

CITY OF FORT LAUDERDALE
POLICE AND FIREFIGHTERS' RETIREMENT SYSTEM
ACTUARIAL VALUATION
AS OF OCTOBER 1, 2020
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2022
GASB 67/68 DISCLOSURE INFORMATION
AS OF SEPTEMBER 30, 2020



March 25, 2021

Board of Trustees
City of Fort Lauderdale
Police and Firefighters' Retirement System

Re: City of Fort Lauderdale Police and Firefighters' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Fort Lauderdale Police and Firefighters' Retirement System. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapters 112, 175, and 185, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Fort Lauderdale, financial reports prepared by the custodian bank, and the actuarial

assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2019. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2020 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.


The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Fort Lauderdale, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police and Firefighters' Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By: 
Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #20-6901

By: 
Drew D. Ballard, EA, MAAA
Enrolled Actuary #20-8193

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Fort Lauderdale Police and Firefighters' Retirement System, performed as of October 1, 2020, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2022.

The contribution requirements, compared with those set forth in the October 1, 2019 actuarial valuation report, are as follows:

Valuation Date	10/1/2020	10/1/2019
Applicable to Fiscal Year Ending	<u>9/30/2022</u>	<u>9/30/2021</u>
Assumed City Contribution Date	10/1/2021	10/1/2020
Minimum Required Contribution	\$33,405,534	\$32,867,570
Member Contributions (Est.)	8,031,948	8,359,987
City And State Required Contribution	25,373,586	24,507,583
State Contribution (Est.) ¹	5,015,743	5,015,743
City Required Contribution	\$20,357,843	\$19,491,840
As % of Covered Payroll ²	27.5%	25.0%
As % of Total Payroll (Incl. DROP) ²	20.9%	20.2%

¹ Reflects updated per capita amounts based on recent premium tax distributions. It is important to keep in mind that a slight adjustment to the City's bottom line funding requirement may be necessary, based on actual allowable State Monies received.

² Please note the percentage-of-payroll rates included in the table shown above are for illustration purposes only. The City should budget based on the actual dollar contribution requirements.

As you can see, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2019 actuarial valuation report. The increase is attributable to assumption changes. The increase was partially offset by a decrease in the plan's total normal cost.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. The primary source of actuarial gain was an average salary increase of 3.31% which fell short of the 4.50% assumption. This gain was offset in part by a loss associated with an investment return of 7.03% (Actuarial Asset Basis) which fell short of the 7.30% assumption.

CHANGES SINCE PRIOR VALUATION

Plan Changes

There have been no changes in benefits since the prior valuation.

Actuarial Assumption/Method Changes

As mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

Additionally, the following assumption changes were made as a result of the June 8, 2020 experience study:

- The assumed salary increase rates were changed, resulting in increased rates prior to completion of seven years of service and decreased rates from seven to ten years of service.
- The assumed retirement rates were changed, resulting in generally lower rates prior to 25 years of service, and 100% upon reaching 25 years of service.
- The assumed DROP participation period was decreased from 8 years to 6 years.
- The assumed withdrawal rates were changed, generally resulting in more withdrawals for Police Officers and less withdrawals for Firefighters.
- The assumed disability rates were changed by reducing the rates by 50% for Police Officers and 20% for Firefighters.

Finally, the payroll growth assumption has been decreased from 2.00% to 1.73% in order to comply with Part VII of Chapter 112, Florida Statutes.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
A. Participant Data			
Actives	719	719	763
Service Retirees	786	786	761
DROP Retirees	193	193	172
Beneficiaries	165	165	172
Disability Retirees	30	30	28
Terminated Vested	<u>34</u>	<u>34</u>	<u>34</u>
Total	1,927	1,927	1,930
Total Annual Payroll	\$74,185,843	\$73,845,185	\$77,841,923
Payroll Under Assumed Ret. Age	73,946,183	73,845,185	77,841,923
Annual Rate of Payments to:			
Service Retirees	39,506,849	39,506,849	37,484,078
DROP Retirees	15,686,957	15,686,957	13,426,154
Beneficiaries	4,205,929	4,205,929	4,368,505
Disability Retirees	1,316,618	1,316,618	1,212,155
Terminated Vested	655,129	655,129	584,740
B. Assets			
Actuarial Value (AVA)	980,009,380	980,009,380	939,243,604
Market Value (MVA)	953,894,769	953,894,769	927,340,809
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	458,778,342	438,063,109	467,545,747
Disability Benefits	7,766,648	10,394,878	10,793,852
Death Benefits	3,176,275	6,337,568	6,666,908
Vested Benefits	14,644,665	13,562,353	13,757,401
Refund of Contributions	822,984	891,119	879,885
Service Retirees	435,060,606	431,726,701	410,200,304
DROP Retirees	264,072,547	262,494,394	224,959,122
Beneficiaries	36,868,610	36,959,534	38,483,079
Disability Retirees	15,278,139	14,997,938	13,855,059
Terminated Vested	<u>6,047,855</u>	<u>5,951,765</u>	<u>5,420,418</u>
Total	1,242,516,671	1,221,379,359	1,192,561,775

C. Liabilities - (Continued)	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
Present Value of Future Salaries	658,764,697	635,775,395	658,972,508
Normal Cost (Retirement)	18,468,975	17,654,301	18,759,254
Normal Cost (Disability)	720,678	999,607	1,033,561
Normal Cost (Death)	274,116	520,112	549,585
Normal Cost (Vesting)	910,919	862,086	878,953
Normal Cost (Refunds)	<u>152,730</u>	<u>165,081</u>	<u>166,366</u>
Total Normal Cost	20,527,418	20,201,187	21,387,719
Present Value of Future Normal Costs	175,979,713	165,891,983	173,850,449
Accrued Liability (Retirement)	298,819,704	291,343,650	313,570,264
Accrued Liability (Disability)	1,892,906	2,781,590	2,860,996
Accrued Liability (Death)	693,376	1,900,351	2,008,642
Accrued Liability (Vesting)	7,754,593	7,251,658	7,281,514
Accrued Liability (Refunds)	48,622	79,795	71,928
Accrued Liability (Inactives)	<u>757,327,757</u>	<u>752,130,332</u>	<u>692,917,982</u>
Total Actuarial Accrued Liability (EAN AL)	1,066,536,958	1,055,487,376	1,018,711,326
Unfunded Actuarial Accrued Liability (UAAL)	86,527,578	75,477,996	79,467,722
Funded Ratio (AVA / EAN AL)	91.9%	92.8%	92.2%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
Vested Accrued Benefits			
Inactives	757,327,757	752,130,332	692,917,982
Actives	152,729,726	151,816,126	167,386,903
Member Contributions	<u>55,319,872</u>	<u>55,319,872</u>	<u>54,807,315</u>
Total	965,377,355	959,266,330	915,112,200
Non-vested Accrued Benefits	<u>36,692,388</u>	<u>36,903,823</u>	<u>37,324,591</u>
Total Present Value Accrued Benefits (PVAB)	1,002,069,743	996,170,153	952,436,791
Funded Ratio (MVA / PVAB)	95.2%	95.8%	97.4%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	5,899,590	0	
Plan Experience	0	32,752,299	
Benefits Paid	0	(56,485,116)	
Interest	0	67,466,179	
Other	<u>0</u>	<u>0</u>	
Total	5,899,590	43,733,362	

Valuation Date	New Assump 10/1/2020	Old Assump 10/1/2020	10/1/2019
Applicable to Fiscal Year Ending	<u>9/30/2022</u>	<u>9/30/2022</u>	<u>9/30/2021</u>

Assumed City Contribution Date	October 1, 2021	October 1, 2021	October 1, 2020
E. Pension Cost			
Normal Cost ¹	\$21,553,789	\$21,110,240	\$22,371,554
Administrative Expenses ¹	644,700	641,630	630,738
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 20 years ¹	11,207,045	10,127,139	9,865,278
Applicable Interest ¹	0	0	0
Minimum Required Contribution	33,405,534	31,879,009	32,867,570
Expected Member Contributions ¹	8,031,948	7,962,611	8,359,987
Expected City and State Contribution	25,373,586	23,916,398	24,507,583
Less Expected State Contributions ²	5,015,743	5,015,743	5,015,743
Equals Expected City Required Contribution	20,357,843	18,900,655	19,491,840

F. Past Contributions

Plan Years Ending:	<u>9/30/2020</u>
City and State Requirement	22,766,889
Actual Contributions Made:	
Members (excluding buyback)	7,734,465
City	17,923,079
State	<u>4,985,818</u>
Total	30,643,362

G. Net Actuarial (Gain)/Loss (571,839)

¹ Contribution requirements developed above have been adjusted to account for an applicable assumed salary increase component. Additionally, the above stated requirements reflect no interest as a result of the assumed beginning of year City contribution date. If the required contributions are deposited at a later date, additional interest at the assumed 7.30% annual rate must be added.

² Reflects updated per capita amounts based on recent premium tax distributions.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2020	86,527,578
2021	81,391,561
2022	75,682,479
2027	54,342,551
2031	36,605,338
2036	9,969,103
2040	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2020	3.31%	4.50%
Year Ended 9/30/2019	9.83%	4.51%
Year Ended 9/30/2018	5.10%	4.59%
Year Ended 9/30/2017	3.34%	4.68%
Year Ended 9/30/2016	4.95%	4.67%

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

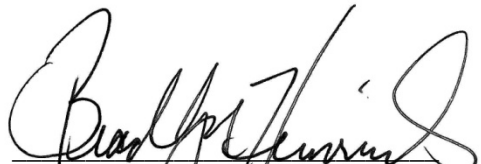
	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2020	5.62%	7.03%	7.30%
Year Ended 9/30/2019	3.94%	7.68%	7.35%
Year Ended 9/30/2018	6.99%	8.60%	7.40%
Year Ended 9/30/2017	11.98%	8.61%	7.50%
Year Ended 9/30/2016	8.35%	7.67%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2020	\$73,946,183
	1/1/2011	62,571,391
(b) Total Increase		18.18%
(c) Number of Years		9.75
(d) Average Annual Rate		1.73%

STATEMENT BY ENROLLED ACTUARY

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



Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #20-6901

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman
Bureau of Local
Retirement Systems
Post Office Box 9000
Tallahassee, FL 32315-9000

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

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2019	\$79,467,722
(2) Sponsor Normal Cost developed as of October 1, 2019	13,395,379
(3) Expected administrative expenses for the year ended September 30, 2020	603,000
(4) Expected interest on (1), (2) and (3)	6,801,016
(5) Sponsor contributions to the System during the year ended September 30, 2020	22,908,897
(6) Expected interest on (5)	1,308,385
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2020 (1)+(2)+(3)+(4)-(5)-(6)	76,049,835
(8) Change to UAAL due to Assumption Change	11,049,582
(9) Change to UAAL due to Actuarial (Gain)/Loss	(571,839)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2020	86,527,578

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2020 Amount</u>	<u>Amortization Amount</u>
Re-initialized Base	1/1/2003	2.25	4,160,490	1,910,831
Actuarial Loss	1/1/2004	3.25	2,128,972	694,768
Software Change	1/1/2005	4.25	(281,941)	(72,196)
Actuarial Loss	1/1/2005	4.25	2,225,612	569,906
Share Plan Gain	1/1/2006	5.25	(35,472)	(7,543)
Actuarial Loss	1/1/2006	5.25	1,003,163	213,325
Actuarial Loss	1/1/2007	6.25	402,651	73,767
Actuarial Gain	1/1/2008	7.25	(24,582)	(3,981)
Assump Change	1/1/2008	7.25	422,904	68,486
Asset Smooth Change	1/1/2008	7.25	(3,193,559)	(517,172)
Actuarial Loss	1/1/2009	8.25	10,492,045	1,530,681
Plan Amendment	1/1/2010	9.25	682,888	91,068
Actuarial Loss	1/1/2010	9.25	4,613,008	615,176
Actuarial Gain	1/1/2011	10.25	(152,924)	(18,858)
Actuarial Loss	1/1/2012	11.25	2,640,911	303,957
Assump Change	1/1/2012	11.25	3,363,495	387,123
Actuarial Gain	1/1/2013	12.25	(9,940,495)	(1,076,111)
Assump Change	1/1/2013	12.25	(364,885)	(39,501)
Actuarial Gain	10/1/2013	13	(1,454,145)	(150,996)

Type of Base	Date Established	Years Remaining	10/1/2020 Amount	Amortization Amount
Plan Amendment	10/1/2013	13	(23,897)	(2,481)
Actuarial Gain	10/1/2014	14	(8,302,234)	(819,532)
Plan Amendment	10/1/2014	14	1,093,359	107,928
Actuarial Loss	10/1/2015	15	4,692,704	442,517
Assump/Method Changes	10/1/2015	15	30,396,961	2,866,399
Actuarial Gain	10/1/2016	16	(3,210,755)	(290,458)
Assump Change	10/1/2016	16	15,331,304	1,386,935
Actuarial Gain	10/1/2017	17	(9,133,289)	(795,564)
Assump Change	10/1/2017	17	10,007,587	871,721
Plan Amendment	10/1/2017	17	10,467	912
Actuarial Gain	10/1/2018	18	(6,834,406)	(575,077)
Assump Change	10/1/2018	18	4,712,259	396,511
Plan Amendment	10/1/2018	18	103,435	8,703
Actuarial Loss	10/1/2019	19	15,277,578	1,245,380
Assump Change	10/1/2019	19	5,240,626	427,199
Actuarial Gain	10/1/2020	20	(571,839)	(45,274)
Assump Change	10/1/2020	20	11,049,582	874,827
			<u>86,527,578</u>	<u>10,673,376</u>

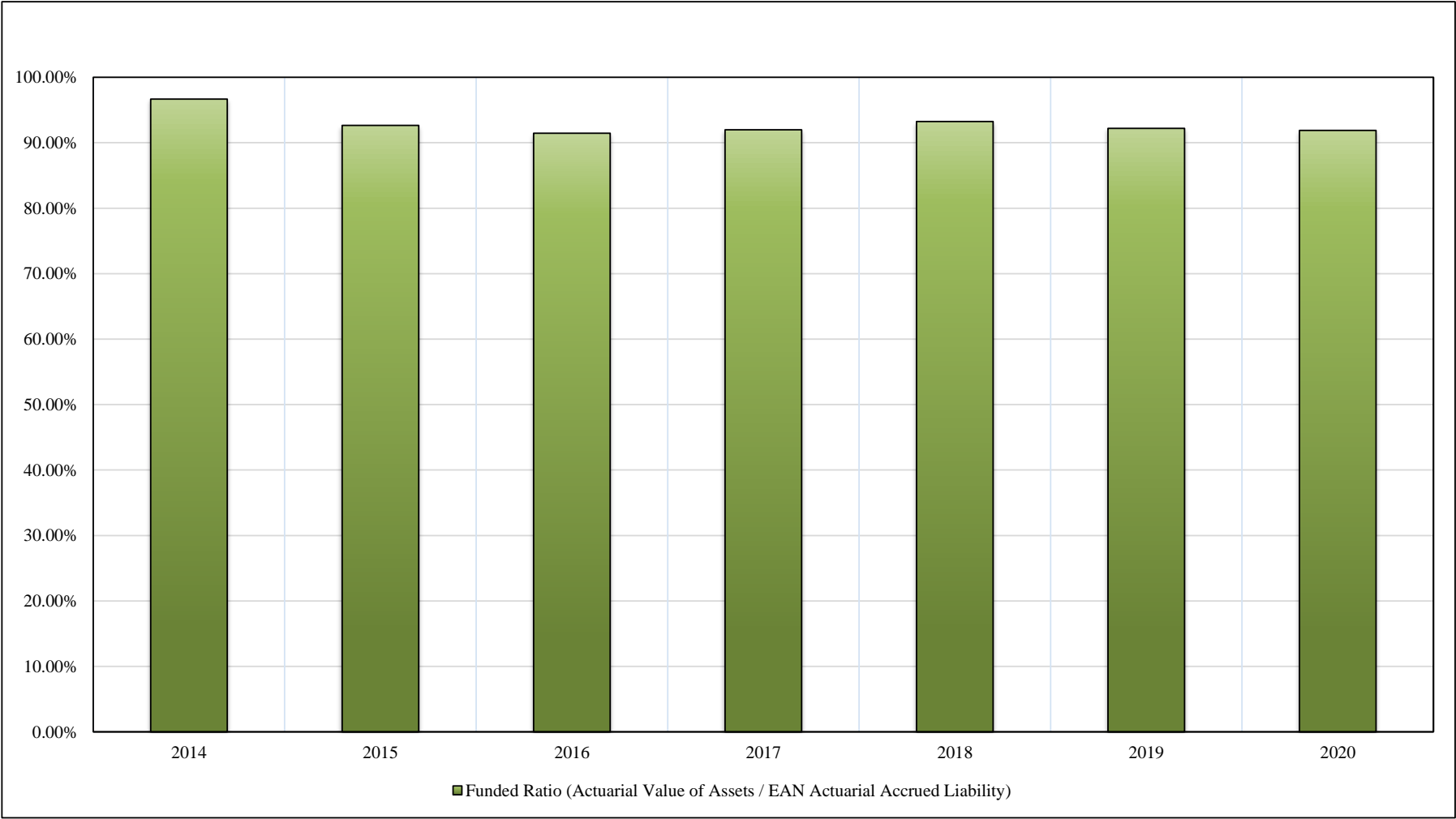
DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2019	\$79,467,722
(2) Expected UAAL as of October 1, 2020	76,049,835
 (3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	2,641,015
Salary Increases	(5,124,629)
Active Decrements	2,485,194
Inactive Mortality	147,505
City Contribution in Excess of the Required Amount	(142,008)
Other	<u>(578,916)</u>
Increase in UAAL due to (Gain)/Loss	(571,839)
Assumption Changes	<u>11,049,582</u>
(4) Actual UAAL as of October 1, 2020	\$86,527,578

DETERMINATION OF CUMULATIVE GAIN/(LOSS) EXPERIENCE POSITION

<u>Valuation Date</u>	<u>Year Ended</u>	<u>Gain/(Loss)</u>	<u>Balance</u>
1/1/1995	12/31/1994	(7,367,475)	(7,367,475)
1/1/1996	12/31/1995	5,757,825	(1,609,650)
1/1/1997	12/31/1996	8,249,398	6,639,748
1/1/1998	12/31/1997	14,303,191	20,942,939
1/1/1999	12/31/1998	26,177,594	47,120,533
1/1/2000	12/31/1999	26,361,263	73,481,796
1/1/2001	12/31/2000	18,708,226	92,190,022
1/1/2002	12/31/2001	(15,137,682)	77,052,340
1/1/2003	12/31/2002	(51,423,738)	25,628,602
1/1/2004	12/31/2003	(28,715,070)	(3,086,468)
1/1/2005	12/31/2004	(23,810,048)	(26,896,516)
1/1/2006	12/31/2005	(8,656,358)	(35,552,874)
1/1/2007	12/31/2006	(3,123,728)	(38,676,602)
1/1/2008	12/31/2007	169,648	(38,506,954)
1/1/2009	12/31/2008	(66,572,825)	(105,079,779)
1/1/2010	12/31/2009	(27,303,032)	(132,382,811)
1/1/2011	12/31/2010	854,077	(131,528,734)
1/1/2012	12/31/2011	(14,047,611)	(145,576,345)
1/1/2013	12/31/2012	12,807,830	(132,768,515)
10/1/2013	9/30/2013	1,811,169	(130,957,346)
10/1/2014	9/30/2014	9,867,338	(121,090,008)
10/1/2015	9/30/2015	(4,973,675)	(126,063,683)
10/1/2016	9/30/2016	3,492,745	(122,570,938)
10/1/2017	9/30/2017	9,924,966	(112,645,972)
10/1/2018	9/30/2018	7,061,664	(105,584,308)
10/1/2019	9/30/2019	(15,252,381)	(120,836,689)
10/1/2020	9/30/2020	571,839	(120,264,850)

HISTORY OF FUNDING PROGRESS



ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

Female: PubS.H-2010 (Above Median) for Employees, set forward one year. Prior year assumption: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

Male: PubS.H-2010 (Above Median) for Employees, set forward one year. Prior year assumption: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year. Prior year assumption: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

Prior year assumption (Female): 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale

Prior year assumption (Male): 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active Firefighter deaths, and 75% of active Police Officer deaths are assumed to be service-incurred.

Interest Rate

7.30% per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Payroll Growth

1.73% (prior year 2.00%) for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Salary Increases

Salary Scale	
Service	Rate
<7	5.11%
7-10	1.46%
11-25	0.97%
26+	0.49%

Prior year service-based table. Expected increase in annual salary in addition to 2.75% inflationary component. The assumed rates of salary increase were approved in conjunction with an actuarial experience study dated June 8, 2020.

Administrative Expenses

\$614,000 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over 20 years.

Retirement Rates

Service	% Retiring During the Year	
	Police	Fire
10-19	5.0%	4.0%
20	30.0%	25.0%
21	30.0%	25.0%
22	20.0%	37.5%
23	33.3%	37.5%
24	66.7%	50.0%
25+	100.0%	100.0%

No Members are expected to take reduced Early Retirement. The assumed rates of retirement were approved in conjunction with an actuarial experience study dated June 8, 2020.

Cost of Living Adjustments

None.

Funding Method

Entry Age Normal Actuarial Cost Method. Beginning with the pension fund's plan year ended September 30, 2015, a full year salary load based on the current 5.0% assumption is utilized under the projection funding method, as mandated by the Division of Retirement.

Marital Status

All employed Members and all retired Members are assumed to be married. Females are assumed to be 3 years younger than males. This assumption was approved in conjunction with an actuarial experience study dated July 10, 2015.

Termination Rates

<u>% Terminating During the Year</u>		
<u>Service</u>	<u>Police</u>	<u>Fire</u>
0	14.0%	7.5%
1	7.0%	2.5%
2	3.5%	0.5%
3	3.5%	0.5%
4	3.5%	0.5%
5+	1.5%	0.5%

The assumed rates of termination were approved in conjunction with an actuarial experience study dated June 8, 2020.

Disability Rates

<u>% Becoming Disabled During the Year</u>		
<u>Age</u>	<u>Police</u>	<u>Fire</u>
20	0.04%	0.11%
25	0.04%	0.12%
30	0.05%	0.14%
35	0.06%	0.18%
40	0.08%	0.24%
45	0.13%	0.41%
50	0.25%	0.80%
55+	0.39%	1.24%

It is assumed that 90% of Firefighter disablements, and 75% of Police Officer disablements are service related. The assumed rates of disablement were approved in conjunction with an actuarial experience study dated June 8, 2020.

Actuarial Value of Assets

All assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

DROP Participation

DROP participants are assumed to exit the DROP after 6 years. This assumption was approved in conjunction with an actuarial experience study dated June 8, 2020.

GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Payroll Growth: The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll does not increase according to the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 78.2% on October 1, 2014 to 60.3% on October 1, 2020, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 71.0%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 96.7% on October 1, 2014 to 91.9% on October 1, 2020 mainly due to assumption changes made during the period.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, stayed approximately the same from October 1, 2014 to October 1, 2020. The current Net Cash Flow Ratio of -2.6% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Support Ratio</u>				
Total Actives	798	776	763	719
Total Inactives ¹	1,020	1,042	1,150	1,193
Actives / Inactives ¹	78.2%	74.5%	66.3%	60.3%

Asset Volatility Ratio

Market Value of Assets (MVA)	760,851,264	745,838,688	927,340,809	953,894,769
Total Annual Payroll	70,953,933	70,305,739	77,841,923	74,185,843
MVA / Total Annual Payroll	1,072.3%	1,060.9%	1,191.3%	1,285.8%

Accrued Liability (AL) Ratio

Inactive Accrued Liability	513,042,598	532,643,018	692,917,982	757,327,757
Total Accrued Liability (EAN)	780,084,565	804,972,560	1,018,711,326	1,066,536,958
Inactive AL / Total AL	65.8%	66.2%	68.0%	71.0%

Funded Ratio

Actuarial Value of Assets (AVA)	754,116,298	745,838,688	939,243,604	980,009,380
Total Accrued Liability (EAN)	780,084,565	804,972,560	1,018,711,326	1,066,536,958
AVA / Total Accrued Liability (EAN)	96.7%	92.7%	92.2%	91.9%

Net Cash Flow Ratio

Net Cash Flow ²	(17,601,227)	(20,258,466)	(16,229,916)	(24,704,712)
Market Value of Assets (MVA)	760,851,264	745,838,688	927,340,809	953,894,769
Ratio	-2.3%	-2.7%	-1.8%	-2.6%

¹ Excludes terminated participants awaiting a refund of member contributions.

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

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2020

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Money Market	32,682,484.00
Cash and Short Term Investments	3,257.00
Total Cash and Equivalents	32,685,741.00
Receivables:	
From Broker for Investments Sold	2,892,229.00
Investment Income	1,581,954.00
Total Receivable	4,474,183.00
Investments:	
U. S. Bonds and Bills	79,323,368.00
Federal Agency Guaranteed Securities	8,843,308.00
Corporate Bonds and Other Fixed Income	104,332,450.00
Real Estate	163,296,374.00
Hedge Fund of Funds	16,349,190.00
Equity Securities	136,862,096.00
Private Debt and Equity Funds	34,572,912.00
Index Funds and Other	203,224,973.00
Commingled Equity Funds	215,193,834.00
Total Investments	961,998,505.00
Total Assets	999,158,429.00
<u>LIABILITIES</u>	
Payables:	
To Broker for Investments Purchased	4,770,683.00
Accounts Payable and Accrued Liabilities	773,620.00
To City of Fort Lauderdale	2,957,064.00
Total Liabilities	8,501,367.00
Net Assets:	
Active and Retired Members' Equity	953,894,768.90
Share Plan Benefits	36,762,293.10
NET POSITION RESTRICTED FOR PENSIONS	990,657,062.00

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2020
Market Value Basis

ADDITIONS

Contributions:

Member	7,734,464.76
Member for Buyback	2,183.24
Member Share for Buyback	142,696.40
City	17,923,079.00
State for Share Plan	1,623,882.30
State for Contribution	4,985,817.64

Total Contributions 32,412,123.34

Investment Income:

Net Increase in Fair Value of Investments	37,218,611.00
Miscellaneous Income	9,330,501.00
Interest & Dividends	12,231,789.00
Less Investment Expense ¹	(5,437,718.00)

Net Investment Income 53,343,183.00

Total Additions 85,755,306.34

DEDUCTIONS

Distributions to Members:

Benefit Payments	44,265,109.84
Lump Sum DROP Distributions	10,193,321.86
Lump Sum Share Distributions	1,726,520.30
Lump Sum Share for Buybacks	142,696.40
Refunds of Member Contributions	157,467.94

Total Distributions 56,485,116.34

Administrative Expense 631,718.63

Administrative Expense for Share 40,403.37

Share Account Net Change 2,044,108.35

Total Deductions 59,201,346.69

Net Increase in Net Position 26,553,959.65

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 927,340,809.25

End of the Year 953,894,768.90

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

ACTUARIAL ASSET VALUATION
September 30, 2020

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/Loss	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2020	2021	2022	2023	2024
09/30/2016	6,483,477	0	0	0	0	0
09/30/2017	36,115,815	7,223,163	0	0	0	0
09/30/2018	(3,674,623)	(1,469,848)	(734,923)	0	0	0
09/30/2019	(31,801,306)	(19,080,784)	(12,720,523)	(6,360,262)	0	0
09/30/2020	(15,983,927)	(12,787,142)	(9,590,357)	(6,393,572)	(3,196,787)	0
Total		(26,114,611)	(23,045,803)	(12,753,834)	(3,196,787)	0

Development of Investment Gain/(Loss)

Market Value of Assets, including Share Account, 09/30/2019	962,058,994
Contributions Less Benefit Payments & Admin Expenses	(24,745,115)
Expected Investment Earnings*	69,327,110
Actual Net Investment Earnings	53,343,183
2020 Actuarial Investment Gain/(Loss)	<u>(15,983,927)</u>

*Expected Investment Earnings = 0.073 * [962,058,994 + 0.5 * (24,745,115)]

Development of Actuarial Value of Assets

(1) Market Value of Assets, net of Share, 09/30/2020	953,894,769
(2) Gains/(Losses) Not Yet Recognized	(26,114,611)
(3) Actuarial Value of Assets, net of Share, 09/30/2020, (1) - (2)	<u>980,009,380</u>

(A) 09/30/2019 Actuarial Assets, including Share: 973,961,789

(I) Net Investment Income:

1. Interest, Dividends and Other Income	21,562,290
2. Net Increase in Fair Value of Investments	37,218,611
3. Change in Actuarial Value	14,211,816
4. Investment Expenses	(5,437,718)
Total	<u>67,554,999</u>

(B) 09/30/2020 Actuarial Assets, including Share: 1,016,771,673

Actuarial Asset Rate of Return = $2I/(A+B-I)$: 7.03%
Market Value of Assets Rate of Return: 5.62%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) (2,641,015)

10/01/2020 Limited Net Actuarial Assets (not including Share): 980,009,380

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2020
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	7,734,464.76	
Member for Buyback	2,183.24	
Member Share for Buyback	142,696.40	
City	17,923,079.00	
State for Share Plan	1,623,882.30	
State for Contribution	4,985,817.64	
 Total Contributions		 32,412,123.34
Earnings from Investments:		
Interest & Dividends	12,231,789.00	
Miscellaneous Income	9,330,501.00	
Net Increase in Fair Value of Investments	37,218,611.00	
Change in Actuarial Value	14,211,816.00	
 Total Earnings and Investment Gains		 72,992,717.00

EXPENDITURES

Distributions to Members:		
Benefit Payments	44,265,109.84	
Lump Sum DROP Distributions	10,193,321.86	
Lump Sum Share Distributions	1,726,520.30	
Lump Sum Share for Buybacks	142,696.40	
Refunds of Member Contributions	157,467.94	
 Total Distributions		 56,485,116.34
Expenses:		
Investment related ¹	5,437,718.00	
Administrative	631,718.63	
Administrative for Share	40,403.37	
 Total Expenses		 6,109,840.00
 Share Account Net Change		 2,044,108.35
 Change in Net Assets for the Year		 40,765,775.65
 Net Assets Beginning of the Year		 939,243,604.25
 Net Assets End of the Year ²		 980,009,379.90

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

²Net Assets may be limited for actuarial consideration.

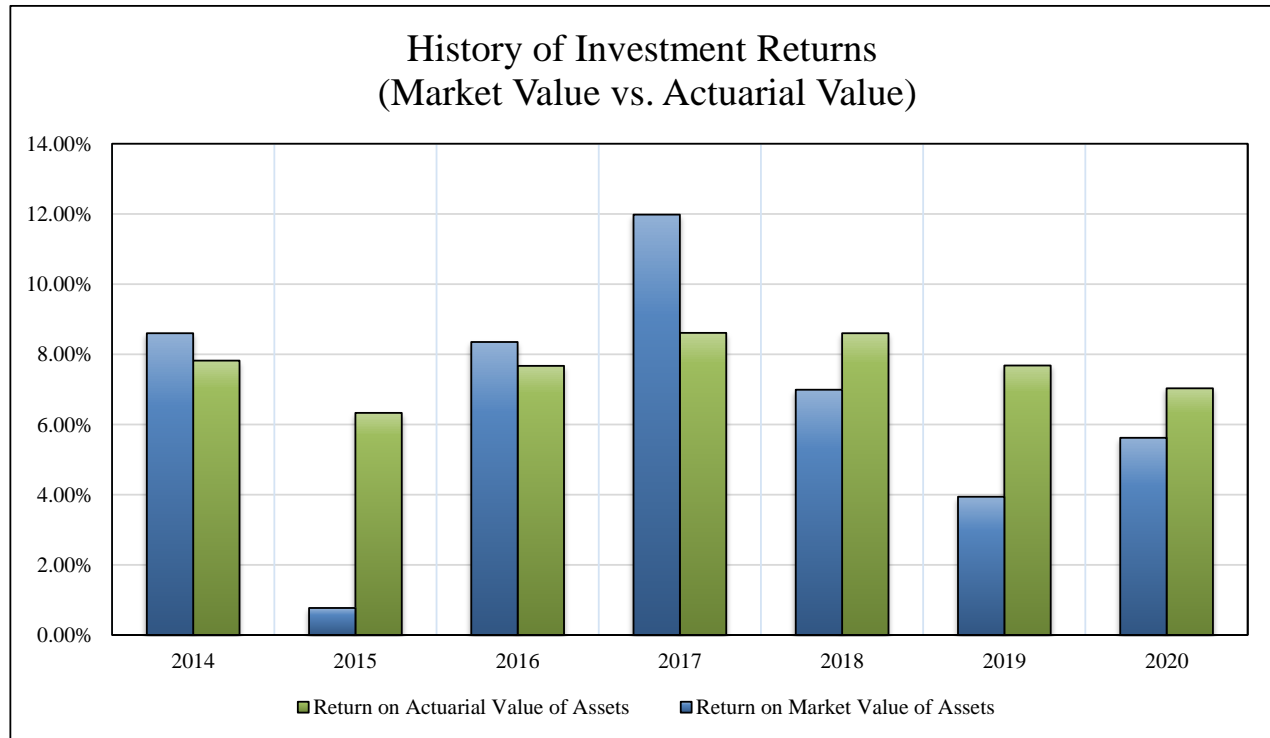
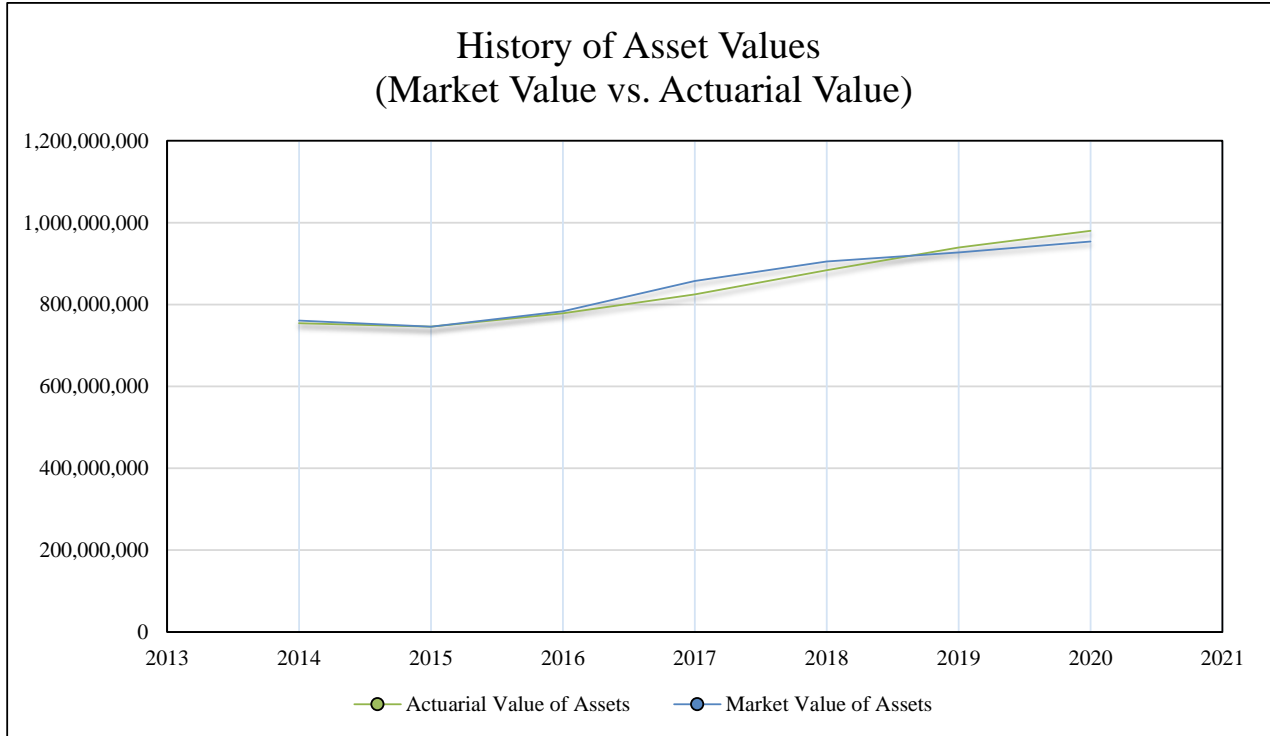
DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2019 to September 30, 2020

Beginning of the Year Balance	51,471,207.99
Plus Additions	14,822,927.68
Investment Return Earned	3,112,988.00
Less Distributions	(10,193,321.86)
End of the Year Balance	59,213,801.81

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2020

(1)	Required City and State Contributions	\$22,766,889.00
(2)	Less Allowable State Contribution	<u>(4,985,817.64)</u>
(3)	Required City Contribution for Fiscal 2020	17,781,071.36
(4)	Less 2019 Prepaid Contribution	0.00
(5)	Less Actual City Contributions	<u>(17,923,079.00)</u>
(6)	City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2020	(\$142,007.64)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Actives - Hired before 10/1/2014</u>				
Number	689	655	588	526
Average Current Age	40.7	41.4	41.5	41.8
Average Age at Employment	28.1	28.1	27.9	27.9
Average Past Service	12.6	13.3	13.6	13.9
Average Annual Salary	\$97,726	\$101,535	\$110,107	\$111,748

Actives - Hired on or after 10/1/2014

Number	97	138	175	193
Average Current Age	29.2	29.4	30.4	30.9
Average Age at Employment	27.9	27.7	28.2	28.0
Average Past Service	1.3	1.7	2.2	2.9
Average Annual Salary	\$60,807	\$68,886	\$74,851	\$79,825

Service Retirees

Number	768	755	761	786
Average Current Age	66.6	67.0	67.3	67.5
Average Annual Benefit	\$48,011	\$48,513	\$49,256	\$50,263

DROP Retirees

Number	113	133	172	193
Average Current Age	52.3	52.7	52.5	52.1
Average Annual Benefit	\$75,723	\$75,781	\$78,059	\$81,280

Beneficiaries

Number	156	166	172	165
Average Current Age	73.6	74.3	74.1	74.6
Average Annual Benefit	\$23,906	\$25,880	\$25,398	\$25,490

Disability Retirees

Number	26	26	28	30
Average Current Age	54.2	55.2	55.3	55.7
Average Annual Benefit	\$42,733	\$42,141	\$43,291	\$43,887

STATISTICAL DATA
(Police Only)

	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Actives - Hired before 10/1/2014</u>				
Number	385	364	340	319
Average Current Age	40.2	40.8	41.3	41.9
Average Age at Employment	28.3	28.3	28.3	28.2
Average Past Service	11.9	12.5	13.0	13.7
Average Annual Salary	\$95,799	\$101,062	\$105,176	\$109,212
<u>Actives - Hired on or after 10/1/2014</u>				
Number	50	75	103	116
Average Current Age	28.1	28.3	29.8	30.1
Average Age at Employment	26.7	26.6	27.8	27.4
Average Past Service	1.4	1.7	2.0	2.7
Average Annual Salary	\$62,053	\$68,584	\$71,298	\$77,685

STATISTICAL DATA
(Fire Only)

	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Actives - Hired before 10/1/2014</u>				
Number	304	291	248	207
Average Current Age	41.4	42.0	41.8	41.7
Average Age at Employment	28.1	27.7	27.3	27.4
Average Past Service	13.3	14.3	14.5	14.2
Average Annual Salary	\$100,167	\$102,126	\$116,867	\$115,657
<u>Actives - Hired on or after 10/1/2014</u>				
Number	47	63	72	77
Average Current Age	30.4	30.8	31.3	32.2
Average Age at Employment	29.3	29.0	28.8	28.8
Average Past Service	1.1	1.8	2.5	3.3
Average Annual Salary	\$59,481	\$69,245	\$79,934	\$83,050

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	2	5	4	1								12
25 - 29	12	16	16	16	11	8						79
30 - 34	8	16	12	16	14	55	26					147
35 - 39	1		5	8	5	33	81	19				152
40 - 44	1		1	2	2	14	62	46	18			146
45 - 49		2		2		9	38	29	24			104
50 - 54					2	3	14	22	13	1		55
55 - 59						1	10	7				18
60 - 64							1	3	2			6
65+												0
Total	24	39	38	45	34	123	232	126	57	1	0	719

AGE AND SERVICE DISTRIBUTION
(Police Only)

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	1	3	3									7
25 - 29	11	11	9	7	7	7						52
30 - 34	6	15	9	3	10	33	17					93
35 - 39			1	2	1	21	47	9				81
40 - 44	1				1	9	41	33	7			92
45 - 49		1				7	23	21	10			62
50 - 54					1	1	9	14	6	1		32
55 - 59						1	8	5				14
60 - 64								2				2
65+												0
Total	19	30	22	12	20	79	145	84	23	1	0	435

AGE AND SERVICE DISTRIBUTION
(Fire Only)

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	1	2	1	1								5
25 - 29	1	5	7	9	4	1						27
30 - 34	2	1	3	13	4	22	9					54
35 - 39	1		4	6	4	12	34	10				71
40 - 44			1	2	1	5	21	13	11			54
45 - 49		1		2		2	15	8	14			42
50 - 54					1	2	5	8	7			23
55 - 59							2	2				4
60 - 64							1	1	2			4
65+												0
Total	5	9	16	33	14	44	87	42	34	0	0	284

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2019	763
b. Terminations	
i. Vested (partial or full) with deferred annuity	(4)
ii. Vested in refund of member contributions only	(4)
iii. Refund of member contributions or full lump sum distribution received	(3)
c. Deaths	
i. Beneficiary receiving benefits	(1)
ii. No future benefits payable	0
d. Disabled	(2)
e. Retired	(6)
f. DROP	<u>(48)</u>
g. Continuing participants	695
h. New entrants	<u>24</u>
i. Total active life participants in valuation	719

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	761	172	172	28	17	17	1,167
Retired	36	(27)	0	0	(3)	0	6
DROP	0	48	0	0	0	0	48
Vested (Deferred Annuity)	0	0	0	0	4	0	4
Vested (Due Refund)	0	0	0	0	0	4	4
Hired/Terminated in Same Year	0	0	0	0	0	0	0
Death, With Survivor	(5)	0	5	0	0	1	1
Death, No Survivor	(6)	0	(11)	0	0	0	(17)
Disabled	0	0	0	2	0	0	2
Refund of Contributions	0	0	0	0	0	(7)	(7)
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	(1)	0	0	0	(1)
Data Corrections	0	0	0	0	1	0	1
b. Number current valuation	786	193	165	30	19	15	1,208

SUMMARY OF CURRENT PLAN

<u>Membership</u>	Police officers and firefighters.
<u>Credited Service</u>	Total years and fractional parts of years of years of service of any Member, from the date he first entered employment as a Police Officer or Firefighter until either the date of his DROP Retirement or the date his employment shall be terminated by death, retirement, or discharge.
<u>Compensation</u>	Base pay, assignment pay, and longevity bonuses, including pick-up contributions, and up to forty (40) hours of overtime for police officers.
<u>Average Final Compensation</u>	<p><i>Firefighters hired prior October 1, 2014: Average Compensation during the highest 2 years of Credited Service.</i></p> <p><i>Firefighters hired after September 30, 2014: Average Compensation during the highest 5 years of Credited Service.</i></p> <p><i>Police Officers hired prior to April 1, 2014: Average Compensation during the highest 2 years of Credited Service.</i></p> <p><i>Police Officers hired after March 31, 2014: Average Compensation during the highest 5 years of Credited Service.</i></p>
<u>Member Contributions</u>	10.00% of Compensation.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.
<u>Normal Retirement</u>	
Date	Earlier of: 1) Age 55 with 10 years of Credited Service, or 2) attainment of 20 years of Credited Service, regardless of Age.
Plan 1 Benefit	
Firefighters	<i>Hired prior to October 1, 2014: 3.38% of Average Final Compensation times Credited Service, with a maximum of 81% of Average Final Compensation. Firefighters with 25 or more years of Credited Service on October 1, 2002 are subject to a maximum of 91.26% of Average Final Compensation. Firefighters employed before</i>

December 11, 1993 receive an additional 2.0% of Average Final Compensation (excluded from the 81% maximum percentage).

Hired after September 30, 2014: 3.00% of Average Final Compensation times Credited Service, with a maximum of 75% of Average Final Compensation.

Police Officers

Hired prior to April 1, 2014: 3.38% of Average Final Compensation times Credited Service, with a maximum of 81% of Average Final Compensation. Police Officers with 25 or more years of Credited Service on January 1, 2002 are subject to a maximum of 91.26%.

Hired after March 31, 2014: 3.00% of Average Final Compensation times Credited Service, with a maximum of 75% of Average Final Compensation.

Plan 2 Benefit

3.0% of Average Final Compensation for the first 20 years of Credited Service, plus 2.0% of Average Final Compensation for each year in excess of 20. Firefighters employed before December 11, 1993 receive an additional 2.0% of Average Final Compensation.

Form of Benefit

Firefighters hired prior to October 1, 2014: 60% Joint and Survivor, with an additional 40% death benefit during the first year of retirement (Optional forms available).

Firefighters hired after September 30, 2014: 10-Year Certain and Life (Optional forms available).

Police Officers hired prior to April 1, 2014: 60% Joint and Survivor, with an additional 40% death benefit during the first year of retirement (Optional forms available).

Police Officers hired after March 31, 2014: 10-Year Certain and Life (Optional forms available).

Early Retirement (Firefighters Only)

Eligibility

Age 50 with 10 years of Credited Service.

Benefit

Accrued benefit, reduced 3.0% per year that the benefit commencement date precedes the Normal Retirement date.

Vesting

Less than 10 Years of Credited Service

Refund of Member contributions. For Police Officers who separate employment with the City on or after December 3, 2013 and Firefighters who separate employment with the City on or after October 1, 2014, no interest will be credited when determining the refund amount.

10 years of Credited Service

Accrued benefit deferred to Normal Retirement date.

Disability

Eligibility

Covered from Date of Employment.

Exclusions

Disability resulting from use of drugs, illegal participation in riots, service in military, etc.

Benefit

Non-Service Connected

50% of Average Final Compensation offset by 100% of Social Security Disability benefits, Workers' Compensation benefits, and earned income.

Service Connected

65% of Average Final Compensation.

Duration

Payable for life or until recovery.

Death Benefits

Eligibility

Covered from Date of Employment.

Benefit

Non-Service Connected

50% of the Member's monthly Compensation for eight (8) years. For a Member with at least 10 years of Credited Service, not less than the benefits otherwise payable at early or normal retirement age. The minimum benefit payable is four (4) times the rate of the Member's annual compensation.

Service Connected

50% of Member's monthly Compensation to spouse until death or remarriage. Children's benefits of 10% of Member's monthly benefits per child (50% maximum) until age 18, and a maximum of 80% to spouse and children. For Members who are not married and have no children, a 10-year benefit will be paid to the designated beneficiary. The minimum benefit payable is four (4) times the rate of the Member's annual compensation.

COLA

Adjustment Date	July 1st
Eligibility	Receipt of retirement benefits for one year. Additionally, must have entered Retirement status prior to July 1, 2008.
Amount	Lesser of 1) percentage not greater than CPI (all Urban Consumers) for preceding calendar year, or 2) percentage increase limited to present value of which can be funded by excess gains for preceding calendar year. Maximum cost-of-living adjustment is 5.0%. The COLA increase may be granted only if the System remains in a net positive experience position, determined on a cumulative basis from January 1, 1987 (in State Statute – not in Ordinance)

DROP

Members eligible for Normal Retirement may elect either a Deferred Retirement Option Plan for up to 96 months or a Benefit Actuarially Calculated Deferred Retirement Option Program for up to 36 months, but not both. For Police Officers hired after March 31, 2014 and Firefighters hired after September 30, 2014, each month a Member delays entry into DROP following completion of 25 years of Credited Service, the 96 month maximum DROP participation period shall be correspondingly reduced by one month. Tier 1 DROP participants shall contribute 1.75% of salary during DROP participation. Tier 2 DROP participants shall contribute 10% of salary for the first five (5) years of DROP participation, and 1.50% of salary for each year thereafter. Members will not receive a refund of contributions made while participating in DROP.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2020

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Money Market	32,682,484
Cash and Short Term Investments	3,257
Total Cash and Equivalents	32,685,741
Receivables:	
From Broker for Investments Sold	2,892,229
Investment Income	1,581,954
Total Receivable	4,474,183
Investments:	
U. S. Bonds and Bills	79,323,368
Federal Agency Guaranteed Securities	8,843,308
Corporate Bonds and Other Fixed Income	104,332,450
Real Estate	163,296,374
Hedge Fund of Funds	16,349,190
Equity Securities	136,862,096
Private Debt and Equity Funds	34,572,912
Index Funds and Other	203,224,973
Commingled Equity Funds	215,193,834
Total Investments	961,998,505
Total Assets	999,158,429
<u>LIABILITIES</u>	
Payables:	
To Broker for Investments Purchased	4,770,683
Accounts Payable and Accrued Liabilities	773,620
To City of Fort Lauderdale	2,957,064
Total Liabilities	8,501,367
NET POSITION RESTRICTED FOR PENSIONS	990,657,062

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2020
Market Value Basis

ADDITIONS

Contributions:

Member	7,734,465	
Member for Buyback	2,183	
Member Share for Buyback	142,696	
City	17,923,079	
State for Share Plan	1,623,882	
State for Contribution	4,985,818	
 Total Contributions		 32,412,123
 Investment Income:		
Net Increase in Fair Value of Investments	37,218,611	
Miscellaneous Income	9,330,501	
Interest & Dividends	12,231,789	
Less Investment Expense ¹	(5,437,718)	
 Net Investment Income		 53,343,183
 Total Additions		 85,755,306

DEDUCTIONS

Distributions to Members:

Benefit Payments	44,265,110	
Lump Sum DROP Distributions	10,193,322	
Lump Sum Share Distributions	1,726,520	
Lump Sum Share for Buybacks	142,696	
Lump Sum PRIA/RPRB Distributions	0	
Refunds of Member Contributions	157,468	
 Total Distributions		 56,485,116
 Administrative Expense		 672,122
 Total Deductions		 57,157,238
 Net Increase in Net Position		 28,598,068
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		962,058,994
 End of the Year		 990,657,062

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

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2020)

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two of the three appointive Members shall be appointed by the City Commission, each of whom must be a legal resident of the City. The two above appointive Members appointed after September 18, 2012 shall serve as trustee for a period of 4 years, unless sooner replaced by the City Commission at whose pleasure they shall serve. The third appointive Member shall be chosen by a majority of the previous six Members and such person's name shall be submitted to the City Commission. Upon receipt of the seventh person's name, the City Commission shall, as a ministerial duty, appoint such person to the Board of Trustees as its seventh Member. The seventh Member shall have the same rights as each of the other six Members appointed or elected as herein provided, shall serve on the Board for a period of four years, and may succeed himself or herself in office. The term of office of the seventh Member appointed after September 18, 2012 shall be four years.

Plan Membership as of October 1, 2019:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,133
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	34
Active Plan Members	763
	1,930

Benefits Provided

The Plan provides retirement, termination, disability and death benefits. A summary of the benefit provisions can be found in the October 1, 2019 Actuarial Valuation Report for the City of Fort Lauderdale Police and Firefighters' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Member Contributions: 10.00% of Compensation.
City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2020:

Asset Class	Target Allocation
Domestic Equity	30.00%
International Equity	15.00%
Domestic Bonds	20.00%
Real Estate	15.00%
Other	20.00%
Total	100.00%

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended September 30, 2020, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 5.62 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Members eligible for Normal Retirement may elect either a Deferred Retirement Option Plan for up to 96 months or a Benefit Actuarially Calculated Deferred Retirement Option Program for up to 36 months, but not both. For Police Officers hired after March 31, 2014 and Firefighters hired after September 30, 2014, each month a Member delays entry into DROP following completion of 25 years of Credited Service, the 96 month maximum DROP participation period shall be correspondingly reduced by one month. Tier 1 DROP participants shall contribute 1.75% of salary during DROP participation. Tier 2 DROP participants shall contribute 10% of salary for the first five (5) years of DROP participation, and 1.50% of salary for each year thereafter.

Members will not receive a refund of contributions made while participating in DROP.

The DROP balance as September 30, 2020 is \$59,213,802.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2020 were as follows:

Total Pension Liability	\$1,105,794,719
Plan Fiduciary Net Position	<u>\$ (990,657,062)</u>
Sponsor's Net Pension Liability	<u>\$ 115,137,657</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	89.59%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2019 updated to September 30, 2020 using the following actuarial assumptions:

Inflation	2.25%	
Salary Increases	Service based	*Expected increase in annual salary in addition to 2.75% inflationary component.
Discount Rate	7.30%	
Investment Rate of Return	7.30%	

Mortality Rate Healthy Active Lives:

Female: PubS.H-2010 (Above Median) for Employees, set forward one year.

Male: PubS.H-2010 (Above Median) for Employees, set forward one year.

Mortality Rate Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Mortality Rate Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

Mortality Rate Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active Firefighter deaths, and 75% of active Police Officer deaths are assumed to be service-incurred.

The most recent actuarial experience study used to review the other significant assumptions was dated June 8, 2020.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2020 the inflation rate assumption of the investment advisor was 1.75%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2020 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return ¹
Domestic Equity	7.25%
International Equity	7.15%
Domestic Bonds	2.15%
Real Estate	6.00%
Other	5.75%

¹Source: Captrust. Based on 7-10 year projected returns

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.30 percent. The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease	Current Discount Rate	1% Increase
	6.30%	7.30%	8.30%
Sponsor's Net Pension Liability	\$ 235,319,170	\$ 115,137,657	\$ 15,835,368

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 2 Fiscal Years

	09/30/2020	09/30/2019
Total Pension Liability		
Service Cost	21,592,065	21,371,855
Interest	74,756,410	71,544,868
Share Plan Allocation	1,623,882	1,524,328
Changes of benefit terms	-	65,590
Differences between Expected and Actual Experience	19,851,718	2,008,045
Changes of assumptions	13,599,982	5,019,222
Contributions - Buy Back	144,879	2,890,088
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	(51,350,440)
Net Change in Total Pension Liability	75,083,820	53,073,556
Total Pension Liability - Beginning	1,030,710,899	977,637,343
Total Pension Liability - Ending (a)	<u>\$1,105,794,719</u>	<u>\$1,030,710,899</u>
Plan Fiduciary Net Position		
Contributions - Employer	17,923,079	18,108,528
Contributions - State	4,985,818	5,218,863
Contributions - State Share Plan	1,623,882	1,524,327
Contributions - Employee	7,734,465	7,975,985
Contributions - Buy Back	144,879	2,890,088
Net Investment Income	53,343,183	36,802,989
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	(51,350,440)
Administrative Expense	(672,122)	(638,919)
Net Change in Plan Fiduciary Net Position	28,598,068	20,531,421
Plan Fiduciary Net Position - Beginning	962,058,994	941,527,573
Plan Fiduciary Net Position - Ending (b)	<u>\$ 990,657,062</u>	<u>\$ 962,058,994</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 115,137,657</u>	<u>\$ 68,651,905</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	89.59%	93.34%
Covered Payroll	\$ 73,016,330	\$ 76,177,179
Net Pension Liability as a percentage of Covered Payroll	157.69%	90.12%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:*Changes of benefit terms:*

For measurement date 09/30/2019, amounts reported as changes of benefit terms resulted from the provisions of Chapter 112.1816, Florida Statutes. The Statutes state that, effective July 1, 2019, a death or disability (under the Plan's definition of total and permanent disability) for a Firefighter due to the diagnosis of cancer or circumstances that arise out of the treatment of cancer will be treated as duty-related.

Changes of assumptions:

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

Additionally, the following assumption changes were made as a result of the June 8, 2020 experience study:

- The assumed salary increase rates were changed, resulting in increased rates prior to completion of seven years of service and decreased rates from seven to ten years of service.
- The assumed retirement rates were changed, resulting in generally lower rates prior to 25 years of service, and 100% upon reaching 25 years of service.
- The assumed DROP participation period was decreased from 8 years to 6 years.
- The assumed withdrawal rates were changed, generally resulting in more withdrawals for Police Officers and less withdrawals for Firefighters.
- The assumed disability rates were changed by reducing the rates by 50% for Police Officers and 20% for Firefighters.
- The inflation rate assumption was lowered from 2.75% to 2.25% per year.

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted from lowering the investment return assumption from 7.35% to 7.30% per year, net of investment related expenses.

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2020	\$ 22,766,889	\$ 22,908,897	\$ (142,008)	\$ 73,016,330	31.38%
09/30/2019	\$ 22,535,977	\$ 23,327,392	\$ (791,415)	\$ 76,177,179	30.62%

Notes to Schedule

Valuation Date: 10/01/2018

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

Methods and assumptions used to determine contribution rates can be found in the October 1, 2018 Actuarial Valuation for the City of Fort Lauderdale Police and Firefighters' Retirement System prepared by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2020	5.62%
09/30/2019	3.94%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2021)

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two of the three appointive Members shall be appointed by the City Commission, each of whom must be a legal resident of the City. The two above appointive Members appointed after September 18, 2012 shall serve as trustee for a period of 4 years, unless sooner replaced by the City Commission at whose pleasure they shall serve. The third appointive Member shall be chosen by a majority of the previous six Members and such person's name shall be submitted to the City Commission. Upon receipt of the seventh person's name, the City Commission shall, as a ministerial duty, appoint such person to the Board of Trustees as its seventh Member. The seventh Member shall have the same rights as each of the other six Members appointed or elected as herein provided, shall serve on the Board for a period of four years, and may succeed himself or herself in office. The term of office of the seventh Member appointed after September 18, 2012 shall be four years.

The Plan provides pensions for each sworn police officer and firefighter of the City who is eligible to participate in the Plan and who fulfills the prescribed eligibility requirements is considered a Member of the Plan.

Plan Membership as of October 1, 2019:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,133
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	34
Active Plan Members	763
	1,930
	1,930

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2019 Actuarial Valuation Report for the City of Fort Lauderdale Police and Firefighters' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Member Contributions: 10.00% of Compensation.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.

Net Pension Liability

The measurement date is September 30, 2020.

The measurement period for the pension expense was October 1, 2019 to September 30, 2020.

The reporting period is September 30, 2020 through September 30, 2021.

The Sponsor's Net Pension Liability was measured as of September 30, 2020.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2019 updated to September 30, 2020 using the following actuarial assumptions:

Inflation	2.25%	
Salary Increases	Service based	*Expected increase in annual salary in addition to 2.75% inflationary component.
Discount Rate	7.30%	
Investment Rate of Return	7.30%	

Mortality Rate Healthy Active Lives:

Female: PubS.H-2010 (Above Median) for Employees, set forward one year.

Male: PubS.H-2010 (Above Median) for Employees, set forward one year.

Mortality Rate Healthy Retiree Lives:

Female: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Above Median) for Healthy Retirees, set forward one year.

Mortality Rate Beneficiary Lives:

Female: PubG.H-2010 (Above Median) for Healthy Retirees.

Male: PubG.H-2010 (Above Median) for Healthy Retirees, set back one year.

Mortality Rate Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active Firefighter deaths, and 75% of active Police Officer deaths are assumed to be service-incurred.

The most recent actuarial experience study used to review the other significant assumptions was dated June 8, 2020.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2020 the inflation rate assumption of the investment advisor was 1.75%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2020 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return ¹
Domestic Equity	30.00%	7.25%
International Equity	15.00%	7.15%
Domestic Bonds	20.00%	2.15%
Real Estate	15.00%	6.00%
Other	20.00%	5.75%
Total	100.00%	

¹Source: Captrust. Based on 7-10 year projected returns

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.30 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2020	\$1,030,710,899	\$ 962,058,994	\$ 68,651,905
Changes for a Year:			
Service Cost	21,592,065	-	21,592,065
Interest	74,756,410	-	74,756,410
Share Plan Allocation	1,623,882	-	1,623,882
Differences between Expected and Actual Experience	19,851,718	-	19,851,718
Changes of assumptions	13,599,982	-	13,599,982
Changes of benefit terms	-	-	-
Contributions - Employer	-	17,923,079	(17,923,079)
Contributions - State	-	4,985,818	(4,985,818)
Contributions - State Share Plan	-	1,623,882	(1,623,882)
Contributions - Employee	-	7,734,465	(7,734,465)
Contributions - Buy Back	144,879	144,879	-
Net Investment Income	-	53,343,183	(53,343,183)
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	(56,485,116)	-
Administrative Expense	-	(672,122)	672,122
Net Changes	75,083,820	28,598,068	46,485,752
Reporting Period Ending September 30, 2021	<u>\$1,105,794,719</u>	<u>\$ 990,657,062</u>	<u>\$ 115,137,657</u>

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.30%	7.30%	8.30%
Sponsor's Net Pension Liability	\$ 235,319,170	\$ 115,137,657	\$ 15,835,368

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2020**

For the year ended September 30, 2020, the Sponsor has recognized a Pension Expense of \$31,621,409.

On September 30, 2020, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	1,606,436	3,126,258
Changes of assumptions	14,467,602	-
Net difference between Projected and Actual Earnings on Pension Plan investments	11,902,798	-
Employer and State contributions subsequent to the measurement date	24,532,779	-
Total	\$ 52,509,615	\$ 3,126,258

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2020.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:		
2021	\$	4,471,974
2022	\$	3,487,844
2023	\$	9,125,046
2024	\$	7,765,714
2025	\$	-
Thereafter	\$	-

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2021**

For the year ended September 30, 2021, the Sponsor will recognize a Pension Expense of \$37,614,587.

On September 30, 2021, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	16,093,617	1,219,896
Changes of assumptions	17,266,191	-
Net difference between Projected and Actual Earnings on Pension Plan investments	26,114,610	-
Employer and State contributions subsequent to the measurement date	TBD	
Total	TBD	\$ 1,219,896

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2021.

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2022	\$ 15,047,555
2023	\$ 20,684,757
2024	\$ 19,325,425
2025	\$ 3,196,785
2026	\$ -
Thereafter	\$ -

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 2 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2021 09/30/2020	09/30/2020 09/30/2019
Total Pension Liability		
Service Cost	21,592,065	21,371,855
Interest	74,756,410	71,544,868
Share Plan Allocation	1,623,882	1,524,328
Changes of benefit terms	-	65,590
Differences between Expected and Actual Experience	19,851,718	2,008,045
Changes of assumptions	13,599,982	5,019,222
Contributions - Buy Back	144,879	2,890,088
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	(51,350,440)
Net Change in Total Pension Liability	75,083,820	53,073,556
Total Pension Liability - Beginning	1,030,710,899	977,637,343
Total Pension Liability - Ending (a)	<u>\$1,105,794,719</u>	<u>\$1,030,710,899</u>
Plan Fiduciary Net Position		
Contributions - Employer	17,923,079	18,108,528
Contributions - State	4,985,818	5,218,863
Contributions - State Share Plan	1,623,882	1,524,327
Contributions - Employee	7,734,465	7,975,985
Contributions - Buy Back	144,879	2,890,088
Net Investment Income	53,343,183	36,802,989
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	(51,350,440)
Administrative Expense	(672,122)	(638,919)
Net Change in Plan Fiduciary Net Position	28,598,068	20,531,421
Plan Fiduciary Net Position - Beginning	962,058,994	941,527,573
Plan Fiduciary Net Position - Ending (b)	<u>\$ 990,657,062</u>	<u>\$ 962,058,994</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 115,137,657</u>	<u>\$ 68,651,905</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	89.59%	93.34%
Covered Payroll	\$ 73,016,330	\$ 76,177,179
Net Pension Liability as a percentage of Covered Payroll	157.69%	90.12%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Changes of benefit terms:

For measurement date 09/30/2019, amounts reported as changes of benefit terms resulted from the provisions of Chapter 112.1816, Florida Statutes. The Statutes state that, effective July 1, 2019, a death or disability (under the Plan's definition of total and permanent disability) for a Firefighter due to the diagnosis of cancer or circumstances that arise out of the treatment of cancer will be treated as duty-related.

Changes of assumptions:

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed. Additionally, the following assumption changes were made as a result of the June 8, 2020 experience study:

- The assumed salary increase rates were changed, resulting in increased rates prior to completion of seven years of service and decreased rates from seven to ten years of service.
- The assumed retirement rates were changed, resulting in generally lower rates prior to 25 years of service, and 100% upon reaching 25 years of service.
- The assumed DROP participation period was decreased from 8 years to 6 years.
- The assumed withdrawal rates were changed, generally resulting in more withdrawals for Police Officers and less withdrawals for Firefighters.
- The assumed disability rates were changed by reducing the rates by 50% for Police Officers and 20% for Firefighters.
- The inflation rate assumption was lowered from 2.75% to 2.25% per year.

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted from lowering the investment return assumption from 7.35% to 7.30% per year, net of investment related expenses.

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2020	\$ 22,766,889	\$ 22,908,897	\$ (142,008)	\$ 73,016,330	31.38%
09/30/2019	\$ 22,535,977	\$ 23,327,392	\$ (791,415)	\$ 76,177,179	30.62%

Notes to Schedule

Valuation Date:

10/01/2018

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

Methods and assumptions used to determine contribution rates can be found in the October 1, 2018 Actuarial Valuation for the City of Fort Lauderdale Police and Firefighters' Retirement System prepared by Foster & Foster Actuaries and Consultants.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

The following information is not required to be disclosed but is provided for informational purposes.

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2020

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 36,109,770	\$ 31,198,306	\$ 55,128,158	\$ -
Employer and State Contributions made after 09/30/2018	-	-	24,532,779	-
Total Pension Liability Factors:				
Service Cost	21,371,855	-	-	21,371,855
Interest	71,544,868	-	-	71,544,868
Share Plan Allocation	1,524,328	-	-	1,524,328
Changes in benefit terms	65,590	-	-	65,590
Contributions - Buy Back	2,890,088	-	-	2,890,088
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	2,008,045	-	2,008,045	-
Current year amortization of experience difference	-	(3,370,173)	(401,609)	(2,968,564)
Change in assumptions about future economic or demographic factors or other inputs	5,019,222	-	5,019,222	-
Current year amortization of change in assumptions	-	(438,996)	(7,401,401)	6,962,405
Benefit Payments, including Refunds of Employee Contributions	(51,350,440)	-	-	-
Net change	<u>53,073,556</u>	<u>(3,809,169)</u>	<u>23,757,036</u>	<u>101,390,570</u>
Plan Fiduciary Net Position:				
Contributions - Employer	18,108,528	-	(18,108,528)	-
Contributions - State	5,218,863	-	(5,218,863)	-
Contributions - State Share Plan	1,524,327	-	(1,524,327)	-
Contributions - Employee	7,975,985	-	-	(7,975,985)
Contributions - Buy Back	2,890,088	-	-	(2,890,088)
Projected Net Investment Income	68,604,296	-	-	(68,604,296)
Difference between projected and actual earnings on Pension Plan investments	(31,801,307)	-	31,801,307	-
Current year amortization	-	(8,519,858)	(17,582,147)	9,062,289
Benefit Payments, including Refunds of Employee Contributions	(51,350,440)	-	-	-
Administrative Expenses	(638,919)	-	-	638,919
Net change	<u>20,531,421</u>	<u>(8,519,858)</u>	<u>(10,632,558)</u>	<u>(69,769,161)</u>
Ending balance	<u>\$ 68,651,905</u>	<u>\$ 18,869,279</u>	<u>\$ 68,252,636</u>	<u>\$ 31,621,409</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2021

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 68,651,905	\$ 18,869,279	\$ 68,252,636	\$ -
Employer and State Contributions made after 09/30/2020	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	21,592,065	-	-	21,592,065
Interest	74,756,410	-	-	74,756,410
Share Plan Allocation	1,623,882	-	-	1,623,882
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	144,879	-	-	144,879
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	19,851,718	-	19,851,718	-
Current year amortization of experience difference	-	(1,906,362)	(5,364,537)	3,458,175
Change in assumptions about future economic or demographic factors or other inputs	13,599,982	-	13,599,982	-
Current year amortization of change in assumptions	-	-	(10,801,393)	10,801,393
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	-	-	-
Net change	<u>75,083,820</u>	<u>(1,906,362)</u>	<u>17,285,770</u>	<u>112,376,804</u>
Plan Fiduciary Net Position:				
Contributions - Employer	17,923,079	-	(17,923,079)	-
Contributions - State	4,985,818	-	(4,985,818)	-
Contributions - State Share Plan	1,623,882	-	(1,623,882)	-
Contributions - Employee	7,734,465	-	-	(7,734,465)
Contributions - Buy Back	144,879	-	-	(144,879)
Projected Net Investment Income	69,327,110	-	-	(69,327,110)
Difference between projected and actual earnings on Pension Plan investments	(15,983,927)	-	15,983,927	-
Current year amortization	-	(8,519,858)	(10,291,973)	1,772,115
Benefit Payments, including Refunds of Employee Contributions	(56,485,116)	-	-	-
Administrative Expenses	(672,122)	-	-	672,122
Net change	<u>28,598,068</u>	<u>(8,519,858)</u>	<u>(18,840,825)</u>	<u>(74,762,217)</u>
Ending balance	<u>\$ 115,137,657</u>	<u>\$ 8,443,059</u>	<u>TBD</u>	<u>\$ 37,614,587</u>

* Employer and State Contributions subsequent to the measurement date made after September 30, 2020 but made on or before September 30, 2021 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ 15,983,927	5	\$ -	\$ 3,196,787	\$ 3,196,785	\$ 3,196,785	\$ 3,196,785	\$ 3,196,785	\$ -	\$ -	\$ -	\$ -
2019	\$ 31,801,307	5	\$ 6,360,263	\$ 6,360,261	\$ 6,360,261	\$ 6,360,261	\$ 6,360,261	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 3,674,623	5	\$ 734,925	\$ 734,925	\$ 734,925	\$ 734,925	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (36,115,814)	5	\$ (7,223,163)	\$ (7,223,163)	\$ (7,223,163)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (6,483,477)	5	\$ (1,296,695)	\$ (1,296,695)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 52,434,795	5	\$ 10,486,959	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 9,062,289	\$ 1,772,115	\$ 3,068,808	\$ 10,291,971	\$ 9,557,046	\$ 3,196,785	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ 13,599,982	4	\$ -	\$ 3,399,994	\$ 3,399,996	\$ 3,399,996	\$ 3,399,996	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 5,019,222	5	\$ 1,003,846	\$ 1,003,844	\$ 1,003,844	\$ 1,003,844	\$ 1,003,844	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 4,790,360	5	\$ 958,072	\$ 958,072	\$ 958,072	\$ 958,072	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 10,692,637	5	\$ 2,138,527	\$ 2,138,527	\$ 2,138,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 16,504,779	5	\$ 3,300,956	\$ 3,300,956	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (2,194,981)	5	\$ (438,996)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 6,962,405	\$ 10,801,393	\$ 7,500,439	\$ 5,361,912	\$ 4,403,840	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ 19,851,718	4	\$ -	\$ 4,962,928	\$ 4,962,930	\$ 4,962,930	\$ 4,962,930	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 2,008,045	5	\$ 401,609	\$ 401,609	\$ 401,609	\$ 401,609	\$ 401,609	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,668,323)	5	\$ (333,665)	\$ (333,665)	\$ (333,665)	\$ (333,665)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (2,762,831)	5	\$ (552,566)	\$ (552,566)	\$ (552,566)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (5,100,657)	5	\$ (1,020,131)	\$ (1,020,131)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (7,319,054)	5	\$ (1,463,811)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (2,968,564)	\$ 3,458,175	\$ 4,478,308	\$ 5,030,874	\$ 5,364,539	\$ -	\$ -	\$ -	\$ -	\$ -