



City of Pompano Beach Police & Firefighters' Retirement Plan

October 1, 2021
Actuarial Valuation Report

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Actuarial Certification

At the request of the plan sponsor, this report summarizes the Police and Firefighters' Retirement System for the City of Pompano Beach as of October 1, 2021. The purpose of this report is to communicate the following results of the valuation:

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

This report has been prepared in accordance with the laws and accounting standards indicated above and their applicable regulations. 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 employer. Asset information has been provided to us by the trustee. 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.

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 weakness or limitations in the software and have determined it is appropriate for performing this valuation.

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.

Actuarial Certification

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.

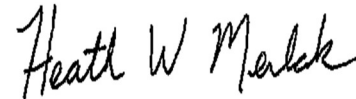
Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the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



Lawrence Watts, Jr., FSA, CFA, EA, MAAA
Enrolled Actuary No. 20-8496



Heath W. Merlak, FSA, EA, MAAA
Enrolled Actuary No. 20-5967

February 28, 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:

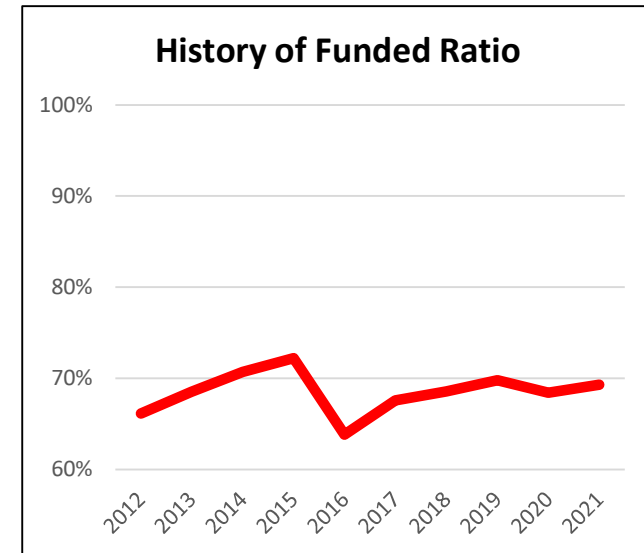
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Executive Summary

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	\$342,655,039	\$356,083,207
Actuarial Value of Assets	234,435,540	246,747,122
Unfunded Accrued Liability	\$108,219,499	\$109,336,085
Funded Percentage (AVA)	68.4%	69.3%
Funded percentage (MVA)	67.1%	73.9%
Cost Measures		
Recommended Contribution	\$11,915,364	\$12,698,439
Recommended Contribution (as a percentage of payroll)	69.6%	68.2%
Asset Performance		
Market Value of Assets	\$230,025,621	\$263,277,434
Actuarial Value of Assets	234,435,540	246,747,122
Actuarial Value/Market Value	101.9%	93.7%
Member Information		
Active Members	181	186
Terminated Vested Members	5	6 ¹
Retirees, Beneficiaries, and Disabled Members	383	382
DROP Participants	25	26
Total	594	600
Expected Payroll	\$16,818,135	\$18,466,842



¹ Includes one pending death benefit

Executive Summary

Changes Since Prior Valuation and Key Notes

Assignment pay for firefighters has been recognized as pensionable, per agreement between the City and firefighters. This resulted in slightly higher reported and projected compensation for fire members in this valuation.

The assumed rate of return has been lowered to 7.20% for this valuation report. It is our understanding that the Board intends to continue lowering this discount rate in 10 basis point increments each year until reaching an ultimate rate of 7.00%.

Executive Summary

Five Year Valuation Summary

	10/01/2017	10/01/2018	10/01/2019	10/01/2020	10/01/2021
Funding					
Accrued Liability	\$325,074,421	\$331,499,780	\$333,397,561	\$342,655,039	\$356,083,207
Actuarial Value of Assets	\$219,680,159	\$227,193,975	\$232,629,949	\$234,435,540	\$246,747,122
Unfunded Actuarial Accrued Liability	\$105,394,262	\$104,305,805	\$100,767,612	\$108,219,499	\$109,336,085
Funded Percentage	67.58%	68.54%	69.78%	68.42%	69.29%
Total Normal Cost (NC)	\$4,342,954	\$4,367,560	\$4,782,737	\$4,935,230	\$5,420,089
NC as a Percentage of Covered Payroll	30.26%	29.70%	29.69%	29.34%	29.35%
Actual Employer Contribution	\$11,050,554	\$10,943,984	\$11,136,794	TBD	TBD
Recommended Contribution	\$11,001,636	\$10,902,279	\$11,023,272	\$11,915,364	\$12,698,439
Recommended Contribution (% of Pay)	76.65%	74.14%	68.43%	70.85%	69.29%
Interest Rate	7.50%	7.40%	7.30%	7.30%	7.20%
Expense Load Assumption	\$567,376	\$578,530	\$624,922	\$613,939	\$610,972
Rate of Return					
Actuarial Value of Assets	7.91%	7.19%	5.84%	7.21%	9.28%
Market Value of Assets	10.88%	8.59%	4.04%	6.37%	17.93%
Demographic Information					
Active Participants	170	179	186	181	186
Terminated Vested Participants	4	3	3	5	6
Retirees, Beneficiaries, and Disabled	366	374	379	383	382
DROP Participants	33	29	23	25	26
Total Participants	573	585	591	594	600
Covered Payroll	\$14,353,623	\$14,705,355	\$16,107,844	\$16,818,135	\$18,466,842
Average Covered Pay	\$84,433	\$82,153	\$86,601	\$92,918	\$99,284

Executive Summary

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 Pompano Beach Police & Firefighters' Retirement System. 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	Additional Information
Investment Return	Portfolio risk and substantial equity position leave the plan open to adverse market results, which could increase costs in the future.
Participant Longevity	The plan has adopted FRS' most recent mortality tables for valuation purposes. These tables are modified from the standard tables, and, compared to the previous tables used by FRS, project a slightly shorter participant longevity overall. There is no guarantee FRS' anticipated mortality experience will mirror your plan's future experience. Deviation from expected mortality rates could impact long-term liabilities and plan cost.
Early Retirement	The plan has a relatively generous unreduced early retirement provision; if more employees than expected avail themselves of the early retirement option, then this could impact estimated plan liabilities.
Salary Growth	The plan has experienced volatility in observed salary increases in the recent past; as benefits are based on final average salary, the salary growth assumption is key to accurately calculating liabilities and future costs.

Type of Risk	Method to Assess Risk
Investment Return	Scenario testing; asset/liability study
Participant Longevity	Benefit projections and contribution strategy
Early Retirement	Scenario testing; review population and retirement rates
Salary Growth	Review salary history and future budgets; scenario testing

Executive Summary

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 Pompano Beach Police & Firefighters' Retirement System falls in its life-cycle.

Duration of Liabilities: 10.3

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: 31.0%

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: 7.0%

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: 9.2%

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.

Assets and Liabilities

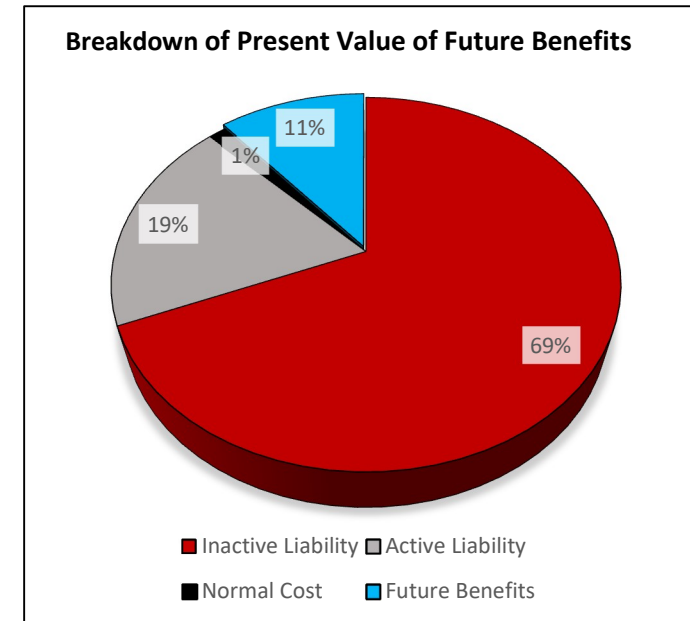
Present Value of Future Benefits

The Present Value of Future Benefits represents the discounted value of all future benefits expected to be payable to current members, considering future service and compensation not yet earned.

October 1, 2021

Present Value of Future Benefits

Active members	
Retirement	\$113,699,803
Disability	8,166,441
Death	2,162,801
Termination	2,453,881
Return of contributions	516,292
Total active	\$126,999,218
Inactive members	
Retired members	\$240,363,485
Beneficiaries	11,368,818
Disableds	25,692,084
Terminated vested members	1,905,453
Total inactive	\$279,329,840
Total	\$406,329,058
 Present value of future payrolls	 \$171,435,907



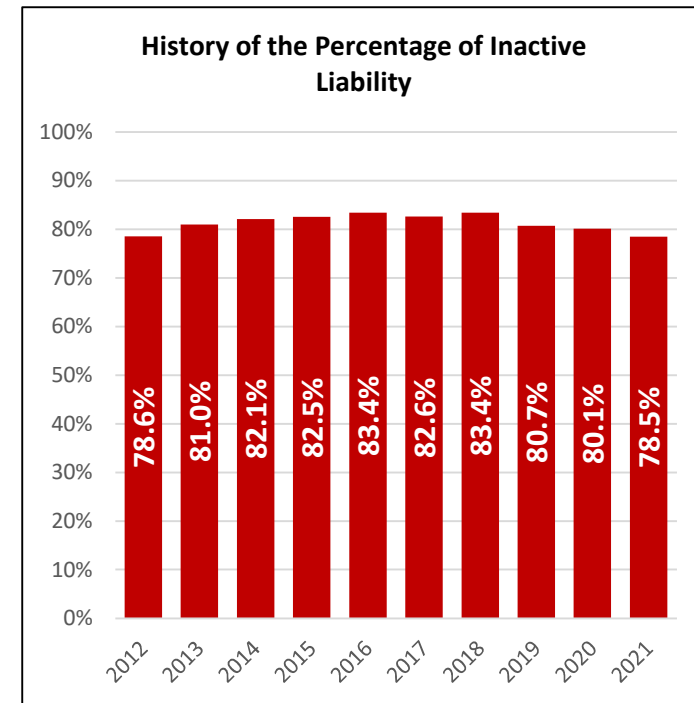
Assets and Liabilities

Accrued Liability

The Accrued Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions. It is not a long-term snapshot of the liabilities.

October 1, 2021

Accrued Liabilities	
Active members	
Retirement	\$72,799,650
Disability	2,527,833
Death	480,918
Termination	854,728
Refund of contributions	90,238
Total Active	\$76,753,367
Inactive members	
Retired members	\$240,363,485
Beneficiaries	11,368,818
Disableds	25,692,084
Terminated vested members	1,905,453
Total Inactive	\$279,329,840
Total	\$356,083,207
Normal Cost	\$5,420,089



Assets and Liabilities

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	\$252,596,087
Employer contributions (incl. discounted accrued items)	11,136,794
Member contributions	2,176,133
Non-employer contributing entity	2,737,886
Investment income	45,722,772
Investment expenses	(1,470,489)
Benefit payments	(26,260,144)
Administrative expenses	(617,141)
Other expenses	0
Market value of asset, beginning of current year	\$286,021,898
Return on Market Value	17.93%
Reserve assets	\$8,033,453
DROP account	\$14,711,011
Market value of assets available for pension benefits	\$263,277,434
Actuarial value of plan assets	
Value at beginning of current year	\$246,747,122

Assets and Liabilities

Asset Information (continued)

Plan Assets are used to develop funded percentages and contribution requirements.

	October 1, 2021
1. Expected actuarial value of assets	
(a) Actuarial value of assets, beginning of prior year	\$257,006,006
(b) Contributions	16,050,813
(c) Benefit payments	(26,260,144)
(d) Expenses	(617,141)
(e) Expected return	18,373,231
(f) Expected actuarial value of assets, beginning of current year	<u>\$264,552,765</u>
2. Market value of assets, beginning of current year	\$286,021,898
3. Actual return on market value	\$44,252,283
4. Amount subject to phase in [(3)-(1e)]	\$25,879,052
5. Phase in of asset gain/(loss)	
(a) Current year (20% x \$25,879,052)	\$5,175,810
(b) First prior year (20% x (\$2,444,237))	(488,847)
(c) Second prior year (20% x (\$7,963,610))	(1,592,722)
(d) Third prior year (20% x \$2,395,231)	479,046
(e) Fourth prior year (20% x \$6,827,672)	1,365,534
(f) Total phase-in	<u>\$4,938,821</u>
6. Preliminary actuarial value of assets, beginning of current year [(1f)+(5f)]	\$269,491,586
7. 80% Market value of assets	\$228,817,519
8. 120% Market value of assets	\$343,226,277
9. Adjusted actuarial value of assets	\$269,491,586
10. Reserved Assets (including DROP)	(\$22,744,464)
11. Final actuarial value of assets [(9+10)]	\$246,747,122
12. Return on actuarial value of assets	9.28%

Contribution Requirements

Reconciliation of Gain/Loss

October 1, 2021

Liability (gain)/loss

Actuarial liability, beginning of prior year	\$342,655,039
Normal cost	4,935,230
Total benefit payments	(26,260,144)
Benefit payments attributable to DROP and Share Plan	4,648,390
Interest	24,599,154
1-year lag adjustment	1,028,951
Assumption Changes	3,608,220
Expected actuarial liability, beginning of current year	\$355,214,840
Actual actuarial liability	\$356,083,207
Liability (gain)/loss	\$868,367

Asset (gain)/loss

Actuarial value of assets, beginning of prior year	\$234,435,540
Contributions	16,050,813
Total benefit payments and expenses	(26,877,285)
Benefit payments attributable to DROP and Share Plan	4,648,390
Investment return	16,892,263
Expected actuarial value of assets, beginning of current year	\$245,149,721
Actual actuarial value of assets, beginning of current year (before accumulated reserve adjustment)	\$246,747,122
Asset (gain)/loss	(\$1,597,401)

Total (gain)/loss

(\$729,034)

Contribution Requirements

Development of Recommended Contribution

The minimum recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws. The recommended contribution is composed of the normal cost, administrative expenses, plus an amortization charge.

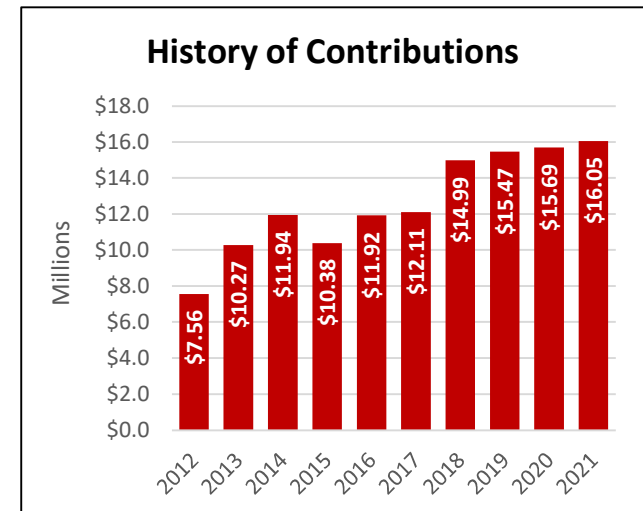
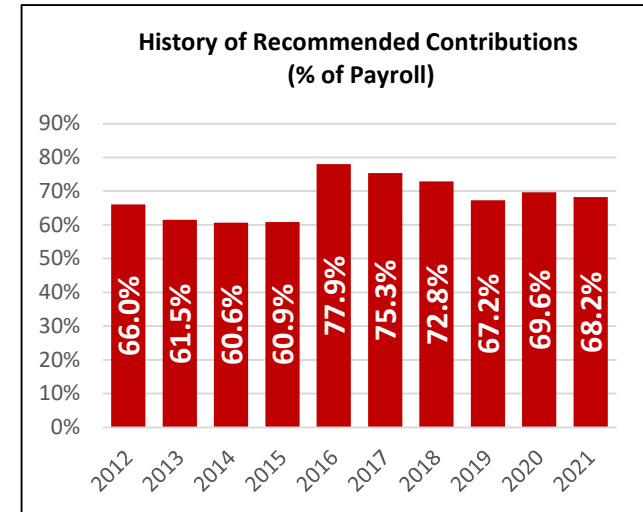
October 1, 2021

Funded Position

1. Entry age accrued liability	\$356,083,207
2. Actuarial value of assets	246,747,122
3. Unfunded actuarial accrued liability (UAAL)	\$109,336,085

Employer Contributions

1. Normal Cost	
(a) Total normal cost	\$5,420,089
(b) Less normal cost associated with participant contributions	2,146,079
(c) Net normal cost	\$3,274,010
2. Administrative expenses	610,972
3. Amortization of UAAL	9,537,912
4. Applicable interest	966,448
5. Total required contribution	\$14,389,342
6. Expected non-employer contributions	1,908,971
7. Total recommended contribution	\$12,480,371
As a percentage of expected payroll	68.2%
8. Recommended contributions to be paid on 12/31/2022	\$12,698,439

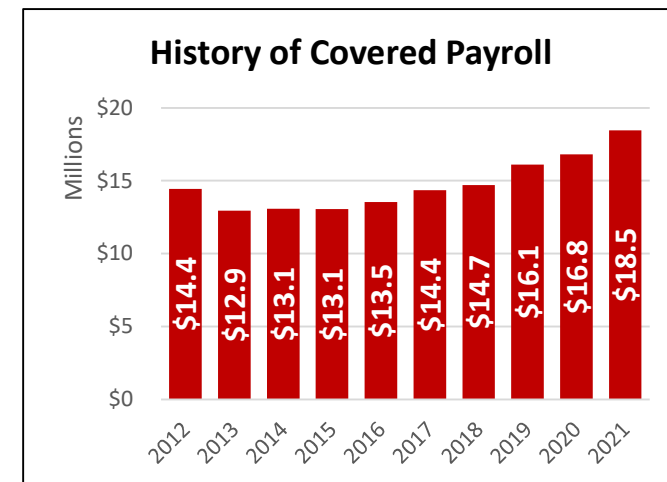


Demographic Information

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

October 1, 2021

	<u>Police</u>	<u>Fire</u>	<u>Total</u>
Participant Counts			
Active Participants	2	184	186
Retired Participants	183	129	312
Beneficiaries	20	14	34
Disabled Participants	18	18	36
Terminated Vested Participants	0	6	6
DROP Participants	<u>1</u>	<u>25</u>	<u>26</u>
Total Participants	224	376	600
Active Participant Demographics			
Average Age			38.65
Average Service			10.46
Average Compensation			\$99,284
Covered Payroll			\$18,466,842



Demographic Information

October 1, 2021

Retiree Statistics

Average Age	66.02
Average Monthly Benefit	\$5,013

Beneficiary Statistics

Average Age	71.63
Average Monthly Benefit	\$2,889

Disabled Participants Statistics

Average Age	62.51
Average Monthly Benefit	\$5,234

Terminated Participants Statistics

Average Age	44.54
Average Monthly Benefit	\$5,115

DROP Participants Statistics

Average Age	54.18
Average Monthly Benefit	\$5,995

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	DROP	Totals
Prior Year	181	5	36	313	34	25	594
Active							
To Terminated Vested	(1)	1					
To Disabled							
To Retired	(2)			2			
To DROP	(4)					4	
To Death							
To Lump Sum	(7)						(7)
Terminated Vested							
To Retired		(1)		1			
Retired							
To Forfeiture							
To Disabled							
To Death				(7)			(7)
Beneficiaries							
To Death					(2)		(2)
To End of Certain Period							
DROP							
To Retired				3		(3)	
To Disabled							
Additions	19	1			2		22
Departures							
Current Year	186	6	36	312	34	26	600

Participant Reconciliation

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	2	1									3	62,738
25 to 29	5	18									23	69,911
30 to 34	6	12	12	6							36	87,628
35 to 39	2	11	20	7	6						46	95,179
40 to 44		4	3	7	14	5					33	111,601
45 to 49			1	2	13	13					29	120,986
50 to 54			1		10	3					14	119,165
55 to 59					1						1	110,572
60 to 64					1						1	167,533
65 to 69												
70 & up												
Total	15	46	37	22	45	21					186	99,284

Plan Provisions

Plan Status

Plan established under the Code of Ordinances for the City of Pompano Beach, Florida, Sections 34.045-34.073 and was most recently stated under Ordinance No. 2021-80, passed and adopted on July 27, 2021. The Plan is also governed by certain provisions of Chapters 175 and 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

Eligibility for Participation

- (1) All Police Officers and Dispatchers who were participants of the prior Employees' Pension Plan and
- (2) Police Officers and Dispatchers who elected to remain in the Plan prior to the takeover of the police department by the Broward Sheriff's Office on 8/1/99.
- (3) All Firefighters who were participants in the prior Employees' Pension Plan; and
- (4) All regular, full time Firefighters (20 hours per week and 5 months per year) from age 18, upon date of employment.

Benefits

Normal Retirement

Eligibility	<p>A member hired before May 27, 2014 may retire on the first day of the month coincident with or next following the earlier of:</p> <ol style="list-style-type: none">(1) age 47 with 20 years of Continuous Service, or(2) age 55 with 10 years of Continuous Service. <p>A Firefighter member hired on or after May 27, 2014 may retire on the first day of the month coincident with or next following the earlier of:</p> <ol style="list-style-type: none">(1) age 50 with 20 years of Continuous Service, or(2) age 55 with 10 years of Continuous Service.
Police Benefit:	3.0% of Average Monthly Earnings (AME) multiplied by years of Continuous Service up to a maximum of 25 years, plus 2.0% of AME multiplied by years of Continuous Service in excess of 37.5.
Firefighter Benefit:	3.0% of AME multiplied by the first 10 years Continuous Service, plus 4.0% of AME multiplied by the next 10 years, plus 2.0% of AME multiplied by the next 5 years with a maximum benefit equal to 80% of AME; plus 2% of AME multiplied by each year of service in excess of 40.
Normal Form of Benefit	10 Years Certain and Life; other options are also available.
COLA	Beginning five years after benefit payments begin, retirees receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met

Plan Provisions

Early Retirement

Eligibility	A member may elect to retire earlier than the Normal Retirement Eligibility upon the completion of 20 years of Continuous Service or the attainment of age 50 with 10 years of Continuous Service.
Benefit	The member's accrued Normal Retirement Benefit based upon the member's AME and Continuous Service as of the date of termination. Benefit is actuarially reduced for each year by which the Early Retirement date precedes the member's Normal Retirement date. The Early Retirement reduction is 3% per year if early retirement occurs after age 50.
Normal Form of Benefit	10 Years Certain and Life; other options are also available.
COLA	Beginning five years after benefit payments begin, retirees receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.

Late Retirement

Eligibility	Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.
Benefit	Accrued Benefit
Normal Form of Benefit	10 Years Certain and Life; other options are also available.
COLA	Beginning five years after benefit payments begin, retirees receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.

Plan Provisions

Ordinary Death before Retirement

Eligibility	Any member with 1 or more years of Continuous Service who dies while employed by the City is eligible for survivor benefits.
Benefit	<p>(A) For members with less than 1 year of Continuous Service, no survivor benefits are payable.</p> <p>(B) For members with 1 year, but less than 5 years, of Continuous Service, the designated beneficiary will be paid a \$5,000 lump sum.</p> <p>(C) For members with 5 years, but less than 10 years, of Continuous Service:</p> <ul style="list-style-type: none">(1) \$5,000 lump sum paid to the member's designated beneficiary; plus(2) Member's spouse will receive 65% of member's accrued pension as of the date of death subject to a minimum of 20% of AME; plus(3) Each unmarried child under age 18 (22 if full-time student) will receive 7 ½% of member's Earnings. If there is no spouse, benefits increase to 15% of member's Earnings per child. <p>Maximum benefit to spouse and children is 50% of earnings.</p> <p>(D) For members with 10 or more years of Continuous Service, the designated beneficiary can elect to receive benefits described under subsection (C) above or the member's accrued benefit as of the date of death. Benefits are payable at the member's Normal or Early Retirement date and will be reduced for Early Retirement, when applicable.</p>
Normal Form of Benefit	Spouse's benefits are paid until death or remarriage; children's benefits are paid until the earlier of age 18 (22 if full-time student), marriage or death.
COLA	Beginning five years after benefit payments begin, beneficiaries receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.

Plan Provisions

Accidental Death before Retirement

Eligibility	Any member who dies as a direct result of an occurrence arising in the performance of service for the City is eligible for survivor benefits.
Benefit	<p>(1) \$5,000 lump sum paid to the member's designated beneficiary; plus</p> <p>(2) Member's spouse will receive 75% of member's Earnings; plus</p> <p>(3) Each unmarried child under age 18 (22 if full-time student) will receive 7 ½% of member's Earnings. If there is no spouse, benefits increase to 15% per child.</p> <p>Maximum benefit to spouse and children is 90% of earnings; if no spouse, maximum for children is 50% of Earnings.</p>
Normal Form of Benefit	Spouse's benefits are paid until death or remarriage; children's benefits are paid until the earlier of age 18 (22 if full-time student), marriage or death.
COLA	Beginning five years after benefit payments begin, beneficiaries receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.

Termination Benefit

Eligibility	A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service (See vesting table below).							
	<table border="0"> <tr> <td style="text-align: center;"><u>Years of</u> <u>Credited Service</u></td> <td style="text-align: center;"><u>% of Normal</u> <u>Retirement Benefits</u></td> </tr> <tr> <td style="text-align: center;">Less Than 10</td> <td style="text-align: center;">0%</td> </tr> <tr> <td style="text-align: center;">10 or more</td> <td style="text-align: center;">100%</td> </tr> </table>	<u>Years of</u> <u>Credited Service</u>	<u>% of Normal</u> <u>Retirement Benefits</u>	Less Than 10	0%	10 or more	100%	
<u>Years of</u> <u>Credited Service</u>	<u>% of Normal</u> <u>Retirement Benefits</u>							
Less Than 10	0%							
10 or more	100%							
Benefit	The member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins on the member's Normal Retirement date. Alternatively, members may elect to receive an actuarially reduced Early Retirement Benefit.							
Normal Form of Benefit	10 Years Certain and Life thereafter; other options are also available.							
COLA	Beginning five years after benefit payments begin, beneficiaries receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.							

Plan members with less than 10 years of Credited Service will receive a refund of accumulated contributions with interest

Plan Provisions

Ordinary Disability Benefit

Eligibility	Any member who becomes totally and permanently disabled and unable to perform regular duties or any other duties available in the Department from an act occurring in the performance of duty for the City is eligible for a disability benefit.
Benefit	75% of rate of Earnings in effect on the date of disability (for Firefighters, not to be less than the accrued benefit).
Normal Form of Benefit	Benefits begin on the first day of the month following the date the Board approves the disability and are payable until death or recovery from disability. If the member dies before receiving payments for 10 years, the member's designated beneficiary will receive the same monthly benefit for the remainder of the 10 year period. Other options are also available.
COLA	Beginning five years after benefit payments begin, retirees receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.

Accidental Disability Benefit

Eligibility	Any active member with 10 or more years of Continuous Service who becomes totally and permanently disabled and unable to perform regular duties or any other duties available in the Department from an act not directly caused by the performance of duty for the City is eligible for a disability benefit.
Benefit	3.0% of AME multiplied by years of Continuous Service subject to a maximum of 60% of the rate of Earnings on the date of disability, plus 2.0% of AME multiplied by years of Continuous Service in excess of 25. Disability benefit is guaranteed to be no less than 25% of AME.
Normal Form of Benefit	Benefits begin on the first day of the month following the date the Board approves the disability and are payable until death or recovery from disability. If the member dies before receiving payments for 10 years, the member's designated beneficiary will receive the same monthly benefit for the remainder of the 10 year period. Other options are also available.
COLA	Beginning five years after benefit payments begin, retirees receive an automatic annual increase of 2% on each October 1. An additional annual increase of up to 1% is payable if certain conditions are met.

Plan Provisions

Compensation

Earnable Compensation

Police Officers: Basic compensation and regular longevity pay, increased for temporary upgrade pay. Also includes up to 25 hours per year of overtime pay.

Firefighters: Basic compensation and regular longevity pay, increased for temporary upgrade pay and certain assignment pay.

Average Monthly Earnings (AME)

For members hired before May 27, 2014:

The average of Earnings during the highest 3 years preceding termination; not including lump sum payments of unused leave

For members hired after May 27, 2014:

The average of Earnings during the highest 5 years preceding termination; not including lump sum payments of unused leave

Continuous Service

For Vesting and Benefit Accrual, total number of years and completed months from date of employment to date of termination or retirement
No service is credited for any periods of employment for which a member received a refund of contributions.

Employee Contributions

Police: 8.6% of Earnings, paid by BSO.

Firefighters: 11.6% of Earnings "picked up" by the City, reduced to 0.5% after 25 years of service and reaching maximum benefit of 80%, reverting back to 11.6% if member does not enter DROP.

Plan Provisions

DROP

Eligibility	<p>Plan members hired before May 27, 2014 are eligible for the DROP on the first day of the month coincident with or next following the earlier of:</p> <ul style="list-style-type: none">(1) age 47 with 20 years of Continuous Service, or(2) age 55 with 10 years of Continuous Service. <p>Plan members hired after May 27, 2014 are eligible for DROP on the first day of the month coincident with or next following the earlier of:</p> <ul style="list-style-type: none">(1) age 50 with 20 years of Continuous Service, or(2) age 55 with 10 years of Continuous Service. <p>Members who meet eligibility must submit a written election to participate in the DROP.</p>
Benefit	<p>The member's Credited Service and AME are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and AME.</p> <p>In addition, the members accumulated sick and annual leave pay will be paid in 5 equal annual installments on the member's DROP participation anniversary dates.</p>
Maximum Period	60 months (police) & 96 months (firefighters)
Interest Credited	<p>The member's DROP account is credited or debited quarterly at a rate equal to one of the following elected by the member:</p> <ul style="list-style-type: none">(1) the actual net rate of investment return realized by the Plan for that quarter, or(2) a rate set quarterly by the Board of Trustees, or(3) the actual net rate of investment return realized by a separate investment account made available by the Board of Trustees but the investment proportions designated by the member.
Normal Form of Benefit	<p>The member's DROP account is paid out under one of the following options as elected by the member:</p> <ul style="list-style-type: none">(1) a full single lump sum payment, or(2) annual installments in amounts as requested by the member by June 30th of each year, or(3) equal monthly installments as requested by the member by June 30th of each year, or(4) a single lump sum of the remaining balance after any annual or monthly installments have been made under options (2) or (3) above.
COLA	<p>Beginning five years after benefit payments begin, retirees receive an automatic annual increase of 2% on each October 1. An additional increase of up to 1% is payable if certain conditions are met. For Firefighters, if participant leaves the DROP after five years, the COLA begins when participant leaves the DROP.</p>

Plan Provisions

Payment Forms

Normal Form:	10 Years Certain and Life Annuity
Optional Forms:	Single Life Annuity Joint and 100% Contingent Survivor Annuity Joint and 75% Contingent Survivor Annuity Joint and 66 2/3% Contingent Survivor Annuity Joint and 50% Contingent Survivor Annuity Any Board-approved, actuarially equivalent benefit

Plan Provisions Not Included

We are not aware of any plan provisions not included in the valuation.

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

Ordinance 2021-80 codified and adopted; no changes to valuation basis.

Actuarial Assumptions

Cost Method

Individual Entry Age Normal Cost Method; all new bases are to be amortized over 20 years from the date established using a level dollar amortization for police and a level percentage of pay amortization, with a 2.75% payroll growth assumption, for firefighters.

Asset Valuation Method

20% Phase-In Method: Actuarial value of assets is equal to expected value phase in the difference between the expected investment earnings and actual investment earnings at the rate of 20% per year. The result cannot be greater than 120% of market value or less than 80% of market value.

Interest Rates

7.2%, compounded annually, net of investment expenses. Nyhart's professional judgment is that the rate is reasonable and has no significant bias. Support for the interest rate assumption has been provided in the experience study report dated August 19, 2019.

Annual Pay Increases

2.0%, compounded annually for inflation plus a seniority/merit scale using the following representative rates.

Years of Service	Merit and Seniority
1	9.03%
2	8.03%
3	7.52%
4	6.52%
5	5.01%
6	5.01%
7	4.01%
8-20	2.00%
21 and Higher	0.99%

The assumed rates of pay increase are based on a study of actual experience for the plan from 2012-2018. See the experience study report dated August 19, 2019.

Expense and/or Contingency Loading

One-year term cost method; average of prior two years' expenses.

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

Actuarial Assumptions

Disability

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

These are the same mortality rates used by FRS in the July 1, 2019 Actuarial Valuation Report; these rates are prescribed by state law.

We learned after the publication of Pompano's 2019 report draft that the FRS mortality tables used by Milliman do not utilize MP-18 improvement for disabled mortality. This was due to an error by Milliman's actuary in their FRS report description. This year we used the correct disabled mortality table.

Retirement Rates

If eligible for Retirement, the following decrements apply, based on service:

<u>After First Eligibility for Normal Retirement</u>	<u>Police</u>	<u>Fire</u>
0	80%	50%
1	50	20
2	75	30
3	100	40
4		50
5+		100

The assumed rates of retirement are based on a study of actual experience for the plan from 2012-2018. See the experience study report dated August 19, 2019.

Disability Rates

Specimen rates for all groups are shown below:

<u>Sample Ages</u>	<u>% Becoming Disabled Within Next Year</u>
25	0.15%
30	0.18
35	0.23
40	0.30
45	0.51
50	1.00
55	1.59

The assumed rates of disability are based on a study of actual experience for the plan from 2012-2018. See the experience study report dated August 19, 2019.

Actuarial Assumptions

Type of Disability or Death: 75% of disabilities and deaths are assumed to be service-related

Workers' Compensation Offsets Current offsets are assumed to continue.

Withdrawal Rates 0.5% per year for the remaining active police officers in the plan

For firefighters,

<u>Service</u>	<u>Fire Withdrawal Rate</u>
0	5.00%
1	5.00
2	4.00
3	4.00
4	4.00
5	2.00
6	2.00
7	2.00
8	1.25
9	1.25
10	1.25
11	1.25
12	1.25
13+	0.50

The assumed rates of withdrawal are based on a study of actual experience for the plan from 2012-2018. See the experience study report dated August 19, 2019.

Withdrawal of Employee Contributions Non-vested terminated employees are assumed to withdraw their contribution balances upon termination. Vested terminated employees are assumed to defer commencement of benefits.

Marital Status and Ages 100% of employees are assumed to be married. Females are assumed to be 3 years younger than males.

State Contributions Assumed to be the same as in the prior year

Changes Since Prior Report The discount rate was lowered from 7.30% to 7.20% in accordance with the Board's policy.

Other Measurements

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

- Reconciliation of unfunded actuarial liability
- Statement of changes on value of assets
- Distribution Assets
- Schedule of amortizations
- Florida State requirements
 - Corporative 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
 - Reserve account for benefit improvements under 99-1 and SB 172

Other Measurements

Reconciliation of Unfunded Actuarial Liability

	October 1, 2021
1. Unfunded Actuarial Accrued Liability beginning of prior year	\$108,219,499
2. Normal Cost	4,935,230
3. Expenses	617,141
4. Employer Contributions	(11,136,794)
5. Employee Contributions	(2,176,133)
6. Non-Employer Contributions	(2,737,886)
7. Interest	7,706,891
8. 1-year lag adjustment	1,028,951
9. Expected Unfunded Actuarial Accrued Liability, beginning of current year	\$106,456,899
10. Accumulated Reserve Adjustment	\$0
11. Liability changes due to:	
(a) Amendments	\$0
(b) Assumptions	3,608,220
(c) Funding Methods	0
(d) (Gain)/Loss	(729,034)
(e) Total	\$2,879,186
12. Unfunded Actuarial Liability beginning of current year	\$109,336,085

Other Measurements

Statement of Changes on Value of Assets

Additions

Contributions:

	September 30, 2020	September 30, 2021
Employer	\$10,943,984	\$11,136,794
Member	1,995,263	2,176,133
Nonemployer contributing entity	2,750,611	2,737,886
Total contributions	\$15,689,858	\$16,050,813

Investment income

Net increase in fair value of investments	\$11,249,831	\$41,313,017
Interest and dividends	5,364,132	4,350,714
Less investment expense, other than from securities lending	(1,348,725)	(1,470,489)
Net income other than from securities lending	\$15,265,238	\$44,193,242
Securities lending income	\$0	\$0
Less securities lending expense	0	0
Net income from securities lending	\$0	\$0
Net investment income	\$15,265,238	\$44,193,242

Other	66,752	59,041
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Total additions	\$31,021,848	\$60,303,096
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Deductions

Benefit payments, including refunds of member contributions	\$22,981,366	\$26,166,071
Administrative expense	604,803	617,141
Other	0	0
Total deductions	\$23,586,169	\$26,877,285

Net increase in market value	\$7,435,679	\$33,425,811
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Market Value as of

Beginning of year	245,160,408	252,596,087
End of year	\$252,596,087	\$286,021,898

Other Measurements

Distribution of Assets

	September 30, 2020	September 30, 2021
Cash and deposits	\$1,944,975	\$1,931,843
Securities lending cash collateral	0	0
Total cash	\$1,944,975	\$1,931,843
Receivables:		
Contributions	\$0	\$0
Due from broker for investments sold	0	175,950
Investment income	473,092	348,763
Other	290,085	178,929
Total receivables	\$763,177	\$703,642
Investments:		
Equity	\$125,033,111	\$148,848,169
Fixed Income	56,388,986	63,149,705
Real Estate	0	0
Hedge Funds & Private Equity	58,128,094	65,773,357
Short Term Investments	10,597,766	9,897,570
Total investments	\$250,147,957	\$287,668,801
Sub-total	\$252,856,109	\$290,304,286
Payables:		
Investment management fees	\$260,022	\$275,733
Due to broker for investments purchased	0	4,006,655
Collateral payable for securities lending	0	0
Other	0	0
Total liabilities	\$260,022	\$4,282,388
Total	\$252,596,087	\$286,021,898

Other Measurements

Schedule of Amortizations - Police

			October 1, 2021		
			Total	\$51,801,875	\$4,836,483
<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/1992	Assumption Change	(3,250)	1	(337)	(337)
10/1/1992	Actuarial Loss (Gain)	(721,063)	1	(74,742)	(74,742)
10/1/1993	Assumption Change	(53,335)	2	(10,584)	(5,476)
10/1/1993	Actuarial Loss (Gain)	(301,531)	2	(59,832)	(30,956)
10/1/1994	Assumption Change	768,410	3	198,962	70,981
10/1/1994	Actuarial Loss (Gain)	422,754	3	109,463	39,052
10/1/1995	Assumption Change	(311,136)	4	(116,132)	(32,127)
10/1/1995	Actuarial Loss (Gain)	(271,042)	4	(101,165)	(27,987)
10/1/1996	Assumption Change	(374,561)	5	(173,553)	(39,697)
10/1/1996	Actuarial Loss (Gain)	(276,460)	5	(128,097)	(29,300)
10/1/1997	Assumption Change	1,345,971	6	718,715	141,526
10/1/1997	Actuarial Loss (Gain)	(3,074,778)	6	(1,830,778)	(360,508)
10/1/1998	Plan Amendment	(337,295)	7	(219,589)	(38,274)
10/1/1998	Actuarial Loss (Gain)	(3,155,507)	7	(2,054,323)	(358,067)
10/1/1999	Actuarial Loss (Gain)	(2,565,536)	8	(1,796,244)	(282,788)
10/1/2000	Assumption Change	(18,775,480)	9	(13,423,988)	(1,938,400)
10/1/2000	Plan Amendment	11,651,128	9	8,330,259	1,202,875
10/1/2000	Actuarial Loss (Gain)	3,153,187	9	2,254,449	325,538

Other Measurements

Schedule of Amortizations - Police

October 1, 2021

<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/2001	Variable COLA	484,615	10	364,574	48,869
10/1/2001	Plan Amendment	377,521	10	284,007	38,070
10/1/2001	Actuarial Loss (Gain)	5,917,320	10	4,451,553	596,710
10/1/2002	Actuarial Loss (Gain)	13,547,635	11	11,372,061	1,428,811
10/1/2003	Actuarial Loss (Gain)	8,453,577	12	6,476,877	768,811
10/1/2004	Actuarial Loss (Gain)	7,733,735	13	5,901,894	666,225
10/1/2005	Plan Amendment	528,766	14	339,666	36,666
10/1/2005	Actuarial Loss (Gain)	1,811,918	14	1,395,687	150,662
10/1/2006	Actuarial Loss (Gain)	(2,245,390)	15	(1,776,222)	(184,226)
10/1/2007	Actuarial Loss (Gain)	(3,930,059)	16	(3,223,377)	(322,532)
10/1/2008	Assumption Change	(2,460,748)	17	(2,108,399)	(204,248)
10/1/2008	Actuarial Loss (Gain)	4,312,669	17	3,695,148	357,962
10/1/2009	Assumption Change	2,211,808	18	1,934,745	182,018
10/1/2009	Actuarial Loss (Gain)	4,953,816	18	4,333,276	407,668
10/1/2010	Assumption Change	2,351,731	19	2,066,034	189,275
10/1/2010	Actuarial Loss (Gain)	4,329,632	19	3,803,653	348,464
10/1/2011	Assumption Change	2,628,245	20	2,263,105	202,382
10/1/2011	Actuarial Loss (Gain)	2,882,428	20	2,481,979	221,955
10/1/2012	Valuation Software	(955,577)	21	(839,943)	(73,477)

Other Measurements

Schedule of Amortizations - Police

October 1, 2021

<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/2012	Assumption Change	2,734,348	21	2,403,463	210,253
10/1/2012	Actuarial Loss (Gain)	7,401,751	21	6,506,061	569,144
10/1/2013	Assumption Change	(2,014,446)	22	(1,804,763)	(154,735)
10/1/2013	Actuarial Loss (Gain)	1,279,029	22	1,145,897	98,246
10/1/2014	Actuarial Loss (Gain)	(1,640,207)	23	(1,495,766)	(125,904)
10/1/2015	Actuarial Loss (Gain)	(532,193)	24	(494,383)	(40,918)
10/1/2016	Assumption Change	14,723,929	25	13,882,629	1,131,359
10/1/2016	Actuarial Loss (Gain)	(1,637,449)	25	(1,543,887)	(125,818)
10/1/2017	Actuarial Loss (Gain)	289,192	26	276,409	22,208
10/1/2018	Actuarial Loss (Gain)	(28,169)	17	(26,032)	(2,522)
10/1/2018	Assumption Change	1,526,587	17	1,410,770	136,666
10/1/2019	Actuarial Loss (Gain)	2,419,119	18	2,300,743	216,451
10/1/2019	Assumption Change	(4,439,151)	18	(4,221,928)	(397,193)
10/1/2020	Actuarial Loss (Gain)	802,666	19	783,719	71,799
10/1/2020	Assumption Change	(367,023)	19	(358,359)	(32,830)
10/1/2021	Actuarial Loss (Gain)	(3,170,932)	20	(3,170,932)	(283,565)
10/1/2021	Assumption Change	1,369,432	20	1,369,432	122,464

Other Measurements

Schedule of Amortizations - Fire

			October 1, 2021		
			Total	\$57,534,209	\$4,701,429
<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/1992	Assumption Change	(2,583)	1	(278)	(278)
10/1/1992	Actuarial Loss (Gain)	(573,171)	1	(61,725)	(61,725)
10/1/1993	Assumption Change	(42,396)	2	(8,880)	(4,534)
10/1/1993	Actuarial Loss (Gain)	(239,687)	2	(50,210)	(25,637)
10/1/1994	Assumption Change	610,808	3	169,456	58,896
10/1/1994	Actuarial Loss (Gain)	336,046	3	93,227	32,402
10/1/1995	Assumption Change	(247,322)	4	(100,269)	(26,683)
10/1/1995	Actuarial Loss (Gain)	(215,450)	4	(87,346)	(23,244)
10/1/1996	Assumption Change	(297,737)	5	(151,770)	(32,981)
10/1/1996	Actuarial Loss (Gain)	(219,757)	5	(112,020)	(24,343)
10/1/1997	Assumption Change	1,069,910	6	636,048	117,553
10/1/1997	Actuarial Loss (Gain)	(2,444,135)	6	(1,620,196)	(299,441)
10/1/1998	Plan Amendment	(268,116)	7	(196,519)	(31,768)
10/1/1998	Actuarial Loss (Gain)	(2,508,306)	7	(1,838,518)	(297,200)
10/1/1999	Plan Amendment	114,009	8	90,825	13,107
10/1/1999	Actuarial Loss (Gain)	(2,039,340)	8	(1,624,617)	(234,455)
10/1/2000	Assumption Change	(13,798,204)	9	(11,182,454)	(1,463,347)
10/1/2000	Plan Amendment	8,646,272	9	7,007,183	916,967
10/1/2000	Actuarial Loss (Gain)	676,828	9	548,523	71,780

Other Measurements

Schedule of Amortizations - Fire

October 1, 2021

<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/2000	Plan Amendment	299,541	9	242,760	31,768
10/1/2001	Actuarial Loss (Gain)	7,539,001	10	6,408,638	769,855
10/1/2002	Actuarial Loss (Gain)	9,466,755	11	10,683,901	1,189,887
10/1/2003	Actuarial Loss (Gain)	7,616,087	12	8,118,180	845,098
10/1/2004	Actuarial Loss (Gain)	6,692,396	13	7,080,200	693,632
10/1/2005	Plan Amendment	4,413,733	14	4,667,716	432,849
10/1/2005	Actuarial Loss (Gain)	2,591,529	14	2,740,651	254,147
10/1/2006	Actuarial Loss (Gain)	(2,040,207)	15	(2,171,472)	(191,554)
10/1/2007	Actuarial Loss (Gain)	(868,128)	16	(937,470)	(79,008)
10/1/2008	Assumption Change	(2,812,893)	17	(3,066,441)	(247,834)
10/1/2008	Actuarial Loss (Gain)	3,519,341	17	3,836,568	310,077
10/1/2009	Assumption Change	2,293,100	18	2,507,171	194,969
10/1/2009	Plan Amendment	23,114	18	25,272	1,965
10/1/2009	Actuarial Loss (Gain)	3,014,143	18	3,295,526	256,275
10/1/2010	Assumption Change	2,377,230	19	2,583,847	193,902
10/1/2010	Actuarial Loss (Gain)	(904,732)	19	(983,368)	(73,796)
10/1/2011	Actuarial Loss (Gain)	(1,874,268)	20	(1,986,875)	(144,265)
10/1/2011	Assumption Change	2,629,741	20	2,787,740	202,416
10/1/2012	Valuation Software	(2,713,381)	21	(2,868,820)	(202,020)

Other Measurements

Schedule of Amortizations - Fire

October 1, 2021

<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/2012	Assumption Change	2,714,228	21	2,869,716	202,083
10/1/2012	Actuarial Loss (Gain)	1,168,034	21	1,234,946	86,964
10/1/2013	Assumption Change	(3,541,424)	22	(3,728,567)	(255,186)
10/1/2013	Actuarial Loss (Gain)	(1,830,796)	22	(1,927,545)	(131,923)
10/1/2014	Actuarial Loss (Gain)	(1,597,600)	23	(1,679,541)	(111,935)
10/1/2014	Plan Amendment	589	23	619	41
10/1/2015	Actuarial Loss (Gain)	(1,680,516)	24	(1,761,051)	(114,489)
10/1/2016	Assumption Change	14,229,829	25	14,840,566	942,661
10/1/2016	Actuarial Loss (Gain)	(228,270)	25	(238,067)	(15,122)
10/1/2017	Actuarial Loss (Gain)	1,124,270	26	1,165,246	72,422
10/1/2018	Actuarial Loss (Gain)	(3,291,760)	17	(3,212,435)	(259,634)
10/1/2018	Assumption Change	1,994,558	17	1,946,494	157,319
10/1/2019	Actuarial Loss (Gain)	2,687,801	18	2,651,355	206,182
10/1/2019	Assumption Change	(2,706,507)	18	(2,669,807)	(207,616)
10/1/2020	Actuarial Loss (Gain)	9,297,486	19	9,246,352	693,883
10/1/2020	Assumption Change	(599,422)	19	(596,126)	(44,736)
10/1/2021	Actuarial Loss (Gain)	2,679,081	20	2,679,081	194,526
10/1/2021	Assumption Change	2,238,789	20	2,238,789	162,557

Other Measurements

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

Comparative Summary Of Principal Valuation Results

	10/1/2021 7.20% (current methods & assumptions)	10/1/2021 7.30% (prior methods & assumptions)	10/1/2020 7.30%
Participant Data			
Active members	186	186	181
Total annual payroll	\$18,466,842	\$18,466,842	\$16,818,135
Members in DROP	26	26	25
Total annualized benefit	\$1,870,374	\$1,870,374	\$1,694,077
Retired members and beneficiaries	346	346	347
Total annualized benefit	\$19,641,627	\$19,641,627	\$19,332,950
Disabled members receiving benefits	36	36	36
Total annualized benefit	\$2,261,013	\$2,261,013	\$2,215,392
Terminated vested members	6	6	5
Total annualized benefit	\$201,226	\$201,226	\$194,139
Assets			
Actuarial value of assets	\$246,747,122	\$246,747,122	\$234,435,540
Market value of assets	\$263,277,434	\$263,277,434	\$230,025,621

Other Measurements

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

	10/1/2021 7.20% (current methods & assumptions)	10/1/2021 7.30% (prior methods & assumptions)	10/1/2020 7.30%
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$113,699,803	\$111,452,653	\$101,107,668
Vesting benefits	\$2,453,881	\$2,391,778	\$2,182,460
Disability benefits	\$8,166,441	\$8,025,686	\$7,338,742
Death benefits	\$2,162,801	\$2,120,575	\$1,982,855
Return of contribution	516,292	516,292	474,259
Total	\$126,999,218	\$124,506,984	\$113,085,984
Terminated vested members	\$1,905,453	\$1,876,097	\$1,699,447
Retired members and beneficiaries	\$251,732,303	\$249,478,043	\$247,312,970
Disabled members	\$25,692,084	\$25,470,171	\$25,466,721
Total	\$406,329,058	\$401,331,295	\$387,565,122
Liabilities due and unpaid	\$0	\$0	\$0
Actuarial accrued liability	\$356,083,206	\$352,474,986	\$342,655,039
Unfunded actuarial accrued liability	\$109,336,085	\$105,727,864	\$108,219,499

Other Measurements

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

Comparative Summary Of Principal Valuation Results (continued)

	10/1/2021 7.20% <small>(current methods & assumptions)</small>	10/1/2021 7.30% <small>(prior methods & assumptions)</small>	10/1/2020 7.30%
Actuarial present value of accrued benefits			
Statement of actuarial present value of all accrued benefits			
Vested accrued benefits			
Inactive members and beneficiaries	\$294,040,851	\$291,535,322	\$289,537,882
Active members	59,281,954	58,454,010	55,143,565
Total value of all vested accrued benefits	\$353,322,805	\$349,989,332	\$344,681,447
Non-vested accrued benefits	9,230,678	9,099,944	8,035,575
Total actuarial present value of all accrued benefits	\$362,553,483	\$359,089,276	\$352,717,022
Statement of changes in total actuarial present value of all accrued benefits (ASC 960)			
Actuarial present value of accrued benefits, beginning of year	\$352,717,022	\$352,717,022	\$337,189,692
Increase (decrease) during year			
Benefits accumulated	\$7,825,669	\$7,825,669	\$9,037,912
Plan amendment	0	0	0
Changes in actuarial assumptions	3,464,207	0	(1,054,611)
Interest	24,806,729	24,806,729	23,790,802
Benefits paid	(26,260,144)	(26,260,144)	(22,981,366)
Other changes	0	0	6,734,593
Net increase (decrease)	\$9,836,461	\$6,372,254	\$15,527,330
Actuarial present value of accrued benefits, end of year	\$362,553,483	\$359,089,276	\$352,717,022

Other Measurements

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

	10/1/2021 7.20% (current methods & assumptions)	10/1/2021 7.30% (prior methods & assumptions)	10/1/2020 7.30%
Pension cost			
Normal Cost	\$5,420,089	\$5,302,505	\$4,935,230
Member contributions	\$2,146,079	\$2,146,296	\$2,024,758
Expected plan sponsor contribution	\$12,698,439	\$12,048,546	\$11,915,364
As % of payroll	67.58%	64.11%	69.62%
Member Contributions as % of payroll	11.62%	11.62%	12.04%
Past contributions	9/30/2021		9/30/2020
Required plan sponsor contribution	\$13,097,551		\$13,033,622
Required member contribution	\$2,176,133		\$1,995,263
Actual contributions made by:			
Plan's sponsor	\$13,097,551		\$13,033,622
Members	\$2,176,133		\$1,995,263
Other	\$0		\$0
Net actuarial gain (loss) (if applicable)	\$(729,034)		\$(10,100,150)
Other disclosures (where applicable)			
Present value of active member			
Future salaries at attained age	\$171,435,907	\$170,396,473	\$155,574,166
Future contributions at attained age	\$17,676,742	\$17,536,319	\$16,015,004

Other Measurements

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

Hypothetical City Contribution Requirement for 2022/2023 Fiscal Year

	Police	Fire	Total
Unfunded actuarial accrued liability	\$51,801,875	\$57,534,209	\$109,336,084
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$2,440,471	\$111,259,332	\$113,699,803
Vesting benefits	7,538	2,446,343	2,453,881
Disability benefits	35,519	8,130,922	8,166,441
Death benefits	6,462	2,156,338	2,162,800
Return of contribution	0	516,292	516,292
Total	\$2,489,990	\$124,509,227	\$126,999,217
Terminated vested members	\$0	\$1,905,453	\$1,905,453
Retired members and beneficiaries	\$136,425,909	\$111,677,078	\$248,102,987
Disabled members	\$12,022,122	\$13,669,962	\$25,692,084
Total	\$150,938,021	\$251,761,720	\$402,699,741
Entry age reserve			
Active	\$2,321,376	\$74,431,990	\$76,753,366
Inactive	148,448,030	130,881,810	279,329,840
Total	\$150,769,406	\$205,313,800	\$356,083,207
Accumulated Employee Contributions	398,859	19,559,151	\$19,958,010
Present Value of Future Salaries	\$574,345	\$170,861,561	\$171,435,906
Present Value of Future Member Contributions	\$27,582	\$17,649,160	\$17,676,742
Annual Inactive Benefits	\$12,415,738	\$11,357,276	\$23,773,014
Valuation Payroll	\$260,209	\$18,206,633	\$18,466,842
ASC 960 Information			
Present Value of Vested Benefits	\$156,296,499	\$197,026,306	\$353,322,805
Present Value of Accrued Benefits	\$156,991,879	\$205,561,604	\$362,553,483

Other Measurements

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

Hypothetical City Contribution Requirement for 2022/2023 Fiscal Year

	Police	Fire	Total
Actuarial Value at 10/1/2020	104,408,889	152,597,117	\$257,006,006
Contribution by			
- Members	22,378	2,153,755	2,176,133
- City	0	6,385,694	6,385,694
- BSO	4,751,100	0	4,751,100
- State	1,299,394	1,438,492	2,737,886
- Total	6,072,872	9,977,941	16,050,813
Net Earnings Recognized ¹	9,284,951	14,027,101	23,312,052
Disbursements			
- Benefit Payment	14,231,228	11,934,843	26,166,071
- Refunds	0	94,073	94,073
- Administrative Expenses ²	245,801	371,340	617,141
- Total	14,477,029	12,400,256	26,877,285
Actuarial Value at 10/1/2021	105,289,683	164,201,903	269,491,586
DROP Account Balance	5,882,822	8,828,189	14,711,011
State Contribution Reserve	211,652	617,262	828,914
Member Plan	227,678	6,976,861	7,204,539
Adjusted Actuarial Value at 10/1/2021	98,967,531	147,779,591	246,747,122
Market Value of Assets ³	105,597,654	157,679,780	\$263,277,434

¹Allocated based on Return of Actuarial Value of Assets

²Allocated based on Net Earnings Recognized

³Allocation based on Adjusted Actuarial Value as of 10/1/2021

Other Measurements

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

Hypothetical City Contribution Requirement for 2022/2023 Fiscal Year

	Police	Fire	Total
Employer Contributions			
Normal Cost	\$76,392	\$5,343,697	\$5,420,089
Expected Member Contributions	(\$25,726)	(\$2,120,353)	(\$2,146,079)
Net Normal Cost	\$50,666	\$3,223,344	\$3,274,010
Administrative expense ¹	\$243,344	\$367,628	\$610,972
Amortization of UAAL	\$4,836,483	\$4,701,429	\$9,537,912
Applicable Interest	369,395	597,053	966,448
Total Recommended Contribution	\$5,499,888	\$8,889,454	\$14,389,342
Expected Non-Employer Contributions	(1,087,741)	(821,230)	(1,908,971)
Total Recommended Contribution	\$4,412,147	\$8,068,224	\$12,480,371
As a percentage of payroll	1695.62%	44.73%	74.21%
Hypothetical Total			12,480,371
Total Recommended Contribution (paid in Lump Sum)	4,489,240	8,209,199	12,698,439
Total Recommended Contribution (paid in Quarterly Installments)	4,607,228	8,424,957	13,032,185

¹Allocated based on Net Earnings Recognized

Other Measurements

Information to Comply with Florida 60T-1.003(3)(f)

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	9.80%	11.16%	6.14%	17.93%	9.28%	7.30%
9/30/2020	4.41%	9.20%	6.26%	6.37%	7.21%	7.30%
9/30/2019	9.54%	7.15%	6.06%	4.04%	5.84%	7.40%
9/30/2018	2.45%	2.52%	5.55%	8.59%	7.19%	7.50%
9/30/2017	6.11%	4.43%	5.41%	10.88%	7.91%	7.50%
9/30/2016	3.56%	6.06%	5.27%	7.63%	8.54%	7.50%
9/30/2015	(0.03%)	4.84%	5.41%	(1.71%)	7.46%	7.50%
9/30/2014	0.90%	5.50%	5.20%	10.00%	9.60%	7.50%
9/30/2013	(9.00%)	1.40%	7.00%	13.70%	8.00%	7.70%
9/30/2012	(7.00%)	1.60%	6.90%	16.80%	2.80%	7.90%
9/30/2011	(7.70%)	(1.50%)	6.40%	1.70%	1.20%	8.10%
9/30/2010	(7.60%)	5.00%	6.50%	10.40%	5.60%	8.30%
9/30/2009	(4.00%)	3.00%	7.00%	1.80%	2.30%	8.50%
9/30/2008	(1.40%)	7.40%	7.00%	(14.30%)	3.60%	8.50%
9/30/2007	2.80%	6.20%	6.00%	12.80%	10.00%	8.50%
Averages						
3-year				9.28%	7.43%	
5-year				9.46%	7.48%	
10-year				9.28%	7.37%	
20-year				6.62%	5.08%	
45-year				8.41%	7.49%	

Other Measurements

Information to Comply with Florida 60T-1.003(3)(f)

September 30, 2021

Amortization of Unfunded Actuarial Accrued Liability

	UAAL	Amortization
10/1/2021	\$109,336,084	\$9,537,912
10/1/2022	\$106,983,641	\$9,805,990
10/1/2023	\$104,174,441	\$10,008,873
10/1/2024	\$100,945,490	\$9,938,968
10/1/2046	\$164,905	\$164,905

Other Measurements

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

	Valuation	- 200 bp ²	Funding Rate ²	October 1, 2021 + 200 bp ²
	7.30%	5.20%	7.20%	9.20%
Total pension liability				
Service Cost	\$4,955,805	\$4,955,805	\$4,955,805	\$4,955,805
Interest	25,732,846	25,732,846	25,732,846	25,732,846
Benefit changes	0	0	0	0
Difference between expected and actual experience	4,441,743	5,565,439	5,565,439	5,565,439
Changes in assumptions	(1,059,072)	83,780,022	3,608,220	(66,032,295)
Benefit payments	(26,166,071)	(26,166,071)	(26,166,071)	(26,166,071)
Contribution refunds	(94,073)	(94,073)	(94,073)	(94,073)
Net change in pension liability	\$7,811,178	\$93,773,968	\$13,602,166	(\$56,038,349)
Total pension liability, beginning of year	\$360,679,005	\$365,225,505	\$365,225,505	\$365,225,505
Total pension liability, end of year	\$368,490,183	\$458,999,473	\$378,827,671	\$309,187,156
Plan fiduciary net position				
Contributions - Employer	\$11,136,794	\$11,136,794	\$11,136,794	\$11,136,794
Contributions - State	2,737,886	2,737,886	2,737,886	2,737,886
Contributions - Member	2,176,133	2,176,133	2,176,133	2,176,133
Net investment income	44,638,537	44,193,242	44,193,242	44,193,242
Benefit payments	(26,166,071)	(26,166,071)	(26,166,071)	(26,166,071)
Contribution refunds	(94,073)	(94,073)	(94,073)	(94,073)
Administrative expense	(617,141)	(617,141)	(617,141)	(617,141)
Other	59,041	59,041	59,041	59,041
Net change in plan fiduciary net position	\$33,871,106	\$33,425,811	\$33,425,811	\$33,425,811
Plan fiduciary net position, beginning of year	\$252,596,087	\$252,596,087	\$252,596,087	\$252,596,087
Plan fiduciary net position, end of year	\$286,467,193	\$286,021,898	\$286,021,898	\$286,021,898
Net pension liability/(asset)	\$82,022,990	\$172,977,575	\$92,805,773	\$23,165,258
Funded ratio	77.74%	62.31%	75.50%	92.51%
Years that Assets support expected benefit payments	15	13	15	19
Estimated city contribution				
Annual dollar value	\$12,300,292	\$19,132,651	\$12,480,371	\$5,954,096
Percentage of payroll	66.61%	103.61%	67.58%	32.24%

¹Includes DROP assets and liabilities

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

Other Measurements

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 Scale MP-2018 Generational
Interest 7.30%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$286,467,193	\$19,255,966	\$46,187,160 ¹
2	259,535,999	18,057,136	24,792,614
3	252,800,521	17,542,182	25,441,418
4	244,901,285	16,936,113	26,262,017
5	235,575,381	16,226,423	27,067,966
6	224,733,838	15,413,077	27,679,110
7	212,467,805	14,493,846	28,343,151
8	198,618,500	13,461,345	28,942,794
9	183,137,051	12,309,301	29,553,509
10	165,892,843	11,032,878	30,044,207
11	146,881,514	9,627,177	30,542,687
12	125,966,004	8,090,838	30,807,822
13	103,249,020	6,419,769	31,162,812
14	78,505,977	4,598,506	31,581,730
15	51,522,753	2,617,097	31,906,163
16	22,233,687		32,419,331

¹Benefit payments include the DROP balance and Share Plan Assets at 9/30/2021

Other Measurements

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 Scale MP-2018 Generational
 Interest 5.20%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$286,021,898	\$13,687,491	\$46,187,160 ¹
2	253,522,229	12,546,717	24,792,614
3	241,276,332	11,893,275	25,441,418
4	227,728,189	11,167,706	26,262,017
5	212,633,878	10,362,113	27,067,966
6	195,928,025	9,477,720	27,679,110
7	177,726,635	8,514,202	28,343,151
8	157,897,686	7,467,703	28,942,794
9	136,422,595	6,335,321	29,553,509
10	113,204,407	5,115,379	30,044,207
11	88,275,579	3,806,284	30,542,687
12	61,539,176	2,409,185	30,807,822
13	33,140,539	923,343	31,162,812
14	2,901,070		31,581,730

¹Benefit payments include the DROP balance and Share Plan Assets at 9/30/2021

Other Measurements

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 Scale MP-2018 Generational
Interest 7.20%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$286,021,898	\$18,959,737	\$46,187,160 ¹
2	258,794,475	17,756,180	24,792,614
3	251,758,041	17,226,606	25,441,418
4	243,543,229	16,606,111	26,262,017
5	233,887,323	15,882,376	27,067,966
6	222,701,733	15,055,395	27,679,110
7	210,078,018	14,122,997	28,343,151
8	195,857,864	13,077,934	28,942,794
9	179,993,004	11,914,061	29,553,509
10	162,353,556	10,626,662	30,044,207
11	142,936,011	9,210,966	30,542,687
12	121,604,290	7,665,703	30,807,822
13	98,462,171	5,986,913	31,162,812
14	73,286,272	4,159,429	31,581,730
15	45,863,971	2,173,547	31,906,163
16	16,131,355		32,419,331

¹Benefit payments include the DROP balance and Share Plan Assets at 9/30/2021

Other Measurements

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 Scale MP-2018 Generational
Interest 9.20%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$286,021,898	\$24,236,145	\$46,187,160 ¹
2	264,070,883	23,179,150	24,792,614
3	262,457,419	23,001,523	25,441,418
4	260,017,524	22,740,136	26,262,017
5	256,495,643	22,379,864	27,067,966
6	251,807,541	21,921,065	27,679,110
7	246,049,496	21,361,451	28,343,151
8	239,067,796	20,692,158	28,942,794
9	230,817,160	19,905,624	29,553,509
10	221,169,275	18,995,943	30,044,207
11	210,121,011	17,957,077	30,542,687
12	197,535,401	16,787,273	30,807,822
13	183,514,852	15,481,413	31,162,812
14	167,833,453	14,019,878	31,581,730
15	150,271,601	12,389,592	31,906,163
16	130,755,030	10,570,981	32,419,331
17	108,906,680	8,544,672	32,780,760
18	84,670,592	6,300,353	33,105,288
19	57,865,657	3,820,043	33,422,166
20	28,263,534		33,598,393

¹Benefit payments include the DROP balance and Share Plan Assets at 9/30/2021

Other Measurements

Reserve Account For Future Benefit Improvements Under F.L. 99-1

1. Adjusted Base Amount at 10/1/2021

Year <u>Established</u>	<u>Description</u>	Ch. 185 <u>Police</u>	Ch. 175 <u>Fire</u>	Suppl. <u>Fire</u>	Total <u>Fire</u>
		-\$-	-\$-	-\$-	-\$-
	Adjusted Base Amount as of 10/1/10	798,463	704,031	28,723	732,754
2012	Ordinances 2012-30/31	0	88,476	0	88,476
2017	Ordinance 2017-30	77,625	0	0	0
	Adjusted Base Amount	876,088	792,507	28,723	821,230

2. Reserve Account for 2020/2021

	Ch. 185 <u>Police</u>	Total <u>Fire</u>
	-\$-	-\$-
(a) Reserve Account at September 30, 2020	276,162	500,967
(b) Share Plan Allocation Paid Out	(276,162)	(500,967)
(c) Share Plan Allocation for Reserve	211,652	617,262
(d) Reserve Account at September 30, 2021 (a + b + c)	211,652	617,262
(e) City Contribution Receivable for State Premium Shortfall		
i. Premium Tax Distribution for 2020	1,299,394	1,438,492
ii. Adjusted Base Amount	876,088	821,230
iii. Shortfall of State Premium Tax Distribution	0	0

3. Allocation of Accumulated Reserve Account under SB 172

	Ch. 185 <u>Police</u>	Total
	-\$-	-\$-
(a) Amount allocated to contribution	(211,654)	0
(b) Amount allocated to Member Plan	0	0
(c) Total	(211,654)	0
(d) Final Reserve Account at September 30, 2021	211,652	617,262
(e) Amount to be allocated to Member Plan	211,652	617,262