City of Boynton Beach Municipal Firefighters' Pension Trust Fund

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2020

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2022







April 6, 2021

Board of Trustees City of Boynton Beach Municipal Firefighters' Pension Trust Fund Boynton Beach, Florida

Re: City of Boynton Beach Municipal Firefighters' Pension Trust Fund Actuarial Valuation as of October 1, 2020 and Actuarial Disclosures

Dear Board Members:

The results of the October 1, 2020 Annual Actuarial Valuation of the City of Boynton Beach Municipal Firefighters' Pension Trust Fund are presented in this report.

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

The purposes of the valuation are to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2022, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2021. This report should not be relied on for any purpose other than the purpose described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

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

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

The findings in this report are based on data and other information through September 30, 2020. The valuation was based upon information furnished by the Plan Administrator concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator.

This report was prepared using certain assumptions approved by the Board and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Cost Methods. The prescribed assumptions are the assumed mortality rates detailed in the Actuarial Assumptions and Cost

Board of Trustees City of Boynton Beach Municipal Firefighters' Pension Trust Fund April 6, 2021 Page 2

Methods section in accordance with Florida Statutes Chapter 112.63. All actuarial assumptions used in this report are reasonable for purposes of this valuation.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

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

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

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

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

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

Peter N. Strong, FSA, MAAA, FCA Enrolled Actuary No. 20-06975

Enrolled Actuary No. 20-06599



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DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Employer Contributions

A comparison of the required employer contribution developed in this and the last actuarial valuation is shown below. The required contribution dollar amounts shown below are estimates only. The contribution policy of the City is to contribute the dollar amount determined by multiplying the required percentage of payroll determined as of the valuation date by the projected pensionable payroll for the year.

	For FYE 9/30/22 Based on 10/1/2020 Valuation if contributed on 10/1/2021		For FYE 9/30/21 Based on 10/1/2019 Valuation if contributed on 10/1/2020		Increase (Decrease)	
Required Employer/State Contribution As % of Covered Payroll	\$	6,607,751 55.58 %	\$	6,400,723 54.28 %	\$ 207,028 1.30 %	
State Contribution Allocated (Including Amounts from State contribution reserve) As % of Covered Payroll	\$	1,062,385 * 8.94 %	\$	1,062,385 9.01 %	\$ 0 (0.07) %	
Prepaid Contribution Allocated As % of Covered Payroll	\$	0 0.00 %	\$	122,975 1.04 %	\$ (122,975) (1.04) %	
Net Required Employer (City) Contribution As % of Covered Payroll	\$	5,545,366 * 46.64 %	\$	5,215,363 44.23 %	\$ 330,003 2.41 %	

^{*}To be updated after completion of the 2022 COLA Cost Reevaluation Study.

The required employer contribution has been computed under the assumption that the amount to be allocated from current and prior excess State money this year and next year will be \$1,062,385. Please note that the actual amount of State money to be used towards the FY 2022 contribution will be updated in the 2022 COLA Cost Reevaluation Study. If the actual amount received by the State is lower than this amount, the shortfall may be made up by using the Accumulated Excess Premium Tax Revenue currently being held in reserve (this amount is \$1,735,276 as of October 1, 2020).

The employer contribution listed above is for the City's fiscal year ending September 30, 2022 and has been calculated as though payment is made in a single lump sum on October 1, 2021. The total minimum required employer contribution for the fiscal year ending September 30, 2020 was \$5,969,275. The actual employer contribution during the fiscal year ending September 30, 2020 was \$5,969,275, including the use of a prepaid City contribution of \$172,045 and excess State contribution reserves of \$180,622.



Revisions in Benefits

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

Revisions in Actuarial Assumptions or Methods

Florida Statutes Chapter 112.63(1)(f) mandates the use of the mortality tables used in either of the two most recently published actuarial valuation reports of the Florida Retirement System (FRS). The FRS updated its mortality assumption in the July 1, 2019 Actuarial Valuation. The previous FRS mortality tables for Special Risk Class members were the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for postretirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates included a 90% blue collar adjustment and a 10% white collar adjustment. For females, the base mortality rates included a 100% white collar adjustment. The current FRS mortality table for Special Risk Class members is the Pub-2010 Headcount-Weighted Mortality Tables for Safety Participants, with ages set forward 1 year and mortality improvements projected to all future years after 2010 using Scale MP-2018. For males, the mortality tables are based on the Below-Median versions of the given table.

Based on the Assumption Study and Experience Review for the Seven Years Ended September 30, 2019, dated October 29, 2020, the following assumption changes are adopted:

- Change in the assumed rates of salary increases reflecting somewhat higher overall observed salary increases, on average, over the seven-year period ending September 30, 2019;
- Changes in the assumed rates of retirement reflecting higher observed normal retirement experience and lower observed early retirement over the seven-year period ending September 30, 2019; and,
- Change in the assumed rates of separation from active membership (withdrawal) reflecting actual experience observed over the seven-year period ending September 30, 2019.

Lastly, the assumed investment return assumption has been reduced by 0.15% from 7.5% per annum to 7.35% per annum, compounded annually and net of investment expenses.

The net impact of all of the above assumption changes caused an increase in the annual required employer contribution of 2.45% of covered payroll, or \$309,745.

Actuarial Experience

There was a net actuarial experience gain of \$3,706,058 for the year, which means that overall actual experience was more favorable than expected. The actuarial gain is primarily due to higher than expected investment returns on the actuarial value of assets. The net investment return on the actuarial value of assets was 9.86% versus an assumed return of 7.50%. The net investment return on the market value of assets was 12.69%. There were also gains from average salary increases that were lower than expected (2.5% actual versus 7.1% expected) and higher turnover than expected (5 actual terminations of employment versus 2 expected). These gains were offset somewhat by net experience losses from more retirements than expected (2 actual versus 1 expected), more disability retirements than expected (2 actual versus 0 expected), and more vested active deaths than expected (1 actual versus 0 expected). In addition, there were experience losses from changes to the valuation programming to carve out airtime service purchases from the application of the maximum benefit cap for members who purchased (or initiated the purchase of) permissive/airtime service prior to the adoption of Ordinance No. 19-009 on February 5, 2019.



The net actuarial gain for the year caused a decrease in the annual required employer contribution of 2.14% of covered payroll, or about \$254,000.

Additional Payments Toward Unfunded Actuarial Liability

The City of Boynton Beach and the Firefighters' Union have mutually consented to use \$150,000 of the Accumulated Excess State Contribution reserve to reduce the Plan's Unfunded Actuarial Liability (UAL). This is being done in two annual increments with the first increment (\$75,000) previously occurring on October 1, 2019. The second increment (\$75,000) is applied as of October 1, 2020. The use of \$75,000 as of October 1, 2020 was used to reduce the UAL amortization bases created on October 1, 1996 and October 1, 1997. The net effect was a decrease in the annual required employer contribution of 0.27% of covered payroll, or \$32,099.

Funded Ratio

The funded ratio was 71.5% this year compared to 67.8% last year. The funded ratio would have been 71.7% this year prior to recognizing the assumption changes and the additional payment toward the UAL from the Excess State Reserve. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued liability.

Analysis of Change in Employer Contribution

The components of change in the required employer contribution are as follows:

Contribution Rate Last Year					
Revision in Benefits	0.00				
Experience (Gains) or Losses	(2.14)				
Revision in Assumptions/Methods	2.45				
Additional UAAL Payment from State Reserve	(0.27)				
Amortization Payment on UAAL	0.95				
Normal Cost Rate	(0.03)				
Administrative Expense	0.37				
State Contribution	0.04				
Change in Allocated Prepaid Contribution	<u>1.04</u>				
Contribution Rate This Year	46.64	%			

Covered payroll as of October 1, 2020 was \$11,558,511 (before assumption changes) versus \$11,504,436 last year, an increase of 0.47%. Amortization payments on the unfunded liability are scheduled to increase by 2.50% per year. When covered payroll increases less than 2.50%, the amortization payment as a percentage of covered payroll will increase. The 0.47% increase in covered payroll caused the Amortization Payment on the UAAL (expressed as a percentage of pay) to increase by approximately 0.95% of covered payroll.

Required Contributions in Later Years

The current calculated City contribution requirement is 46.64% of payroll starting October 1, 2021. Under the asset smoothing method, market value gains and losses are recognized over five years. As of October 1, 2020, the market value of assets exceeded the actuarial value by \$5,908,921. Once all the gains and losses



through September 30, 2020 have been fully recognized in the actuarial value of assets, the employer contribution rate will decrease by roughly 3.36% of payroll unless there are offsetting losses.

Relationship to Market Value

If Market Value had been the basis for the valuation, the City contribution rate would have been 43.28% (after reflecting the prepaid contribution) and the funded ratio would have been 75.3%. The funded ratio on a market value basis was 69.3% last year.

13th Check Provision

The Plan provides for a 13th check if there is a net actuarial gain for the previous year. Although the Plan experienced a gain during the prior plan year, the cumulative balance of actuarial gains and losses is negative (a net loss), so no funds are available to provide 13th checks in 2020.

Conclusion

The funded ratio is 71.5% this year, whereas it was over 100% in the year 2000. Steps have been taken in recent years to address this issue, such as strengthening the actuarial assumptions, including lowering the investment return assumption from 8.5% to 7.35% over time, applying an additional \$1,150,000 towards the unfunded liability, and reducing the amortization period in the amortization of the unfunded liability to a maximum of 25 years.

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.



RISKS ASSOCIATED WITH THE MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

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

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

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

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

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

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

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status



and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2020	2019
Ratio of the market value of assets to payroll	10.03	8.88
Ratio of actuarial accrued liability to payroll	13.31	12.81
Ratio of actives to retirees and beneficiaries	0.94	0.94
Ratio of net cash flow to market value of assets	(0.3%)	0.3%

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

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

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

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

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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



ADDITIONAL RISK ASSESSMENT

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



CHAPTER REVENUE

Increments in Chapter revenue over that received in 1998 must first be used to fund the cost of compliance with minimum benefits. Once minimums are met, any subsequent additional Chapter revenue must be used to provide extra benefits.

As of the valuation date, all minimum Chapter requirements have been met.

	Actuarial Confirmation of the Use of State Chapter Money						
1.	Fire Regular Fire Supplemental Total Base Amount Previous Plan Year	\$	1,062,385 0 1,062,385				
2.	Fire Regular Fire Supplemental Total Amount Received for Previous Plan Year		881,763 0 881,763				
3.	Adjustment to Base Amount Due to Reevaluation of COLA cost		0				
4.	Excess Funds for Previous Plan Year		(180,622)				
5.	Accumulated Excess at Beginning of Previous Year		1,990,898				
6.	Accumulated Excess as of September 30, 2020 (Available for Benefit Improvements)		1,810,276				
7.	Excess Used as of October 1, 2020 to Reduce the Plan's Unfunded Actuarial Liability		75,000				
8.	Accumulated Excess as of Valuation Date		1,735,276				
9.	Fire Regular Fire Supplemental Base Amount This Plan Year - Fire		1,062,385 0 1,062,385				



SECTION B

VALUATION RESULTS

	er Assumption		-				
	October 1, 2020 After Assumption Changes		October 1, 2020 Before Assumption Changes		tober 1, 2019		
		_					
\$	119 11,598,751	\$	119 11,558,511	\$	115 11,504,436		
\$	97,468 38.3 10.5	\$	97,130 38.3 10.5	\$	100,039 38.7 10.8		
	27.8		27.8		27.9		
)		1					
\$	123 7 542 113	\$	123 7 542 113	\$	120 7,240,871		
\$	61,318	\$	61,318 62.3	\$	60,341		
		ļ					
\$ \$	4 191,640 47,910 48.3	\$	4 191,640 47,910 48.3	\$	2 113,920 56,960 49.8		
Average Age 48.3 49.8 TERMINATED VESTED MEMBERS							
\$ \$	2 77,127 38,564 40,6	\$	2 77,127 38,564 40.6	\$ \$	2 74,760 37,380 44.6		
	\$ \$ \$	\$ 11,598,751 \$ 97,468 38.3 10.5 27.8 123 \$ 7,542,113 \$ 61,318 62.3 4 \$ 191,640 \$ 47,910 48.3	\$ 11,598,751 \$ \$ 97,468 \$ \$ 38.3	\$ 11,598,751 \$ 11,558,511 \$ 97,130 \$ 38.3 \$ 38.3 \$ 10.5 \$ 10.5 \$ 27.8 \$ 27.8 \$ 27.8 \$ 38.3 \$ 48.3 \$ 48.3 \$ 48.3 \$ 38.3 \$	\$ 11,598,751 \$ 11,558,511 \$ \$ 97,468 \$ 97,130 \$ \$ 38.3		



ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)								
A. Valuation Date	October 1, 2020 After Assumption Changes and After Additional UAL Payment	October 1, 2020 After Assumption Changes and Before Additional UAL Payment	October 1, 2020 Before Assumption Changes and Additional UAL Payment	October 1, 2019				
B. ADEC to Be Paid During	0 /00 /0000	0 /00 /000	0/00/0000	0/00/0004				
Fiscal Year Ending	9/30/2022	9/30/2022	9/30/2022	9/30/2021				
C. Assumed Date of Employer Contrib.	10/1/2021	10/1/2021	10/1/2021	10/1/2020				
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 3,672,306	\$ 3,703,913	\$ 3,699,233	\$ 3,818,804				
E. Employer Normal Cost	2,774,279	2,774,279	2,476,594	2,426,234				
F. ADEC if Paid on the Valuation Date: D+E	6,446,585	6,478,192	6,175,827	6,245,038				
G. ADEC Adjusted for Frequency of Payments	6,446,585	6,478,192	6,175,827	6,245,038				
H. ADEC as % of Covered Payroll	55.58 %	55.85 %	53.43 %	54.28 %				
I. Covered Payroll per Valuation	11,598,751	11,598,751	11,558,511	11,504,436				
J. Assumed Rate of Increase in Covered Payroll to Contribution Year	2.50 %	2.50 %	2.50 %	2.50 %				
K. Covered Payroll for Contribution Year	11,888,720	11,888,720	11,847,474	11,792,047				
L. ADEC for Contribution Year: H x K	6,607,751	6,639,850	6,330,105	6,400,723				
M. Estimate of State Allocated Revenue in Contribution Year (including amounts from Accumulated Excess Reserve)	1,062,385 *	1,062,385 *	1,062,385 *	1,062,385				
N. Actuarially Determined Employer Contribution (ADEC) in Contribution Year	5,545,366 *	5,577,465 *	5,267,720 *	5,338,338				
O. ADEC as % of Covered Payroll in Contribution Year: N ÷ K	46.64 %	46.91 %	44.46 %	45.27 %				
P. Estimated Amount of Accumulated Excess Premium Tax Revenue Used to Offset ADEC (If Actual State Revenue = \$881,763)	180,622 *	180,622 *	180,622 *	180,622				

 $[\]ensuremath{^{*}\text{To}}$ be updated after the 2022 COLA Cost Reevaluation Study.



ACTUARIAL VALUE OF BENEFITS AND ASSETS							
A.	Valuation Date	October 1, 2020 After Assumption Changes and After Additional UAL Payment	October 1, 2020 After Assumption Changes and Before Additional UAL Payment	October 1, 2020 Before Assumption Changes and Additional UAL Payment	October 1, 2019		
В.	Actuarial Present Value of All Projected Benefits for 1. Active Members a. Service Retirement Benefits b. Vesting Benefits c. Disability Benefits d. Preretirement Death Benefits e. Return of Member Contributions f. Total	\$ 80,270,330 3,694,260 2,066,099 660,697 206,462 86,897,848	\$ 80,270,330 3,694,260 2,066,099 660,697 206,462 86,897,848	\$ 75,383,053 4,168,204 2,032,454 885,002 190,462 82,659,175	\$ 73,527,763 4,351,145 2,048,867 888,878 163,014 80,979,667		
	2. Inactive Members a. Service Retirees & Beneficiaries b. Disability Retirees c. Terminated Vested Members d. Total	94,628,526 2,874,936 747,635 98,251,097	94,628,526 2,874,936 747,635 98,251,097	96,150,625 2,829,789 733,298 99,713,712	92,185,377 1,709,561 973,039 94,867,977		
_	3. Total for All Members	185,148,945	185,148,945	182,372,887	175,847,644		
	Actuarial Accrued (Past Service) Liability Actuarial Value of Accumulated Plan Benefits per FASB No. 35	154,416,171 142,806,095	154,416,171 142,806,095	153,812,260 142,530,809	147,354,005 134,298,238		
	Plan Assets 1. Market Value 2. Actuarial Value	116,309,935 110,401,014	116,234,935 110,326,014	116,234,935 110,326,014	102,137,758 99,976,001		
F.	Unfunded Actuarial Accrued Liability: C-E2	44,015,157	44,090,157	43,486,246	47,378,004		
G.	Actuarial Present Value of Projected Covered Payroll	94,253,381	94,253,381	93,828,033	91,993,351		
H.	Actuarial Present Value of Projected Member Contributions	11,310,406	11,310,406	11,259,364	11,039,202		
l.	Accumulated Value of Member Contributions	10,973,238	10,973,238	10,973,238	10,588,733		
J.	Funded Ratio: E2/C	71.5%	71.4%	71.7%	67.8%		



	ENTRY AGE NORMAL METHOD CALCULATION OF EMPLOYER NORMAL COST								
Α.	Valuation Date	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		October 1, 201			
В.	Normal Cost for								
	 Service Retirement Benefits Vesting Benefits Disability Benefits Preretirement Death Benefits Return of Member Contributions Total for Future Benefits Assumed Amount for Administrative Expenses Total Normal Cost 	\$	3,433,256 250,731 180,796 39,612 54,777 3,959,172 206,957 4,166,129	\$	3,103,930 284,542 171,686 51,500 45,000 3,656,658 206,957 3,863,615	\$	3,086,993 285,670 175,099 50,830 45,014 3,643,606 163,160 3,806,766		
C.	Expected Member Contribution		1,391,850		1,387,021		1,380,532		
D.	Employer Normal Cost: B8-C		2,774,279		2,476,594		2,426,234		
E.	Employer Normal Cost as a % of Covered Payroll		23.92%		21.43%		21.09%		



LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

BEFORE CHANGES

A1. UAAL Amo	A1. UAAL Amortization Period and Payments							
	Original UAAL		Current UAAL					
Date Established	Amortization Period (Years)	Amount	Years Remaining	Amount	Payment			
10/1/1996 10/1/1997 10/1/1999 10/1/2000 10/1/2001 10/1/2003 10/1/2004 10/1/2005 10/1/2005	26 30 30 30 30 30 30 30 30	\$ 807,234 1,201,102 613,865 (1,240,378) 857,564 4,337,161 4,373,725 (1,004,416) 3,040,117	2 7 9 10 11 13 14 15	\$ 55,583 930,471 578,241 (1,200,584) 878,686 4,857,788 5,015,695 (1,174,504) 3,554,936	\$ 28,453 152,648 77,148 (147,373) 100,219 489,473 479,378 (107,004) 323,875			
10/1/2006 10/1/2006 10/1/2007 10/1/2007 10/1/2008 10/1/2009	30 30 30 30 30 30 30	2,426,747 1,889,229 (12,675) (1,424,046) 4,046,900 3,681,910	16 16 17 17 18 19	2,865,043 2,230,444 (14,965) (1,684,020) 4,781,782 4,333,859	249,878 194,531 (1,254) (141,129) 386,330 338,536			
10/1/2010 10/1/2010 10/1/2010 10/1/2011 10/1/2011	30 30 30 30 30	1,249,043 2,256,012 (43,572) 1,378,822 3,739,943	20 20 20 21 21	1,461,731 2,640,170 (50,991) 1,589,663 4,311,840	110,684 199,917 (3,861) 116,955 317,232			
10/1/2012 10/1/2012 10/1/2013 10/1/2013 10/1/2013	30 30 30 30 30	1,446,560 (161,237) 199,486 818,309 3,401,164	22 22 23 23 23	1,615,746 (180,095) 220,987 906,507 3,767,745	115,742 (12,901) 15,442 63,345 263,284			
10/1/2014 10/1/2014 10/1/2015 10/1/2016 10/1/2016	30 30 30 30 30	(408,227) 1,753,497 (209,489) (1,022,696) 5,982,170	23 23 23 23 23 23	(442,742) 1,901,755 (222,416) (1,063,742) 6,222,259	(30,938) 132,891 (15,542) (74,332) 434,801			
10/1/2017 10/1/2018 10/1/2018 10/1/2019 10/1/2019	30 30 30 25 25	(691,612) (2,764,199) (1,216,631) 2,636,284 523,444	23 23 23 24 24	(700,381) (2,766,503) (1,217,644) 2,661,508 528,452	(48,941) (193,318) (85,087) 181,735 36,084			
10/1/2020	25	(3,706,058) \$ 38,755,052	25	(3,706,058) \$43,486,246	\$ 3,699,233			



LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

AFTER ASSUMPTION CHANGES AND BEFORE ADDITIONAL UAAL PAYMENT

A2. UAAL Am	A2. UAAL Amortization Period and Payments						
	Original UAAL			Current UAAL			
Date Established	Amortization Period (Years)	Amount	Years Remaining	Amount	Payment		
10/1/1996 10/1/1997 10/1/1999 10/1/2000 10/1/2001	26 30 30 30 30	\$ 807,234 1,201,102 613,865 (1,240,378) 857,564	2 7 9 10 11	\$ 55,583 930,471 578,241 (1,200,584) 878,686	\$ 28,434 152,049 76,752 (146,529) 99,587		
10/1/2003 10/1/2004 10/1/2005 10/1/2005 10/1/2006	30 30 30 30 30	4,337,161 4,373,725 (1,004,416) 3,040,117 2,426,747	13 14 15 15 16	4,857,788 5,015,695 (1,174,504) 3,554,936 2,865,043	485,832 475,549 (106,092) 321,114 247,617		
10/1/2006 10/1/2007 10/1/2007 10/1/2008 10/1/2009	30 30 30 30 30	1,889,229 (12,675) (1,424,046) 4,046,900 3,681,910	16 17 17 18 19	2,230,444 (14,965) (1,684,020) 4,781,782 4,333,859	192,770 (1,242) (139,779) 382,438 334,958		
10/1/2010 10/1/2010 10/1/2010 10/1/2011 10/1/2011	30 30 30 30 30	1,249,043 2,256,012 (43,572) 1,378,822 3,739,943	20 20 20 21 21	1,461,731 2,640,170 (50,991) 1,589,663 4,311,840	109,460 197,707 (3,818) 115,606 313,573		
10/1/2012 10/1/2012 10/1/2013 10/1/2013 10/1/2013	30 30 30 30 30	1,446,560 (161,237) 199,486 818,309 3,401,164	22 22 23 23 23 23	1,615,746 (180,095) 220,987 906,507 3,767,745	114,353 (12,746) 15,250 62,556 260,005		
10/1/2014 10/1/2014 10/1/2015 10/1/2016 10/1/2016	30 30 30 30 30	(408,227) 1,753,497 (209,489) (1,022,696) 5,982,170	23 23 23 23 23 23	(442,742) 1,901,755 (222,416) (1,063,742) 6,222,259	(30,553) 131,237 (15,349) (73,407) 429,386		
10/1/2017 10/1/2018 10/1/2018 10/1/2019 10/1/2019	30 30 30 25 25	(691,612) (2,764,199) (1,216,631) 2,636,284 523,444	23 23 23 24 24	(700,381) (2,766,503) (1,217,644) 2,661,508 528,452	(48,332) (190,911) (84,027) 179,391 35,619		
10/1/2020 10/1/2020	25 25	(3,706,058) 603,911 \$ 39,358,963	25 25	(3,706,058) 603,911 \$ 44,090,157	(244,365) 39,820 \$3,703,913		



LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

AFTER ASSUMPTION CHANGES AND AFTER ADDITIONAL UAAL PAYMENT

A3. UAAL Am	A3. UAAL Amortization Period and Payments						
	Original UAAL		Current UAAL				
	Amortization						
Date	Period		Years				
Established	(Years)	Amount	Remaining	Amount	Payment		
10/1/1997	30	\$ 1,201,102	7	\$ 911,054	\$ 148,876		
10/1/1999	30	613,865	9	578,241	76,752		
10/1/2000	30	(1,240,378)	10	(1,200,584)	(146,529)		
10/1/2001	30	857,564	11	878,686	99,587		
10/1/2003	30	4,337,161	13	4,857,788	485,832		
10/1/2004	30	4,373,725	14	5,015,695	475,549		
10/1/2005	30	(1,004,416)	15	(1,174,504)	(106,092)		
10/1/2005	30	3,040,117	15	3,554,936	321,114		
10/1/2006	30	2,426,747	16	2,865,043	247,617		
10/1/2006	30	1,889,229	16	2,230,444	192,770		
10/1/2007	30	(12,675)	17	(14,965)	(1,242)		
10/1/2007	30	(1,424,046)	17	(1,684,020)	(139,779)		
10/1/2008	30	4,046,900	18	4,781,782	382,438		
10/1/2009	30	3,681,910	19	4,333,859	334,958		
10/1/2010	30	1,249,043	20	1,461,731	109,460		
10/1/2010	30	2,256,012	20	2,640,170	197,707		
10/1/2010	30	(43,572)	20	(50,991)	(3,818)		
10/1/2011	30	1,378,822	21	1,589,663	115,606		
10/1/2011	30	3,739,943	21	4,311,840	313,573		
10/1/2012	30	1,446,560	22	1,615,746	114,353		
10/1/2012	30	(161,237)	22	(180,095)	(12,746)		
10/1/2013	30	199,486	23	220,987	15,250		
10/1/2013	30	818,309	23	906,507	62,556		
10/1/2013	30	3,401,164	23	3,767,745	260,005		
10/1/2014	30	(408,227)	23	(442,742)	(30,553)		
10/1/2014	30	1,753,497	23	1,901,755	131,237		
10/1/2015	30	(209,489)	23	(222,416)	(15,349)		
10/1/2016	30	(1,022,696)	23	(1,063,742)	(73,407)		
10/1/2016	30	5,982,170	23	6,222,259	429,386		
10/1/2017	30	(691,612)	23	(700,381)	(48,332)		
10/1/2018	30	(2,764,199)	23	(2,766,503)	(190,911)		
10/1/2018	30	(1,216,631)	23	(1,217,644)	(84,027)		
10/1/2019	25	2,636,284	24	2,661,508	179,391		
10/1/2019	25	523,444	24	528,452	35,619		
10/1/2020	25	(3,706,058)	25	(3,706,058)	(244,365)		
10/1/2020	25	603,911	25	603,911	39,820		
		\$ 38,551,729		\$44,015,157	\$ 3,672,306		



B. Amortization Schedule

The UAAL is being amortized as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule						
Year	Expected UAAL					
2020 2021 2022 2023 2024	\$ 44,015,157 43,308,057 42,450,419 41,428,731 40,228,405					
2025 2030 2035 2040 2045	38,833,717 29,034,515 14,316,093 2,955,425					



ACTUARIAL GAINS AND LOSSES

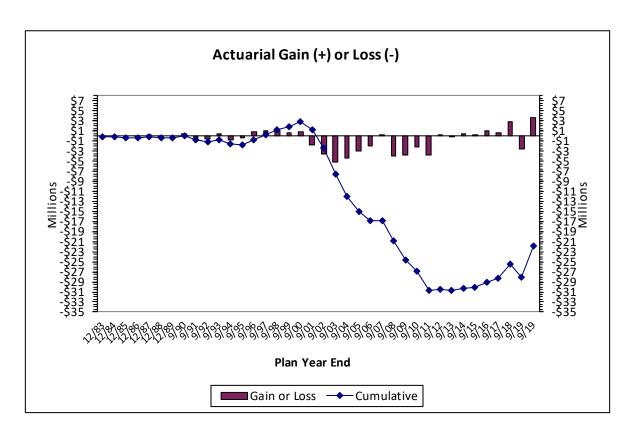
The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved.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

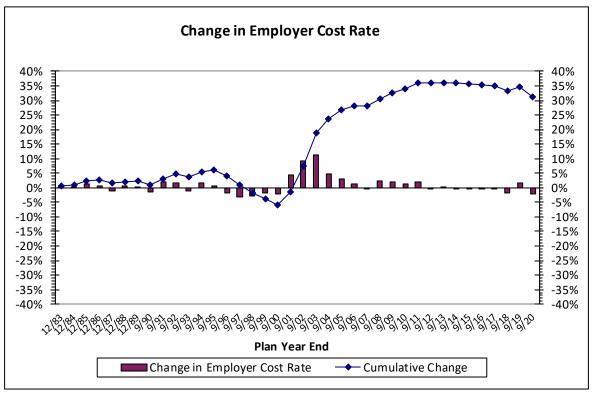
A. Derivation of the Current UAAL						
1. Last Year's UAAL	\$ 47,378,004					
2. Last Year's Employer Normal Cost	2,426,234					
3. Last Year's Contributions	5,969,275					
4. Interest at the Assumed Rate on:						
a. 1 and 2 for one year	3,735,318					
b. 3 from dates paid	377,977					
c. a-b	3,357,341					
5. This Year's Expected UAAL:						
1+2-3+4c	47,192,304					
6. This Year's Actual UAAL (Before any						
changes in benefits and/or assumptions)	43,486,246					
7. Net Actuarial Gain (Loss): (5) - (6)	3,706,058					
8. Gain (Loss) due to investments	2,893,770					
9. Gain (Loss) due to other sources	812,288					



	Change in Employer	
Year Ended	Cost Rate	Gain (Loss)
12/31/83	0.77 %	\$ (111,129)
12/31/84	0.13	(20,619)
12/31/85	1.27	(227,011)
12/31/86	0.50	(99,006)
12/31/87	(1.18)	279,837
12/31/88	0.52	(128,401)
12/31/89	0.41	(106,588)
9/30/90	(1.42)	371,790
9/30/91	2.09	(638,650)
9/30/92	1.61	(476,505)
9/30/93	(1.07)	483,965
9/30/94	1.76	(800,443)
9/30/95	0.56	(270,698)
9/30/96	(1.95)	895,789
9/30/97	(3.08)	1,049,747
9/30/98	(2.78)	1,020,121
9/30/99	(1.89)	722,161
9/30/00	(2.21)	891,463
9/30/01	4.44	(1,682,484)
9/30/02	9.11	(3,495,525)
9/30/03	11.31	(5,238,993)
9/30/04	4.88	(4,373,725)
9/30/05	3.04	(3,040,117)
9/30/06	1.44	(1,889,229)
9/30/07	(0.01)	12,675
9/30/08	2.33	(4,056,993)
9/30/09	2.16	(3,681,910)
9/30/10	1.25	(2,256,012)
9/30/11	2.12	(3,739,943)
9/30/12	(0.09)	161,237
9/30/13	0.12	(199,486)
9/30/14	(0.22)	408,227
9/30/15	(0.11)	209,489
9/30/16	(0.57)	1,022,696
9/30/17	(0.37)	691,612
9/30/18	(1.62)	2,764,199
9/30/19	1.53	(2,636,284)
9/30/20	(2.14)	3,706,058









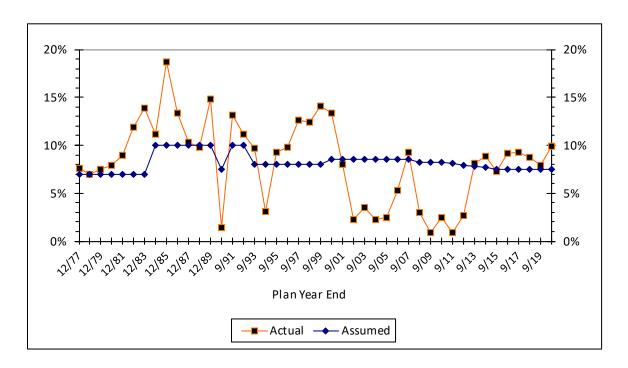
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

	Investme	nt Return	Salary	ncreases
Year Ending	Actual	Assumed	Actual	Assumed
12/31/1977	7.6 %	7.0 %		10.3 %
12/31/1978	7.0	7.0	21.3 %	(2 years)
12/31/1979	7.5	7.0		10.3
12/31/1980	7.9	7.0	19.0	(2 years)
12/31/1981	9.0	7.0	30.5	7.0
12/31/1982	11.9	7.0	11.0	7.0
12/31/1983	13.9	7.0	6.4	7.0
12/31/1984	11.1	10.0	8.8	10.0
12/31/1985	18.7	10.0	14.5	10.0
12/31/1986	13.4	10.0	11.4	10.0
12/31/1987	10.3	10.0	19.7	10.0
12/31/1988	9.8	10.0	6.1	10.0
12/31/1989	14.8	10.0	12.8	10.0
9/30/1990 (9 mos.)	1.4	7.5	6.7	7.5
9/30/1991	13.1	10.0	8.0	10.0
9/30/1992	11.2	10.0	4.9	10.0
9/30/1993	9.7	8.0	4.0	6.5
9/30/1994	3.1	8.0	2.0	6.5
9/30/1995	9.3	8.0	10.3	6.5
9/30/1996	9.8	8.0	(0.2)	6.5
9/30/1997	12.6	8.0	5.9	6.5
9/30/1998	12.4	8.0	6.1	6.5
9/30/1999	14.1	8.0	13.3	6.5
9/30/2000	13.3	8.5	10.3	6.5
9/30/2001	8.0	8.5	4.8	6.5
9/30/2002	2.3	8.5	12.1	6.5
9/30/2003	3.5	8.5	10.0	6.5
9/30/2004	2.2	8.5	11.0	6.5
9/30/2005	2.5	8.5	11.7	6.5
9/30/2006	5.3	8.5	13.3	9.2
9/30/2007	9.3	8.50	9.2	8.9
9/30/2008	3.0	8.25	13.6	8.9
9/30/2009	0.9	8.25	7.6	8.9
9/30/2010	2.5	8.25	1.8	8.9
9/30/2011	0.9	8.10	3.7	8.1
9/30/2012	2.7	7.95	(2.8)	7.1
9/30/2013	8.1	7.80	1.9	8.7
9/30/2014	8.8	7.65	7.2	6.0
9/30/2014	7.3	7.50	4.9	6.2
9/30/2015	7.3 9.2	7.50 7.50	6.3	5.9
· ·				
9/30/2017	9.3	7.50	8.4	6.3
9/30/2018	8.7	7.50	4.2	6.1
9/30/2019	7.9	7.50 7.50	14.9	6.7
9/30/2020	9.9	7.50	2.5	7.1
Averages	8.3 %		8.5 %	

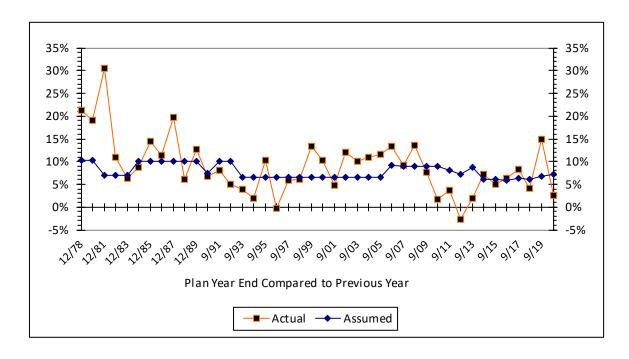
The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.



History of Investment Return Based on Actuarial Value of Assets



History of Salary Increases





Actual (A) Compared to Expected (E) Decrements Among Active Employees

Year Ended	Add Dui	nber ded ring ear E		ce & OP ement		bility ement E	De:	ath E	Vested A	Termina Other		tals E	Active Members End of Year
9/30/2002	1	10	6	5	0	0	0	0	1	3	4	3	83
9/30/2003	15	1	1	5	0	0	0	0	0	0	0	3	97
9/30/2004	22	14	13	4	0	0	0	0	0	1	1	3	105
9/30/2005	1	4	2	1	0	0	0	0	0	2	2	4	102
9/30/2006	19	3	0	2	0	0	0	0	1	2	3	4	118
9/30/2007	5	4	1	3	0	0	0	0	0	3	3	4	119
9/30/2008	5	1	0	5	1	0	0	0	0	0	0	4	123
9/30/2009	1	6	5	6	0	0	0	0	0	1	1	4	118
9/30/2010	11	4	3	3	0	0	0	0	0	1	1	4	125
9/30/2011	0	11	10	8	0	0	0	0	1	0	1	4	114
9/30/2012	3	2	1	2	0	0	0	0	1	0	1	4	115
9/30/2013	10	7	6	2	0	0	0	0	0	1	1	4	118
9/30/2014	3	2	0	1	0	0	0	0	0	2	2	2	119
9/30/2015	1	2	1	1	0	0	0	0	1	0	1	2	118
9/30/2016	11	7	4	1	1	0	0	0	1	1	2	2	122
9/30/2017	10	8	4	2	0	0	0	0	1	3	4	2	124
9/30/2018	1	12	10	4	0	0	0	0	0	2	2	2	113
9/30/2019	8	6	5	2	0	0	0	0	0	1	1	2	115
9/30/2020	14	10	2	1	2	0	1	0	1	4	5	2	119
9/30/2021				5		0		0				2	
19 Yr Totals *	141	114	74	58	4	0	1	0	8	27	35	59	

^{*} Totals are through current Plan Year only.



Cumulative Actuarial Gains (Losses)

The Plan provides for a 13th check if there is a net actuarial gain for the previous year. However, there is a limitation on 13th checks tied to actuarial gains provided in Chapter 112.61, Florida Statutes. The cumulative amount used to pay for 13th checks may not exceed the cumulative amount of actuarial gains. Although there was an actuarial gain during the prior plan year, the cumulative amount of gains is negative (a net loss), so no 13th check is payable.

Cumulative Actuarial Gains (Losses)								
Year Ending 9/30	Balance at Beginning of Year	Gain (Loss) for Year	13th Check	Balance at End of Year				
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015	0 (1,682,484) (5,178,009) (10,417,002) (14,790,727) (17,830,844) (19,720,073) (19,707,398) (23,764,391) (27,446,301) (29,702,313) (33,442,256) (33,281,019) (33,480,505) (33,072,278)	(1,682,484) (3,495,525) (5,238,993) (4,373,725) (3,040,117) (1,889,229) 12,675 (4,056,993) (3,681,910) (2,256,012) (3,739,943) 161,237 (199,486) 408,227 209,489	0 0 0 0 0 0 0 0 0	(1,682,484) (5,178,009) (10,417,002) (14,790,727) (17,830,844) (19,720,073) (19,707,398) (23,764,391) (27,446,301) (29,702,313) (33,442,256) (33,281,019) (33,480,505) (33,072,278) (32,862,789)				
2016 2017 2018 2019 2020	(32,862,789) (31,840,093) (31,148,481) (28,384,282) (31,020,566)	1,022,696 691,612 2,764,199 (2,636,284) 3,706,058	0 0 0 0 0	(31,840,093) (31,148,481) (28,384,282) (31,020,566) (27,314,508)				



RECENT HISTORY OF VALUATION RESULTS									
	Number of					Employer Normal Cost			
Valuation	Active	Inactive	Covered Annual	Actuarial Value	Actuarial Accrued	Unfunded AAL	Funded		
Date	Members	Members	Payroll	of Assets	Liability (AAL)	(UFAAL)	Ratio	Amount	% of Payroll
10/1/96	90	22	\$ 4,695,354	\$ 19,269,217	\$ 20,604,396	\$ 1,335,179	93.5 %	\$ 527,257	11.23 %
10/1/97	88	39	4,238,988	22,220,848	23,723,850	1,503,002	93.7	361,957	8.54
10/1/98	90	39	4,543,670	24,978,058	25,301,177	323,119	98.7	258,961	5.70
10/1/99	92	40	5,083,063	28,290,983	28,286,754	(4,229)	100.0	217,814	4.29
10/1/00	90	46	5,305,002	31,629,211	29,402,853	(2,226,358)	107.6	72,822	1.37
10/1/01	92	53	5,201,958	33,397,848	34,916,820	1,518,972	95.6	475,187	9.13
10/1/02	83	60	5,143,446	33,877,028	39,432,154	5,555,126	85.9	956,733	18.60
10/1/03	97	60	6,079,095	34,694,072	42,431,717	7,737,645	81.8	979,363	16.11
10/1/04	105	73	6,135,813	35,118,847	47,240,329	12,121,482	74.3	995,918	16.23
10/1/05	102	75	6,763,318	35,386,328	49,620,257	14,233,929	71.3	1,186,288	17.54
10/1/06	118	75	8,152,400	36,863,141	55,565,182	18,702,041	66.3	1,256,931	15.42
10/1/07	119	76	8,806,744	43,503,237	61,054,498	17,551,261	71.3	1,490,649	16.93
10/1/08	123	77	10,130,185	45,330,615	67,141,898	21,811,283	67.5	1,711,705	16.90
10/1/09	118	82	10,350,054	46,448,767	72,211,379	25,762,612	64.3	1,724,525	16.66
10/1/10	125	84	10,506,008	48,521,964	78,046,241	29,524,277	62.2	1,831,347	17.43
10/1/11	114	93	9,781,772	49,140,415	84,384,761	35,244,346	58.2	1,793,275	18.33
10/1/12	115	94	9,375,520	50,548,749	88,420,130	37,871,381	57.2	1,787,181	19.06
10/1/13	118	100	9,128,801	55,474,480	98,003,969	42,529,489	56.6	1,772,505	19.42
10/1/14	119	99	9,823,480	60,766,720	105,309,014	44,542,294	57.7	2,014,298	20.50
10/1/15	118	101	10,221,317	66,257,757	110,826,525	44,568,768	59.8	2,105,539	20.60
10/1/16	122	107	10,684,549	74,236,519	123,821,633	49,585,114	60.0	2,394,174	22.41
10/1/17	124	112	11,282,228	82,643,710	132,091,634	49,447,924	62.6	2,519,728	22.33
10/1/18	113	121	10,393,865	91,627,599	136,944,352	45,316,753	66.9	2,230,990	21.46
10/1/19	115	124	11,504,436	99,976,001	147,354,005	47,378,004	67.8	2,426,234	21.09
10/1/20	119	129	11,598,751	110,401,014	154,416,171	44,015,157	71.5	2,774,279	23.92



RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS										
	End of									
.,	Year To	Employer 8	& State	Estimated S	tate	Net Empl	oyer	,	Actual Contribut	ions
Valuation	Which Valuation Applies	Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll	Employer	State	Total
10/1/96	9/30/97	\$ 776,723	16.54 %	\$ 285,443	6.08 %	\$ 491,280	10.46 %	\$ 422,898	\$ 353,826	\$ 776,724
10/1/97	9/30/98	710,387	16.76	349,086	8.24	361,301	8.52	349,375	361,012	710,387
10/1/98	9/30/99	597,198	13.14	351,241	7.73	245,957	5.41	245,957	361,012	606,969
10/1/99	9/30/00	512,235	10.08	351,241	6.91	160,994	3.17	80,559	365,934	446,493
10/1/00	9/30/01	292,146	5.51	365,934	6.90	0	0.00	0	365,715	365,715
10/1/01	9/30/02	825,167	15.86	384,640	7.39	440,527	8.47	361,877	463,290	825,167
10/1/02	9/30/03	1,359,690	26.44	463,290	9.01	896,400	17.43	922,724	499,520	1,422,244
10/1/03	9/30/04	1,655,219	27.23	499,520	8.22	1,155,699	19.01	1,155,699	549,804	1,705,503
10/1/04	9/30/05	1,988,852	32.41	549,804	8.96	1,439,048	23.45	1,439,048	589,543	2,028,591
10/1/05	9/30/06	2,339,568	34.59	589,543	8.72	1,750,025	25.87	1,750,025	589,543	2,339,568
10/1/06	9/30/07	2,664,373	32.68	589,543	7.23	2,074,830	25.45	2,074,830	589,543	2,664,373
10/1/07	9/30/08	2,845,292	32.31	589,543	6.70	2,255,749	25.61	2,255,749	589,543	2,845,292
10/1/08	9/30/09	3,380,771	33.37	579,772	5.73	2,800,384	27.64	2,800,384	579,772	3,380,156
10/1/09	9/30/10	3,678,119	35.54	589,543	5.60	3,088,576	29.94	3,098,347	633,115	3,731,462
10/1/09	9/30/11	3,606,278	34.04	633,115	5.98	2,973,163	28.06	3,026,506	623,344	3,649,850
10/1/10	9/30/12	3,771,466	35.16	623,344	5.81	3,148,122	29.35	3,148,122	623,344	3,771,466
10/1/11	9/30/13	4,272,215	40.87	704,322	6.74	3,567,893	34.13	3,648,871	704,322	4,353,193
10/1/12	9/30/14	4,226,469	44.58	704,322	7.43	3,522,147	37.15	3,522,147	704,322	4,226,469
10/1/13	9/30/15	4,635,318	48.78	704,322	7.41	3,930,996	41.37	3,930,996	704,322	4,635,318
10/1/14	9/30/16	4,856,683	49.44	781,954	7.96	4,074,729	41.48	4,117,788	781,954	4,899,742
10/1/15	9/30/17	5,075,517	49.10	781,954	7.56	4,293,563	41.54	4,293,563	781,954	5,075,517
10/1/16	9/30/18	6,157,171	56.09	781,954	7.12	5,375,217	48.97	5,375,217	781,954	6,157,171
10/1/17	9/30/19	6,409,551	55.42	1,062,385 *	9.19	5,347,166	46.23	5,347,166	1,062,385	6,409,551
10/1/18	9/30/20	5,969,275	56.03	1,062,385 *	9.97	4,906,890	46.06	4,906,890	1,062,385	5,969,275
10/1/19	9/30/21	6,400,723	54.28	1,062,385 *	9.01	5,338,338	45.27	N/A	N/A	N/A
10/1/20	9/30/22	6,607,751	55.58	1,062,385 **	8.94	5,545,366 **	46.64	N/A	N/A	N/A

^{*}Including amount allocated from Accumulated Excess State Contribution Reserve.

^{**}To be updated after the 2022 COLA Cost Reevaluation Study.



ACTUARIAL ASSUMPTIONS AND COST METHOD

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

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

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

Financing of Unfunded Actuarial Accrued Liabilities - Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent-of-payroll contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets phases in the difference between the actual and expected investment earnings over a period of 5 years. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section.

Economic Assumptions

The investment return rate assumed in the valuation is 7.35% per year, compounded annually (net after investment expenses). This rate was 7.50% in the previous valuation.

The **Wage Inflation Rate** assumed in this valuation is 3.25% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects. *This rate was 3.50% in the previous valuation*.

The **Price Inflation Rate** assumed in this valuation is 2.25% per year. *This rate was 2.50% in the previous valuation.*

The assumed **real rate of return** over price inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.35% investment return rate translates to an assumed real rate of return over price inflation of 5.10%.



The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 2.50% per year.

Pay increase assumptions for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.25% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

The rates of salary increase used for individual members are in accordance with the following table below and are based on the Experience Study dated October 29, 2020. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. The old assumption table was used in the previous valuation.

New Assumption Table

%	Increase	in Sal	lary	1
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, , , , , , , , , , , , , , , , , , , ,				
Merit and	Wage	Total Increase		
Jeilloilty	IIIIIatioii	IIICICase		
11.75%	3.25%	15.00%		
6.75%	3.25%	10.00%		
2.25%	3.25%	5.50%		
1.25%	3.25%	4.50%		
2.75%	3.25%	6.00%		
3.50%	3.25%	6.75%		
5.00%	3.25%	8.25%		
0.00%	3.25%	3.25%		
	Seniority 11.75% 6.75% 2.25% 1.25% 2.75% 3.50% 5.00%	Seniority Inflation 11.75% 3.25% 6.75% 3.25% 2.25% 3.25% 1.25% 3.25% 2.75% 3.25% 3.50% 3.25% 5.00% 3.25%		

Old Assumption Table

% Increase in Salary

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Demographic Assumptions

The mortality table is the PUB-2010 Headcount Weighted Safety Healthy Employee Mortality Table (for preretirement mortality) and the PUB-2010 Headcount Weighted Safety Healthy Retiree Mortality Table (for postretirement mortality), with separate rates for males and females and ages set forward one year, with mortality improvements projected to all future years after 2010 using Scale MP-2018. For males, the base mortality rates for both pre-retirement and postretirement mortality are based on the Below Median Healthy tables. These are the same rates currently in use for Special Risk class members of the Florida Retirement System (FRS), as mandated by Chapter 112.63, Florida Statutes.

FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample Attained	Probabil Dying Ne	•	Future Expectance	
Ages (in 2020)	Men	Women	Men	Women
50	0.42 %	0.20 %	32.40	36.24
55	0.56	0.36	27.63	31.21
60	0.93	0.61	23.05	26.43
65	1.32	0.92	18.80	21.93
70	2.09	1.45	14.80	17.68
75	3.56	2.44	11.21	13.75
80	6.35	4.19	8.14	10.30

This assumption is used to measure the probabilities of each benefit payment being made after retirement.

FRS Healthy Pre-Retirement Mortality for Special Risk Class Members

Sample Attained	Probabil Dying Nex	•	Future Life Expectancy (years)	
Ages (in 2020)	Men	Women	Men	Women
50	0.17 %	0.11 %	35.58	39.50
55	0.26	0.16	30.50	34.36
60	0.43	0.22	25.55	29.30
65	0.69	0.30	20.80	24.29
70	1.18	0.55	16.28	19.39
75	2.09	1.08	12.05	14.69
80	6.35	4.19	8.14	10.30

This assumption is used to measure the probabilities of active members dying prior to retirement.

For disabled retirees, the mortality table is the 80% of the PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, and 20% of the PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, both with separate rates for males and females, with no provision being made for future mortality improvements. These are the same rates currently in use for Special Risk class members of the Florida Retirement System (FRS), as mandated by Chapter 112.63, Florida Statutes.



FRS Disabled Mortality for Special Risk Class Members

Sample	Probabil	ity of	Future Life	
Attained	Dying Next Year		Expectancy (years)	
Ages (in 2020)	Men Women		Men	Women
50	1.45 %	1.25 %	24.04	26.84
55	1.91	1.50	20.88	23.54
60	2.37	1.81	17.92	20.32
65	3.00	2.22	15.07	17.17
70	3.91	2.90	12.39	14.10
75	5.30	4.13	9.87	11.22
80	7.66	6.21	7.60	8.67

In the previous valuation, this assumption was the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates included a 90% blue collar adjustment and a 10% white collar adjustment. For females, the base mortality rates included a 100% white collar adjustment. For disabled retirees, the mortality table used was 60% of the RP-2000 for Disabled Annuitants with ages set back 4 years for males and set forward 2 years for females, and 40% of the RP-2000 Annuitant Mortality Table with a white collar adjustment with no age setback, both with no provision being made for future mortality improvements.

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows and are based on the Experience Study dated October 29, 2020. The old assumption table was used in the previous valuation.

New Assumption Table

Retirement Rates							
S	Age						
е		<50	50 - 54	55	56 - 59	60+	
r	10 - 19	N/A	5.0%	80.0%	80.0%	100.0%	
V	20 - 21	60.0%	90.0%	100.0%	100.0%	100.0%	
i	22 - 24	80.0%	90.0%	100.0%	100.0%	100.0%	
C	25+	100.0%	100.0%	100.0%	100.0%	100.0%	
e							

Old Assumption Table

Retirement Rates

S	Age					
е		<50	50 - 54	55	56 - 59	60+
r	10 - 19	N/A	10.0%	40.0%	40.0%	100.0%
V	20	40.0%	80.0%	80.0%	100.0%	100.0%
i	21 - 24	40.0%	80.0%	100.0%	100.0%	100.0%
С	25+	50.0%	80.0%	100.0%	100.0%	100.0%
е	•					



Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability) and are based on the Experience Study dated October 29, 2020. *The old assumption table was used in the previous valuation*. This assumption measures the probabilities of members remaining in employment.

New Assumption Table

Sample Ages	% of Active Members Separating Within Next Year
20	5.0 %
25	5.0
30	3.0
35	1.0
40	1.0
45	2.0
50	2.0
55	0.0

Old Assumption Table

Sample	% of Active Members						
Ages	Separating Within Next Year						
20	1.5 %						
25	1.5						
30	1.5						
35	1.5						
40	2.5						
45	1.5						
50	1.0						
55	0.0						

Rates of disability among active members (85% of disabilities are assumed to be service-connected).

Sample	% Becoming Disabled
Ages	within Next Year
20	0.09 %
25	0.10
30	0.12
35	0.15
40	0.20
45	0.34
50	0.67
55	1.03



Miscellaneous and Technical Assumptions

Administrative & Investment

Expenses

The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the prior two years' expenses. Assumed

administrative expenses are added to the Normal Cost.

Benefit Service Exact fractional service is used to determine the amount of benefit

payable.

Cost of Living IncreasesBenefits are increased by 2% per year beginning five years after benefit

commencement.

Decrement Operation Disability and mortality decrements operate during retirement eligibility.

Decrement Timing Decrements of all types are assumed to occur at the beginning of the

year.

Eligibility Testing Eligibility for benefits is determined based upon the age nearest

birthday and service nearest whole year on the date the decrement is

assumed to occur.

For vested separations from service, it is assumed that 0% of members

separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's

accumulated contributions.

Incidence of ContributionsThe employer contribution is assumed to be made in one full payment

on October 1st of each year (at the beginning of the fiscal year). Member contributions are assumed to be received continuously

throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions

are made.

Liability Load Projected retirement benefits are loaded by a unique amount for each

member to allow for the inclusion of unused sick and vacation pay in final average earnings. These individual loads are based on the number of hours of unused sick and vacation reported for each member as of

September 27, 2013.

Marriage Assumption 100% of males and 100% of females are assumed to be married for

purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation

purposes.



Normal Form of Benefit A ten year certain and life thereafter annuity is the Normal Form of

Benefit.

Pay Increase Timing Beginning of fiscal year. This is equivalent to assuming that reported

pays represent amounts paid to members during the year ended on the

valuation date.

Service Credit Accruals It is assumed that members accrue one year of service credit per year.



GLOSSARY

Actuarial Accrued Liability (AAL)

The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

Actuarial Assumptions

Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.

Actuarial Cost Method

A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.

Actuarial Equivalent

Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value (APV)

The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.

Actuarial Present Value of Future Benefits (APVFB)

The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB.

Actuarial Value of Assets

The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined employer contribution (ADEC).



Actuarially Determined Employer Contribution (ADEC) The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under GASB. The ADEC consists of the Employer Normal Cost and Amortization Payment.

Amortization Method

A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

Amortization Payment

That portion of the plan contribution or ADEC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Amortization Period

The period used in calculating the Amortization Payment.

Closed Amortization Period

A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

Employer Normal Cost

The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

Equivalent Single
Amortization Period

For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

Experience Gain/Loss

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.



Funded Ratio The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

GASB Governmental Accounting Standards Board.

GASB No. 68 and GASB No. 67 These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

Normal Cost The annual cost assigned, under the Actuarial Cost Method, to the current

plan year.

Open Amortization Period An open amortization period is one which is used to determine the

Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to

covered payroll.

Unfunded Actuarial Accrued

Liability

The difference between the Actuarial Accrued Liability and Actuarial

Value of Assets.

Valuation Date The date as of which the Actuarial Present Value of Future Benefits are

determined. The benefits expected to be paid in the future are discounted

to this date.





PENSION FUND INFORMATION

SUMMARY OF ASSETS

			September 30				
	lte	e m		2020		2019	
A.	Cash a	nd Cash Equivalents (Operating Cash)	\$	-	\$	-	
В.	Receiva	ables:					
	1.	Member Contributions	\$	-	\$	-	
	2.	Employer Contributions		-		-	
	3.	State Contributions		-		-	
	4.	Investment Income and Other Receivables		301,063		327,698	
	5.	Prepaid Expenses		12,903		8,230	
	6.	Total Receivables	\$	313,966	\$	335,928	
C.	Investr	nents					
	1.	Short Term Investments	\$	2,274,896	\$	2,724,691	
	2.	Domestic Equities		64,644,738		59,592,951	
	3.	International Equities		22,618,202		21,014,778	
	4.	Domestic Fixed Income		40,846,612		28,533,827	
	5.	International Fixed Income		-		-	
	6.	Real Estate		7,570,684		10,820,467	
	7.	Private Equity				-	
	8.	Total Investments	\$	137,955,132	\$	122,686,714	
D.	Liabilit	ties					
	1.	Benefits Payable	\$	-	\$	-	
	2.	Accrued Expenses and Other Payables		(226,156)		(230,286)	
	3.	Prepaid City Contribution		(122,975)		(295,020)	
	4.	Total Liabilities	\$	(349,131)	\$	(525,306)	
E.	Total N	Market Value of Assets Available for Benefits	\$	137,919,967	\$	122,497,336	
F.	Reserv	es					
	1.	State Contribution Reserve	\$	(1,735,276)	\$	(1,990,898)	
	2.	DROP Accounts		(19,874,756)		(18,368,680)	
	3.	Total Reserves	\$	(21,610,032)	\$	(20,359,578)	
G.	Market	t Value Net of Reserves	\$	116,309,935	\$	102,137,758	
F.	Allocat	tion of Investments					
	1.	Short Term Investments		1.65%		2.22%	
	2.	Domestic Equities		46.86%		48.57%	
	3.	International Equities		16.39%		17.13%	
	4.	Domestic Fixed Income		29.61%		23.26%	
	5.	International Fixed Income		0.00%		0.00%	
	6.	Real Estate		5.49%		8.82%	
	7.	Private Equity		0.00%		0.00%	
	8.	Total Investments		100.00%		100.00%	



PENSION FUND INCOME & DISBURSEMENTS

		Septemb			er 30		
	ltem		2020		2019		
A.	Market Value of Assets at Beginning of Year	\$	122,497,336	\$	115,256,910		
В.	Adjustment to Prepaid City Contribution*	\$	-	\$	131,887		
C.	Revenues and Expenditures						
	1. Contributions						
	 a. Employee Contributions 	\$	1,399,951	\$	1,458,781		
	b. Employer Contributions**		4,906,890		5,347,166		
	d. State Contributions		881,763		830,904		
	e. Service Purchase		48,832		65,616		
	f. Rollover to DROP		327,937		379,375		
	g. Total	\$	7,565,373	\$	8,081,842		
	2. Investment Income						
	a. Interest, Dividends, and Other Income	\$	2,420,048	\$	2,026,967		
	b. Net Realized Gains/(Losses)		5,994,365		1,470,765		
	c. Net Unrealized Gains/(Losses)		7,841,717		3,688,658		
	d. Investment Expenses		(421,470)		(350,840)		
	e. Net Investment Income	\$	15,834,660	\$	6,835,550		
	3. Benefits and Refunds						
	a. Refunds	\$	(84,833)	\$	(26,917)		
	b. Regular Monthly Benefits		(6,141,616)		(5,796,876)		
	c. DROP Distributions		(1,521,789)		(1,800,310)		
	d. Ad Hoc Payments from State Reserve		-				
	e. Total	\$	(7,748,238)	\$	(7,624,103)		
	4. Administrative and Miscellaneous Expenses	\$	(229,164)	\$	(184,750)		
	5. Transfers	\$	-	\$	-		
D.	Market Value of Assets at End of Year	\$	137,919,967	\$	122,497,336		
E.	Reserves						
	State Contribution Reserve	\$	(1,735,276)	\$	(1,990,898)		
	2. DROP Accounts		(19,874,756)		(18,368,680)		
	3. Total Reserves	\$	(21,610,032)	\$	(20,359,578)		
F.	Market Value Net of Reserves	\$	116,309,935	\$	102,137,758		

^{*} For 2019, this adjustment in the prepaid City contribution (from \$146,476 to \$14,589, a change of \$131,887) is due to a reevaluation of prior years' COLA costs. See GRS' letter regarding the cost of the COLA dated November 5, 2019 for more details.

^{**} For 2020, actual City contribution was \$4,734,845, but \$4,906,890 was recognized to include \$172,045 of the previous year's prepaid contribution. For 2019, actual City Contribution was \$5,627,597, but \$5,347,166 was recognized. The difference of \$280,431 was added to the prepaid contribution balance, increasing it to \$295,020 after reflecting the adjustment described in the first footnote above.



ACTUARIAL VALUE OF ASSETS

	Valuation Date - September 30	2019	2020	2021	2022	2023	2024
A.	Actuarial Value of Assets Beginning of Year	\$ 110,897,801	\$ 120,335,579	\$ -	\$ -	\$ -	\$ -
В.	Market Value End of Year	122,497,336	137,919,967	-	-	-	-
C.	Market Value Beginning of Year	115,256,910	122,497,336	-	-	-	-
D.	Non-Investment/Administrative Net Cash Flow	404,876	(412,029)	-	-	-	-
E.	Investment Income						
	E1. Actual Market Total: B-C-D	6,835,550	15,834,660	-	-	-	-
	E2. Assumed Rate of Return	7.50%	7.50%	-	-	-	-
	E3. Assumed Amount of Return	8,533,037	9,193,726	-	-	-	-
	E4. Amount Subject to Phase-In: E1–E3	(1,697,487)	6,640,934	-	-	-	-
F.	Phase-In Recognition of Investment Income						
	F1. Current Year: 0.2 x E4	(339,497)	1,328,187	-	-	-	-
	F2. First Prior Year	289,039	(339,497)	1,328,187	-	-	-
	F3. Second Prior Year	1,036,587	289,039	(339,497)	1,328,187	-	-
	F4. Third Prior Year	579,455	1,036,587	289,039	(339,497)	1,328,187	-
	F5. Fourth Prior Year	(1,065,719)	579,454	1,036,588	289,040	(339,499)	1,328,186
	F6. Total Phase-Ins	499,865	2,893,770	2,314,317	1,277,730	988,688	1,328,186
G.	Actuarial Value of Assets End of Year						
	G1. Preliminary Actuarial Value of Assets End of Year:	\$ 120,335,579	\$ 132,011,046	\$ -	\$ -	\$ -	\$ -
	G2. Upper Corridor Limit: 120%*B	146,996,803	165,503,960	-	-	-	-
	G3. Lower Corridor Limit: 80%*B	97,997,869	110,335,974	-	-	-	-
	G4. Funding Value End of Year	120,335,579	132,011,046	-	-	-	-
	G5. Less: State Contribution Reserve	(1,990,898)	(1,735,276)	-	-	-	-
	G6. Less: DROP Account Balance	(18,368,680)	(19,874,756)	-	-	-	-
	G7. Final Funding Value End of Year	99,976,001	110,401,014	-	-	-	-
	G8. Final Market Value End of Year	102,137,758	116,309,935	-	-	-	-
Н.	Difference between Market & Actuarial Value of Assets	2,161,757	5,908,921	-	-	-	-
I.	Actuarial Rate of Return	7.94%	9.86%	0.00%	0.00%	0.00%	0.00%
J.	Market Value Rate of Return	5.79%	12.69%	0.00%	0.00%	0.00%	0.00%
к.	Ratio of Actuarial Value of Assets to Market Value	98.24%	95.72%	0.00%	0.00%	0.00%	0.00%



RECONCILIATION OF DROP ACCOUNTS						
Value at beginning of year	\$ 18,368,680					
Adjustment to beginning of year balance	+ (869)					
Payments credited to accounts	+ 1,362,750					
Rollovers into DROP	+ 327,937					
Net Loan Activity	+ 43,627					
Investment Earnings credited	+ 1,294,420					
Withdrawals from accounts	- 1,521,789					
Value at end of year	19,874,756					



INVESTMENT RATE OF RETURN

	Investment Rate of Return					
Year Ended	Market Value	Actuarial Value				
12/31/1982	NA %	11.9 %				
12/31/1983	15.2	13.9				
12/31/1984	11.7	11.1				
12/31/1985	23.1	18.7				
12/31/1986	11.8	13.4				
12/31/1987	5.3	10.3				
12/31/1988	10.9	9.8				
12/31/1989	15.9	14.8				
9/30/1990 (9 mos.)	(1.6)	1.4				
9/30/1991	19.6	13.1				
9/30/1992	12.7	11.2				
9/30/1993	13.1	9.7				
9/30/1994	0.2	3.1				
9/30/1995	18.8	9.3				
9/30/1996	13.1	9.8				
9/30/1997	24.5	12.6				
9/30/1998	11.4	12.4				
9/30/1999	11.8	14.1				
9/30/2000	9.4	13.3				
9/30/2001	(7.7)	8.0				
9/30/2002	(5.6)	2.3				
9/30/2003	15.3	3.5				
9/30/2004	6.4	2.2				
9/30/2005	7.9	2.5				
9/30/2006	5.2	5.3				
9/30/2007	12.3	9.3				
9/30/2008	(17.1)	3.0				
9/30/2009	(0.2)	0.9				
9/30/2010	8.5	2.5				
9/30/2011	(0.9)	0.9				
9/30/2012	17.1	2.7				
9/30/2013	13.6	8.1				
9/30/2014	10.2	8.8				
9/30/2015	0.4	7.3				
9/30/2016	11.1	9.2				
9/30/2017	13.0	9.3				
9/30/2018	8.6	8.7				
9/30/2019	5.8	7.9				
9/30/2020	12.7	9.9				
Average Returns: Last Five Years	10.2 %	9.0 %				
Last Five Years Last Ten Years	9.0 %	9.0 % 7.2 %				
All Years	8.8 %	8.3 %				





FINANCIAL ACCOUNTING INFORMATION

	FASB NO. 35 INFORMATION							
Α.	Valuation Date	October 1, 2020	October 1, 2019					
В.	Actuarial Present Value of Accumulated Plan Benefits							
	1. Vested Benefits							
	a. Members Currently Receiving Paymentsb. Terminated Vested Membersc. Other Membersd. Total	\$ 97,503,462 747,635 42,536,843 140,787,940	\$ 93,894,938 973,039 36,817,553 131,685,530					
	2. Non-Vested Benefits	2,018,155	2,612,708					
	3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	142,806,095	134,298,238					
	4. Accumulated Contributions of Active Members	10,973,238	10,588,733					
C.	Changes in the Actuarial Present Value of Accumulated Plan Benefits							
	1. Total Value at Beginning of Year	134,298,238	126,043,268					
	2. Increase (Decrease) During the Period Attributable to:							
	a. Plan Amendment	0	165,213					
	b. Change in Actuarial Assumptionsc. Latest Member Data, Benefits Accumulated	275,286	0					
	and Decrease in the Discount Period	15,821,770	15,196,504					
	d. Benefits Paid net of DROP activity	(7,589,199)	(7,106,747)					
	e. Net Increase	8,507,857	8,254,970					
	3. Total Value at End of Period	142,806,095	134,298,238					
D.	Market Value of Assets	116,309,935	102,137,758					
E.	Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods							



SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS GASB Statement No. 67

Fiscal year ending September 30,	2021*	2020	2019	2018	2017	2016	2015	2014
Total pension liability								
Service Cost	\$ 3,656,658	\$ 3,593,983	\$ 3,403,511	\$ 3,717,529	\$ 3,330,443	\$ 3,204,682	\$ 2,988,536	\$ 2,772,724
Interest	13,181,910	12,281,407	11,904,771	11,208,637	10,066,945	9,542,671	8,955,215	8,188,369
Benefit Changes	-	616,047	(1,384,791)	_	-	-	-	-
Difference between actual & expected experience	(890,682)	3,514,248	(1,516,079)	1,224,054	668,799	(498,197)	708,071	(28,363)
Assumption Changes	710,652	-	-	-	6,644,861	-	1,809,581	-
Benefit Payments	(8,155,698)	(7,663,405)	(7,597,186)	(5,970,713)	(5,456,760)	(5,176,836)	(4,304,149)	(4,292,070)
Refunds	(36,073)	(84,833)	(26,917)	(105,981)	(53,290)	-	(4,622)	(50,673)
Other (Increase in Excess State Reserve)	(255,622)	(255,622)	(8,104)	(326,167)	(231,973)	(192,041)	259,251	312,239
Other (Rollovers into DROP)		327,937	379,375	323,472	70,279	271,411	139,860	343,843
Net Change in Total Pension Liability	8,211,145	12,329,762	5,154,580	10,070,831	15,039,304	7,151,690	10,551,743	7,246,069
Total Pension Liability - Beginning	176,325,833	163,996,071	158,841,491	148,770,660	133,731,356	126,579,666	116,027,923	108,781,854
Total Pension Liability - Ending (a)	\$184,536,978	\$ 176,325,833	\$ 163,996,071	\$ 158,841,491	\$ 148,770,660	\$133,731,356	\$126,579,666	\$116,027,923
Plan Fiduciary Net Position								
Contributions - Employer (from City)	\$ 5,215,363	\$ 4,734,845	\$ 5,627,597	\$ 5,444,061	\$ 4,293,563	\$ 4,195,420	\$ 3,930,996	\$ 3,522,147
Contributions - Employer (from State)	881,763	881,763	830,904	789,121	883,314	923,246	963,573	1,016,561
Contributions - Non-Employer Contributing Entity	-	-	-	-	-	-	-	-
Contributions - Members	1,391,850	1,448,783	1,524,397	1,473,516	1,477,115	1,485,128	1,251,530	1,291,773
Net Investment Income	10,280,084	15,834,660	6,835,550	9,221,736	12,165,106	9,197,486	282,853	7,187,580
Benefit Payments	(8,155,698)	(7,663,405)	(7,597,186)	(5,970,713)	(5,456,760)	(5,176,836)	(4,304,149)	(4,292,070)
Refunds	(36,073)	(84,833)	(26,917)	(105,981)	(53,290)	-	(4,622)	(50,673)
Administrative Expense	(206,957)	(229,164)	(184,750)	(141,569)	(151,010)	(161,122)	(132,439)	(122,390)
Other (Rollovers into DROP)	-	327,937	379,375	323,472	70,279	271,411	139,860	343,843
Net Change in Plan Fiduciary Net Position	9,370,332	15,250,586	7,388,970	11,033,643	13,228,317	10,734,733	2,127,602	8,896,771
Plan Fiduciary Net Position - Beginning	138,042,942	122,792,356	115,403,386	104,369,743	91,141,426	80,406,693	78,279,091	69,382,320
Plan Fiduciary Net Position - Ending (b)	\$147,413,274	\$ 138,042,942	\$ 122,792,356	\$ 115,403,386	\$ 104,369,743	\$ 91,141,426	\$ 80,406,693	\$ 78,279,091
Net Pension Liability - Ending (a) - (b)	37,123,704	38,282,891	41,203,715	43,438,105	44,400,917	42,589,930	46,172,973	37,748,832
Plan Fiduciary Net Position as a Percentage								
of Total Pension Liability	79.88 %	78.29 %	74.88 %	72.65 %	70.15 %	68.15 %	63.52 %	67.47 %
Covered Employee Payroll	\$ 11,598,751	\$ 11,666,258	\$ 12,156,508	\$ 11,133,758	\$ 11,219,225	\$ 10,906,700	\$ 9,962,067	\$ 9,925,925
Net Pension Liability as a Percentage								
of Covered Employee Payroll	320.07 %	328.15 %	338.94 %	390.15 %	395.76 %	390.49 %	463.49 %	380.31 %

^{*} These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY GASB Statement No. 67

FY Ending September 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Coverd Payroll
2014	\$ 116,027,923	\$ 78,279,091	\$ 37,748,832	67.47%	\$ 9,925,925	380.31%
2015	126,579,666	80,406,693	46,172,973	63.52%	9,962,067	463.49%
2016	133,731,356	91,141,426	42,589,930	68.15%	10,906,700	390.49%
2017	148,770,660	104,369,743	44,400,917	70.15%	11,219,225	395.76%
2018	158,841,491	115,403,386	43,438,105	72.65%	11,133,758	390.15%
2019	163,996,071	122,792,356	41,203,715	74.88%	12,156,508	338.94%
2020	176,325,833	138,042,942	38,282,891	78.29%	11,666,258	328.15%
2021*	184,536,978	147,413,274	37,123,704	79.88%	11,598,751	320.07%

^{*} These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



NOTES TO NET PENSION LIABILITY GASB Statement No. 67

Valuation Date: October 1, 2020
Measurement Date: September 30, 2021

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method Entry Age Normal

Inflation 2.25%

Salary Increases Varies by years of service from 3.25% to 15.0% (see Table in Actuarial

Assumptions Section)

Investment Rate of Return 7.35%

Retirement Age Rates vary by age and years of service (see Table in Actuarial

Assumptions Section)

Mortality PUB-2010 Headcount Weighted Safety Healthy Employee Mortality

Table (for pre-retirement mortality) and the PUB-2010 Headcount Weighted Safety Healthy Retiree Mortality Table (for postretirement mortality), with separate rates for males and females and ages set forward one year, with mortality improvements projected to all future years after 2010 using Scale MP-2018. For males, the base mortality rates for both pre-retirement and post-retirement mortality are based on the Below Median Healthy tables. These are the same rates currently in use for Special Risk Class members of the Florida Retirement System (FRS), as mandated by Chapter 112.63, Florida

Statutes.

Other Information:

Notes See Discussion of Valuation Results on Page 1.

Assumption changes reflect the following changes:

-The investment return assumption was lowered from 7.50% to

7.35%.

-The mortality assumption was updated to the current mortality assumption being used by the Florida Retirement System, which was updated effective July 1, 2019 by the FRS, as required by Florida

Statutes.

-Based on the Experience Study dated October 29, 2020, new salary increase rates, retirement rates, and separation rates were adopted to reflect observed experience over the 7-year experience study

period reviewed.



SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

	Actuarially		Contribution		Actual Contribution
FY Ending	Determined	Actual	Deficiency	Covered	as a % of
September 30,	Contribution	Contribution	(Excess)	Payroll	Covered Payroll
2014	\$ 4,226,469	\$ 4,226,469	\$ -	\$ 9,925,925	42.58%
2015	4,635,318	4,635,318	-	9,962,067	46.53%
2016	4,899,742	4,977,374	(77,632) **	10,906,700	45.64%
2017	5,075,517	5,075,517	-	11,219,225	45.24%
2018	6,157,171	6,226,015	(68,844) **	11,133,758	55.92%
2019	6,409,551	6,458,501	(48,950) **	12,156,508	53.13%
2020	5,969,275	5,616,608	352,667 ***	11,666,258	48.14%
2021*	6,400,723	6,097,126	303,597 ***	* 11,598,751	52.57%

^{*} These figures are estimates only. Actual figures will be provided after the end of the fiscal year.



^{**}Prepaid contributions (resulting from the previous years' excess contributions) will be applied toward the Actuarially Determined Contributions for Fiscal Year Ending September 30, 2020 and 2021.

^{***}The Deficiency in actual contribution is funded through the use of Prepaid contributions (\$172,045) plus Accumulated Excess Chapter 175 Premium Tax Revenue Reserves (\$180,622).

^{****}The Deficiency in actual contribution is funded through the use of Prepaid contributions (\$122,975) plus Accumulated Excess Chapter 175 Premium Tax Revenue Reserves (\$180,622).

NOTES TO SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

Valuation Date: October 1, 2019

Notes Actuarially determined contribution rates are calculated as of the

October 1st which is two years prior to the end of the fiscal year in

which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method Entry Age Normal

Amortization Method Level Percentage of Payroll, Closed

Remaining Amortization Period 19 years (Single equivalent amortization period)

Asset Valuation Method 5-year smoothed market

Inflation 2.5%

Salary Increases Varies by years of service from 3.5% to 14.5% (see Table in

Actuarial Assumptions Section)

Investment Rate of Return 7.50%

Retirement Age Rates vary by age and years of service (see Table in Actuarial

Assumptions Section)

Mortality RP-2000 Combined Healthy Participant Mortality Table (for pre-

retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 90% blue collar adjustment and a 10% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates used for Special Risk Class members of the Florida Retirement System (FRS) in the July 1, 2018 FRS actuarial valuation report. Florida Statutes Chapter 112.63(1)(f) mandates the use of the mortality tables used in either of the two most

recently published actuarial valuation reports of FRS.

Other Information:

Notes See Discussion of Valuation Results on Page 1 of the October 1,

2019 Actuarial Valuation Report.



SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 7.35% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.35%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (7.35%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.35%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

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

Current Single Discount						
1% Decrease	Rate Assumption	1% Increase				
6.35%	7.35%	8.35%				
\$57,133,445	\$37,123,704	\$20,659,765				

^{*} These figures are estimates only. Actual figures will be provided after the end of the fiscal year.





MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA							
		From 10/1/19 To 10/1/20	From 10/1/18 To 10/1/19				
Α.	Active Members						
1. 2. 3.	Number Included in Last Valuation New Members Included in Current Valuation Non-Vested Employment Terminations	115 14 (4)	113 8 (1)				
4. 5. 6. 7. 8. 9.	Vested Employment Terminations DROP Participation Service Retirements Disability Retirements Deaths Transfer from General Employees Number Included in This Valuation	(1) (2) 0 (2) (1) 0 119	0 (5) 0 0 0 0 115				
В.	Terminated Vested Members						
1. 2. 3. 4. 5. 6.	Number Included in Last Valuation Additions from Active Members Lump Sum Payments/Refund of Contributions Payments Commenced Deaths Other Number Included in This Valuation	2 1 0 (1) 0 ———————————————————————————————————	2 0 0 0 0 0 0				
C.	DROP Plan Members						
1. 2. 3. 4. 5.	Number Included in Last Valuation Additions from Active Members Retirements Deaths Resulting in No Further Payments Other (Death Resulting in Survivor Benefits) Number Included in This Valuation	20 2 (6) 0 0 16	16 5 (1) 0 0 20				
D.	Service Retirees, Disability Retirees and Beneficia	aries					
1. 2. 3. 4. 5. 6. 7. 8.	Number Included in Last Valuation Additions from Active Members Additions from Terminated Vested Members Additions from DROP Plan Deaths Resulting in No Further Payments Deaths Resulting in New Survivor Benefits End of Certain Period - No Further Payments Other Lump Sum Distributions Number Included in This Valuation	102 3 1 6 (1) 0 0 0 111	103 0 0 1 (2) 0 0 0 102				



ACTIVE PARTICIPANT DISTRIBUTION

Years of Service to Valuation Date											
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25+	Totals
15-19 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	_	0	0	
AVG PAY	0	0	0	0	0	0	0	_	0	0	
AVG PAT	U	U	U	U	U	U	U	U	U	U	
20-24 NO.	1	1	0	0	0	0	0	0	0	0	2
TOT PAY	46,240	58,016	0	0	0	0	0	0	0	0	104,256
AVG PAY	46,240	58,016	0	0	0	0	0	0	0	0	52,128
25-29 NO.	6	2	0	2	3	2	0	0	0	0	15
TOT PAY	277,442	119,787	0	145,132	270,495	159,550	0	0	0	0	972,406
AVG PAY	46,240	59,894	0	72,566	90,165	79,775	0	0	0	0	64,827
30-34 NO.	6	1	1	4	1	4	2	0	0	0	19
TOT PAY	277,444	47,000	70,622	302,367	83,288	366,860	226,379	0	0	0	1,373,960
AVG PAY	46,241	47,000	70,622	75,592	83,288	91,715	113,190	0	0	0	72,314
35-39 NO.	0	0	0	2	2	7	13	4	0	0	28
TOT PAY	0	0	0	129,723	175,939	647,213	1,314,422	427,934	0	0	2,695,231
AVG PAY	0	0	0	64,862	87,970	92,459	101,109	106,984	0	0	96,258
40-44 NO.	0	0	0	1	0	3	13	11	0	0	28
TOT PAY	0	0	0	74,705	0	291,844	1,356,198	1,244,095	0	0	2,966,842
AVG PAY	0	0	0	74,705	0	97,281	104,323	113,100	0	0	105,959
45-49 NO.	0	0	0	0	0	0	2	16	0	0	18
TOT PAY	0	0	0	0	0	0	209,735	1,819,806	0	0	2,029,541
AVG PAY	0	0	0	0	0	0	104,868	113,738	0	0	112,752
50-54 NO.	0	0	0	0	0	0	2	6	0	0	
TOT PAY	0	0	0	0	0	0	183,135	716,205	0	0	899,340
AVG PAY	0	0	0	0	0	0	91,568	119,368	0	0	112,418
55-59 NO.	1	0	0	0	0	0	0	0	0	0	
TOT PAY	107,981	0	0	0	0	0	0		0	0	·
AVG PAY	107,981	0	0	0	0	0	0	0	0	0	107,981
60-64 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0
65-99 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0
TOT NO.	14	4	1	9	6	16	32	37	0	0	119
TOT NO.	709,107	224,803	70,622	651,927		1,465,467			0	0	
AVG AMT	50,651	56,201	70,622	72,436	88,287	91,592	102,808		0	0	



INACTIVE PARTICIPANT DISTRIBUTION

							Decea	sed with	
_Terminat		ted Vested	d Vested Disabled			etired	Beneficiary		
		Total	Total			Total	Total		
Age	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits	
Under 20	-	-	-	-	-	-	-	-	
20-24	-	-	-	-	-	-	-	-	
25-29	-	-	-	-	-	-	-	-	
30-34	-	-	-	-	-	-	-	-	
35-39	1	54,233	-	-	-	-	-	-	
40-44	1	22,894	1	53,975	1	105,264	-	-	
45-49	-	-	2	91,534	15	1,134,691	1	78,035	
50-54	-	-	-	-	13	1,049,944	-	-	
55-59	-	-	1	46,131	22	1,745,039	1	29,935	
60-64	-	-	-	-	21	1,031,062	1	57,724	
65-69	-	-	-	-	22	1,180,525	1	34,603	
70-74	-	-	-	-	11	630,294	1	43,623	
75-79	-	-	-	-	6	278,429	3	68,268	
80-84	-	-	-	-	1	37,067	1	14,517	
85-89	-	-	-	-	-	-	1	6,951	
90-94	-	-	-	-	-	-	1	16,142	
95-99	-	-	-	-	-	-	-	-	
100 & Over	-	-	-	-	-	-	-	-	
Total	2	77,127	4	191,640	112	7,192,315	11	349,798	
Average Age		41		48		61		73	
Liability		747,635		2,874,936		91,006,158		3,622,368	





SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

Plan established under the Code of Ordinances for the City of Boynton Beach, Florida, Chapter 18, Article IV, and was most recently amended under Ordinance No. 20-003 passed and adopted on its second reading on February 18, 2020. The Plan is also governed by certain provisions of Chapter 175, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

Date was not provided.

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

All full-time firefighters are eligible to participate. Members hired before February 5, 2019 are classified as "Tier 1 members" and members hired on or after February 5, 2019 are classified as "Tier 2 members."

F. Credited Service

Service is measured as the total length of employment for which the firefighter received Compensation from the City and made Member Contributions to the plan. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

Cash compensation exclusive of bonuses and incentive pay, but including overtime earnings not to exceed 300 hours and lump sum payment of accumulated unused sick and vacation hours, but not to exceed the number of accumulated sick and vacation hours as of September 27, 2013.

H. Final Average Compensation (FAC)

The average of Compensation over the highest 3 years during the last 10 years of Credited Service.



I. Normal Retirement

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

earlier of:

<u>Tier 1:</u>

(1) age 55 and 10 years of Credited Service, or

(2) 20 years of Credited Service regardless of age.

<u>Tier 2:</u>

(1) age 55 and 10 years of Credited Service, or

(2) 25 years of Credited Service regardless of age.

Benefit: 3.00% of FAC multiplied by years of Credited Service.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the normal retirement benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. This maximum benefit cap will be increased annually beginning on October 1, 2020 (and on each October 1st thereafter) by 1.5%. As of October 1, 2020, the maximum benefit cap is \$96,425 per year. In accordance with Chapter 175 minimum benefit provisions, in no event will a Firefighter's retirement

benefit be less than 2.75% of FAC multiplied by years of Credited Service.

Normal Form

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

COLA: Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after

December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year

beginning 5 years after retirement.

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon

attainment of age 50 and 10 years of Credited Service.

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

Retirement date precedes the Normal Retirement date.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the early retirement benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year (\$96,425 per year as of October 1, 2020), applied to the normal retirement benefit before reflecting any reductions for early retirement.

Normal Form

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

COLA: Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after

December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year

beginning 5 years after retirement.



K. Delayed Retirement

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

L. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled as a result of an act

occurring in the performance of service for the City is immediately eligible for a disability

benefit.

Benefit: 66 2/3% of Compensation in effect on the date of disability, reduced by amounts payable

under Social Security PIA with a minimum benefit equal to 42% of FAC.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the disability benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. As of October 1, 2020, the maximum benefit cap is

\$96,425 per year.

Normal Form

of Benefit: Payable until death or recovery from disability; other options are also available.

COLA: Each disability retiree who retires on or after December 1, 2006 will receive a 2.0%

increase in benefits on October 1st of each year beginning 5 years after retirement.

M. Non-Service Connected Disability

Eligibility: Any member with 10 years of Credited Service who becomes totally and permanently

disabled is immediately eligible for a disability benefit.

Benefit: 2.5% of FAC multiplied by years of Credited Service with a minimum benefit equal to 25%

of FAC.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the disability benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. As of October 1, 2020, the maximum benefit cap is

\$96,425 per year.

Normal Form

of Benefit: Payable until death or recovery from disability; other options are also available.

COLA: Each disability retiree who retires on or after December 1, 2006 will receive a 2.0%

increase in benefits on October 1st of each year beginning 5 years after retirement.



N. Death in the Line of Duty

Eligibility: Members are eligible for survivor benefits after the completion of 10 or more years of

Credited Service.

Benefit: Spouse will receive 3.0% of the member's FAC multiplied by years of Credited Service.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the death benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. As of October 1, 2020, the maximum benefit cap is

\$96,425 per year.

Normal Form

of Benefit: Paid for the life of the spouse with 10 years certain.

COLA: Each surviving spouse whose benefits began on or after December 1, 2006 will receive a

2.0% increase in benefits on October 1st of each year beginning 5 years after benefits

began.

The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions.

O. Other Pre-Retirement Death

Eligibility: Members are eligible for survivor benefits after the completion of 10 or more years of

Credited Service.

Benefit: Spouse will receive 3.0% of the member's FAC multiplied by years of Credited Service.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the death benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year. As of October 1, 2020, the maximum benefit cap is

\$96,425 per year.

Normal Form

of Benefit: Paid for the life of the spouse with 10 years certain.

COLA: Each surviving spouse whose benefits began on or after December 1, 2006 will receive a

2.0% increase in benefits on October 1st of each year beginning 5 years after benefits

began.

The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions.

P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.



Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity or the 50%, 66 2/3%, 75% and 100% Joint and Survivor options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits.

R. Vested Termination

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

years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of

termination. For Tier 1 members, benefit begins on the date that would have been the member's Normal Retirement date had they continued employment. For Tier 2 members, benefit begins at age 55. Alternatively, members can elect a reduced Early

Retirement benefit any time after age 50.

Effective October 1, 2018, for all Firefighters who are not eligible for Normal Retirement as of October 1, 2018 the deferred vested retirement benefit shall be limited to a maximum benefit cap, initially set at \$95,000 per year (\$96,425 per year as of October 1, 2020), applied to the normal retirement benefit before reflecting any reductions for early

retirement.

Normal Form

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

COLA: Each member who retires on or after December 1, 2006 will receive a 2.0% increase in

benefits on October 1st of each year beginning 5 years after retirement.

Members terminating employment with less than 10 years of Credited Service will receive a refund of their own accumulated contributions.

S. Refunds

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

eligible. Optionally, vested members (those with 10 or more years of Credited Service)

may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions.

T. Member Contributions

12% of Compensation.



U. Employer Contributions

Chapter 175 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

V. Cost of Living Increases

Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.

W. 13th Check

In years in which a cumulative net actuarial gain has been determined, there shall be payable an ad-hoc thirteenth check paid in December.

X. Deferred Retirement Option Plan

Eligibility: Plan members who have less than 30 years of Credited Service but have met one of the

following criteria are eligible for the DROP:

(1) age 55 with 10 years of Credited Service, or

(2) 20 years of Credited Service (25 years for Tier 2 members) regardless of age.

Members who meet eligibility must submit a written election to participate in the DROP.

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The

monthly retirement benefit as described under Normal Retirement is calculated based

upon the frozen Credited Service and FAC.

Maximum

DROP Period: The earlier of 5 years of participation in the DROP or 30 years of employment.

Interest

Credited: For members hired before January 21, 2020, the member's DROP account is credited at

an interest rate based upon the option chosen by the member. Members must elect

from 1 of the 3 following options:

1. Gain or loss at the same rate earned by the Plan, or

2. Guaranteed rate of 7%, or

3. The rate earned by a self-directed account utilizing mutual funds selected by the

Board.

For members hired on or after January 21, 2020, the member's DROP account is credited at the same rate earned by the Plan, no less than 0% and no more than 8%. Such members must also withdraw the DROP balance within 30 days of separating from

employment and exiting the DROP.



Normal Form

of Benefit: Options include a lump sum or equal periodic payments.

COLA: Each member who enters the DROP on or after December 1, 2006 will receive a 2.0%

increase in benefits on October 1st of each year beginning 5 years after retirement.

Y. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Boynton Beach Municipal Firefighters' Pension Trust Fund liability if continued beyond the availability of funding by the current funding source.

Z. Changes from Previous Valuation

There have been no changes since the prior valuation.

