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City of Miami Fire Fighters' and Police Officers' Retirement Trust

January 1, 2022 | COLA Fund Report

Actuarial Certification	3
Executive Summary	5
Summary Results	5
Changes Since Prior Valuation and Key Notes	6
Historical Valuation Summary	7
Plan Maturity Measures	8
Identification of Risks	9
Assets Information	10
Market Value Reconciliation	10
Membership and Benefits Cost-of-Living Adjustments Account Summary	11
Investment Results	12
Actuarial Value of Assets	14
Development of Actuarial Asset Value for COLA Transfer	15
Rate of Return on COLA Transfer Actuarial Asset Value	16
Excess Investment Return	17
COLA Asset and Liability	18
Summary of Assets Available for Benefits	18
Summary of Liabilities	19
COLA Measurements	20
COLA Fund Table Amount	20
Determination of Net Cumulative Experience Position (Preliminary)	21
Plan Provisions	22
Actuarial Assumptions	25
Other Measurements	29
Florida State Requirements	29
GASB 5 For COLA Fund	42

At the request of the plan sponsor, this report summarizes the COLA Fund for the City of Miami Fire Fighters and Police Officers as of 1/1/2022. The purpose of this report is to communicate the following results of the valuation:

- 10/1/2021 Asset Information;
- 1/1/2022 COLA Fund Amounts.

This report has been prepared for the above purposes. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the Plan Administrator. Asset information has been provided to us by the Plan Administrator. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report.

The funding method, interest rates and mortality used in determining the COLA fund were determined by the Board. Evaluation of the reasonableness of these methods and assumptions was outside the scope of our assignment. In our opinion, all other actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (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.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

In preparing these results, Nyhart used ProVal valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

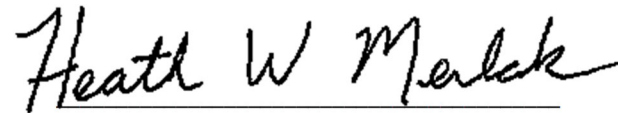
Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

Nyhart



Danielle Winegardner, FSA, EA, MAAA

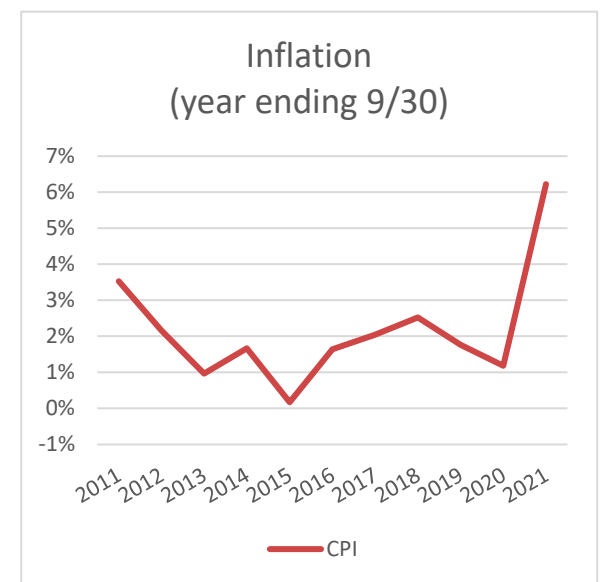
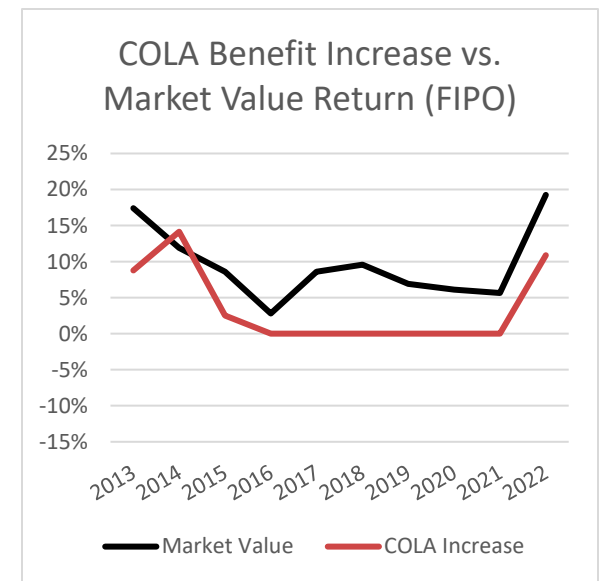


Heath W. Merlak, FSA, EA, MAAA

May 25, 2022
Date

Summary Results

	October 1, 2020	October 1, 2021
COLA Table Amount	\$1,670	\$1,852 [Proposed]
Asset Performance		
Market Value of Assets	\$1,150,108,084	\$1,306,437,051
Actuarial Value of Assets	\$1,176,911,870	\$1,213,074,854
Actuarial Asset Value Return	6.25%	8.59%
COLA Fund Asset Value Return	5.80%	19.80%
COLA Information		
Current COLA Assets	\$416,022,491	\$477,331,528
Future Contributions (discounted)	104,516,121	114,013,746
Assets for COLA	\$520,538,612	\$591,345,274
COLA Liability	\$418,988,989	\$425,699,444
Net Reserve	19.5%	28.0%
Target Reserve (20% of Asset Value)	\$104,107,722	\$118,269,055
Actual Reserve	\$101,549,623	\$165,645,830
COLA Information, after Increase in COLA Table Amount		
Net Reserve		20.2%
Actual Reserve		\$119,459,275
Participant Information		
Active	1,931	1,915
Retirees and Beneficiaries	2,108	2,125
Disableds	115	111
Terminated Vesteds	26	28
Terminated, Due a Refund	117	120
Total	4,297	4,299



Changes Since Prior Valuation and Key Notes

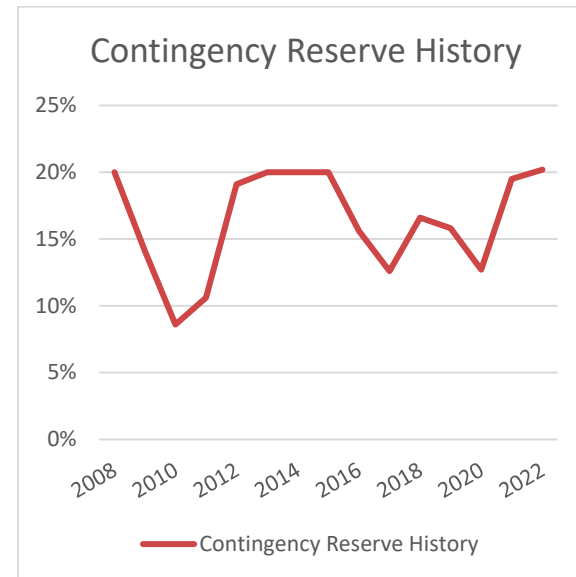
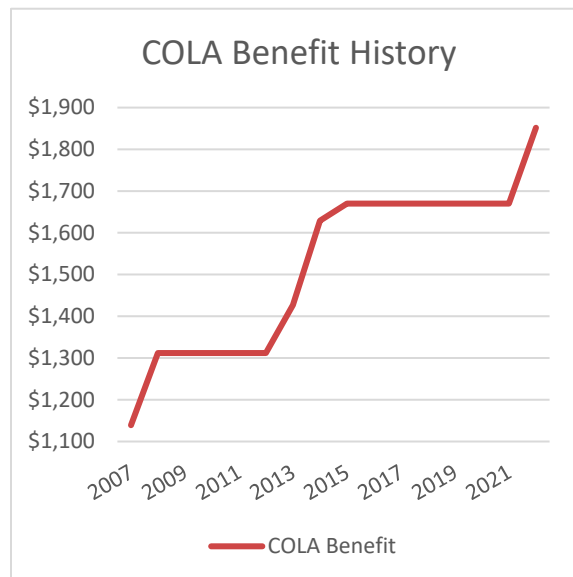
Based on a target reserve of 20%, we recommend increasing the COLA table to \$1,852 as of January 1, 2022. The contingency reserve is 20.2%, an increase from the prior year's 19.5%. A historical graph of the COLA table level and contingency reserve amount are below.

The interest rate was changed from 7.34% to 7.00% in accordance with the experience study completed January 2021. This change resulted in an increase in the COLA Liability.

The asset valuation method was changed from the 20% write-up method to the 20% phase-in method, in which the market value of assets on the valuation date are adjusted for a 5-year phase-in of gains and losses on the fair market value of assets. This change was implemented retrospectively so that the phase-in of gains and losses starts with the gain or loss from the fiscal year ending September 30, 2017. This change resulted in a decrease in the Actuarial Value of Assets.

The retirement rates for participants vested as of 9/27/2010 and who are still eligible for the Forward DROP were changed in accordance with the experience study completed January 2021. The withdrawal and disability rates were changed for all active participants in accordance with the experience study completed January 2021. The demographic assumption changes resulted in a decrease in the COLA Liability.

The plan provisions were changed to restore the FIPO pension benefits that were in effect prior to September 27, 2010, including the Forward DROP, for all bargaining unit members who were non-vested as of September 27, 2010, with a cap on benefits of \$120,000. The plan provision changes resulted in a decrease in the COLA liability.



Historical Valuation Summary

	10/1/2015	10/1/2016	10/1/2017	10/1/2018	10/1/2019	10/1/2020	10/1/2021
COLA Table Amount	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670
Proposed COLA	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670	\$1,852
Asset Performance (FIPO)							
Market Value of Assets	\$1,090,944,360	\$1,109,146,744	\$1,131,066,046	\$1,140,506,121	\$1,149,117,960	\$1,150,108,084	\$1,306,437,051
Actuarial Value of Assets	\$1,147,334,950	\$1,150,653,520	\$1,161,585,161	\$1,172,416,575	\$1,189,509,806	\$1,176,911,870	\$1,213,074,854
Actuarial Asset Value Return	6.20%	6.50%	6.76%	6.66%	6.48%	6.25%	8.59%
COLA Information							
Current COLA Assets	\$381,440,561	\$392,859,018	\$420,284,415	\$426,176,255	\$412,090,602	\$416,022,491	\$477,331,528
Future Contributions (discounted)	\$84,972,329	\$88,371,217	\$91,906,070	\$96,631,033	\$100,496,275	\$104,516,121	\$114,013,746
Assets for COLA	\$466,412,890	\$481,230,235	\$512,190,485	\$522,807,288	\$512,586,877	\$520,538,612	\$591,345,274
COLA Liability	\$393,512,220	\$420,490,548	\$427,229,145	\$440,222,258	\$447,248,968	\$418,988,989	\$425,699,444
Net Reserve	15.60%	12.60%	16.60%	15.80%	12.70%	19.50%	28.00%
Target Reserve (20% of Asset Value)	\$93,282,578	\$96,246,047	\$102,438,097	\$104,561,458	\$102,517,375	\$104,107,722	\$118,269,055
Actual Reserve	\$72,900,670	\$60,739,687	\$84,961,340	\$82,585,030	\$65,337,909	\$101,549,623	\$165,645,830
COLA Information, after Increase in COLA Table Amount							
Net Reserve							20.20%
Actual Reserve							\$119,459,275
Participant Information							
Active	1,650	1,869	1,943	1,998	2,003	1,931	1,915
Retirees and Beneficiaries	2,088	2,062	2,052	2,072	2,072	2,108	2,125
Disableds	147	143	136	130	121	115	111
Terminated Vesteds	15	15	16	14	13	26	28
Terminated, Due a Refund			97	112	115	117	120
Total	3,900	4,089	4,244	4,326	4,324	4,297	4,299

Plan Maturity Measures – October 1, 2021

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the COLA Fund of the City of Miami Fire Fighters' and Police Officers' Retirement Trust falls in its life-cycle.

Duration of Liabilities: 11.0

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 44.5%

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 13.7%

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 5.5%

As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.

Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the COLA fund of the City of Miami Fire Fighters' and Police Officers' Retirement Trust. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Interest Rates	Scenario Testing; Asset Liability Study
Participant Longevity	Stress Testing; Scenario Testing
Early Retirement	Stress Testing; Scenario Testing

Market Value Reconciliation

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

		September 30, 2021	
		Membership and Benefit Accounts	COLA Account
1.	Market value – beginning of prior year	\$1,150,108,084	\$416,022,491
2.	Book value – beginning of prior year	\$1,051,736,655	\$380,439,116
3.	Income		
	(a) City contributions	\$62,773,727	\$7,208,422
	(b) Member contributions	15,892,460	0
	(c) Other contributions	0	0
	(d) Interest and dividends	10,167,779	3,622,961
	(e) Net realized gains (losses)	80,473,035	28,693,518
	(f) Securities lending income	113,380	40,391
	(g) Rental and other income	144,855	51,642
	(h) Income transfer	0	0
	(i) Total	<u>\$169,565,236</u>	<u>\$39,616,934</u>
4.	Disbursements		
	(a) Benefit payments and refunds	\$141,783,033	\$26,463,258
	(b) Custodial and investment expenses	3,271,379	1,163,864
	(c) Administrative expense	2,181,634	0
	(d) Other expense	0	0
	(e) Securities lending fees	28,321	10,089
	(f) Building depreciation	14,955	5,438
	(g) Total	<u>\$147,279,322</u>	<u>\$27,642,649</u>
5.	Book value – beginning of current year [(2)+(3i)-(4g)]	\$1,074,022,569	\$392,413,401
6.	Net change in unrealized gains (losses)	\$134,043,053	\$49,334,752
7.	Unrealized gains (losses)	\$232,414,482	\$84,918,127
8.	Market value – beginning of current year [(1)+(3i)-(4g)+(6)]	\$1,306,437,051	\$477,331,528
9.	Current year allocation to COLA II (discounted)	\$0	N/A
10.	Net market value – beginning of current year	<u>\$1,306,437,051</u>	<u>\$477,331,528</u>

Membership and Benefits Cost-Of-Living Adjustment Account Summary

		September 30, 2021	
		<u>Market</u>	<u>Book</u>
1.	Investments		
	(a) Bill, bonds, notes	\$386,027,452	\$385,703,724
	(b) Domestic stocks	621,660,336	468,176,482
	(c) International stocks	377,889,890	324,317,856
	(d) Private equity	216,712,532	161,715,318
	(e) Money market fund and time deposit	11,307,289	8,743,461
	(f) Mutual fund	141,041,052	88,649,101
	(g) Real estate	2,054,745	2,054,745
	(h) Securities lending adjustment	0	0
	(i) Total investment	<u>\$1,756,693,296</u>	<u>\$1,439,360,687</u>
2.	Cash	\$32,488,824	\$32,488,824
3.	Receivables		
	(a) City contributions	\$0	\$0
	(b) Member contributions	0	0
	(c) Accounts receivable	5,658	5,658
	(d) Accrued interest and dividend	3,806,134	3,806,134
	(e) Securities sold	15,688,895	15,688,895
	(f) Total receivables	<u>\$19,500,687</u>	<u>\$19,500,687</u>
4.	Payables:		
	(a) Budget advance	\$0	\$0
	(b) Accrual expense	0	0
	(c) Transfer	0	0
	(d) Tax withheld	8,870	8,870
	(e) Accounts payable	13,590,308	13,590,308
	(f) Securities purchased	11,315,050	11,315,050
	(g) Total payables	<u>\$24,914,228</u>	<u>\$24,914,228</u>
5.	Total [(1i)+(2)+(3f)-(4g)]	\$1,783,768,579	\$1,466,435,970
6.	COLA account	\$477,331,528	\$392,413,401
7.	Current year COLA transfer	\$0	\$0
8.	Membership & benefits account [(5)-(6)-(7)]	\$1,306,437,051	\$1,074,022,569

Investment Results - Membership and Benefits Accounts

September 30, 2021

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
<u>Membership and Benefits Accounts</u>			
Interest	\$5,791,934	0.4%	0.6%
Dividends	4,375,845	0.4%	0.4%
Rental and Other Income, less Depreciation	129,900	0.0%	0.0%
Realized Gains	80,473,035	7.0%	7.9%
Securities Lending (Net)	85,059	0.0%	0.0%
Increase in Unrealized Gains	134,043,053	11.7%	13.2%
Custodial and Investment Expenses	(3,271,379)	(0.2%)	(0.4%)
	<u>\$221,627,447</u>	<u>19.3%</u>	<u>21.7%</u>

Investment Results - COLA I and II Accounts

September 30, 2021

COLA Accounts

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
Interest	\$2,058,026	0.5%	0.6%
Dividends	1,564,935	0.4%	0.4%
Rental and Other Income, less Depreciation	46,204	0.0%	0.0%
Realized Gains	28,693,518	7.1%	7.7%
Securities Lending (Net)	30,302	0.0%	0.0%
Increase in Unrealized Gains	49,334,752	12.1%	13.3%
Custodial and Investment Expenses	(1,163,864)	(0.3%)	(0.3%)
	<u>\$80,563,873</u>	<u>19.8%</u>	<u>21.7%</u>

Actuarial Value of Assets

September 30, 2021

1.	Expected market value of assets	
	(a) Market value of assets – beginning of prior year	\$1,150,108,084
	(b) City Contributions	62,773,727
	(c) Member Contributions	15,892,460
	(d) Benefits payments and refunds	143,964,667
	(e) Expected return	80,495,013
	(f) Expected market value of assets – beginning of current year	\$1,165,304,617
2.	Market value of assets – beginning of current year	\$1,306,437,051
3.	Present value of COLA transfers	
	(a) Current year	\$0
	(b) Next year	0
	(c) Total	\$0
4.	Market value net COLA transfer [(2)-(3)]	\$1,306,437,051
5.	Amount subject to phase in [(4)-(1f)]	\$141,132,434
6.	Phase in of asset gain loss	
	(a) Current Year [80% x \$141,132,434]	\$112,905,947
	(b) First Prior Year [60% x (\$19,371,884)]	(11,623,130)
	(c) Second Prior Year [40% x (\$16,237,126)]	(6,494,850)
	(d) Third Prior Year [20% x (\$7,128,850)]	(1,425,770)
	(e) Total Phase-In	\$93,362,197
7.	Preliminary actuarial value of assets – beginning of current year [(2)-(6e)]	\$1,213,074,854
8.	80% of Market value of assets	\$1,045,149,641
9.	120% of Market value of assets	\$1,567,724,461
10.	Adjusted actuarial value of assets	\$1,213,074,854

Development of Actuarial Asset Value for COLA Transfer

September 30, 2021

	<u>9/30/2019</u>	<u>9/30/2020</u>	<u>9/30/2021</u>
1. Book Value	\$965,414,471	\$1,051,736,655	\$1,074,022,569
2. Market Value	\$1,149,117,960	\$1,150,108,084	\$1,306,437,051
3. [(2)/(1)]	1.1902846	1.0935324	1.2163963
4. 3 year average of book to market value			1.1667378
5. Adjusted market value [(1)x(4)]			\$1,253,102,729
6. Contribution surplus			\$0
7. 80% of Adjusted market value, net of contribution surplus			\$1,045,149,641
8. 120% of Adjusted market value, net of contribution surplus			\$1,567,724,461
9. Adjusted actuarial value of assets			\$1,253,102,729
10. Present value of next year COLA transfer			\$0
11. Final actuarial asset value [(9)+(10)]			\$1,253,102,729

Rate of return on COLA Transfer Actuarial Asset Value

	September 30, 2021
1. Actuarial asset value – beginning of prior year	\$1,206,642,109
2. Contributions	
(a) City contributions	\$62,773,727
(b) Member contributions	15,892,460
(c) Total	\$78,666,187
3. Benefits and refunds	\$141,783,033
4. Present value of COLA transfer	\$0
5. Contribution surplus	\$0
6. Actuarial asset value – beginning of current year	\$1,253,102,729
7. Net return on investment [(6)+(5)-(4)+(3)-(2)-(1)]	\$109,577,466
8. Rate of return	9.08%

Excess Investment Return

September 30, 2021

1. Expected return on actuarial asset value	
(a) Actuarial asset value as of beginning of prior year	\$1,206,642,109
(b) City Contributions	\$62,773,727
(c) Member Contributions	\$15,892,460
(d) Benefits paid and refunds	\$141,783,033
(e) Expected return at 7.00% ¹	\$84,527,460
(f) Base amount for expected return [(e)/7.00%]	\$1,207,535,143
2. Actual return on actuarial asset value	\$109,577,466
3. Excess return on assets [(2)-(1e)]	\$25,050,006
4. Amount to be transferred to COLA fund (limited to cumulative experience position)	
(a) Excess return	
(i) First 2.5%	\$25,050,006
(ii) Next 2.5%	0
(iii) Next 2.5%	0
(iv) Total	\$25,050,006
(b) Potential COLA Transfer	
(i) 75% of (4a)(i)	\$18,787,505
(ii) 50% of (4a)(ii)	0
(iii) 25% of (4a)(iii)	0
(iv) Total	\$18,787,505
(c) Cumulative Experience Gain (Loss):	(\$374,514,775)
(d) Transfer of Excess Investment Income ² :	\$0

¹Assumes mid-year member contributions and benefits and beginning of year City contributions.

²Excess returns can only be transferred if the Plan is in a Net Positive Experience Position. Due to the Cumulative Experience Loss, the amount of assets transferred to the COLA fund is limited to \$0.

Summary of Assets Available for Benefits

October 1, 2021

1.	COLA Accounts	\$477,331,528
2.	Transfers of Excess Investment Income	
	(a) Current year	\$0
	(b) Next year	0
	(c) Total	\$0
3.	Minimum City Contributions	
	(a) Expected contributions	\$8,108,494
	(b) Permanent, discounted annuity [1/1.0700 ^{2.25ä∞}]	12.2684151
	(c) Expected future contributions [(a)x(b)]	\$99,478,370
4.	Discounted City Contribution	
	(a) \$7,496,759 due on January 1, 2022	\$7,371,020
	(b) \$7,796,629 due on January 1, 2023	7,164,356
	(c) Total	<u>\$14,535,376</u>
5.	Assets available [(1)+(2)+(3)+(4)]	\$591,345,274

Summary of Liabilities

October 1, 2021

1.	Present value of existing COLA benefits	
	(a) COLA for inactives	357,643,075
	(b) Reserve for current actives	59,179,451
	(c) Reserve for future actives [(15% of (b))]	8,876,918
	(d) Total	\$425,699,444
2.	Contingency reserve [20% of assets available]	\$118,269,055
3.	Unallocated reserve (not greater than \$0)	\$0
4.	Total Liability [(1d)+(2)+(3)]	\$543,968,499

COLA Fund Table Amount

	October 1, 2021
1. Assets available for COLA benefits*	\$590,000,959
2. Liability based on current table	
(a) COLA II for inactives	\$357,303,565
(b) Reserve for current actives	59,179,451
(c) Reserve for future actives	8,876,918
(d) Sub-Total	\$425,359,934
(e) COLA I for inactives	\$339,510
(f) Total	\$425,699,444
3. 20% Contingency reserve	\$118,000,192
4. Unallocated reserve (not greater than \$0)	\$0
5. Available assets [(1)-(2)-(3)-(4)]	\$46,301,323
6. Excess investment income transfer, discounted	\$0
7. Net available assets [(5)-(6)]	\$46,301,323
8. Increase ratio [(7)/(2d)]	0.108852
9. Prior year COLA	\$1,670
10. Potential table increase [(8)x(9)]	\$182
11. Potential new table amount [(8)+(9)]	\$1,852

*COLA table amount calculated above was based on unaudited assets available for COLA benefits. If audited assets were to be used, the potential new table amount is \$1,856.

COLA Measurements

Determination of Net Cumulative Experience Position (Preliminary)

	October 1, 2021
1. Expected unfunded actuarial liability	
(a) Expected unfunded actuarial liability – beginning of prior year	\$383,444,847
(b) Entry age normal cost – payable by employer	17,763,957
(c) Assumption changes	\$0
(d) Plan Provisions	119,115,120
(e) Contributions	(62,773,727)
(f) Interest on prior year unfunded actuarial liability	54,721,472
(g) Expected unfunded actuarial liability – beginning of current year	<u>\$512,271,669</u>
2. Entry age reserve ¹	
(a) Active	\$600,633,049
(b) Inactive	1,499,228,249
(c) Total	<u>\$2,099,861,298</u>
3. Actuarial asset value	\$1,213,074,854
4. Actual unfunded actuarial liability [(2)-(3)]	\$886,786,444
5. Cumulative experience gain (loss) [(1g)-(4)]	(\$374,514,775)
Future Transfers of Excess Investment Income	
Contribution for current year, discounted	\$0
Contribution for next year, discounted	\$0
Preliminary transfer	\$0
Final transfer – if cumulative loss, then 0	<u>\$0</u>

¹The assumptions and plan provisions used can be found in the October 1, 2020 Valuation Report and Actuarial Impact Statement dated November 29, 2021.

Plan Status

January 1, 1994 amended January 1, 1995

Eligibility for Participation

All inactive members in Miami Firefighters' and Police Officers' Retirement Trust

Available Assets:

Existing COLA assets as of January 1, 1995; beginning with the 1991/92 fiscal year, a percentage of excess investment return on FIPO assets (75% of first 2.5%, 50% of next 2.5%, 25% of next 2.5%), subject to a minimum City contribution of \$2.5 million, increasing 4% annually.

Allocated Assets:

Current COLA assets as of September 30, 2020, plus present value of \$2.5 million minimum guarantee. The 4% future annual increases is not pre-allocated. A contingency reserve of 20% has been established for adverse experience.

COLA Benefits:

In addition to prior COLA, benefits are based on attached table, with \$1,670 monthly benefit for 25 years of creditable service and 22 completed years of retirement (after age 46). The \$1,670 amount is reduced by 5% for each year of retirement less than 22 and each year of creditable service less than 25 and increased similarly for years of retirement greater than 22 and years of creditable service greater than 25.

Benefits are based on the FIPO option elected. Tabular amounts are adjusted, based on the FIPO adjustments at the time of FIPO benefit commencement, for options other than Option 8 (Joint & 40%). Surviving spouses receive the percentage of the table amount determined under the FIPO election.

Service-incurred and accidental disabilities and deaths receive benefits based on the greater of 25 years or actual creditable service.

Creditable Service

For Vesting and Benefit Accrual

Service credited under Retirement System; military service (maximum of four years) during wartime for which Member makes contributions; maternity leave (maximum of 180 days for each leave) for which Member makes contributions; up to 5 years, without member contributions, if member was an employee before period of military service.

Accumulated leave balances may be transferred into system immediately prior to retirement to purchase up to 3 whole years of additional Creditable Service, on an actuarially equivalent basis.

457 balances of Firefighters may be transferred into System at retirement to purchase up to 3 whole years of additional Creditable Service for multiplier purposes.

Payment Forms

Normal Form

Joint and 40% Contingent Survivor

Optional Forms

Option 1 – Cash refund annuity based on Present Value at retirement

Option 2 – Joint and 100% Contingent Annuity

Option 3 – Joint and 50% Contingent Annuity

Option 4 – Joint and Contingent Annuity approved by the Board

Option 5 – Determined by Board due to incapacity of member

Option 6 – Withdrawal of member contributions with interest and benefit that is ½ of normal level.

Changes since prior valuation

Restore the FIPO pension benefits that were in effect prior to September 27, 2010, including the Forward DROP, for all bargaining unit members who were non-vested as of September 27, 2010, with a cap on benefits of \$120,000.

Cost Method

Accrued Benefit Cost Method, based on benefits granted to date

Asset Valuation Method

Market Value, plus present value of future minimum City contributions

Interest Rates

7.00% net of investment expenses

Support for the discount rate assumption has been provided in the experience study report dated January 2021.

Annual Pay Increases

3.25% inflation and 1.5% for promotions and other increases plus salary merit scale below

<u>Service</u>	<u>Police</u>	<u>Fire</u>
0-6	5.0%	5.0%
7	2.5%	5.0%
8-9	5.0%	5.0%
10-14	1.0%	0.0%
15-16	1.25%	2.5%
17-21	1.0%	1.0%
22+	0.0%	0.0%

There is no additional increase at retirement.

The annual pay increases are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

Expense

None assumed

Compensated Absence Balance Transfers

No liabilities or costs are included for the provision to transfer compensated absence balances into FIPO to purchase additional creditable service, based on our understanding that assets will be transferred immediately prior to retirement to cover 100% of the liability for the additional service.

Marital Status and Ages

100% of Members are assumed to be married. Female spouses assumed to be 3 years younger than male spouses.

Mortality Rates

Pre-Retirement:	Pub-2010 Generational using scale MP-2018; Females, Headcount Weighted Safety Employee Female Table, set forward 1 year; Males, Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year.
Post-Retirement:	Pub-2010 Generational using scale MP-2018; Females, Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year; Males, Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year
Disabled:	Pub-2010; Females, 80% Headcount Weighted General Disabled Retiree Female Table / 20% Headcount Weighted Safety Disabled Retiree Female Table; Males, 80% Headcount Weighted General Disabled Retiree Male Table / 20% Headcount Weighted Safety Disabled Retiree Male Table.

The mortality rate assumptions were set in accordance with the Florida Retirement System Valuation report dated December 2019. The board adopted the new mortality tables for the October 1, 2019 valuation.

Retirement Rates

The following decrements apply, based on service.

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
<20	0	0
20	15	10
21-24	20	7.5
25	50	20
26-29	40	20
30-34	100	40
35		100

The assumed retirement rates are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

Withdrawal of Employee Contributions

It is assumed that employees do not withdraw their contribution balances upon employment termination or retirement.

Disability Rates

100% of the disabilities are expected to be accidental with the following probabilities. No recovery is assumed.

<u>Age</u>	<u>Rates</u>
35	0.07125%
40	0.09750%
45	0.20000%
50	0.30250%

The disability rates are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

Withdrawal Rates

Based on Years of Creditable Service using the rates below

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
0	12.00	7.50
1	4.00	4.00
2-6	1.50	1.75
7-19	0.75	1.00
20+	0.00	0.00

The withdrawal rates are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

Changes since prior valuation

The interest rate was changed from 7.34% to 7.00% in accordance with the experience study completed January 2021.

The asset valuation method was changed from the 20% write-up method to the 20% phase-in method, in which the market value of assets on the valuation date are adjusted for a 5-year phase-in of gains and losses on the fair market value of assets. This change was implemented retrospectively so that the phase-in of gains and losses starts with the gain or loss from the fiscal year ending September 30, 2017.

The retirement rates were changed in accordance with the experience study completed January 2021. The withdrawal and disability rates were also changed in accordance with this experience study.

The actuarial report also shows the necessary items required for plan reporting and the any state requirements.

- ✓ Florida State Requirements
 - Comparative Summary of Principal Valuation Results
 - Separation for Police & Fire
 - Comparison of payroll growth, salary increases and investment returns
 - Requirements under Florida Statute 112.664 and F.A.C. 60T-1.0035
- ✓ COLA GASB 5 information

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results

	10/1/2021 7.00% (Plan & Assumption Changes)	10/1/2021 7.34% (prior methods & assumptions)	10/1/2020 7.34%
Participant Data			
Active members	1,915	1,915	1,931
Total annual payroll	\$178,831,741	\$178,831,741	\$176,635,568
Members in DROP	194	194	149
Total annualized benefit	\$355,800	\$355,800	\$274,404
Retired members and beneficiaries	1,931	1,931	1,959
Total annualized benefit	\$25,861,492	\$25,861,492	\$25,583,663
Disabled members receiving benefits	111	111	115
Total annualized benefit	\$2,645,266	\$2,645,266	\$2,677,828
Terminated vested members	28	28	26
Total annualized benefit	\$18,455	\$18,454	\$17,124
Assets			
Actuarial value of assets	\$591,345,274	\$591,345,274	\$520,538,612
Market value of assets	\$477,331,528	\$477,331,528	\$416,022,491

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results
(continued)

	10/1/2021 7.00% (Plan & Assumption Changes)	10/1/2021 7.34% (prior methods & assumptions)	10/1/2020 7.34%
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$55,803,438	\$59,291,275	\$58,647,893
Vesting benefits	\$1,643,488	\$3,011,348	\$2,915,836
Disability benefits	\$1,371,861	\$2,576,208	\$2,552,230
Death benefits	\$360,664	\$315,077	\$307,440
Return of contribution	0	0	0
Reserve for future actives	8,876,918	9,779,086	9,663,510
Total	\$68,056,369	\$74,972,994	\$74,086,909
Terminated vested members	\$794,329	\$744,187	\$646,916
Retired members and beneficiaries	\$334,049,332	\$322,963,257	\$321,272,472
Disabled members	\$22,799,414	\$22,225,748	\$22,982,692
Total	\$425,699,444	\$420,906,186	\$418,988,989
Liabilities due and unpaid	\$0	\$0	\$0
Actuarial accrued liability	N/A	N/A	N/A
Unfunded actuarial accrued liability	N/A	N/A	N/A

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results
(continued)

	10/1/2021 7.00% (Plan & Assumption Changes)	10/1/2021 7.34% (prior methods & assumptions)	10/1/2020 7.34%
Actuarial present value of accrued benefits			
Statement of actuarial present value of all accrued benefits			
Vested accrued benefits			
Inactive members and beneficiaries	\$357,643,075	\$345,933,192	\$344,902,080
Active members	27,944,630	31,043,633	31,287,984
Total value of all vested accrued benefits	\$385,587,705	\$376,976,825	\$376,190,064
Non-vested accrued benefits	(793,921)	731,997	246,048
Total actuarial present value of all accrued benefits	\$384,793,784	\$377,708,822	\$376,436,112
Statement of changes in total actuarial present value of all accrued benefits (ASC 960)			
Actuarial present value of accrued benefits, beginning of year	\$376,436,112	\$376,436,112	\$402,364,208
Increase (decrease) during year			
Benefits accumulated	\$1,059,563	\$1,059,563	(\$1,400,920)
Plan amendment	(2,459,985)	0	0
Changes in actuarial assumptions	9,544,947	0	(26,884,788)
Interest	26,676,405	26,676,405	28,587,925
Benefits paid	(26,463,258)	(26,463,258)	(26,230,313)
Other changes	0	0	0
Net increase (decrease)	\$8,357,672	\$1,272,710	(\$25,928,096)
Actuarial present value of accrued benefits, end of year	\$384,793,784	\$377,708,822	\$376,436,112

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results
(continued)

	10/1/2021 7.00% (Plan & Assumption Changes)	10/1/2021 7.34% (prior methods & assumptions)	10/1/2020 7.34%
Pension cost			
Normal Cost	N/A	N/A	N/A
Member contributions	\$0	\$0	\$0
Expected plan sponsor contribution	\$7,496,759	\$7,496,759	\$7,208,422
As % of payroll	4.19%	4.19%	4.08%
Member Contributions as % of payroll	0.00%	0.00%	0.00%
Past contributions	10/1/2021	10/1/2021	10/1/2020
Required plan sponsor contribution	\$7,208,422	\$7,208,422	\$6,931,175
Required member contribution	\$0	\$0	\$0
Actual contributions made by:			
Plan's sponsor	\$7,208,422	\$7,208,422	\$6,931,175
Members	\$0	\$0	\$0
Other	\$0	\$0	\$0
Net actuarial gain (loss) (if applicable)	N/A	N/A	N/A
Other disclosures (where applicable)			
Present value of active member			
Future salaries at entry age	\$2,282,526,057	\$2,229,291,303	\$2,250,999,455
Future contributions at entry age	\$0	\$0	\$0

Information to Comply with Florida 60T-1.003(4)(i)

Hypothetical City Contribution Requirement for 2020/2021 Fiscal Year

	Police	Fire	Total
Unfunded actuarial accrued liability	N/A	N/A	N/A
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$32,977,654	\$22,825,784	\$55,803,438
Vesting benefits	1,070,801	572,687	1,643,488
Disability benefits	830,743	541,118	1,371,861
Death benefits	173,621	187,043	360,664
Return of contribution	0	0	0
Reserve for future actives	5,257,923	3,618,995	8,876,918
Total	\$40,310,742	\$27,745,627	\$68,056,369
Terminated vested members	\$685,605	108,724	\$794,329
Retired members and beneficiaries	\$199,636,515	134,412,818	\$334,049,333
Disabled members	\$19,797,727	3,001,686	\$22,799,413
Total	\$260,430,589	\$165,268,855	\$425,699,444
Entry age reserve			
Active	\$17,584,713	\$13,447,861	\$31,032,574
Inactive	220,119,847	137,523,227	357,643,074
Total	\$237,704,560	\$150,971,088	\$388,675,648
Actuarial asset value ¹	\$361,652,367	\$229,692,907	\$591,345,274

¹Allocated based on Entry Age Reserve

Information to Comply with Florida 60T-1.003(4)(i)

Hypothetical City Contribution Requirement for 2020/2021 Fiscal Year (continued)

	Police	Fire	Total
Normal cost			
Total present value of future benefits	\$260,430,589	\$165,268,855	\$425,699,444
Present value of future member contributions	\$0	\$0	\$0
Actuarial asset value	(\$361,652,367)	(\$229,692,907)	(\$591,345,274)
Unfunded actuarial accrued liability	\$0	\$0	\$0
Present value of future normal costs	\$0	\$0	\$0
Present value of future payrolls	\$1,311,725,984	\$970,800,073	\$2,282,526,057
Administrative expense ¹	\$0	\$0	\$0
Current payroll	\$102,131,819	\$76,699,922	\$178,831,741
Interest rate	7.00%	7.00%	7.00%
Current normal cost at end of year	\$0	\$0	\$0
As a percentage of payroll	0.00%	0.00%	0.00%
Hypothetical Total			0

¹Allocated based on Entry Age Reserve

Information to Comply with Florida 60T-1.003(4)(i)

September 30, 2021

Historical Salary Increases and Asset Performance

Year Ending	Payroll Growth	Salary Growth	Expected Salary Growth	Asset Return (Market)	Asset Return (Actuarial)	Asset Return (Expected)
9/30/2021	1.20%	5.00%	7.72%	19.27%	8.59%	7.00%
9/30/2020	5.15%	11.24%	8.05%	5.65%	6.25%	7.34%
9/30/2019	0.83%	8.21%	7.74%	6.11%	6.48%	7.34%
9/30/2018	5.27%	7.39%	7.85%	6.90%	6.66%	7.34%
9/30/2017	6.32%	7.02%	7.85%	8.24%	6.76%	7.42%
9/30/2016	25.22%	10.46%	7.85%	8.42%	6.51%	7.42%
9/30/2015	13.42%	12.60%	7.79%	2.80%	6.18%	7.42%
9/30/2014	10.00%	1.38%	7.72%	8.60%	7.18%	7.50%
9/30/2013	3.70%	3.64%	7.77%	11.20%	6.95%	7.50%
9/30/2012	0.10%	(0.75%)	7.92%	17.40%	5.98%	7.50%
Averages						
3-year				10.17%	7.10%	
5-year				9.12%	6.94%	
10-year	7.12%			9.35%	6.75%	

Information to Comply with Florida 112.664 and Florida Administrative Code 60T-1.0035¹

	October 1, 2021			
	Valuation	- 200 bp ¹	Funding Rate ¹	+ 200 bp ¹
	7.34%	5.00%	7.00%	9.00%
Total pension liability				
Service Cost	\$2,608,792	\$2,608,792	\$2,608,792	\$2,608,792
Interest	27,141,511	27,141,511	27,141,511	27,141,511
Benefit changes	0	(2,811,784)	(2,811,784)	(2,811,784)
Difference between expected and actual experience	(1,608,192)	(1,300,043)	(1,300,043)	(1,300,043)
Changes in assumptions	0	116,413,364	9,102,242	(63,342,270)
Benefit payments	(26,463,258)	(26,463,258)	(26,463,258)	(26,463,258)
Contribution refunds	0	0	0	0
Net change in pension liability	\$1,678,853	\$115,588,582	\$8,277,460	(\$64,167,052)
Total pension liability, beginning of year	\$380,398,189	\$380,398,189	\$380,398,189	\$380,398,189
Total pension liability, end of year	\$382,077,042	\$495,986,771	\$388,675,649	\$316,231,137
Plan fiduciary net position				
Contributions - Employer	\$7,208,422	\$7,208,422	\$7,208,422	\$7,208,422
Contributions - State	0	\$0	\$0	\$0
Contributions - Member	0	\$0	\$0	\$0
Net investment income	80,579,400	80,579,400	80,579,400	80,579,400
Benefit payments	(26,463,258)	(26,463,258)	(26,463,258)	(26,463,258)
Contribution refunds	0	0	0	0
Administrative expense	0	0	0	0
Other	(15,527)	(15,527)	(15,527)	(15,527)
Net change in plan fiduciary net position	\$61,309,037	\$61,309,037	\$61,309,037	\$61,309,037
Plan fiduciary net position, beginning of year	\$416,022,491	\$416,022,491	\$416,022,491	\$416,022,491
Plan fiduciary net position, end of year	\$477,331,528	\$477,331,528	\$477,331,528	\$477,331,528
Net pension liability/(asset)	(\$95,254,486)	\$18,655,243	(\$88,655,879)	(\$161,100,391)
Funded ratio	124.93%	96.24%	122.81%	150.94%
Years that Assets support expected benefit payments	35	33	100	100
Estimated city contribution				
Annual dollar value	\$7,496,759	\$7,496,759	\$7,496,759	\$7,496,759
Percentage of payroll	4.19%	4.19%	4.19%	4.19%

¹Based on valuation assumption with the following changes
-Interest Rate (as noted)

Information to Comply with Florida 112.664 and Florida Administrative Code 60T-1.0035¹

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality
Interest

Valuation Mortality
7.34%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>	<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$477,331,528	\$34,036,932	\$27,716,982	30	\$856,017,129	\$61,639,551	\$33,067,955
2	483,651,478	34,488,266	28,065,110	31	884,588,725	63,734,003	33,142,943
3	490,074,634	34,948,912	28,365,081	32	915,179,785	65,978,242	33,174,690
4	496,658,465	35,423,723	28,599,250	33	947,983,337	68,386,828	33,152,373
5	503,482,938	35,915,654	28,848,505	34	983,217,792	70,975,694	33,078,653
6	510,550,087	36,427,309	29,044,712	35	1,021,114,833	73,761,797	32,954,933
7	517,932,684	36,960,383	29,289,059	36	1,061,921,697	76,763,509	32,774,965
8	525,604,008	37,513,475	29,565,989	37	1,105,910,241	80,000,278	32,552,773
9	533,551,494	38,085,757	29,872,866	38	1,153,357,746	83,492,941	32,274,922
10	541,764,385	38,679,754	30,117,787	39	1,204,575,765	87,264,102	31,948,773
11	550,326,352	39,300,504	30,331,318	40	1,259,891,094	91,337,843	31,571,633
12	559,295,538	39,951,940	30,522,803	41	1,319,657,304	95,740,262	31,139,474
13	568,724,675	40,637,323	30,709,078	42	1,384,258,092	100,499,489	30,653,230
14	578,652,920	41,360,517	30,862,724	43	1,454,104,351	105,645,888	30,107,217
15	589,150,713	42,125,498	31,016,886	44	1,529,643,022	111,212,244	29,502,035
16	600,259,325	42,936,415	31,140,455	45	1,611,353,231	117,233,877	28,833,425
17	612,055,285	43,797,838	31,262,515	46	1,699,753,683	123,748,811	28,102,749
18	624,590,608	44,713,659	31,381,028	47	1,795,399,745	130,797,838	27,309,238
19	637,923,239	45,687,698	31,507,945	48	1,898,888,345	138,424,779	26,452,728
20	652,102,992	46,724,059	31,630,918	49	2,010,860,396	146,676,576	25,535,991
21	667,196,133	47,827,656	31,748,530	50	2,132,000,981	155,603,391	24,562,455
22	683,275,259	49,003,527	31,868,812	51	2,263,041,917	165,258,800	23,535,973
23	700,409,974	50,256,199	32,007,951	52	2,404,764,744	175,700,123	22,457,821
24	718,658,222	51,590,054	32,162,364	53	2,558,007,046	186,988,576	21,335,276
25	738,085,912	53,009,804	32,335,520	54	2,723,660,346	199,189,371	20,174,597
26	758,760,196	54,521,588	32,493,874	55	2,902,675,120	212,371,994	18,983,528
27	780,787,910	56,132,202	32,666,430	56	3,096,063,586	226,610,371	17,772,338
28	804,253,682	57,849,175	32,816,622	57	3,304,901,619	241,983,072	16,552,123
29	829,286,235	59,681,726	32,950,832	58	3,530,332,568	258,573,681	15,332,223

Information to Comply with Florida 112.664 and Florida Administrative Code 60T-1.0035¹

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality Florida Retirement System Generational Mortality
Interest 5.00%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>	<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$477,331,528	\$23,182,103	\$27,716,982	30	\$109,327,175	\$4,734,917	\$29,618,931
2	472,796,649	22,946,762	28,065,110	31	\$84,443,161	\$3,486,970	\$29,770,639
3	467,678,301	22,683,437	28,365,081	32	\$58,159,492	\$2,169,122	\$29,919,028
4	461,996,657	22,393,572	28,599,250	33	\$30,409,586	\$778,359	\$30,051,339
5	455,790,979	22,078,687	28,785,594	34	\$1,136,606		\$30,166,453
6	449,084,072	21,740,439	28,903,118				
7	441,921,393	21,378,986	29,037,506				
8	434,262,873	20,993,012	29,160,952				
9	426,094,933	20,580,154	29,341,587				
10	417,333,500	20,139,343	29,452,507				
11	408,020,336	19,671,890	29,525,172				
12	398,167,054	19,178,140	29,569,154				
13	387,776,040	18,657,813	29,600,592				
14	376,833,261	18,110,360	29,613,320				
15	365,330,301	17,535,272	29,610,895				
16	353,254,678	16,931,683	29,603,109				
17	340,583,252	16,298,209	29,599,150				
18	327,282,311	15,633,811	29,572,894				
19	313,343,228	14,938,157	29,520,231				
20	298,761,154	14,210,816	29,448,840				
21	283,523,130	13,450,840	29,370,883				
22	267,603,087	12,657,071	29,280,486				
23	250,979,672	11,827,952	29,197,391				
24	233,610,233	10,960,796	29,144,092				
25	215,426,937	10,052,040	29,127,532				
26	196,351,445	9,097,715	29,149,812				
27	176,299,348	8,093,441	29,217,433				
28	155,175,356	7,034,489	29,328,864				
29	132,880,981	5,916,283	29,470,089				

Information to Comply with Florida 112.664 and Florida Administrative Code 60T-1.0035¹

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality Florida Retirement System Generational Mortality
Interest 7.00%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>	<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$477,331,528	\$32,459,520	\$27,716,982	30	\$776,148,952	\$53,311,297	\$29,618,931
2	482,074,066	32,779,519	28,065,110	31	799,841,318	54,964,543	29,770,639
3	486,788,475	33,099,206	28,365,081	32	825,035,222	56,723,010	29,919,028
4	491,522,600	33,422,538	28,599,250	33	851,839,204	58,594,737	30,051,339
5	496,345,888	33,753,756	28,785,594	34	880,382,602	60,588,814	30,166,453
6	501,314,050	34,097,484	28,903,118	35	910,804,963	62,715,422	30,252,393
7	506,508,416	34,456,465	29,037,506	36	943,267,992	64,985,877	30,309,263
8	511,927,375	34,831,545	29,160,952	37	977,944,606	67,412,289	30,336,914
9	517,597,968	35,222,271	29,341,587	38	1,015,019,981	70,007,861	30,328,317
10	523,478,652	35,630,103	29,452,507	39	1,054,699,525	72,786,811	30,288,138
11	529,656,248	36,060,034	29,525,172	40	1,097,198,198	75,764,310	30,212,803
12	536,191,110	36,515,961	29,569,154	41	1,142,749,705	78,956,910	30,096,719
13	543,137,917	37,001,156	29,600,592	42	1,191,609,896	82,382,562	29,938,650
14	550,538,481	37,518,757	29,613,320	43	1,244,053,808	86,060,684	29,733,815
15	558,443,918	38,072,221	29,610,895	44	1,300,380,677	90,012,396	29,477,161
16	566,905,244	38,664,782	29,603,109	45	1,360,915,912	94,260,656	29,163,464
17	575,966,917	39,299,235	29,599,150	46	1,426,013,104	98,830,267	28,791,251
18	585,667,002	39,979,145	29,572,894	47	1,496,052,120	103,747,961	28,356,364
19	596,073,253	40,709,394	29,520,231	48	1,571,443,717	109,042,625	27,854,970
20	607,262,416	41,495,092	29,448,840	49	1,652,631,372	114,745,340	27,285,955
21	619,308,668	42,341,012	29,370,883	50	1,740,090,757	120,889,425	26,648,667
22	632,278,797	43,252,032	29,280,486	51	1,834,331,515	127,510,568	25,942,716
23	646,250,343	44,232,899	29,197,391	52	1,935,899,367	134,646,993	25,167,451
24	661,285,851	45,287,218	29,144,092	53	2,045,378,909	142,339,580	24,324,065
25	677,428,977	46,417,807	29,127,532	54	2,163,394,424	150,631,965	23,414,421
26	694,719,252	47,627,360	29,149,812	55	2,290,611,968	159,570,655	22,441,914
27	713,196,800	48,918,461	29,217,433	56	2,427,740,709	169,205,131	21,411,236
28	732,897,828	50,293,699	29,328,864	57	2,575,534,604	179,587,881	20,330,735
29	753,862,663	51,756,378	29,470,089	58	2,734,791,750	190,774,511	19,208,062

Information to Comply with Florida 112.664 and Florida Administrative Code 60T-1.0035¹

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality Florida Retirement System Generational Mortality
Interest 9.00%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>	<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$477,331,528	\$41,739,441	\$27,716,982	30	\$2,060,263,289	\$184,119,555	\$29,618,931
2	491,353,987	42,986,134	28,065,110	31	2,214,763,913	198,017,932	29,770,639
3	506,275,011	44,315,818	28,365,081	32	2,383,011,206	213,153,654	29,919,028
4	522,225,748	45,741,074	28,599,250	33	2,566,245,832	229,638,945	30,051,339
5	539,367,572	47,275,633	28,785,594	34	2,765,833,438	247,596,761	30,166,453
6	557,857,611	48,934,562	28,903,118	35	2,983,263,746	267,161,705	30,252,393
7	577,889,055	50,731,475	29,037,506	36	3,220,173,058	288,481,039	30,309,263
8	599,583,024	52,678,496	29,160,952	37	3,478,344,834	311,715,281	30,336,914
9	623,100,568	54,787,122	29,341,587	38	3,759,723,201	337,039,713	30,328,317
10	648,546,103	57,072,336	29,452,507	39	4,066,434,597	364,645,507	30,288,138
11	676,165,932	59,554,921	29,525,172	40	4,400,791,966	394,740,988	30,212,803
12	706,195,681	62,255,662	29,569,154	41	4,765,320,151	427,553,635	30,096,719
13	738,882,189	65,196,064	29,600,592	42	5,162,777,067	463,331,718	29,938,650
14	774,477,661	68,399,096	29,613,320	43	5,596,170,135	502,346,113	29,733,815
15	813,263,437	71,889,922	29,610,895	44	6,068,782,433	544,892,520	29,477,161
16	855,542,464	75,695,378	29,603,109	45	6,584,197,792	591,293,715	29,163,464
17	901,634,733	79,843,856	29,599,150	46	7,146,328,043	641,901,826	28,791,251
18	951,879,439	84,367,036	29,572,894	47	7,759,438,618	697,100,926	28,356,364
19	1,006,673,581	89,300,827	29,520,231	48	8,428,183,180	757,310,014	27,854,970
20	1,066,454,177	94,684,224	29,448,840	49	9,157,638,224	822,986,022	27,285,955
21	1,131,689,561	100,558,841	29,370,883	50	9,953,338,291	894,627,088	26,648,667
22	1,202,877,519	106,969,738	29,280,486	51	10,821,316,712	972,776,229	25,942,716
23	1,280,566,771	113,965,429	29,197,391	52	11,768,150,225	1,058,025,381	25,167,451
24	1,365,334,809	121,596,899	29,144,092	53	12,801,008,155	1,151,019,730	24,324,065
25	1,457,787,616	129,918,381	29,127,532	54	13,927,703,820	1,252,462,392	23,414,421
26	1,558,578,465	138,988,577	29,149,812	55	15,156,751,791	1,363,119,529	22,441,914
27	1,668,417,230	148,871,088	29,217,433	56	16,497,429,406	1,483,825,896	21,411,236
28	1,788,070,885	159,635,011	29,328,864	57	17,959,844,066	1,615,490,790	20,330,735
29	1,918,377,032	171,356,346	29,470,089	58	19,555,004,121	1,759,104,627	19,208,062

GASB 5 – COLA Fund

Funding Status and Progress as of September 30, 2021 and 2020	2020	2021
1. COLA Fund Table	\$1,670	\$1,852
2. Pension benefit obligation (in millions)		
a. Retirees and beneficiaries receiving benefits and terminated members not yet receiving	344.9	\$357.6
b. Current Employees		
Accumulated employee contributions including interest	0	0
Employer-financed vested	0	0
Employer-financed nonvested	74.1	\$68.1
c. Total pension benefit obligation (a+b+c)	\$419.0	\$425.7
3. Net assets available for benefits	\$416.0	\$477.3
4. Unfunded pension benefit (obligation)/asset [(3)-(2)]	(\$3.0)	\$51.6

The pension benefit obligations were determined as part of actuarial valuations at January 1, 2022 and January 1, 2021, based on data and asset information at September 30, 2021 and September 30, 2020. Significant actuarial assumptions used include (a) a rate of return on the investment of present and future assets of 7.00% per year compounded annually, (b) post retirement COLA benefits based on the table in effect at January 1, 2022 and January 1, 2021. All plan provisions and other assumptions not listed above can be found in the January 1, 2022 COLA Fund Report.

GASB 5 – COLA Fund

Contributions required and contributions made

The funding policy provides for annual employer contributions from January 1, 1994. The amount of the contribution was \$2.5 million, beginning January 1, 1994, increasing 4% per year each year thereafter, and reduced (but not below zero) by any excess investment income transfer due on the same date.

The excess investment income transfer consists of a portion of gains due to investment return exceeding the 7.00 percent assumption

Analysis of funding progress

Fiscal Year	(1) Net Assets Available for Benefits ⁽¹⁾	(2) Pension Benefit Obligation ⁽²⁾	(3) Percent Funded	(4) Unfunded PBO (2)-(1)	(5) Annual Covered Payroll	(4)/(5)
	(\$)	(\$)	(%)	(\$)	(\$)	(%)
2012	350.3	312.6	112	(37.7)	82.2	(46)
2013	378.7	320.0	118	(58.7)	85.2	(69)
2014	394.6	371.0	106	(23.6)	93.7	(25)
2015	381.4	393.5	97	12.1	106.3	11
2016	392.9	420.5	93	27.6	133.1	21
2017	420.3	427.2	98	6.9	141.5	5
2018	426.2	440.2	97	14.0	148.9	9
2019	412.1	447.2	92	35.1	168.1	21
2020	416.0	419.0	99	3.0	176.7	2
2021	477.3	425.7	112	(51.6)	178.5	(29)

⁽¹⁾ Excluding future City minimum contributions

⁽²⁾ Excluding new increment and contingency reserves

GASB 5 – COLA Fund

Revenues and Expenses

Fiscal Year	Revenues by Source			Total (\$)
	Employee Contributions (\$)	Employer Contributions (\$)	Investment Income (\$)	
2012	0	5,064,541	21,399,142	26,463,683
2013	0	5,267,123	27,293,996	32,561,119
2014	0	5,477,808	30,812,622	36,290,430
2015	0	5,696,920	26,665,405	32,362,325
2016	0	5,924,797	13,261,430	19,186,227
2017	0	6,161,789	26,980,778	33,142,567
2018	0	6,408,261	19,212,430	25,620,691
2019	0	6,664,591	16,086,759	22,751,350
2020	0	6,931,175	55,298,341	62,229,516
2021	0	7,208,422	32,408,512	39,616,934

Expenses by Type

Fiscal Year	Expenses by Type			Total (\$)
	Benefits (\$)	Administrative Expenses (\$)	Refunds (\$)	
2012	17,747,481	1,456,098	421	19,204,000
2013	19,522,271	1,604,698	0	21,126,969
2014	22,188,409	1,483,762	0	23,672,171
2015	23,563,734	1,190,614	0	24,754,348
2016	24,344,325	1,286,086	0	25,630,411
2017	24,882,453	1,202,695	0	26,085,148
2018	25,279,985	1,758,350	0	27,038,335
2019	25,622,524	1,477,166	0	27,099,690
2020	26,230,313	1,771,916	0	28,002,229
2021	26,463,258	1,179,391	0	27,642,649