

RETIREMENT PLAN FOR EMPLOYEES OF GREATER ORLANDO AVIATION AUTHORITY
ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2025



FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

January 18, 2024

Retirement Plan Committee
Greater Orlando Aviation Authority

Re: Retirement Plan for Employees of Greater Orlando Aviation Authority

Dear Committee Members:

We are pleased to present to the Retirement Plan Committee this report of the annual actuarial valuation of the Retirement Plan for Employees of Greater Orlando Aviation Authority. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Chapter 112, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuation, as adopted by Retirement Plan Committee, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Human Resources faculty, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

In our opinion, the Minimum Required Contribution set forth in this report constitutes a reasonable actuarially determined contribution under Actuarial Standard of Practice No. 4.

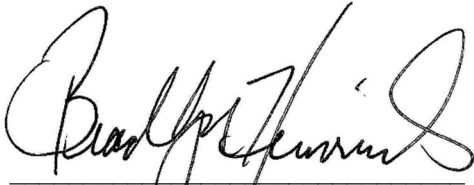
The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the Greater Orlando Aviation Authority, nor does anyone at Foster & Foster, Inc. act as a member of the Retirement Plan Committee of the Retirement Plan for Employees of Greater Orlando Aviation Authority. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

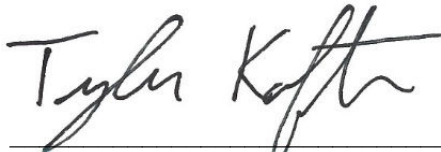
If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By: 
Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #23-6901

By: 
Taylor M. Walling, ASA, MAAA

By: 
Tyler A. Koftan, EA, MAAA
Enrolled Actuary #23-8685

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Enclosures

TABLE OF CONTENTS

Section	Title	Page
I	Introduction	
	a. Summary of Report	6
	b. Changes Since Prior Valuation	7
	c. Comparative Summary of Principal Valuation Results	8
II	Valuation Information	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	15
	b. Detailed Actuarial (Gain)/Loss Analysis	16
	c. History of Funding Progress	17
	d. Actuarial Assumptions and Methods	18
	e. Glossary	21
	f. Discussion of Risk	23
III	Trust Fund	27
IV	Member Statistics	
	a. Statistical Data	33
	b. Age and Service Distribution	34
	c. Valuation Participant Reconciliation	35
V	Summary of Current Plan	36

SUMMARY OF REPORT

The regular annual actuarial valuation of the Retirement Plan for Employees of Greater Orlando Aviation Authority, performed as of October 1, 2023, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2025.

The contribution requirements, compared with those set forth in the October 1, 2022 actuarial valuation report, are as follows:

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2025</u>	<u>9/30/2024</u>
Minimum Required Contribution	\$1,441,537	\$733,198

As you can see, the Minimum Required Contribution shows an increase when compared to the results set forth in the October 1, 2022 actuarial valuation report. The increase is attributable to unfavorable experience as described below; this increase was offset in part by inactive mortality.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 2.76% (Actuarial Asset Basis) which fell short of the 6.75% assumption and unfavorable retirement experience. These losses were offset in part by a gain associated with inactive mortality experience.

CHANGES SINCE PRIOR VALUATION

Plan Changes

There have been no changes in benefits since the prior valuation.

Actuarial Assumption/Method Changes

There have been no assumption or method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2023</u>	<u>10/1/2022</u>
A. Participant Data		
Actives	22	27
Service Retirees	349	350
Beneficiaries	37	35
Terminated Vested	<u>55</u>	<u>60</u>
Total	463	472
Projected Annual Payroll	2,011,277	2,297,256
Annual Rate of Payments to:		
Service Retirees	11,296,746	11,096,818
Beneficiaries	617,461	573,139
Terminated Vested	648,338	707,503
B. Assets		
Actuarial Value (AVA)	138,502,896	145,859,692
Market Value (MVA)	125,798,547	123,518,122
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	16,227,695	19,278,176
Death Benefits	122,044	154,134
Vested Benefits	0	0
Refund of Contributions	0	0
Service Retirees	117,813,965	117,179,581
Beneficiaries	5,700,333	5,326,118
Disability Retirees	0	0
Terminated Vested	<u>4,901,001</u>	<u>5,051,682</u>
Total	144,765,038	146,989,691

C. Liabilities - (Continued)	<u>10/1/2023</u>	<u>10/1/2022</u>
Present Value of Future Salaries	6,934,051	8,814,781
Normal Cost (Retirement)	343,611	408,961
Normal Cost (Death)	4,348	5,526
Normal Cost (Vesting)	0	0
Normal Cost (Refunds)	0	0
Total Normal Cost	<u>347,959</u>	<u>414,487</u>
Present Value of Future Normal Costs	1,132,389	1,514,809
Accrued Liability (Retirement)	15,109,513	17,783,372
Accrued Liability (Death)	107,837	134,129
Accrued Liability (Vesting)	0	0
Accrued Liability (Refunds)	0	0
Accrued Liability (Inactives)	128,415,299	127,557,381
Total Actuarial Accrued Liability (EAN AL)	<u>143,632,649</u>	<u>145,474,882</u>
Unfunded Actuarial Accrued Liability (UAAL)	5,129,753	(384,810)
Funded Ratio (AVA / EAN AL)	96.4%	100.3%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2023</u>	<u>10/1/2022</u>
Vested Accrued Benefits		
Inactives	128,415,299	127,557,381
Actives	14,293,078	16,944,928
Member Contributions	0	0
Total	<u>142,708,377</u>	<u>144,502,309</u>
Non-vested Accrued Benefits	<u>0</u>	<u>0</u>
Total Present Value Accrued Benefits (PVAB)	142,708,377	144,502,309
Funded Ratio (MVA / PVAB)	88.2%	85.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	689,291	
Benefits Paid	(11,837,610)	
Interest	9,354,387	
Other	0	
Total	<u>(1,793,932)</u>	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2025</u>	<u>9/30/2024</u>
E. Pension Cost		
Normal Cost ¹	\$374,091	\$445,615
Administrative Expenses ¹	30,176	37,303
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 10 years (as of 10/1/2023) ¹	1,037,270	250,280
Minimum Required Contribution ²	1,441,537	733,198
F. Past Contributions		
Plan Years Ending:	<u>9/30/2023</u>	
Requirement	640,878	
Actual Contributions Made:		
Employer	640,878	
G. Net Actuarial (Gain)/Loss	5,724,713	

¹ Contributions developed as of 10/1/2023 displayed above have been adjusted to account for assumed salary increase and interest components.

² Reflects normal cost minimum funding requirements of Chapter 112, Florida Statutes.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2023	5,129,753
2024	4,446,073
2025	3,716,245
2027	2,842,285
2029	2,585,476
2031	1,957,080
2033	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2023	8.69%	4.00%
Year Ended 9/30/2022	8.82%	4.00%
Year Ended 9/30/2021	3.63%	4.25%
Year Ended 9/30/2020	1.14%	4.25%
Year Ended 9/30/2019	5.21%	4.25%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2023	11.49%	2.76%	6.75%
Year Ended 9/30/2022	-19.71%	4.37%	6.75%
Year Ended 9/30/2021	20.22%	11.01%	7.00%
Year Ended 9/30/2020	9.84%	8.37%	7.00%
Year Ended 9/30/2019	2.57%	6.49%	7.00%

(iii) Average Annual Payroll Growth

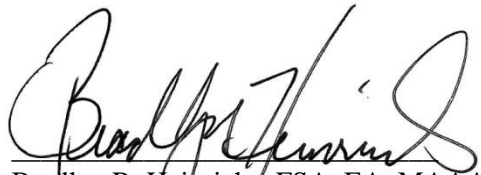
(a) Payroll as of:	10/1/2023	\$2,011,277
	10/1/2013	10,827,820
(b) Total Increase		-81.42%
(c) Number of Years		10.00
(d) Average Annual Rate		-15.49%

ESTIMATED PROJECTION OF BENEFIT PAYMENTS
(Next 30 Years)

<u>Valuation Date</u>	<u>Estimated Annual Benefits</u>
2023	12,300,000
2024	12,600,000
2025	12,650,000
2026	12,680,000
2027	12,570,000
2028	12,430,000
2029	12,390,000
2030	12,210,000
2031	11,990,000
2032	11,770,000
2033	11,470,000
2034	11,260,000
2035	10,940,000
2036	10,590,000
2037	10,210,000
2038	9,830,000
2039	9,480,000
2040	9,060,000
2041	8,630,000
2042	8,190,000
2043	7,740,000
2044	7,290,000
2045	6,840,000
2046	6,380,000
2047	5,930,000
2048	5,490,000
2049	5,050,000
2050	4,620,000
2051	4,210,000
2052	3,810,000

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.



Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #23-6901

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman
Bureau of Local
Retirement Systems
Post Office Box 9000
Tallahassee, FL 32315-9000

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

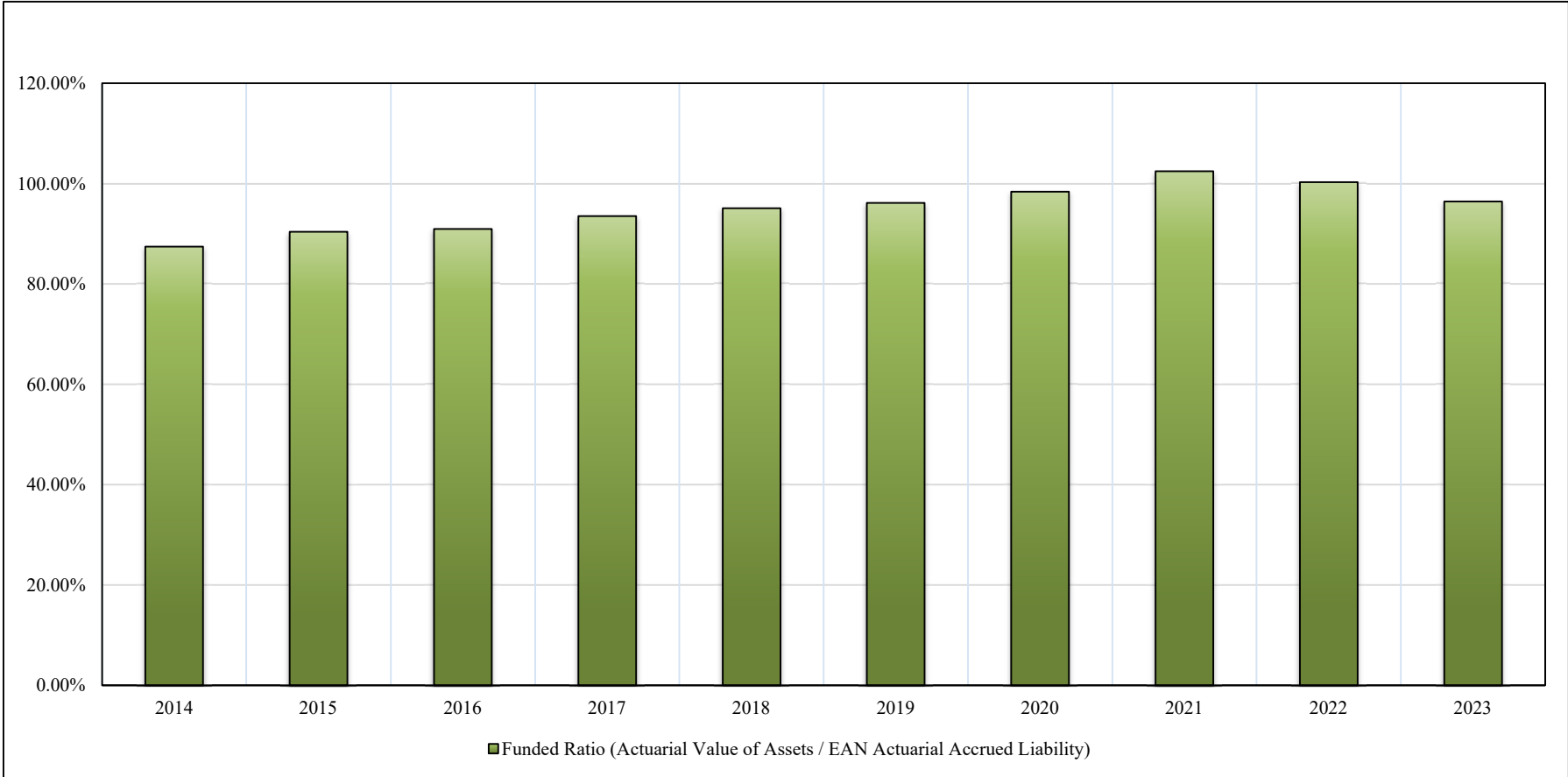
(1) Unfunded Actuarial Accrued Liability as of October 1, 2022	(\$384,810)
(2) Sponsor Normal Cost developed as of October 1, 2022	414,487
(3) Expected administrative expenses for the year ended September 30, 2023	34,697
(4) Expected interest on (1), (2) and (3)	3,174
(5) Sponsor contributions to the System during the year ended September 30, 2023	640,878
(6) Expected interest on (5)	21,630
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	(594,960)
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	5,724,713
(10) Unfunded Actuarial Accrued Liability as of October 1, 2023	5,129,753

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2023 Amount</u>	<u>Amortization Amount</u>
Method Change	10/1/2016	3	1,942,491	690,221
Actuarial Loss	10/1/2017	4	22,691	6,240
Actuarial Gain	10/1/2018	5	(252,615)	(57,329)
Actuarial Gain	10/1/2019	6	(156,479)	(30,516)
Actuarial Gain	10/1/2020	7	(1,081,575)	(186,364)
Assump Change	10/1/2020	7	(22,454)	(3,869)
Actuarial Gain	10/1/2021	8	(5,467,850)	(849,496)
Assump Change	10/1/2021	8	938,865	145,864
Actuarial Loss	10/1/2022	9	3,481,966	495,330
Actuarial Loss	10/1/2023	10	5,724,713	754,732
			<u>5,129,753</u>	<u>964,813</u>

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	(\$384,810)
(2) Expected UAAL as of October 1, 2023	(594,960)
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	5,602,219
Salary Increases	329,292
Active Decrements	471,914
Inactive Mortality	(705,568)
Other	<u>26,856</u>
Increase in UAAL due to (Gain)/Loss	5,724,713
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2023	\$5,129,753

HISTORY OF FUNDING PROGRESS



ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

Female: PubG.H-2010 (Above Median) for Employees.

Male: PubG.H-2010 (Above Median) for Employees, set back one year.

Healthy Retiree Lives:

Female: PubG.H-2010 for Healthy Retirees.

Male: PubG.H-2010 for Healthy Retirees, set back one year.

Beneficiary Lives:

Female: PubG.H-2010 for Healthy Retirees.

Male: PubG.H-2010 for Healthy Retirees, set back one year.

Disabled Lives:

PubG.H-2010 for Disabled Retirees, set forward three years.

All rates for healthy lives are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2021 FRS valuation report for non-special-risk employees, with appropriate adjustments made based on plan demographics.

Interest Rate

6.75% per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

4.00% per year until the assumed retirement age. This was approved in conjunction with an actuarial experience study dated June 1, 2021.

Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Administrative Expenses

\$28,068 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over 10 years.

The amortization payment is subject to a minimum based on a 30-year amortization of the UAAL, if the UAAL is positive, in order to comply with Actuarial Standard of Practice No. 4.

Bases established prior to the valuation date are adjusted proportionally to match the Expected Unfunded Actuarial Accrued Liability as of the valuation date, in order to align prior year bases with the portion of the current year UAAL associated with prior year sources.

Normal Retirement Age

Below are the rates assumed once the Member has attained normal retirement eligibility:

Age 65 and 7 Years of Service:

Age	Rate
65-69	20.0%
70-74	10.0%
75+	100.0%

25+ Years of Service:

Service	Rate
25	60.0%
26	30.0%
27-29	15.0%
30-34	10.0%
35+	100.0%

The assumed rates of normal retirement were approved in conjunction with an actuarial experience study dated June 1, 2021.

Early Retirement Age

Below are the rates assumed once the Member has attained early retirement eligibility:

Years Following	
ER Age	Rate
0-2	2.5%
3-6	5.0%
7-9	10.0%

The assumed rates of early retirement were approved in conjunction with an actuarial experience study dated June 1, 2021.

Termination Rate

No future terminations are assumed, as approved in conjunction with an actuarial experience study dated June 1, 2021.

Marital Status

100% of the active members are assumed to be married. Additionally, male spouses are assumed to be three years older than female spouses.

Funding Method

Entry Age Normal Actuarial Cost Method. The following loads are applied for determining the minimum required contribution:

- Interest - A half year, based on current 6.75% assumption.
- Salary - A full year, based on current 4.00% assumption.

Actuarial Asset Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Low-Default-Risk Obligation Measure

Based on the Entry Age Normal Actuarial Cost Method and an interest rate of 4.87% per year compounded annually, net of investment related expenses. This rate is consistent with the Yield to Maturity of the S&P Municipal Bond 20-Year High Grade Rate Index as of September 30, 2023. All other assumptions for the Low-Default-Risk Obligation Measure are consistent with the assumptions shown in this section unless otherwise noted.

GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Payroll Under Assumed Ret. Age is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members, excluding any Members who are assumed to retire with 100% probability on the valuation date.

Projected Annual Payroll is the projected annual rate of pay for the fiscal year following the fiscal year beginning on the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 47.9% on October 1, 2013 to 5.0% on October 1, 2023, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 89.4%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 81.2% on October 1, 2013 to 96.4% on October 1, 2023.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from 2.4% on October 1, 2013 to -8.9% on October 1, 2023. The current Net Cash Flow Ratio of -8.9% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

Low Default-Risk Obligation Measure

ASOP No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, was revised as of December 2021 to include a “low-default-risk obligation measure” (LDROM). This liability measure is consistent with the determination of the actuarial accrued liability shown on page 9 in terms of member data, plan provisions, and assumptions/methods, under the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20-Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.87%, resulting in an LDROM of \$170,034,374. The LDROM should not be considered the “correct” liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. The Board actually invests the pension plan’s contributions in a diversified portfolio of stocks and bonds and other investments with the objective of maximizing investment returns at a reasonable level of risk. Consequently, the difference between the plan’s Actuarial Accrued Liability disclosed earlier in this section and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan’s diversified portfolio compared to investing only in high quality bonds.

The actuarial valuation reports the funded status and develops contributions based on the expected return of the plan’s investment portfolio. If instead, the plan switched to investing exclusively in high quality bonds, the LDROM illustrates that reported funded status would be lower (which also implies that the Actuarially Determined Contributions would be higher), perhaps significantly. Unnecessarily high contribution requirements in the near term may not be affordable and could imperil plan sustainability and benefit security.

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2018</u>	<u>10/1/2013</u>
<u>Support Ratio</u>				
Total Actives	22	27	75	169
Total Inactives ¹	441	445	424	353
Actives / Inactives ¹	5.0%	6.1%	17.7%	47.9%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	125,798,547	123,518,122	142,871,166	104,839,099
Total Annual Payroll	2,301,728	2,795,499	6,425,266	10,827,820
MVA / Total Annual Payroll	5,465.4%	4,418.5%	2,223.6%	968.2%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	128,415,299	127,557,381	104,769,681	62,607,592
Total Accrued Liability (EAN)	143,632,649	145,474,882	144,560,999	119,945,649
Inactive AL / Total AL	89.4%	87.7%	72.5%	52.2%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	138,502,896	145,859,692	137,500,444	97,405,204
Total Accrued Liability (EAN)	143,632,649	145,474,882	144,560,999	119,945,649
AVA / Total Accrued Liability (EAN)	96.4%	100.3%	95.1%	81.2%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow ²	(11,221,384)	(10,227,034)	(5,958,741)	2,474,720
Market Value of Assets (MVA)	125,798,547	123,518,122	142,871,166	104,839,099
Ratio	-8.9%	-8.3%	-4.2%	2.4%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	2,836,615.98	2,836,615.98
Prepaid Benefits	991,321.63	991,321.63
Total Cash and Equivalents	3,827,937.61	3,827,937.61
Receivables:		
From Broker for Investments Sold	247,332.85	247,332.85
Investment Income	232,245.05	232,245.05
Total Receivable	479,577.90	479,577.90
Investments:		
U. S. Bonds and Bills	20,861,620.11	18,880,164.55
Federal Agency Guaranteed Securities	8,361,465.47	7,547,852.70
Corporate Bonds	5,329,294.17	4,483,304.50
Stocks	41,505,593.25	53,661,262.04
Mutual Funds:		
Fixed Income	14,072,381.05	11,278,249.61
Equity	17,413,350.08	15,065,500.96
Pooled/Common/Commingled Funds:		
Equity	6,401,250.82	10,944,279.51
Total Investments	113,944,954.95	121,860,613.87
Total Assets	118,252,470.46	126,168,129.38
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	52,640.08	52,640.08
Administrative Expenses	3,000.00	3,000.00
To Broker for Investments Purchased	313,942.20	313,942.20
Total Liabilities	369,582.28	369,582.28
NET POSITION RESTRICTED FOR PENSIONS	117,882,888.18	125,798,547.10

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2023
Market Value Basis

ADDITIONS

Contributions:		
Employer	640,878.00	
Total Contributions		640,878.00
Investment Income:		
Net Realized Gain (Loss)	(41,877.41)	
Unrealized Gain (Loss)	11,643,300.36	
Net Increase in Fair Value of Investments	11,601,422.95	
Interest & Dividends	2,380,613.58	
Less Investment Expense ¹	(480,226.63)	
Net Investment Income		13,501,809.90
Total Additions		14,142,687.90
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	11,837,610.47	
Total Distributions		11,837,610.47
Administrative Expense		24,652.00
Total Deductions		11,862,262.47
Net Increase in Net Position		2,280,425.43
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		123,518,121.67
End of the Year		125,798,547.10

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION
September 30, 2023

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/Losses Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2023	2024	2025	2026	2027
09/30/2019	(6,188,902)	0	0	0	0	0
09/30/2020	3,813,601	762,721	0	0	0	0
09/30/2021	18,591,927	7,436,772	3,718,387	0	0	0
09/30/2022	(42,230,483)	(25,338,289)	(16,892,192)	(8,446,095)	0	0
09/30/2023	5,543,059	4,434,447	3,325,835	2,217,223	1,108,611	0
Total		(12,704,349)	(9,847,970)	(6,228,872)	1,108,611	0

<u>Development of Investment Gain/Loss</u>	
Market Value of Assets, 09/30/2022	123,518,122
Contributions Less Benefit Payments & Admin Expenses	(11,221,384)
Expected Investment Earnings*	7,958,751
Actual Net Investment Earnings	13,501,810
2023 Actuarial Investment Gain/(Loss)	<u>5,543,059</u>

*Expected Investment Earnings = $0.0675 * (123,518,122 - 0.5 * 11,221,384)$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2023	125,798,547
(2) Gains/(Losses) Not Yet Recognized	<u>(12,704,349)</u>
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	138,502,896
(4) Limited Actuarial Value of Assets, 09/30/2023	138,502,896
(A) 09/30/2022 Actuarial Assets:	145,859,692
(I) Net Investment Income:	
1. Interest and Dividends	2,380,614
2. Realized Gain (Loss)	(41,877)
3. Unrealized Gain (Loss)	11,643,300
4. Change in Actuarial Value	(9,637,221)
5. Investment Expenses	<u>(480,227)</u>
Total	3,864,589
(B) 09/30/2023 Actuarial Assets:	138,502,896
Actuarial Assets Rate of Return = $2I/(A+B-I)$:	2.76%
Market Value of Assets Rate of Return:	11.49%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) (5,602,219)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2023
 Actuarial Asset Basis

REVENUES

Contributions:		
Employer	640,878.00	
Total Contributions		640,878.00
Earnings from Investments:		
Interest & Dividends	2,380,613.58	
Net Realized Gain (Loss)	(41,877.41)	
Unrealized Gain (Loss)	11,643,300.36	
Change in Actuarial Value	(9,637,221.00)	
Total Earnings and Investment Gains		4,344,815.53

EXPENDITURES

Distributions to Members:		
Benefit Payments	11,837,610.47	
Total Distributions		11,837,610.47
Expenses:		
Investment related ¹	480,226.63	
Administrative	24,652.00	
Total Expenses		504,878.63
Change in Net Assets for the Year		(7,356,795.57)
Net Assets Beginning of the Year		145,859,691.67
Net Assets End of the Year²		138,502,896.10

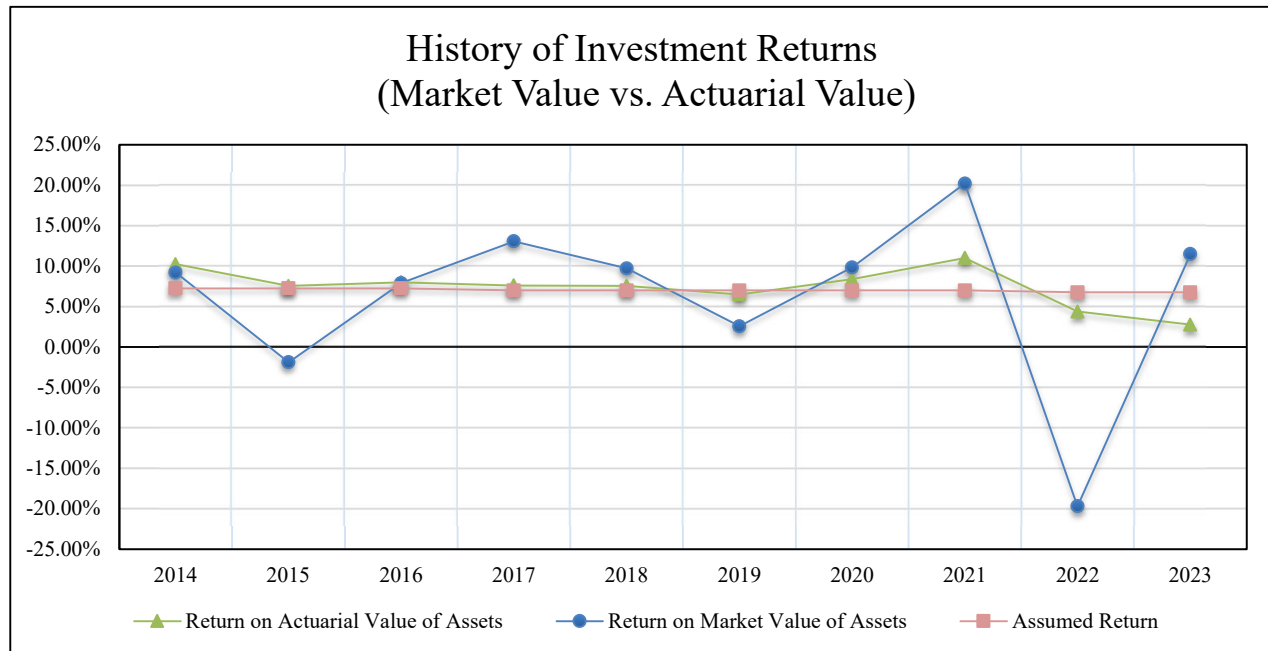
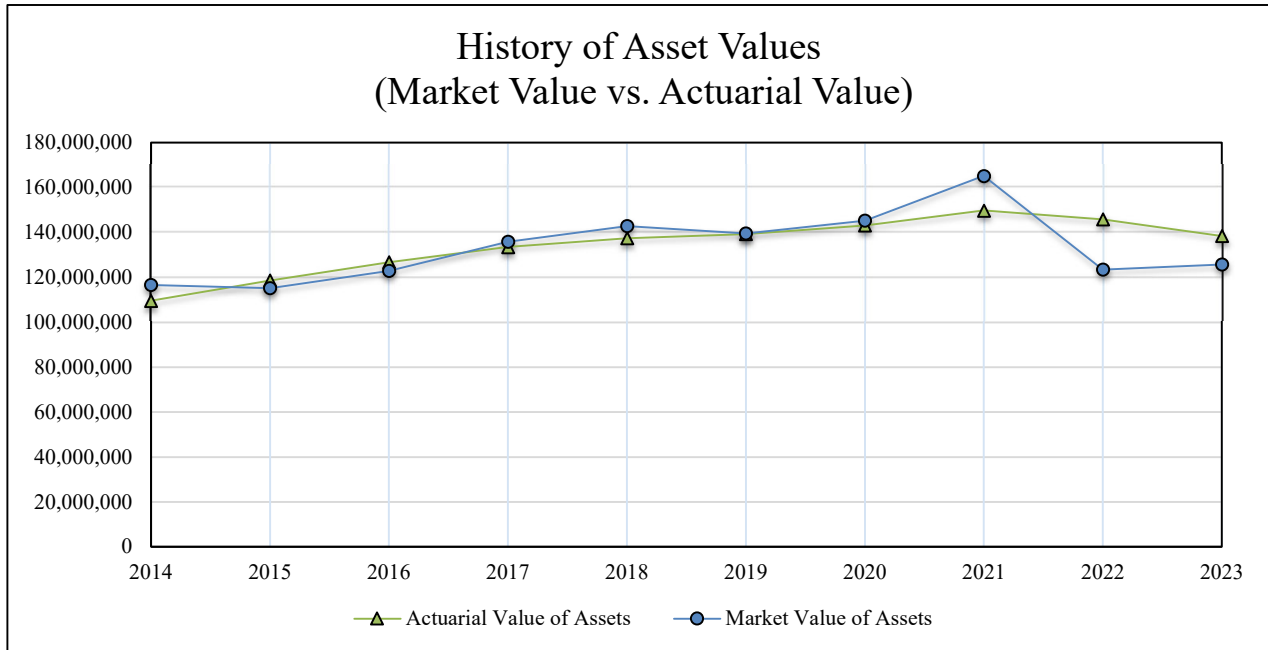
¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

²Net Assets may be limited for actuarial consideration.

RECONCILIATION OF FALSE SHORTFALL/(PREPAID) CONTRIBUTION
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2023

(1) Required Contributions	\$640,878.00
(2) Less 2022 Prepaid Contribution	0.00
(3) Less Actual Contributions	<u>(640,878.00)</u>
(4) Contributions in Excess of Minimum Required Contribution Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2023	\$0.00

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>
<u>Actives</u>				
Number	22	27	35	56
Average Current Age	60.7	61.2	59.9	60.3
Average Age at Employment	33.5	34.5	34.7	35.1
Average Past Service	27.2	26.7	25.2	25.2
Average Annual Salary	\$104,624	\$103,537	\$95,432	\$89,714
<u>Service Retirees</u>				
Number	349	350	343	325
Average Current Age	69.9	69.1	69.0	68.3
Average Annual Benefit	\$32,369	\$31,705	\$31,004	\$29,799
<u>Beneficiaries</u>				
Number	37	35	26	25
Average Current Age	70.1	70.5	68.7	68.4
Average Annual Benefit	\$16,688	\$16,375	\$16,036	\$15,280
<u>Terminated Vested</u>				
Number	55	60	76	81
Average Current Age	60.1	59.1	59.1	58.5
Average Annual Benefit	\$11,788	\$11,792	\$13,358	\$10,467

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24												0
25 - 29												0
30 - 34												0
35 - 39												0
40 - 44												0
45 - 49									1			1
50 - 54									2			2
55 - 59									3	1	1	5
60 - 64									3	4	2	9
65+									2	2	1	5
Total	0	0	0	0	0	0	0	0	11	7	4	22

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	27
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(5)
f. Continuing participants	22
g. New entrants / Rehires	0
h. Total active life participants in valuation	22

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	350	35	0	60	0	445
Retired	9			(4)		5
Vested (Deferred Annuity)						0
Vested (Due Refund)						0
Hired/Terminated in Same Year						0
Death, With Survivor	(2)	4		(1)		1
Death, No Survivor	(8)	(1)				(9)
Disabled						0
Refund of Contributions						0
Rehires						0
Expired Annuities		(1)				(1)
Data Corrections						0
b. Number current valuation	349	37	0	55	0	441

SUMMARY OF CURRENT PLAN

<u>Eligibility</u>	Full-time employees who had completed 12 months of employment. Effective October 1, 1999, the Plan was closed to all future new hires.
<u>Credited Service</u>	Total years and nearest fully completed months of employment, including vacation and other paid leaves of absence. However, unpaid leaves of absence greater than 30 days are not included.
<u>Salary</u>	Basic rate of pay, excluding bonuses, commissions, overtime and other items of additional pay.
<u>Final Average Compensation</u>	Average Salary for the 3 best years of the 10 years immediately preceding retirement or termination.
<u>Member Contributions</u>	None.
<u>Employer Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, Florida Statutes.
<u>Normal Retirement</u>	
Date	Earlier of: 1) age 65 and 7 years of Credited Service, or 2) 25 years of Credited Service, regardless of age.
Benefit	3.0% of Final Average Compensation <u>times</u> Credited Service (subject to a maximum benefit of 75.0% of Final Average Compensation).
Form of Benefit	Life Annuity (options available).
<u>Early Retirement</u>	
Date	Age 55 and 7 years of Credited Service.
Benefit	Accrued benefit, reduced 3.0% per year that the benefit commencement date precedes Age 65.
<u>Vesting</u>	All members are currently 100% vested in their accrued benefit. If a member terminates employment prior to retirement eligibility, the member will receive their accrued benefit payable at Early (reduced) or Normal Retirement Age.
<u>Disability</u>	Not Applicable.

Death Benefits

Pre-Retirement

Eligible for Retirement

If Beneficiary is member's spouse: Benefit payable as if Member retired on the date of death, selected a 50% Joint and Survivor annuity, and then passed away, with the benefit then continuing to the survivor for life.

If Beneficiary is not member's spouse: Distribution shall commence within one year of the member's death, and shall occur over a 5-year period in equal amounts that in the aggregate are the actuarial equivalent of the survivor's annuity otherwise payable.

Vested (not eligible for retirement)

Same as described above if eligible for retirement, and commencing at the earliest possible date (reduced for early retirement).

Post-Retirement

Benefits payable in accordance with option selected at retirement.