City of Jacksonville General Employees Retirement Plan

Actuarial Valuation and Review as of October 1, 2023

Segal

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April 22, 2024

Board of Trustees
City of Jacksonville General Employees Retirement Plan
117 West Duval Street, Suite 330
Jacksonville, FL 32202

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of October 1, 2023. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal 2025.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board of Trustees to assist in administering the City of Jacksonville General Employees Retirement Plan. The census information on which our calculations were based was prepared by the Plan and the financial information was provided by the the City's Finance Department. That assistance is gratefully acknowledged.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

Statement by Enrolled Actuary: This actuarial valuation 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 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.

The actuarial calculations were directed under the supervision of Jeffrey S. Williams. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results. The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal

Jeffrey S. Williams, FCA, ASA, MAAA, EA
Vice President and Consulting Actuary
Enrolled Actuary No. 23-07009

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the City of Jacksonville General Employees Retirement Plan as of October 1, 2023. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to provide information for required disclosures under Governmental Accounting Standards Board (GASB) Statements No. 67 and 68.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of September 30, 2023, provided by the Retirement System Administrative Office;
- The assets of the Plan as of September 30, 2023, provided by the City's Finance Department;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. and
- The funding policy adopted by the Board, subject to the requirements of Part VII, Chapter 112, Florida Statures.

Valuation highlights

1. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance.
2. The City's minimum required contribution calculated in the October 1, 2023 actuarial valuation is for the plan year beginning October 1, 2024. The "City's minimum required contribution" refers to the cumulative minimum required contribution for all contributing employers.
3. The City's minimum required contribution (the amount which will be contributed) for fiscal 2025 is $113,299,912, an increase of $16,707,283 from the amount being contributed in fiscal 2023.
4. Actual contributions made during the fiscal year ending September 30, 2023 were $83,375,000, 99.72%% of the City's minimum required contribution for fiscal 2023. In the prior fiscal year, actual contributions were $84,353,000, 100.78% of the City's minimum required contribution.
5. Actuarial Standard of Practice No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, states that an actuary preparing calculations of actuarially determined contributions should assess the material implications of the funding policy. This report includes two distinct contribution amounts, each with different implications.
   a. The **Florida Chapter 112 Determined Employer Contribution** is an amount consistent with a funding policy which seeks to stabilize the unfunded actuarial accrued liability (UAAL) as a percentage of total General Employees Retirement Plan (GERP) payroll, including Defined Contribution participants, where UAAL is measured relative to assets currently available to make benefit payments. Under this policy, assuming that all assumptions are met in aggregate, the UAAL is expected to be reduced to zero over a period of 23 years after reflecting an amortization period reset as of October 1, 2016. Over the short term, this contribution policy would be expected to keep the UAAL roughly level over the next few years, primarily making payments on interest, and begin paying down the UAAL after that point.
   b. The **City's required minimum contribution**, which is the Chapter 112 contribution adjusted to comply with state law, reduced by amortization of discounted allocated surtax revenue, is an amount consistent with a funding policy which seeks to stabilize the contribution requirement as a percentage of total GERP payroll, including General Employee Defined Contribution Plan participants, relative to an anticipated increase in contribution income set to begin January 1, 2031. Under this policy, assuming that all assumptions are met in aggregate, the UAAL is expected to be reduced to zero by December 31, 2060, after all of the surtax revenue allocated to the plan is collected and contributed. Over the short term, this contribution policy is expected to lead to an increase in the UAAL, prior to the revenue stream commencing and paying it down.

Use of this contribution policy has been authorized by the Florida State Legislature and Jacksonville City Council.

6. The actuarial loss from investment and other experience is $150,562,588, or 4.02% of actuarial accrued liability.
   - The actuarial loss from investment experience was $59,353,235, or 1.59% of actuarial accrued liability.
   - The loss due to contributions less than the Florida Chapter 112 determined employer contribution was $46,675,533 or 1.25% of actuarial accrued liability.
   - The net experience loss from sources other than investment experience was $44,533,820, or 1.18% of the actuarial accrued liability.

   The primary cause of the demographic experience loss was salary increases greater than expected.
7. The rate of return on the market value of assets was 13.30% for the October 1, 2022 to September 30, 2023 Plan Year. The return on the actuarial value of assets was 3.56% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 6.50%.
8. The actuarial value of assets is 104.6% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Plan is likely to increase unless the net loss is offset by future experience. The recognition of the market net losses of $89,726,195 will also have an impact on the future funded ratio. If the net deferred losses were recognized immediately in the actuarial value of assets, the City's minimum contribution would increase from 48.38% to about 51.14% of projected payroll.
9. There were no changes in plan provisions since the prior valuation.
10. The following actuarial assumptions were approved by the Board and changed with this valuation, following the completion of an experience study:
    a. COJ withdrawal rates were increased for participants with between four and seven years of service and 12 or more years of service.
    b. JEA withdrawal rates were updated to reflect more of a stair-step rate rather than a smooth reduction in rates.
    c. COJ and JEA retirement rates were updated across all ages and service buckets, and the 90% BACKDROP election assumption was removed (now inherent in the rate table).
    d. The COJ salary scale was modified to reflect higher merit and promotional increases.
    e. The JEA salary scale was also updated with higher rates across all service levels.

    As a result of these assumption changes, the total normal cost increased by $3,010,373 (7.10%) and the actuarial accrued liability increased by $22,701,068 (0.61%). The net impact was an increase in the City's minimum required contribution of $4,678,117 (2.00% of pay).

11. The City changed the surtax allocation percentage from the prior valuation to the current valuation. In the 2022 valuation, GERP's allocation percentage was 35.00%; in the 2023 valuation, the allocation percentage has been lowered to 34.90%. This change was directed by the City based on its updated calculation of the General Employees Retirement Plan's share of the City's unfunded liabilities. The change in the surtax allocation percentage caused the City's minimum required contribution to increase by $167,531.
12. The City is solely responsible for the assumption as to what percentage the surtax revenue will grow and Segal relies on the City for this assumption. This rate was set at 4.25% by the City for the projection period January 1, 2023 through December 31, 2060, and will be recalculated by the City every year and adopted by the City Council. Segal will ask the City each year to provide actual surtax revenue for the preceding fiscal year and an assumption as to future growth. The difference in actual and projected surtax revenue each year will be amortized over the period by which each year's gain or loss is being amortized. If surtax revenue grows more slowly or more quickly than expected, contribution requirements will increase or decrease accordingly.
13. The present value of the projected surtax revenue was determined and used in determination of the City's required contribution as follows:
    a. Actual 2023 surtax revenue was projected to increase by 4.25% each year thereafter through 2060.
    b. A share of 34.90% of the projected revenue for January 1, 2031 through December 31, 2060 was allocated to GERP.
    c. The revenue allocated to GERP was discounted at the valuation discount rate of 6.50% to October 1, 2023.
    d. The original allocated present value amount of $332,190,859 was amortized over a 30-year initial period (Section 3, Exhibit F), with subsequent changes amortized over new periods. The present value of projected surtax revenue as of October 1, 2023 allocated to GERP is $812,004,187.
    e. After the amortized value amount was adjusted for the timing of contributions and projected to October 1, 2024, this amount was used as an offset to the Florida Chapter 112 Determined Employer Contribution to determine the City's minimum required contribution for fiscal 2024.
14. The present value of projected surtax revenue does not decrease the unfunded actuarial accrued liability. The amortized value of the projected surtax revenue is used as an offset to the Chapter 112 contribution.
15. This actuarial report as of October 1, 2023 is based on financial and demographic data as of that date. Changes subsequent to that date are not reflected and will affect future actuarial costs of the plan.
16. The financial information received states all results rounded to the nearest thousand. The results in this valuation are shown to the nearest dollar. Therefore, occasionally rounded numbers are combined with unrounded numbers.

Changes from prior valuation

17. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 53.92%, compared to the prior year funded ratio of 56.93%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 51.54%, compared to 50.01% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.
18. The unfunded actuarial accrued liability is $1,735,014,055, which is an increase of $161,496,141 since the prior valuation.

Risk

19. It is important to note that this actuarial valuation is based on plan assets as of September 30, 2023. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after September 30, 2023 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
20. Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition, but have included a brief discussion of some risks that may affect the Plan in *Section 2*. A more detailed assessment would provide the Board with a better understanding of the inherent risks and could be important for the Plan because:
    a. Relatively small changes in investment performance can produce large swings in the unfunded liabilities.
    b. Retired participants account for most of the Plan's liabilities, leaving limited options for reducing costs in the event of adverse experience.
    c. The Board has not performed a detailed risk assessment.

GASB

21. This report constitutes an actuarial valuation for the purpose of determining the ADC under the Plan's funding policy. The information contained in *Section 5* provides the accounting information for Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of September 30, 2024. The accounting information utilizes different methodologies from those employed in the funding valuation, as required by the GASB.
22. The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan's fiduciary net position (equal to the market value of assets). The NPL as of September 30, 2023 is $1,824,740,250.
23. GASB accounting does not permit any recognition of the allocated surtax revenue in determining the Net Pension Liability or Pension Expense. It is Segal's understanding that the City has discussed this issue with their external auditors and does not include any recognition of allocated surtax revenue in its audited financial statements.

Summary of key valuation results

Valuation Result		Current	Prior
Contributions for fiscal year beginning October 1	**2024**	**2023**	**2022**
• Florida Chapter 112 determined employer contribution	$153,422,081	$134,889,081	$120,695,825
• Less amortized value of discounted value of projected surtax revenue	-40,122,169	-38,296,452	-37,088,349
• City's required minimum contribution*	$113,299,912	$96,592,629	$83,607,476
• Actual employer contributions	- -	- -	$83,375,000
Actuarial accrued liability for plan year beginning		**October 1, 2023**	**October 1, 2022**
• Retired participants and beneficiaries		$2,578,163,782	2,522,749,776
• Inactive vested participants		19,583,436	22,227,231
• Active participants		1,167,423,032	1,108,179,088
• Total		3,765,170,250	3,653,156,095
• Total normal cost including administrative expenses		46,755,918	42,277,986
Assets for plan year beginning October 1			
• Market value of assets (MVA)		$1,940,430,000	$1,826,945,000
• Actuarial value of assets (AVA)		2,030,156,195	2,079,638,181
• Actuarial value of assets as a percentage of market value of assets		104.62%	113.83%
Funded status for plan year beginning October 1			
• Unfunded actuarial accrued liability on market value of assets		$1,824,740,250	$1,826,211,095
• Funded percentage on MVA basis		51.54%	50.01%
• Unfunded actuarial accrued liability on actuarial value of assets		$1,735,014,055	$1,573,517,914
• Funded percentage on AVA basis		53.92%	56.93%

*Pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinance 2017-257-E and 2017-258-E.

Valuation Result	Current	Prior
Key assumptions		
• Net investment return	6.50%	6.50%
• Inflation rate	2.50%	2.50%
• Payroll growth for amortization purposes	1.50%	1.50%
Demographic data for plan year beginning October 1		
• Number of retired participants and beneficiaries	5,341	5,339
• Number of inactive vested participants	134	147
• Number of active participants	2,792	3,027
• Covered payroll	$230,709,762	$227,912,274
• Average payroll	82,632	75,293
• Projected payroll for next fiscal year	234,170,408	231,330,958

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the Retirement Administrative Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the City's Finance Department. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

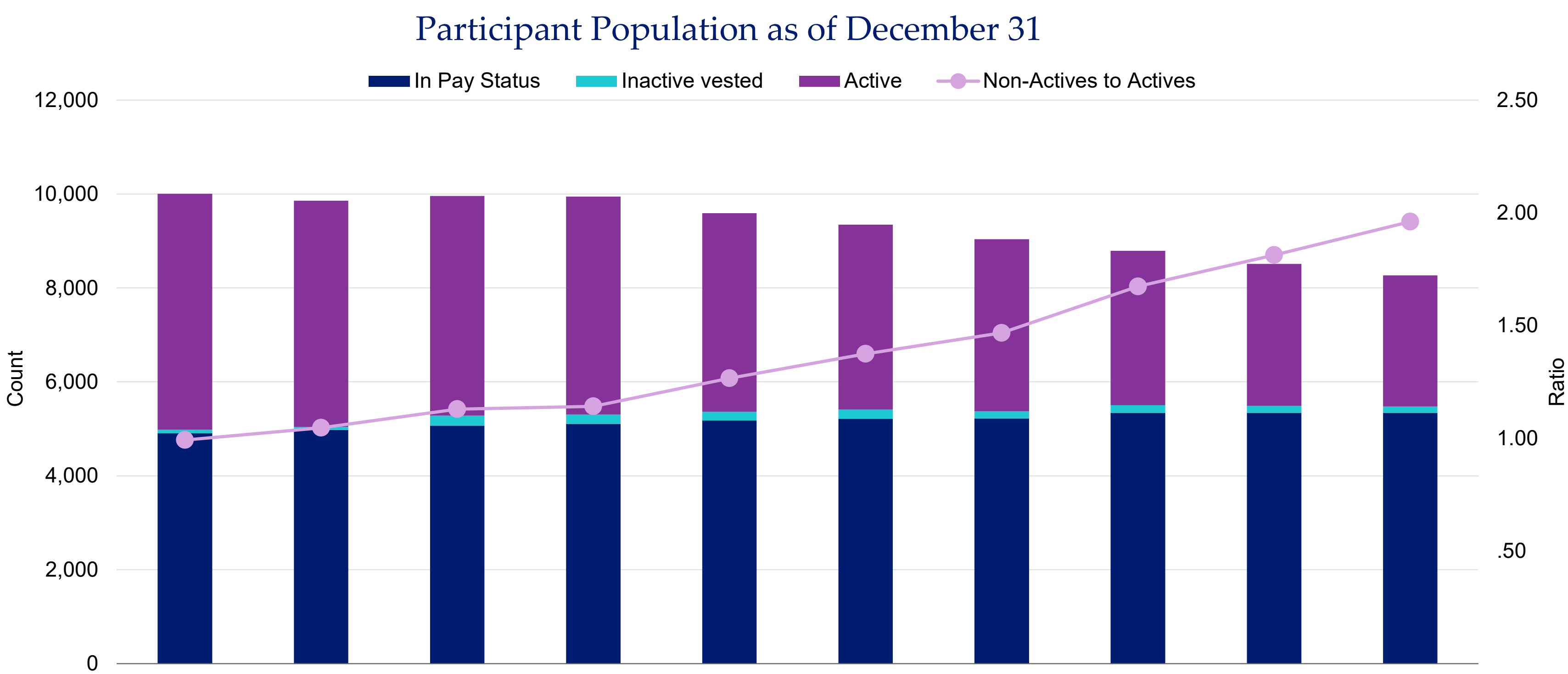
The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Board of Trustees. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Board of Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Actuarial Valuation Results

Participant information



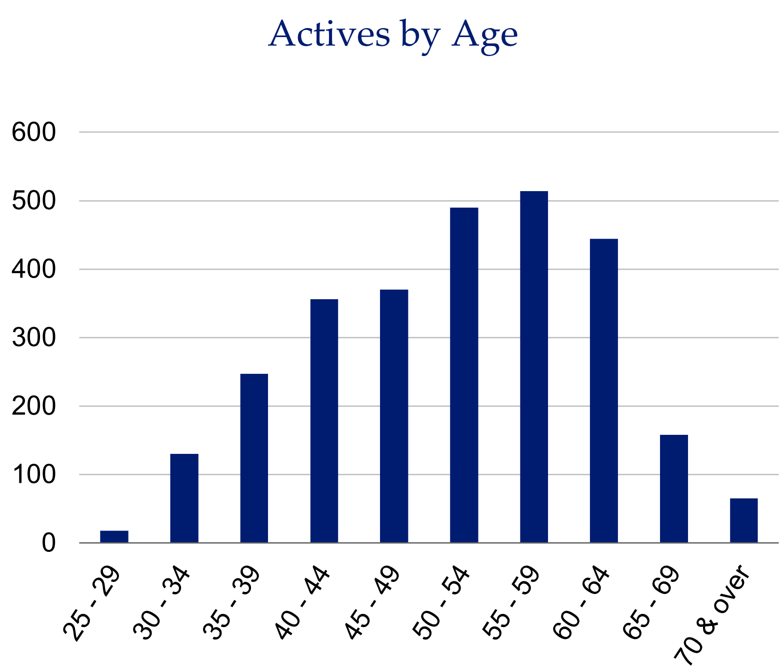
Legend	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
In Pay Status	4,907	4,976	5,065	5,105	5,176	5,215	5,218	5,342	5,339	5,341
Inactive Vested*	76	65	217	195	185	196	156	160	147	134
Active	5,026	4,817	4,678	4,644	4,234	3,937	3,663	3,289	3,027	2,792
Ratio	0.99	1.05	1.13	1.14	1.27	1.37	1.47	1.67	1.81	1.96

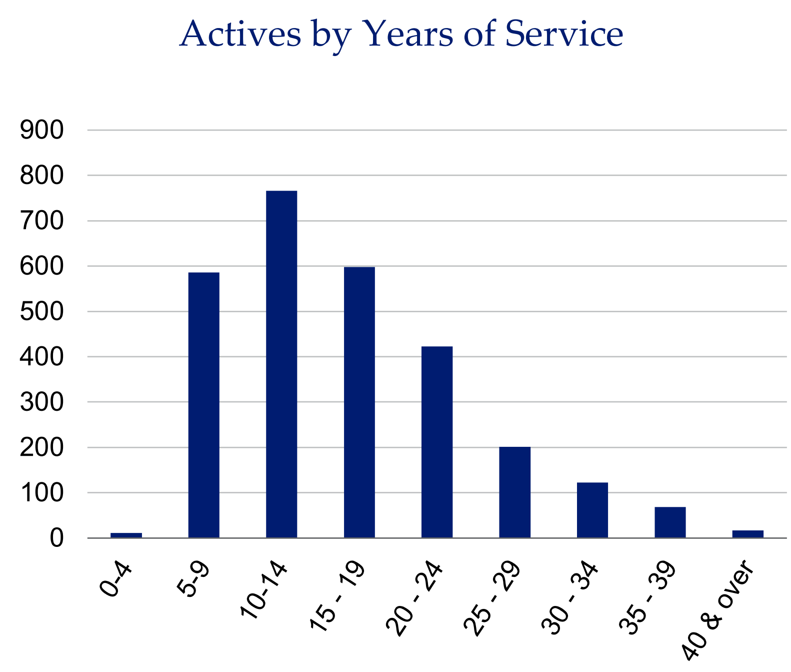
* Excluding terminated participants due a refund of employee contributions.

Active participants

As of September 30,	2023	2022	Change
Active participants	2,792	3,027	-7.8%
Average age	52.0	51.6	0.4
Average years of service	16.9	16.2	0.7
Average compensation	$82,632	$75,293	9.7%

Distribution of Active Participants as of September 30, 2023



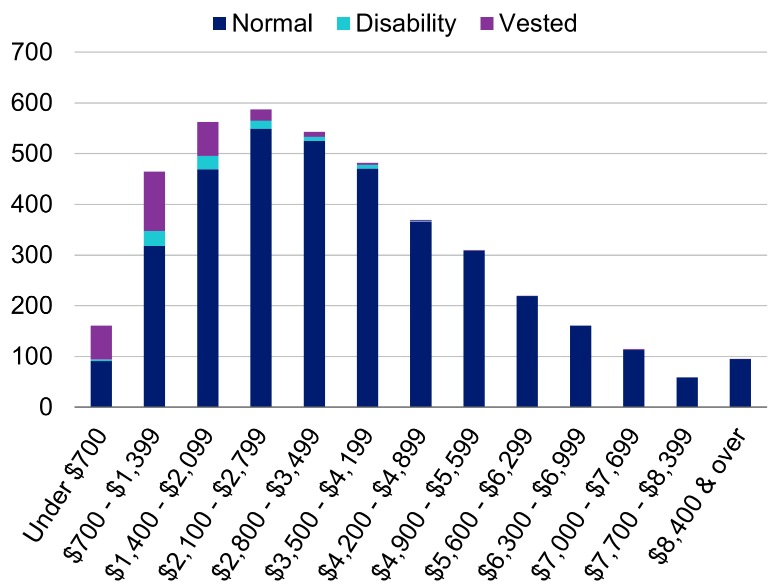


Retired participants and beneficiaries

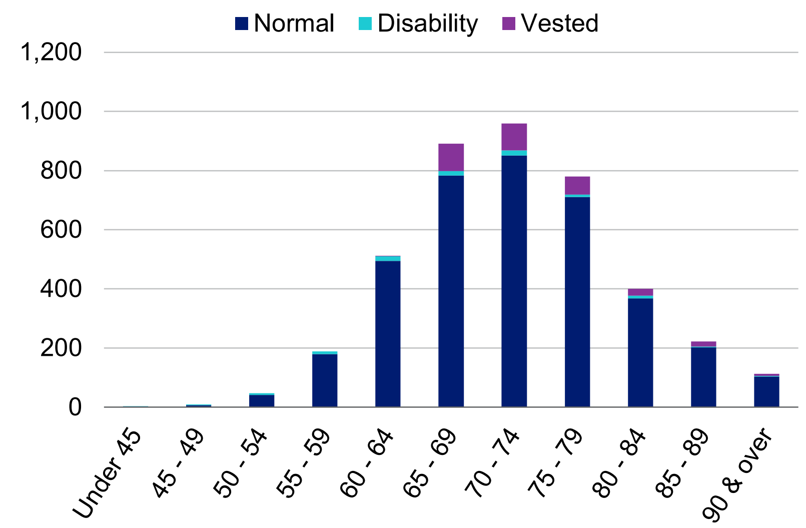
As of September 30,	2023	2022	Change
Retired participants	4,129	4,114	0.4%
Beneficiaries	1,212	1,225	-1.1%
Average age	73.0	72.8	0.2
Average regular benefit amount	$3,256	$3,159	3.1%
Average supplemental amount	124	124	0.0%
Total monthly amount	$18,036,228	$17,527,953	2.9%

Distribution of Retired Participants and Beneficiaries as of September 30, 2023

By Type and Monthly Amount



By Type and Age



Actuarial value of assets

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended September 30, 2023

Step	Original Amount[1]	Percent Deferred[2]	Unrecognized Amount[3]	Amount
1. Market value of assets, September 30, 2023				$1,940,430,000
2. Calculation of unrecognized return				
a. Year ended September 30, 2023	$120,038,807	80%	$96,031,046	
b. Year ended September 30, 2022	-499,432,276	60%	-299,659,365	
c. Year ended September 30, 2021	278,128,416	40%	111,251,366	
d. Year ended September 30, 2020	13,253,788	20%	2,650,758	
e. Year ended September 30, 2019	-126,629,625	0%	0	
f. Total unrecognized return				-$89,726,195
3. Preliminary actuarial value: (1) - (2f)				2,030,156,195
4. Adjustment to be within 20% corridor				0
5. Final actuarial value of assets as of September 30, 2023: (3) + (4)				$2,030,156,195
6. Actuarial value as a percentage of market value: (5) ÷ (1)				104.6%
7. Amount deferred for future recognition: (1) - (5)				-$89,726,195

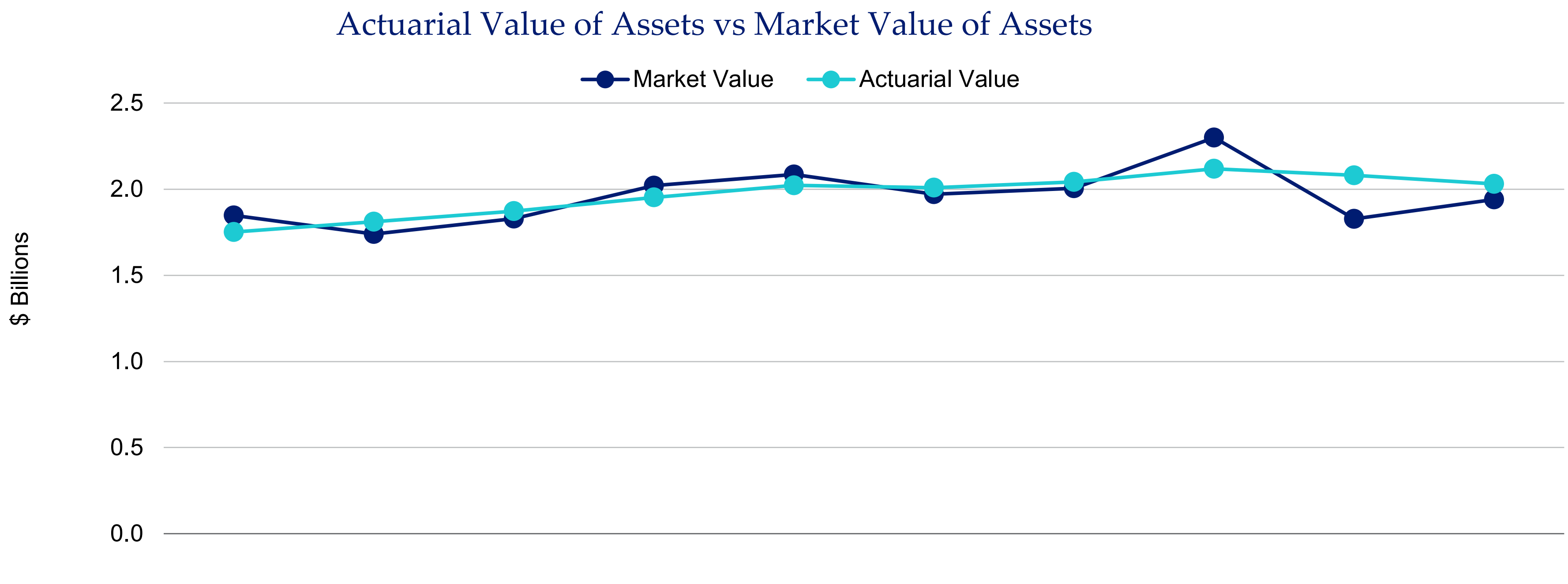
[1] Total return minus expected return on a market value basis.

[2] Percent deferred applies to the current valuation year.

[3] Recognition at 20% per year over five years. Deferred return as of September 30, 2023 recognized in each of the next four years:

a. Amount recognized on September 30, 2024	-$17,602,252
b. Amount recognized on September 30, 2025	-20,253,011
c. Amount recognized on September 30, 2026	-75,878,694
d. Amount recognized on September 30, 2027	24,007,762

Asset history for years ended September 30

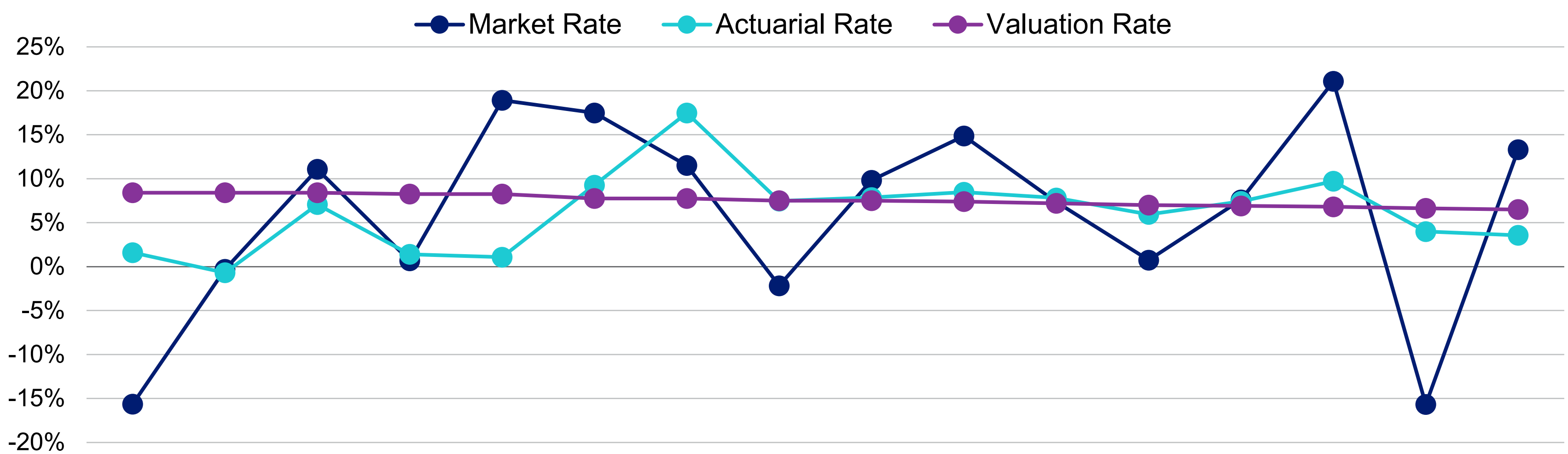


Legend	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Actuarial value*	$1.75	$1.81	$1.87	$1.95	$2.02	$2.01	$2.04	$2.12	$2.08	$2.03
Market value*	1.85	1.74	1.83	2.02	2.09	1.97	2.01	2.30	1.83	1.94
Ratio	0.95	1.04	1.02	0.97	0.97	1.02	1.02	0.92	1.14	1.05

* In $ billions

Historical investment returns

Market and Actuarial Rates of Return for Years Ended September 30



Legend	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
■ Market rate	-15.65%	-0.31%	11.07%	0.66%	18.92%	17.48%	11.51%	-2.18%	9.82%	14.86%	7.35%	0.73%	7.59%	21.08%	-15.68%	13.30%
■ Actuarial rate	1.59%	-0.70%	7.07%	1.39%	1.07%	9.27%	17.48%	7.46%	7.86%	8.46%	7.81%	5.94%	7.41%	9.71%	3.99%	3.56%
■ Assumed rate	8.40%	8.40%	8.40%	8.25%	8.25%	7.75%	7.75%	7.50%	7.50%	7.40%	7.20%	7.00%	6.90%	6.80%	6.625%	6.50%

Average Rates of Return	Actuarial Value	Market Value
Most recent five-year average return:	6.10%	4.62%
Most recent ten-year average return:	7.91%	6.35%
Most recent 15-year average return:	6.44%	7.31%

Actuarial experience

- Assumptions should consider experience and should be based on reasonable expectations for the future.
- Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the actuarial valuation.
- Assumptions are not changed if experience is believed to be a short-term development that will not continue over the long term. On the other hand, if experience is expected to continue, assumptions are changed.

Actuarial Experience for Year Ended September 30, 2023

	Assumption	Amount
1.	Net loss from investments[1]	-$59,353,235
2.	Net gain from administrative expenses	545,877
3.	Net loss from contributions	-46,675,533
4.	Net loss from other experience	-45,079,697
5.	**Net experience loss: 1 + 2 + 3 + 4**	**-$150,562,588**

[1] Details on next page

Investment experience

Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.

The assumed long-term rate of return of 6.50% considers past experience, the asset allocation policy of the Board and future expectations.

Investment Experience
Year Ended September 30, 2023

Investment	Market Value	Actuarial Value
1. Net investment income	$234,846,000	$71,879,014
2. Average value of assets	1,766,264,500	2,018,957,681
3. Rate of return: **1 ÷ 2**	13.30%	3.56%
4. Assumed rate of return	6.50%	6.50%
5. Expected investment income: **2 x 4**	114,807,193	131,232,249
6. Investment gain/(loss): **1 – 5**	$120,038,807	-$59,353,235

Contributions

Contributions for the year ended September 30, 2023 totaled $109,181,000, compared to the projected amount of $149,363,601. This resulted in a loss of $46,675,533 for the year, when adjusted for timing.

Non-investment experience

Administrative expenses

Administrative expenses for the year ended September 30, 2023 totaled $1,365,000, as compared to the assumption of $1,832,000. This resulted in an experience gain of $545,877 for the year, including an adjustment for interest.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among participants
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)

The net loss from this other experience for the year ended September 30, 2023 amounted to $45,079,697, which is 1.21% of the actuarial accrued liability.

Actuarial assumptions

- The following actuarial assumptions were approved by the Board and changed with this valuation, following the completion of an experience study:
  - COJ withdrawal rates were increased for participants with between four and seven years of service and 12 or more years of service.
  - JEA withdrawal rates were updated to reflect more of a stair-step rate rather than a smooth reduction in rates.
  - COJ and JEA retirement rates were updated across all ages and service buckets, and the 90% BACKDROP election assumption was removed (now inherent in the rate table).
  - The COJ salary scale was modified to reflect higher merit and promotional increases.
  - The JEA salary scale was also updated with higher rates across all service levels.

  As a result of these assumption changes, the total normal cost increased by $3,010,373 (7.10%) and the actuarial accrued liability increased by $22,701,068 (0.61%). The net impact was an increase in the City's minimum required contribution of $4,678,117(2.00% of pay).

Plan provisions

- There were no changes in plan provisions since the prior valuation.

Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2023

Unfunded Actuarial Accrued Liability	Change	Amount
1. Unfunded actuarial accrued liability at beginning of year		$1,573,517,914
2. Employer normal cost at beginning of year		21,374,305
3. Actuarial determined contribution at beginning of year		-132,895,647
4. Interest on 1, 2 & 3		99,753,827
5. Expected unfunded actuarial accrued liability		**$1,561,750,399**
6. Changes due to:		
a. Net experience (gain)/loss	$150,562,588	
b. Assumptions	22,701,068	
Total changes		**$173,263,656**
7. Unfunded actuarial accrued liability at end of year		$1,735,014,055

Florida's Chapter 112 Determined Employer Contribution and City's Minimum Required Contribution

The chart below shows the calculations of the Florida Chapter 112 determined employer contribution and the City's minimum required contribution pursuant to State Law Chapter 2016-146 and City of Jacksonville Ordinances 2017-257-E and 2017-258-E.

The contribution requirements as of October 1, 2023 are based on the data previously described, the actuarial assumptions and Plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

Florida Chapter 112 Determined Contribution and City's Minimum Required Contribution for Year Beginning October 1

Contribution	2024		2023	
1. Total normal cost	$45,390,918	19.38%	$40,445,986	17.48%
2. Administrative expenses	1,365,000	0.59%	1,832,000	0.79%
3. Expected employee contributions	-21,219,420	-9.06%	-20,903,681	-9.04%
4. Employer normal cost: (1) + (2) + (3)	**$25,536,498**	**10.91%**	**$21,374,305**	**9.24%**
5. Actuarial accrued liability	$3,765,170,250		$3,653,156,095	
6. Actuarial value of assets	2,030,156,195		2,079,638,181	
7. Unfunded actuarial accrued liability: (5) - (6)	**$1,735,014,055**		**$1,573,517,914**	
8. Payment on projected unfunded actuarial accrued liability	$120,573,091	51.49%	$107,085,615	46.29%
9. Florida Chapter 112 determined employer contribution: (4) + (8)[1]	$153,422,081	65.52%	134,889,081	58.31%
10. Discounted and amortized value of projected surtax revenue[1,2]	-40,122,169	-17.14%	-38,296,452	-16.55%
11. City's minimum required contribution: (9) + (10)[2]	**$113,299,912**	**48.38%**	**$96,592,629**	**41.76%**
12. Projected payroll	$234,170,408		$231,330,958	

[1]Adjusted for timing and projected to next fiscal year; contributions are assumed to be paid at the end of every month.

[2]Pursuant to State Law Chapter 2016-146 and City of Jacksonville ordinances 2017-257-E and 2017-258-E

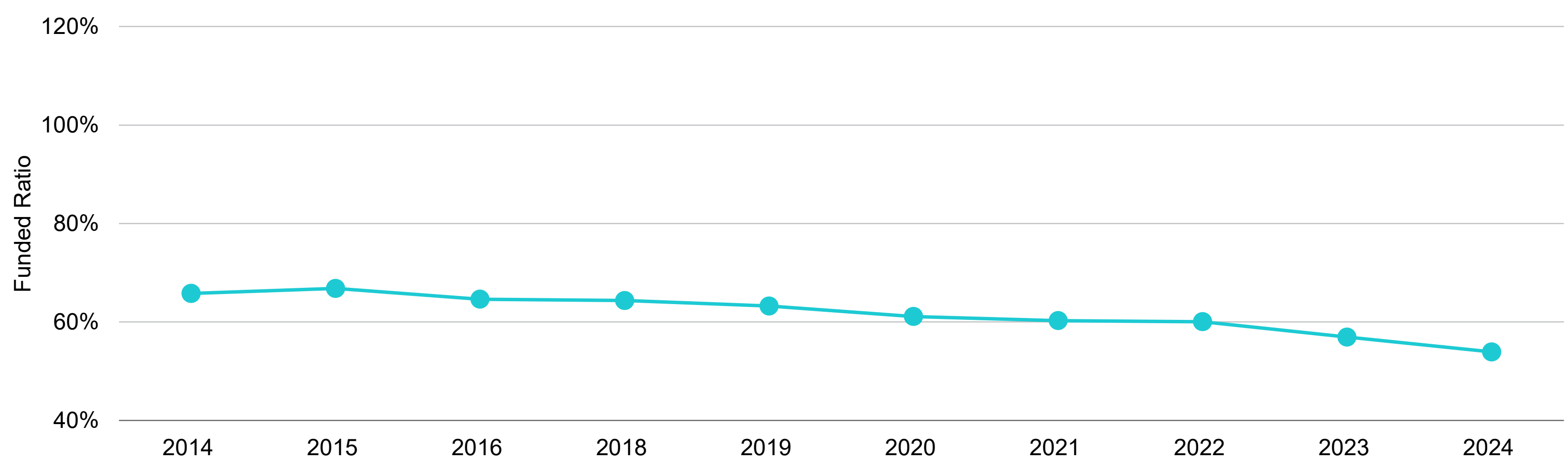
Reconciliation of City's Minimum Required Contribution

Reconciliation of City's Minimum Required Contribution from October 1, 2023 to October 1, 2024

		Amount
1.	City's minimum required contribution as of October 1, 2023	$96,592,629
2.	Effect of expected change in amortization payment due to payroll growth	1,112,229
3.	Effect of change in administrative expense assumption	-490,372
4.	Effect of surtax allocation percentage change	167,531
5.	Effect of change in other actuarial assumptions	4,678,117
6.	Effect of investment loss	4,273,720
7.	Effect of other gains and losses on accrued liability	5,377,376
8.	Net effect of other changes, including composition and number of participants	1,588,682
9.	**Total change**	**$16,707,283**
10.	**City's minimum required contribution as of October 1, 2024**	**$113,299,912**

Schedule of funding progress through September 30, 2023

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Compensation (c)	UAAL as a Percentage of Covered Compensation [(b) – (a)] / (c)
10/01/2014	$1,751,888,510	$2,662,187,817	$910,299,307	65.81%	$262,368,813	346.95%
10/01/2015	1,811,172,111	2,711,408,803	900,236,692	66.80%	254,034,479	354.38%
10/01/2016	1,872,790,100	2,897,287,172	1,024,497,072	64.64%	250,894,295	408.34%
10/01/2017	1,952,332,857	3,033,646,298	1,081,313,441	64.36%	257,850,484	419.36%
10/01/2018	2,021,545,306	3,196,680,516	1,175,135,210	63.24%	253,982,175	462.68%
10/01/2019	2,008,173,331	3,286,313,481	1,278,140,150	61.11%	249,982,877	511.29%
10/01/2020	2,042,779,798	3,389,704,002	1,346,924,204	60.26%	246,864,141	545.61%
10/01/2021	2,119,188,413	3,529,433,595	1,410,245,182	60.04%	233,266,593	604.56%
10/01/2022	2,079,638,181	3,653,156,095	1,573,517,914	56.93%	227,912,274	690.41%
10/01/2023	2,030,156,195	3,765,170,250	1,735,014,055	53.92%	230,709,762	752.03%



History of employer contributions

History of Employer Contributions: 2016– 2025

Fiscal Year Ended September 30	City's Minimum Required Contribution	Actual Employer Contribution	Percent Contributed
2016	$89,058,931	$84,898,000	95.33%
2017	94,526,754	94,700,000	100.18%
2018	70,166,221	71,024,000	101.22%
2019	69,247,524	70,338,000	101.57%
2020	71,249,679	72,194,000	101.33%
2021	76,832,977	77,269,000	100.57%
2022	83,696,811	84,353,000	100.78%
2023	83,607,476	83,375,000	99.72%
2024	96,592,629	- -	- -
2025	113,299,912	- -	- -

Low-Default-Risk Obligation Measure (LDROM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The LDROM is required to be calculated using "a discount rate…derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer (www.bondbuyer.com), is 4.09% for use effective September 30, 2023. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or Actuarially Determined Contribution. The plan's expected return on assets, currently 6.50%, is used for these calculations.

As of September 30, 2023, the LDROM for the system is $4,996,266,136. The difference between the plan's AAL of $3,765,170,250 and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires 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. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the Actuarially Determined Contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

Risk

The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.

We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition but have included a brief discussion of some risks that may affect the Plan.

- **Economic and Other Related Risks**. Potential implications for the Plan due to the following economic effects (that were not reflected as of the valuation date) include:
  - Volatile financial markets and investment returns lower than assumed
  - High inflationary environment impacting salary increases and COLAs
  - Lingering direct and indirect effects of the COVID-19 pandemic
- **Investment Risk** (the risk that returns will be different than expected)

  If the actual return on market value for the prior plan year were 1% different (either higher or lower), the unfunded actuarial liability would change by 1.02%, or about $17,662,645, disregarding the asset smoothing method.

  Since the Plan's assets are much larger than contributions, investment performance may create volatility in the actuarially determined contribution requirements. For example, for the prior plan year, if the actual return on market value were 1% different, the actuarially determined contribution would increase or decrease by $1,211,179, disregarding the effects of the 5-year phase-in of investment gains and losses.

  The market value rate of return over the last 16 years has ranged from a low of -15.68% to a high of 21.08%.
- **Longevity Risk** (the risk that mortality experience will be different than expected)

  The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.
- **Contribution Risk** (the risk that actual contributions will be different from actuarially determined contribution)

  The Plan's funding policy requires payment of the City's minimum required contribution, which is the Florida Chapter 112 determined contribution reduced for anticipated funding from allocated surtax income. This policy produces a risk that this reduction in immediate funding might be either too large or too small, depending on whether the surtax income grows as quickly as expected.

  If the City paid the Florida Chapter 112 determined contribution, the effective amortization period would be 23 years, meaning that the current contribution level, with amortization payments growing 1.5%, would be adequate to be expected to reduce the unfunded liability to zero over 23 years. Under the City's current policy of paying the City's required contribution, over the immediate term, the unfunded liability has an expected growth rate of 1.7% and increases at this level can be expected to continue until the surtax income becomes payable to the Plan's trust. If plan experience is less favorable than anticipated, the unfunded liability will grow faster than 1.7% per year. By comparison, the surtax revenue is assumed to grow 4.25% per year.

If the surtax revenue for fiscal 2023 had been 1% lower, the City's required contribution would increase by $124,668 or 0.05% of projected payroll. For comparison purposes, the allocated surtax revenue is 41.8% of the market value of assets and 21.6% of the actuarial accrued liability.

- **Demographic Risk** (the risk that participant experience will be different than assumed)

  Examples of this risk include:
  - Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
  - More or less active participant turnover than assumed.
  - Participants' use of plan provisions allowing conversion of benefits from the DB plan to the DC plan.
- There are external factors including legislative or financial reporting changes that could impact the Plan's funding and disclosure requirements. While we do not assume any changes in such external factors, it is important to understand that they could have significant consequences for the plan.
- **Actual Experience Over the Last Ten Years**

  Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

  The non-investment gain(loss) for a year has ranged from a loss of $55,702,357 to a gain of $12,506,125.

Plan Year Ended	Market Value Investment Gain/(Loss)	All Other Gains and (Losses)
2014	$63,631,545	$6,263,116
2015	-175,540,475	-2,047,490
2016	39,489,525	-55,702,357
2017	133,575,436	-16,295,664
2018	2,936,856	12,506,125
2019	-126,629,625	-49,001,354
2020	13,253,788	-9,907,379
2021	278,128,416	-19,465,245
2022	-499,432,276	-32,667,321
2023	120,038,807	-39,346,908

– The funded percentage on the actuarial value of assets has ranged from a low of 53.9% to a high of 66.8% since 2014.

Maturity Measures

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities.

Currently the Plan has a non-active to active participant ratio of 1.96.

For the prior year, benefits paid plus administrative expenses were $121,361,000 more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return.

Detailed Risk Assessment

- A more detailed assessment of the risks would provide the Board with a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing, and stochastic modeling.
- A detailed risk assessment could be important for the Plan because:
  - Relatively small changes in investment performance can produce large swings in the unfunded liabilities
  - The Plan’s asset allocation has potential for a significant amount of investment return volatility.
  - retired participants account for most of the Plan’s liabilities, leaving limited options for reducing plan costs in the event of adverse experience.
  - The Board has not had a detailed risk assessment in several years.

GFOA funded liability by type

The Actuarial Accrued Liability represents the present value of benefits earned, calculated using the Plan's actuarial cost method. The Actuarial Value of Assets reflects the financial resources available to liquidate the liability. The portion of the liability covered by assets reflects the extent to which accumulated plan assets are sufficient to pay future benefits, and is shown for liabilities associated with employee contributions, pensioner liabilities, and other liabilities. The Government Finance Officers Association (GFOA) recommends that the funding policy aim to achieve a funded ratio of 100 percent.

GFOA Funded Liability by Type as of September 30

Type	2023	2022
Actuarial accrued liability (AAL)		
Active member contributions	$176,719,528	$205,642,305
Retirees and beneficiaries	2,578,163,782	2,522,749,776
Active and inactive members (employer-financed)	1,010,286,940	924,764,014
Total	**$3,765,170,250**	**$3,653,156,095**
Actuarial value of assets	2,030,156,195	2,079,638,181
Cumulative portion of AAL covered		
Active member contributions	100.00%	100.00%
Retirees and beneficiaries	71.89%	74.28%
Active and inactive members (employer-financed)	0.00%	0.00%

Actuarial balance sheet

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current participants is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet

Description	Year Ended September 30, 2023	Year Ended September 30, 2022
Liabilities		
Present value of benefits for retired participants and beneficiaries	$2,578,163,782	$2,522,749,776
Present value of benefits for inactive vested participants	19,583,436	22,227,231
Present value of benefits for active participants	1,574,997,668	1,457,695,013
Total liabilities	**$4,172,744,886**	**$4,002,672,020**
Assets		
Total valuation value of assets	$2,030,156,195	$2,079,638,181
Present value of future contributions by members	184,847,707	177,039,965
Present value of future employer contributions for:		
• Entry age cost	222,726,929	172,475,960
• Unfunded actuarial accrued liability	1,735,014,055	1,573,517,914
Total of current and future assets	**$4,172,744,886**	**$4,002,672,020**

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Category	Year Ended September 30, 2023	Year Ended September 30, 2022	Change From Prior Year
Active participants in valuation:			
• Number	2,792	3,027	-7.8%
• Average age	52.0	51.6	0.4
• Average years of service	16.9	16.2	0.7
• Covered payroll	$230,709,762	$227,912,274	1.2%
• Average compensation	$82,632	$75,293	9.7%
• Account balances	176,719,528	205,642,305	-14.1%
• Total active vested participants	2,781	3,009	-7.6%
Inactive participants	134	147	-8.8%
Retired participants:			
• Number in pay status	4,039	4,028	0.3%
• Average age	72.1	71.7	0.4
• Average monthly benefit	$3,693	$3,602	2.5%
Disabled participants:			
• Number in pay status	90	86	4.7%
• Average age	67.8	67.8	0.0
• Average monthly benefit	$1,872	$1,835	2.0%
Beneficiaries:			
• Number in pay status	1,212	1,225	-1.1%
• Average age	76.6	76.7	-0.1
• Average monthly benefit	$2,435	$2,337	4.2%

Exhibit B: Participants in active service as of September 30, 2023 by age, years of service, and average compensation[1]

Years of Service

Age	Total	0-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
25 - 29	18	0	18	0	0	0	0	0	0	0
	$71,826	0	$71,826	0	0	0	0	0	0	0
30 - 34	130	0	90	39	1	0	0	0	0	0
	76,451	0	72,594	$84,615	$105,141	0	0	0	0	0
35 - 39	247	3	101	95	45	3	0	0	0	0
	83,760	91,826	76,495	89,930	85,964	$91,875	0	0	0	0
40 - 44	356	3	85	117	117	34	0	0	0	0
	85,064	68,180	76,459	82,387	93,683	87,618	0	0	0	0
45 - 49	370	1	66	110	96	73	24	0	0	0
	85,888	139,261	76,342	82,151	92,410	86,681	$98,546	0	0	0
50 - 54	490	1	81	125	109	93	54	25	2	0
	85,036	140,980	73,654	82,948	89,637	91,172	85,752	$81,899	$132,316	0
55 - 59	514	0	72	124	96	91	66	43	21	1
	84,403	0	74,174	76,707	85,287	89,745	90,161	100,334	87,818	$67,266
60 - 64	444	2	53	101	83	88	37	40	32	8
	77,357	135,174	73,113	68,099	82,792	77,772	74,246	79,755	90,216	97,917
65 - 69	158	1	17	42	39	25	15	7	7	5
	80,322	98,818	92,823	67,959	79,192	84,073	91,084	73,486	87,104	95,815
70 & over	65	0	3	13	12	16	5	7	6	3
	71,383	0	69,896	48,374	67,360	83,450	77,141	72,416	92,316	70,433
Total	**2,792**	**11**	**586**	**766**	**598**	**423**	**201**	**122**	**68**	**17**
	$82,632	**$102,675**	**$75,186**	**$79,322**	**$87,847**	**$86,310**	**$86,793**	**$86,667**	**$90,579**	**$90,646**

[1] Compensation is annualized for those hired during the prior plan year

Exhibit C: Reconciliation of participant data

	Active Participants	Inactive Vested Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of October 1, 2022	**3,027**	**147**	**86**	**4,028**	**1,225**	**8,513**
New participants	0	N/A	N/A	N/A	N/A	0
Terminations — with vested rights	0	0	0	0	0	0
Terminations — without vested rights	0	N/A	N/A	N/A	N/A	0
Retirements	-145	-10	N/A	155	N/A	0
New disabilities	-3	0	3	N/A	N/A	0
Return to work	2	-2	0	0	N/A	0
Deceased	-12	0	-2	-153	-84	-251
New beneficiaries	0	0	0	0	71	71
Lump sum cash-outs	-57	0	0	0	0	-57
Rehire	0	0	N/A	0	N/A	0
Certain period expired	N/A	N/A	0	0	0	0
Data adjustments	0	0	3	9	0	12
Active participants no longer accruing benefits	0	0	N/A	N/A	N/A	0
Net transfers (to)/from DC Plan or Corrections	-20	-1	0	0	0	-21
Number as of October 1, 2023	**2,792**	**134**	**90**	**4,039**	**1,212**	**8,267**

Exhibit D: Summary statement of income and expenses on a market value basis

Year Ended September 30, 2023 versus Year Ended September 30, 2022

Item	Income and Expenses	Assets as of YE 2023	Income and Expenses	Assets as of YE 2022
Net assets at market value at the beginning of the year		**$1,826,945,000**		**$2,299,661,000**
Contribution and other income:				
Employer contributions	$83,375,000		$84,353,000	
Employee contributions	25,806,000		27,713,000	
Total contribution income		$109,181,000		$112,066,000
Investment income:				
Interest, dividends and other income	$15,904,000		$34,827,000	
Realized appreciation	147,765,000		81,783,000	
Unrealized appreciation	86,322,000		-435,216,000	
Less investment fees	-15,145,000		-14,502,000	
Net investment income		$234,846,000		-$351,108,000
Total income available for benefits		$344,027,000		-$239,042,000
Less benefit payments and administrative expenses:				
Administrative expenses	-$1,365,000		-$1,832,000	
Benefit payments	-212,880,000		-206,207,000	
Refunds	-16,297,000		-25,635,000	
Net benefit payments and administrative expenses		-$230,542,000		-$233,674,000
Change in market value of assets		**$113,485,000**		**-$472,716,000**
Net assets at market value at the end of the year		**$1,940,430,000**		**$1,826,945,000**

Exhibit E: Summary statement of plan assets

Year Ended September 30, 2023 versus Year Ended September 30, 2022

Item	Investments	Assets as of YE 2023	Investments	Assets as of YE 2022
Cash and accounts receivable				
Cash equivalents		$39,781,000		$9,570,000
Total accounts receivable		2,544,000		3,945,000
Investments:				
Equities	$1,212,882,000		$1,105,421,000	
Fixed income	411,767,000		398,277,000	
Real estate	436,135,000		476,160,000	
Alternatives	119,572,000		82,197,000	
Pooled investments	-282,176,000		-248,666,000	
Total investments at market value		1,898,180,000		1,813,389,000
Total assets		**1,940,505,000**		**1,826,904,000**
Total accounts payable		-75,000		41,000
Net assets at market value		**$1,940,430,000**		**$1,826,945,000**
Net assets at actuarial value		$2,030,156,195		$2,079,638,181

Exhibit F: Development of the fund through September 30, 2023

Year Ended September 30	Employer Contributions	Employee Contributions	Other Income	Net Investment Return[1]	Admin. Expenses	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2014	$71,000,000	$20,961,000	$0	$194,864,000	$828,000	$171,127,000	$1,848,189,000	$1,751,888,510	94.8%
2015	81,751,000	20,893,000	0	-39,506,000	762,000	170,674,000	1,739,891,000	1,811,172,111	104.1%
2016	84,898,000	21,840,000	0	167,067,000	762,000	183,692,000	1,829,242,000	1,872,790,100	102.4%
2017	94,700,000	23,037,000	0	266,138,000	787,000	192,662,000	2,019,668,000	1,952,332,857	96.7%
2018	71,024,000	29,919,000	11,397,000	145,470,000	1,193,000	191,229,000	2,085,056,000	2,021,545,306	97.0%
2019	70,338,000	28,334,000	0	14,787,000	959,000	227,350,000	1,970,206,000	2,008,173,331	101.9%
2020	72,194,000	26,014,000	0	145,398,000	1,084,000	207,269,000	2,005,459,000	2,042,779,798	101.9%
2021	77,269,000	29,116,000	0	410,544,000	1,194,000	221,533,000	2,299,661,000	2,119,188,413	92.2%
2022	84,353,000	27,713,000	0	-351,108,000	1,832,000	231,842,000	1,826,945,000	2,079,638,181	113.8%
2023	83,375,000	25,806,000	0	234,846,000	1,365,000	229,177,000	1,940,430,000	2,030,156,195	104.6%

[1] On a market basis, net of investment fees

Exhibit G: Table of amortization bases

Florida Chapter 112 Recommended Contribution Amortization Bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment[1]	Years Remaining	Outstanding Balance
Fresh start	10/01/2016	30	$1,024,497,072	$70,434,537	23	$1,003,842,503
Experience gain	10/01/2017	30	-5,594,096	-378,029	24	-5,512,803
Plan change	10/01/2017	30	-3,528,667	-238,455	24	-3,477,388
Change in assumptions	10/01/2017	30	64,164,450	4,336,003	24	63,232,016
Experience gain	10/01/2018	29	-922,806	-62,281	24	-908,246
Change in assumptions	10/01/2018	29	88,449,536	5,969,537	24	87,053,874
Plan change	10/01/2018	29	5,920,390	399,572	24	5,826,972
Experience loss	10/01/2019	28	99,415,197	6,710,925	24	97,865,552
Change in assumptions	10/01/2019	28	4,913,569	331,686	24	4,836,978
Experience loss	10/01/2020	27	35,775,946	2,418,693	24	35,271,856
Change in assumptions	10/01/2020	27	36,145,490	2,443,677	24	35,636,192
Experience gain	10/01/2021	26	-982,671	-66,632	24	-971,694
Change in Assumptions	10/01/2021	26	65,604,895	4,448,465	24	64,872,050
Plan Change	10/01/2021	26	3,982,042	270,010	24	3,937,561
Experience loss	10/01/2022	25	122,573,882	8,350,744	24	121,779,073
Change in Assumptions	10/01/2022	25	48,782,223	3,323,448	24	48,465,903
Experience loss	10/01/2023	24	150,562,588	10,324,513	24	150,562,588
Change in Assumptions	10/01/2023	24	22,701,068	1,556,678	24	22,701,068
Total				**$120,573,091**		**$1,735,014,055**

[1] Level percentage of payroll

City's Minimum Recommended Contribution Surtax Amortization Bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment[1]	Years Remaining	Outstanding Balance
Discounted surtax revenue applied	10/01/2016	30	-$322,190,859	-$22,989,291	23	-$327,646,469
Surtax offset gain	10/01/2017	30	-7,927,401	-538,427	24	-7,851,889
Allocation change	10/01/2017	30	-10,588,075	-719,139	24	-10,487,219
Discount rate change	10/01/2017	30	-18,720,570	-1,271,496	24	-18,542,247
Surtax offset gain	10/01/2018	29	-8,089,137	-548,720	24	-8,001,993
Allocation change	10/01/2018	29	-20,241,389	-1,373,049	24	-20,023,205
Discount rate change	10/01/2018	29	-21,761,957	-1,476,195	24	-21,527,382
Surtax offset gain	10/01/2019	28	-2,042,344	-138,567	24	-2,020,724
Allocation change	10/01/2019	28	-17,780,689	-1,206,365	24	-17,592,452
Discount rate change	10/01/2019	28	-12,100,053	-820,952	24	-11,971,955
Surtax offset loss	10/01/2020	27	35,288,381	2,397,851	24	34,967,904
Allocation change	10/01/2020	27	-17,315,069	-1,176,561	24	-17,157,820
Discount rate change	10/01/2020	27	-12,334,670	-838,143	24	-12,222,651
Surtax offset gain	10/01/2021	26	-58,945,999	-4,017,251	24	-58,583,650
Allocation change	10/01/2021	26	3,362,614	229,167	24	3,341,943
Discount rate change	10/01/2021	26	-24,944,399	-1,699,995	24	-24,791,063
Surtax offset gain	10/01/2022	25	-35,356,259	-2,408,760	24	-35,126,997
Allocation change	10/01/2022	25	10,831,989	737,964	24	10,761,751
Discount rate change	10/01/2022	25	-19,473,682	-1,326,708	24	-19,347,409
Surtax method change	10/01/2022	25	28,602,830	1,948,661	24	28,417,360
Surtax offset gain	10/01/2023	24	-16,528,589	-1,133,413	24	-16,528,589
Allocation change	10/01/2023	24	2,326,660	159,546	24	2,326,660
Total				**-$38,209,843**		**-$549,608,097**

[1] Level percentage of payroll; per Part VII, Chapter 112.64 (5)(b) of Florida Statues, outstanding balances were amortized using a 1.50% payroll growth rate for October 1, 2022 valuation.

Exhibit H: Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the Plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $265,000 for 2023 and $275,000 for 2024. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Exhibit I: Supplementary state of Florida information
Summary of salary changes

Year Ended September 30	Total Salary	Percent Change in Total Salary	Percent Change in Salary of Employees Remaining Active	Expected Percent Change in Salary of Employees Remaining Active
2010[1]	$275,173,962	-0.39%	0.61%	5.36%
2010	322,530,502	17.21%	N/A	N/A
2011	314,054,361	-2.63%	0.94%	5.62%
2012	283,020,575	-9.88%	2.31%	5.83%
2013	265,404,735	-6.22%	1.60%	2.84%
2014	262,368,813	-1.14%	0.04%	2.84%
2015	254,034,479	-3.18%	3.85%	2.48%
2016	250,894,295	-1.24%	2.76%	4.27%
2017	257,850,484	2.77%	4.64%	5.30%
2018	253,982,175	-1.50%	7.33%	5.13%
2019	249,982,877	-1.57%	5.78%	5.03%
2020	246,864,141	-1.25%	5.60%	4.01%
2021	233,266,593	-5.51%	3.78%	3.88%
2022	227,912,274	-2.30%	5.81%	3.77%
2023	230,709,762	1.23%	6.04%	3.65%

Note: The Plan was closed to new entrants as of October 1, 2017.

The average total payroll growth for the most recent ten years was -1.4% per year. Additional analysis of pay of DC Plan participants was used support a payroll increases assumption of 1.50%.

[1]Prior to the inclusion of new participants with greater than one year of employment.

Exhibit J: Supplementary State of Florida Information
Recent History of Recommended and Actual Contributions

Fiscal Year Ended September 30	Valuation Date October 1	Contribution Rate as Percent of Valuation Payroll	Valuation Payroll	Florida Chapter 112 Recommended Contribution	City's Minimum Required Contribution	Actual Contribution
2012	2010	17.22%	$333,819,070	$57,497,706	- -	$49,899,000
2013	2011	20.51%	325,046,264	66,659,915	- -	55,386,000
2014	2012	27.91%	291,511,192	81,351,295	- -	71,000,000
2015	2013	31.60%	272,358,339	86,069,361	- -	81,751,000
2016	2014	33.20%	268,245,874	89,058,931	- -	84,898,000
2017	2015	36.79%	256,930,472	94,526,764	- -	94,700,000
2018	2016	36.81%	254,657,709	93,743,647	$70,166,211	71,024,000
2019	2017	36.41%	261,718,241	95,290,428	69,247,529	70,338,000
2020	2018	39.03%	257,791,908	100,620,425	71,249,679	72,194,000
2021	2019	42.79%	253,732,620	108,568,188	76,832,977	77,269,000
2022	2020	45.98%	250,567,103	115,204,974	83,696,811	84,353,000
2023	2021	50.98%	236,765,592	120,695,825	83,607,476	83,375,000
2024	2022	58.31%	231,330,958	134,889,081	96,592,629	- -
2025	2023	65.52%	234,170,408	153,422,081	113,299,912	- -

The Plan was closed to new entrants as of October 1, 2017; as a result, valuation payroll is expected to continue declining.

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Exhibit K: Supplementary state of Florida information

Item	Year Ended September 30, 2023 New Assumptions	Year Ended September 30, 2023 Old Assumptions	Year Ended September 30, 2022
Participant data			
Active members	2,792	2,792	3,027
Total annual payroll	$230,709,762	$230,709,762	$227,912,274
Retired members and beneficiaries	5,341	5,341	5,339
Total annualized benefit	$216,434,739	$216,434,739	$210,335,439
Terminated vested members	134	134	147
Total annualized benefit	$2,308,236	$2,308,236	$2,650,920
Actuarial value of assets	$2,030,156,195	$2,030,156,195	$2,079,638,181
Present value of all future expected benefit payments:			
Active members:			
Retirement benefits	$1,333,653,904	$1,264,628,623	$1,188,318,226
Vesting benefits	18,387,256	15,916,665	19,610,632
Disability benefits	18,783,560	18,309,045	18,346,691
Death benefits	27,453,420	26,024,556	25,777,158
Return of contributions	176,719,528	176,719,528	205,642,305
Total	$1,574,997,668	$1,501,598,417	$1,457,695,012
Terminated vested members	19,583,436	19,583,436	22,227,231
Retired members and beneficiaries	2,578,163,782	2,578,163,782	2,522,749,777
Total	**$4,172,744,886**	**$4,099,345,635**	**$4,002,672,020**

Exhibit K: Supplementary state of Florida information Comparative summary of principal valuation results

Item	Year Ended September 30, 2023 New Assumptions	Year Ended September 30, 2023 Old Assumptions	Year Ended September 30, 2022
Unfunded actuarial accrued liability	$1,735,014,055	$1,712,312,987	$1,573,517,914
Actuarial present value of accrued benefits			
Vested accrued benefits			
Active members	$814,362,482	$802,883,675	$791,452,051
Inactive members	19,583,436	19,583,436	22,227,231
Retirees and beneficiaries	2,578,163,782	2,578,163,782	2,522,749,776
Nonvested active members	22,161,521	34,192,907	31,379,364
Total	$3,434,271,221	$3,434,823,800	$3,367,808,422
Pension cost			
Normal cost	$46,755,918	$44,212,545	$42,277,986
Expected employee contributions	-21,219,420	-21,107,515	-20,903,681
Level % of payroll payment to amortize unfunded actuarial accrued liability	120,573,091	119,016,413	107,085,615
Discounted and amortized value of allocated surtax revenue	-38,209,843	-38,369,389	-36,471,145
Timing adjustment	3,725,783	3,582,563	3,176,376
Total minimum annual cost payable monthly at valuation date	$111,625,529	$107,334,617	$95,165,151
Total employer cost projected to budget year	113,299,912	108,944,636	96,592,629
Projected payroll	234,170,408	234,170,408	231,330,958
As % of projected payroll	48.38%	46.52%	41.76%
Present value of active members' future salaries at attained age	$1,848,477,074	$1,749,240,647	$1,770,399,649
Present value of expected future employee contributions	184,847,707	174,924,065	177,039,965

Exhibit L: Supplementary state of Florida Information Actuarial Present Value of Accumulated Plan Benefits

Factors	Change in Actuarial Present Value of Accumulated Plan Benefits
Actuarial present value of accumulated benefits as of October 1, 2022	$3,367,808,422
Benefits accumulated, net experience gain or loss, changes in data	84,733,083
Benefits paid	-229,177,000
Interest	211,459,295
Changes in assumptions	-552,579
Plan changes	0
Net increase	66,462,799
As % of payroll	28.81%
Actuarial present value of accumulated benefits as of October 1, 2023	$3,434,271,221

Exhibit M: Actuarial Projections through Fiscal 2062

City of Jacksonville General Employees Retirement Plan
Actuarial Projections through Fiscal Year Ending September 30, 2062

Plan Year Beginning	Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability	Funded Ratio	Contributions for Fiscal Year Ending	Surtax Contribution	% of Total Contribution	Required City Contribution	% of Total Contribution	Total Contribution
					2024	$0	0.0%	$96,596,629	100.0%	$96,596,629
2023	$3,765,170,250	$2,030,156,195	$1,735,014,055	53.92%	2025	0	0.0%	113,299,912	100.0%	113,299,912
2024	3,815,507,278	2,016,128,568	1,799,378,710	52.84%	2026	0	0.0%	115,597,223	100.0%	115,597,223
2025	3,862,122,865	2,010,692,817	1,851,430,048	52.06%	2027	0	0.0%	118,039,407	100.0%	118,039,407
2026	3,903,248,410	1,945,263,681	1,957,984,729	49.84%	2028	0	0.0%	124,752,593	100.0%	124,752,593
2027	3,939,681,528	1,976,414,728	1,963,266,800	50.17%	2029	0	0.0%	123,409,840	100.0%	123,409,840
2028	3,970,294,393	1,983,606,094	1,986,688,299	49.96%	2030	0	0.0%	123,997,444	100.0%	123,997,444
2029	3,996,066,247	1,983,994,664	2,012,071,583	49.65%	2031	43,847,199	26.0%	124,641,273	74.0%	168,488,472
2030	4,015,464,663	2,023,150,664	1,992,313,999	50.38%	2032	60,947,606	32.8%	125,099,657	67.2%	186,047,263
2031	4,027,858,732	2,076,036,198	1,951,822,534	51.54%	2033	63,537,879	33.6%	125,679,905	66.4%	189,217,784
2032	4,032,982,966	2,128,457,489	1,904,525,477	52.78%	2034	66,238,239	34.4%	126,247,413	65.6%	192,485,652
2033	4,031,139,077	2,181,435,831	1,849,703,246	54.11%	2035	69,053,364	35.3%	126,726,212	64.7%	195,779,576
2034	4,020,029,233	2,233,385,080	1,786,644,153	55.56%	2036	71,988,132	36.1%	127,291,278	63.9%	199,279,410
2035	4,000,899,799	2,286,054,305	1,714,845,494	57.14%	2037	75,047,628	37.0%	127,856,314	63.0%	202,903,942
2036	3,974,041,377	2,340,545,639	1,633,495,738	58.90%	2038	78,237,152	37.9%	128,446,291	62.1%	206,683,443
2037	3,938,335,440	2,396,495,593	1,541,839,847	60.85%	2039	81,562,231	38.7%	129,057,511	61.3%	210,619,742
2038	3,894,890,741	2,455,852,766	1,439,037,975	63.05%	2040	85,028,626	39.6%	129,728,136	60.4%	214,756,762
2039	3,843,141,475	2,518,908,564	1,324,232,911	65.54%	2041	88,642,343	40.4%	130,536,392	59.6%	219,178,735
2040	3,783,980,217	2,587,433,041	1,196,547,176	68.38%	2042	92,409,642	41.3%	131,367,551	58.7%	223,777,193
2041	3,716,387,156	2,661,548,015	1,054,839,141	71.62%	2043	96,337,052	42.1%	132,295,765	57.9%	228,632,817
2042	3,642,094,908	2,744,013,412	898,081,496	75.34%	2044	100,431,377	43.0%	133,302,949	57.0%	233,734,326
2043	3,560,351,711	2,835,274,398	725,077,313	79.63%	2045	104,699,710	43.8%	134,385,802	56.2%	239,085,512
2044	3,471,917,175	2,937,357,822	534,559,353	84.60%	2046	109,149,448	44.6%	135,557,235	55.4%	244,706,683
2045	3,377,359,081	3,052,172,297	325,186,784	90.37%	2047	113,788,300	45.4%	136,834,083	54.6%	250,622,383
2046	3,277,829,077	3,182,301,648	95,527,429	97.09%	2048	0	0.0%	68,035,118	100.0%	68,035,118
2047	3,174,950,958	3,208,458,330	(33,507,372)	101.06%	2049	0	0.0%	5,312,651	100.0%	5,312,651
2048	3,067,449,671	3,167,911,289	(100,461,618)	103.28%	2050	0	0.0%	4,875,717	100.0%	4,875,717
2049	2,958,139,188	3,065,602,724	(107,463,536)	103.63%	2051	0	0.0%	4,503,583	100.0%	4,503,583
2050	2,848,175,089	2,963,033,685	(114,858,596)	104.03%	2052	0	0.0%	4,117,082	100.0%	4,117,082
2051	2,734,268,607	2,857,022,864	(122,754,257)	104.49%	2053	0	0.0%	3,802,370	100.0%	3,802,370
2052	2,620,178,537	2,751,272,043	(131,093,506)	105.00%	2054	0	0.0%	3,615,056	100.0%	3,615,056
2053	2,508,540,215	2,648,386,881	(139,846,666)	105.57%	2055	0	0.0%	3,452,584	100.0%	3,452,584
2054	2,397,301,887	2,546,448,238	(149,146,351)	106.22%	2056	0	0.0%	3,351,985	100.0%	3,351,985
2055	2,288,133,892	2,447,123,237	(158,989,345)	106.95%	2057	0	0.0%	3,340,198	100.0%	3,340,198
2056	2,182,746,005	2,352,128,406	(169,382,401)	107.76%	2058	0	0.0%	3,321,708	100.0%	3,321,708
2057	2,078,194,850	2,258,654,851	(180,460,001)	108.68%	2059	0	0.0%	3,319,390	100.0%	3,319,390
2058	1,975,419,789	2,167,662,714	(192,242,925)	109.73%	2060	0	0.0%	3,401,554	100.0%	3,401,554
2059	1,877,148,893	2,081,854,677	(204,705,784)	110.91%	2061	0	0.0%	3,486,593	100.0%	3,486,593
2060	1,781,110,426	1,999,087,482	(217,977,056)	112.24%	2062	0	0.0%	3,573,757	100.0%	3,573,757
2061	1,687,366,208	1,919,476,308	(232,110,100)	113.76%	2063	0	0.0%	3,663,102	100.0%	3,663,102
Total:						$1,400,945,928	30.8%	$3,145,919,263	69.2%	$4,546,865,191
Total Present Value at 6.50%:						$484,665,218	25.1%	$1,445,967,403	74.9%	$1,930,632,621

Assumptions

Investment Return Assumption	6.50% per year
Actuarial Value of Assets	5-year smoothed market value
Payroll Growth Assumption	1.50% per year
Pension Liability Surtax Proceeds	34.90%, projected to increase 4.25% annually
Administrative Expenses	Projected to increase 2.5% annually

Projections are not a guarantee of future results. They are intended to serve as estimates of future financial outcomes that are based on assumptions about future experience and the information available at the time the modeling is undertaken and completed. Projected results will change if demographic or economic assumptions, or plan provisions, change in the future, or if the contributing employers make contributions other than expected.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Experience Study Report for the five-year period ended September 30, 2022.

Net investment return

6.50%

The net investment return assumption was chosen by the Retirement System's Board of Trustees with input from the actuary. The assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Plan's target asset allocation.

Salary Increases

COJ/JHA/NFTPO		JEA	
Service	**Rate (%)**	**Service**	**Rate (%)**
0	10.00	0	10.00
1-3	7.00	1	9.00
4-10	5.50	2-4	8.00
11-24	4.25	5-9	5.75
25+	3.50	10-18	5.00
		19-25	4.50
		26+	3.50

Inflation Rate

2.50%

Payroll growth

1.50% used for amortization of unfunded liability amounts, based on the requirement in the Florida Statutes that the assumption for this purpose may not exceed the average annual growth for the preceding ten years. Negotiated pay level increases and pay of DC Plan participants were taken into consideration in setting a payroll growth that is expected to be achieved and maintained on a ten-year average basis. The Fund's long-term payroll growth assumption is equal to the inflation assumption of 2.50%.

Cost-of-living adjustments

On the April 1st nearest the fifth anniversary of the initial benefit commencement date, and on each April 1st thereafter, the regular benefit is increased by 3%.

Mortality rates

Healthy pre-retirement:	FRS pre-retirement mortality tables for personnel other than special risk and K-12 instructional personnel, set forward 2 years, projected generationally from 2010 with Scale MP2018
Healthy post-retirement:	FRS healthy post-retirement mortality tables for personnel other than special risk and K-12 instructional personnel, set forward 2 years, projected generationally from 2010 with Scale MP2018
Disabled:	FRS disabled mortality tables for personnel other than special risk, with no set forward, projected generationally from 2010 with Scale MP2018

The FRS tables for personnel other than special risk and K-12 instructional personnel, set forward 2 years, reasonably reflect the healthy annuitant mortality experience of the General Employees Retirement Plan as of the measurement date. The FRS disabled mortality tables for personnel other than special risk reasonably reflect the disabled annuitant mortality experience as of the measurement date.

Annuitant mortality rates

	Rate (%)			
	Healthy		Disabled	
Age	Male	Female	Male	Female
55	1.04	0.55	2.53	1.91
60	1.16	0.61	3.08	2.27
65	1.45	0.88	3.93	2.83
70	2.34	1.51	5.08	3.79
75	3.90	2.62	6.98	5.46
80	6.63	4.65	10.12	8.31
85	11.21	8.64	14.68	12.60
90	18.13	15.47	21.29	17.72

Mortality rates shown for base table.

Termination rates before retirement

	Rate (%)		
	Mortality[1]		
Age	Male	Female	Disability[2]
20	0.04	0.01	0.01
25	0.05	0.02	0.01
30	0.06	0.03	0.02
35	0.08	0.04	0.03
40	0.11	0.06	0.04
45	0.16	0.09	0.06
50	0.25	0.13	0.10
55	0.36	0.20	0.16
60	0.52	0.29	0.25
65	0.75	0.47	0.00

[1] Mortality rates shown for base table.

[2] 100% of disabilities are assumed to be non-service incurred.

Termination rates before retirement (Continued)

Withdrawal[1]

Service	COJ	JEA
0	16.00	10.00
1	15.00	3.25
2	13.00	3.25
3	10.00	3.25
4	10.00	3.25
5	10.00	3.25
6	10.00	2.75
7	10.00	2.75
8	4.00	2.00
9	4.00	2.00
10	4.00	2.00
11	4.00	2.00
12	4.00	2.00
13	4.00	2.00
14	4.00	2.00
15	4.00	1.00
16	4.00	1.00
17	3.00	1.00
18	3.00	1.00
19	3.00	1.00
20+	3.00	0.50

[1]All withdrawal rates are set to 0% after eligibility for retirement.

Retirement rates

Fewer Than 31 Years of Service	
Age	**Rate (%)[1]**
45	50
46-47	5
48-49	20
50-53	4
54-58	9
59-62	15
63	10
64-65	25
66	20
67-69	15
70 & Over	100

31 or More Years of Service	
Service	**Rate (%)[1]**
31	5
32-33	15
34-35	20
36	25
37	40
38	15
39	5
40	100

[1] *100% retirement is assumed at the earlier of age 70 or 40 years of service.*

Interest on BACKDROP Account

4.00%.

Refund of Contributions

95% of participants that are vested and terminate are assumed to take a refund of their employee contributions in lieu of their accrued benefit deferred to age 65

Retirement Age for Inactive Vested Participants

65, or date of retirement as provided in data

Unknown data for participants

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Value of Applicable Tax Revenue

Smoothed revenue of $120,073,357 for fiscal 2023 is used as the basis of the City's revenue projection. This amount is prior to the application of the allocation percentage. Smoothed revenue is calculated as actual revenue less unrecognized revenue growth. Unrecognized revenue growth is equal to the difference between actual and expected revenue growth, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the actual revenue. This method is applied prospectively to revenue growth occurring during fiscal 2022 and later.

Actual revenue for fiscal 2023 was $128,012,366.

Tax Revenue Growth Rate

4.25%. This assumption is determined by the City. Segal has not reviewed the information used to set this assumption, but Segal previously reviewed the sensitivity of this assumption when it was initially set.

Projected Tax Revenue Allocation

34.90%. This percentage is determined by the City; last year's percentage was 35.00%.

Administrative Expenses

Previous year's actual expenses; $1,365,000 for October 1, 2023.

Family Composition:

75% of males and 55% of females are assumed to be married. None are assumed to have dependent children. Females are assumed to be three years younger than their spouses.

Actuarial value of assets

Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected market return, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.

Actuarial cost method

Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis based on each member's benefit accrual rate and are allocated by compensation.

Normal Cost is not included for participants who are assumed to retire with 100% certainty in the upcoming plan year based on the retirement assumptions.

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions

The following actuarial assumptions were approved by the Board and changed with this valuation, following the completion of an experience study:

- COJ withdrawal rates were increased for participants with between four and seven years of service and 12 or more years of service.
- JEA withdrawal rates were updated to reflect more of a stair-step rate rather than a smooth reduction in rates.
- COJ and JEA retirement rates were updated across all ages and service buckets, and the 90% BACKDROP election assumption was removed (now inherent in the rate table).
- The COJ salary scale was modified to reflect higher merit and promotional increases.
- The JEA salary scale was also updated with higher rates across all service levels.

Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan year

October 1 through September 30

Plan status

Closed as of October 1, 2017

Normal retirement

Age Requirement	Age 65 with five years of Credited Service, age 55 with 20 years of Credited Service or any age with 30 years of Credited Service.
Regular Benefit Amount	2.5% of Final Monthly Compensation times years of Credited Service, not more than 80% of Final Monthly Compensation.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$74.96 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.

Early retirement

Age Requirement	Age 50 with 20 years of Credited Service
Regular Benefit Amount	Accrued Service Retirement Regular Benefit Amount reduced by 0.5 percent for each month the benefit commencement precedes age 55.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$74.96 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.
Age Requirement	Any age with 25 years of Credited Service
Regular Benefit Amount	2.0% of Final Monthly Compensation times years of Credited Service

Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$74.96 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.

Off the job Disability

Service Requirement	5 years of Credited Service
Regular Benefit Amount	Final Monthly Compensation times 25% plus 2.5% per year of Credited Service in excess of 5, not to exceed 50% of Final Monthly Compensation
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$74.96 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.

On the job Disability

Service Requirement	Immediate eligibility
Regular Benefit Amount	Final Monthly Compensation times 25% plus 2.5% per year of Credited Service in excess of 5, not to exceed 50% of Final Monthly Compensation
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$74.96 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.

Vesting

Age Requirement	None
Service Requirement	5 years of Credited Service
Regular Benefit Amount	Accrued Service Retirement Regular Benefit payable at age 65.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month. Payable at Age 65.
Minimum Benefit Amount	*$74.96 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.*

Spouse's pre-retirement death benefit [(applicable only if elected by employee)]

Age Requirement	None
Service Requirement	None
Regular Benefit Amount	If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the member's accrued regular benefit. If the Member is not eligible for retirement, the surviving spouse is entitled to 75% of the pension the Member would have received if the Member had worked to eligibility for a Service Retirement at current salary with the benefit based on a 2% accrual rate.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Member's Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	75% of $74.96 per whole year of Member's Credited Service, not to exceed 30.

Member

All full-time JEA, JHA, NFTPO, and City General Employees hired prior to October 1, 2017.

Member Contributions

10.0% of Earnable Compensation

Credited Service

The number of full years and months worked from date of participation to date of termination or retirement, plus any prior service purchased.

Final Monthly Compensation

Average monthly rate of Earnable Compensation during the highest 36 consecutive months (78 pay periods) out of the last ten years of employment.

Earnable Compensation

Base pay for regular hours worked as an employee, plus service raises and excluding bonuses, adjusted compensation, overtime or any extra compensation over and above regularly budgeted salaries.

Cost of living adjustments (COLAs)

On the April 1st nearest the fifth anniversary of the initial benefit commencement date, and on each April 1st thereafter, the regular benefit is increased by 3%.

BACKDROP

Members with 30 or more years of service may elect to have their retirement benefits calculated as if the member had retired up to 5 years earlier on or after October 1, 2005. Benefits that would have been payable are accumulated with interest to date of termination and paid or rolled over in a single sum, and payments are made directly to the Member thereafter. The 5-year wait to receive COLA increases starts at termination of employment rather than at the start of BackDROP.

Partial Lump Sum Option (PLOP)

Members who are eligible for retirement may elect to receive a lump-sum benefit of up to 15% of the benefit value and a reduced life annuity actuarially equivalent to the benefit that would otherwise be payable.

Changes in plan provisions

There have been no changes in plan provisions since the last valuation.

Section 5: GASB Information

General information about the pension plan

Plan description

Plan membership. At September 30, 2023, pension plan membership consisted of the following:

Membership	Amount
Retired participants or beneficiaries currently receiving benefits	5,341
Inactive participants with a vested right to a deferred or immediate benefit	134
Active members	2,792
Total	**8,267**

Exhibit 1: Net Pension Liability

Reporting Date for Employer under GASB 68 Measurement Date	September 30, 2024 September 30, 2023	September 30, 2023 September 30, 2022
Components of the Net Pension Liability		
Total Pension Liability	$3,765,170,250	$3,653,156,095
Plan Fiduciary Net Position	1,940,430,000	1,826,945,000
Net Pension Liability	1,824,740,250	1,826,211,095
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	51.54%	50.01%

The Net Pension Liability (NPL) for the plan was measured as of September 30, 2023 and 2022. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total Pension Liability (TPL) was determined from actuarial valuations as of October 1, 2023 and 2022, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL are the same as those used in the GERP actuarial valuations as of October 1, 2023 and October 1, 2022, respectively.

Actuarial assumptions. The TPL as of September 30, 2023 and 2022, that were measured by actuarial valuations as of October 1, 2023 and 2022, respectively, used the following actuarial assumptions, applied to all periods included in the measurement:

Assumption Type	Assumption
Inflation	2.50%
Salary increases	3.50% - 10.00%, of which 2.50% is the Plan’s long-term payroll inflation
Investment rate of return	6.50%, net of pension plan investment expense, including inflation
Other assumptions	See the October 1, 2023 valuation for a complete description of all actuarial assumptions. These assumptions were developed in the analysis of actuarial experience study for the period October 1, 2017 through September 30, 2022.

Detailed information regarding all actuarial assumptions can be found in Section 4, Exhibit I.

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Domestic equity	30.00%	6.60%
International equity	20.00%	6.70%
Fixed income	20.00%	1.80%
Real estate	15.00%	3.40%
Private equity	7.50%	9.90%
Alternatives	7.50%	3.00%
Total	100.00%	5.16%

Discount rate. The discount rate used to measure the Total Pension Liability (TPL) was 6.50% as of September 30, 2023 and September 30, 2022. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both September 30, 2023 and September 30, 2022.

* Based on capital market assumptions provided by Segal Marco Advisors

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of the Plan as of September 30, 2023, which is allocated to all employers, calculated using the discount rate of 6.50%, as well as what the Plan's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (5.50%) or 1-percentage-point higher (7.50%) than the current rate.

Item	1% Decrease (5.50%)	Current Discount Rate (6.50%)	1% Increase (7.50%)
Net Pension Liability	$2,268,643,607	$1,824,740,250	$1,453,426,709

Exhibit 2: Schedule of changes in Net Pension Liability

Components of the Net Pension Liability	Current	Prior
Reporting and Measurement Dates		
Reporting date for employer under GASB 68	September 30, 2024	September 30, 2023
Measurement date and reporting date for the Plan under GASB 67	September 30, 2023	September 30, 2022
Total Pension Liability		
Service cost	$40,445,986	$39,950,985
Interest	232,635,883	228,791,962
Change of benefit terms	0	0
Differences between expected and actual experience	45,408,218	38,039,330
Changes of assumptions	22,701,068	48,782,223
Benefit payments, including refunds of member contributions	-229,177,000	-231,842,000
Net change in Total Pension Liability	**$112,014,155**	**$123,722,500**
Total Pension Liability — beginning	3,653,156,095	3,529,433,595
Total Pension Liability — ending	**$3,765,170,250**	**$3,653,156,095**
Plan Fiduciary Net Position		
Contributions — employer	$83,375,000	$84,353,000
Contributions — employee	25,806,000	27,713,000
Net investment income	234,846,000	-351,108,000
Benefit payments, including refunds of member contributions	-229,177,000	-231,842,000
Administrative expense	-1,365,000	-1,832,000
Other	0	0
Net change in Plan Fiduciary Net Position	**$113,485,000**	**-$472,716,000**
Plan Fiduciary Net Position — beginning	1,826,945,000	2,299,661,000
Plan Fiduciary Net Position — ending	**$1,940,430,000**	**$1,826,945,000**

Components of the Net Pension Liability	Current	Prior
Net Pension Liability		
Net Pension Liability – ending	$1,824,740,250	$1,826,211,095
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	51.54%	50.01%
Covered payroll*	$230,709,762	$227,912,274
Plan Net Pension Liability as percentage of covered payroll	790.92%	801.28%

Notes to Schedule:

- **Change of Assumptions:** *As of September 30, 2023 the rates of withdrawal and retirement were updated, as well as the salary scale.*

  As of September 30, 2022 the assumed investment return was lowered from 6.625% to 6.50%.

* Pensionable payroll as of the measurement date

Exhibit 3: Schedule of employer contributions

Year Ended September 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2014	$81,351,295	$71,000,000	$10,351,295	$262,368,813	27.06%
2015	86,069,361	81,751,000	4,318,361	254,034,479	32.18%
2016	89,058,931	84,898,000	4,160,931	250,894,295	33.84%
2017	94,526,754	94,700,000	-173,246	257,850,484	36.73%
2018	93,743,647	71,024,000	22,719,647	253,982,175	27.96%
2019	95,290,428	70,338,000	24,952,428	249,982,877	28.14%
2020	100,620,425	72,194,000	28,426,425	246,864,141	29.24%
2021	108,568,188	77,269,000	31,299,188	233,266,593	33.12%
2022	115,204,974	84,353,000	30,851,974	227,912,274	37.01%
2023	120,695,825	83,375,000	37,320,825	230,709,762	36.14%

See accompanying notes to this schedule on next page.

Methods and assumptions used to establish “actuarially determined contribution" rates:

Valuation date

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported

Actuarial cost method

Entry Age Actuarial Cost Method

Amortization method

Level percent of payroll, using 1.50% annual increases. The Fund’s payroll inflation assumption was 2.50% as of October 1, 2021. Per Part VII, Chapter 112.64(5)(a) of Florida Statutes, the payroll growth assumption used for amortization of the unfunded liability is not allowed to exceed the average annual payroll growth for the proceeding ten years. However, pursuant to Chapter 112.64(5)(b), and after adjusting this analysis to account for bargained pay level increases and inclusion of DC plan participants in the total payroll, the assumption was set at 1.50%

Remaining amortization period

As of October 1, 2021 the effective amortization period is 25 years.

Asset valuation method

The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.

Investment rate of return

6.625%, net of pension plan investment expense, including inflation.

Inflation rate

2.50%

Projected salary increases

3.00% - 7.50%, of which 2.50% is the Plan's long-term payroll inflation.

Cost of living adjustments

Plan provisions contain a 3.00% COLA

Other information

Same as those used in the October 1, 2021 funding actuarial valuation.

Exhibit 4 – Pension expense

Components of pension expense	Current	Prior
Reporting date for employer under GASB 68	September 30, 2024	September 30, 2023
Measurement date	September 30, 2023	September 30, 2022
Service cost	$40,445,986	$39,950,985
Interest	232,635,883	228,791,962
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	15,136,072	9,509,831
Expensed portion of current-period changes of assumptions	7,567,022	12,195,555
Member contributions	-25,806,000	-27,713,000
Projected earnings on pension plan investments	-114,807,193	-148,324,276
Expensed portion of current-period differences between actual and projected earnings on pension plan investments	-24,007,763	99,886,456
Administrative expense	1,365,000	1,832,000
Other	0	0
Recognition of beginning of year deferred outflows of resources as pension expense	183,379,118	71,374,318
Recognition of beginning of year deferred inflows of resources as pension expense	-55,625,683	-56,213,054
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions	0	0
Pension expense	**$260,282,442**	**$231,290,777**

Deferred outflows of resources and deferred inflows of resources

Deferred outflows and inflows	Current	Prior
Reporting and Measurement Dates		
Reporting date for employer under GASB 68	September 30, 2024	September 30, 2023
Measurement date	September 30, 2023	September 30, 2022
Deferred outflows of resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions*	$12,024,868	$20,172,640
Changes of assumptions	55,926,382	78,425,489
Net difference between projected and actual earnings on pension plan investments	93,882,469	261,141,390
Difference between expected and actual experience in the Total Pension Liability	55,626,329	44,246,588
Total deferred outflows of resources	**$217,460,048**	**$403,986,107**
Deferred inflows of resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions§§	$12,024,868	$20,172,640
Changes of assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	0	0
Total deferred inflows of resources	**$12,024,868**	**$20,172,640**
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting date for employer under GASB 68 year ended januar 1:		
2024	N/A	$127,753,435
2025	$88,902,751	90,207,416
2026	64,661,496	65,966,161
2027	75,878,694	99,886,455
2028	-24,007,761	0
2029	0	0
Thereafter	0	0

* Calculated in accordance with Paragraphs 54 and 55 of GASB 68

Schedule of recognition of change in total Net Pension Liability

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer under GASB 68 Year Ended September 30	Differences between Expected and Actual Experience	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	Thereafter
2020	$33,434,609	4.00	$8,358,652	$0	$0	$0	$0	$0	$0	$0
2021	12,192,218	4.00	3,048,055	3,048,055	0	0	0	0	0	0
2022	25,338,067	4.00	6,334,517	6,334,517	6,334,517	0	0	0	0	0
2023	38,039,330	4.00	9,509,831	9,509,833	9,509,833	9,509,833	0	0	0	0
2024	45,408,218	3.00	N/A	15,136,072	15,136,073	15,136,073	0	0	0	0
Total*			**N/A**	**$34,028,477**	**$30,980,423**	**$24,645,906**	**$0**	**$0**	**$0**	**$0**

* Net increase (decrease) in pension expense

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 68 Year Ended September 30	Assumption Changes	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	Thereafter
2020	$4,913,569	4.00	$1,228,392	$0	$0	$0	$0	$0	$0	$0
2021	36,145,490	4.00	9,036,373	9,036,373	0	0	0	0	0	0
2022	65,604,895	4.00	16,401,224	16,401,224	16,401,224	0	0	0	0	0
2023	48,782,223	4.00	12,195,555	12,195,556	12,195,556	12,195,556	0	0	0	0
2024	22,701,068	3.00	N/A	7,567,022	7,567,023	7,567,023	0	0	0	0
Total*			**N/A**	**$45,200,175**	**$36,163,803**	**$19,762,579**	**$0**	**$0**	**$0**	**$0**

* Net increase (decrease) in pension expense

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer under GASB 68 Year Ended September 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	2023	2024	2025	2026	2027	2028	2029	Thereafter
2019	-$2,936,856	5.00	-$587,371	$0	$0	$0	$0	$0	$0	$0
2020	127,307,955	5.00	25,461,591	25,461,591	0	0	0	0	0	0
2021	7,527,572	5.00	1,505,514	1,505,514	1,505,514	0	0	0	0	0
2022	-278,128,416	5.00	-55,625,683	-55,625,683	-55,625,683	-55,625,683	0	0	0	0
2023	499,432,276	5.00	99,886,456	99,886,455	99,886,455	99,886,455	99,886,455	0	0	0
2024	-120,038,807	5.00	N/A	-24,007,763	-24,007,761	-24,007,761	-24,007,761	-24,007,761	0	0
Total*			**N/A**	**$47,220,114**	**$21,758,525**	**$20,253,011**	**$75,878,694**	**-$24,007,761**	**$0**	**$0**

* Net increase (decrease) in pension expense

Total Increase (Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 Year Ended September 30	Total Increase (Decrease) in Pension Expense	2023	2024	2025	2026	2027	2028	2029	Thereafter
2019	$70,423,470	-$587,371	$0	$0	$0	$0	$0	$0	$0
2020	165,656,133	35,048,635	25,461,591	0	0	0	0	0	0
2021	55,865,280	13,589,942	13,589,942	1,505,514	0	0	0	0	0
2022	-187,185,454	-32,889,942	-32,889,942	-32,889,942	-55,625,683	0	0	0	0
2023	586,253,829	121,591,842	121,591,844	121,591,844	121,591,844	99,886,455	0	0	0
2024	-51,929,521	N/A	-1,304,669	-1,304,665	-1,304,665	-24,007,761	-24,007,761	0	0
Total*		**N/A**	**$126,448,766**	**$88,902,751**	**$64,661,496**	**$75,878,694**	**-$24,007,761**	**$0**	**$0**

* Net increase (decrease) in pension expense

Schedule of reconciliation of Net Pension Liability

Total for all employers

Item	Current	Prior
Reporting and Measurement Dates		
Reporting Date for Employer under GASB 68	September 30, 2024	September 30, 2023
Measurement Date and Reporting Date for Plan under GASB 67	September 30, 2023	September 30, 2022
Net Pension Liability		
Beginning Net Pension Liability	$1,826,211,095	$1,229,772,595
Pension expense	260,282,442	231,290,777
Employer contributions	-83,375,000	-84,353,000
New net deferred inflows/outflows	-50,624,852	464,661,987
Change in allocation of prior deferred inflows/outflows	0	0
New net deferred inflows/outflows due to change in proportion	0	0
Recognition of prior deferred inflows/outflows	-127,753,435	-15,161,264
Recognition of prior deferred inflows/outflows due to change in proportion	0	0
Ending Net Pension Liability	**$1,824,740,250**	**$1,826,211,095**

Exhibit 5 – Determination of proportionate share

Employer Name	FY 2023 Total Appropriation	Percent of FY 2023 Total Appropriation	Share of NPL as of September 30, 2022	FY 2024 Total Appropriation	Percent of FY 2024 Total Appropriation	Share of NPL as of September 30, 2023
City of Jacksonville	$39,199,000	46.4702%	$848,643,780	$38,190,000	45.8052%	$835,825,921
Jacksonville Electrical Authority	43,893,000	52.0349%	950,267,134	43,970,000	52.7376%	962,324,214
Jacksonville Housing Authority	1,149,000	1.3621%	24,875,423	1,092,000	1.3097%	23,898,623
North Florida Transportation Planning Organization	112,000	0.1328%	2,424,758	123,000	0.1475%	2,691,492
Grand totals:	**$84,353,000**	**100.0000%**	**$1,826,211,095**	**$84,353,000**	**100.0000%**	**$1,824,740,250**

Exhibit 6 – Determination of proportionate share amounts by employer

Net Pension Liability by Employer With Discount Rate Sensitivity

Employer Name	2024 Share of Cost Allocation	Net Pension Liability	Covered Employee Payroll	1% Decrease in Discount Rate (5.50%)	Current Discount Rate (6.50%)	1% Increase in Discount Rate (7.50%)
City of Jacksonville	45.8052%	$835,825,921	$91,745,853	$1,039,156,742	$835,825,921	$665,745,011
Jacksonville Electrical Authority	52.7376%	962,324,214	137,150,724	1,196,428,191	962,324,214	766,502,364
Jacksonville Housing Authority	1.3097%	23,898,623	1,469,415	29,712,425	23,898,623	19,035,530
North Florida Transportation Planning Organization	0.1475%	2,691,492	343,770	3,346,249	2,691,492	2,143,804
Grand totals:	**100.0000%**	**$1,824,740,250**	**$230,709,762**	**$2,268,643,607**	**$1,824,740,250**	**$1,453,426,709**

Exhibit 6 – Determination of proportionate share by employer

Schedule of Contributions and Pension Expense by Employer

Employer Name	Statutory Required Contribution	Contributions in Relation to the Statutory Required Contribution	Contribution Deficiency / (Excess)	Contributions as a Percentage of Covered Employee Payroll	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
City of Jacksonville	$55,284,965	$38,190,000	$17,094,965	41.63%	$119,222,893	-$10,644,188	$108,578,705
Jacksonville Electrical Authority	63,652,081	43,970,000	19,682,081	32.06%	137,266,713	12,219,147	149,485,860
Jacksonville Housing Authority	1,580,753	1,092,000	488,753	74.32%	3,408,919	-1,686,208	1,722,711
North Florida Transportation Planning Organization	178,026	123,000	55,026	35.78%	383,917	111,249	495,166
Grand totals:	**$120,695,825**	**$83,375,000**	**$37,320,825**	**36.14%**	**$260,282,442**	**$0**	**$260,282,442**

Exhibit 6 – Determination of proportionate share by employer

Deferred Outflows and Inflows of Resources

Employer Name	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources
City of Jacksonville	$25,479,751	$43,003,052	$25,617,191	$5,045,706	$99,145,701	$0	$0	$6,394,542	$6,394,542
Jacksonville Electrical Authority	29,335,991	49,511,361	29,494,232	6,757,144	115,098,727	0	0	2,926,385	2,926,385
Jacksonville Housing Authority	728,538	1,229,579	732,468	0	2,690,584	0	0	2,694,890	2,694,890
North Florida Transportation Planning Organization	82,049	138,477	82,491	222,018	525,036	0	0	9,051	9,051
Grand totals:	**$55,626,329**	**$93,882,469**	**$55,926,382**	**$12,024,868**	**$217,460,048**	**$0**	**$0**	**$12,024,868**	**$12,024,868**

Exhibit 6 – Determination of proportionate share by employer

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended September 30)

Employer Name	2025	2026	2027	2028	2029	Thereafter
City of Jacksonville	$41,304,500	$27,687,074	$34,756,388	-$10,996,803	$0	$0
Jacksonville Electrical Authority	48,151,134	36,665,723	40,016,602	-12,661,117	0	0
Jacksonville Housing Authority	-785,973	102,314	993,783	-314,430	0	0
North Florida Transportation Planning Organization	233,090	206,385	111,921	-35,411	0	0
Grand totals:	**$88,902,751**	**$64,661,496**	**$75,878,694**	**-$24,007,761**	**$0**	**$0**

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial Present Value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial present value	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan, as well as Actuarially Determined Contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: **Investment return** — the rate of investment yield that the Plan will earn over the long-term future; **Mortality rates** — the rate or probability of death at a given age for employees and retirees; **Retirement rates** — the rate or probability of retirement at a given age or service; **Disability rates** — the rate or probability of disability retirement at a given age; **Withdrawal rates** — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; **Salary increase rates** — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

Appendix A: Definition of Pension Terms

Term	Definition
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.
Decrements	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer normal cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL)	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal cost	The portion of the Actuarial Present Value of Future Benefits and expenses, if applicable, allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated.
Open amortization period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.

Appendix A: Definition of Pension Terms

Term	Definition
Plan Fiduciary Net Position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total Pension Liability (TPL)	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.