



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

October 1, 2021 | Actuarial Valuation Report

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At the request of the plan sponsor, this report summarizes the City of Miami Fire Fighters' and Police Officers' Retirement Trust as of October 1, 2021. The purpose of this report is to communicate the following results of the valuation:

- Determine Funded Status; and
- Determine Recommended Contribution for the fiscal year October 1, 2022 through September 30, 2023.

This report has been prepared in accordance with the applicable Federal and State laws. 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. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all 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);
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.

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

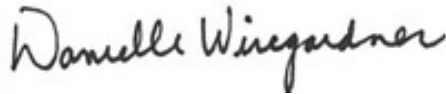
With respect to reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664 (1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

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.

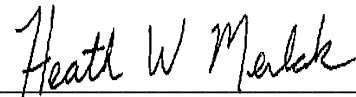
Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the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

Nyhart



Danielle Winegardner, FSA, EA, MAAA
Enrolled Actuary No. 20-08260



Heath W. Merlak, FSA, EA, MAAA
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April 29, 2022
Date

Copies of this Report are to be furnished to the Division of Retirement within 60 days of receipt from the actuary at the following addresses:

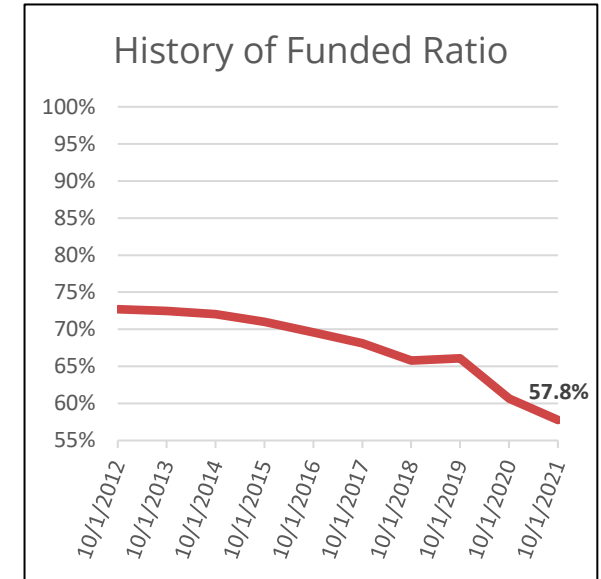
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Division of Retirement
Department of Management Services
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Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

	October 1, 2020	October 1, 2021
Funded Status Measures		
Accrued Liability	\$1,940,883,223	\$2,100,049,297
Actuarial Value of Assets	1,176,911,870	1,213,074,854
Unfunded Accrued Liability	\$763,971,353	\$886,974,443
Funded Percentage (AVA)	60.6%	57.8%
Funded percentage (MVA)	59.3%	62.2%
Cost Measures ¹		
Recommended Contribution For Next Fiscal Year	\$65,889,915	\$99,369,914
Recommended Contribution (as a percentage of payroll)	37.3%	55.7%
Asset Performance		
Market Value of Assets (MVA)	\$1,150,108,084	\$1,306,437,051
Actuarial Value of Assets (AVA)	\$1,176,911,870	\$1,213,074,854
Actuarial Value/Market Value	102.3%	92.9%
Participant Information		
Active Participants	1,931	1,915
Terminated Vested Participants	27	31
Terminated, Due Refund	116	117
Retirees, Beneficiaries, and Disabled	2,080	2,036
DROP Participants	145	187
Total Participants	4,299	4,286
Valuation Payroll	\$176,712,600	\$178,532,455
Total Payroll	\$190,924,730	\$194,706,662



¹Does not include any contribution to the Stabilization Trust. Please see page 46 for more information.

Changes Since Prior Valuation and Key Notes

The administrative expense has increased from \$2,137,199 to \$2,244,059.

All members are now eligible for Forward Drop, thus the retirement rates previously exclusive for those eligible for Forward Drop only now apply to all members.

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 an increase in the Accrued liability and in the recommended contribution.

Five Year Valuation Summary

	10/1/2017	10/1/2018	10/1/2019	10/1/2020	10/1/2021
Funding					
Accrued Liability	\$1,705,061,093	\$1,796,349,619	\$1,822,559,347	\$1,940,883,223	\$2,100,049,297
Actuarial Value of Assets	\$1,161,585,161	\$1,172,416,575	\$1,189,509,806	\$1,176,911,870	\$1,213,074,854
Unfunded Actuarial Accrued Liability	\$543,475,932	\$623,933,044	\$633,049,541	\$763,971,353	\$886,974,443
Funded Percentage	68.1%	65.3%	65.3%	60.6%	57.8%
Actual Employer Contribution ¹	\$56,030,260	\$60,633,239	\$62,773,727	TBD	TBD
Recommended Contribution	\$56,030,260	\$60,633,239	\$62,773,727	\$65,889,915	\$99,369,914
Recommended Contribution (% of Pay)	39.6%	36.4%	37.4%	37.3%	55.7%
Interest Rate	7.42%	7.34%	7.34%	7.00%	7.00%
Expense Load Assumption	\$2,128,469	\$2,210,096	\$2,181,634	\$2,137,199	\$2,244,059
Rate of Return					
Actuarial Value of Assets	6.8%	6.7%	6.5%	6.3%	8.6%
Market Value of Assets	8.2%	6.9%	6.1%	5.7%	19.3%
Demographic Information					
Active Participants	1,943	1,998	2,003	1,931	1,915
Terminated Vested Participants	16	15	22	27	31
Terminated, Due Refund	97	111	106	116	117
Retirees, Beneficiaries, and Disabled	2,059	2,120	2,072	2,080	2,036
DROP Participants	129	83	122	145	187
Total Participants	4,244	4,327	4,325	4,299	4,286
Covered Payroll	\$141,497,840	\$166,670,939	\$168,059,448	\$176,212,600	\$178,532,455
Average Covered Pay	\$72,824	\$83,419	\$83,904	\$91,514	\$93,228

¹ Recommended contribution is for the following fiscal year (e.g., the October 1, 2021 recommended contribution will be made in the fiscal year beginning October 1, 2022 and will be documented in the October 1, 2023 valuation report).

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 City of Miami Fire Fighters' and Police Officers' Retirement Trust falls in its life-cycle.

Duration of Liabilities: 10.1

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: 44.7%

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: 10.9%

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

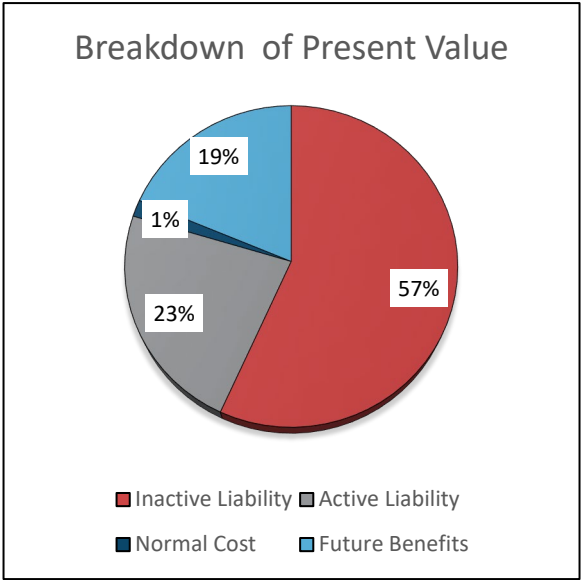
The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented 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 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
Demographic	Scenario Testing
Participant Longevity	Stress Testing; Scenario Testing
Early Retirement	Stress Testing; Scenario Testing

Present Value of Future Benefits

The Present Value of Future Benefits represents the current future benefits payable to the participant.

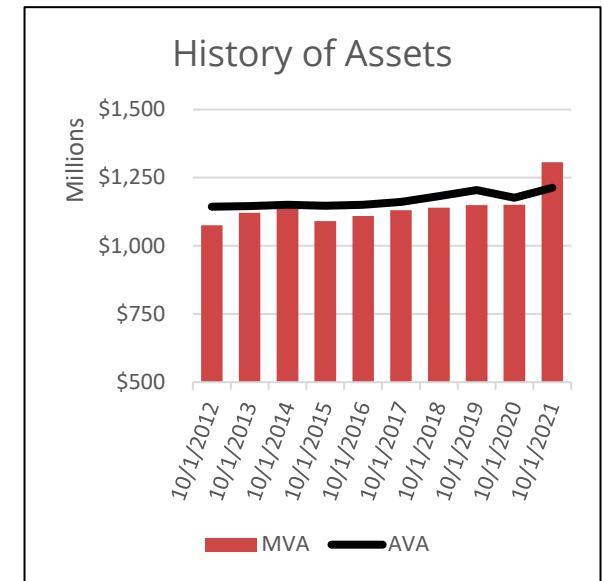
	October 1, 2021
Present Value of Future Benefits	
Active members	
Retirement	\$1,089,080,962
Disability	14,194,423
Death	9,820,570
Termination	25,523,752
Refund of contributions	1,939,688
Total active	\$1,140,559,395
Inactive members	
Retired members	\$1,180,478,949
DROP members	248,731,841
Beneficiaries	33,479,783
Disabled members	26,253,123
Terminated vested members	9,161,603
Total inactive	\$1,498,105,299
Total	\$2,638,664,694
 Present value of future payrolls	 \$2,354,637,399



Asset Information

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.

	October 1, 2021
Market Value Reconciliation	
Market value of assets, beginning of prior year	\$1,150,108,084
Employer contributions (incl. discounted accrued items)	62,773,727
Member contributions	15,892,460
Investment income, net expenses	221,627,447
Benefit payments and refunds	(141,783,033)
Administrative expenses	(2,181,634)
Other expenses	0
	\$1,306,437,051
Return on Market Value	19.27%
Actuarial value of assets	
Value at beginning of current year	\$1,213,074,854



Asset Information (continued)

Plan Assets are used to develop funded percentages and contribution requirements

October 1, 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 Administrative Expenses	(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
11.	Contribution surplus account balance	\$0
12.	Final actuarial value of assets – beginning of current year [(10)-(11)]	\$1,213,074,854
13.	Return on actuarial value of assets	8.59%

Reconciliation of Gain/Loss

October 1, 2021

Liability (gain)/loss

Present value of future benefits	\$2,397,594,038
Present value of employee contributions	(240,773,812)
Expected employee contribution	15,145,747
Benefit payments	(141,783,033)
Interest	147,159,141
Expected liability	\$2,177,342,081
Plan changes	243,221,206
Expected after changes	\$2,420,563,287
Actual liability	\$2,435,888,397
Liability (gain)/loss	\$15,325,110

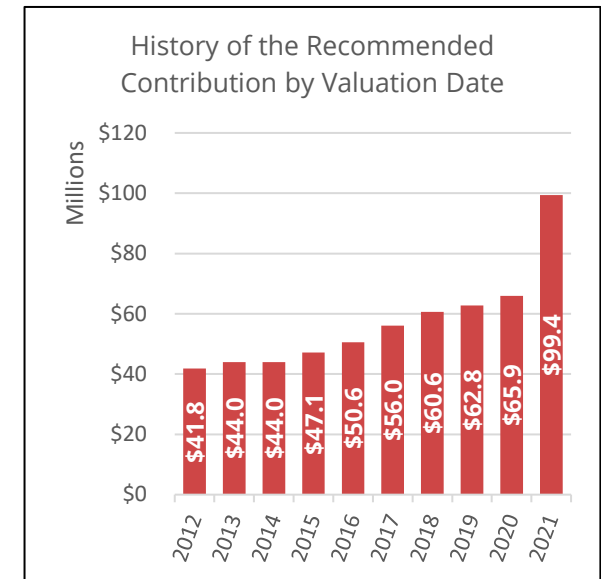
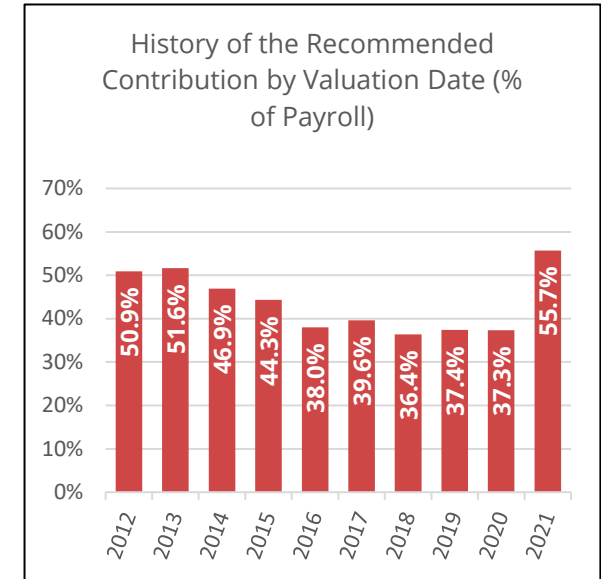
Asset (gain)/loss

Actuarial value of assets, beginning of prior year	\$1,176,911,870
Contributions	78,666,187
Benefit payments and expenses	(143,964,667)
Expected Investment return	82,371,278
Change in actuarial value of assets methodology	0
Expected actuarial value of assets, beginning of current year	\$1,193,984,668
Actual actuarial value of assets, beginning of current year	\$1,213,074,854
Asset (gain)/loss	(\$19,090,186)
Total (gain)/loss	(\$3,765,076)

Development of Recommended Contribution

The actuarial determined contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

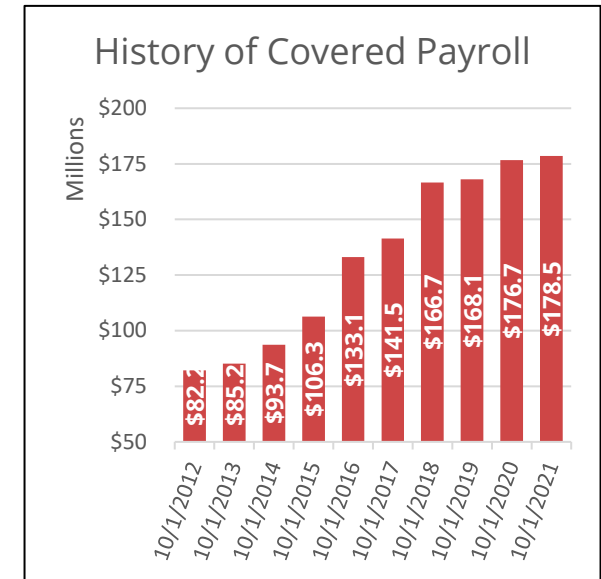
	October 1, 2021
1. Present value of future benefits	\$2,638,664,694
2. Actuarial value of assets	1,213,074,854
3. Present value of future member contributions	<u>202,776,296</u>
4. Present value of future normal Cost [(1)-(2)-(3)]	\$1,222,813,544
5. Present value of future payroll	\$2,354,637,399
6. Normal cost accrual rate [(4)/(5)]	51.93%
7. Administrative expenses	\$2,244,059
8. Valuation payroll	\$178,532,455
9. Applicable interest	7.00%
10. Normal cost	\$94,959,780
11. Interest to estimated payment date	\$6,647,185
12. Recommended contribution as of end of year at 7.00% [(10)+(11)]	\$101,606,965
13. As a percentage of valuation payroll	56.91%
14. As a percentage of total payroll	52.18%
15. Recommended contribution, prior discount rate of 7.34%	\$94,895,812
16. Recommended contribution, reflecting direct rate smoothing [(12) x (2/3) + (15) x (1/3)]	\$99,369,914
17. As a percentage of valuation payroll	55.66%
18. As a percentage of total payroll	51.04%



Demographic Information

The foundation of a reliable actuarial report is the member information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

	October 1, 2020	October 1, 2021
Member Counts		
Active Members	1,931	1,915
Retired Members	1,706	1,673
Beneficiaries	258	251
Disabled Members	116	112
Terminated Vested Members, due a Monthly Benefit	27	31
Terminated Members, Due a Refund of Employee Contributions	116	117
DROP Members	145	187
Total	4,299	4,286
Active Participant Demographics		
Average Age	37.2	37.6
Average Service	10.1	10.6
Average Compensation	\$91,514	\$93,228
Valuation Payroll	\$176,712,600	\$178,532,455
Total Payroll	\$190,924,730	\$194,706,662



Demographic Information (continued)

	October 1, 2020	October 1, 2021
Retired Member Statistics		
Average Age	66.4	66.9
Average Monthly Benefit	\$5,669	\$5,731
Beneficiary Statistics		
Average Age	77.5	77.1
Average Monthly Benefit	\$1,275	\$1,353
Disabled Member Statistics		
Average Age	72.3	72.7
Average Monthly Benefit	\$2,083	\$2,211
Terminated Member Statistics		
Average Age	38.9	39.5
Average Monthly Benefit for Participants due Monthly Benefit	\$2,292	\$2,578
Average Remaining Contributions for Participants Due a Refund	\$8,635	\$7,999
DROP Member Statistics		
Average Age	51.4	51.7
Average Monthly Benefit	\$8,729	\$8,791
Payroll	\$14,212,130	\$16,174,207

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	1,931	143	116	1,851	258	4,299
Active						
To Terminated Vested	(3)	3				
To Retired	(52)			52		
To Disabled	(2)		2			
To Refund	(15)					(15)
To Due Refund	(10)	10				
To Death	(2)					(2)
Terminated Vested						
To Retired						
To Refund		(4)				(4)
To Active	4	(4)				
Disabled						
To Death			(6)			(6)
Retired						
To Death				(43)		(43)
Survivor						
To Death					(28)	(28)
Additions	64				21	85
Removed						
Current Year	1,915	148	112	1,860	251	4,286

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service										Total	Average Pay
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25	14	45	1								60	\$59,998
25 to 29	19	113	147	1							280	\$73,248
30 to 34	12	78	331	34	2						457	\$83,397
35 to 39	5	31	197	152	78	1					464	\$95,797
40 to 44	2	15	47	79	103	46					292	\$106,723
45 to 49		4	17	35	63	67	11	1			198	\$112,430
50 to 54	1		3	23	30	46	16	4			123	\$114,846
55 to 59			3	12	9	7	3	3			37	\$105,787
60 to 64		1			2						3	\$94,383
65 to 69						1					1	\$113,368
70 & up											0	\$0
Total	53	287	746	336	287	168	30	8	0	0	1,915	\$93,228

Plan Status

January 1, 1994 amended January 1, 1995

Eligibility for Participation

Police officers and fire fighters.

Accrual of Benefits

The accrued benefit is determined as follows:

For Police Officers who were vested as of 9/27/2010:

3% of Average Final Compensation for the first 15 years of Creditable Service plus 3.5% of Average Final Compensation after 15 years. Maximum of 100% of Average Final Compensation.

For all other Police Officers:

3% of Average Final Compensation for the first 15 years of Creditable Service plus 3.5% of Average Final Compensation after 15 years. Maximum of 100% of Average Final Compensation and the final benefit may not exceed the larger of the 9/30/2010 accrued benefit and \$120,000.

For Firefighters who were vested as of 9/27/2010:

3% of Average Final Compensation for the first 15 years of Creditable Service plus 3.5% of Average Final Compensation after 15 years. Maximum of 100% of Average Final Compensation.

For all other Fire Fighters:

3% of Average Final Compensation for the first 15 years of Creditable Service plus 3.5% of Average Final Compensation after 15 years. Maximum of 100% of Average Final Compensation and the final benefit may not exceed the larger of the 9/30/2010 accrued benefit and \$120,000.

Benefits

Normal Retirement

Eligibility	Age plus Creditable Service equal to 68 (Rule of 68) for firefighters, except firefighters active 9/30/2009 who were eligible for Rule of 64 at 9/30/2009. Age plus Creditable Service equal to 64 (Rule of 64) for police officers. Age 50 with 10 years of Creditable Service for all members.
Benefit	Unreduced Accrued Benefit payable immediately.

Early Retirement

Eligibility	Completion of 20 years of Creditable Service.
Benefit	Accrued Benefit adjusted with actuarial equivalence for early commencement.

Late Retirement

Eligibility	Participation continues after normal retirement date.
Benefit	Accrued Benefit

Ordinary Death before Retirement

Eligibility	Participant with 3 years of Creditable Service who dies off duty.
Benefit	Between 3 and 10 years of Creditable Service: Lump sum benefit equal to 50% of Compensation received in year preceding death. After 10 years of Creditable Service and before eligibility for Early Service or Rule of 64 Retirement: Accrued benefit, deferred to earlier of police officer member's 49th and firefighter member's 50th birthday or Rule of 64 eligibility, payable for 10 years. Beneficiary does not have to survive deferred period or 10 years' certain period. If eligible for Service, Early Service, or Rule of 64 retirement, considered to have retired on the date of death. Surviving spouse would receive 40% of the member's monthly retirement allowance.

Accidental Death before Retirement

Eligibility	Member who dies during performance of duties.
Benefit	Pension of 50% of Average Final Compensation to spouse until death or remarriage. If there is no spouse, or if spouse dies or remarries before youngest child is 18, payable to child until attainment of age 18. If no spouse or no children under 18, benefit is payable to dependent parents. After 10 years of Creditable Service - Beneficiary receives benefit otherwise payable to member at early or normal retirement for a period of 10 years.

Termination Benefit

Eligibility	Fully vested after completion of 10 years of Creditable Service.
Benefit	Accrued Benefit payable at the member's Early or Normal Retirement Date. If the member terminates prior to 10 years of Creditable Service a refund of accumulated contributions with interest will be issued.

Ordinary Disability Benefit

Eligibility	Completion of 10 years of Creditable Service.
Benefit	90% of benefit rate times Average Final Compensation times Creditable Service, with a minimum benefit of 30% of Average Final Compensation. The normal form is a 10 year certain and life normal form.

Accidental Disability Benefit

Eligibility	Immediately upon permanent disability
Benefit	66 2/3% of Average Final Compensation, or 66 2/3% of Final Compensation, whichever is greater. The normal form is a 40% joint & survivor annuity, with a minimum of 10 years' certain and life.

Compensation

Earnable Compensation

An employee's base salary, including pick-up contributions, for all straight time hours worked, plus assignment pay and payments received for vacation and sick leave taken, jury duty, and death-in-family leave taken. Earnable compensation shall not include overtime pay; payments for accrued sick leave, accrued vacation leave, or accrued compensatory leave; holiday pay; premium pay for holidays worked; the value of any employment benefits or non-monetary entitlements; or any other form of remuneration.

Average Final Compensation

The annual earnable compensation of a member during either the last one year or the highest year of membership service, whichever is greater.

Provided, in no event shall the Average Final Compensation of any member who was employed as a police officer or fire fighter on 9/30/2010 and retires on or after 10/1/2010, be less than the highest year of membership service prior to 9/30/2010.

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.

Member Contributions

Police Officers:	7% (10% if hired on or after 10/1/2012)
Fire Fighters:	10%

DROP

Election must be made within 10 years after eligibility for normal retirement. All Members are eligible for forward DROP.

At Retirement Eligibility, Fire and Police participants may enter the City Deferred Retirement Option Program (DROP). The maximum participation in the Forward DROP for fire fighters is 54 months. The maximum participation in the Forward DROP for police officers is 84 months.

Effective 1/1/2013 members may elect the BackDROP option (maximum of 7 years). Members receive a monthly benefit based on an earlier retirement date and a lump sum of past payments compounded at 3%/year.

COLA

Eligibility	Participant or Beneficiary
Benefit	Amount varies annually with the adjustment on January 1

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

Plan Provision Not Included

The COLA benefits and liabilities are not included in this report; these benefits are reported in a separate COLA report dated December 8, 2021. We are not aware of any other provisions not included in this report.

Adjustments Made for Subsequent Events

We are not aware of any event following the measurement date and prior to the date of this report that would materially impact the results.

Changes Since Prior Report

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 (CO)

Aggregate Cost Method.

Asset Valuation Method (CO)

20% Phase-In Method: fair market value of assets on the valuation date adjusted for a 5-year phase-in of gains and losses on the fair market value of assets.

The result cannot be greater than 120% of market value or less than 80% of market value (net of pending COLA transfers).

Interest Rates (CO)

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 (FE)

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%

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 and/or Contingency Loading (FE)

\$2,244,059.

Mortality Rates (CO)

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 2020.

Retirement Rates (FE)

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.

Disability Rates (FE)

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 (FE)

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.

Marital Status and Ages

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

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.

Withdrawal of Employee Contributions

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

COLA

COLA benefits are assumed to increase as indicated in the COLA table; these are documented in a separate COLA report. No increase to the table is assumed to occur.

Changes Since Prior Report

The administrative expenses increased to \$2,181,634.

All members are now eligible for Forward Drop, thus the retirement rates previously exclusive for those eligible for Forward Drop only now apply to all members.

All members are now assumed to enter Forward DROP upon eligibility, instead of entering BackDROP.

FE indicates an assumption representing an estimate of future experience.

MO indicates an assumption representing an observation of estimates inherit to market data.

CO indicates an assumption representing a combination of an estimate of future experience and observations of market data.

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

- ✓ Market Value Reconciliation
- ✓ Membership and Benefits Cost-Of-Living Adjustment Account Summary
- ✓ Investment Results
- ✓ 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

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.

	October 1, 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)	N/A	\$0
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	
	Market	Book
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	\$1,756,693,296	\$1,439,360,687
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	\$19,500,687	\$19,500,687
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	\$24,914,228	\$24,914,228
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	\$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%)
	\$221,627,447	19.3%	21.7%

Investment Results - COLA Account

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%)
	\$80,563,873	19.8%	21.7%

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

Comparative Summary of Principal Valuation Results

	10/1/2021 7.00% (assumption & plan changes)	10/1/2021 7.00% (prior methods & assumptions)	10/1/2020 7.00%
Participant Data			
Active members	1,915	1,915	1,931
Total annual payroll	\$178,532,455	\$178,532,455	\$176,712,600
Members in DROP	187	187	145
DROP Payroll	\$14,212,130	\$14,212,130	\$14,212,130
Projected Total Payroll	\$192,744,585	\$192,744,585	\$190,924,730
Retired members and beneficiaries	1,924	1,924	1,964
Total annualized benefit	\$119,136,115	\$119,136,116	\$120,004,620
Disabled members receiving benefits	112	112	116
Total annualized benefit	\$2,971,538	\$2,971,538	\$2,899,768
Terminated vested members	148	148	143
Total annualized benefit	\$764,485	\$764,485	\$639,662
Assets			
Actuarial value of assets	\$1,213,074,854	\$1,213,074,854	\$1,176,911,870
Market value of assets	\$1,306,437,051	\$1,306,437,051	\$1,150,108,084

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

Comparative Summary of Principal Valuation Results (continued)

	10/1/2021 7.00% (assumption & plan changes)	10/1/2021 7.00% (prior methods & assumptions)	10/1/2020 7.00%
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$1,089,080,962	\$867,035,893	\$865,931,760
Vesting benefits	25,523,752	28,600,807	28,627,156
Disability benefits	14,194,423	23,496,142	25,404,417
Death benefits	9,820,570	12,600,042	12,530,384
Return of contribution	1,939,688	1,949,675	2,686,085
Total	<u>\$1,140,559,395</u>	<u>\$933,682,559</u>	<u>\$935,179,802</u>
Terminated vested members	9,161,603	9,161,603	7,427,179
Retired members and beneficiaries	1,462,690,573	1,462,690,573	1,429,444,487
Disabled members	26,253,123	26,253,123	25,542,570
Total	<u>\$2,638,664,694</u>	<u>\$2,431,787,858</u>	<u>\$2,397,594,038</u>
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% (assumption & plan changes)	10/1/2021 7.00% (prior methods & assumptions)	10/1/2020 7.00%
Actuarial present value of accrued benefits			
Statement of actuarial present value of all accrued benefits			
Vested accrued benefits			
Inactive members and beneficiaries	\$1,498,105,299	\$1,498,105,299	\$1,462,414,236
Active members	399,312,968	345,274,695	343,130,715
Total value of all vested accrued benefits	<u>\$1,897,418,267</u>	<u>\$1,843,379,994</u>	<u>\$1,805,544,951</u>
Non-vested accrued benefits	80,877,018	60,850,884	58,079,278
Total actuarial present value of all accrued benefits	<u>\$1,978,295,285</u>	<u>\$1,904,230,878</u>	<u>\$1,863,624,229</u>
Statement of changes in total actuarial present value of all accrued benefits (ASC 960)			
Actuarial present value of accrued benefits, beginning of year	\$1,863,624,229	\$1,863,624,229	\$1,734,872,671
Increase (decrease) during year			
Benefits accumulated	\$56,814,463	\$56,814,463	\$67,337,104
Plan amendment	74,064,407	0	0
Changes in actuarial assumptions	0	0	77,243,137
Interest	125,575,219	125,575,219	122,357,998
Benefits paid	(141,783,033)	(141,783,033)	(138,186,681)
Other changes	0	0	0
Net increase (decrease)	<u>\$114,671,056</u>	<u>\$40,606,649</u>	<u>\$128,751,558</u>
Actuarial present value of accrued benefits, end of year	<u>\$1,978,295,285</u>	<u>\$1,904,230,878</u>	<u>\$1,863,624,229</u>

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

Comparative Summary of Principal Valuation Results (continued)

	10/1/2021 7.00% (assumption & plan changes)	10/1/2021 7.00% (prior methods & assumptions)	10/1/2020 7.00%
Pension cost			
Normal Cost	\$114,929,498	\$84,441,164	\$82,057,134
Member contributions	\$15,559,584	\$15,559,584	\$16,167,219
Expected plan sponsor contribution	\$99,369,914	\$68,881,580	\$65,889,915
As % of payroll	55.66%	38.58%	37.29%
As % of Total Payroll	51.04%	35.38%	34.51%
Member Contributions as % of payroll	8.72%	8.72%	9.15%
Past contributions			
Required plan sponsor contribution	9/30/2021 \$62,773,727		9/30/2020 \$60,633,239
Required member contribution	\$15,892,460		\$15,820,796
Actual contributions made by:			
Plan's sponsor	\$62,773,727		\$60,633,239
Members	\$15,892,460		\$15,820,796
Other	\$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 attained age	\$2,354,637,399	\$2,749,621,580	\$2,781,538,694
Future contributions at attained age	\$202,776,296	\$239,120,666	\$240,773,812

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	\$0	\$0	\$0
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$636,444,285	\$452,636,677	\$1,089,080,962
Vesting benefits	16,208,598	9,315,154	\$25,523,752
Disability benefits	7,914,310	6,280,113	\$14,194,423
Death benefits	5,144,617	4,675,953	\$9,820,570
Return of contribution	1,478,988	460,700	1,939,688
Total	\$667,190,798	\$473,368,597	\$1,140,559,395
Terminated vested members	6,792,902	2,368,701	9,161,603
Retired members and beneficiaries	847,975,816	614,714,757	1,462,690,573
Disabled members	23,736,819	2,516,304	26,253,123
Total	\$1,545,696,335	\$1,092,968,359	\$2,638,664,694
Entry age reserve			
Active	\$327,537,929	\$274,406,068	\$601,943,997
Inactive	878,505,537	619,599,763	1,498,105,300
Total	\$1,206,043,466	\$894,005,831	\$2,100,049,297
Actuarial asset value ¹	\$696,660,313	\$516,414,541	\$1,213,074,854

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	\$1,545,696,335	\$1,092,968,359	\$2,638,664,694
Present value of future member contributions	(112,807,592)	(89,968,704)	(202,776,296)
Actuarial asset value	(696,660,313)	(516,414,541)	(1,213,074,854)
Present value of future normal costs	\$736,228,430	\$486,585,114	\$1,222,813,544
Present value of future payrolls	\$1,358,181,362	\$996,456,037	\$2,354,637,399
Administrative expense ¹	\$1,288,747	\$955,312	\$2,244,059
Current payroll	\$102,077,069	\$76,455,386	\$178,532,455
Interest rate	7.00%	7.00%	7.00%
Normal Cost	\$56,621,593	\$38,289,676	\$94,959,780
Interest to End of Year	\$3,963,512	\$2,680,277	\$6,647,185
Recommended contribution at end of year at 7.00%	\$60,585,105	\$40,969,953	\$101,606,965
Recommended contribution, prior discount rate of 7.34%	\$56,612,372	\$38,283,440	\$94,895,812
Recommended contribution, reflecting direct rate smoothing	\$59,260,860	\$40,074,449	\$99,369,914
As a percentage of payroll	58.06%	52.42%	55.66%
Hypothetical Total			\$99,335,309

¹Allocated based on Entry Age Reserve

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

Historical Salary Increases and Asset Performance

September 30, 2021

Year Ending	Payroll Growth	Salary Growth	Expected Salary Growth	Asset Return (Market)	Asset Return (Actuarial)	Asset Return (Expected)
9/30/2021	1.03%	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	7.10%			9.35%	6.75%	

City of Miami Fire Fighters' and Police Officers' Retirement Trust
Actuarial Valuation as of October 1, 2021
Other Measurements

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

October 1, 2021

	Valuation 7.34%	- 200 bp ² 5.00%	Funding Rate ² 7.00%	+ 200 bp ² 9.00%
Total pension liability				
Service Cost	\$30,346,562	\$33,521,898	\$33,521,898	\$33,521,898
Interest	132,519,871	133,329,882	133,329,882	133,329,882
Benefit changes	123,385,849	120,148,079	120,148,079	120,148,079
Difference between expected and actual experience	30,172,160	13,949,248	13,949,248	13,949,248
Changes in assumptions	68,619,730	506,188,247	0	(357,812,607)
Benefit payments	(141,281,881)	(141,281,881)	(141,281,881)	(141,281,881)
Contribution refunds	(501,152)	(501,152)	(501,152)	(501,152)
Net change in pension liability	\$243,261,139	\$665,354,321	\$159,166,074	(\$198,646,533)
Total pension liability, beginning of year	\$1,845,992,750	\$1,940,883,223	\$1,940,883,223	\$1,940,883,223
Total pension liability, end of year	\$2,089,253,889	\$2,606,237,544	\$2,100,049,297	\$1,742,236,690
Plan fiduciary net position				
Contributions - Employer	\$62,773,727	\$62,773,727	\$62,773,727	\$62,773,727
Contributions - State	0	0	0	0
Contributions - Member	15,892,460	15,892,460	15,892,460	15,892,460
Net investment income	221,627,447	221,627,447	221,627,447	221,627,447
Benefit payments	(141,281,881)	(141,281,881)	(141,281,881)	(141,281,881)
Contribution refunds	(501,152)	(501,152)	(501,152)	(501,152)
Administrative expense	(2,181,634)	(2,181,634)	(2,181,634)	(2,181,634)
Other	0	0	0	0
Net change in plan fiduciary net position	\$156,328,967	\$156,328,967	\$156,328,967	\$156,328,967
Plan fiduciary net position, beginning of year	1,150,108,084	\$1,150,108,084	\$1,150,108,084	\$1,150,108,084
Plan fiduciary net position, end of year	\$1,306,437,051	\$1,306,437,051	\$1,306,437,051	\$1,306,437,051
Net pension liability/(asset)	\$782,816,838	\$1,299,800,493	\$793,612,246	\$435,799,639
Funded ratio	62.53%	50.13%	62.21%	74.99%
Years that Assets support expected benefit payments	12	10	12	14
Estimated city contribution				
Annual dollar value	\$99,369,914	\$130,204,293	\$99,369,914	\$75,237,747
Percentage of payroll	55.66%	72.93%	55.66%	42.14%

¹ Does not include DROP assets and liabilities

² Based on valuation assumption with the following changes
- interest rate (as noted)

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

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality FRS Special Risk Pub-2010 Generational using scale MP-2018
Interest 5.00%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$1,306,437,051	\$61,731,128	\$145,402,451
2	1,222,765,728	57,545,627	145,480,815
3	1,134,830,540	53,112,578	146,950,306
4	1,040,992,812	48,371,523	148,941,350
5	940,422,985	43,281,611	151,428,503
6	832,276,093	37,797,609	154,532,641
7	715,541,061	31,872,987	158,090,872
8	589,323,176	25,438,643	163,089,828
9	451,671,991	18,418,724	168,652,069
10	301,438,646	10,775,148	173,993,547
11	138,220,247		178,746,125

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

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality FRS Special Risk Pub-2010 Generational using scale MP-2018
Interest 7.00%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$1,306,437,051	\$86,447,580	\$145,402,451
2	1,247,482,180	82,318,042	145,480,815
3	1,184,319,407	77,846,086	146,950,306
4	1,115,215,187	72,940,283	148,941,350
5	1,039,214,120	67,534,630	151,428,503
6	955,320,247	61,555,251	154,532,641
7	862,342,857	54,924,402	158,090,872
8	759,176,387	47,530,745	163,089,828
9	643,617,304	39,250,224	168,652,069
10	514,215,459	30,008,305	173,993,547
11	370,230,217	19,765,811	178,746,125
12	211,249,903	8,511,063	182,411,718
13	37,349,248		187,685,900

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

October 1, 2021

Sustainment of Expected Benefit Payments

Mortality FRS Special Risk Pub-2010 Generational using scale MP-2018
Interest 9.00%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$1,306,437,051	\$111,177,170	\$145,402,451
2	1,272,211,770	108,093,444	145,480,815
3	1,234,824,399	104,663,878	146,950,306
4	1,192,537,971	100,770,433	148,941,350
5	1,144,367,054	96,325,539	151,428,503
6	1,089,264,090	91,229,595	154,532,641
7	1,025,961,044	85,375,650	158,090,872
8	953,245,822	78,611,173	163,089,828
9	868,767,167	70,763,185	168,652,069
10	770,878,283	61,717,996	173,993,547
11	658,602,732	51,403,938	178,746,125
12	531,260,545	39,781,742	182,411,718
13	388,630,569	26,712,819	187,685,900
14	227,657,488	11,990,655	193,013,705
15	46,634,438		198,508,217

Contribution Stabilization Trust

As outlined in City ordinance (Article IV – Division 5), beginning October 1, 2008, any time the city's contributions to normal costs fall below 37%, the difference between the contributions to normal costs and 37% will be deposited into the city firefighters' and police officers' retirement contribution stabilization fund trust (“Stabilization Trust”). The purpose of the trust is to assist in stabilizing the city's annual contributions to the city Firefighters' and Police Officers' Retirement Trust. Whenever the city's annual contributions to the retirement system exceed 37% of valuation payroll, the city may choose to use part of the trust to cover contributions in excess of 37%. The following shows the contributions or use of the funds from the Stabilization Trust.

	October 1, 2021	October 1, 2020
1. City Contribution	\$99,369,914	\$65,889,915
2. Valuation Payroll	\$178,532,455	\$176,712,600
3. City Contribution as a % of Valuation Payroll	55.66%	37.29%
4. Pension Stabilization Contribution, $[(37\% - (1)/(2)) \times (2)]$ (not less than \$0)	\$0	\$0
5. Amount of City Contribution that may be paid from the Stabilization Trust (if funds available), $[(1)/(2) - 37\% \times (2)]$ (not less than \$0)	\$33,312,906	\$506,253

If the City followed the stated City ordinance, the following provides the hypothetical cumulative position of the Stabilization Trust.

Valuation Date	Pension Stabilization Contribution	Amount used to satisfy recommended City contribution	Current Stabilization Trust Balance
10/1/2018	\$1,035,008	N/A	\$1,035,008
10/1/2019	\$0	\$0	\$1,035,008
10/1/2020	\$0	\$0	\$1,035,008
10/1/2021	\$0	To be decided	\$1,035,008