

City of Coral Gables Retirement System

Actuarial Valuation Report as of October 1, 2022

Annual Employer Contribution for the
Fiscal Year Ending September 30, 2024





April 12, 2023

Board of Trustees
City of Coral Gables Retirement System
Coral Gables, Florida

Dear Members of the Board:

The results of the October 1, 2022 Annual Actuarial Valuation of the City of Coral Gables Retirement System (“Retirement System” or “Plan”) are presented in this report.

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

The purposes of the valuation are to measure the Plan’s funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2024, to determine the actuarial information for Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 960 (ASC 960) for the plan year ending September 30, 2022, and to present the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2022. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results associated with the benefits described in this report for purposes other than those identified above may be significantly different.

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

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

The findings in this report are based on data and other information through October 1, 2022. The valuation was based upon information furnished by the Plan Administrator concerning plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator.

This report was prepared using certain assumptions adopted by the Board as authorized and prescribed under Florida Statutes, as described in Section B of this report. The prescribed assumptions are the assumed mortality rates detailed in accordance with Florida Statutes Chapter 112.63. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. Additional information about the actuarial assumptions is detailed in Section B of this report.

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

This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses.

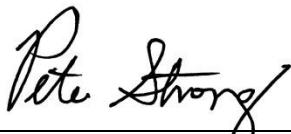
Peter N. Strong and Melissa R. Zrelack are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

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

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

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

By 
Peter N. Strong, FSA, MAAA, FCA
Enrolled Actuary No. 23-6975
Senior Consultant & Actuary

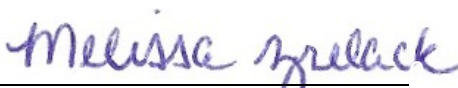
By 
Melissa R. Zrelack, MAAA, FCA
Enrolled Actuary No. 23-6467
Consultant & Actuary



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SECTION A

DISCUSSION OF VALUATION RESULTS

Discussion of Valuation Results

Comparison of Required Employer Contributions

The required Employer contribution this year compared with the preceding year is as follows:

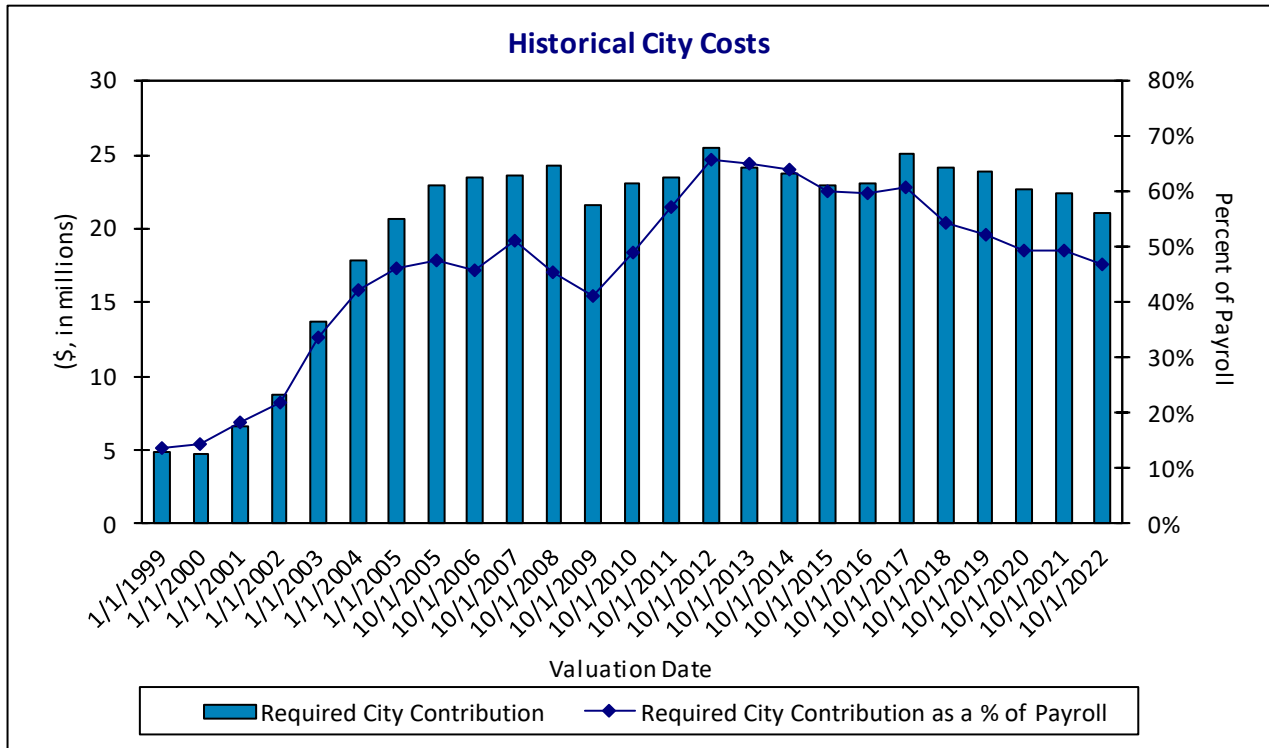
	For FYE 9/30/2024 Based on 10/1/2022 Valuation	For FYE 9/30/2023 Based on 10/1/2021 Valuation	Increase/ (Decrease)
Required Employer Contribution	\$ 21,229,356	\$ 22,535,142	\$ (1,305,786)
As % of Contribution Year Payroll	47.20 %	49.76 %	(2.56) %
Estimated State Contribution	145,830	145,830	0
(Discounted to Beginning of Year)	137,223	137,167	\$ 56
As % of Contribution Year Payroll	0.30 %	0.30 %	0.00 %
Net Required Employer Contribution	21,092,133	22,397,975	(1,305,842)
As % of Contribution Year Payroll	46.90 %	49.46 %	(2.56) %

Payment of Required Contribution

The contribution developed in this valuation has been calculated as though the full payment is paid on October 1, 2023. If deposited after October 1, 2023, additional interest at the 7.20% annual rate must be added. Further, the required Employer contribution has been computed with the assumption that the amount to be credited to the plan from the State in 2023 and 2024 will be equal to the amount received in 2022 of \$145,830. If the actual payment from the State falls below this amount, then the Employer must increase its contribution by the difference.

Actual contributions for the last year were \$30,528,631 from the City plus \$145,830 (\$136,999 when adjusted for timing) of annual State revenue, for a total of \$30,674,461 (\$30,665,630 when adjusted for timing). The total annual required Employer contribution (City plus State) was \$23,032,324. An additional contribution of \$7,630,097 (plus an excess contribution of \$3,209) was made in October 2022 (in excess of the required City contribution for FY 2022) and was applied towards the unfunded actuarial accrued liability to reduce the Actuarial (Gain)/Loss amortization base established 1/1/2004 and the Actuarial (Gain)/Loss amortization base established 1/1/2005. Please see pages 25-37 for additional details.





Revisions in Plan Provisions / Benefits

There were no revisions in plan provisions or benefits since the last valuation.

Revisions in Actuarial Assumptions

As approved by the Board of Trustees, the assumed investment rate of return was lowered from 7.25% to 7.20% per year, compounded annually (net after investment expenses). This rate will be reevaluated annually, and future reductions of 5 to 10 basis points per year are anticipated.

This assumption change caused a \$268,240 increase in the City’s required contribution and a \$2,806,104 increase in the unfunded actuarial accrued liability.

Revisions in Methods

There have been no revisions in methods since the last valuation.

Actuarial Experience

There was a net actuarial experience loss of \$5,752,406 since the last actuarial valuation, which means that actual experience was less favorable than expected. The loss resulted primarily from a lower investment return on the actuarial value of assets than expected. The investment return was 6.3% based on the actuarial value of assets versus the expected investment return of 7.25%. See below for a detailed breakdown of the net actuarial experience gain/(loss).

Gain/(Loss) by Source	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
1. Retirement Decrements	\$ (184,000)	-	219,000	117,000	(459,000)	(61,000)
2. Termination Decrements	213,000	-	445,000	88,000	(212,000)	(108,000)
3. Disability Decrements	210,000	-	15,000	20,000	139,000	36,000
4. Mortality	(1,251,000)	(9,000)	167,000	(498,000)	(798,000)	(113,000)
5. Transfers Between Divisions	-	-	-	-	-	-
6. Service Adjustments from Past Buybacks	-	-	-	-	-	-
7. Salary Experience	(268,000)	-	(311,000)	(262,000)	(167,000)	472,000
8. New Entrants	(84,000)	-	-	(71,000)	(13,000)	-
9. 415 Limits/Data Adjustments	(74,000)	-	(74,000)	-	-	-
10. Investment Experience	(4,314,000)	(3,000)	(638,000)	(1,048,000)	(1,410,000)	(1,215,000)
11. Total	(5,752,000)	(12,000)	(177,000)	(1,654,000)	(2,920,000)	(989,000)

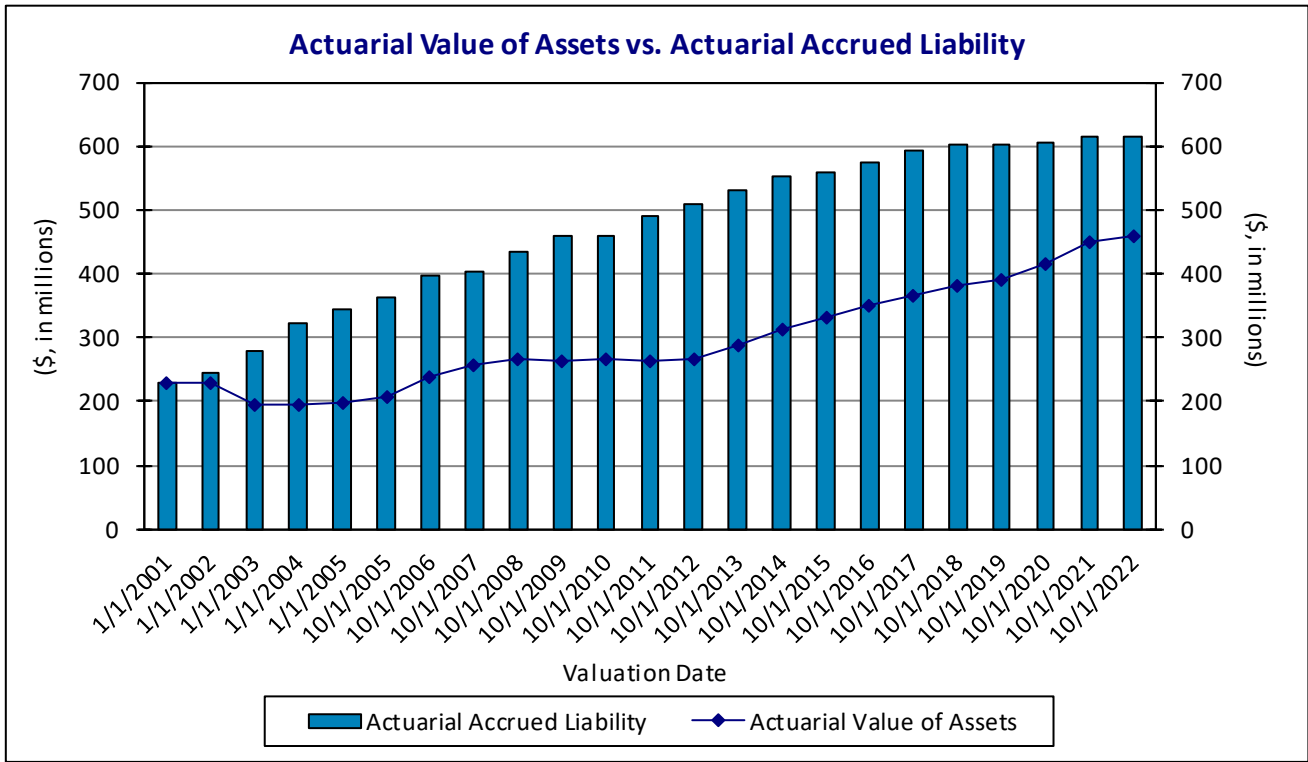
Participation in the 401(a) Plan

New General Employees are given a choice between entering the 401(a) defined contribution plan or the defined benefit plan. During fiscal year 2022, approximately 20% of newly hired General Employees elected the 401(a) Plan, in lieu of participating in the defined benefit plan. Over time, future employees entering (or transferring to) the 401(a) defined contribution plan will result in lower liabilities in the defined benefit plan. However, this experience does not have much impact on the annual cost of the defined benefit plan since the employee contribution rate is very close to the total normal cost rate in the defined benefit plan.

Funded Ratio

The funded ratio as of October 1, 2022 is 74.7% compared to 73.4% as of October 1, 2021. Prior to the assumption change, the funded ratio this year would have been 75.1%. The ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.





Analysis of City Contribution by Group

The fiscal year 2024 required City contribution as a dollar amount and as a percent of Covered Payroll for each group is shown below:

		<i>General Employees Excludable</i>	<i>General Employees Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
Total	Elected				
\$21,092,133	\$26,799	\$3,391,751	\$5,259,243	\$6,868,268	\$5,546,072
46.90 %	N/A	38.07 %	45.59 %	50.89 %	50.25 %

Variability of Future Contribution Rates

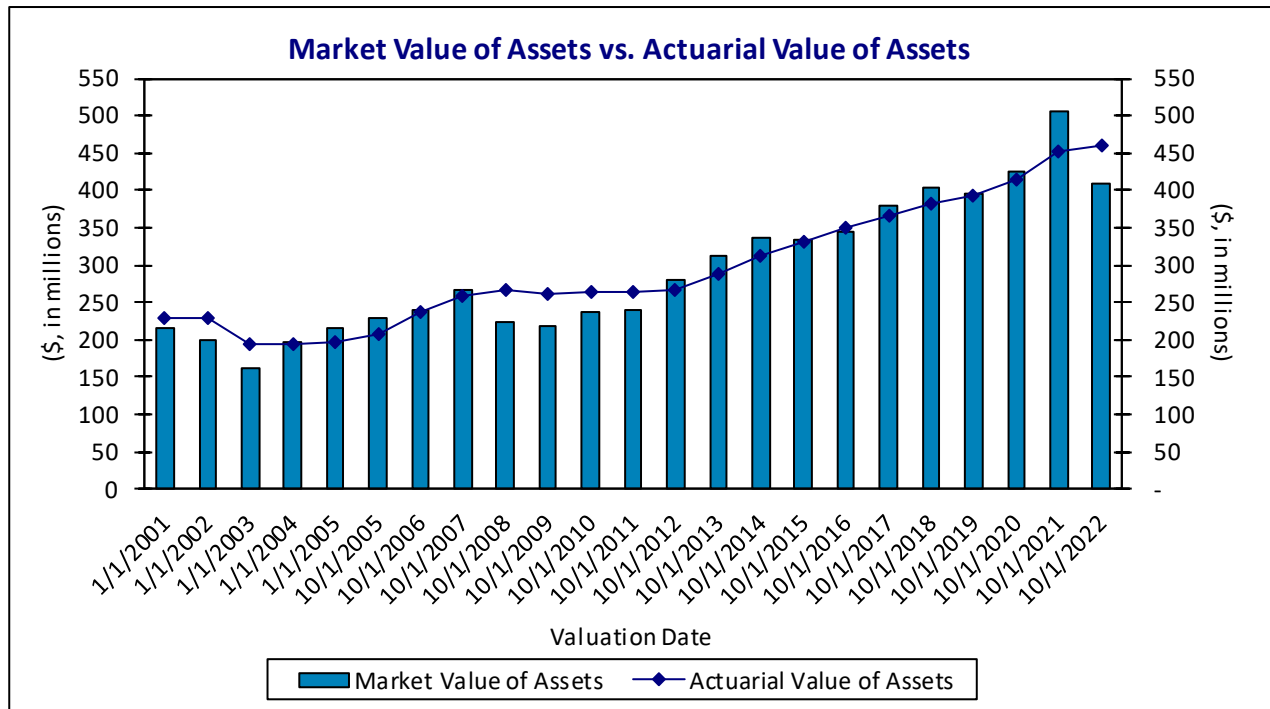
The Actuarial Cost Method used to determine the required contribution is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the Employer’s contribution rate can vary significantly from year-to-year. Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

The Actuarial Value of Assets exceeds the Market Value of Assets by \$51,419,756 as of the valuation date (see Section C). This difference will gradually be recognized in the absence of offsetting experience gains. In turn, the computed employer contribution rate is expected to gradually increase by approximately 9.75% of covered payroll (or approximately \$4.39 million).



Relationship to Market Value

If Market Value had been the basis for the valuation assets, the City contribution rate would have been 56.65% (approximately \$25.48 million), and the funded ratio would have been 66.4%. The market value-based funded ratio was 82.3% last year.



Conclusions and Recommendations

The current investment return assumption is 7.20% net of investment expenses. The Plan's Funding Policy (adopted in January 2017) states that economically based actuarial assumptions, including the general inflation assumption and the net investment return assumption, shall be based on forward-looking expectations over a medium to long-term horizon (10-25 years). The Funding Policy also says that the Board should give consideration to the arithmetic and geometric mean of forecasted investment returns when selecting a net investment return assumption.

Based on current forward-looking expectations (taking an average of medium and long-term forecasts) and the Plan's target asset allocation, the expected average return over the next 10 to 25 years is in the range of approximately 6.5% to 7.0%. It is our opinion that the Plan's current net investment return assumption of 7.20% does not significantly conflict with what would be reasonable for the purpose of the measurement. However, we recommend the Board continue to lower the net investment return assumption further from the current assumption of 7.20%.

It is important to note that system assets (i.e., at market value) are no longer sufficient to cover the liabilities for current retirees. As of October 1, 2022, the shortfall is approximately \$82.7 million (versus a \$14.5 million excess as of October 1, 2021). Many steps have been taken to increase the funded ratio from a low point of 52.1% as of October 1, 2012 to the current funded ratio of 74.7%. These include adopting a formal written Funding Policy, strengthening the actuarial assumptions (including lowering the investment return assumption this year),

reducing the UAAL amortization period to no more than 25 years, and contributing extra amounts (in excess of the minimum required contribution amount) towards the unfunded actuarial accrued liability.

We note that the Ordinance 2018-11 provides for future COLAs to be granted to Class Members (all of the individuals and estates that are members of the Class in *Murhee v. City of Coral Gables*, Case No. 13-20731 CA (13) (Fla. 11th Cir. Ct.)) if the rate of return on the market value of assets during a fiscal year exceeds 10%. The City Commission can prevent a future COLA from being granted (or reduce it) by a 4/5 supermajority vote. The City Commission has prevented a COLA from being granted by a supermajority vote in all four years since Ordinance 2018-11 was adopted (the COLAs for 2018, 2019, 2021 and 2022, which were triggered based on investment experience in fiscal years 2017, 2018, 2020 and 2021, respectively). Based on this experience, no future COLAs are assumed to be paid for actuarial valuation purposes. We recommend the Board continue to monitor the actual experience of future COLA decisions made by the City Commission over the next several years and then periodically reevaluate the potential need for a future COLA assumption in future actuarial valuations based on this emerging experience.

The remainder of this Report includes detailed actuarial valuation results, information relating to the pension fund, financial accounting information, miscellaneous member data and a summary of plan provisions.



Chapter Revenue

Under Chapter 175 and 185, as amended by Senate Bill 172, state premium tax revenue may be used in any way as long as mutual consent exists between the parties and as long as all Chapter minimum benefits are in place.

As of the valuation date, the only minimum benefit requirement not currently being met is the Early Retirement Benefit for Police Officers and Firefighters who were not eligible for this benefit as of September 30, 2012 and September 30, 2013 respectively.

Actuarial Confirmation of the Use of State Chapter Money

	Police	Fire	Total
1. Base Amount Previous Plan Year	\$ 93,559	\$ 52,271	\$ 145,830
2. Amount Received for Previous Plan Year	699,271	883,396	1,582,667
3. Benefit Improvements	0	0	0
4. Excess Funds for Previous Plan Year	0	0	0
5. Accumulated Excess at Beginning of Previous Year	0	0	0
6. Excess to be Used for Share Plan allocations	605,712	831,125	1,436,837
7. Accumulated Excess as of Valuation Date (Available for Benefit Improvements): (4) + (5) - (6)	0	0	0
8. Base Amount This Plan Year	93,559	52,271	145,830

The Accumulated Excess shown in line 7 is being held in reserve to pay for additional benefits. The reserve is subtracted from Plan assets (see Section C of this Report). The Base Amount in line 8 is the former maximum amount the employer has historically taken as a credit against its required contribution; in no event may the employer take credit for more than the actual amount of Chapter revenue received.

Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

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

1. Investment risk – actual investment returns may differ from the expected returns;
2. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

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

The contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with Florida Statutes. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



Plan Maturity Measures

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

	2022	2021	2020
Ratio of the market value of assets to total payroll	9.10	11.17	9.29
Ratio of actuarial accrued liability to payroll	13.71	13.57	13.19
Ratio of actives to retirees and beneficiaries	0.60	0.62	0.63
Ratio of net cash flow to market value of assets	-4.5%	-3.1%	-3.0%

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time. The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

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

Additional Risk Assessment

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



SECTION B

VALUATION RESULTS

Participant Data

October 1, 2022

	Total	Elected	General Excludable	General Non-Excludable	Police Officers	Firefighters
Active Members						
Number	578	0	98	210	160	110
Covered Annual Payroll (expected)	\$ 44,975,569	\$ 0	\$ 8,908,206	\$ 11,535,354	\$ 13,495,103	\$ 11,036,906
Average Annual Salary	\$ 77,812	\$ 0	\$ 90,900	\$ 54,930	\$ 84,344	\$ 100,336
Average Age	41.1	0.0	45.9	44.8	37.8	34.7
Average Past Service	10.0	0.0	9.5	11.2	10.1	7.9
Average Age at Hire	31.1	0.0	36.4	33.6	27.7	26.8
Service Retirees, Beneficiaries & DROP Participants						
Number	912	4	154	389	200	165
Annual Benefits	\$ 43,966,900	\$ 52,586	\$ 6,865,673	\$ 12,362,889	\$ 12,857,521	\$ 11,828,231
Average Annual Benefit	\$ 48,209	\$ 13,147	\$ 44,582	\$ 31,781	\$ 64,288	\$ 71,686
Average Age	66.8	75.7	69.0	67.8	65.2	64.3
Disability Retirees						
Number	56	0	3	20	24	9
Annual Benefits	\$ 2,192,948	\$ 0	\$ 122,972	\$ 455,159	\$ 1,180,617	\$ 434,200
Average Annual Benefit	\$ 39,160	\$ 0	\$ 40,991	\$ 22,758	\$ 49,192	\$ 48,244
Average Age	64.9	0.0	72.5	63.6	63.2	69.6
Terminated Vested Members						
Number	25	0	5	13	7	0
Annual Benefits	\$ 801,589	\$ 0	\$ 228,894	\$ 285,575	\$ 287,120	\$ 0
Average Annual Benefit	\$ 32,064	\$ 0	\$ 45,779	\$ 21,967	\$ 41,017	\$ 0
Average Age	45.7	0.0	46.9	45.1	45.9	0.0



Participant Data - Prior Valuation

October 1, 2021

	Total	Elected	General Excludable	General Non-Excludable	Police Officers	Firefighters
Active Members						
Number	599	0	112	219	158	110
Covered Annual Payroll (expected)	\$ 45,284,440	\$ 0	\$ 9,574,866	\$ 11,867,259	\$ 12,978,287	\$ 10,864,028
Average Annual Salary	\$ 75,600	\$ 0	\$ 85,490	\$ 54,188	\$ 82,141	\$ 98,764
Average Age	41.2	0.0	46.3	44.5	37.9	34.4
Average Past Service	9.8	0.0	9.2	11.0	10.2	7.5
Average Age at Hire	31.4	0.0	37.1	33.5	27.7	26.9
Service Retirees, Beneficiaries & DROP Participants						
Number	916	4	156	394	197	165
Annual Benefits	\$ 43,517,461	\$ 52,586	\$ 6,965,096	\$ 12,326,070	\$ 12,574,304	\$ 11,599,405
Average Annual Benefit	\$ 47,508	\$ 13,147	\$ 44,648	\$ 31,284	\$ 63,829	\$ 70,299
Average Age	66.4	74.7	69.0	66.9	64.9	64.1
Disability Retirees						
Number	56	0	2	20	24	10
Annual Benefits	\$ 2,194,002	\$ 0	\$ 93,574	\$ 455,159	\$ 1,180,617	\$ 464,652
Average Annual Benefit	\$ 39,179	\$ 0	\$ 46,787	\$ 22,758	\$ 49,192	\$ 46,465
Average Age	64.3	0.0	78.7	62.6	62.2	69.9
Terminated Vested Members						
Number	23	0	2	14	7	0
Annual Benefits	\$ 696,310	\$ 0	\$ 86,211	\$ 322,979	\$ 287,120	\$ 0
Average Annual Benefit	\$ 30,274	\$ 0	\$ 43,106	\$ 23,070	\$ 41,017	\$ 0
Average Age	45.8	0.0	46.3	46.2	44.9	0.0



Actuarially Determined Contribution (ADC) - After Assumption Changes

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. ADC to Be Paid During Fiscal Year Ending	9/30/2024	9/30/2024	9/30/2024	9/30/2024	9/30/2024	9/30/2024
C. Assumed City Contribution Date	10/1/2023	10/1/2023	10/1/2023	10/1/2023	10/1/2023	10/1/2023
D. Annual Payment to Amortize Unfunded Actuarial Accrued Liability	\$ 17,007,670	\$ 26,511	\$ 2,909,763	\$ 5,075,044	\$ 5,234,522	\$ 3,761,830
E. Total Normal Cost	8,640,602	280	1,303,275	1,585,011	2,937,074	2,814,962
F. Increase in Normal Cost due to Expected Payroll Growth	259,217	8	39,098	47,550	88,112	84,449
G. Total Contribution Requirement	25,907,489	26,799	4,252,136	6,707,605	8,259,708	6,661,241
H. State Contributions	145,830	0	0	0	93,559	52,271
I. State Contributions Discounted to BOY	137,223	0	0	0	88,037	49,186
J. City and Members Combined = G. - I.	25,770,266	26,799	4,252,136	6,707,605	8,171,671	6,612,055
K. Expected Member Contributions	4,497,557	0	890,821	1,153,535	1,349,510	1,103,691
L. Expected Member Contributions Discounted to BOY	4,343,895	0	860,385	1,114,124	1,303,403	1,065,983
M. Member Cost Sharing	346,061	0	0	346,061	0	0
N. Member Cost Sharing Discounted to BOY	334,238	0	0	334,238	0	0
O. Net City Contribution* = J. - L. - N.	21,092,133	26,799	3,391,751	5,259,243	6,868,268	5,546,072
P. Net City Contribution as % of Covered Payroll	46.90 %	N/A	38.07 %	45.59 %	50.89 %	50.25 %

* Interest at the 7.20% annual rate must be added from October 1 to the date(s) of deposit.



Actuarially Determined Contribution (ADC) - Before Assumption Changes

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. ADC to Be Paid During Fiscal Year Ending	9/30/2024	9/30/2024	9/30/2024	9/30/2024	9/30/2024	9/30/2024
C. Assumed City Contribution Date	10/1/2023	10/1/2023	10/1/2023	10/1/2023	10/1/2023	10/1/2023
D. Annual Payment to Amortize Unfunded Actuarial Accrued Liability	\$ 16,822,257	\$ 26,438	\$ 2,882,946	\$ 5,027,561	\$ 5,171,389	\$ 3,713,923
E. Total Normal Cost	8,559,073	280	1,291,942	1,572,212	2,907,953	2,786,686
F. Increase in Normal Cost due to Expected Payroll Growth	<u>256,772</u>	<u>8</u>	<u>38,758</u>	<u>47,166</u>	<u>87,239</u>	<u>83,601</u>
G. Total Contribution Requirement	25,638,102	26,726	4,213,646	6,646,939	8,166,581	6,584,210
H. State Contributions	145,830	0	0	0	93,559	52,271
I. State Contributions Discounted to BOY	<u>137,167</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>88,001</u>	<u>49,166</u>
J. City and Members Combined = G. - I.	25,500,935	26,726	4,213,646	6,646,939	8,078,580	6,535,044
K. Expected Member Contributions	4,497,557	0	890,821	1,153,535	1,349,510	1,103,691
L. Expected Member Contributions Discounted to BOY	4,342,882	0	860,185	1,113,864	1,303,099	1,065,734
M. Member Cost Sharing	346,061	0	0	346,061	0	0
N. Member Cost Sharing Discounted to BOY	<u>334,160</u>	<u>0</u>	<u>0</u>	<u>334,160</u>	<u>0</u>	<u>0</u>
O. Net City Contribution* = J. - L. - N.	20,823,893	26,726	3,353,461	5,198,915	6,775,481	5,469,310
P. Net City Contribution as % of Covered Payroll	46.30 %	N/A	37.64 %	45.07 %	50.21 %	49.55 %

* Interest at the 7.25% annual rate must be added from October 1 to the date(s) of deposit.



Actuarially Determined Contribution (ADC) - Prior Valuation

A. Valuation Date	October 1, 2021					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. ADC to Be Paid During Fiscal Year Ending	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023	9/30/2023
C. Assumed City Contribution Date	10/1/2022	10/1/2022	10/1/2022	10/1/2022	10/1/2022	10/1/2022
D. Annual Payment to Amortize Unfunded Actuarial Accrued Liability	\$ 18,153,936	\$ 27,657	\$ 3,149,001	\$ 5,479,268	\$ 5,422,953	\$ 4,075,057
E. Total Normal Cost	8,832,706	362	1,449,366	1,689,702	2,946,749	2,746,527
F. Increase in Normal Cost due to Expected Payroll Growth	264,981	11	43,481	50,691	88,402	82,396
G. Total Contribution Requirement	27,251,623	28,030	4,641,848	7,219,661	8,458,104	6,903,980
H. State Contributions	145,830	0	0	0	93,559	52,271
I. State Contributions Discounted to BOY	137,167	0	0	0	88,001	49,166
J. City and Members Combined = G. - I.	27,114,456	28,030	4,641,848	7,219,661	8,370,103	6,854,814
K. Expected Member Contributions	4,528,445	0	957,487	1,186,726	1,297,829	1,086,403
L. Expected Member Contributions Discounted to BOY	4,372,707	0	924,558	1,145,913	1,253,195	1,049,041
M. Member Cost Sharing	356,018	0	0	356,018	0	0
N. Member Cost Sharing Discounted to BOY	343,774	0	0	343,774	0	0
O. Net City Contribution* = J. - L. - N.	22,397,975	28,030	3,717,290	5,729,974	7,116,908	5,805,773
P. Net City Contribution as % of Covered Payroll	49.46 %	N/A	38.82 %	48.28 %	54.84 %	53.44 %

* Interest at the 7.25% annual rate must be added from October 1 to the date(s) of deposit.



Actuarial Value of Benefits and Assets - After Assumption Changes

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Actuarial Present Value (APV) of All Projected Benefits						
1. Active Members						
a. Service Retirement Benefits	\$ 180,101,960	\$ -	\$ 25,551,603	\$ 35,453,546	\$ 63,664,669	\$ 55,432,142
b. Vesting Benefits	5,354,976	-	1,274,313	908,490	1,946,135	1,226,038
c. Disability Benefits	4,429,238	-	257,294	551,905	2,782,504	837,535
d. Preretirement Death Benefits	3,400,122	-	305,828	367,973	1,392,710	1,333,611
e. Return of Member Contributions	2,593,864	-	775,887	1,123,403	548,946	145,628
f. Total	195,880,160	-	28,164,925	38,405,317	70,334,964	58,974,954
2. Inactive Members						
a. Service Retirees & Beneficiaries	453,074,811	478,840	69,690,194	126,630,412	135,469,286	120,806,079
b. Disability Retirees	18,967,578	-	719,979	3,688,003	11,189,091	3,370,505
c. Terminated Vested Members	6,407,344	-	1,729,381	2,064,722	2,613,241	-
d. DROP Account Balances	19,925,083	-	960,478	1,274,159	7,613,494	10,076,952
e. Total	498,374,816	478,840	73,100,032	133,657,296	156,885,112	134,253,536
3. Total for All Members	694,254,976	478,840	101,264,957	172,062,613	227,220,076	193,228,490
C. Actuarial Accrued (Past Service) Liability	616,686,432	478,840	91,193,017	162,094,086	202,453,867	160,466,622
D. APV of Accumulated Plan Benefits per FASB ASC 960	589,026,977	478,840	86,474,904	157,744,853	191,244,603	153,083,777
E. Plan Assets						
1. Market Value	409,303,773	198,366	56,688,875	103,059,131	136,432,232	112,925,169
2. Actuarial Value	460,723,529	223,286	63,810,549	116,006,178	153,571,855	127,111,661
F. Unfunded Actuarial Accrued Liability	155,962,903	255,554	27,382,468	46,087,908	48,882,012	33,354,961
G. APV of Projected Covered Payroll	367,378,884	-	63,126,051	70,561,093	105,520,033	128,171,707
H. APV of Projected Member Contributions	36,737,888	-	6,312,605	7,056,109	10,552,003	12,817,171
I. Accumulated Value of Member Contributions	33,957,500	-	6,506,884	13,139,999	8,101,431	6,209,186



Actuarial Value of Benefits and Assets - Before Assumption Changes

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Actuarial Present Value (APV) of All Projected Benefits						
1. Active Members						
a. Service Retirement Benefits	\$ 178,362,607	\$ -	\$ 25,316,261	\$ 35,164,752	\$ 63,078,038	\$ 54,803,556
b. Vesting Benefits	5,282,581	-	1,254,763	895,849	1,921,567	1,210,402
c. Disability Benefits	4,394,762	-	255,464	548,277	2,760,606	830,415
d. Preretirement Death Benefits	3,370,684	-	303,464	365,210	1,380,727	1,321,283
e. Return of Member Contributions	2,598,414	-	779,207	1,124,971	548,327	145,909
f. Total	194,009,048	-	27,909,159	38,099,059	69,689,265	58,311,565
2. Inactive Members						
a. Service Retirees & Beneficiaries	451,203,349	477,072	69,410,551	126,106,984	134,899,752	120,308,990
b. Disability Retirees	18,898,449	-	718,089	3,675,771	11,144,550	3,360,039
c. Terminated Vested Members	6,364,026	-	1,718,312	2,049,288	2,596,426	-
d. DROP Account Balances	19,925,083	-	960,478	1,274,159	7,613,494	10,076,952
e. Total	496,390,907	477,072	72,807,430	133,106,202	156,254,222	133,745,981
3. Total for All Members	690,399,955	477,072	100,716,589	171,205,261	225,943,487	192,057,546
C. Actuarial Accrued (Past Service) Liability	613,880,328	477,072	90,769,698	161,352,991	201,514,550	159,766,017
D. APV of Accumulated Plan Benefits per FASB ASC 960	586,395,652	477,072	86,089,068	157,037,324	190,372,006	152,420,182
E. Plan Assets						
1. Market Value	409,303,773	198,366	56,688,875	103,059,131	136,432,232	112,925,169
2. Actuarial Value	460,723,529	223,286	63,810,549	116,006,178	153,571,855	127,111,661
F. Unfunded Actuarial Accrued Liability	153,156,799	253,786	26,959,149	45,346,813	47,942,695	32,654,356
G. APV of Projected Covered Payroll	366,165,263	-	62,937,717	70,364,371	105,177,032	127,686,143
H. APV of Projected Member Contributions	36,616,526	-	6,293,772	7,036,437	10,517,703	12,768,614
I. Accumulated Value of Member Contributions	33,957,500	-	6,506,884	13,139,999	8,101,431	6,209,186



Actuarial Value of Benefits and Assets - Prior Valuation

A. Valuation Date	October 1, 2021					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Actuarial Present Value (APV) of All Projected Benefits						
1. Active Members						
a. Service Retirement Benefits	\$ 177,567,085	\$ -	\$ 26,576,845	\$ 35,951,950	\$ 60,946,463	\$ 54,091,827
b. Vesting Benefits	5,204,407	-	1,325,270	939,552	1,784,296	1,155,289
c. Disability Benefits	4,306,995	-	268,286	577,063	2,633,840	827,806
d. Preretirement Death Benefits	3,377,841	-	346,087	393,666	1,312,717	1,325,371
e. Return of Member Contributions	2,818,800	-	880,918	1,250,932	528,912	158,038
f. Total	193,275,128	-	29,397,406	39,113,163	67,206,228	57,558,331
2. Inactive Members						
a. Service Retirees & Beneficiaries	447,144,516	487,197	69,754,263	125,128,518	132,203,554	119,570,984
b. Disability Retirees	19,134,473	-	477,099	3,748,427	11,314,798	3,594,149
c. Terminated Vested Members	5,863,627	-	835,879	2,592,855	2,434,893	-
d. DROP Account Balances	25,210,048	-	654,668	1,621,435	7,147,600	15,786,345
e. Total	497,352,664	487,197	71,721,909	133,091,235	153,100,845	138,951,478
3. Total for All Members	690,627,792	487,197	101,119,315	172,204,398	220,307,073	196,509,809
C. Actuarial Accrued (Past Service) Liability	614,569,772	487,197	90,629,885	161,675,279	197,041,951	164,735,460
D. APV of Accumulated Plan Benefits per FASB ASC 960	588,895,238	487,197	86,260,050	157,423,107	186,516,052	158,208,832
E. Plan Assets						
1. Market Value	506,026,522	253,194	68,761,648	126,632,819	165,498,384	144,880,477
2. Actuarial Value	450,868,731	225,595	61,266,506	112,829,616	147,458,767	129,088,247
F. Unfunded Actuarial Accrued Liability	163,701,041	261,602	29,363,379	48,845,663	49,583,184	35,647,213
G. APV of Projected Covered Payroll	365,249,971	-	65,561,039	74,741,319	99,645,147	125,302,466
H. APV of Projected Member Contributions	36,524,998	-	6,556,104	7,474,132	9,964,515	12,530,247
I. Accumulated Value of Member Contributions	33,229,260	-	7,022,025	13,170,198	7,428,500	5,608,537



Calculation of Employer Normal Cost - After Assumption Changes

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Normal Cost for						
1. Service Retirement Benefits	\$ 6,598,364	\$ -	\$ 942,441	\$ 1,040,940	\$ 2,197,110	\$ 2,417,873
2. Vesting Benefits	311,407	-	69,418	63,807	113,836	64,346
3. Disability Benefits	356,671	-	21,823	49,004	227,709	58,135
4. Preretirement Death Benefits	264,006	-	20,484	24,779	122,536	96,207
5. Return of Member Contributions	555,125	-	172,791	267,358	92,803	22,173
6. Total for Future Benefits	<u>8,085,573</u>	<u>-</u>	<u>1,226,957</u>	<u>1,445,888</u>	<u>2,753,994</u>	<u>2,658,734</u>
7. Assumed Amount for Administrative Expenses	555,029	280	76,318	139,123	183,080	156,228
8. Total Normal Cost	<u>8,640,602</u>	<u>280</u>	<u>1,303,275</u>	<u>1,585,011</u>	<u>2,937,074</u>	<u>2,814,962</u>
C. Expected Member Contribution	4,497,557	-	890,821	1,153,535	1,349,510	1,103,691
D. Employer Normal Cost: B8 - C	4,143,045	280	412,454	431,476	1,587,564	1,711,271
E. Employer Normal Cost as a % of Covered Payroll	9.21%	N/A	4.63%	3.74%	11.76%	15.50%



Calculation of Employer Normal Cost - Before Assumption Changes

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Normal Cost for						
1. Service Retirement Benefits	\$ 6,523,764	\$ -	\$ 932,027	\$ 1,029,076	\$ 2,171,435	\$ 2,391,226
2. Vesting Benefits	307,120	-	68,252	62,876	112,390	63,602
3. Disability Benefits	354,537	-	21,700	48,726	226,318	57,793
4. Preretirement Death Benefits	262,219	-	20,330	24,587	121,726	95,576
5. Return of Member Contributions	556,404	-	173,315	267,824	93,004	22,261
6. Total for Future Benefits	<u>8,004,044</u>	<u>-</u>	<u>1,215,624</u>	<u>1,433,089</u>	<u>2,724,873</u>	<u>2,630,458</u>
7. Assumed Amount for Administrative Expenses	555,029	280	76,318	139,123	183,080	156,228
8. Total Normal Cost	<u>8,559,073</u>	<u>280</u>	<u>1,291,942</u>	<u>1,572,212</u>	<u>2,907,953</u>	<u>2,786,686</u>
C. Expected Member Contribution	4,497,557	-	890,821	1,153,535	1,349,510	1,103,691
D. Employer Normal Cost: B8 - C	4,061,516	280	401,121	418,677	1,558,443	1,682,995
E. Employer Normal Cost as a % of Covered Payroll	9.03%	N/A	4.50%	3.63%	11.55%	15.25%



Calculation of Employer Normal Cost - Prior Valuation

A. Valuation Date	October 1, 2021					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Normal Cost for						
1. Service Retirement Benefits	\$ 6,613,760	\$ -	\$ 1,034,356	\$ 1,091,817	\$ 2,176,287	\$ 2,311,300
2. Vesting Benefits	319,149	-	77,774	68,469	111,886	61,020
3. Disability Benefits	356,176	-	24,179	49,003	225,858	57,136
4. Preretirement Death Benefits	264,608	-	24,995	26,371	118,734	94,508
5. Return of Member Contributions	581,117	-	193,481	279,449	87,429	20,758
6. Total for Future Benefits	<u>8,134,810</u>	-	<u>1,354,785</u>	<u>1,515,109</u>	<u>2,720,194</u>	<u>2,544,722</u>
7. Assumed Amount for Administrative Expenses	697,896	362	94,581	174,593	226,555	201,805
8. Total Normal Cost	<u>8,832,706</u>	<u>362</u>	<u>1,449,366</u>	<u>1,689,702</u>	<u>2,946,749</u>	<u>2,746,527</u>
C. Expected Member Contribution	4,528,445	-	957,487	1,186,726	1,297,829	1,086,403
D. Employer Normal Cost: B8 - C	4,304,261	362	491,879	502,976	1,648,920	1,660,124
E. Employer Normal Cost as a % of Covered Payroll	9.50%	N/A	5.14%	4.24%	12.71%	15.28%



Increased Contribution Allocations for General Excludable and Non-Excludable Members

A. Valuation Date	<u>October 1, 2022 - After Assumption Changes</u> (For Fiscal Year Ending September 30, 2024)		
	<i>Total</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>
B. City Contribution (Before Cost Sharing)		38.07 %	48.49 %
C. City Contribution 10/1/2009 Baseline		40.31	31.04
D. Increase, Not Less Than Zero		0.00	17.45
E. 50% of Percentage Increase (50% x D.)		0.00 %	8.73 %
F. Total Member Contribution Rate (E. + 10%) for Excludable Employees; Min of (E. + 10%, 15%) for Non-Excludable Employees		10.00 %	15.00 %
G. Adjusted Member Contribution Rate Per Ordinance, Effective from the First Pay Period After September 30, 2022 through the Last Full Pay Period Before 9/30/2024		10.00 %	13.00 %
H. Active Payroll as of 10/1/2022 (Expected)		\$ 8,908,206	\$ 11,535,354
I. Adjusted Cost Sharing Contribution ((G. - 10%) x H.)	\$ 346,061	\$ -	\$ 346,061

Increased Contribution Allocations for General Excludable and Non-Excludable Members (Continued)

A. Valuation Date	October 1, 2022 - Before Assumption Changes (For Fiscal Year Ending September 30, 2024)		
	<i>Total</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>
B. City Contribution (Before Cost Sharing)		37.64 %	47.97 %
C. City Contribution 10/1/2009 Baseline		40.31	31.04
D. Increase, Not Less Than Zero		0.00	16.93
E. 50% of Percentage Increase (50% x D.)		0.00 %	8.47 %
F. Total Member Contribution Rate (E. + 10%) for Excludable Employees; Min of (E. + 10%, 15%) for Non-Excludable Employees		10.00 %	15.00 %
G. Adjusted Member Contribution Rate Per Ordinance, Effective from the First Pay Period After September 30, 2022 through the Last Full Pay Period Before 9/30/2024		10.00 %	13.00 %
H. Active Payroll as of 10/1/2022 (Expected)		\$ 8,908,206	\$ 11,535,354
I. Adjusted Cost Sharing Contribution ((G. - 10%) x H.)	\$ 346,061	\$ -	\$ 346,061

Increased Contribution Allocations for General Excludable and Non-Excludable Members - Prior Valuation

A. Valuation Date	October 1, 2021 (For Fiscal Year Ending September 30, 2023)		
	<i>Total</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>
B. City Contribution (Before Cost Sharing)		38.82 %	51.18 %
C. City Contribution 10/1/2009 Baseline		40.31	31.04
D. Increase, Not Less Than Zero		0.00	20.14
E. 50% of Percentage Increase (50% x D.)		0.00 %	10.07 %
F. Total Member Contribution Rate (E. + 10%) for Excludable Employees; Min of (E. + 10%, 15%) for Non-Excludable Employees		10.00 %	15.00 %
G. Adjusted Member Contribution Rate Per Ordinance, Effective from the First Pay Period After September 30, 2022 through the Last Full Pay Period Before 9/30/2024		10.00 %	13.00 %
H. Active Payroll as of 10/1/2021 (Expected)		\$ 9,574,866	\$ 11,867,259
I. Adjusted Cost Sharing Contribution ((G. - 10%) x H.)	\$ 356,018	\$ -	\$ 356,018

Cumulative Experience Gain/(Loss)

As Measured From 1994

<u>Plan Year Ending</u>	<u>Experience Gain/(Loss)</u>
December 31, 1994	\$ (6,035,838)
December 31, 1995	12,826,310
December 31, 1996	(942,133)
December 31, 1997	14,413,961
December 31, 1998	9,828,307
December 31, 1999	(1,889,769)
December 31, 2000	(26,457,751)
December 31, 2001	(13,298,945)
December 31, 2002	(46,662,623)
December 31, 2003	(23,736,342)
December 31, 2004	(20,236,223)
September 30, 2005	(15,261,034)
September 30, 2006	(7,371,714)
September 30, 2007	19,235,295
September 30, 2008	(27,415,318)
September 30, 2009	(27,577,164)
September 30, 2010	(15,074,929)
September 30, 2011	(20,969,312)
September 30, 2012	(22,681,760)
September 30, 2013	(1,608,800)
September 30, 2014	1,436,491
September 30, 2015	3,038,952
September 30, 2016	4,713,880
September 30, 2017	8,574,453
September 30, 2018	2,374,009
September 30, 2019	469,094
September 30, 2020	6,103,388
September 30, 2021	19,283,793
September 30, 2022	(5,752,406)
Total from 1994 to Valuation Date	\$ (180,674,128)



Unfunded Actuarial Accrued Liability

A. UAAL Amortization Period and Payments - Total							
Original UAAL				Current UAAL			
Date Established	Type of Amortization Base	Amortization Period (Years)	Amount	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
1/1/1996	Actuarial (Gain)/Loss	30	(12,826,310)	3	(2,913,766)	(2,913,766)	(1,039,511)
1/1/1996	Retiree COLA	30	2,751,331	3	493,591	493,591	222,937
1/1/1997	Retiree COLA	30	1,179,537	4	343,515	343,515	95,032
1/1/1997	Assumption Change	30	(4,686,714)	4	(1,364,930)	(1,364,930)	(377,598)
1/1/1998	Actuarial (Gain)/Loss	30	(14,413,961)	5	(5,051,842)	(5,051,842)	(1,155,506)
1/1/1998	Retiree COLA	30	1,112,438	5	389,886	389,886	89,178
1/1/1999	Retiree COLA	30	1,416,724	6	573,967	573,967	113,023
1/1/2000	Retiree COLA	30	1,919,018	7	870,487	870,487	151,725
1/1/2000	Assumption Change	30	(4,757,004)	7	(2,157,831)	(2,157,831)	(376,109)
1/1/2001	Asset Method Change	30	(13,323,841)	8	(6,646,655)	(6,646,655)	(1,046,402)
1/1/2002	Plan Amendment	30	371,833	9	201,437	201,437	29,088
1/1/2003	Actuarial (Gain)/Loss	30	46,662,623	10	27,121,826	27,121,826	3,635,555
1/1/2003	Method Change	30	1,594,671	10	926,878	926,878	124,244
1/1/2003	Retiree COLA	30	3,101,233	10	1,802,531	1,802,531	241,621
1/1/2003	Assumption Change	30	17,625,471	10	10,244,495	10,244,495	1,373,227
1/1/2004	Actuarial (Gain)/Loss	30	23,736,342	1	7,428,778	1,847,840	0
1/1/2004	Retiree COLA	30	6,640,654	11	4,106,315	4,106,315	515,926
1/1/2004	Assumption Change	30	14,194,057	11	8,777,044	8,777,044	1,102,768
1/1/2005	Actuarial (Gain)/Loss	30	20,236,223	12	11,757,926	9,705,558	1,395,676
1/1/2005	Retiree COLA	30	2,818,784	12	1,841,407	1,841,407	218,576
10/1/2005	Actuarial (Gain)/Loss	30	15,261,034	13	10,661,022	10,661,022	1,203,451
10/1/2005	Plan Amendment	30	1,128,517	13	788,353	788,353	88,992
10/1/2006	Actuarial (Gain)/Loss	30	7,371,714	14	5,375,614	5,375,614	580,285
10/1/2006	Retiree COLA	30	4,028,350	14	2,937,561	2,937,561	317,103
10/1/2007	Retiree COLA	30	5,004,523	15	4,123,724	4,123,724	427,704
10/1/2007	Actuarial (Gain)/Loss	30	(19,235,295)	15	(15,849,898)	(15,849,898)	(1,643,918)
10/1/2008	Actuarial (Gain)/Loss	30	27,415,318	16	23,377,629	23,377,629	2,339,174
10/1/2008	Plan Amendment	30	1,998,907	16	1,704,514	1,704,514	170,554
10/1/2009	Actuarial (Gain)/Loss	30	27,577,164	17	24,250,946	24,250,946	2,349,276
10/1/2009	Plan Amendment	30	(15,418,663)	17	(13,570,032)	(13,570,032)	(1,314,577)
10/1/2010	Actuarial (Gain)/Loss	30	15,074,929	17	13,429,858	13,429,858	1,300,999



A. UAAL Amortization Period and Payments - Total (Continued)

Original UAAL				Current UAAL			
Date Established	Type of Amortization Base	Amortization Period (Years)	Amount	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
10/1/2011	Actuarial (Gain)/Loss	30	20,969,312	17	18,904,596	18,904,596	1,831,356
10/1/2011	Assumption Change	30	20,605,952	17	18,577,017	18,577,017	1,799,623
10/1/2011	Plan Amendment	30	(8,449,690)	17	(6,839,974)	(6,839,974)	(662,614)
10/1/2012	Actuarial (Gain)/Loss	30	22,681,760	17	18,994,724	18,994,724	1,840,087
10/1/2012	Plan Amendment	30	(3,787,231)	17	(3,152,049)	(3,152,049)	(305,351)
10/1/2012	Plan Amendment	30	297,000	17	248,833	248,833	24,104
10/1/2013	Plan Amendment	30	3,980	17	3,341	3,341	324
10/1/2014	Actuarial (Gain)/Loss	25	(1,436,491)	17	(1,217,466)	(1,217,466)	(117,940)
10/1/2014	Assumption Change	25	3,747,111	17	3,175,798	3,175,798	307,651
10/1/2015	Actuarial (Gain)/Loss	25	(3,038,952)	18	(2,648,378)	(2,648,378)	(249,156)
10/1/2016	Actuarial (Gain)/Loss	25	(4,713,880)	19	(4,212,843)	(4,212,843)	(385,952)
10/1/2016	Assumption Change	25	11,523,530	19	10,298,705	10,298,705	943,493
10/1/2016	Plan Amendment	25	876,993	19	783,778	783,778	71,804
10/1/2017	Actuarial (Gain)/Loss	20	(8,574,453)	15	(7,422,532)	(7,422,532)	(769,850)
10/1/2017	Assumption Change	25	5,112,631	20	4,674,763	4,674,763	418,048
10/1/2017	Plan Amendment	10	14,426,238	5	8,500,627	8,500,627	1,944,346
10/1/2017	Plan Interpretation Change	20	(223,169)	15	(193,188)	(193,188)	(20,037)
10/1/2017	Plan Amendment (Opt-outs)	10	78,581	5	46,304	46,304	10,591
10/1/2018	Actuarial (Gain)/Loss	20	(2,374,009)	16	(2,127,487)	(2,127,487)	(212,877)
10/1/2018	Assumption Change	25	2,660,048	21	2,483,725	2,483,725	217,273
10/1/2019	Actuarial (Gain)/Loss	20	(469,094)	17	(433,730)	(433,730)	(42,017)
10/1/2019	Assumption Change	25	2,703,859	22	2,573,532	2,573,532	220,648
10/1/2020	Actuarial (Gain)/Loss	20	(6,103,388)	18	(5,805,462)	(5,805,462)	(546,170)
10/1/2020	Assumption Change	25	(1,580,475)	23	(1,531,026)	(1,531,026)	(128,873)
10/1/2020	Plan Amendment (FOP)	20	(27,111)	18	(25,787)	(25,787)	(2,426)
10/1/2021	Actuarial (Gain)/Loss	20	(19,283,793)	19	(18,826,096)	(18,826,096)	(1,724,712)
10/1/2021	Assumption Change	25	8,229,143	24	8,103,634	8,103,634	670,705
10/1/2022	Actuarial (Gain)/Loss	20	5,752,406	20	5,752,406	5,752,406	514,417
10/1/2022	Assumption Change	25	2,806,104	25	<u>2,806,104</u>	<u>2,806,104</u>	<u>228,682</u>
					\$ 167,466,219	\$ 159,832,913	\$ 17,007,670
	Excess Contribution Reserve				<u>(3,870,010)</u>	<u>(3,870,010)</u>	
	Actual Unfunded Liability		\$ 227,972,519		\$ 163,596,209	\$ 155,962,903	

Note: The Bold row has one payment remaining, which will be paid by the October 1, 2022 City contribution (for FY 2023). The required payment of \$0 shown in this row is for FY 2024 (after the amortization base has already been paid off in full).



A. UAAL Amortization Period and Payments - Elected

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
1/1/1996	Actuarial (Gain)/Loss	3	(3,683)	(3,683)	(1,314)
1/1/1996	Retiree COLA	3	623	623	281
1/1/1997	Retiree COLA	4	433	433	120
1/1/1997	Assumption Change	4	(1,726)	(1,726)	(477)
1/1/1998	Actuarial (Gain)/Loss	5	(6,386)	(6,386)	(1,461)
1/1/1998	Retiree COLA	5	491	491	112
1/1/1999	Retiree COLA	6	725	725	143
1/1/2000	Retiree COLA	7	1,101	1,101	192
1/1/2000	Assumption Change	7	(2,728)	(2,728)	(475)
1/1/2001	Asset Method Change	8	(8,401)	(8,401)	(1,323)
1/1/2002	Plan Amendment	9	255	255	37
1/1/2003	Actuarial (Gain)/Loss	10	34,280	34,280	4,595
1/1/2003	Method Change	10	1,171	1,171	157
1/1/2003	Retiree COLA	10	2,277	2,277	305
1/1/2003	Assumption Change	10	12,949	12,949	1,736
1/1/2004	Actuarial (Gain)/Loss	1	9,389	2,336	0
1/1/2004	Retiree COLA	11	5,191	5,191	652
1/1/2004	Assumption Change	11	11,092	11,092	1,394
1/1/2005	Actuarial (Gain)/Loss	12	14,862	12,266	1,764
1/1/2005	Retiree COLA	12	2,328	2,328	276
10/1/2005	Actuarial (Gain)/Loss	13	13,474	13,474	1,521
10/1/2005	Plan Amendment	13	996	996	112
10/1/2006	Actuarial (Gain)/Loss	14	6,794	6,794	733
10/1/2006	Retiree COLA	14	3,713	3,713	401
10/1/2007	Retiree COLA	15	5,211	5,211	540
10/1/2007	Actuarial (Gain)/Loss	15	(20,030)	(20,030)	(2,077)
10/1/2008	Actuarial (Gain)/Loss	16	29,545	29,545	2,956
10/1/2008	Plan Amendment	16	2,155	2,155	216
10/1/2009	Actuarial (Gain)/Loss	17	30,650	30,650	2,969
10/1/2009	Plan Amendment	17	(17,151)	(17,151)	(1,661)
10/1/2010	Actuarial (Gain)/Loss	17	16,973	16,973	1,644



A. UAAL Amortization Period and Payments - Elected (Continued)

Current UAAL

Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
10/1/2011	Actuarial (Gain)/Loss	17	23,893	23,893	2,315
10/1/2011	Assumption Change	17	23,480	23,480	2,275
10/1/2011	Plan Amendment	17	(8,642)	(8,642)	(837)
10/1/2012	Actuarial (Gain)/Loss	17	24,008	24,008	2,326
10/1/2012	Plan Amendment	17	(3,981)	(3,981)	(386)
10/1/2012	Plan Amendment	17	314	314	30
10/1/2013	Plan Amendment	17	0	0	0
10/1/2014	Actuarial (Gain)/Loss	17	(7,008)	(7,008)	(679)
10/1/2014	Assumption Change	17	(5,914)	(5,914)	(573)
10/1/2015	Actuarial (Gain)/Loss	18	35,830	35,830	3,371
10/1/2016	Actuarial (Gain)/Loss	19	(22,243)	(22,243)	(2,038)
10/1/2016	Assumption Change	19	17,195	17,195	1,575
10/1/2016	Plan Amendment	19	0	0	0
10/1/2017	Actuarial (Gain)/Loss	15	1,683	1,683	175
10/1/2017	Assumption Change	20	3,687	3,687	330
10/1/2017	Plan Amendment	5	9,024	9,024	2,064
10/1/2017	Plan Interpretation Change	15	0	0	0
10/1/2017	Plan Amendment (Opt-outs)	5	0	0	0
10/1/2018	Actuarial (Gain)/Loss	16	2,022	2,022	202
10/1/2018	Assumption Change	21	1,874	1,874	164
10/1/2019	Actuarial (Gain)/Loss	17	5,551	5,551	538
10/1/2019	Assumption Change	22	1,858	1,858	159
10/1/2020	Actuarial (Gain)/Loss	18	3,136	3,136	295
10/1/2020	Assumption Change	23	(3,649)	(3,649)	(307)
10/1/2020	Plan Amendment (FOP)	18	0	0	0
10/1/2021	Actuarial (Gain)/Loss	19	(2,791)	(2,791)	(256)
10/1/2021	Assumption Change	24	5,366	5,366	444
10/1/2022	Actuarial (Gain)/Loss	20	12,436	12,436	1,112
10/1/2022	Assumption Change	25	<u>1,768</u>	<u>1,768</u>	<u>144</u>
			\$ 265,470	\$ 255,821	\$ 26,511
	Excess Contribution Reserve		<u>(267)</u>	<u>(267)</u>	
	Actual Unfunded Liability		\$ 265,203	\$ 255,554	

Note: The Bold row has one payment remaining, which will be paid by the October 1, 2022 City contribution (for FY 2023). The required payment of \$0 shown in this row is for FY 2024 (after the amortization base has already been paid off in full).



A. UAAL Amortization Period and Payments - General Excludable

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
1/1/1996	Actuarial (Gain)/Loss	3	(444,622)	(444,622)	(158,623)
1/1/1996	Retiree COLA	3	75,320	75,320	34,019
1/1/1997	Retiree COLA	4	52,417	52,417	14,501
1/1/1997	Assumption Change	4	(208,280)	(208,280)	(57,619)
1/1/1998	Actuarial (Gain)/Loss	5	(770,878)	(770,878)	(176,323)
1/1/1998	Retiree COLA	5	59,493	59,493	13,608
1/1/1999	Retiree COLA	6	87,584	87,584	17,247
1/1/2000	Retiree COLA	7	132,831	132,831	23,152
1/1/2000	Assumption Change	7	(329,270)	(329,270)	(57,392)
1/1/2001	Asset Method Change	8	(1,014,234)	(1,014,234)	(159,674)
1/1/2002	Plan Amendment	9	30,738	30,738	4,439
1/1/2003	Actuarial (Gain)/Loss	10	4,138,614	4,138,614	554,762
1/1/2003	Method Change	10	141,436	141,436	18,959
1/1/2003	Retiree COLA	10	275,055	275,055	36,870
1/1/2003	Assumption Change	10	1,563,242	1,563,242	209,545
1/1/2004	Actuarial (Gain)/Loss	1	1,133,582	281,969	0
1/1/2004	Retiree COLA	11	626,596	626,596	78,727
1/1/2004	Assumption Change	11	1,339,319	1,339,319	168,275
1/1/2005	Actuarial (Gain)/Loss	12	1,794,183	1,481,001	212,971
1/1/2005	Retiree COLA	12	280,985	280,985	33,353
10/1/2005	Actuarial (Gain)/Loss	13	1,626,802	1,626,802	183,639
10/1/2005	Plan Amendment	13	120,297	120,297	13,580
10/1/2006	Actuarial (Gain)/Loss	14	820,282	820,282	88,548
10/1/2006	Retiree COLA	14	448,255	448,255	48,388
10/1/2007	Retiree COLA	15	629,254	629,254	65,265
10/1/2007	Actuarial (Gain)/Loss	15	(2,418,590)	(2,418,590)	(250,851)
10/1/2008	Actuarial (Gain)/Loss	16	3,567,277	3,567,277	356,943
10/1/2008	Plan Amendment	16	260,098	260,098	26,025
10/1/2009	Actuarial (Gain)/Loss	17	3,700,535	3,700,535	358,484
10/1/2009	Plan Amendment	17	(2,070,698)	(2,070,698)	(200,596)
10/1/2010	Actuarial (Gain)/Loss	17	2,049,308	2,049,308	198,524



A. UAAL Amortization Period and Payments - General Excludable (Continued)

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
10/1/2011	Actuarial (Gain)/Loss	17	2,884,718	2,884,718	279,453
10/1/2011	Assumption Change	17	2,834,732	2,834,732	274,611
10/1/2011	Plan Amendment	17	(1,043,737)	(1,043,737)	(101,111)
10/1/2012	Actuarial (Gain)/Loss	17	2,898,470	2,898,470	280,785
10/1/2012	Plan Amendment	17	(480,984)	(480,984)	(46,595)
10/1/2012	Plan Amendment	17	37,971	37,971	3,678
10/1/2013	Plan Amendment	17	0	0	0
10/1/2014	Actuarial (Gain)/Loss	17	(342,737)	(342,737)	(33,202)
10/1/2014	Assumption Change	17	(374,549)	(374,549)	(36,284)
10/1/2015	Actuarial (Gain)/Loss	18	(836,938)	(836,938)	(78,738)
10/1/2016	Actuarial (Gain)/Loss	19	(263,397)	(263,397)	(24,131)
10/1/2016	Assumption Change	19	2,606,909	2,606,909	238,826
10/1/2016	Plan Amendment	19	0	0	0
10/1/2017	Actuarial (Gain)/Loss	15	(1,433,626)	(1,433,626)	(148,693)
10/1/2017	Assumption Change	20	648,891	648,891	58,028
10/1/2017	Plan Amendment	5	1,266,988	1,266,988	289,798
10/1/2017	Plan Interpretation Change	15	(78,044)	(78,044)	(8,095)
10/1/2017	Plan Amendment (Opt-outs)	5	23,733	23,733	5,428
10/1/2018	Actuarial (Gain)/Loss	16	658,422	658,422	65,882
10/1/2018	Assumption Change	21	352,794	352,794	30,862
10/1/2019	Actuarial (Gain)/Loss	17	696,170	696,170	67,440
10/1/2019	Assumption Change	22	374,304	374,304	32,092
10/1/2020	Actuarial (Gain)/Loss	18	(389,021)	(389,021)	(36,599)
10/1/2020	Assumption Change	23	1,335,192	1,335,192	112,388
10/1/2020	Plan Amendment (FOP)	18	0	0	0
10/1/2021	Actuarial (Gain)/Loss	19	(1,825,183)	(1,825,183)	(167,210)
10/1/2021	Assumption Change	24	1,232,936	1,232,936	102,045
10/1/2022	Actuarial (Gain)/Loss	20	177,361	177,361	15,861
10/1/2022	Assumption Change	25	<u>423,319</u>	<u>423,319</u>	<u>34,498</u>
			\$ 29,081,625	\$ 27,916,830	\$ 2,909,763
	Excess Contribution Reserve		<u>(534,362)</u>	<u>(534,362)</u>	
	Actual Unfunded Liability		\$ 28,547,263	\$ 27,382,468	

Note: The Bold row has one payment remaining, which will be paid by the October 1, 2022 City contribution (for FY 2023). The required payment of \$0 shown in this row is for FY 2024 (after the amortization base has already been paid off in full).



A. UAAL Amortization Period and Payments - General Non-Excludable

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
1/1/1996	Actuarial (Gain)/Loss	3	(946,338)	(946,338)	(337,614)
1/1/1996	Retiree COLA	3	160,310	160,310	72,406
1/1/1997	Retiree COLA	4	111,569	111,569	30,865
1/1/1997	Assumption Change	4	(443,303)	(443,303)	(122,637)
1/1/1998	Actuarial (Gain)/Loss	5	(1,640,746)	(1,640,746)	(375,287)
1/1/1998	Retiree COLA	5	126,630	126,630	28,964
1/1/1999	Retiree COLA	6	186,416	186,416	36,708
1/1/2000	Retiree COLA	7	282,717	282,717	49,277
1/1/2000	Assumption Change	7	(700,823)	(700,823)	(122,153)
1/1/2001	Asset Method Change	8	(2,158,713)	(2,158,713)	(339,852)
1/1/2002	Plan Amendment	9	65,424	65,424	9,447
1/1/2003	Actuarial (Gain)/Loss	10	8,808,672	8,808,672	1,180,762
1/1/2003	Method Change	10	301,034	301,034	40,352
1/1/2003	Retiree COLA	10	585,428	585,428	78,474
1/1/2003	Assumption Change	10	3,327,225	3,327,225	445,999
1/1/2004	Actuarial (Gain)/Loss	1	2,412,731	600,144	0
1/1/2004	Retiree COLA	11	1,333,655	1,333,655	167,563
1/1/2004	Assumption Change	11	2,850,626	2,850,626	358,159
1/1/2005	Actuarial (Gain)/Loss	12	3,818,761	3,152,192	453,290
1/1/2005	Retiree COLA	12	598,055	598,055	70,990
10/1/2005	Actuarial (Gain)/Loss	13	3,462,505	3,462,505	390,859
10/1/2005	Plan Amendment	13	256,043	256,043	28,903
10/1/2006	Actuarial (Gain)/Loss	14	1,745,901	1,745,901	188,466
10/1/2006	Retiree COLA	14	954,066	954,066	102,989
10/1/2007	Retiree COLA	15	1,339,311	1,339,311	138,911
10/1/2007	Actuarial (Gain)/Loss	15	(5,147,757)	(5,147,757)	(533,915)
10/1/2008	Actuarial (Gain)/Loss	16	7,592,624	7,592,624	759,721
10/1/2008	Plan Amendment	16	553,594	553,594	55,393
10/1/2009	Actuarial (Gain)/Loss	17	7,876,262	7,876,262	763,002
10/1/2009	Plan Amendment	17	(4,407,298)	(4,407,298)	(426,951)
10/1/2010	Actuarial (Gain)/Loss	17	4,361,773	4,361,773	422,541

A. UAAL Amortization Period and Payments - General Non-Excludable (Continued)

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
10/1/2011	Actuarial (Gain)/Loss	17	6,139,866	6,139,866	594,791
10/1/2011	Assumption Change	17	6,033,475	6,033,475	584,484
10/1/2011	Plan Amendment	17	(2,221,499)	(2,221,499)	(215,205)
10/1/2012	Actuarial (Gain)/Loss	17	6,169,137	6,169,137	597,626
10/1/2012	Plan Amendment	17	(1,023,727)	(1,023,727)	(99,172)
10/1/2012	Plan Amendment	17	80,815	80,815	7,829
10/1/2013	Plan Amendment	17	0	0	0
10/1/2014	Actuarial (Gain)/Loss	17	(641,438)	(641,438)	(62,138)
10/1/2014	Assumption Change	17	1,819,347	1,819,347	176,247
10/1/2015	Actuarial (Gain)/Loss	18	(1,574,170)	(1,574,170)	(148,096)
10/1/2016	Actuarial (Gain)/Loss	19	(1,927,609)	(1,927,609)	(176,594)
10/1/2016	Assumption Change	19	3,987,451	3,987,451	365,302
10/1/2016	Plan Amendment	19	0	0	0
10/1/2017	Actuarial (Gain)/Loss	15	(3,016,480)	(3,016,480)	(312,863)
10/1/2017	Assumption Change	20	1,342,139	1,342,139	120,023
10/1/2017	Plan Amendment	5	2,518,632	2,518,632	576,086
10/1/2017	Plan Interpretation Change	15	(115,144)	(115,144)	(11,942)
10/1/2017	Plan Amendment (Opt-outs)	5	7,258	7,258	1,660
10/1/2018	Actuarial (Gain)/Loss	16	(1,624,259)	(1,624,259)	(162,524)
10/1/2018	Assumption Change	21	699,464	699,464	61,188
10/1/2019	Actuarial (Gain)/Loss	17	(2,109,057)	(2,109,057)	(204,312)
10/1/2019	Assumption Change	22	698,057	698,057	59,850
10/1/2020	Actuarial (Gain)/Loss	18	(2,539,989)	(2,539,989)	(238,959)
10/1/2020	Assumption Change	23	420,644	420,644	35,407
10/1/2020	Plan Amendment (FOP)	18	0	0	0
10/1/2021	Actuarial (Gain)/Loss	19	(5,211,892)	(5,211,892)	(477,476)
10/1/2021	Assumption Change	24	2,173,238	2,173,238	179,870
10/1/2022	Actuarial (Gain)/Loss	20	1,654,267	1,654,267	147,935
10/1/2022	Assumption Change	25	<u>741,095</u>	<u>741,095</u>	<u>60,395</u>
			\$ 50,145,975	\$ 47,666,819	\$ 5,075,044
	Excess Contribution Reserve		<u>(1,578,911)</u>	<u>(1,578,911)</u>	
	Actual Unfunded Liability		\$ 48,567,064	\$ 46,087,908	

Note: The Bold row has one payment remaining, which will be paid by the October 1, 2022 City contribution (for FY 2023). The required payment of \$0 shown in this row is for FY 2024 (after the amortization base has already been paid off in full).



A. UAAL Amortization Period and Payments - Police Officers

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
1/1/1996	Actuarial (Gain)/Loss	3	(809,774)	(809,774)	(288,894)
1/1/1996	Retiree COLA	3	137,174	137,174	61,957
1/1/1997	Retiree COLA	4	95,468	95,468	26,411
1/1/1997	Assumption Change	4	(379,333)	(379,333)	(104,940)
1/1/1998	Actuarial (Gain)/Loss	5	(1,403,973)	(1,403,973)	(321,130)
1/1/1998	Retiree COLA	5	108,355	108,355	24,784
1/1/1999	Retiree COLA	6	159,511	159,511	31,410
1/1/2000	Retiree COLA	7	241,921	241,921	42,167
1/1/2000	Assumption Change	7	(599,691)	(599,691)	(104,526)
1/1/2001	Asset Method Change	8	(1,847,194)	(1,847,194)	(290,809)
1/1/2002	Plan Amendment	9	55,981	55,981	8,084
1/1/2003	Actuarial (Gain)/Loss	10	7,537,516	7,537,516	1,010,369
1/1/2003	Method Change	10	257,591	257,591	34,529
1/1/2003	Retiree COLA	10	500,949	500,949	67,150
1/1/2003	Assumption Change	10	2,847,081	2,847,081	381,638
1/1/2004	Actuarial (Gain)/Loss	1	2,064,557	513,539	0
1/1/2004	Retiree COLA	11	1,141,200	1,141,200	143,383
1/1/2004	Assumption Change	11	2,439,259	2,439,259	306,474
1/1/2005	Actuarial (Gain)/Loss	12	3,267,682	2,697,304	387,877
1/1/2005	Retiree COLA	12	511,751	511,751	60,745
10/1/2005	Actuarial (Gain)/Loss	13	2,962,838	2,962,838	334,455
10/1/2005	Plan Amendment	13	219,094	219,094	24,732
10/1/2006	Actuarial (Gain)/Loss	14	1,493,956	1,493,956	161,269
10/1/2006	Retiree COLA	14	816,385	816,385	88,127
10/1/2007	Retiree COLA	15	1,146,038	1,146,038	118,865
10/1/2007	Actuarial (Gain)/Loss	15	(4,404,900)	(4,404,900)	(456,867)
10/1/2008	Actuarial (Gain)/Loss	16	6,496,954	6,496,954	650,088
10/1/2008	Plan Amendment	16	473,708	473,708	47,399
10/1/2009	Actuarial (Gain)/Loss	17	6,739,661	6,739,661	652,895
10/1/2009	Plan Amendment	17	(3,771,291)	(3,771,291)	(365,338)
10/1/2010	Actuarial (Gain)/Loss	17	3,732,335	3,732,335	361,565

A. UAAL Amortization Period and Payments - Police Officers (Continued)

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
10/1/2011	Actuarial (Gain)/Loss	17	5,253,839	5,253,839	508,958
10/1/2011	Assumption Change	17	5,162,799	5,162,799	500,139
10/1/2011	Plan Amendment	17	(1,900,920)	(1,900,920)	(184,149)
10/1/2012	Actuarial (Gain)/Loss	17	5,278,886	5,278,886	511,385
10/1/2012	Plan Amendment	17	(875,997)	(875,997)	(84,861)
10/1/2012	Plan Amendment	17	69,155	69,155	6,699
10/1/2013	Plan Amendment	17	3,341	3,341	324
10/1/2014	Actuarial (Gain)/Loss	17	(587,496)	(587,496)	(56,913)
10/1/2014	Assumption Change	17	1,215,133	1,215,133	117,714
10/1/2015	Actuarial (Gain)/Loss	18	367,173	367,173	34,543
10/1/2016	Actuarial (Gain)/Loss	19	(794,690)	(794,690)	(72,804)
10/1/2016	Assumption Change	19	2,588,876	2,588,876	237,174
10/1/2016	Plan Amendment	19	783,778	783,778	71,804
10/1/2017	Actuarial (Gain)/Loss	15	(2,055,321)	(2,055,321)	(213,174)
10/1/2017	Assumption Change	20	1,497,297	1,497,297	133,898
10/1/2017	Plan Amendment	5	2,603,326	2,603,326	595,458
10/1/2017	Plan Interpretation Change	15	0	0	0
10/1/2017	Plan Amendment (Opt-outs)	5	15,313	15,313	3,503
10/1/2018	Actuarial (Gain)/Loss	16	(112,754)	(112,754)	(11,282)
10/1/2018	Assumption Change	21	804,141	804,141	70,345
10/1/2019	Actuarial (Gain)/Loss	17	1,428,313	1,428,313	138,366
10/1/2019	Assumption Change	22	847,084	847,084	72,627
10/1/2020	Actuarial (Gain)/Loss	18	(1,610,910)	(1,610,910)	(151,552)
10/1/2020	Assumption Change	23	(1,539,423)	(1,539,423)	(129,579)
10/1/2020	Plan Amendment (FOP)	18	(25,787)	(25,787)	(2,426)
10/1/2021	Actuarial (Gain)/Loss	19	(5,616,328)	(5,616,328)	(514,528)
10/1/2021	Assumption Change	24	2,674,350	2,674,350	221,345
10/1/2022	Actuarial (Gain)/Loss	20	2,919,603	2,919,603	261,090
10/1/2022	Assumption Change	25	<u>939,317</u>	<u>939,317</u>	<u>76,549</u>
			\$ 51,562,907	\$ 49,441,511	\$ 5,234,522
	Excess Contribution Reserve		<u>(559,499)</u>	<u>(559,499)</u>	
	Actual Unfunded Liability		\$ 51,003,408	\$ 48,882,012	

Note: The bold row has one payment remaining, which will be paid by the October 1, 2022 City contribution (for FY 2023). The required payment of \$0 shown in this row is for FY 2024 (after the amortization base has already been paid off in full).



A. UAAL Amortization Period and Payments - Firefighters

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
1/1/1996	Actuarial (Gain)/Loss	3	(709,349)	(709,349)	(253,066)
1/1/1996	Retiree COLA	3	120,164	120,164	54,274
1/1/1997	Retiree COLA	4	83,628	83,628	23,135
1/1/1997	Assumption Change	4	(332,288)	(332,288)	(91,925)
1/1/1998	Actuarial (Gain)/Loss	5	(1,229,859)	(1,229,859)	(281,305)
1/1/1998	Retiree COLA	5	94,917	94,917	21,710
1/1/1999	Retiree COLA	6	139,731	139,731	27,515
1/1/2000	Retiree COLA	7	211,917	211,917	36,937
1/1/2000	Assumption Change	7	(525,319)	(525,319)	(91,563)
1/1/2001	Asset Method Change	8	(1,618,113)	(1,618,113)	(254,744)
1/1/2002	Plan Amendment	9	49,039	49,039	7,081
1/1/2003	Actuarial (Gain)/Loss	10	6,602,744	6,602,744	885,067
1/1/2003	Method Change	10	225,646	225,646	30,247
1/1/2003	Retiree COLA	10	438,822	438,822	58,822
1/1/2003	Assumption Change	10	2,493,998	2,493,998	334,309
1/1/2004	Actuarial (Gain)/Loss	1	1,808,519	449,852	0
1/1/2004	Retiree COLA	11	999,673	999,673	125,601
1/1/2004	Assumption Change	11	2,136,748	2,136,748	268,466
1/1/2005	Actuarial (Gain)/Loss	12	2,862,438	2,362,795	339,774
1/1/2005	Retiree COLA	12	448,288	448,288	53,212
10/1/2005	Actuarial (Gain)/Loss	13	2,595,403	2,595,403	292,977
10/1/2005	Plan Amendment	13	191,923	191,923	21,665
10/1/2006	Actuarial (Gain)/Loss	14	1,308,681	1,308,681	141,269
10/1/2006	Retiree COLA	14	715,142	715,142	77,198
10/1/2007	Retiree COLA	15	1,003,910	1,003,910	104,123
10/1/2007	Actuarial (Gain)/Loss	15	(3,858,621)	(3,858,621)	(400,208)
10/1/2008	Actuarial (Gain)/Loss	16	5,691,229	5,691,229	569,466
10/1/2008	Plan Amendment	16	414,959	414,959	41,521
10/1/2009	Actuarial (Gain)/Loss	17	5,903,838	5,903,838	571,926
10/1/2009	Plan Amendment	17	(3,303,594)	(3,303,594)	(320,031)
10/1/2010	Actuarial (Gain)/Loss	17	3,269,469	3,269,469	316,725



A. UAAL Amortization Period and Payments - Firefighters (Continued)

Current UAAL					
Date Established	Type of Amortization Base	Years Remaining	Amount Before Extra UAL Payments	Amount After Extra UAL Payments	FY 2024 Payment
10/1/2011	Actuarial (Gain)/Loss	17	4,602,280	4,602,280	445,839
10/1/2011	Assumption Change	17	4,522,531	4,522,531	438,114
10/1/2011	Plan Amendment	17	(1,665,176)	(1,665,176)	(161,312)
10/1/2012	Actuarial (Gain)/Loss	17	4,624,223	4,624,223	447,965
10/1/2012	Plan Amendment	17	(767,360)	(767,360)	(74,337)
10/1/2012	Plan Amendment	17	60,578	60,578	5,868
10/1/2013	Plan Amendment	17	0	0	0
10/1/2014	Actuarial (Gain)/Loss	17	361,213	361,213	34,992
10/1/2014	Assumption Change	17	521,781	521,781	50,547
10/1/2015	Actuarial (Gain)/Loss	18	(640,273)	(640,273)	(60,236)
10/1/2016	Actuarial (Gain)/Loss	19	(1,204,904)	(1,204,904)	(110,385)
10/1/2016	Assumption Change	19	1,098,274	1,098,274	100,616
10/1/2016	Plan Amendment	19	0	0	0
10/1/2017	Actuarial (Gain)/Loss	15	(918,788)	(918,788)	(95,295)
10/1/2017	Assumption Change	20	1,182,749	1,182,749	105,769
10/1/2017	Plan Amendment	5	2,102,657	2,102,657	480,940
10/1/2017	Plan Interpretation Change	15	0	0	0
10/1/2017	Plan Amendment (Opt-outs)	5	0	0	0
10/1/2018	Actuarial (Gain)/Loss	16	(1,050,918)	(1,050,918)	(105,155)
10/1/2018	Assumption Change	21	625,452	625,452	54,714
10/1/2019	Actuarial (Gain)/Loss	17	(454,707)	(454,707)	(44,049)
10/1/2019	Assumption Change	22	652,229	652,229	55,920
10/1/2020	Actuarial (Gain)/Loss	18	(1,268,678)	(1,268,678)	(119,355)
10/1/2020	Assumption Change	23	(1,743,790)	(1,743,790)	(146,782)
10/1/2020	Plan Amendment (FOP)	18	0	0	0
10/1/2021	Actuarial (Gain)/Loss	19	(6,169,902)	(6,169,902)	(565,242)
10/1/2021	Assumption Change	24	2,017,744	2,017,744	167,001
10/1/2022	Actuarial (Gain)/Loss	20	988,739	988,739	88,419
10/1/2022	Assumption Change	25	<u>700,605</u>	<u>700,605</u>	<u>57,096</u>
			\$ 36,410,242	\$ 34,551,932	\$ 3,761,830
	Excess Contribution Reserve		<u>(1,196,971)</u>	<u>(1,196,971)</u>	
	Actual Unfunded Liability		\$ 35,213,271	\$ 33,354,961	

Note: The bold row has one payment remaining, which will be paid by the October 1, 2022 City contribution (for FY 2023). The required payment of \$0 shown in this row is for FY 2024 (after the amortization base has already been paid off in full).



The UAAL is being amortized as a level dollar amount over the number of years remaining in each amortization period. The following schedule illustrates the expected amortization of the UAAL:

Amortization Schedule	
Year	Expected UAAL
2022	\$ 155,962,903
2023	147,731,213
2024	140,135,638
2025	131,993,182
2026	122,389,102
2027	111,790,617
2028	101,381,630
2029	90,344,357
2030	78,271,860
2031	64,208,401
2032	49,163,555
2033	38,797,101
2034	29,419,503
2035	21,097,196
2036	13,561,182
2037	6,444,575
2038	-

Excess Contribution Reserve	
1. Sum of October 1, 2022 Outstanding Amortization Balances	\$ 159,832,913
2. October 1, 2022 Actual UAAL	<u>155,962,903</u>
3. Excess Contribution Reserve: 1 - 2	\$ 3,870,010



Actuarial Gains and Losses

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain/(loss) for the past year is computed as follows:

	Total	Elected	General Excludable	General Non-Excludable	Police Officers	Firefighters
1. Last Year's UAAL	\$163,701,041	\$261,602	\$29,363,379	\$48,845,663	\$49,583,184	\$35,647,213
2. Last Year's Employer Normal Cost	4,304,261	362	491,879	502,976	1,648,920	1,660,124
3. Last Year's Employer Contributions						
a. Made at the beginning of the year	22,895,325	27,932	3,797,838	5,881,391	7,187,305	6,000,859
b. Made at the end of the year	<u>7,779,136</u>	<u>9,649</u>	<u>1,164,795</u>	<u>2,479,156</u>	<u>2,214,955</u>	<u>1,910,581</u>
c. Total	30,674,461	37,581	4,962,633	8,360,547	9,402,260	7,911,440
4. Last Year's Member Cost-Sharing Contributions (In Excess of 10% Rate)	431,287	0	0	431,287	0	0
5. Interest at the Assumed Rate on:						
a. 1 and 2 for one year	12,180,384	18,992	2,164,506	3,577,776	3,714,328	2,704,782
b. 3 and 4 from dates paid	<u>1,675,545</u>	<u>2,025</u>	<u>275,343</u>	<u>442,035</u>	<u>521,080</u>	<u>435,062</u>
c. a - b	10,504,839	16,967	1,889,163	3,135,741	3,193,248	2,269,720
6. This Year's Expected UAAL (before changes): = 1 + 2 - 3 - 4 + 5c	147,404,393	241,350	26,781,788	43,692,546	45,023,092	31,665,617
7. Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions	2,806,104	1,768	423,319	741,095	939,317	700,605
8. This Year's Expected UAAL (after changes): = 6 + 7	150,210,497	243,118	27,205,107	44,433,641	45,962,409	32,366,222
9. This Year's Actual UAAL (after changes):	155,962,903	255,554	27,382,468	46,087,908	48,882,012	33,354,961
10. Net Actuarial Gain/(Loss):	(5,752,406)	(12,436)	(177,361)	(1,654,267)	(2,919,603)	(988,739)
11. Gain/(Loss) Due to Investments:	(4,314,496)	(3,495)	(637,853)	(1,047,731)	(1,410,077)	(1,215,340)
12. Gain/(Loss) Due to Other Sources:	(1,437,910)	(8,941)	460,492	(606,536)	(1,509,526)	226,601



The annual experience (gains)/losses in previous years have been as follows:

Year Ending	Experience (Gain)/Loss
12/31/1987	1,553,614
12/31/1988	(1,274,382)
12/31/1989	(2,127,490)
12/31/1990	4,224,229
12/31/1991	(6,086,043)
12/31/1992	2,997,588
12/31/1993	1,619,324
12/31/1994	6,035,838
12/31/1995	(12,826,310)
12/31/1996	942,133
12/31/1997	(14,413,961)
12/31/1998	(9,828,307)
12/31/1999	1,889,769
12/31/2000	26,457,751
12/31/2001	13,298,945
12/31/2002	46,662,623
12/31/2003	23,736,342
12/31/2004	20,236,223
9/30/2005	15,261,034
9/30/2006	7,371,714
9/30/2007	(19,235,295)
9/30/2008	27,415,318
9/30/2009	27,577,164
9/30/2010	15,074,929
9/30/2011	20,969,312
9/30/2012	22,681,760
9/30/2013	1,608,800
9/30/2014	(1,436,491)
9/30/2015	(3,038,952)
9/30/2016	(4,713,880)
9/30/2017	(8,574,453)
9/30/2018	(2,374,009)
9/30/2019	(469,094)
9/30/2020	(6,103,388)
9/30/2021	(19,283,793)
9/30/2022	5,752,406



The fund earnings and salary increase assumptions have considerable impact on the cost of the plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

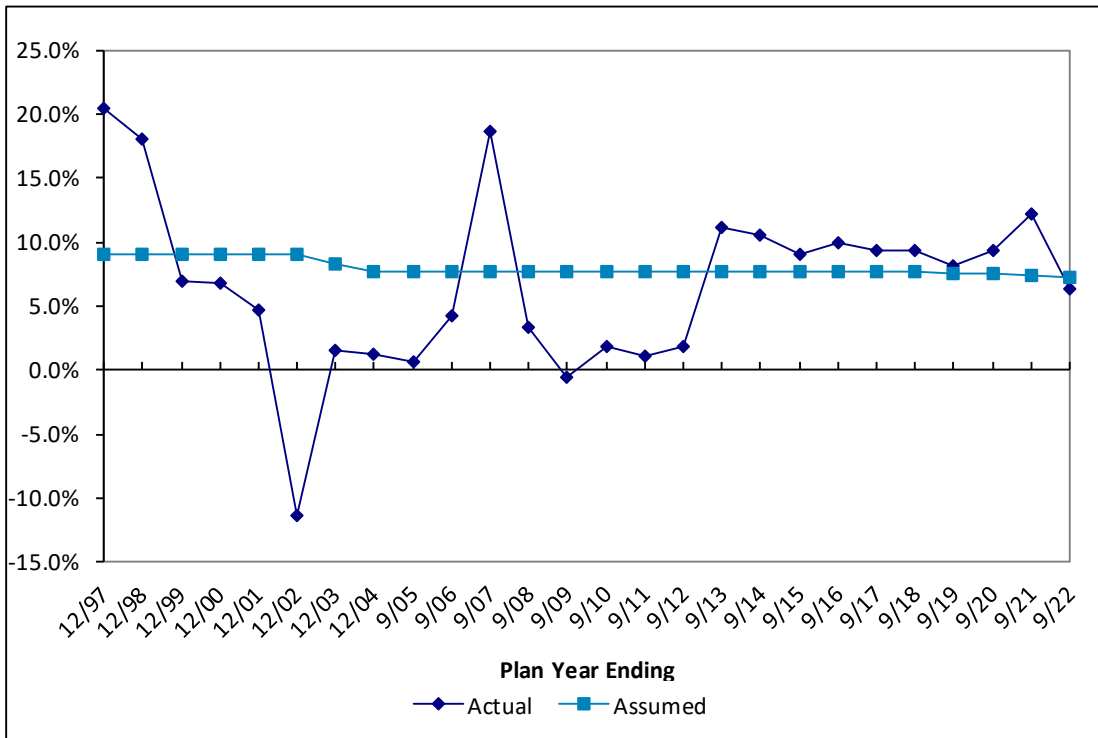
Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
12/31/1997	20.4	9.00	2.7	6.1
12/31/1998	18.0	9.00	11.5	6.1
12/31/1999	6.9	9.00	2.3	6.1
12/31/2000	6.8	9.00	12.6	6.1
12/31/2001	4.7	9.00	3.8	6.1
12/31/2002	(11.4)	9.00	4.7	6.1
12/31/2003	1.6	8.25	8.2	5.4
12/31/2004	1.3	7.75	11.6	5.0
9/30/2005	0.6	7.75	7.7	5.0
9/30/2006	4.2	7.75	5.0	4.9
9/30/2007	18.6	7.75	(5.6)	4.9
9/30/2008	3.4	7.75	16.8	4.9
9/30/2009	(0.6)	7.75	4.9	4.1
9/30/2010	1.9	7.75	(0.2)	4.6
9/30/2011	1.1	7.75	(2.7)	4.8
9/30/2012	1.9	7.75	2.4	5.3
9/30/2013 *	11.2	7.75	2.7	1.4
9/30/2014	10.5	7.75	2.9	4.7
9/30/2015	9.1	7.75	5.5	5.8
9/30/2016	9.9	7.75	4.4	4.5
9/30/2017	9.4	7.75	8.0	4.5
9/30/2018	9.3	7.65	10.0	4.5
9/30/2019	8.1	7.60	1.9	4.6
9/30/2020	9.4	7.55	3.6	4.6
9/30/2021	12.2	7.40	3.3	4.9
9/30/2022	6.3	7.25	5.1	4.9
Average	6.6 %	8.01 %	5.1 %	5.0 %

*Salary Increase experience excludes Police Officers due to the change in the definition of pay effective 9/30/2012.

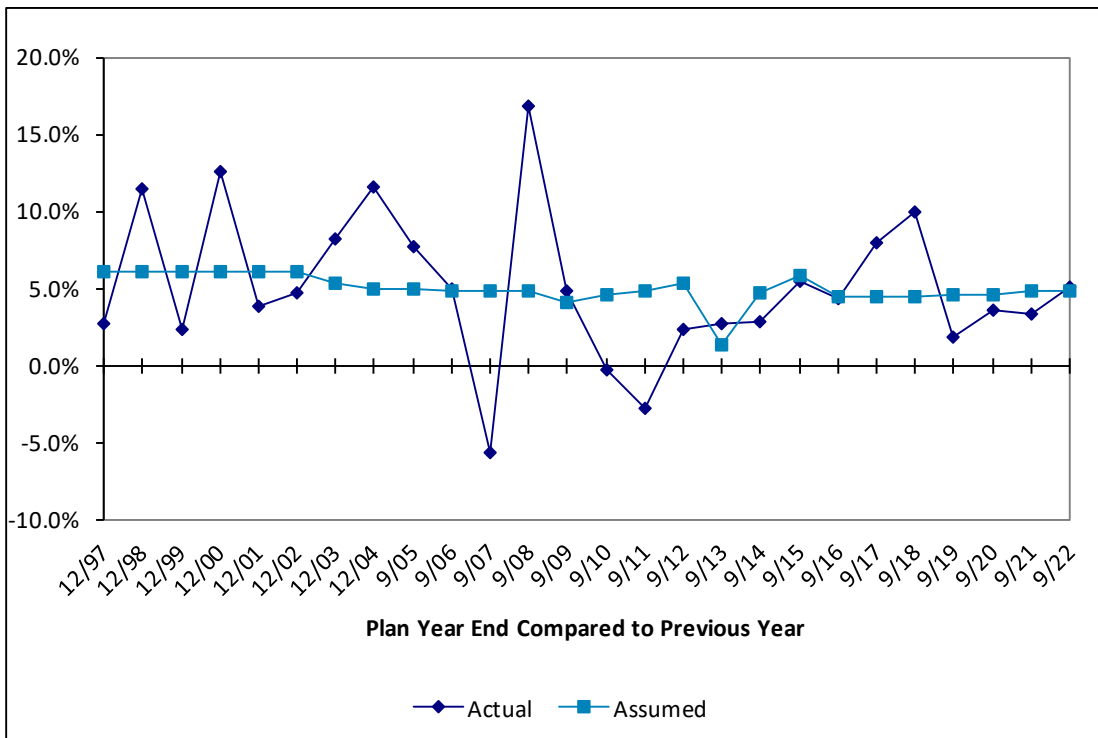
The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and end of each period.



History of Investment Return Based on Actuarial Value of Assets



History of Salary Increases



**Number Added To and Removed from Active Participation
Actual (A) Compared to Expected (E) - Totals**

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	A	A	Totals		
											A	E	
9/30/2013	45	75	44	27	0	2	0	1	5	26	31	22	565
9/30/2014	68	76	43	23	0	2	2	1	4	27	31	20	557
9/30/2015	52	37	22	20	1	0	0	1	1	13	14	29	572
9/30/2016	69	53	26	27	2	1	0	1	2	23	25	32	588
9/30/2017	49	38	18	24	0	1	0	1	2	18	20	35	599
9/30/2018	54	51	20	31	0	1	2	1	3	26	29	31	602
9/30/2019	63	43	13	28	4	1	0	1	1	25	26	33	622
9/30/2020	51	59	29	30	2	1	0	1	3	25	28	33	614
9/30/2021	39	54	23	25	0	1	0	1	4	27	31	30	599
9/30/2022	45	66	21	22	1	1	0	1	6	38	44	27	578
10-Year Totals	535	552	259	257	10	11	4	10	31	248	279	292	

**Number Added To and Removed from Active Participation
Actual (A) Compared to Expected (E) - Elected Officials**

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	A	A	Totals		
											A	E	
9/30/2013	0	0	0	0.3	0	0	0	0	0	0	0	0	1
9/30/2014	0	0	0	0.3	0	0	0	0	0	0	0	0	1
9/30/2015	0	1	1	0.2	0	0	0	0	0	0	0	0	0
9/30/2016	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30/2017	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30/2018	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30/2019	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30/2020	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30/2021	0	0	0	0	0	0	0	0	0	0	0	0	0
9/30/2022	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Year Totals	0	1	1	0.8	0	0	0	0	0	0	0	0	

**Number Added To and Removed from Active Participation
Actual (A) Compared to Expected (E) - General Excludable**

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	A	A	Totals		
											A	E	
9/30/2013	18	16	8	6.2	0	0.4	0	0.2	1	7	8	4.0	96
9/30/2014	22	17	7	4.7	0	0.4	0	0.2	0	10	10	4.4	101
9/30/2015	11	8	3	3.7	0	0.1	0	0.2	0	5	5	6.1	104
9/30/2016	15	14	2	3.3	0	0.1	0	0.2	1	11	12	5.9	105
9/30/2017	16	10	4	4.2	0	0.1	0	0.3	1	5	6	5.1	111
9/30/2018	17	11	2	4.1	0	0.1	1	0.3	0	8	8	5.6	117
9/30/2019	19	16	6	5.4	0	0.1	0	0.3	0	10	10	6.1	120
9/30/2020	8	8	6	5.1	0	0.1	0	0.3	0	2	2	5.8	120
9/30/2021	9	17	7	3.9	0	0.1	0	0.2	0	10	10	7.8	112
9/30/2022	11	25	5	4.2	1	0.1	0	0.2	4	15	19	7.1	98
10-Year Totals	146	142	50	44.8	1	1.6	1	2.4	7	83	90	57.9	



**Number Added To and Removed from Active Participation
Actual (A) Compared to Expected (E) - General Non-Excludable**

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
											A	E	
9/30/2013	18	37	21	13.1	0	0.8	0	0.4	3	13	16	12.4	250
9/30/2014	23	32	17	11.1	0	0.8	1	0.4	3	11	14	11.2	241
9/30/2015	22	16	13	10.5	0	0.2	0	0.4	0	3	3	16.6	247
9/30/2016	32	22	13	14.6	0	0.2	0	0.3	1	8	9	19.2	257
9/30/2017	9	15	4	9.6	0	0.2	0	0.5	1	10	11	22.3	251
9/30/2018	13	19	8	13.3	0	0.2	1	0.5	2	8	10	17.8	245
9/30/2019	14	16	3	9.5	3	0.2	0	0.5	0	10	10	19.0	243
9/30/2020	18	25	10	11.9	0	0.2	0	0.6	2	13	15	18.7	236
9/30/2021	6	23	8	13.3	0	0.3	0	0.4	4	11	15	12.6	219
9/30/2022	18	27	7	11.5	0	0.3	0	0.4	2	18	20	10.5	210
10-Year Totals	173	232	104	118.4	3	3.4	2	4.4	18	105	123	160.3	

**Number Added To and Removed from Active Participation
Actual (A) Compared to Expected (E) - Police Officers**

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
											A	E	
9/30/2013	6	12	6	3.8	0	0.2	0	0.1	1	5	6	4.1	138
9/30/2014	16	12	5	5.6	0	0.2	0	0.1	1	6	7	3.8	142
9/30/2015	14	9	2	3.5	1	0.1	0	0.1	1	5	6	6.0	147
9/30/2016	12	10	5	5.6	2	0.1	0	0.1	0	3	3	6.2	149
9/30/2017	14	7	5	6.5	0	0.1	0	0.2	0	2	2	6.5	156
9/30/2018	16	15	7	10.9	0	0.1	0	0.2	1	7	8	7.0	157
9/30/2019	11	8	2	9.5	1	0.1	0	0.2	1	4	5	7.2	160
9/30/2020	18	22	9	11.1	2	0.1	0	0.2	1	10	11	7.1	156
9/30/2021	13	11	5	5.6	0	0.3	0	0.2	0	6	6	7.2	158
9/30/2022	13	11	6	3.5	0	0.3	0	0.2	0	5	5	6.9	160
10-Year Totals	133	117	52	65.6	6	1.6	0	1.6	6	53	59	62.0	

**Number Added To and Removed from Active Participation
Actual (A) Compared to Expected (E) - Firefighters**

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Died In Service		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
											A	E	
9/30/2013	3	10	9	3.4	0	0.2	0	0.1	0	1	1	1.1	80
9/30/2014	7	15	14	1.6	0	0.2	1	0.1	0	0	0	1.0	72
9/30/2015	5	3	3	2.0	0	0.1	0	0.1	0	0	0	0.7	74
9/30/2016	10	7	6	3.3	0	0.1	0	0.1	0	1	1	0.8	77
9/30/2017	10	6	5	3.9	0	0.1	0	0.1	0	1	1	0.8	81
9/30/2018	8	6	3	3.0	0	0.1	0	0.1	0	3	3	1.0	83
9/30/2019	19	3	2	3.7	0	0.1	0	0.1	0	1	1	1.0	99
9/30/2020	7	4	4	2.1	0	0.1	0	0.1	0	0	0	1.3	102
9/30/2021	11	3	3	2.3	0	0.1	0	0.1	0	0	0	2.3	110
9/30/2022	3	3	3	2.9	0	0.1	0	0.1	0	0	0	2.4	110
10-Year Totals	83	60	52	28.2	0	1.2	1	1.0	0	7	7	12.4	



Recent History of Valuation Results

Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	UAAL	Funded Ratio	Total Normal Cost	
	Active Members	Inactive Members					Amount	% of Payroll
1/1/2000	764	569	\$32,792,227	\$221,616,352	(\$10,470,328)	105.0 %	\$4,594,136	14.01 %
1/1/2001	765	585	36,079,840	227,724,737	1,900,063	99.2	5,480,700	15.19
1/1/2002	755	609	40,076,259	228,682,300	15,129,093	93.8	6,292,874	15.70
1/1/2003	753	615	40,840,669	194,878,768	83,533,529	70.0	6,420,291	15.72
1/1/2004	762	651	42,380,291	195,058,670	126,868,280	60.6	6,646,712	15.68
1/1/2005	726	650	44,782,104	197,516,417	145,862,261	57.5	7,724,072	17.25
10/1/2005	758	680	48,011,978	206,804,749	157,437,777	56.8	8,418,556	17.53
10/1/2006	781	692	51,043,831	237,825,593	161,018,543	59.6	9,449,437	18.51
10/1/2007	761	715	46,125,613	258,488,666	144,584,515	64.1	9,222,398	19.99
10/1/2008	781	728	53,451,877	265,381,290	168,522,940	61.2	9,899,872	18.52
10/1/2009	755	768	52,692,558	262,434,347	197,974,718	57.0	8,776,789	16.66
10/1/2010	672	817	46,949,522	265,080,873	195,653,796	57.5	8,196,034	17.46
10/1/2011	614	853	40,863,780	264,628,498	226,570,157	53.9	6,951,139	17.01
10/1/2012	595	889	38,843,813	265,431,205	244,027,058	52.1	6,364,084	16.38
10/1/2013 *	565	920	37,158,283	288,832,252	243,372,636	54.3	6,419,393	17.28
10/1/2014 *	557	965	37,013,103	313,297,551	239,939,061	56.6	6,007,692	16.23
10/1/2015 *	572	965	38,301,821	332,327,655	226,729,657	59.4	6,200,674	16.19
10/1/2016 *	588	986	38,659,035	349,225,598	224,896,425	60.8	6,299,172	16.29
10/1/2017 *	599	974	41,314,804	365,878,904	226,918,398	61.7	6,726,494	16.28
10/1/2018 *	602	979	44,405,705	382,523,777	219,566,238	63.5	7,272,619	16.38
10/1/2019 *	622	986	45,616,279	391,598,190	209,895,291	65.1	7,701,915	16.88
10/1/2020 *	614	996	45,886,247	415,697,593	189,668,756	68.7	8,273,928	18.03
10/1/2021	599	995	45,284,440	450,868,731	163,701,041	73.4	8,832,706	19.50
10/1/2022	578	993	44,975,569	460,723,529	155,962,903	74.7	8,640,602	19.21

* Reflects all Actuarial Impact Statements completed after actuarial valuation report.

Recent History of Required and Actual Contributions

Valuation Date	End of Year to which Valuation Applies	Required Contributions [#]						Actual Contributions		
		Employer & State		Estimated State		Net Employer		Employer	State	Total
		Amount	% of Payroll	Amount*	% of Payroll	Amount	% of Payroll			
10/1/2009	9/30/2011	\$21,774,775	41.32 %	\$145,830	0.28 %	\$21,628,945	41.05 %	\$ 21,628,945	\$ 145,830	\$21,774,775
10/1/2010	9/30/2012	23,146,379	49.30	145,830	0.31	23,000,549	48.99	23,000,549	145,830	23,146,379
10/1/2011	9/30/2013	23,592,738	57.74	145,830	0.36	23,446,908	57.38	23,446,908	145,830	23,592,738
10/1/2012	9/30/2014	25,678,422	66.11	145,830	0.38	25,532,592	65.73	25,554,746	145,830	25,700,576
10/1/2013	9/30/2015 *	24,288,466	65.37	136,610	0.37	24,151,856	65.00	28,228,636	145,830	28,374,466
10/1/2014	9/30/2016 *	23,838,224	64.41	136,610	0.37	23,701,614	64.04	26,975,010	145,830	27,120,840
10/1/2015	9/30/2017 *	23,082,353	60.26	136,610	0.35	22,945,743	59.91	26,293,017	145,830	26,438,847
10/1/2016	9/30/2018 *	23,281,270	60.22	136,610	0.35	23,144,660	59.87	25,562,264	145,830	25,708,094
10/1/2017	9/30/2019 *	25,231,083	61.07	136,721	0.33	25,094,362	60.74	29,066,424	145,830	29,212,254
10/1/2018	9/30/2020 *	24,418,414	54.99	136,776	0.31	24,281,638	54.68	29,308,926	145,830	29,454,756
10/1/2019	9/30/2021 *	23,936,560	52.47	136,832	0.30	23,799,728	52.17	30,558,549	145,830	30,704,379
10/1/2020	9/30/2022 *	23,032,324	50.20	136,999	0.30	22,895,325	49.90	30,528,631	145,830	30,674,461
10/1/2021	9/30/2023	22,535,142	49.76	137,167	0.30	22,397,975	49.46	---	---	---
10/1/2022	9/30/2024	21,229,356	47.20	137,223	0.30	21,092,133	46.90	---	---	---

Reflects an interest discount to the beginning of the year starting with the 10/1/2013 valuation.

* Reflects all Actuarial Impact Statements completed after actuarial valuation report.



Actuarial Assumptions and Methods

Valuation Methods

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce/(increase) the Unfunded Actuarial Accrued Liability (UAAL).

Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) are amortized by level (principal & interest combined) dollar contributions over a reasonable period of future years. The scheduled amortization payments (the required contributions towards the Unfunded Actuarial Accrued Liability) are credited to the prior year's outstanding amortization bases. Any excess or shortfall (due to the one-year contribution lag) is applied to an excess contribution reserve. This excess contribution reserve cannot be used to reduce future required contributions, but it can be used to reduce or eliminate outstanding amortization bases. Intentional excess City contributions are applied to specific amortization bases (as directed by the City).

All UAAL amortization periods in excess of 25 years as of October 1, 2014 were reduced to 25 years as of October 1, 2014. All UAAL amortization bases which originated from October 1, 2014 through October 1, 2016 were amortized over 25 years. All UAAL amortization bases which originated October 1, 2017 and later are amortized in accordance with the Funding Policy adopted by the Board of Trustees in January 2017. The UAAL impact of plan amendments affecting inactive members only are amortized over 10 years. The UAAL impact of plan amendments affecting active members and actuarial experience (gains)/losses are amortized over 20 years. The UAAL impact of changes in actuarial methods or assumptions are amortized over 25 years.

Actuarial Value of Assets - The Actuarial Value of Assets was written down to Market Value as of December 31, 2001. Effective December 31, 2001, the Actuarial Value of Assets phases in the difference between the expected and actual return on market value of assets at the rate of 20% per year. The Actuarial Value of Assets is further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this section. The economic and demographic assumptions used in this valuation were established following the Experience Study Report dated April 5, 2021.



Economic Assumptions

The investment return rate assumed in the valuation is 7.20% per year, compounded annually (net after investment expenses). This rate will be reevaluated annually and future reductions of 5 to 10 basis points per year are anticipated.

The general inflation rate assumed in the valuation is 2.15% per year. This assumption is used to project future maximum annual pension benefits for Police Officers, maximum annual pension benefits for General Non-Excludable Employees, Internal Revenue Code (IRC) Section 401(a)(17) and IRC Section 415(b) limitations, and administrative expenses for the current year. The inflation rate is defined to be the long-term rate of annual increases in the prices of goods and services.

The assumed real rate of return over general inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.20% investment return rate translates to an assumed real rate of return over general inflation of 5.05%.

The active member population is assumed to remain constant. Covered payroll is assumed to increase 3.00% per year for purposes of projecting covered payroll from the valuation date to the contribution year.

Pay increase assumptions for individual active members are shown below. Part of the assumption is for promotions, merit, productivity and/or seniority increase, and 2.15% recognizes general inflation.

The rates of salary increase used are in accordance with the following tables. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

SALARY INCREASE ASSUMPTION - GENERAL EXCLUDABLE EMPLOYEES			
Rounded Attained Age	Assumed Inflation	Promotion, Productivity & Seniority	Total Rate
Under 30	2.15%	5.00%	7.15%
30 - 39	2.15%	3.85%	6.00%
40 - 49	2.15%	2.35%	4.50%
50 - 54	2.15%	1.75%	3.90%
55 & Over	2.15%	1.50%	3.65%

SALARY INCREASE ASSUMPTION - GENERAL NON-EXCLUDABLE EMPLOYEES			
Rounded Years of Service	Assumed Inflation	Promotion, Productivity & Seniority	Total Rate
0 - 1	2.15%	2.85%	5.00%
2 - 3	2.15%	2.25%	4.40%
4 - 11	2.15%	1.30%	3.45%
12 - 17	2.15%	0.65%	2.80%
18 & Over	2.15%	0.45%	2.60%

SALARY INCREASE ASSUMPTION - POLICE OFFICERS			
Rounded Years of Service	Assumed Inflation	Promotion, Productivity & Seniority	Total Rate
0 - 2	2.15%	3.75%	5.90%
3 & Over	2.15%	2.35%	4.50%

SALARY INCREASE ASSUMPTION - FIREFIGHTERS			
Rounded Years of Service	Assumed Inflation	Promotion, Productivity & Seniority	Total Rate
0 - 3	2.15%	7.75%	9.90%
4 - 11	2.15%	4.35%	6.50%
12 - 15	2.15%	2.10%	4.25%
16 & Over	2.15%	1.50%	3.65%

Demographic Assumptions

The mortality table used for General Employees (Excludable and Non-Excludable) and Elected Officials is the PUB-2010 Headcount Weighted General Below Median Employee Mortality Table (for pre-retirement mortality) and the PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table (for post-retirement mortality), with separate rates for males and females and ages set back one year for males, with mortality improvements projected to all future years after 2010 using Scale MP-2018. These are the same rates used for (non-Teacher) Regular Class members in the July 1, 2021 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

Sample Attained Ages (in 2022)	(Active) Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
20	0.04 %	0.01 %	69.05	71.98
25	0.05	0.02	63.73	66.64
30	0.07	0.03	58.44	61.31
35	0.10	0.04	53.21	56.01
40	0.11	0.06	48.04	50.76
45	0.14	0.07	42.90	45.53
50	0.19	0.11	37.80	40.34
55	0.30	0.17	32.79	35.21
60	0.46	0.26	27.93	30.18
65	0.65	0.37	23.24	25.25
70	0.90	0.56	18.68	20.43
75	1.34	0.93	14.24	15.74
80	2.11	1.56	9.94	11.23

Sample Attained Ages (in 2022)	(Inactive) Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
20	0.04 %	0.01 %	65.27	69.28
25	0.05	0.02	59.83	63.85
30	0.07	0.03	54.42	58.42
35	0.10	0.04	49.07	53.03
40	0.11	0.06	43.76	47.67
45	0.14	0.07	38.48	42.33
50	0.19	0.58	33.24	37.04
55	0.95	0.57	28.87	32.59
60	1.13	0.59	24.77	28.04
65	1.29	0.68	20.70	23.46
70	1.79	1.08	16.68	18.98
75	2.84	1.87	12.97	14.79
80	4.78	3.38	9.68	11.03



The mortality table used for Police Officers and Firefighters is the PUB-2010 Headcount Weighted Safety Below Median Employee Mortality Table for males (pre-retirement), the PUB-2010 Headcount Weighted Safety Employee Mortality Table for females (pre-retirement), the PUB-2010 Headcount Weighted Safety Below Median Healthy Retiree Mortality Table for males (post-retirement), and the PUB-2010 Safety Healthy Retiree Mortality Table for females (post-retirement), with ages set forward one year for males and females, and with mortality improvements projected to all future years after 2010 using Scale MP-2018. These are the same rates used for Special Risk Class members in the July 1, 2021 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

Sample Attained Ages (in 2022)	(Active) Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
20	0.05 %	0.02 %	67.03	71.20
25	0.06	0.03	61.74	65.87
30	0.08	0.04	56.48	60.56
35	0.09	0.05	51.26	55.30
40	0.11	0.07	46.07	50.06
45	0.12	0.08	40.89	44.85
50	0.16	0.10	35.74	39.66
55	0.25	0.16	30.66	34.51
60	0.42	0.22	25.70	29.44
65	0.69	0.30	20.93	24.42
70	1.17	0.54	16.40	19.51
75	2.06	1.06	12.16	14.81
80	6.24	4.12	8.24	10.41

Sample Attained Ages (in 2022)	(Inactive) Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
20	0.05 %	0.02 %	63.98	68.43
25	0.06	0.03	58.59	63.01
30	0.08	0.04	53.24	57.61
35	0.09	0.05	47.91	52.24
40	0.11	0.07	42.62	46.91
45	0.33	0.12	37.43	41.61
50	0.42	0.20	32.59	36.43
55	0.55	0.36	27.82	31.39
60	0.92	0.60	23.23	26.59
65	1.31	0.92	18.95	22.07
70	2.08	1.44	14.93	17.81
75	3.51	2.40	11.32	13.88
80	6.24	4.12	8.24	10.41

This assumption is used to measure the probabilities of each benefit payment being made after retirement. 75% of active member deaths are assumed to be service-connected.



For General Employee disabled retirees, the mortality table used is the PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, with separate rates for males and females and ages set forward 3 years for both males and females, with no provision being made for future mortality improvements. These are the same rates used for Regular Class members in the July 1, 2021 actuarial valuation of the FRS Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	2.02 %	1.64 %	20.99	23.92
55	2.53	1.91	18.18	20.88
60	3.08	2.27	15.50	17.88
65	3.93	2.83	12.94	14.91
70	5.08	3.79	10.53	12.07
75	6.98	5.46	8.29	9.45
80	10.12	8.31	6.33	7.19

For Police Officer and Firefighter disabled retirees, the mortality table used is 80% of the PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table and 20% of the PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, with separate rates for males and females, with no provision being made for future mortality improvements. These are the same rates used for Special Risk Class members in the July 1, 2021 Actuarial Valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), as required under Florida Statutes, Chapter 112.63.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	1.45 %	1.25 %	24.04	26.84
55	1.91	1.50	20.88	23.54
60	2.37	1.81	17.92	20.32
65	3.00	2.22	15.07	17.17
70	3.91	2.90	12.39	14.10
75	5.30	4.13	9.87	11.22
80	7.66	6.21	7.60	8.67

The rates of retirement used to measure the probability of eligible members retiring during the next year are as follows:

RETIREMENT RATES GENERAL EXCLUDABLE EMPLOYEES		
Age	Years of Service	Expected Percentage Retiring During the Next Year
Under 55	Under 24	5%
	24	30%
	25 & Over	100%
55 - 61	Under 21	12%
	21 - 24	30%
	25 & Over	100%
62	Under 25	80%
	25 & Over	100%
63 - 74	Under 20	25%
	20 & Over	100%
75 & Over	Any	100%

RETIREMENT RATES GENERAL NON-EXCLUDABLE EMPLOYEES		
Age	Years of Service	Expected Percentage Retiring During the Next Year
Under 49	Under 25	40%
	25 - 26	80%
	27 & Over	100%
49 - 51	Under 22	45%
	22 - 24	15%
	25 & Over	100%
52 - 54	Under 20	5%
	20 - 23	10%
	24 - 25	50%
	26 & Over	100%
55 - 59	Under 21	5%
	21 - 24	50%
	25 & Over	100%
60 - 64	Under 15	60%
	15 - 18	20%
	19 - 21	70%
	22 & Over	100%
65 & Over	Under 10	50%
	10 & Over	100%

RETIREMENT RATES POLICE OFFICERS		
Age	Year of Eligibility and Years of Service (YOS)	Expected Percentage Retiring During the Next Year
Under 55	1st Year Elig; Under 25 YOS	45%
	2nd+ Year Elig; Under 25 YOS	5%
	Any Year Elig; 25+ YOS	100%
55 & Over	Any Year Elig; Under 20 YOS	75%
	Any Year Elig; 20 - 24 YOS	35%
	Any Year Elig; 25+ YOS	100%

RETIREMENT RATES FIREFIGHTERS HIRED ON OR BEFORE 9/30/2013 AND FIREFIGHTERS HIRED AFTER 9/30/2013 WITH HIRE AGE OVER 35		
Age	Years of Service	Expected Percentage Retiring During the Next Year
Under 50	Under 25	70%
	25 & Over	100%
50 - 51	Under 25	15%
	25 & Over	100%
52 & Over	Any	100%

RETIREMENT RATES FIREFIGHTERS HIRED AFTER 9/30/2013 WITH HIRE AGE UNDER 36		
Years of Service	Year of Eligibility	Expected Percentage Retiring During the Next Year
Under 25	Any	10%
25 and Over	Any	100%



Rates of separation from active membership are as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members separating from employment.

SEPARATION RATES GENERAL EXCLUDABLE EMPLOYEES		
Years of Service	Males	Females
Under 7	9.0%	12.5%
7 - 8	4.5%	4.5%
9 & Over	1.7%	1.7%

SEPARATION RATES GENERAL NON-EXCLUDABLE EMPLOYEES	
Years of Service	Males and Females
Under 3	12.0%
3 - 6	9.0%
7 - 9	3.0%
10 - 14	2.0%
15 & Over	1.0%

SEPARATION RATES POLICE OFFICERS		
Years of Service	Males	Females
Under 1	15.0%	11.0%
1 - 6	6.0%	11.0%
7 & Over	0.8%	1.5%

SEPARATION RATES FIREFIGHTERS	
Years of Service	Males and Females
Under 1	7.0%
1 - 4	3.5%
5 & Over	0.4%

Rates of disability among active members (75% of disabilities are assumed to be service-connected) are based on the July 1, 2021 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report): for General Excludable Employees and Firefighters, the FRS disability rates for non-Special Risk Class employees and Special Risk Class employees, without any adjustments, respectively; for General Non-Excludable Employees, 2.0 times the FRS disability rates for non-Special Risk Class employees; for Police Officers, 3.0 times the FRS disability rates for Special Risk Class employees. Sample rates are shown below.

Age	DISABILITY RATES - GENERAL EXCLUDABLE EMPLOYEES		DISABILITY RATES - GENERAL NON-EXCLUDABLE EMPLOYEES		DISABILITY RATES - POLICE OFFICERS		DISABILITY RATES - FIREFIGHTERS	
	Males	Females	Males	Females	Males	Females	Males	Females
20	0.001%	0.001%	0.002%	0.002%	0.075%	0.075%	0.025%	0.025%
25	0.011%	0.011%	0.022%	0.022%	0.075%	0.075%	0.025%	0.025%
30	0.011%	0.011%	0.022%	0.022%	0.135%	0.135%	0.045%	0.045%
35	0.011%	0.011%	0.022%	0.022%	0.135%	0.135%	0.045%	0.045%
40	0.021%	0.021%	0.042%	0.042%	0.135%	0.135%	0.045%	0.045%
45	0.041%	0.041%	0.082%	0.082%	0.270%	0.270%	0.090%	0.090%
50	0.082%	0.082%	0.164%	0.164%	0.360%	0.360%	0.120%	0.120%
55	0.165%	0.165%	0.330%	0.330%	0.480%	0.480%	0.160%	0.160%
60	0.216%	0.216%	0.432%	0.432%	0.480%	0.480%	0.160%	0.160%

Changes since the previous valuation:

The investment return rate assumed in the previous valuation was 7.25% per year, compounded annually (net after investment expenses).



Miscellaneous and Technical Assumptions

<i>Administrative & Investment Expenses</i>	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year administrative expenses adjusted for the assumed inflation rate (2.15%). Assumed administrative expenses are added to the Normal Cost, and they are allocated to each division by the same ratio as assets are allocated.
<i>Data Assumptions/ Adjustments</i>	Where complete participant data was not available, we have used data assumptions which we believe are reasonable and internally consistent.
<i>Benefit Service</i>	Service calculated based on completed months is used to determine the amount of benefit payable.
<i>Decrement Operation</i>	Disability and mortality decrements operate during retirement eligibility.
<i>Decrement Timing</i>	Decrement of all types are assumed to occur at the beginning of the year.
<i>Eligibility Testing</i>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<i>Forfeitures</i>	For vested separations from service, it is assumed that members separating will only withdraw their contributions and forfeit an employer financed benefit if the value of their accumulated contributions exceeds the present value of their deferred monthly benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.
<i>Incidence of Contributions</i>	The annual Employer contribution is assumed to be paid in full on the first day of the fiscal year to which it applies. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report and the actual payroll payable at the time contributions are made.
<i>Marriage Assumption</i>	80% of males and females are assumed to be married for purposes of death-in-service benefits. Males are assumed to be three years older than their female spouses for valuation purposes.
<i>Normal Form of Benefit</i>	A 10-year certain and life annuity is the normal form of benefit for Police Officers and Firefighters. A life annuity is the normal form of benefit for General Employees.
<i>Pay Increase Timing</i>	Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
<i>Service Credit Accruals</i>	It is assumed that members accrue one year of service credit per year.



Glossary

<i>Actuarial Accrued Liability (AAL)</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
<i>Actuarial Cost Method</i>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
<i>Actuarially Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value (APV)</i>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<i>Actuarial Present Value of Future Benefits (APVFB)</i>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
<i>Actuarial Valuation</i>	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes the Funded Ratio and the Actuarially Determined Contribution (ADC).
<i>Actuarial Value of Assets</i>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution (ADC).
<i>Actuarially Determined Contribution (ADC)</i>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADC consists of the Employer Normal Cost and Amortization Payment.
<i>Amortization Method</i>	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.



<i>Amortization Payment</i>	That portion of the plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<i>Amortization Period</i>	The period used in calculating the Amortization Payment.
<i>Closed Amortization Period</i>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Equivalent Single Amortization Period</i>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<i>Experience Gain/Loss</i>	A measure of the difference between the normal cost rate from last year and the normal cost rate from this year.
<i>Funded Ratio</i>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<i>GASB</i>	Governmental Accounting Standards Board.
<i>GASB Statement Nos. 67 and 68</i>	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
<i>Normal Cost</i>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<i>Open Amortization Period</i>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<i>Valuation Date</i>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.



SECTION C

PENSION FUND INFORMATION

Statement of Plan Assets at Market Value

Item	September 30	
	2022	2021
A. Cash and Cash Equivalents (Operating Cash)	\$ 14,881,596	\$ 12,929,825
B. Receivables		
1. Member Contributions	\$ 153,837	\$ -
2. Employer Contributions	7,630,097	6,758,821
3. Buybacks Receivable	-	814
4. Securities Proceeds	4,846,180	256,335
5. Investment Income and Other Receivables	751,103	5,682,598
6. Total Receivables	<u>\$ 13,381,217</u>	<u>\$ 12,698,568</u>
C. Investments		
1. Short Term Investments	\$ -	\$ -
2. Domestic Equities	147,169,266	149,290,102
3. International Equities	51,115,294	116,340,399
4. Fixed Income	56,332,765	72,153,955
5. Real Estate	47,290,820	46,968,374
6. Other Securities (Alternatives)	81,475,017	97,443,660
7. Total Investments	<u>\$ 383,383,162</u>	<u>\$ 482,196,490</u>
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(166,878)	(144,388)
3. Reserve for UBS Settlement	-	-
4. Securities Purchase	(2,175,324)	(1,653,973)
5. Total Liabilities	<u>\$ (2,342,202)</u>	<u>\$ (1,798,361)</u>
E. Total Market Value of Assets Available for Benefits	\$ 409,303,773	\$ 506,026,522
F. Allocation of Investments		
1. Short Term Investments	0.0%	0.0%
2. Domestic Equities	38.4%	31.0%
3. International Equities	13.3%	24.1%
4. Fixed Income	14.7%	15.0%
5. Real Estate	12.3%	9.7%
6. Other Securities (Alternatives / Venture Capital)	21.3%	20.2%
7. Total Investments	<u>100.0%</u>	<u>100.0%</u>

Reconciliation of Plan Assets

Item	September 30	
	2022	2021
A. Market Value of Assets at Beginning of Year	\$ 506,026,522	\$ 426,261,125
B. Revenues and Expenditures		
1. Contributions		
a. Member Contributions	\$ 5,164,756	\$ 4,891,103
b. Employer Contributions	30,528,631	30,558,549
c. State Contributions	145,830	145,830
d. Purchased Service Credit	-	-
e. Total	<u>\$ 35,839,217</u>	<u>\$ 35,595,482</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 6,381,425	\$ 5,997,459
b. Net Unrealized/Realized Gains/(Losses)	(82,142,453)	91,844,552
c. Investment Expenses	<u>(2,562,058)</u>	<u>(2,428,886)</u>
d. Net Investment Income	\$ (78,323,086)	\$ 95,413,125
3. Benefits and Refunds		
a. Regular Monthly Benefits	\$ (40,107,337)	\$ (39,555,102)
b. Refunds	(1,160,074)	(660,821)
c. Lump Sum Benefits Paid	-	-
d. DROP Distributions	<u>(12,428,122)</u>	<u>(10,344,080)</u>
e. Total	\$ (53,695,533)	\$ (50,560,003)
4. Administrative and Miscellaneous Expenses	\$ (543,347)	\$ (683,207)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 409,303,773	\$ 506,026,522

Reconciliation of DROP Accounts

Year Ended 9/30	Balance at End of Prior Year	Balancing Adjustment	Balance at Beginning of Year	Credits	Interest	Distributions	Balance at End of Year
2011	\$ 14,774,841	\$ (1,084)	\$ 14,773,757	\$ 6,925,259	\$ 1,334,109	\$ (2,628,105)	\$ 20,405,020
2012	20,405,020	(58,477)	20,346,543	8,431,790	899,003	(4,359,818)	25,317,518
2013	25,317,518	64,566	25,382,084	9,834,829	1,859,447	(6,419,845)	30,656,515
2014	30,656,515	31,712	30,688,227	10,389,452	2,544,224	(5,856,374)	37,765,529
2015	37,765,529	121,227	37,886,756	10,439,527	2,391,967	(10,989,367)	39,728,883
2016	39,728,883	(8,853)	39,720,030	9,428,649	1,433,797	(13,873,484)	36,708,992
2017	36,708,992	620	36,709,612	8,313,473	1,684,127	(12,871,720)	33,835,492
2018	33,835,492	(2,187)	33,833,305	8,016,980	2,486,597	(7,017,789)	37,319,093
2019	37,319,093	51,500	37,370,593	7,169,620	1,394,790	(18,227,172)	27,707,831
2020	27,707,831	-	27,707,831	5,983,149	1,665,546	(7,610,002)	27,746,524
2021	27,746,524	2,638	27,749,162	6,022,657	1,782,309	(10,344,080)	25,210,048
2022	25,210,048	18,184	25,228,232	5,542,905	1,582,068	(12,428,122)	19,925,083



Actuarial Value of Assets

Year Ending September 30	2021	2022	2023	2024	2025	2026
A. Actuarial Value of Assets Beginning of Year	\$ 415,697,593	\$ 450,868,731				
B. Market Value End of Year	506,026,522	409,303,773				
C. Market Value Beginning of Year	426,261,125	506,026,522				
D. Non-Investment/Administrative Net Cash Flow	(15,647,728)	(18,399,663)				
E. Investment Income						
E1. Actual Market Total: B - C - D	95,413,125	(78,323,086)				
E2. Assumed Rate of Return	7.40%	7.25%	7.20%			
E3. Assumed Amount of Return	31,589,475	36,568,130				
E4. Amount Subject to Phase-In: E1 - E3	63,823,650	(114,891,216)				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.2 * E4	12,764,730	(22,978,243)				
F2. First Prior Year	2,667,752	12,764,730	(22,978,243)			
F3. Second Prior Year	(3,136,477)	2,667,752	12,764,730	(22,978,243)		
F4. Third Prior Year	2,368,569	(3,136,477)	2,667,752	12,764,730	(22,978,243)	
F5. Fourth Prior Year	4,564,817	2,368,569	(3,136,479)	2,667,754	12,764,730	(22,978,244)
F6. Total Phase-Ins	19,229,391	(8,313,669)	(10,682,240)	(7,545,759)	(10,213,513)	(22,978,244)
G. Actuarial Value of Assets End of Year						
G1. Preliminary Actuarial Value of Assets End of Year: A+D+E3+F6	450,868,731	460,723,529				
G2. Upper Corridor Limit: 120% * B	607,231,826	491,164,528				
G3. Lower Corridor Limit: 80% * B	404,821,218	327,443,018				
G4. Actuarial Value of Assets End of Year	450,868,731	460,723,529				
H. Difference between Market & Actuarial Value of Assets	55,157,791	(51,419,756)				
I. Actuarial Rate of Return	12.2%	6.3%				
J. Market Value Rate of Return	22.4%	-15.5%				
K. Ratio of Actuarial Value of Assets to Market Value	89.1%	112.6%				

The Actuarial Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment income on the Market Value of Assets (Line E4) are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 5 consecutive years, Actuarial Value of Assets will become equal to Market Value.



Asset Allocation

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Market Value of Assets as of October 1, 2021	\$ 506,026,522	\$ 253,194	\$ 68,761,648	\$ 126,632,819	\$ 165,498,384	\$ 144,880,477
C. Contributions (All)	35,839,217	37,581	5,935,490	10,024,084	10,801,640	9,040,422
D. Investment Return	(75,761,028)	(38,255)	(10,417,389)	(18,990,133)	(24,990,310)	(21,324,941)
E. Benefit Payments (All)	(53,695,533)	(52,586)	(7,302,992)	(13,690,123)	(13,853,141)	(18,796,691)
F. Expenses	(3,105,405)	(1,568)	(427,003)	(778,395)	(1,024,341)	(874,098)
G. Asset Transfer (for Transfer of Members Between Divisions)	0	0	139,121	(139,121)	0	0
H. Market Value of Assets as of October 1, 2022	409,303,773	198,366	56,688,875	103,059,131	136,432,232	112,925,169
I. Actuarial Value of Assets as of October 1, 2022	460,723,529	223,286	63,810,549	116,006,178	153,571,855	127,111,661



Asset Allocation - Prior Valuation

A. Valuation Date	October 1, 2021					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Market Value of Assets as of October 1, 2020	\$ 426,261,125	\$ 219,131	\$ 57,168,597	\$ 106,712,309	\$ 137,089,677	\$ 125,071,411
C. Contributions (All)	35,595,482	37,477	5,752,173	10,139,112	10,769,515	8,897,205
D. Investment Return	97,842,011	50,788	13,259,788	24,477,177	31,762,033	28,292,225
E. Benefit Payments (All)	(50,560,003)	(52,586)	(6,997,151)	(13,904,275)	(13,125,527)	(16,480,464)
F. Expenses	(3,112,093)	(1,616)	(421,759)	(778,553)	(1,010,265)	(899,900)
G. Asset Transfer (for Transfer of Members Between Divisions)	0	0	0	(12,951)	12,951	0
H. Market Value of Assets as of October 1, 2021	506,026,522	253,194	68,761,648	126,632,819	165,498,384	144,880,477
I. Actuarial Value of Assets as of October 1, 2021	450,868,731	225,595	61,266,506	112,829,616	147,458,767	129,088,247



Investment Rate of Return

Period Ending	Investment Rate of Return	
	Market Value	Actuarial Value
12/31/1997	20.4 %	20.4 %
12/31/1998	18.0	18.0
12/31/1999	6.9	6.9
12/31/2000	1.2	6.8
12/31/2001	(2.7)	4.7
12/31/2002	(14.7)	(11.4)
12/31/2003	23.8	1.6
12/31/2004	8.5	1.3
9/30/2005 *	2.4	0.6
9/30/2006	5.7	4.2
9/30/2007	12.7	18.6
9/30/2008	(15.7)	3.4
9/30/2009	(1.8)	(0.6)
9/30/2010	9.1	1.9
9/30/2011	3.1	1.1
9/30/2012	18.2	1.9
9/30/2013	13.6	11.2
9/30/2014	9.9	10.5
9/30/2015	2.0	9.1
9/30/2016	8.3	9.9
9/30/2017	14.3	9.4
9/30/2018	10.8	9.3
9/30/2019	3.7	8.1
9/30/2020	10.9	9.4
9/30/2021	22.4	12.2
9/30/2022	(15.5)	6.3
Average Returns:		
Last 5 Years	5.7 %	9.0 %
Last 10 Years	7.6 %	9.5 %
All Years Shown (25.75)	6.3 %	6.6 %

* Return for the nine month period

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



SECTION D

FINANCIAL ACCOUNTING INFORMATION

FASB ASC 960 Information

A. Valuation Date	October 1, 2022					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Actuarial Present Value of Accumulated Plan Benefits						
1. Vested Benefits						
a. Members Currently Receiving Payments	\$ 472,042,389	\$ 478,840	\$ 70,410,173	\$ 130,318,415	\$ 146,658,377	\$ 124,176,584
b. Terminated Vested Members	6,407,344	0	1,729,381	2,064,722	2,613,241	0
c. Other Members	77,225,802	0	11,138,434	20,369,190	29,920,717	15,797,461
c. DROP Accounts	19,925,083	0	960,478	1,274,159	7,613,494	10,076,952
e. Total	<u>575,600,618</u>	<u>478,840</u>	<u>84,238,466</u>	<u>154,026,486</u>	<u>186,805,829</u>	<u>150,050,997</u>
2. Non-Vested Benefits	13,426,359	0	2,236,438	3,718,367	4,438,774	3,032,780
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	589,026,977	478,840	86,474,904	157,744,853	191,244,603	153,083,777
4. Accumulated Contributions of Active Members	33,957,500	0	6,506,884	13,139,999	8,101,431	6,209,186
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits						
1. Total Value at Beginning of Year	588,895,238					
2. Increase/(Decrease) During the Period Attributable to:						
a. Plan Amendments	0					
b. Change in Actuarial Assumptions	2,631,325					
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	51,195,947					
d. Benefits Paid	<u>(53,695,533)</u>					
e. Net Increase	131,739					
3. Total Value at End of Period	589,026,977					
D. Market Value of Assets	409,303,773					
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods						



FASB ASC 960 Information - Prior Valuation

A. Valuation Date	October 1, 2021					
	<i>Total</i>	<i>Elected</i>	<i>General Excludable</i>	<i>General Non-Excludable</i>	<i>Police Officers</i>	<i>Firefighters</i>
B. Actuarial Present Value of Accumulated Plan Benefits						
1. Vested Benefits						
a. Members Currently Receiving Payments	\$ 466,278,989	\$ 487,197	\$ 70,231,362	\$ 128,876,945	\$ 143,518,352	\$ 123,165,133
b. Terminated Vested Members	5,863,627	0	835,879	2,592,855	2,434,893	0
c. Other Members	78,275,090	0	12,201,609	20,748,915	29,146,850	16,177,716
c. DROP Accounts	25,210,048	0	654,668	1,621,435	7,147,600	15,786,345
e. Total	<u>575,627,754</u>	<u>487,197</u>	<u>83,923,518</u>	<u>153,840,150</u>	<u>182,247,695</u>	<u>155,129,194</u>
2. Non-Vested Benefits	13,267,484	0	2,336,532	3,582,957	4,268,357	3,079,638
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	588,895,238	487,197	86,260,050	157,423,107	186,516,052	158,208,832
4. Accumulated Contributions of Active Members	33,229,260	0	7,022,025	13,170,198	7,428,500	5,608,537
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits						
1. Total Value at Beginning of Year	581,095,714					
2. Increase/(Decrease) During the Period Attributable to:						
a. Plan Amendments	(22,383)					
b. Change in Actuarial Assumptions	7,750,924					
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	50,630,986					
d. Benefits Paid	<u>(50,560,003)</u>					
e. Net Increase	7,799,524					
3. Total Value at End of Period	588,895,238					
D. Market Value of Assets	506,026,522					
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods						



Schedule of Changes in the Employer's Net Pension Liability and Related Ratios GASB Statement No. 67

Fiscal year ending September 30,	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service Cost	\$ 7,893,821	\$ 7,257,463	\$ 7,128,279	\$ 6,666,376	\$ 6,203,806	\$ 5,733,127	\$ 5,758,174	\$ 5,665,063	\$ 6,066,834
Interest	43,453,151	44,414,130	44,182,458	43,940,121	43,295,229	42,056,963	41,971,722	40,961,329	40,360,719
Benefit Changes	-	(29,902)	-	461,420	15,359,754	1,018,772	-	-	7,175
Difference between actual & expected experience	195,398	736,475	1,365,571	3,854,666	(3,085,670)	1,421,593	54,306	6,273,657	-
Assumption Changes	8,203,136	(1,948,628)	2,693,639	2,644,957	5,080,632	12,563,730	-	4,037,512	-
Benefit Payments	(52,535,459)	(49,899,182)	(46,075,511)	(54,941,086)	(47,007,332)	(46,396,280)	(45,697,331)	(41,290,270)	(34,523,344)
Refunds	(1,160,074)	(660,821)	(525,780)	(581,573)	(637,548)	(533,309)	(691,627)	(307,461)	(445,210)
Net Change in Total Pension Liability	6,049,973	(130,465)	8,768,656	2,044,881	19,208,871	15,864,596	1,395,244	\$ 15,339,830	11,466,174
Total Pension Liability - Beginning	606,158,695	606,289,160	597,520,504	595,475,623	576,266,752	560,402,156	559,006,912	543,667,082	532,200,908
Total Pension Liability - Ending (a)	\$ 612,208,668	\$ 606,158,695	\$ 606,289,160	\$ 597,520,504	\$ 595,475,623	\$ 576,266,752	\$ 560,402,156	\$ 559,006,912	\$ 543,667,082
Plan Fiduciary Net Position									
Contributions - Employer (City)	\$ 29,657,355	\$ 28,827,016	\$ 28,253,347	\$ 27,566,259	\$ 26,437,994	\$ 26,219,139	\$ 27,778,394	\$ 24,151,856	\$ 25,554,746
Contributions - Employer (State)	145,830	145,830	145,830	145,830	145,830	145,830	145,830	145,830	145,830
Contributions - Member	5,164,756	4,891,103	4,920,649	4,970,732	5,000,505	4,600,399	4,393,660	4,704,069	4,095,928
Net Investment Income	(78,323,086)	95,413,125	43,440,434	14,869,600	40,945,125	49,719,894	26,707,410	6,282,235	30,421,080
Benefit Payments	(52,535,459)	(49,899,182)	(46,075,511)	(54,941,086)	(47,007,332)	(46,396,280)	(45,697,331)	(41,290,270)	(34,523,344)
Refunds	(1,160,074)	(660,821)	(525,780)	(581,573)	(637,548)	(533,309)	(691,627)	(307,461)	(445,210)
Administrative Expense	(543,347)	(683,207)	(419,510)	(489,845)	(472,543)	(402,793)	(352,193)	(431,707)	(334,272)
Other	-	-	-	-	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	(97,594,025)	78,033,864	29,739,459	(8,460,083)	24,412,031	33,352,880	12,284,143	\$ (6,745,448)	24,914,758
Plan Fiduciary Net Position - Beginning	499,267,701	421,233,837	391,494,378	399,954,461	375,542,430	342,189,550	329,905,407	336,650,855	311,736,097
Plan Fiduciary Net Position - Ending (b)	\$ 401,673,676	\$ 499,267,701	\$ 421,233,837	\$ 391,494,378	\$ 399,954,461	\$ 375,542,430	\$ 342,189,550	\$ 329,905,407	\$ 336,650,855
Net Pension Liability - Ending (a) - (b)	210,534,992	106,890,994	185,055,323	206,026,126	195,521,162	200,724,322	218,212,606	\$ 229,101,505	207,016,227
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	65.61 %	82.37 %	69.48 %	65.52 %	67.17 %	65.17 %	61.06 %	59.02 %	61.92 %
Covered Payroll	\$ 44,238,275	\$ 44,231,011	\$ 44,323,277	\$ 43,411,406	\$ 43,147,050	\$ 43,191,753	\$ 37,305,296	\$ 36,758,806	\$ 35,930,894
Net Pension Liability as a Percentage of Covered Payroll	475.91 %	241.67 %	417.51 %	474.59 %	453.15 %	464.73 %	584.94 %	623.26 %	576.15 %



Schedule of the Employer's Net Pension Liability GASB Statement No. 67

FY Ending September 30,	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Plan Fiduciary Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2014	\$ 543,667,082	\$ 336,650,855	\$ 207,016,227	61.92%	\$ 35,930,894	576.15%
2015	\$ 559,006,912	\$ 329,905,407	\$ 229,101,505	59.02%	\$ 36,758,806	623.26%
2016	\$ 560,402,156	\$ 342,189,550	\$ 218,212,606	61.06%	\$ 37,305,296	584.94%
2017	\$ 576,266,752	\$ 375,542,430	\$ 200,724,322	65.17%	\$ 43,191,753	464.73%
2018	\$ 595,475,623	\$ 399,954,461	\$ 195,521,162	67.17%	\$ 43,147,050	453.15%
2019	\$ 597,520,504	\$ 391,494,378	\$ 206,026,126	65.52%	\$ 43,411,406	474.59%
2020	\$ 606,289,160	\$ 421,233,837	\$ 185,055,323	69.48%	\$ 44,323,277	417.51%
2021	\$ 606,158,695	\$ 499,267,701	\$ 106,890,994	82.37%	\$ 44,231,011	241.67%
2022	\$ 612,208,668	\$ 401,673,676	\$ 210,534,992	65.61%	\$ 44,238,275	475.91%



Notes to Schedule of the Employer's Net Pension Liability

GASB Statement No. 67

Valuation Date: October 1, 2021
Measurement Date: September 30, 2022

Methods and Assumptions Used to Determine Net Pension Liability:

Roll-Forward Procedures	The Total Pension Liability was developed by using standard actuarial techniques to roll-forward amounts from the actuarial valuation date one year to the measurement date.
Actuarial Cost Method	Entry Age Normal, Level Percent of Pay
Inflation	2.15%
Salary Increases	2.60% to 9.90% depending on age or service and group, including inflation
Investment Rate of Return	7.25%
Experience Studies	The most recent experience study was completed April 5, 2021. This experience study examined experience during the five-year period ending September 30, 2019. Based on the results of this experience study, certain assumptions were revised effective with the October 1, 2020 actuarial valuation.
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	The same versions of Pub-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) in their July 1, 2020 actuarial valuation (with mortality improvements projected to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

Other Information:

Notes

Effective as of October 1, 2021, the assumed investment rate of return was lowered from 7.40% to 7.25%. The effect of this assumption change caused an \$8,203,136 increase in the Total Pension Liability as of September 30, 2022.

See the Discussion of Valuation Results in the October 1, 2021 Actuarial Valuation Report dated May 5, 2022 for further details.



Schedule of Contributions GASB Statement No. 67

<u>FY Ending September 30,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2014	\$ 25,678,422	\$ 25,700,576	\$ (22,154)	\$ 35,930,894	71.53%
2015	\$ 24,288,466	\$ 24,297,686	\$ (9,220)	\$ 36,758,806	66.10%
2016	\$ 23,838,224	\$ 27,924,224	\$ (4,086,000)	\$ 37,305,296	74.85%
2017	\$ 23,082,353	\$ 26,364,969	\$ (3,282,616)	\$ 43,191,753	61.04%
2018	\$ 23,290,490	\$ 26,583,824	\$ (3,293,334)	\$ 43,147,050	61.61%
2019	\$ 25,240,192	\$ 27,712,089	\$ (2,471,897)	\$ 43,411,406	63.84%
2020	\$ 24,427,468	\$ 28,399,177	\$ (3,971,709)	\$ 44,323,277	64.07%
2021	\$ 23,945,558	\$ 28,972,846	\$ (5,027,288)	\$ 44,231,011	65.50%
2022	\$ 23,041,155	\$ 29,803,185	\$ (6,762,030)	\$ 44,238,275	67.37%



Notes to Schedule of Contributions

GASB Statement No. 67

Valuation Date: October 1, 2020
 Notes Actuarially determined contribution rates are calculated as of October 1, which is two years prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal, Level Percent of Pay
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	25 years (longest remaining period); 16 years (single equivalent period)
Asset Valuation Method	5-year smoothed market; 20% corridor
Inflation	2.15%
Salary Increases	2.60% to 9.90% depending on age or service and group, including inflation
Investment Rate of Return	7.40%
Experience Studies	The most recent experience study was completed April 5, 2021. This experience study examined experience during the five-year period ending September 30, 2019. Based on the results of this experience study, certain assumptions were revised effective with the October 1, 2020 actuarial valuation.
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	The same versions of Pub-2010 Headcount-Weighted Mortality Tables as used by the Florida Retirement System (FRS) in their July 1, 2019 actuarial valuation (with mortality improvements projected to all future years after 2010 using Scale MP-2018). Florida Statutes Chapter 112.63(1)(f) mandates the use of mortality tables from one of the two most recently published FRS actuarial valuation reports.

Other Information:

Notes See the Actuarial Impact Statement dated October 7, 2021, and the Discussion of Valuation Results in the October 1, 2020 Actuarial Valuation Report dated April 30, 2021 for further details.



Single Discount Rate GASB Statement No. 67

A single discount rate of 7.25% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.25%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (7.25%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.25%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

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

1% Decrease 6.25%	Current Single Discount Rate Assumption 7.25%	1% Increase 8.25%
\$270,910,789	\$210,534,992	\$159,501,974

SECTION E

MISCELLANEOUS INFORMATION

Reconciliation of Membership Data		
	From 10/1/21 To 10/1/22	From 10/1/20 To 10/1/21
A. Active Members		
1. Number Included in Last Valuation	599	614
2. New Members Included in Current Valuation	44	38
3. Non-Vested Employment Terminations	(34)	(27)
4. Vested Employment Terminations	(6)	(4)
5. DROP Retirements	(15)	(20)
6. Service Retirements	(6)	(3)
7. Disability Retirements	(1)	0
8. Deaths	0	0
9. Transfers to 401(a) Defined Contribution Plan	(4)	0
10. Other - Data Adjustments	<u>1</u>	<u>1</u>
11. Number Included in This Valuation	578	599
B. Terminated Vested Members		
1. Number Included in Last Valuation	23	25
2. Additions from Active Members	6	4
3. Lump Sum Payments/Refund of Contributions	(1)	(1)
4. Payments Commenced	(3)	(5)
5. Deaths	0	0
6. Other	<u>0</u>	<u>0</u>
7. Number Included in This Valuation	25	23
C. DROP Retirees, Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	972	971
2. Additions from Active Members	22	23
3. Additions from Terminated Vested Members	3	5
4. Deaths Resulting in No Further Payments	(23)	(21)
5. New Survivors Resulting from Deaths	0	3
6. End of Certain Period - No Further Payments	(6)	(9)
7. Other - Data Adjustments	0	0
8. Other - No Further Payments	<u>0</u>	<u>0</u>
9. Number Included in This Valuation	968	972



Active Members as of October 1, 2022

General Employees – Excludable

Age Group	Years of Service to Valuation Date									9/30/2022 Earnings	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Total	Average
< 25	2	1	-	-	-	-	-	-	3	\$ 157,828	\$ 52,609
25-29	3	1	1	-	-	-	-	-	5	296,443	59,289
30-34	-	4	6	-	-	-	-	-	10	736,999	73,700
35-39	-	3	6	-	1	-	-	-	10	806,467	80,647
40-44	-	3	5	4	4	-	-	-	16	1,479,242	92,453
45-49	1	4	4	3	4	1	-	-	17	1,497,130	88,066
50-54	1	4	2	1	3	3	1	-	15	1,651,735	110,116
55-59	-	3	-	1	5	3	-	-	12	900,183	75,015
60-64	-	3	2	2	-	-	-	-	7	633,549	90,507
65-69	-	-	1	-	1	-	-	-	2	254,136	127,068
70+	-	-	-	-	-	1	-	-	1	97,542	97,542
Total	7	26	27	11	18	8	1	-	98	8,511,254	86,850

Average Age: 45.9

Average Service: 9.5



Active Members as of October 1, 2022

General Employees – Non-Excludable

Age Group	Years of Service to Valuation Date									9/30/2022 Earnings	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Total	Average
< 25	2	7	1	-	-	-	-	-	10	\$ 398,974	\$ 39,897
25-29	7	6	4	-	-	-	-	-	17	669,129	39,361
30-34	1	6	13	2	1	-	-	-	23	1,077,425	46,845
35-39	2	4	9	4	3	-	-	-	22	1,076,430	48,929
40-44	2	1	8	2	6	5	-	-	24	1,313,479	54,728
45-49	2	3	5	5	12	9	2	-	38	2,201,458	57,933
50-54	2	-	8	3	7	8	1	-	29	1,662,006	57,311
55-59	-	2	9	4	8	6	1	-	30	1,724,390	57,480
60-64	-	3	6	4	1	2	-	-	16	994,280	62,143
65-69	-	-	-	-	-	-	-	-	-	-	-
70+	-	-	-	-	-	-	1	-	1	47,864	47,864
Total	18	32	63	24	38	30	5	-	210	11,165,435	53,169

Average Age: 44.8

Average Service: 11.2



Active Members as of October 1, 2022

Police Officers

Age Group	Years of Service to Valuation Date									9/30/2022 Earnings	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Total	Average
< 25	3	4	-	-	-	-	-	-	7	\$ 417,779	\$ 59,683
25-29	5	19	7	-	-	-	-	-	31	1,923,557	62,050
30-34	3	9	18	1	-	-	-	-	31	1,991,894	64,255
35-39	-	8	11	12	3	-	-	-	34	2,516,179	74,005
40-44	-	1	-	3	13	1	-	-	18	1,831,326	101,740
45-49	-	-	-	3	7	11	-	-	21	2,212,250	105,345
50-54	-	-	-	-	6	6	1	-	13	1,446,371	111,259
55-59	-	1	-	-	1	2	-	-	4	370,292	92,573
60-64	1	-	-	-	-	-	-	-	1	168,965	168,965
65-69	-	-	-	-	-	-	-	-	-	-	-
70+	-	-	-	-	-	-	-	-	-	-	-
Total	12	42	36	19	30	20	1	-	160	12,878,613	80,491

Average Age: 37.8

Average Service: 10.1



Active Members as of October 1, 2022

Firefighters

Age Group	Years of Service to Valuation Date									9/30/2022 Earnings	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Total	Average
< 25	2	10	-	-	-	-	-	-	12	\$ 811,371	\$ 67,614
25-29	1	20	7	-	-	-	-	-	28	2,127,367	75,977
30-34	-	12	15	1	-	-	-	-	28	2,392,953	85,463
35-39	-	1	3	4	3	-	-	-	11	1,201,557	109,232
40-44	-	-	3	7	2	-	-	-	12	1,402,123	116,844
45-49	-	1	-	3	5	1	-	-	10	1,232,919	123,292
50-54	-	1	1	1	3	2	-	-	8	1,052,185	131,523
55-59	-	-	-	1	-	-	-	-	1	134,729	134,729
60-64	-	-	-	-	-	-	-	-	-	-	-
65-69	-	-	-	-	-	-	-	-	-	-	-
70+	-	-	-	-	-	-	-	-	-	-	-
Total	3	45	29	17	13	3	-	-	110	10,355,204	94,138

Average Age: 34.7

Average Service: 7.9



Active Members as of October 1, 2022

All Members

Age Group	Years of Service to Valuation Date									9/30/2022 Earnings	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Total	Average
< 25	9	22	1	-	-	-	-	-	32	\$ 1,785,952	\$ 55,811
25-29	16	46	19	-	-	-	-	-	81	5,016,496	61,932
30-34	4	31	52	4	1	-	-	-	92	6,199,271	67,383
35-39	2	16	29	20	10	-	-	-	77	5,600,633	72,735
40-44	2	5	16	16	25	6	-	-	70	6,026,170	86,088
45-49	3	8	9	14	28	22	2	-	86	7,143,757	83,067
50-54	3	5	11	5	19	19	3	-	65	5,812,297	89,420
55-59	-	6	9	6	14	11	1	-	47	3,129,594	66,587
60-64	1	6	8	6	1	2	-	-	24	1,796,794	74,866
65-69	-	-	1	-	1	-	-	-	2	254,136	127,068
70+	-	-	-	-	-	1	1	-	2	145,406	72,703
Total	40	145	155	71	99	61	7	-	578	42,910,506	74,240

Average Age: 41.1

Average Service: 10.0



Inactive Members (Including DROP Members) as of October 1, 2022

All Members

Age	<u>Terminated Vested</u>		<u>Disabled Retirees</u>		<u>Service Retirees & DROP</u>		<u>Beneficiaries</u>		<u>Grand Total</u>	
	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 25	0	\$0	0	\$0	0	\$0	3	\$72,330	3	\$72,330
25 - 29	0	0	0	0	0	0	2	5,533	2	5,533
30 - 34	0	0	0	0	0	0	2	56,853	2	56,853
35 - 39	2	51,160	0	0	0	0	6	108,707	8	159,867
40 - 44	8	209,615	3	95,585	0	0	3	69,586	14	374,786
45 - 49	10	312,694	1	77,069	10	670,055	1	18,279	22	1,078,097
50 - 54	4	111,102	9	598,755	79	4,781,011	7	167,091	99	5,657,959
55 - 59	1	82,292	8	261,080	151	9,048,810	5	164,030	165	9,556,212
60 - 64	0	34,726	10	441,352	167	9,240,878	9	162,596	186	9,879,552
65 - 69	0	0	5	140,244	121	6,086,684	10	281,671	136	6,508,599
70 - 74	0	0	6	134,425	105	4,942,138	15	465,892	126	5,542,455
75 - 79	0	0	5	171,778	73	3,327,068	15	262,154	93	3,761,000
80 - 84	0	0	6	176,366	47	1,668,097	17	494,010	70	2,338,473
85 - 89	0	0	2	61,533	29	948,580	14	426,571	45	1,436,684
90 - 94	0	0	1	34,761	10	288,901	1	15,121	12	338,783
95 - 99	0	0	0	0	4	63,964	5	126,721	9	190,685
100 & Over	0	0	0	0	1	3,569	0	0	1	3,569
Total	25	801,589	56	2,192,948	797	41,069,755	115	2,897,145	993	46,961,437
Average Age:		45.7		64.9		66.5		69.0		66.2



SECTION F

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions

General Employees

A. Ordinances

The Plan was established under the Code of Ordinances for the City of Coral Gables, Florida, Chapter 50 (recodified under Chapter 46), Article I, and was most recently amended in accordance with the Actuarial Impact Statement dated October 7, 2021. The Plan is also governed by certain provisions of Chapter 175 and Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

January 1, 1957

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

Any person employed by the city on a regular full-time basis, and any member of the city commission, regardless of whether the commissioner is employed full time. Membership is optional for appointed City officials, for any department director hired on or after September 8, 2015, and for all new employees hired on or after December 8, 2015.

F. Credited Service

Years and completed months of full-time service with the City during which time prescribed employee contributions are made. Members may purchase up to 5 years of military service or service with another public employer. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

For hourly paid employees, hourly wages, inclusive of shift differential and special assignment pay, but excluding all overtime, lump sum payments for accumulated compensatory time and annual leave, annual and sick leave payouts upon termination of employment, vehicle allowance, uniform, equipment and all other payments, plus any workers' compensation benefits received by the employee. For salaried employees, salary only exclusive of all other remuneration, plus any workers compensation benefits received by the employee.

H. Average Final Compensation (AFC)

The average of Compensation over the highest 3 years of Credited Service as of 9/30/2010 for the frozen accrued benefit as of 9/30/2010. For post-9/30/2010 benefits, AFC is the greater of the frozen 9/30/2010 3-year average and the highest 5-year average including all years.



I. Normal Retirement

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

If member had 10 or more years of Credited Service as of 9/30/2010:

- (1) Rule of 70;
- (2) Age 52 and 10 years of Credited Service; or
- (3) Age 65 regardless of Credited Service.

If member had less than 10 years of Credited Service as of 9/30/2010:

- (1) Rule of 80;
- (2) Age 62 and 10 years of Credited Service; or
- (3) Age 65 and 6 years of Credited Service.

Benefit: Appointed and Other Excludable Employees:
3.0% of Frozen 9/30/2010 AFC for each year of Credited Service through 9/30/2010 plus 3.0% of AFC for each year of Credited Service after 9/30/2010.

Managerial Employees:

3.0% of Frozen 9/30/2010 AFC for each year of Credited Service through 9/30/2010 plus 3.0% of AFC for the first 10 years of Credited Service after 9/30/2010 plus 2.25% of AFC for all years of Credited Service thereafter.

Professional and Supervisory Employees:

3.0% of Frozen 9/30/2010 AFC for each year of Credited Service through 9/30/2010 plus 2.5% of AFC for the first 10 years of Credited Service after 9/30/2010 plus 2.25% of AFC for all years of Credited Service thereafter.

Confidential, Elected, and Non-Excludable Employees:

3.0% of Frozen 9/30/2010 AFC for each year of Credited Service through 9/30/2010 plus 2.25% of AFC for each year of Credited Service after 9/30/2010.

For General Excludable Employees, the maximum benefit is 75% of AFC.

For General Non-Excludable Employees, effective March 13, 2018, the maximum retirement benefit in the normal annuity form shall not exceed the lesser of: \$50,000 annually or 75% of final average compensation for participants with less than 10 years of credited service on March 13, 2018; and \$67,500 annually or 75% of final average compensation for participants with 10 or more years of credited service on March 13, 2018; provided in no event shall a participant's benefit be less than the accrued benefit on March 13, 2018.

Normal Form of Benefit: Life Annuity; other options are also available.

COLA: Cost of living increases are paid only if the rate of return on the Market Value of Assets is greater than or equal to 10%. In this case the COLA will be 50% of the CPI from September of the year of the last increase to September of the most recent year, with a maximum annual increase of 2.75%. If a COLA cannot be provided because the rate of



return on the Market Value of Assets is less than 10%, then the maximum COLA in subsequent years will be 2.75% times the number of years since the last COLA was given, with a maximum increase of 8.0%. Effective February 10, 2015, a COLA will not be paid if the present value of the impact of the COLA is greater than the net actuarial experience gain accumulated from all sources of gains and losses since July 1, 1994.

For Class Members in *Murrhee v. City of Coral Gables*, Case No. 13-20731 CA (13) (Fla. 11th Cir. Ct.), and for members who opted out of the Class in *Murrhee v. City of Coral Gables* but advised the City in writing on or before August 30, 2018 that they wish to be treated in the same manner as Class Members, or the designated beneficiaries of such members, paragraph 8.3 of the Class Action Settlement Agreement dated September 18, 2017 will govern cost of living increases for the fiscal year ending September 30, 2017 and each year thereafter. The Retirement Board will make a separate determination as to whether Class Members are entitled to a COLA and the amount of the COLA based solely on the factors identified in the 2013 version of Section 50-230(c) without regard to net Actuarial Experience. The City Commission can prevent a future COLA from being granted (or reduce it) by a 4/5 supermajority vote. Under this Settlement Agreement, 50% of the COLAs that would have been granted to Class Members as of January 1, 2013 and January 1, 2014 are granted retroactively (without interest) to January 1, 2013 or January 1, 2014, respectively. These COLA percentages are 2.975% as of January 1, 2013 and 0.25% as of January 1, 2014.

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility after attainment of age 47 and 25 years of Credited Service.

Benefit: The Normal Retirement Benefit is reduced by 6.0% per year for each year by which the Early Retirement date precedes the Normal Retirement date.

Normal Form of Benefit: Life Annuity; other options are also available.

COLA: Same as Normal Retirement.

K. Delayed Retirement

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

L. Service Connected Disability

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

Benefit: For a service connected disability occurring prior to October 1, 2010, the disability benefit is equal to 75% of the member's salary in effect on the date of disability for the first 24 months, and it is then reduced to 66.67% of salary. For a service connected disability occurring after September 30, 2010 the benefit shall be the greater of the member's accrued benefit (unreduced for immediate commencement) or 42% of the member's salary in effect on the date of disability.



Normal Form
of Benefit: Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: Same as Normal Retirement.

M. Non-Service Connected Disability

Eligibility: Any member with 6 years of Credited Service who becomes totally and permanently disabled (non-service related) is immediately eligible for a disability benefit.

Benefit: The greater of the accrued Normal Retirement Benefit (unreduced for immediate commencement) or 25% of AFC.

Normal Form
of Benefit: Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: Same as Normal Retirement.

N. Pre-Retirement Death

Eligibility: Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.

Benefit: Monthly Benefit that is actuarially equivalent to the following:
< 3 years of Credited Service – 50% times Rate of Pay at date of death.
3-6.99 years of Credited Service – 100% times Rate of Pay at date of death.
7-11.99 years of Credited Service – 150% times Rate of Pay at date of death.
12 or more years of Credited Service – Max of 200% times Rate of Pay at date of death and the Present Value of the member's Accrued Benefit.

Normal Form
of Benefit: Payable to the beneficiary in the form of a 5-Year Certain and Life Thereafter annuity, or if no designated beneficiary, payable for 5 years to the member's estate. Other options are available subject to approval by the Retirement Board of Trustees.

COLA: Same as Normal Retirement.

O. Post-Retirement Death

Benefit determined by the form of benefit elected upon retirement.

P. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees include a 10 Year Certain and Life Annuity, 50%, 66 2/3%, 75% and 100% Joint and Survivor options and 50%, 66 2/3%, 75% and 100% Joint and Last Survivor options.



Q. Vested Termination

Eligibility:	A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.
Benefit:	The benefit is the member's accrued Normal Retirement Benefit. The benefit begins on the date that would have been the member's Normal Retirement date based on years of Credited Service at the termination date.
Normal Form of Benefit:	Life Annuity; other options are also available.
COLA:	None.

R. Refunds

Eligibility:	All members terminating employment with less than 10 years of Credited Service are eligible.
Benefit:	Refund of the member's contributions without interest.

S. Member Contributions

10% of Compensation plus 50% cost sharing of the increase in the City contribution rate since October 1, 2009, as adjusted by ordinance for certain fiscal years.

The following groups are exempt from cost sharing:

General Appointed:	5% of Compensation without cost sharing
General Elected:	5% of Compensation without cost sharing

Effective March 13, 2018, the member contribution rate for Non-Excludable General Employees is capped as follows:

- 15% of compensation through March 18, 2018;
- 14.5% of compensation from March 19, 2018 through the last full pay period before October 1, 2018;
- 14% of compensation from the first pay period after October 1, 2018 through the last full pay period before October 1, 2019;
- 13.5% of compensation from the first pay period after October 1, 2019 through the last full pay period before September 30, 2022;
- 13.0% of compensation from the first pay period following the last full pay period before September 30, 2022 through the last full pay period before September 30, 2024;
- 13.5% of compensation effective the first pay period following the last full pay period before September 30, 2024.

For General Excludable Employees:

- Effective March 19, 2018, participants shall contribute at a rate equal to 0.5% less than the percent of compensation determined in accordance with the cost-sharing provisions of Section 46-29(2) of the City Ordinance, but in no event less than 10% of compensation.
- Effective the first pay period after October 1, 2018, participants shall contribute at a rate equal to 1.0% less than the percent of compensation determined in accordance with the cost-sharing



provisions of Section 46-29(2) of the City Ordinance, but in no event less than 10% of compensation.

- Effective the first pay period after October 1, 2019, participants shall contribute at a rate equal to 1.5% less than the percent of compensation determined in accordance with the cost-sharing provisions of Section 46-29(2) of the City Ordinance, but in no event less than 10% of compensation.
- Effective the first pay period after September 30, 2020, participants shall contribute in accordance with the cost-sharing provisions of Section 46-29(2) and Section 46-34 of the City Ordinance.

T. State Contributions

None.

U. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws.

V. Cost of Living Increases

Cost of living increases are payable on Retirement Benefits only, whether paid directly or through the DROP, and are paid only if the rate of return on the Market Value of Assets is greater than or equal to 10%. In this case the COLA will be 50% of the CPI from September of the year of the last increase to September of the most recent year, with a maximum annual increase of 2.75%. If a COLA cannot be provided because the rate of return is less than 10%, then the maximum COLA in subsequent years will be 2.75% times the number of years since the last COLA was given, with a maximum increase of 8.0%. Effective February 10, 2015, a COLA will not be paid if the present value of the impact of the COLA is greater than the net actuarial experience gain accumulated from all sources of gains and losses since July 1, 1994.

For Class Members in *Murrhee v. City of Coral Gables*, Case No. 13-20731 CA (13) (Fla. 11th Cir. Ct.), and for members who opted out of the Class in *Murrhee v. City of Coral Gables* but advised the City in writing on or before August 30, 2018 that they wish to be treated in the same manner as Class Members, or the designated beneficiaries of such members, paragraph 8.3 of the Class Action Settlement Agreement dated September 18, 2017 will govern cost of living increases for the fiscal year ending September 30, 2017 and each year thereafter. The Retirement Board will make a separate determination as to whether Class Members are entitled to a COLA and the amount of the COLA based solely on the factors identified in the 2013 version of Section 50-230(c) without regard to net Actuarial Experience. The City Commission can prevent a future COLA from being granted (or reduce it) by a 4/5 supermajority vote. Under this Settlement Agreement, 50% of the COLAs that would have been granted to Class Members as of January 1, 2013 and January 1, 2014 are granted retroactively (without interest) to January 1, 2013 or January 1, 2014, respectively. These COLA percentages are 2.975% as of January 1, 2013 and 0.25% as of January 1, 2014.

W. Deferred Retirement Option Plan

Eligibility: Plan members who had 10 or more years of Credited Service as of 9/30/2010, and have met one of the following criteria are eligible to enter the DROP:

- (1) Rule of 70 and 25 years of Credited Service;



- (2) Rule of 80;
- (3) Age 62 and 10 years of Credited Service; or
- (4) Age 65 regardless of Credited Service.

Plan members who had less than 10 years of Credited Service as of 9/30/2010, and have met one of the following criteria are eligible to enter the DROP:

- (1) Rule of 80;
- (2) Age 62 and 10 years of Credited Service; or
- (3) Age 65 and 6 years of Credited Service.

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

Maximum

DROP Period: 60 months; DROP Entry may be delayed up to 3 years past the earliest DROP eligibility date. If DROP Entry is delayed more than 3 years past the earliest DROP eligibility date, then the maximum DROP period decreases by one month for each month of delayed DROP entry.

Interest

Credited: The actual rate of return on the Market Value of Assets, with a minimum of 3% and a maximum of the assumed rate of return for actuarial purposes, compounded annually.

Normal Form

of Benefit: Lump Sum, Direct Rollover, or Partial Lump Sum with a Direct Rollover of the remaining balance.

COLA: Same as Normal Retirement.

X. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Coral Gables Retirement System liability if continued beyond the availability of funding by the current funding source.

Y. Changes from Previous Valuation

None.

Summary of Plan Provisions

Police Officers

A. Ordinances

The Plan was established under the Code of Ordinances for the City of Coral Gables, Florida, Chapter 50 (recodified under Chapter 46), Article I, and was most recently amended in accordance with the Actuarial Impact Statement dated July 13, 2021. The Plan is also governed by certain provisions of Chapter 175 and Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

January 1, 1957

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

Any police officer employed by the city on a regular full-time basis.

F. Credited Service

Years and completed months of full-time service with the City during which time prescribed employee contributions are made. Members may purchase up to 5 years of military service or service with another public employer. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

Remuneration paid by the City, including regular pay, temporary assignment pay, disability pay, holiday pay, incentive pay, loyalty pay and pay for all approved leave actually taken. Pensionable earnings excludes all payments for unused compensatory time, unused annual leave, unused sick leave and excess sick leave, all special unit allowances, all payments for the sale of annual leave and compensatory time, all overtime payments, all shift differentials, tuition reimbursement, uniform allowances, and all other payments.

H. Average Final Compensation (AFC)

For those eligible for Normal Retirement as of September 30, 2012, AFC is the average of Compensation over the highest 3 years of Credited Service. Otherwise the AFC is the average of Compensation over the highest 5 years of Credited Service phased in through 2014 (maximum of highest 3-year average as of 9/30/2012 and highest 4-year average through 9/30/2013; maximum of highest 4-year average as of 9/30/2013 and highest 5-year average through 9/30/2014).



I. Normal Retirement

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

If member had 10 or more years of Credited Service as of 9/30/2012:

- (1) Rule of 70;
- (2) Age 52 and 10 years of Credited Service; or
- (3) Age 65 regardless of Credited Service.

If member had less than 10 years of Credited Service as of 9/30/2012:

- (1) Age 55 and 10 years of Credited Service, or
- (2) 25 years of Credited Service regardless of age.

Benefit: If eligible for Normal Retirement at 9/30/2012:
3% of AFC for each year of Credited Service.

If not eligible for Normal Retirement at 9/30/2012:

3.0% of AFC for each year of Credited Service through 9/30/2012, or until completion of 10 years of Credited Service if after 9/30/2012, plus 2.5% of AFC for each year Credited Service thereafter.

Effective 2/28/2017, the benefit percentage earned in the 25th year of Credited Service shall be equal to the amount needed to increase the cumulative benefit percentage (for all years of Credited Service) to 75% of AFC.

The maximum benefit is 75% of AFC for all Police Officers. For bargaining unit members who are not eligible for Normal Retirement as of 2/28/2017 and whose accrued annual pension benefit as of 2/28/2017 does not exceed \$95,000 per year, the total pension benefit will be capped at \$95,000 per year. This cap was increased to \$96,900 effective September 30, 2019 and it will increase to \$98,838 effective September 30, 2022.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Cost of living increases are paid only if the rate of return on the Market Value of Assets is greater than or equal to 10%. In this case the COLA will be 50% of the CPI from September of the year of the last increase to September of the most recent year, with a maximum annual increase of 2.75%. If a COLA cannot be provided because the rate of return on the Market Value of Assets is less than 10%, then the maximum COLA in subsequent years will be 2.75% times the number of years since the last COLA was given, with a maximum increase of 8.0%. Effective February 10, 2015, a COLA will not be paid if the present value of the impact of the COLA is greater than the net actuarial experience gain accumulated from all sources of gains and losses since July 1, 1994.

For Class Members in *Murrhee v. City of Coral Gables*, Case No. 13-20731 CA (13) (Fla. 11th Cir. Ct.), and for members who opted out of the Class in *Murrhee v. City of Coral Gables* but advised the City in writing on or before August 30, 2018 that they wish to be treated in the same manner as Class Members, or the designated beneficiaries of such members, paragraph 8.3 of the Class Action Settlement Agreement dated September 18, 2017 will govern cost of living increases for the fiscal year ending September 30, 2017 and each year thereafter. The Retirement Board will make a separate determination as



to whether Class Members are entitled to a COLA and the amount of the COLA based solely on the factors identified in the 2013 version of Section 50-230(c) without regard to net Actuarial Experience. The City Commission can prevent a future COLA from being granted (or reduce it) by a 4/5 supermajority vote. Under this Settlement Agreement, 50% of the COLAs that would have been granted to Class Members as of January 1, 2013 and January 1, 2014 are granted retroactively (without interest) to January 1, 2013 or January 1, 2014, respectively. These COLA percentages are 2.975% as of January 1, 2013 and 0.25% as of January 1, 2014.

J. Early Retirement

- Eligibility:** A member may elect to retire earlier than the Normal Retirement Eligibility after attainment of age 50 and 10 years of Credited Service, but only if the member had attained age 50 and 10 years of Credited Service on or before September 30, 2012.
- Benefit:** The Normal Retirement Benefit is reduced by 3.0% per year for each year by which the Early Retirement date precedes the Normal Retirement date.
- Normal Form of Benefit:** 10 Years Certain and Life thereafter; other options are also available.
- COLA:** Same as Normal Retirement.

K. Delayed Retirement

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

L. Service Connected Disability

- Eligibility:** Any member who becomes totally and permanently disabled as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.
- Benefit:** The maximum of 75% of the member's total salary in effect on the date of disability and the member's accrued benefit (unreduced for immediate commencement).
- Normal Form of Benefit:** Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.
- COLA:** Same as Normal Retirement.

M. Non-Service Connected Disability

- Eligibility:** Any member with 6 years of Credited Service who becomes totally and permanently disabled is immediately eligible for a disability benefit.
- Benefit:** The greater of the accrued Normal Retirement Benefit (unreduced for immediate commencement) and 25% of AFC.



Normal Form

of Benefit: Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: Same as Normal Retirement.

N. Death in the Line of Duty

Eligibility: Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.

Benefit: 75% of the member's total salary in effect on the date of death.

Normal Form

of Benefit: Payable to children until age 22, then payable for the life of spouse. If there was no designated beneficiary, payable for 5 years to the member's estate.

COLA: Same as Normal Retirement.

O. Other Pre-Retirement Death

Eligibility: All members whose death is not service related and which occurs on or prior to Normal or actual retirement date while in service.

Benefit: Monthly Benefit that is actuarially equivalent to the following:
< 3 years of Credited Service – 50% times Rate of Pay at date of death.
3-6.99 years of Credited Service – 100% times Rate of Pay at date of death.
7-11.99 years of Credited Service – 150% times Rate of Pay at date of death.
12+ years of Credited Service – 200% times Rate of Pay at date of death.

The Present Value of the member's Accrued Benefit is the minimum benefit if the member had 10 or more years of Credited Service as of the date of death.

Normal Form

of Benefit: Payable to the beneficiary in the form of a 5-Year Certain and Life Thereafter annuity, or if no designated beneficiary, payable for 5 years to the member's estate. Other options are available subject to approval by the Retirement Board of Trustees.

COLA: Same as Normal Retirement.

P. Post-Retirement Death

Benefit determined by the form of benefit elected upon retirement.

Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a 5 Year Certain and Life Annuity, 50%, 66 2/3%, 75% and 100% Joint and Survivor options, and 50%, 66 2/3%, 75% and 100% Joint and Last Survivor options.



R. Vested Termination

Eligibility:	A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.
Benefit:	The benefit is the member's accrued Normal Retirement Benefit. The benefit begins on the date that would have been the member's Normal Retirement date based on years of Credited Service at the termination date.
Normal Form of Benefit:	10 Years Certain and Life thereafter; other options are also available.
COLA:	None.

S. Refunds

Eligibility:	All members terminating employment with less than 10 years of Credited Service are eligible.
Benefit:	Refund of the member's contributions without interest.

T. Member Contributions

10% of Compensation effective September 30, 2014. This was 5% of Compensation prior to September 30, 2014.

U. State Contributions

Chapter 185 Premium Tax Distributions allocated from the Share Plan.

V. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws.

W. Cost of Living Increases

Cost of living increases are payable on Retirement Benefits only, whether paid directly or through the DROP, and are paid only if the rate of return on the Market Value of Assets is greater than or equal to 10%. In this case the COLA will be 50% of the CPI from September of the year of the last increase to September of the most recent year, with a maximum annual increase of 2.75%. If a COLA cannot be provided because the rate of return is less than 10%, then the maximum COLA in subsequent years will be 2.75% times the number of years since the last COLA was given, with a maximum increase of 8.0%. Effective February 10, 2015, a COLA will not be paid if the present value of the impact of the COLA is greater than the net actuarial experience gain accumulated from all sources of gains and losses since July 1, 1994.

For Class Members in *Murrhee v. City of Coral Gables*, Case No. 13-20731 CA (13) (Fla. 11th Cir. Ct.), and for members who opted out of the Class in *Murrhee v. City of Coral Gables* but advised the City in writing on or before August 30, 2018 that they wish to be treated in the same manner as Class Members, or the designated beneficiaries of such members, paragraph 8.3 of the Class Action Settlement Agreement dated September 18, 2017 will govern cost of living increases for the fiscal year ending September 30, 2017 and each year thereafter. The Retirement Board will make a separate determination as to whether



Class Members are entitled to a COLA and the amount of the COLA based solely on the factors identified in the 2013 version of Section 50-230(c) without regard to net Actuarial Experience. The City Commission can prevent a future COLA from being granted (or reduce it) by a 4/5 supermajority vote. Under this Settlement Agreement, 50% of the COLAs that would have been granted to Class Members as of January 1, 2013 and January 1, 2014 are granted retroactively (without interest) to January 1, 2013 or January 1, 2014, respectively. These COLA percentages are 2.975% as of January 1, 2013 and 0.25% as of January 1, 2014.

X. Deferred Retirement Option Plan

Eligibility: Same as Normal Retirement.

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

Maximum
DROP Period: 96 months.

Interest
Credited: The actual rate of return on the Market Value of Assets, with a minimum of 3% and a maximum of the assumed rate of return for actuarial purposes, compounded annually.

Normal Form
of Benefit: Lump Sum, Direct Rollover, or Partial Lump Sum with a Direct Rollover of the remaining balance.

COLA: Same as Normal Retirement.

Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Coral Gables Retirement System liability if continued beyond the availability of funding by the current funding source.

Z. Changes from Previous Valuation

None.

Summary of Plan Provisions

Firefighters

A. Ordinances

The Plan was established under the Code of Ordinances for the City of Coral Gables, Florida, Chapter 50 (recodified under Chapter 46), Article I, and was most recently amended in accordance with the Actuarial Impact Statement dated September 30, 2020. The Plan is also governed by certain provisions of Chapter 175 and Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

January 1, 1957

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

Any firefighter employed by the city on a regular full-time basis.

F. Credited Service

Years and completed months of full-time service with the City during which time prescribed employee contributions are made. Members may purchase up to 5 years of military service or service with another public employer. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

Remuneration paid by the City to firefighters, including regular pay, paramedic certification pay, EMT certification pay, certified assigned paramedic pay, driver pay, temporary assignment pay, disability pay, holiday pay, loyalty pay, incentive pay, payments for unused compensatory time up to the amount of compensatory time accrued on June 1, 2013, and pay for approved leave and compensatory time actually taken; but excludes all payments for unused comp. time in excess of the amount of comp. time accrued on June 1, 2013, unused annual leave, unused sick leave and excess sick leave, special assignment except as specifically included above, all payments for the sale of annual leave and comp. time, all overtime payments, tuition reimbursement, and all other payments.

H. Average Final Compensation (AFC)

For those eligible for Normal Retirement as of September 30, 2013, AFC is the average of Compensation over the highest 3 years of Credited Service. For those entering the DROP between September 30, 2013 and September 30, 2014, AFC is the average of Compensation over the highest 4 years of Credited Service and includes payment of compensatory time. Otherwise, the AFC is the average of Compensation over the highest 5 years of Credited Service phased in through 2015.



I. Normal Retirement

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

If member had 10 or more years of Credited Service as of 9/30/2013:

- (1) Rule of 70;
- (2) Age 52 and 10 years of Credited Service; or
- (3) Age 65 regardless of Credited Service.

If member had less than 10 years of Credited Service as of 9/30/2013:

- (1) Age 51 and 25 years of Credited Service, or
- (2) Rule of 76, or
- (3) 25 years of Credited Service regardless of age (effective October 1, 2019).

If member had less than 10 years of Credited Service as of 9/30/2013, but was within 12 months of completing 10 years of Credited Service on October 15, 2013 and would be older than age 59 before reaching the "Rule of 76":

- (1) Rule of 70; or
- (2) Age 51 and 25 Years of Credited Service.

Benefit: If member was hired before 9/30/2013:
3.0% of AFC for each year of Credited Service.

If member was hired after 9/30/2013:
3.0% of AFC for the first 10 years of Credited Service plus 2.5% of AFC for each year of Credited Service thereafter. Effective October 1, 2019, 10% for the 25th year of Credited Service so that the total benefit multiplier will be 75% after 25 years of Credited Service.

The maximum benefit is 75% of AFC for all firefighters.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Cost of living increases are paid only if the rate of return on the Market Value of assets is greater than or equal to 10%. In this case the COLA will be 50% of the CPI from September of the year of the last increase to September of the most recent year, with a maximum annual increase of 2.75%. If a COLA cannot be provided because the rate of return on the Market Value of Assets is less than 10%, then the maximum COLA in subsequent years will be 2.75% times the number of years since the last COLA was given, with a maximum increase of 8.0%. Effective February 10, 2015, a COLA will not be paid if the present value of the impact of the COLA is greater than the net actuarial experience gain accumulated from all sources of gains and losses since July 1, 1994.

For Class Members in *Murrhee v. City of Coral Gables*, Case No. 13-20731 CA (13) (Fla. 11th Cir. Ct.), and for members who opted out of the Class in *Murrhee v. City of Coral Gables* but advised the City in writing on or before August 30, 2018 that they wish to be



treated in the same manner as Class Members, or the designated beneficiaries of such members, paragraph 8.3 of the Class Action Settlement Agreement dated September 18, 2017 will govern cost of living increases for the fiscal year ending September 30, 2017 and each year thereafter. The Retirement Board will make a separate determination as to whether Class Members are entitled to a COLA and the amount of the COLA based solely on the factors identified in the 2013 version of Section 50-230(c) without regard to net Actuarial Experience. The City Commission can prevent a future COLA from being granted (or reduce it) by a 4/5 supermajority vote. Under this Settlement Agreement, 50% of the COLAs that would have been granted to Class Members as of January 1, 2013 and January 1, 2014 are granted retroactively (without interest) to January 1, 2013 or January 1, 2014, respectively. These COLA percentages are 2.975% as of January 1, 2013 and 0.25% as of January 1, 2014.

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility after attainment of age 50 and 10 years of Credited Service, but only if the member had already attained age 50 and 10 years of Credited Service on or before September 30, 2013.

Benefit: The Normal Retirement Benefit is reduced by 3.0% for each year by which the Early Retirement date precedes the Normal Retirement date.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Same as Normal Retirement.

K. Delayed Retirement

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

L. Service Connected Disability

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

Benefit: The maximum of 75% of the member's total salary in effect on the date of disability and the member's accrued benefit (unreduced for immediate commencement).

Normal Form of Benefit: Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: Same as Normal Retirement.



M. Non-Service Connected Disability

Eligibility: Any member with 6 years of Credited Service who becomes totally and permanently disabled is immediately eligible for a disability benefit.

Benefit: The greater of the accrued Normal Retirement Benefit (unreduced for immediate commencement) and 25% of AFC.

Normal Form
of Benefit:

Payable until death or recovery from disability or until the member reaches Early or Normal Retirement Age and elects to receive Early or Normal Retirement Benefits in lieu of disability benefits. Other options are also available.

COLA: Same as Normal Retirement.

N. Death in the Line of Duty

Eligibility: Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.

Benefit: 75% of the member's total salary in effect on the date of death.

Normal Form
of Benefit:

Payable to children until age 22, then payable for the life of spouse. If there was no designated beneficiary, payable for 5 years to the member's estate.

COLA: Same as Normal Retirement.

O. Other Pre-Retirement Death

Eligibility: All members whose death is not service related and which occurs on or prior to Normal or actual retirement date while in service.

Benefit: Monthly Benefit that is actuarially equivalent to the following:
< 3 years of Credited Service – 50% times Rate of Pay at date of death.
3-6.99 years of Credited Service – 100% times Rate of Pay at date of death.
7-11.99 years of Credited Service – 150% times Rate of Pay at date of death.
12+ years of Credited Service – 200% times Rate of Pay at date of death.

The Present Value of the member's Accrued Benefit is the minimum benefit if the member had 10 or more years of Credited Service as of the date of death.

Normal Form
of Benefit:

Payable to the beneficiary in the form of a 5-Year Certain and Life Thereafter annuity, or if no designated beneficiary, payable for 5 years to the member's estate. Other options are available subject to approval by the Retirement Board of Trustees.

COLA: Same as Normal Retirement.



P. Post-Retirement Death

Benefit determined by the form of benefit elected upon retirement.

Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a 5 Year Certain and Life Annuity, 50%, 66 2/3%, 75% and 100% Joint and Survivor options, and 50%, 66 2/3%, 75% and 100% Joint and Last Survivor options.

R. Vested Termination

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

Benefit: The benefit is the member's accrued Normal Retirement Benefit. The benefit begins on the date that would have been the member's Normal Retirement date based on years of Credited Service at the termination date.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: None.

S. Refunds

Eligibility: All members terminating employment with less than 10 years of Credited Service are eligible.

Benefit: Refund of the member's contributions without interest.

T. Member Contributions

10% of Compensation effective September 30, 2014. This was 5% of Compensation prior to September 30, 2013 and 8% of Compensation from September 30, 2013 through September 29, 2014.

U. State Contributions

Chapter 175 Premium Tax Distributions allocated from the Share Plan.

V. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws.

W. Cost of Living Increases

Cost of living increases are payable on Retirement Benefits only, whether paid directly or through the DROP, and are paid only if the rate of return on the Market Value of Assets is greater than or equal to 10%. In this case the COLA will be 50% of the CPI from September of the year of the last increase to September of the most recent year, with a maximum annual increase of 2.75%. If a COLA cannot be provided because the rate of return is less than 10%, then the maximum COLA in subsequent years will



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Maximum
DROP Period: 96 months.

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of Benefit: Lump Sum, Direct Rollover, or Partial Lump Sum with a Direct Rollover of the remaining balance.

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Y. Other Ancillary Benefits

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Z. Changes from Previous Valuation

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