum of 8% of payroll.

S. Cost of Living Increases

COLA applies to all benefit recipients (Normal Retirement, Early Retirement, Disability, Death and Vested Termination).

For those who retire prior to 1/1/2000:

At the end of each February, pensions are adjusted by the percentage change in the Consumer Price Index during the preceding calendar year not to exceed 4.0%. A pension will not be reduced below the initial amount.

For those who retire on or after 1/1/2000 and prior to December 28, 2011:

At the end of each February, pensions are increased by 3.0%. The increase will be prorated if the member retired during the preceding calendar year.

For those who retire on or after December 28, 2011:

The amount of the pension benefit accrued on or after December 28, 2011 is increased by 2.0% beginning the earlier of five years following the date of retirement or age 65 and continued annually thereafter. The amount of the pension benefit accrued before December 28, 2011 is increased by 3.0% each year after retirement.

For those members who are eligible for normal retirement December 28, 2011 and retire after this date, the pension benefit is increased by 3.0% each year after retirement.

T. 13th Check

Not Applicable



U. Deferred Retirement Option Plan

Eligibility: Plan members who meet one of the following criteria are eligible for the DROP:

- (1) age 65 with 10 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Members who meet eligibility must submit a written election to participate in the DROP.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.

Maximum

DROP Period: 60 months

Interest

Credited: The member's DROP account is credited at a rate equal to 2.0% per annum compounded quarterly.

Normal Form

of Benefit: Lump Sum

V. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Sarasota General Employees' Pension Fund liability if continued beyond the availability of funding by the current funding source.

W. Changes from Previous Valuation

There are no changes from the previous valuation.

Accounting Information Submitted for Valuation

Statement of Plan Assets at Market Value

Item	September 30	
	2023	2022
A. Cash and Cash Equivalents (Operating Cash)	\$ 540,881	\$ 452,926
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	721,710	1,803,378
3. State Contributions	-	-
4. Investment Income and Other Receivables	257,798	214,002
5. Prepaid Expenses	14,976	14,976
6. Total Receivables	\$ 994,484	\$ 2,032,356
C. Investments		
1. Short Term Investments	\$ 5,889,407	\$ 4,452,607
2. Domestic Equities	81,369,609	74,986,453
3. International Equities	28,422,778	22,190,836
4. Domestic Fixed Income	26,667,654	26,002,619
5. International Fixed Income	263,894	-
6. Real Estate	17,229,818	21,085,248
7. Private Equity	-	-
8. Total Investments	\$ 159,843,160	\$ 148,717,763
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(186,774)	(178,421)
3. Total Liabilities	\$ (186,774)	\$ (178,421)
E. Total Market Value of Assets Available for Benefits	\$ 161,191,751	\$ 151,024,624
F. Reserves - DROP Account	\$ (1,733,768)	\$ (1,498,994)
G. Market Value Net of Reserves	\$ 159,457,983	\$ 149,525,630
H. Allocation of Investments		
1. Short Term Investments	3.7%	3.0%
2. Domestic Equities	50.9%	50.4%
3. International Equities	17.8%	14.9%
4. Domestic Fixed Income	16.7%	17.5%
5. International Fixed Income	0.1%	0.0%
6. Real Estate	10.8%	14.2%
7. Private Equity	0.0%	0.0%
8. Total Investments	100.0%	100.0%



Reconciliation of Plan Assets

Item	September 30	
	2023	2022
A. Market Value of Assets at Beginning of Year	\$ 151,024,624	\$ 183,763,020
Adjustment to Beginning of Year Market Value	-	-
Adjusted Market Value at Beginning of Year	\$ 151,024,624	\$ 183,763,020
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 465,108	\$ 462,478
b. Employer Contributions	6,826,608	6,930,061
c. County Contributions	-	48,083
d. Other	-	-
e. Total	\$ 7,291,716	\$ 7,440,622
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 4,532,143	\$ 4,410,046
b. Net Realized Gains/(Losses)	-	-
c. Net Unrealized Gains/(Losses)	12,855,877	(27,976,998)
d. Investment Expenses	(1,047,963)	(1,012,388)
e. Net Investment Income	\$ 16,340,057	\$ (24,579,340)
3. Benefits and Refunds		
a. Regular Monthly Benefits	\$ (12,707,655)	\$ (14,303,201)
b. Refunds	-	-
c. Withdrawals from DROP Accounts	(499,665)	(1,044,706)
d. Total	\$ (13,207,320)	\$ (15,347,907)
4. Administrative Expenses and Miscellaneous Items		
a. Administrative Expenses	\$ (257,326)	\$ (251,771)
b. Miscellaneous	-	-
c. Total	\$ (257,326)	\$ (251,771)
5. Transfers	\$ -	\$ -
C. Total Market Value of Assets Available for Benefits	\$ 161,191,751	\$ 151,024,624
D. Reserves - DROP Account	\$ (1,733,768)	\$ (1,498,994)
E. Market Value Net of Reserves	\$ 159,457,983	\$ 149,525,630



Development of Funding Value of Pension Fund Assets

Valuation Date - 09/30/2023	2022	2023	2024	2025	2026	2027
A. Actuarial Value of Assets Beginning of Year	\$167,384,573	\$165,674,138				
B. Market Value End of Year	149,525,630	159,457,983				
C. Market Value Beginning of Year	181,927,115	149,525,630				
D. Non-Investment/Administrative Net Cash Flow	(7,822,145)	(6,407,704)				
E. Investment Income						
E1. Actual Market Total: B-C-D	(24,579,340)	16,340,057				
E2. Assumed Rate of Return	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%
E3. Assumed Amount of Return	10,135,357	10,073,158				
E4. Amount Subject to Phase-In: E1-E3	(34,714,697)	6,266,899				
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.20 x E4	(6,942,939)	1,253,380				
F2. First Prior Year	4,841,163	(6,942,939)	1,253,380			
F3. Second Prior Year	(325,318)	4,841,163	(6,942,939)	1,253,380		
F4. Third Prior Year	(2,249,601)	(325,318)	4,841,163	(6,942,939)	1,253,380	
F5. Fourth Prior Year	653,048	(2,249,601)	(325,319)	4,841,162	(6,942,941)	1,253,379
F6. Total Phase-Ins	(4,023,647)	(3,423,315)	(1,173,715)	(848,397)	(5,689,561)	1,253,379
G. Actuarial Value of Assets End of Year						
G1. Preliminary Actuarial Value of Assets End of Year: A+D+E3+F6	165,674,138	165,916,277				
G2. Upper Corridor Limit: 120%*B	179,430,756	191,349,580				
G3. Lower Corridor Limit: 80%*B	119,620,504	127,566,386				
G4. Funding Value End of Year	\$ 165,674,138	\$ 165,916,277				
H. Difference between Market & Actuarial Value of Assets	\$ (16,148,508)	\$ (6,458,294)				
I. Actuarial Rate of Return*	3.7%	4.1%				
J. Market Value Rate of Return*	-13.8%	11.2%				
K. Ratio of Actuarial Value of Assets to Market Value	110.8%	104.1%				

* Net of investment expenses.



History of Investment Return Rates

Plan Year Ending September 30 of	Actuarial	Market
2007	13.0	15.7
2008	6.5	(15.6)
2009	4.3	(0.2)
2010	3.1	7.9
2011	1.0	(0.8)
2012	1.4	18.8
2013	8.3	16.3
2014	9.0	10.3
2015	7.4	(2.3)
2016	9.2	7.9
2017	9.0	13.5
2018	7.7	8.9
2019	5.6	(0.5)
2020	6.8	5.9
2021	9.5	22.8
2022	3.7	(13.8)
2023	4.1	11.2
 Average returns:		
Last five years:	5.9	4.4
Last ten years:	7.2	6.0
All years shown:	6.4	5.7

The above rates are based on the retirement systems financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.

**Reconciliation of
Deferred Retirement Option Plan (DROP) Accounts**

Value at Beginning of Period	\$ 1,498,994
Adjustment	+ 0
Payments Credited to Accounts	+ 703,503
Investment Earning Credited	+ 30,936
Withdrawals from Accounts	- <u>499,665</u>
Value at End of Period	1,733,768

Retired Participant and Beneficiary Data (Including DROP) Historical Schedule

Period	Added (1)		Removed		Net Increase		End of Period		Expected Removals	
	Annual		Annual		Annual		Annual		Annual	
	No.	Benefits	No.	Benefits	No.	Benefits	No.	Benefits	No.	Benefits
9/30/1991							176	\$ 1,290,828		
9/30/1992	10	\$ 110,262	3	\$ 22,042	7	\$ 88,220	183	1,379,048	6.9	\$ 46,315
9/30/1993	24	302,468	14	59,299	10	213,169	193	1,592,217	7.5	52,166
9/30/1994	24	211,241	16	98,597	8	112,644	201	1,704,861	7.5	57,437
9/30/1995	14	218,043	7	69,745	7	148,298	208	1,853,159	6.0	49,293
9/30/1996	21	263,877	12	110,220	9	153,657	217	2,006,816	6.4	55,101
9/30/1997	17	283,991	12	133,439	5	150,552	222	2,157,368	6.5	61,202
9/30/1998	21	208,694	13	88,973	8	119,721	230	2,277,089	6.9	66,612
9/30/1999	21	202,938	5	72,470	16	130,468	246	2,407,558	7.0	71,006
9/30/2000	25	410,442	6	75,108	19	335,334	265	3,742,892	6.8	70,234
9/30/2001	22	511,097	11	75,783	11	435,314	276	3,178,206	6.9	78,673
9/30/2002	16	349,270	5	150,038	11	199,232	287	3,377,438	6.9	80,026
9/30/2003	21	440,929	0	0	21	440,929	308	3,818,367	7.4	72,685
9/30/2004	17	425,100	12	109,106	5	315,994	313	4,134,361	8.3	85,477
9/30/2005	24	646,738	16	178,329	8	468,409	320	4,602,770	8.1	91,697
9/30/2006	21	584,522	8	105,434	13	479,088	333	5,081,858	8.4	101,942
9/30/2007	20	498,214	11	100,167	9	398,047	340	5,479,905	8.8	113,699
9/30/2008	27	800,828	8	108,767	19	692,061	359	6,171,966	8.8	119,269
9/30/2009	17	560,642	10	145,783	7	524,247	366	6,696,213	9.7	138,735
9/30/2010	26	995,789	8	90,590	18	905,199	382	7,601,412	10.0	145,525
9/30/2011	22	626,250	4	46,646	18	579,604	400	8,181,016	10.7	165,630
9/30/2012	21	813,538	11	183,249	10	630,289	410	8,811,305	12.5	206,457
9/30/2013	14	836,930	11	160,462	3	676,468	413	9,487,773	14.4	287,855
9/30/2014	15	724,676	13	172,470	2	552,206	415	10,039,979	13.9	257,797
9/30/2015	12	529,215	8	173,563	4	355,652	419	10,395,631	14.4	278,404
9/30/2016	15	685,676	9	204,821	6	480,855	425	10,876,486	13.6	286,144
9/30/2017	13	642,447	14	239,787	-1	402,660	424	11,279,146	14.0	304,891
9/30/2018	16	785,846	16	375,097	0	410,749	424	11,689,895	13.8	310,304
9/30/2019	14	734,685	10	167,290	4	567,395	428	12,257,290	13.8	325,565
9/30/2020	11	788,068	12	265,907	-1	522,161	427	12,779,451	14.2	358,749
9/30/2021	20	887,687	17	478,161	3	409,526	430	13,188,977	14.1	363,914
9/30/2022	11	705,055	19	482,322	-8	222,733	422	13,411,710	14.0	378,549
9/30/2023	7	528,944	17	570,570	-10	-41,626	412	13,370,084	13.8	393,638

(1) Includes annual cost-of-living increase



Retired Participants and Beneficiaries Historical Comparison

Valuation Date	% Increase in Annual Benefits	No. of Active Per Retired	Annual Benefits as % of Active Payroll	Average Benefit
9/30/1988	34.1 %	3.6	7.9 %	\$ 5,856
9/30/1989	5.5	3.8	7.6	5,984
9/30/1990	22.2	3.4	8.7	6,726
9/30/1991	9.7	3.3	9.4	7,334
9/30/1992	6.8	3.1	9.5	7,536
9/30/1993	15.5	2.6	11.7	8,250
9/30/1994	7.1	2.5	11.9	8,482
9/30/1995	8.7	2.4	13.0	8,909
9/30/1996	8.3	2.3	14.1	9,248
9/30/1997	7.5	2.2	14.6	9,718
9/30/1998	5.6	2.1	14.8	9,900
9/30/1999	5.7	2.0	14.5	9,787
9/30/2000	13.9	1.9	15.3	10,351
9/30/2001	15.9	1.8	17.5	11,515
9/30/2002	6.3	1.8	17.9	11,768
9/30/2003	13.1	1.7	19.3	12,397
9/30/2004	8.3	1.6	20.4	13,209
9/30/2005	11.3	1.5	22.0	14,339
9/30/2006	10.4	1.5	23.2	15,261
9/30/2007	10.8	1.5	22.4	16,117
9/30/2008	12.6	1.3	27.0	17,192
9/30/2009	8.5	1.2	30.1	18,296
9/30/2010	13.5	1.0	36.8	19,899
9/30/2011	7.6	0.9	38.5	20,453
9/30/2012	7.7	0.7	57.5	21,491
9/30/2013	7.7	0.6	68.7	22,973
9/30/2014	5.8	0.5	75.5	24,193
9/30/2015	3.5	0.5	80.3	24,811
9/30/2016	4.6	0.5	87.2	25,592
9/30/2017	3.7	0.4	92.4	26,602
9/30/2018	3.6	0.4	101.6	27,571
9/30/2019	4.9	0.3	115.3	28,639
9/30/2020	4.3	0.3	127.9	29,928
9/30/2021	3.2	0.2	159.0	30,672
9/30/2022	1.7	0.2	163.0	31,781
9/30/2023	(0.3)	0.2	167.6	32,452

Active and vested terminated participants Included in Valuation

Valuation Date	Active Members	Term. Vested Members	Valuation Payroll	Average Age	Average Service	Average Pay
9/30/1988	554	1	\$ 11,538,163	42.2 yrs.	8.8 yrs.	\$ 20,827
9/30/1989	613	2	12,712,202	41.9	8.0	20,738
9/30/1990	600	4	13,531,591	42.9	8.2	22,553
9/30/1991	581	7	13,748,191	43.3	8.6	23,663
9/30/1992	560	7	14,504,068	44.1	9.4	25,900
9/30/1993	506	5	13,616,097	44.9	10.1	26,909
9/30/1994	511	7	14,366,425	45.1	10.1	28,114
9/30/1995	500	6	14,229,564	45.7	10.4	28,459
9/30/1996	488	6	14,238,338	46.4	10.6	29,177
9/30/1997	496	6	14,760,059	46.6	10.6	29,758
9/30/1998	489	6	15,366,393	46.6	10.8	31,424
9/30/1999	490	7	16,646,637	47.0	10.8	33,973
9/30/2000	503	9	17,897,802	46.7	10.4	35,582
9/30/2001	507	14	18,163,661	46.9	9.9	35,826
9/30/2002	520	16	18,906,642	47.5	9.8	36,359
9/30/2003	518	15	19,746,442	47.9	9.8	38,121
9/30/2004	510	16	20,251,638	48.5	10.0	39,709
9/30/2005	497	16	20,913,910	48.4	9.9	42,080
9/30/2006	503	15	21,873,836	48.3	9.6	43,487
9/30/2007	509	15	24,417,185	48.1	9.4	47,971
9/30/2008	452	13	22,897,978	48.9	10.2	50,659
9/30/2009	428	12	22,216,991	49.7	10.5	51,909
9/30/2010	390	17	20,644,102	49.6	10.6	52,934
9/30/2011	374	13	21,234,520	49.9	10.9	56,777
9/30/2012	275	18	15,323,219	50.7	12.9	55,721
9/30/2013	245	20	13,803,015	51.1	13.7	56,339
9/30/2014	226	20	13,304,308	51.6	14.2	58,869
9/30/2015	211	21	12,942,671	52.2	14.7	61,340
9/30/2016	196	18	12,473,619	52.6	15.4	63,641
9/30/2017	182	16	12,212,665	53.2	16.0	67,103
9/30/2018	166	14	11,505,116	53.5	16.7	69,308
9/30/2019	148	14	10,628,632	53.6	17.2	71,815
9/30/2020	134	14	9,991,708	53.8	17.6	74,565
9/30/2021	107	17	8,294,470	53.7	18.3	77,518
9/30/2022	95	16	8,228,862	54.0	18.8	86,620
9/30/2023	88	16	7,975,377	54.4	19.8	90,629

Number Added to and Removed from Active Participation

Year Ended	Added During Year		Service Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E *	A	E	A	E	A	E	A	A	Totals		
											A	E	
9/30/1992	14	35	10	5	0	2	0	2	0	25	25	32	560
9/30/1993	16	70	17	5	2	2	0	2	0	51	51	23	506
9/30/1994	47	42	13	5	3	2	1	2	3	22	25	19	511
9/30/1995	42	53	12	5	1	2	1	2	1	38	39	23	500
9/30/1996	46	58	14	5	0	1	0	1	0	44	44	23	488
9/30/1997	47	39	14	6	2	1	1	1	0	22	22	24	496
9/30/1998	43	50	16	6	0	1	1	1	9	24	33	25	489
9/30/1999	49	48	21	6	0	2	0	1	3	24	27	25	490
9/30/2000	80	67	23	11	1	1	0	1	5	38	43	38	503
9/30/2001	74	70	20	11	0	1	0	1	10	40	50	44	507
9/30/2002	74	61	15	9	1	1	0	1	4	41	45	39	520
9/30/2003	60	62	18	10	1	1	0	1	1	42	43	41	518
9/30/2004	47	55	15	9	0	1	0	1	5	35	40	40	510
9/30/2005	73	86	23	18	0	1	1	1	1	61	62	36	497
9/30/2006	70	64	18	18	1	1	0	0	1	44	45	37	503
9/30/2007	76	70	21	19	0	1	1	1	3	45	48	39	509
9/30/2008	17	74	20	19	1	1	2	1	1	50	51	40	452
9/30/2009	15	39	19	19	0	1	0	1	0	19	20	40	428
9/30/2010	19	57	26	19	0	1	0	1	5	26	31	40	390
9/30/2011	21	37	19	16	0	1	0	0	3	15	18	19	374
9/30/2012	0	0	21	21	0	1	1	0	8	69	77	17	275
9/30/2013	0	0	18	15	0	1	0	0	3	9	12	8	245
9/30/2014	0	0	15	16	0	1	0	0	1	3	4	6	226
9/30/2015	0	0	14	16	0	1	0	0	1	0	1	5	211
9/30/2016	0	0	12	17	0	1	1	0	1	1	2	4	196
9/30/2017	0	0	12	21	0	1	1	1	0	1	1	3	182
9/30/2018	0	0	15	19	0	1	0	1	1	0	1	3	166
9/30/2019	0	0	16	16	0	0	1	0	0	1	1	2	148
9/30/2020	0	0	13	14	1	0	0	0	0	0	0	1	134
9/30/2021	0	0	22	15	2	0	0	0	3	0	3	1	107
9/30/2022	0	0	10	11	1	0	0	0	1	0	1	1	95
9/30/2023	0	0	6	9	0	0	0	0	1	0	1	1	88
9/30/2024		0		9		0		0				1	
32 Yr Totals	930	1,137	528	411	17	32	12	24	75	790	866	699	

*A represents actual number; E represents expected number; *Balancing item*



AGE & SALARY DISTRIBUTION FOR ACTIVE MEMBERS

Age Group	Years of Service to Valuation Date									Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20+	
20-24 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
25-29 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
30-34 NO.	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0
35-39 NO.	0	0	0	0	0	0	0	3	0	3
TOT PAY	0	0	0	0	0	0	0	249,533	0	249,533
AVG PAY	0	0	0	0	0	0	0	83,178	0	83,178
40-44 NO.	0	0	0	0	0	0	2	4	5	11
TOT PAY	0	0	0	0	0	0	168,639	315,085	422,409	906,133
AVG PAY	0	0	0	0	0	0	84,320	78,771	84,482	82,376
45-49 NO.	0	0	0	0	0	0	0	5	2	7
TOT PAY	0	0	0	0	0	0	0	430,032	222,394	652,426
AVG PAY	0	0	0	0	0	0	0	86,006	111,197	93,204
50-54 NO.	0	0	0	0	0	0	3	7	7	17
TOT PAY	0	0	0	0	0	0	291,518	640,307	611,979	1,543,804
AVG PAY	0	0	0	0	0	0	97,173	91,472	87,426	90,812
55-59 NO.	0	0	0	0	0	0	0	11	11	22
TOT PAY	0	0	0	0	0	0	0	912,415	972,472	1,884,887
AVG PAY	0	0	0	0	0	0	0	82,947	88,407	85,677
60-64 NO.	0	0	0	0	0	0	4	10	11	25
TOT PAY	0	0	0	0	0	0	460,514	725,527	933,621	2,119,662
AVG PAY	0	0	0	0	0	0	115,128	72,553	84,875	84,786
65-99 NO.	0	0	0	0	0	0	0	2	1	3
TOT PAY	0	0	0	0	0	0	0	128,490	114,765	243,255
AVG PAY	0	0	0	0	0	0	0	64,245	114,765	81,085
TOT NO.	0	0	0	0	0	0	9	42	37	88
TOT AMT	0	0	0	0	0	0	920,671	3,401,389	3,277,640	7,599,700
AVG AMT	0	0	0	0	0	0	102,297	80,985	88,585	86,360



AGE & ANNUAL BENEFIT DISTRIBUTION FOR INACTIVE MEMBERS

Age Group	Terminated Vested		Disabled		Retired		Deceased with Beneficiary	
	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-
45-49	3	39,682	-	-	-	-	-	-
50-54	4	87,150	1	22,914	1	51,841	1	9,557
55-59	1	12,080	2	36,821	16	481,317	2	40,256
60-64	6	127,101	1	40,350	38	1,521,064	2	46,102
65-69	-	-	-	-	88	2,942,999	5	132,685
70-74	2	19,248	4	91,822	82	3,306,670	8	180,597
75-79	-	-	1	22,342	64	2,191,263	6	85,637
80-84	-	-	1	21,835	41	1,018,476	8	167,900
85-89	-	-	-	-	22	666,548	3	38,403
90-94	-	-	-	-	6	99,395	4	57,263
95-99	-	-	-	-	1	6,562	3	77,368
100 & Over	-	-	-	-	1	12,097	-	-
Total	16	285,261	10	236,084	360	12,298,232	42	835,768
Average Age		57		68		73		78

SECTION D

THE ACTUARIAL VALUATION PROCESS

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND DEFINITIONS
OF TECHNICAL TERMS**

The 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 fund administrator including:
 - Retired members and beneficiaries now receiving benefits
 - Former members with vested benefits not yet payable
 - Active members

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

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

 - D. + **Assumptions about various future activities of the fund** (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.

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 plan's **total actuarial present value** for individuals in each of the 3 covered person categories.

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

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 system'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-7.

Since the Plan has been closed to new hires, the payroll growth assumption has been set to 0.0%.

The actuarial estimates 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 6.2% a year compounded annually. It is composed of inflation and real investment return.

INFLATION. 2.3% per annum, compounded annually, effective 9/30/12. 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 is shown in a table which follows.

REAL INVESTMENT RETURN. 3.9% per annum net of investment related expenses, compounded annually, based on the funding value of assets, effective 9/30/2021. 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 are shown in a table which follows.

SALARY INCREASES. Participant salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel. A schedule of rates of increases in individual salaries based on age follows:

<u>Age</u>	<u>Inflation</u>	<u>Promotion, Production, & Seniority</u>	<u>Total</u>
Under 45	2.3 %	4.0 %	6.3 %
45 and Over	2.3	2.4	4.7

The valuation is based on the closed group of active participants (which will decline over time), with no payroll increase assumption. Inflation is currently expected to be 2.3% per year after 2023-24.

A schedule of recent experience is shown in the following table.

Year Ended 9/30	Rate of Inflation		Rate of Inv. Return		Real Rate of Inv. Return		Salary Increases	
	A	E	A	E	A	E	A	E
1993	2.7 %	5.0 %	12.8 %	8.0 %	10.1 %	3.0 %	4.4 %	6.7 %
1994	3.0	5.0	2.2	8.0	(0.8)	3.0	6.5	6.6
1995	2.6	4.5	22.9	8.0	20.3	3.5	2.9	6.1
1996	3.0	4.5	16.2	8.0	13.2	3.5	5.0	6.0
1997	2.2	4.5	28.3	8.0	26.1	3.5	5.7	6.0
1998	1.5	4.5	5.7	8.0	4.2	3.5	7.3	6.0
1999	2.6	4.5	7.5	8.0	4.9	3.5	5.0	6.0
2000	3.5	3.5	9.1	8.5	5.6	5.0	9.8	5.5
2001	2.6	3.5	5.0	8.5	2.4	5.0	4.9	5.5
2002	1.5	3.5	(1.0)	8.5	(2.5)	5.0	5.4	5.5
2003	2.3	3.5	5.3	8.5	3.0	5.0	7.0	5.5
2004	2.5	3.5	4.6	8.5	2.1	5.0	6.4	5.5
2005	4.7	3.5	4.9	8.5	0.2	5.0	9.2	5.5
2006	2.1	3.5	8.9	8.5	6.8	5.0	6.6	5.5
2007	2.8	3.5	13.0	8.5	10.2	5.0	13.5	5.5
2008	4.9	3.5	6.5	8.5	1.6	5.0	5.8	6.1
2009	(1.3)	3.5	4.3	8.5	5.6	5.0	4.2	6.1
2010	1.1	3.5	3.1	8.5	2.0	5.0	3.2	6.1
2011	3.9	3.5	1.0	8.3	(2.9)	4.8	8.4	5.8
2012	2.2	3.5	1.4	8.0	(0.8)	4.5	(1.3)	5.6
2013	1.2	2.3	8.3	7.0	7.1	4.7	2.3	5.4
2014	1.7	2.3	9.0	7.0	7.3	4.7	4.9	5.0
2015	0.0	2.3	7.4	7.0	7.4	4.7	4.1	5.0
2016	1.5	2.3	9.2	7.0	7.7	4.7	4.5	4.9
2017	2.2	2.3	9.0	7.0	6.8	4.7	5.7	4.9
2018	2.3	2.3	7.7	6.9	5.4	4.6	3.5	4.8
2019	1.7	2.3	5.6	6.9	3.9	4.6	4.6	4.9
2020	1.4	2.3	6.8	6.8	5.4	4.5	4.4	4.9
2021	5.4	2.3	9.5	6.55	4.1	4.25	3.5	4.9
2022	8.2	2.3	3.7	6.20	(4.5)	3.90	7.8	5.0
2023	3.7	2.3	4.1	6.2	0.4	3.9	6.9	8.7
Averages	2.6	3.3	7.7	7.8	5.1	4.4	5.5	5.7



MORTALITY TABLE. The mortality tables used in the valuation are based on the PUB-2010 Headcount Weighted Mortality Tables described below, with mortality improvements projected for healthy lives to all future years after 2010 using Scale MP-2018. No mortality improvement is projected for disabled lives.

	<u>Pre-Retirement PUB-2010 Table</u>	<u>Post-Retirement PUB-2010 Table</u>
Female (General)	Headcount Weighted General Below Median Employee Female Table	Headcount Weighted General Below Median Healthy Retiree Female Table
Male (General)	Headcount Weighted General Below Median Employee Male Table, set back 1 year	Headcount Weighted General Below Median Healthy Retiree Male Table, set back 1 year
Female Disabled	N/A	Headcount Weighted General Disabled Retiree Female, set forward 3 years
Male Disabled	N/A	Headcount Weighted General Disabled Retiree Male, set forward 3 years

These are the same rates as used by the Florida Retirement System (FRS) in their July 1, 2022 Actuarial Valuation Report for Regular members. Florida Statutes Chapter 112.63(1)(f) mandates the use of the mortality tables used in either of the two most recently published actuarial valuation reports of FRS.

RATES OF SEPARATION FROM ACTIVE MEMBERSHIP. The rates do not apply to participants eligible to retire and do not include separation on account of death or disability. Separation rates are used to measure the probabilities of participants separating from employment each year.

<u>Age</u>	<u>Percent Separating Within Next Year</u>
Under 50	1.5 %
50 - 54	2.5
55 & Over	1.0

RATES OF DISABILITY. Disability rates measure the probabilities of active participants becoming disabled.

Sample Ages	Percent Becoming Disabled Within Next Year	
	Males	Females
20	0.00%	0.00%
25	0.01%	0.01%
30	0.01%	0.01%
35	0.02%	0.01%
40	0.02%	0.02%
45	0.08%	0.06%
50	0.16%	0.10%
55	0.25%	0.16%
60	0.30%	0.26%

RATES OF RETIREMENT. Rates of retirement are used to measure the probabilities of an eligible member retiring during the next year.

Percent Retiring Under Normal Retirement

S e r v i c e	Age		
	Under 65	65 - 66	67
10 - 24	N/A	60%	100%
25 - 29	N/A	100%	100%
30 - 32	75%	100%	100%
33	100%	100%	100%

Percent Retiring Under Early Retirement

S e r v i c e	Age		
	55 - 56	57 - 63	64
10 - 14	5%	7.5%	25%
15 - 24	10%	10%	25%
25 - 29	10%	20%	50%

EXPENSES. Non-investment related 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.

MARITAL STATUS. Eighty-five percent of active participants who meet the age and service requirements for pre-retirement survivor benefits are estimated to be married. Female spouses are assumed to be 3 years younger than the male participant. Male spouses are assumed to be 3 years older than the female participant.



COST OF LIVING ADJUSTMENT. An annual increase of 3.0% is assumed for those who retired before 12/28/2011. For members who retired on or after 12/28/2011 the annual increase is 2.0% on benefits earned after 12/28/2011 (3.0% on benefits earned before 12/28/2011) beginning the earlier of age 65 or 5 years following retirement. Members who are eligible for normal retirement on 12/28/2011 and retire after this date will receive a 3.0% annual increase following retirement.

ASSET VALUATION METHOD. Smoothed market value (investment income differing from assumed rate of return is recognized in five equal annual installments).

CHANGES FROM PREVIOUS VALUATION. None.

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 used to determine contribution requirements was derived by spreading the difference between the actual and assumed rate of investment return in equal dollar installments over five years. This treatment helps remove 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."

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

**THE ACTUARIAL ACCRUED LIABILITY AND CERTAIN OTHER
DISCLOSURES REQUIRED BY STATEMENT NO. 67 OF
GOVERNMENTAL ACCOUNTING STANDARDS BOARD**

**SCHEDULE OF CHANGES IN THE EMPLOYER'S
NET PENSION LIABILITY AND RELATED RATIOS
GASB Statement No. 67**

Fiscal year ending September 30,	2024*	2023	2022
Total pension liability			
Service Cost	\$ 1,619,711	\$ 1,609,372	\$ 1,600,391
Interest	13,397,303	13,265,834	13,658,674
Benefit Changes	-	-	(604,885)
Difference between actual & expected experience	(3,612,763)	(367,885)	(2,539,596)
Assumption Changes	-	1,159,851	7,593,649
Benefit Payments	(13,896,265)	(13,207,320)	(15,347,907)
Refunds	-	-	-
Other	-	-	-
Net Change in Total Pension Liability	(2,492,014)	2,459,852	4,360,326
Total Pension Liability - Beginning	222,235,995	219,776,143	215,415,817
Total Pension Liability - Ending (a)	\$ 219,743,981	\$ 222,235,995	\$ 219,776,143
Plan Fiduciary Net Position			
Contributions - Employer (From City)	\$ 7,293,229	\$ 6,826,608	\$ 6,930,061
Contributions - Employer (From State)	-	-	-
Contributions - Non-Employer Contributing Entity	-	-	48,083
Contributions - Member	478,523	465,108	462,478
Net Investment Income	9,796,052	16,340,057	(24,579,340)
Benefit Payments	(13,896,265)	(13,207,320)	(15,347,907)
Refunds	-	-	-
Administrative Expense	(257,326)	(257,326)	(251,771)
Other	-	-	-
Net Change in Plan Fiduciary Net Position	3,414,213	10,167,127	(32,738,396)
Plan Fiduciary Net Position - Beginning	161,191,751	151,024,624	183,763,020
Plan Fiduciary Net Position - Ending (b)	\$ 164,605,964	\$ 161,191,751	\$ 151,024,624
Net Pension Liability - Ending (a) - (b)	55,138,017	61,044,244	68,751,519
Plan Fiduciary Net Position as a Percentage			
of Total Pension Liability	74.91 %	72.53 %	68.72 %
Covered Payroll	\$ 7,500,000	\$ 7,780,322	\$ 7,955,225
Net Pension Liability as a Percentage			
of Covered Payroll	735.17 %	784.60 %	864.23 %

*These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY

GASB Statement No. 67

FY Ending September 30,	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Plan Fiduciary Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2015	\$ 187,977,634	\$ 133,953,528	\$ 54,024,106	71.26%	\$ 12,528,532	431.21%
2016	191,683,866	139,821,460	51,862,406	72.94%	12,206,056	424.89%
2017	202,448,406	153,668,713	48,779,693	75.91%	11,960,517	407.84%
2018	209,555,501	162,385,768	47,169,733	77.49%	11,504,110	410.03%
2019	209,995,071	154,601,485	55,393,586	73.62%	10,663,586	519.46%
2020	213,893,849	156,335,727	57,558,122	73.09%	10,001,259	575.51%
2021	215,415,817	183,763,020	31,652,797	85.31%	8,826,557	358.61%
2022	219,776,143	151,024,624	68,751,519	68.72%	7,955,225	864.23%
2023	222,235,995	161,191,751	61,044,244	72.53%	7,780,322	784.60%
2024*	219,743,981	164,605,964	55,138,017	74.91%	7,500,000	735.17%

*** These figures are estimates only. Actual figures will be provided after the end of the fiscal year.**

NOTES TO SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY

GASB Statement No. 67

Valuation Date: September 30, 2023
Measurement Date: September 30, 2024

Methods and Assumptions Used to Determine the Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	2.3%
Salary Increases	4.7% to 6.3% depending on age, including inflation
Investment Rate of Return	6.20%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	The same versions of Pub-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) for Regular Class members in their July 1, 2022 actuarial valuation (with mortality improvements projected to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

Other Information:

Notes See Discussion of Valuation Results in the September 30, 2023 Actuarial Valuation Report.

SCHEDULE OF CONTRIBUTIONS

GASB Statement No. 67

FY Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2015	\$ 6,249,607	\$ 6,249,607	\$ -	\$ 12,528,532	49.88%
2016	6,422,747	6,422,747	-	12,206,056	52.62%
2017	6,387,239	6,387,239	-	11,960,517	53.40%
2018	6,726,147	6,726,147	-	11,504,110	58.47%
2019	6,813,954	6,844,845	(30,891)	10,663,586	64.19%
2020	6,766,262	6,794,635	(28,373)	10,001,259	67.94%
2021	7,053,657	7,053,657	-	8,826,557	79.91%
2022	6,978,144	6,978,144	-	7,955,225	87.72%
2023	6,826,608	6,826,608	-	7,780,322	87.74%
2024*	7,293,229	7,293,229	-	7,500,000	97.24%

* These figures are estimates only. Actual figures will be provided after the end of the fiscal year.

NOTES TO SCHEDULE OF CONTRIBUTIONS

GASB Statement No. 67

Valuation Date: September 30, 2022
Notes Actuarially determined contributions are calculated as of the September 30th which is two year(s) prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	14 years (single equivalent period)
Asset Valuation Method	5-year smoothed market
Inflation	2.3%
Salary Increases	4.7% to 6.3% depending on age, including inflation, with an extra 3.7% in fiscal year 2023 (so 8.4% to 10.0% in fiscal year 2023 only).
Investment Rate of Return	6.2%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	The same versions of Pub-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) for Regular Class members in their July 1, 2021 actuarial valuation (with mortality improvements projected to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

Other Information:

Notes See Discussion of Valuation Results in the September 30, 2022 Actuarial Valuation Report.

SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 6.20% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 6.20%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (6.20%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 6.20%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption*

	Current Single Rate Assumption	
1% Decrease 5.20%	6.20%	1% Increase 7.20%
\$ 78,602,709	\$ 55,138,017	\$ 35,271,050

**These figures are estimates only. Actual figures will be provided after the end of the fiscal year.*

SECTION F

SUMMARY OF VALUATION RESULTS IN STATE FORMAT

Summary of Valuation Results in State Format - (\$ amounts in thousands)

	<u>September 30, 2023</u>	<u>September 30, 2022</u>
(a) Participant Data		
(i) Active participants	88	95
- number		
- annual payroll	\$7,975	\$8,229
(ii) Retired participants & beneficiaries (excl. disability)		
- number	402	412
- annualized benefit payroll	\$13,134	\$13,182
(iii) Disabled participants & beneficiaries		
- number	10	10
- annualized benefit payroll	\$236	\$230
(iv) Terminated vested participants		
- number	16	16
- annualized benefit payroll	\$285	\$279
(b) Assets		
(i) Funding value	\$165,916	\$165,674
(ii) Market value	159,458	149,526
(c) Actuarial Liabilities		
(i) Actuarial present value of active partic. benefits		
normal & early retirement	48,976	48,852
termination benefits - pensions	922	1,025
disability retirement	403	433
survivor benefits (pre-retirement)	578	606
termination benefits - refunds	25	26
Total	50,904	50,942
(ii) Actuarial present value of terminated vested participant benefits	3,215	3,040
(iii) Actuarial present value of retired partic. & beneficiary:		
normal/early retirement & survivors (excl. disability)	169,643	172,884
disability retirement & survivors	2,772	2,769
Total	172,415	175,653
(iv) Additional inactive benefits payable as of the valuation date	0	0
(v) Total actuarial present value of future benefit payments	226,534	229,635
(vi) Payables	0	0
(vii) Actuarial accrued liability	217,100	218,934
(viii) Unfunded actuarial accrued liability (1)	51,184	53,260

(1) Please refer to page B-7 for details.



	<u>September 30, 2023</u>	<u>September 30, 2022</u>
(d) Actuarial Present Value of Accrued Benefits (calculated in accordance with FASB Statement 35)		
(i) Vested accrued benefits		
Retired participants and beneficiaries	\$ 172,415	\$ 175,653
Terminated participants	3,215	3,040
Additional inactive benefits payable as of the valuation date	0	0
Active participants (includes non-forfeitable accum. partic. Contributions of \$8,433 and \$8,168)	32,501	30,411
Total value	<u>208,131</u>	<u>209,104</u>
(ii) Non-vested accrued benefits	<u>0</u>	<u>0</u>
(iii) Total actuarial present value of accrued benefits	208,131	209,104
(iv) Actuarial p.v. of accrued benefits at beginning of year	209,104	210,180
(v) Changes attributable to:		
Amendments	0	0
Assumption change	0	0
Operation of decrements and passage of time	12,469	13,935
Benefit payments (net basis)	<u>(13,442)</u>	<u>(15,011)</u>
(vi) Net Change	(973)	(1,076)
(vii) Actuarial p.v. of accrued benefits at end of year	208,131	209,104
(e) Plan costs for fiscal year beginning October 1, 2024 and October 1, 2023 *	<u>September 30, 2023</u>	<u>September 30, 2022</u>
(i) Normal costs		
Service Pensions	18.22 %	18.60 %
Disability pensions	0.30	0.30
Survivor pensions (pre-retirement)	0.27	0.28
Deferred service pensions	1.03	1.00
Refunds of member contributions	0.49	0.49
Total normal cost	<u>20.31</u>	<u>20.67</u>
(ii) Payment to amortize unfunded act. accr. liab.	74.04	70.90
(iii) Administrative expenses	3.23	3.06
(iv) Amount to be paid by participants	6.00	6.00
(v) Expected plan sponsor contribution		
% of payroll	91.58 %	88.63 %
dollars (minimum of 8% of payroll)	\$ 7,304	\$ 7,293

* Plan costs are displayed as a percentage of covered payroll. The covered payroll for the fiscal years beginning 10/1/2023 and 10/1/2022 is \$7,975,377 and \$8,228,862, respectively.



		<u>September 30, 2023</u>	<u>September 30, 2022</u>
(f)	Past Contributions (fiscal year ending 9/30/23 & 22)		
(i)	Required minimum:		
	Fund sponsor	\$ 6,827	\$ 6,978
	Participants	465	462
	Total	<u>7,292</u>	<u>7,440</u>
(ii)	Actual:		
	Fund sponsor	6,827	6,978
	Participants	465	462
	Total	<u>7,292</u>	<u>7,440</u>
(g)	Net Experience Gain (Loss)	(248)	(3,943)
(h)	Other Disclosures		
(i)	Present value of active member future salaries		
	from attained age	\$ 47,823	\$ 53,175
	from entry age	Not applicable to individual EANC method	
(ii)	Present value of active member future contributions		
	from attained age	\$ 2,869	\$ 3,191
	from entry age	Not applicable to individual EANC method	

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

	<u>Pension Recipients</u>				
	<u>Active Participants</u>	<u>Vested Terminated Participants</u>	<u>DROP</u>	<u>Service Retirees & Beneficiaries</u>	<u>Disability Retirees</u>
No. at Start of Year	95	16	21	391	10
Increase (Decrease) From					
DROP	(3)		3	6	
Service Retirement	(3)	(1)	(6)	3	
Disability Retirement					
Deaths				(16)	
Other Pension Terminations				(1)	
Vested Terminations	(1)	1		1	
Non-Vested Terminations					
New Entrants/Rehires					
Refund of Contributions					
Received Lump Sum					
Data Correction					
No. End of Year	88	16	18	384	10

