CITY OF TAMPA
GENERAL EMPLOYEES' PENSION PLAN

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2022

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2024

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

May 8, 2023

Board of Trustees
City of Tampa
General Employees' Pension Board

Re: City of Tampa General Employees' Pension Plan

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Tampa General Employees' Pension Plan. 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 the Board of Trustees, 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 valuations, 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 City of Tampa, 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.

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 City of Tampa, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the General Employees' Pension Plan. 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: ______________________________
Joseph L. Griffin, ASA, EA, MAAA
Enrolled Actuary #23-6938

By: ______________________________
Amanda M. Brown, ASA, EA, MAAA
Enrolled Actuary #23-8780

TABLE OF CONTENTS

Section	Title		Page
I	Introduction		
	a.	Summary of Report	5
	b.	Changes Since Prior Valuation	6
	c.	Comparative Summary of Principal Valuation Results	7
II	Valuation Information		
	a.	Reconciliation of Unfunded Actuarial Accrued Liabilities	13
	b.	Detailed Actuarial (Gain)/Loss Analysis	14
	c.	History of Funding Progress	15
	d.	Actuarial Assumptions and Methods	16
	e.	Glossary	19
	f.	Discussion of Risk	20
III	Trust Fund		22
IV	Member Statistics		
	a.	Historical Statistical Data	29
	b.	Statistical Data by Division	30
	c.	Age and Service Distribution	31
	d.	Valuation Participant Reconciliation	32
V	Summary of Current Plan		33

SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Tampa General Employees' Pension Plan ("Plan"), performed as of October 1, 2022, 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, 2024.

The contribution requirements, compared with those set forth in the October 1, 2021 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2022 9/30/2024	10/1/2021 9/30/2023
Minimum Required Contribution		
% of Projected Annual Payroll	13.4%	13.0%
Member Contributions (Est.)		
% of Projected Annual Payroll	0.0%	0.0%
City Required Contribution		
% of Projected Annual Payroll	13.4%	13.0%

The Minimum Required Contribution reflects an increase compared to the results set forth in the October 1, 2021 actuarial valuation report. The increase is largely attributable to unfavorable experience on the basis of the Plan's actuarial assumptions. Sources of actuarial loss included an investment return of 4.39% (Actuarial Asset Basis) which fell short of the 7.25% assumption and an average salary increase of 8.87% which exceeded the 4.63% assumption. 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

	10/1/2022	10/1/2021
A. Participant Data		
Actives	2,601	2,524
Service Retirees	1,681	1,629
DROP Retirees	178	179
Beneficiaries	480	484
Disability Retirees	73	76
Terminated Vested	621	618
Total	5,634	5,510
Payroll Under Assumed Ret. Age	$190,927,905	$175,012,505
Annual Rate of Payments to:		
Service Retirees	42,485,893	41,211,516
DROP Retirees	4,440,859	4,153,525
Beneficiaries	7,286,527	7,200,915
Disability Retirees	1,112,139	1,130,240
Terminated Vested	5,938,980	6,016,193
B. Assets		
Actuarial Value (AVA) [1]	796,121,807	797,524,134
Market Value (MVA) [1]	695,720,510	860,399,903
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	329,521,557	314,200,462
Disability Benefits	17,157,299	16,321,340
Death Benefits	3,743,632	3,555,270
Vested Benefits	21,555,706	20,007,917
Service Retirees	458,642,687	450,041,662
DROP Retirees [1]	66,355,774	63,398,287
Beneficiaries	65,286,767	64,925,260
Disability Retirees	11,677,200	11,460,479
Terminated Vested	45,518,772	45,757,521
Total	1,019,459,394	989,668,198

C. Liabilities - (Continued)	10/1/2022	10/1/2021
Present Value of Future Salaries	1,481,639,979	1,357,798,281
Present Value of Future Member Contributions	16,015	16,660
Normal Cost (Retirement)	9,821,774	8,904,224
Normal Cost (Disability)	681,809	627,618
Normal Cost (Death)	184,425	170,598
Normal Cost (Vesting)	1,721,795	1,608,474
Total Normal Cost	12,409,803	11,310,914
Present Value of Future Normal Costs	92,787,322	84,599,180
Accrued Liability (Retirement)	258,418,677	249,664,804
Accrued Liability (Disability)	11,671,374	11,280,703
Accrued Liability (Death)	2,365,340	2,282,745
Accrued Liability (Vesting)	6,735,481	6,257,557
Accrued Liability (Inactives) [1]	647,481,200	635,583,209
Total Actuarial Accrued Liability (EAN AL)	926,672,072	905,069,018
Unfunded Actuarial Accrued Liability (UAAL)	130,550,265	107,544,884
Funded Ratio (AVA / EAN AL)	85.9%	88.1%

D. Actuarial Present Value of Accrued Benefits

Accrued Benefits	10/1/2022	10/1/2021
Vested Accrued Benefits		
Inactives [1]	647,481,200	635,583,209
Actives	183,588,528	178,840,693
Member Contributions	296,040	284,782
Total	831,365,768	814,708,684
Non-vested Accrued Benefits	9,533,019	8,826,022
Total Present Value Accrued Benefits (PVAB)	840,898,787	823,534,706
Funded Ratio (MVA / PVAB)	82.7%	104.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	15,060,799	
Benefits Paid	(55,394,918)	
Interest	57,698,200	
Other	0	
Total	17,364,081	

Valuation Date	10/1/2022	10/1/2021
Applicable to Fiscal Year Ending	9/30/2024	9/30/2023
E. Pension Cost		
Normal Cost (with interest)		
% of Total Annual Payroll [2]	6.7	6.7
Administrative Expenses (with interest)		
% of Total Annual Payroll [2]	0.3	0.3
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 25 years (as of 10/1/2022, with interest)		
% of Total Annual Payroll [2]	6.4	6.0
Minimum Required Contribution		
% of Total Annual Payroll [2]	13.4	13.0
Expected Member Contributions		
% of Total Annual Payroll [2]	0.0	0.0
Expected City Contribution		
% of Total Annual Payroll [2]	13.4	13.0
F. Past Contributions		
Plan Years Ending:	9/30/2022	
Total Required Contribution	22,962,952	
City Requirement	22,945,222	
Actual Contributions Made:		
Members (excluding buyback)	17,730	
City	22,945,222	
Total	22,962,952	
G. Net Actuarial (Gain)/Loss	26,410,491	

[1] The asset values and liabilities include accumulated DROP Plan Balances as of 9/30/2022 and 9/30/2021.

[2] Contributions developed as of 10/1/2022 are expressed as a percentage of total annual payroll at 10/1/2022 of $190,927,905.

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

Year	Projected Unfunded Actuarial Accrued Liability
2022	130,550,265
2023	127,375,719
2024	124,072,111
2030	102,808,047
2036	70,672,395
2041	31,406,247
2047	0

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

		Actual	Assumed
Year Ended	9/30/2022	8.87%	4.63%
Year Ended	9/30/2021	5.85%	4.63%
Year Ended	9/30/2020	9.55%	4.62%
Year Ended	9/30/2019	11.19%	4.63%
Year Ended	9/30/2018	5.61%	4.67%

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

		Market Value	Actuarial Value	Assumed
Year Ended	9/30/2022	-15.31%	4.39%	7.25%
Year Ended	9/30/2021	21.09%	9.88%	7.50%
Year Ended	9/30/2020	8.58%	7.53%	7.65%
Year Ended	9/30/2019	12.35%	9.25%	7.80%
Year Ended	9/30/2018	-4.31%	4.86%	7.90%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2022	$190,927,905
	1/1/2013	129,571,546
(b) Total Increase		47.35%
(c) Number of Years		9.75
(d) Average Annual Rate		4.06%

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.

Joseph L. Griffin, EA, ASA, MAAA
Enrolled Actuary #23-6938

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

Mr. Steve Bardin
Municipal Police and Fire
Pension Trust Funds
Division of Retirement
Post Office Box 3010
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

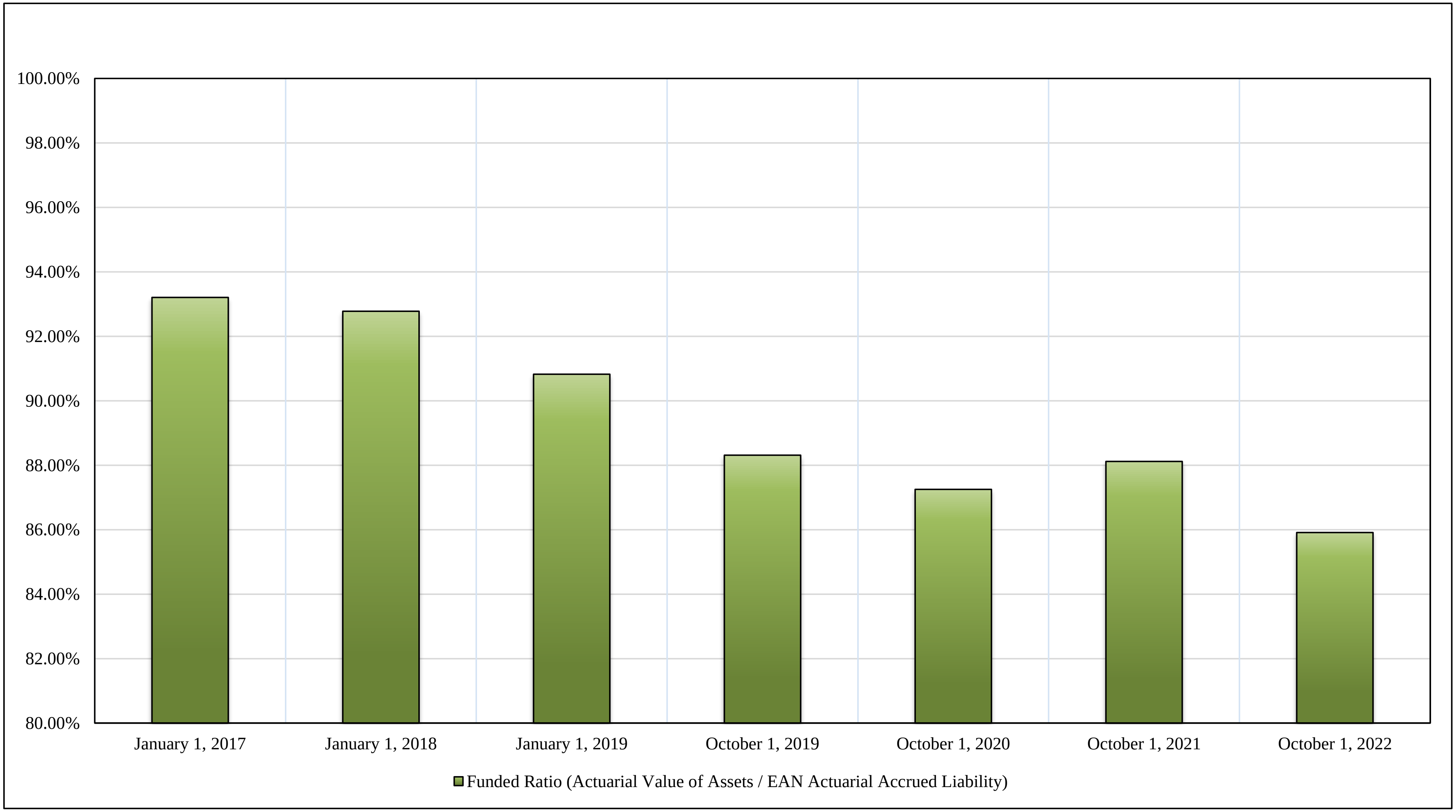
(1)	Unfunded Actuarial Accrued Liability as of October 1, 2021	$107,544,884
(2)	Sponsor Normal Cost developed as of October 1, 2021	11,293,413
(3)	Expected administrative expenses for the year ended September 30, 2022	446,501
(4)	Expected interest on (1), (2) and (3)	8,631,962
(5)	Sponsor contributions to the System during the year ended September 30, 2022	22,945,222
(6)	Expected interest on (5)	831,764
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2022 (1)+(2)+(3)+(4)-(5)-(6)	104,139,774
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	26,410,491
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2022	130,550,265

Type of Base	Date Established	Years Remaining	10/1/2022 Amount	Amortization Amount
Benefit Change	1/1/2005	0.1566	94,260	94,260
Benefit Change	1/1/2006	2.25	1,247,173	578,605
Asmp/Mthd Change	1/1/2019	21	73,473,212	6,449,971
Actuarial Loss	10/1/2019	22	2,593,533	223,172
Assump Change	10/1/2019	22	12,035,013	1,035,608
Actuarial Loss	10/1/2020	23	2,666,285	225,276
Assump Change	10/1/2020	23	12,586,986	1,063,483
Actuarial Gain	10/1/2021	24	(23,156,120)	(1,923,977)
Assump Change	10/1/2021	24	22,599,432	1,877,723
Actuarial Loss	10/1/2022	25	26,410,491	2,160,905
			130,550,265	11,785,026

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2021	$107,544,884
(2)	Expected UAAL as of October 1, 2022	104,139,774
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	22,276,321
	Salary Increases	5,233,941
	Active Decrements	(484,926)
	Inactive Mortality	(5,220,094)
	New Hires/Rehires	1,296,629
	Data Corrections	1,024,118
	Other	2,284,502
	Increase in UAAL due to (Gain)/Loss	26,410,491
	Assumption Changes	0
(4)	Actual UAAL as of October 1, 2022	$130,550,265

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 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 3 years. All rates are projected generationally with Mortality Improvement Scale MP-2018. 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	7.25% 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.
Administrative Expenses	$572,110 annually, based on the average of actual expenses incurred in the prior two fiscal years, excluding implementation expenses for the new administration system.
Inflation	2.50% annually.
Marital Assumptions	70% of active males and 55% of active females are assumed to be married, with males 3 years older than females. To reflect the impact of remarriage, Division A members are valued assuming a 73.63% survivor annuity for active, vested terminated, retired and disabled participants, and 99.16% of the actual monthly benefit for beneficiaries currently in receipt.

ACTUARIAL ASSUMPTIONS AND METHODS (CONTINUED)

Salary Increases

Rates of salary increases are shown below. The assumed salary increase rates are supported by an actuarial experience study dated September 10, 2018.

Age	Salary Increase	Age	Salary Increase
< 20	10.0%	45-49	4.5%
20-24	9.0	50-54	4.0
25-29	8.0	55-59	3.5
30-34	7.0	60-64	3.0
35-39	6.0	65+	2.5
40-44	5.0		

Retirement Rates

Rates of retirement are shown below. The assumed rates of retirement for Division B are based on an actuarial experience study dated September 10, 2018.

Division A:

Age	Retirement Rates	Age	Retirement Rates
55	95%	61	70%
56	85	62	90
57	40	63	10
58	50	64	10
59	20	65	70
60	60	66+	100

Division B:

Age	Retirement Rates	Age	Retirement Rates
55	7.0%	62	50%
56-58	4.0	63-65	35
59-60	10.0	66	45
61	25	67-69	30
		70+	100

Terminated vested participants are assumed to retire at age 62.

Disability Rates

Sample rates of disability are shown below. The assumed rates of disability are based on an actuarial experience study dated September 1, 2018.

Age	Disability Rates	Age	Disability Rates
20	0.0675%	50	0.2475%
25	0.0750	55	0.435
30	0.0825	60	0.885
35	0.0900	65	1.785
40	0.1125	70	3.225
45	0.1613	75	3.225

ACTUARIAL ASSUMPTIONS AND METHODS (CONTINUED)

Termination Rates

Rates of termination are shown below. The assumed rates of termination are based on an actuarial experience study dated September 10, 2018.

Years of Service	Termination Rates
0-3	15.0%
4	8.0
5-8	6.5
9-11	5.0
12-20	4.0
21-24	3.0
25+	2.0

Payroll Growth

Not Applicable. Unfunded liabilities are amortized on a level dollar basis.

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 7.25% assumption.

Salary - None.

Actuarial Asset Method

Assets are smoothed by recognizing investment gains or losses ratably over a five-year period. The investment gain or loss is determined based on the difference between the actual investment return for the year and the expected investment return by applying the assumed rate of return to the beginning of year market value of assets and cash flows during the year. The resulting asset value is constrained to no less than 80% nor greater than 120% of the market value of assets.

Amortization Periods

Changes in unfunded liability are amortized on a level dollar basis over 25 years. Outstanding bases established for benefit improvements (under the Frozen Initial Liability method) are continued to be amortized under the existing schedule as of January 1, 2018.

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.

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.

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.

1. 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.

2. 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.

3. 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.

4. Contribution risk***:*** Risks associated with items 1 and 2 above will inherently create varying liabilities and assets resulting in volatility in contribution requirements. Actuarial losses on assets and liabilities will lead to higher contribution amounts, while actuarial gains on assets and liabilities will lead to lower contribution amounts. It should be noted that investment risk is generally a greater risk to most plans than demographic risk. Prolonged periods of investment performance below the assumed rate of return can result in a decrease in funded status (i.e. increases unfunded liabilities) and an increase in contributions required in future years.

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 stayed about the same from October 1, 2019 to October 1, 2022, indicating that the plan's maturity level has not significantly changed 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 69.9%. 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 decreased from 88.3% on October 1, 2019 to 85.9% on October 1, 2022.

- 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 -3.2% on October 1, 2019 to -5.1% on October 1, 2022. The current Net Cash Flow Ratio of -5.1% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section 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

	10/1/2022	10/1/2021	10/1/2020	10/1/2019
Support Ratio				
Total Actives	2,601	2,524	2,571	2,440
Total Inactives [1]	3,033	2,986	2,961	2,934
Actives / Inactives [1]	85.8%	84.5%	86.8%	83.2%
Asset Volatility Ratio				
Market Value of Assets (MVA)	695,720,510	860,399,903	741,084,321	715,148,873
Total Annual Payroll	191,945,618	175,987,704	172,684,981	158,847,890
MVA / Total Annual Payroll	362.5%	488.9%	429.2%	450.2%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	647,481,200	635,583,209	613,961,818	596,815,633
Total Accrued Liability (EAN) [1]	926,672,072	905,069,018	868,440,081	835,004,594
Inactive AL / Total AL	69.9%	70.2%	70.7%	71.5%
Funded Ratio				
Actuarial Value of Assets (AVA)	796,121,807	797,524,134	757,720,855	737,407,356
Total Accrued Liability (EAN) [1]	926,672,072	905,069,018	868,440,081	835,004,594
AVA / Total Accrued Liability (EAN)	85.9%	88.1%	87.3%	88.3%
Net Cash Flow Ratio				
Net Cash Flow [2]	(35,654,047)	(33,426,700)	(32,600,392)	(22,941,353)
Market Value of Assets (MVA)	695,720,510	860,399,903	741,084,321	715,148,873
Ratio	-5.1%	-3.9%	-4.4%	-3.2%

[1] The investment rate of return assumption was 7.65%, 7.50%, 7.25%, 7.25% for 2019, 2020, 2021, and 2022, respectively.

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

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2022

ASSETS	MARKET VALUE
Cash and Cash Equivalents:	
Cash	423,159
Total Cash and Equivalents	423,159
Receivables:	
Accounts Receivable, Net	54,680
Investment Income	202,227
Total Receivable	256,907
Investments:	
Debt and Other Interest Bearing Investments	169,145,010
Equities	408,188,542
Real Estate Investments	121,943,515
Total Investments	699,277,067
Total Assets	699,957,133
LIABILITIES	
Payables:	
Accounts Payable	4,236,623
Total Liabilities	4,236,623
NET POSITION RESTRICTED FOR PENSIONS	695,720,510

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2022
Market Value Basis

<u>ADDITIONS</u>		
Contributions:		
Member	17,730	
City	22,945,222	
Total Contributions		22,962,952
Investment Income:		
Realized & Unrealized Gain (Loss)	(134,935,497)	
Interest & Dividends	10,022,559	
Less Investment Expense[1]	(4,112,408)	
Net Investment Income		(129,025,346)
Total Additions		(106,062,394)
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	51,007,311	
Lump Sum DROP Distributions	4,387,607	
Refunds of Member Contributions	0	
Total Distributions		55,394,918
Administrative Expense		3,222,081
Total Deductions		58,616,999
Net Increase in Net Position		(164,679,393)
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		860,399,903
End of the Year		695,720,510

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

ACTUARIAL ASSET VALUATION
September 30, 2022

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.

Gains/Losses Not Yet Recognized

Plan Year		Amounts Not Yet Recognized by Valuation Year				
Ending	Gain/(Loss)	2022	2023	2024	2025	2026
09/30/2018	(8,622,963)	0	0	0	0	0
09/30/2019	(42,179,565)	(8,435,913)	0	0	0	0
09/30/2020	5,697,506	2,279,003	1,139,502	0	0	0
09/30/2021	97,567,103	58,540,261	39,026,840	19,513,419	0	0
09/30/2022	(190,980,810)	(152,784,648)	(114,588,486)	(76,392,324)	(38,196,162)	0
Total		(100,401,297)	(74,422,144)	(56,878,905)	(38,196,162)	0

Development of Investment Gain/(Loss)

Market Value of Assets, 09/30/2021	860,399,903
Contributions Less Benefit Payments & Admin Expenses	(35,654,047)
Expected Investment Earnings	61,955,464
Actual Net Investment Earnings, including adjmt to 9/30/20 MV	(129,025,346)
2022 Actuarial Investment Gain/(Loss)	(190,980,810)

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2022	695,720,510
(2) Gains/(Losses) Not Yet Recognized	(100,401,297)
(3) Actuarial Value of Assets, 09/30/2022, (1) - (2)	796,121,807
(A) 09/30/2021 Actuarial Assets:	797,524,134
(I) Net Investment Income:	
1. Interest and Dividends	10,022,559
2. Realized & Unrealized Gains (Losses)	(134,935,497)
3. Change in Actuarial Value	163,277,066
4. Investment Expenses	(4,112,408)
Total	34,251,720
(B) 09/30/2022 Actuarial Assets:	796,121,807
Actuarial Assets Rate of Return for the Fiscal Year Ending 09/30/2019 = 2I/(A+B-I):	4.39%
Market Value of Assets Rate of Return for the Fiscal Year Ending 09/30/2019:	-15.31%
Actuarial Gain/(Loss) due to Investment Return (actuarial Asset Basis)	(22,276,321)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
SEPTEMBER 30, 2022
Actuarial Asset Basis

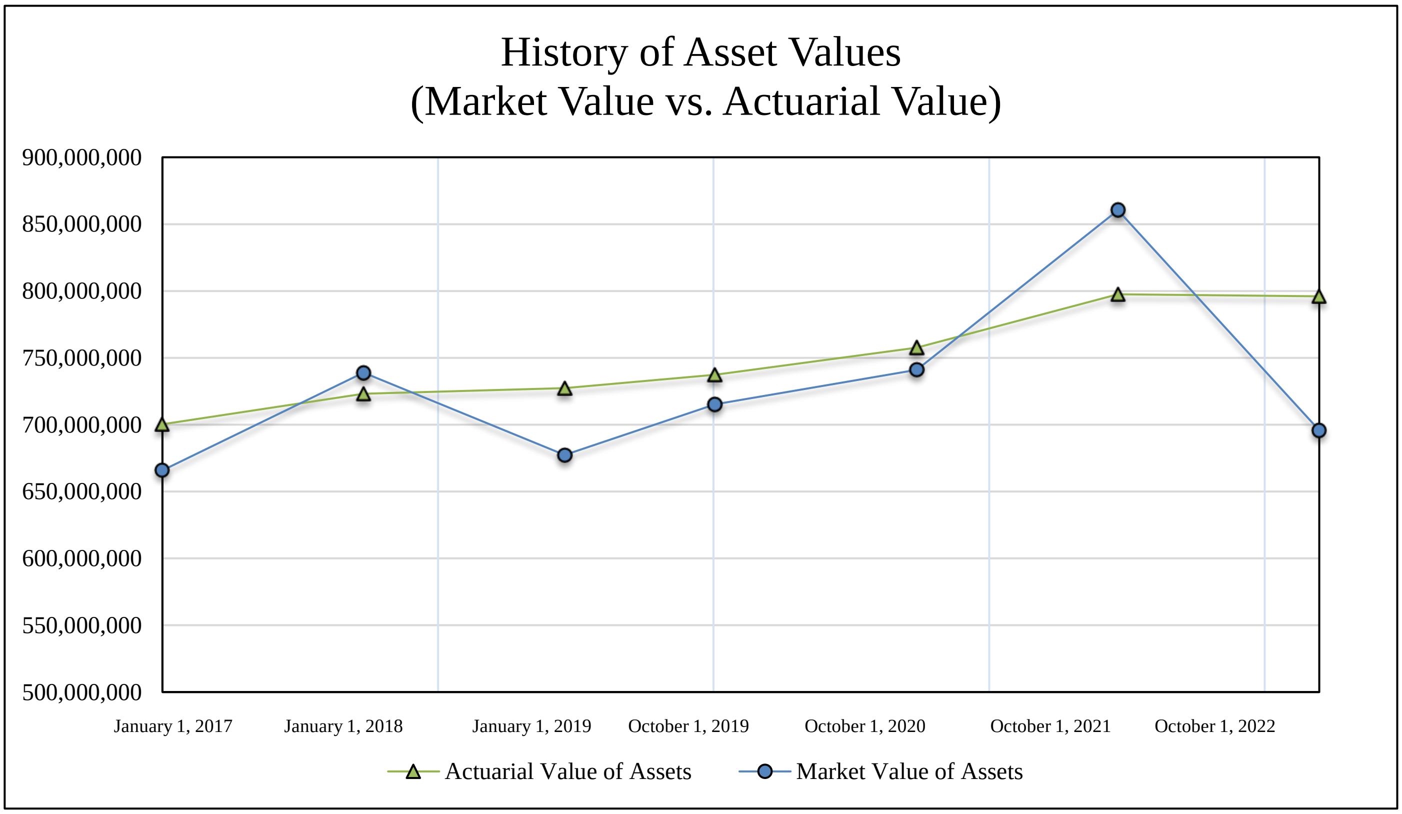
REVENUES		
Contributions:		
Member	17,730	
City	22,945,222	
Total Contributions		22,962,952
Earnings from Investments:		
Interest & Dividends	10,022,559	
Realized & Unrealized Gain (Loss)	(134,935,497)	
Change in Actuarial Value	163,277,066	
Total Earnings and Investment Gains		38,364,128
EXPENDITURES		
Distributions to Members:		
Benefit Payments	51,007,311	
Lump Sum DROP Distributions	4,387,607	
Refunds of Member Contributions	0	
Total Distributions		55,394,918
Expenses:		
Investment related[1]	4,112,408	
Administrative	3,222,081	
Total Expenses		7,334,489
Change in Net Assets for the Year		(1,402,327)
Net Assets Beginning of the Year		797,524,134
Net Assets End of the Year[2]		796,121,807

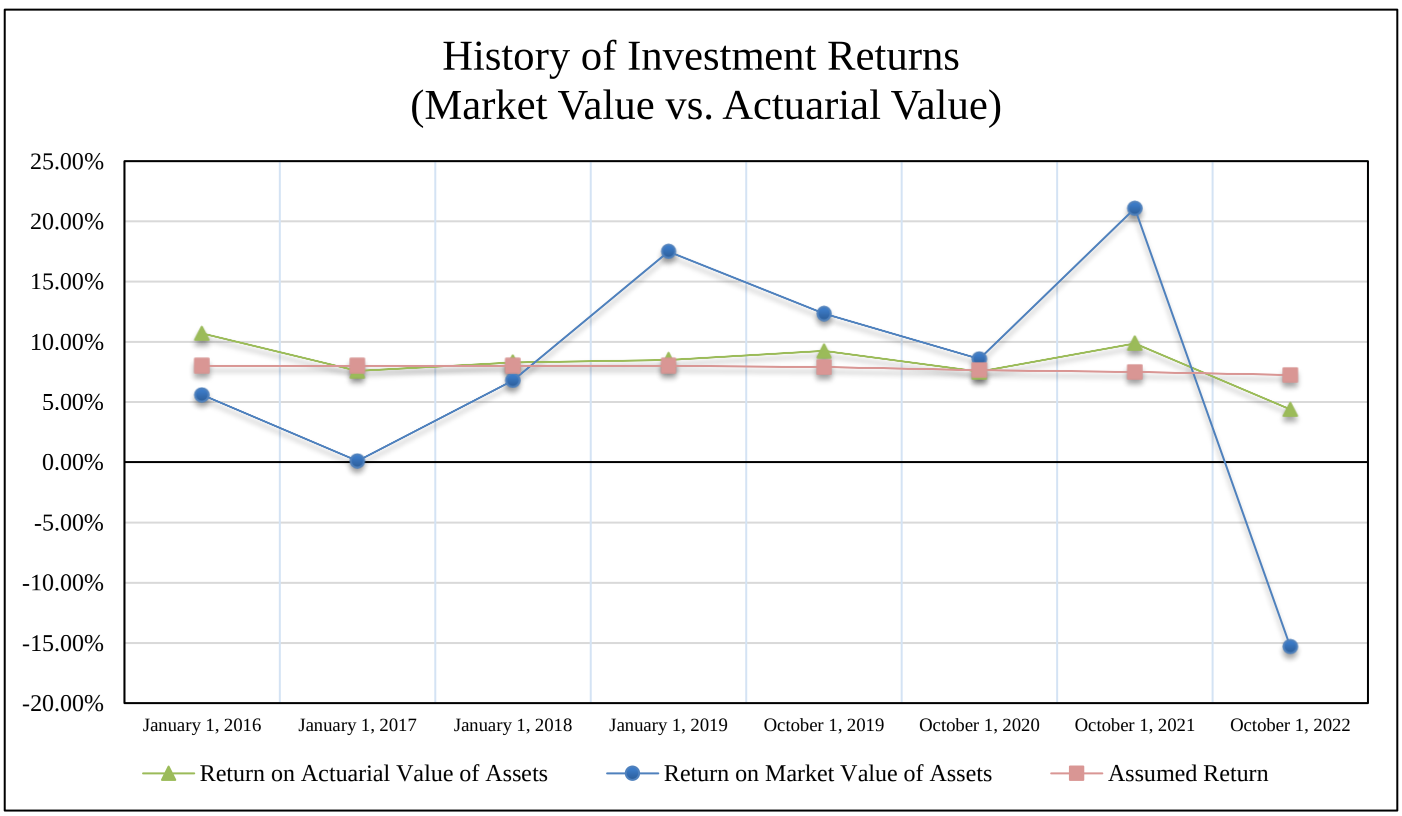
[1]Investment related expenses include investment advisory, custodial and performance monitoring fees.
[2]Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2021 to September 30, 2022

Beginning of the Year Balance	10,882,948.69
Plus Additions	4,977,748.06
Investment Return Earned	(1,045,299.83)
Less Distributions	(4,387,607.20)
Less Admin Fee	(3,435.00)
End of the Year Balance	10,424,354.72

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2022	10/1/2021	10/1/2020	10/1/2019
Actives				
Number	2,601	2,524	2,571	2,440
Average Current Age	47.0	47.1	46.8	46.8
Average Age at Employment	35.6	35.2	35.0	34.4
Average Past Service	11.4	11.9	11.8	12.4
Average Annual Salary	$73,797	$69,726	$67,166	$65,102
Service Retirees				
Number	1,681	1,629	1,601	1,563
Average Current Age	73.1	72.9	72.8	72.6
Average Annual Benefit	$25,274	$25,299	$25,434	$25,261
DROP Retirees				
Number	178	179	175	184
Average Current Age	64.3	64.6	64.6	64.4
Average Annual Benefit	$24,949	$23,204	$22,414	$21,017
Beneficiaries				
Number	480	484	479	480
Average Current Age	75.8	75.8	76.8	77.1
Average Annual Benefit	$15,180	$14,878	$14,081	$13,727
Disability Retirees				
Number	73	76	80	79
Average Current Age	63.3	62.8	62.4	61.7
Average Annual Benefit	$15,235	$14,872	$14,299	$13,500
Terminated Vested				
Number	621	618	626	628
Average Current Age	51.5	51.5	51.6	51.5
Average Annual Benefit	$9,564	$9,735	$8,819	$8,766

STATISTICAL DATA BY DIVISION

	Division A		Division B	
	10/1/2022	10/1/2021	10/1/2022	10/1/2021
Actives				
Number	3	3	2,598	2,521
Average Current Age	63.9	62.9	47.0	47.1
Average Age at Employment	22.1	22.1	35.6	35.2
Average Past Service	41.8	40.8	11.4	11.9
Average Annual Salary	$88,603	$83,287	$73,780	$69,710
Service Retirees [1]				
Number	572	602	1,109	1,027
Average Current Age	76.4	75.9	71.4	71.1
Average Annual Benefit	$45,893	$44,408	$14,639	$14,097
DROP Retirees				
Number	3	5	175	174
Average Current Age	62.0	61.4	64.3	64.7
Average Annual Benefit	$60,351	$56,192	$24,342	$22,256
Beneficiaries				
Number	289	305	191	179
Average Current Age	79.6	79.2	69.9	70.0
Average Annual Benefit	$21,207	$20,143	$6,061	$5,907
Disability Retirees				
Number	11	12	62	64
Average Current Age	75.2	74.1	61.2	60.7
Average Annual Benefit	$28,008	$26,279	$12,969	$12,733
Terminated Vested [2]				
Number	0	0	621	618
Average Current Age	N/A	N/A	51.5	51.6
Average Annual Benefit	N/A	N/A	$9,564	$9,735

[1] There are 8 retirees who are receiving Service Retiree benefits in both Division A and Division B.

[2] Includes deferred beneficaries.

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	5	1										6
20 - 24	27	18	16	6	4	1						72
25 - 29	48	40	18	14	17	28						165
30 - 34	42	27	35	21	18	43	21	1				208
35 - 39	40	19	30	11	29	59	35	25	1			249
40 - 44	35	25	31	17	25	70	39	59	15	3		319
45 - 49	38	13	19	15	18	81	46	59	40	16	1	346
50 - 54	30	20	27	16	18	76	29	63	57	44	31	411
55 - 59	24	21	20	16	13	60	28	83	74	47	88	474
60 - 64	10	8	20	10	13	39	24	46	35	27	50	282
65+	2	1	1	1	4	12	12	15	5	6	10	69
Total	301	193	217	127	159	469	234	351	227	143	180	2,601

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2021	2,524
b. Terminations	
i. Vested (partial or full) with deferred annuity	(42)
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	(101)
c. Deaths	
i. Beneficiary receiving benefits	(4)
ii. No future benefits payable	(5)
d. Disabled	0
e. Retired	(32)
f. DROP	(47)
g. Continuing participants	2,293
h. New entrants / Rehires	308
i. Total active life participants in valuation	2,601

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

	Service Retirees, Vested Receiving Benefits	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Total
a. Number prior valuation	1,629	179	484	76	618	2,986
Retired	109	(47)			(30)	32
DROP		47				47
Vested (Deferred Annuity)					42	42
Vested (Due Refund)						0
Death, With Survivor	(23)		39	(2)	(1)	13
Death, No Survivor	(39)	(1)	(36)	(3)	(6)	(85)
Disabled				2	(2)	0
Refund of Contributions						0
Rehires	(1)				(6)	(7)
Expired Annuities			(1)			(1)
Data Corrections	6		(6)		6	6
b. Number current valuation	1,681	178	480	73	621	3,033

SUMMARY OF CURRENT PLAN

Plan Effective Date	Created as Chapter 23559, Laws of Florida of 1945. Restated in its present form as of October 1, 1981. Summary includes all amendments through Chapter 2013-253, Special Act of 2013
Plan Year	October 1 to September 30
Eligibility	Full-time, part-time, or temporary employees who have taken the required physical exam. Elective officers, department heads, and appointive officers eligible to participate in the Plan. Division A covers those hired before October 1, 1981. Division B covers employees hired on or after October 1, 1981 or former Division A employees who made an election to participate in Division B
Salaries	Salaries shall equal the base amounts earned plus regular longevity bonuses, overtime, and shift premiums. Salaries shall also include elective amounts that are excludible from the Employee's gross income under Sections 125, 403(b), 457, and 132(f)(4) of the Internal Revenue Code. Salaries shall exclude other premiums, other than shift premiums, allowances, special payments, or any casual nonrecurring or unpredictable bonuses; payments for unused accrued bona fide sick, vacation, or other leave; payments received by an Employee pursuant to a nonqualified unfunded deferred salary plan; and severance pay that is paid after an Employee severs employment with the City (provided it was not earned by the severance date).
Member Contributions	Division A: 7.0% of Salaries Division B: None
Continuous Service	Continuous Service ("Service") is unbroken service by an employee credited in completed months. Temporary interruptions due to Military Service, illness or involuntary severance through no fault of the employee, provided the employee is reinstated, shall not be deemed to be breaks in service. Certain time spent on authorized leave of absence shall be recognized. Military service for up to five years, or as required by the Uniformed Services Employee and Re-Employment Rights Act may be counted as years of Service.
Average Monthly Salary ("AMS")	The average of an employee's salary for the highest three (3) of the last six (6) years of Service, divided by twelve (12).

SUMMARY OF CURRENT PLAN (CONTINUED)

Accrued Pension	Division A: 2.0% of AMS times years of Service plus an additional 0.5% of AMS times years of Service in excess of 15 years, for years after January 1, 1975, with a maximum of 30 years of Service. Division B: 1.2% of AMS times years of Service.
Vesting	
Schedule	100% after six (6) years of Service.
Benefit Amount	Accrued Pension payable at Normal Retirement Date, provided no refund of contributions occurred for a Division A member.
Refund of Contributions	Division A members who terminate with less than six (6) years of Service are eligible for refund of employee contributions without interest.
Retirement – Division A	
Normal Retirement Date	Attainment of age fifty-five (55) and completion of at least six (6) years of Service.
Normal Retirement Benefit	Accrued Pension.
Early Retirement Date	None.
Cost-of-Living Adjustment (“COLA”)	2.2% commencing January 1st for each retiree or beneficiary (whether attributable to retirement, termination, death, or disability benefits)
Retirement – Division B	
Normal Retirement Date	Attainment of age sixty-two (62) and completion of at least six (6) years of Service.
Normal Retirement Benefit	Accrued Pension.
Early Retirement Date	Attainment of age fifty-five (55) and completion of at least six (6) years of Service.
Early Retirement Benefit	Accrued Pension reduced 5/12 of 1.0% for each month the Early Retirement date precedes the Normal Retirement date.
Cost-of-Living Adjustment	1.2% commencing January 1st for each retiree or beneficiary (whether attributable to retirement, termination, death, or disability benefits)
Disability	
Eligibility	Total and permanent disability after the completion of at least six (6) years of Service. DROP members are not eligible for disability benefits.
Benefit	Accrued Pension, payable immediately.

SUMMARY OF CURRENT PLAN (CONTINUED)

Death Benefits – Division A

Post-Retirement Death

The following benefits are payable:

1. Spouse shall receive monthly benefit of 75% of the member's Accrued Pension. The benefit ceases upon death of the spouse and reduces to 50% of the member's benefit upon remarriage of spouse.
2. Dependent children under 18 shall receive $100 a month until marriage or the attainment of age 18. Total benefit payable to spouse and children shall not exceed the amount of the member's Accrued Pension.
3. If there is no spouse or dependent children, dependent parents, who are solely dependent on the earnings of the member, shall receive spouse's benefit until their death or withdraw employee contributions in lieu of the monthly benefit.
4. Orphaned children under 18 shall receive monthly benefit of 75% of the member's Accrued Pension until marriage or the attainment of age 18.
5. If a member dies and is not survived by a spouse, children, or dependent parents, the excess, if any, of member's total contributions without interest over total benefits received until death shall be paid in a lump sum to the legal heirs.

Pre-Retirement Death Benefits

Active Non-Vested Death

The full amount of the contributions without interest shall be paid to the legal heirs.

Active Vested Death

The spouse, children, or dependent parents of an active vested member who dies shall receive the immediate survivor annuity payable as of the date of death as if the death occurred under the Post-Retirement Death section above. If the member is not survived by a spouse, children, or dependent parents, the full amount of contributions without interest shall be paid to the legal heirs.

Terminated Vested Death

The death benefits, as described in the Post-Retirement Death section above, is payable on or after the date the member would have attained age fifty-five (55).

SUMMARY OF CURRENT PLAN (CONTINUED)

Death Benefits – Division B

Post-Retirement	Spouse shall receive monthly benefit of 50% of the member's benefit.
Pre-Retirement Death Benefits	
Active Vested Death	A lump sum equal to member's annual salary is paid to the legal heirs. Additionally, a surviving spouse shall receive a monthly benefit equal to 50% of the member's Accrued Pension payable at the member's normal or early retirement date.
Terminated Vested	Upon death of terminated vested member, a surviving spouse shall receive a monthly benefit equal to 50% of the member's Accrued Pension payable at the date the member would have attained age sixty-two (62).

Deferred Retirement Option Plan ("DROP")

Eligibility	Attainment of age fifty-five (55) and completion of at least six (6) years of Service .
Participation	A maximum of 7 years.
DROP Accrued Benefit	Accrued Pension calculated as of the date of entry into DROP.
Balance Accumulation	Member's accrued monthly normal or early retirement pension, calculated at the beginning of the DROP period, accumulated with interest (positive of negative), including annual COLAs, less the cost of administering the DROP program.
Rate of Return	Members elect to have interest accumulate annually during the DROP calculation period at either: 1. Rate reflecting the Fund's net investment performance, as determined by the Board of Trustees, or 2. Rate reflective of low risk variable rate selected annually by the Board of Trustees, in its sole discretion.