

# City of Boynton Beach Municipal Police Officers' Retirement Fund

Actuarial Valuation Report as of October 1, 2021

Annual Employer Contribution for the Fiscal Year  
Ending September 30, 2023







April 29, 2022

Board of Trustees  
City of Boynton Beach Municipal  
Police Officers' Retirement Fund  
Boynton Beach, Florida

Dear Board Members:

The results of the October 1, 2021 Annual Actuarial Valuation of the City of Boynton Beach Municipal Police Officers' Retirement 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 purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2023, and to present 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, 2022. This report should not be relied on for any purpose other than the purposes 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 not include a robust assessment of the risks of future experience not meeting the actuarial assumptions. A robust assessment of these 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 or other information through September 30, 2021. The valuation was based upon information furnished by the Plan Administrator concerning Retirement Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal 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 Methods section in accordance with Florida Statutes, Chapter 112.63.

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 this report 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.

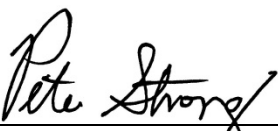
This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations 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.

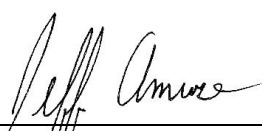
Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

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

By   
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Enrolled Actuary No. 20-06975

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**SECTION A**

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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 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.

	<b>For FYE 9/30/23 Based on 10/1/2021 Valuation</b>	<b>For FYE 9/30/22 Based on 10/1/2020 Valuation</b>	<b>Increase (Decrease)</b>
Required Employer/State Contribution	\$ 7,601,166	\$ 7,154,550	\$ 446,616
As % of Covered Payroll	58.31 %	55.11 %	3.20 %
Estimated State Contribution	\$ 465,087	\$ 465,087	\$ 0
As % of Covered Payroll	3.57 %	3.58 %	(0.01) %
Required Employer Contribution	\$ 7,136,079	\$ 6,689,463	\$ 446,616
As % of Covered Payroll	54.74 %	51.53 %	3.21 %

The required employer contribution has been computed under the assumption that the amount to be received from the State next year will be at least \$465,087. The City may not take credit for State revenue in excess of \$465,087. If the next payment from the State falls below \$465,087, the City must raise its contribution by the difference.

The employer contribution listed above is for the City's fiscal year ending September 30, 2023 has been calculated assuming the employer contribution is made on October 1, 2022. The actual City contribution for the fiscal year ending September 30, 2021 was \$5,999,430, which equals the the required contribution of \$5,999,430.

### REVISIONS IN BENEFITS

There have been no revisions in benefits sine the last valuation.

### REVISIONS IN ACTUARIAL ASSUMPTIONS AND METHODS

The assumed investment return assumption has been reduced by 0.10% from 7.00% per annum to 6.90% per annum, compounded annually and net of investment expenses. Because the investment return assumption is now lower than the guaranteed interest rate credited to the DROP accounts, a 0.4% liability load was added to active members' Normal Retirement liabilities, and a 0.3% liability load was added to the liabilities of retirees who currently have a DROP balance.



The assumption changes caused an increase in the annual required employer contribution of 1.67% of covered payroll, or \$217,697.

**ACTUARIAL EXPERIENCE**

There was a net actuarial experience loss of \$1,207,414 for the year, which means that actual experience was less favorable than expected. The largest source of experience loss was salary increases (8.7% average actual salary increases actual versus 5.3% expected overall; 8.4% actual versus 4.5% expected for members age 40 and higher, who have more impact on the liability of the Plan than younger members). Salary increase experience by itself caused more than a \$1.8 million experience loss. Mortality experience among retirees was also a significant source of experience loss, adding more than \$1 million to the experience loss (no deaths were reported among retirees versus an expected decrease in retiree payroll due to mortality experience of \$85,478). Additionally, there were more retirements than expected (8 actual versus 7 expected) and fewer terminations than expected (3 actual versus 4 expected). The liability-related experience losses were partially offset by higher than expected investment earnings on the actuarial value of assets. The return on the actuarial value of assets was 8.45% versus 7.00% expected. The return on the market value of assets was 18.07%.

The net actuarial loss for the year caused an increase in the annual required employer contribution of 0.69% of covered payroll (or \$89,947).

**FUNDED RATIO**

The funded ratio is 66.9% as of October 1, 2021 compared to 66.3% as of October 1, 2020. The funded ratio would have been 67.8% this year prior to recognizing the assumption changes. 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	51.53 %
Actuarial Experience	0.69
Change in Administrative Expense	0.03
Amortization Payment on UAL	0.99
Change in State Contribution	0.01
Change in Normal Cost Rate	(0.18)
Change in Benefits	0.00
Change in Assumptions and Methods	<u>1.67</u>
Contribution Rate This Year	54.74

**REQUIRED CONTRIBUTIONS IN LATER YEARS**

The current calculated City contribution requirement is 54.74% of payroll starting October 1, 2022. It is important to keep in mind that under the asset smoothing method, gains and losses are recognized over five years. As of September 30, 2021, the market value of assets exceeded the actuarial value of assets by \$7,026,217. Once all the gains and losses through September 30, 2021 are fully recognized in the actuarial





asset values, the contribution rate is expected to decrease by roughly 4.00% of payroll before any other changes are taken into account, unless there are offsetting experience losses.

#### **RELATIONSHIP TO MARKET VALUE**

If Market Value had been the basis for the valuation, the City contribution rate would have been 50.74% (\$6,614,648) for the fiscal year ending September 30, 2023, and the funded ratio would have been 71.4%. The funded ratio on a market value basis was 63.8% last year.

#### **CONCLUSION**

It is important to note that the funded ratio was over 96.5% in the year 2000 but is currently 66.9%. Multiple steps have been taken to address this issue, including reducing the investment return assumption, shortening the UAAL amortization period, applying a portion of the annual insurance premium tax money to the UAL, and, most recently, conducting an experience study and implementing new assumptions based on actual experience. Over time, these changes should help the Plan's funded status improve, assuming future experience does not deviate significantly from the actuarial assumptions.

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 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;
2. 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;
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 Values

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:

	<u>2021</u>	<u>2020</u>
Ratio of the market value of assets to total payroll	8.86	7.41
Ratio of actuarial accrued liability to payroll	12.42	11.63
Ratio of actives to retirees and beneficiaries	0.72	0.81
Ratio of net cash flow to market value of assets	0.2%	-0.1%

### 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 super-mature 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.

<b>Actuarial Confirmation of the Use of State Chapter Money</b>	
1. Base Amount Previous Plan Year	\$ 465,087
2. Amount Received for Previous Plan Year	895,165
3. Benefit Improvements Made in Previous Plan Year	0
4. Excess Funds for Previous Plan Year: (2) - (1) - (3)	430,078
5. Accumulated Excess at Beginning of Previous Year	316,042
6. Excess Funds Used in Previous Plan Year*	439,964
7. Accumulated Excess as of Valuation Date (Available for Benefit Improvements)	306,156
8. Base Amount This Plan Year	465,087

*\*Includes \$30,000 of excess state premium tax revenue used by the City to reduce the unfunded actuarial accrued liability.*

**SECTION B**

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**VALUATION RESULTS**

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<b>PARTICIPANT DATA</b>			
	<b>October 1, 2021</b> <i>After Changes</i>	<b>October 1, 2021</b> <i>Before Changes</i>	<b>October 1, 2020</b>
<b>ACTIVE MEMBERS</b>			
Number	115	115	121
Covered Annual Payroll	\$ 12,717,839	\$ 12,717,839	\$ 12,665,666
Average Annual Payroll	\$ 110,590	\$ 110,590	\$ 104,675
Average Age	38.6	38.6	38.8
Average Past Service	10.5	10.5	10.5
Average Age at Hire	28.1	28.1	28.3
<b>RETIREES &amp; BENEFICIARIES &amp; DROP</b>			
Number	145	145	136
Annual Benefits	\$ 7,855,752	\$ 7,855,752	\$ 7,266,810
Average Annual Benefit	\$ 54,178	\$ 54,178	\$ 53,432
Average Age	60.3	60.3	60.0
<b>DISABILITY RETIREES</b>			
Number	14	14	14
Annual Benefits	\$ 349,332	\$ 349,332	\$ 349,332
Average Annual Benefit	\$ 24,952	\$ 24,952	\$ 24,952
Average Age	66.3	66.3	65.3
<b>TERMINATED VESTED MEMBERS</b>			
Number	22	22	21
Annual Benefits	\$ 585,535	\$ 585,535	\$ 551,339
Average Annual Benefit	\$ 26,615	\$ 26,615	\$ 26,254
Average Age	43.2	43.2	42.5



<b>ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)</b>			
A. Valuation Date	October 1, 2021 <i>After Assumption Changes</i>	October 1, 2021 <i>Before Assumption Changes</i>	October 1, 2020
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2023	9/30/2023	9/30/2022
C. Assumed Date of Employer Contrib.	10/1/2022	10/1/2022	10/1/2021
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 4,586,157	\$ 4,464,396	\$ 4,232,377
E. Employer Normal Cost	2,828,989	2,738,910	2,747,186
F. ADEC if Paid on the Valuation Date: D+E	7,415,146	7,203,306	6,979,563
G. ADEC Adjusted for Frequency of Payments	7,415,146	7,203,306	6,979,563
H. ADEC as % of Covered Payroll	58.31 %	56.64 %	55.11 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	2.50 %	2.50 %	2.50 %
J. Covered Payroll for Contribution Year	13,035,785	13,035,785	12,982,308
K. ADEC for Contribution Year: H x J	7,601,166	7,383,469	7,154,550
L. Estimate of State Revenue in Contribution Year	465,087	465,087	465,087
M. Actuarially Determined Employer Contribution (ADEC) in Contribution Year	7,136,079	6,918,382	6,689,463
N. ADEC as % of Covered Payroll in Contribution Year: M ÷ J	54.74 %	53.07 %	51.53 %





**ACTUARIAL VALUE OF BENEFITS AND ASSETS**

A. Valuation Date	October 1, 2021 <i>After Assumption Changes</i>	October 1, 2021 <i>Before Assumption Changes</i>	October 1, 2020
<b>B. Actuarial Present Value of All Projected Benefits for</b>			
1. Active Members			
a. Service Retirement Benefits	\$ 71,708,960	\$ 70,235,771	\$ 69,470,864
b. Vesting Benefits	5,014,873	4,915,817	4,897,558
c. Disability Benefits	1,784,496	1,759,292	1,759,029
d. Preretirement Death Benefits	551,629	542,791	541,147
e. Return of Member Contributions	216,403	213,714	195,037
f. Total	79,276,361	77,667,385	76,863,635
2. Inactive Members			
a. Service Retirees & Beneficiaries	93,559,105	92,504,603	85,599,894
b. Disability Retirees	3,215,189	3,190,725	3,247,695
c. Terminated Vested Members	6,379,942	6,294,709	5,325,841
d. Total	103,154,236	101,990,037	94,173,430
3. Total for All Members	182,430,597	179,657,422	171,037,065
C. Actuarial Accrued (Past Service) Liability	157,898,327	155,858,877	147,247,813
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	143,871,271	141,987,258	134,211,709
<b>E. Plan Assets</b>			
1. Market Value	112,701,939	112,701,939	93,897,251
2. Actuarial Value	105,675,722	105,675,722	97,629,937
F. Unfunded Actuarial Accrued Liability: C - E2	52,222,605	50,183,155	49,617,876
G. Actuarial Present Value of Projected Covered Payroll	90,486,748	90,074,270	89,070,869
H. Actuarial Present Value of Projected Member Contributions	7,691,373	7,656,313	7,507,696
I. Accumulated Contributions of Active Members	6,783,552	6,783,552	6,697,804



**ENTRY AGE NORMAL METHOD  
CALCULATION OF EMPLOYER NORMAL COST**

A. Valuation Date	October 1, 2021 <i>After Assumption Changes</i>	October 1, 2021 <i>Before Assumption Changes</i>	October 1, 2020
<b>B. Normal Cost for</b>			
1. Service Retirement Benefits	\$ 2,783,323	\$ 2,712,089	\$ 2,717,242
2. Vesting Benefits	479,615	469,286	470,908
3. Disability Benefits	175,722	173,616	176,190
4. Preretirement Death Benefits	46,817	46,139	46,933
5. Return of Member Contributions	57,439	51,707	50,469
6. Total for Future Benefits	<u>3,542,916</u>	<u>3,452,837</u>	<u>3,461,742</u>
7. Assumed Amount for Administrative Expenses	<u>176,322</u>	<u>176,322</u>	<u>172,041</u>
8. Total Normal Cost	3,719,238	3,629,159	3,633,783
C. Expected Member Contribution	890,249	890,249	886,597
D. Employer Normal Cost: B8-C	2,828,989	2,738,910	2,747,186
E. Employer Normal Cost as a % of Covered Payroll	22.24%	21.54%	21.69%

**LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY**

<b>UAAL Amortization Period and Payments</b>						
<b>Original UAAL</b>				<b>Current UAAL</b>		
<b>Date Established</b>	<b>Type of Amortization Base</b>	<b>Amortization Period (Years)</b>	<b>Amount</b>	<b>Years Remaining</b>	<b>Amount</b>	<b>Payment</b>
10/1/98	Fresh Start	30	\$ 1,331,353	7	\$ 1,050,759	\$ 169,681
10/1/99	Plan Amendment	30	1,656,722	8	1,406,007	202,663
10/1/00	Plan Amendment	30	185,619	9	165,823	21,670
10/1/01	Plan Amendment	30	46,601	10	43,985	5,276
10/1/04	Plan Amendment	30	1,166,935	13	1,240,378	121,276
10/1/05	Plan Amendment	30	2,985,574	14	3,251,853	300,910
10/1/05	Method/Assum Change	30	13,646,165	14	14,863,243	1,375,371
10/1/06	Experience Loss	30	2,307,394	15	2,563,808	225,649
10/1/07	Experience Loss	30	16,404	16	18,458	1,552
10/1/08	Experience Loss	30	3,582,504	17	4,045,202	326,103
10/1/09	Experience Loss	30	3,419,100	17	3,832,170	308,929
10/1/10	Experience Loss	30	1,404,570	17	1,559,276	125,701
10/1/11	Experience Loss	30	4,476,765	17	4,896,809	394,755
10/1/11	Assumption Change	30	1,634,520	17	1,787,882	144,130
10/1/12	Experience Gain	30	(2,249,576)	17	(2,402,971)	(193,715)
10/1/12	Assumption Change	30	412,194	17	440,300	35,495
10/1/12	Plan Amendment	30	(426,604)	17	(455,693)	(36,736)
10/1/13	Experience Gain	30	(794,394)	17	(839,051)	(67,640)
10/1/13	Assumption Change	30	430,545	17	454,751	36,660
10/1/14	Experience Gain	30	(2,463,259)	17	(2,560,657)	(206,427)
10/1/14	Assumption Change	30	461,268	17	479,506	38,655
10/1/15	Experience Loss	30	1,896,466	17	1,942,190	156,569
10/1/15	Assumption Change	30	(588,861)	17	(603,060)	(48,615)
10/1/16	Experience Gain	30	(2,092,313)	17	(2,092,884)	(168,717)
10/1/16	Assumption Change	30	3,097,709	17	3,098,554	249,789
10/1/17	Experience Loss	30	542,252	17	535,171	43,143
10/1/17	Plan Amendment	30	(1,174)	17	(1,159)	(93)
10/1/17	Assumption Change	30	3,429,073	17	3,384,283	272,823
10/1/18	Experience Gain	20	(183,111)	17	(178,199)	(14,365)
10/1/19	Experience Loss	20	1,147,748	18	1,134,813	88,010
10/1/19	Plan Amendment	20	13,311	18	13,162	1,021
10/1/20	Experience Loss	20	3,443,838	19	3,440,643	257,468
10/1/20	Plan Amendment	20	2,462,674	19	2,460,389	184,114
10/1/21	Experience Loss	20	1,207,414	20	1,207,414	87,409
10/1/21	Assumption Change	20	2,039,450	20	2,039,450	147,643
			<b>\$ 49,644,876</b>		<b>\$ 52,222,605</b>	<b>\$ 4,586,157</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:

<b>Amortization Schedule</b>	
<b>Year</b>	<b>Expected UAAL</b>
2021	\$ 52,222,605
2022	50,923,392
2023	49,411,939
2024	47,670,567
2025	45,680,270
2026	43,420,654
2031	28,549,589
2036	8,307,240
2041	-

## 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:

<b>A. Derivation of the Current UAAL</b>	
1. Last Year's UAAL	\$ 49,617,876
2. Last Year's Employer Normal Cost	2,747,186
3. Last Year's Contributions*	6,624,583
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	3,665,554
b. 3 from dates paid	430,292
c. a - b	3,235,262
5. This Year's Expected UAAL: 1 + 2 - 3 + 4c	48,975,741
6. This Year's Actual UAAL (Before any changes in benefits and assumptions)	50,183,155
7. Net Actuarial Gain (Loss): (5) - (6)	(1,207,414)
8. Gain (Loss) due to investments	1,717,406
9. Gain (Loss) due to other sources	(2,924,820)

*\*Includes 1.0% in employee contributions and \$30,000 in excess state premium tax revenue used to reduce the UAAL.*

Net actuarial gains in previous years are detailed in the table on the next page.

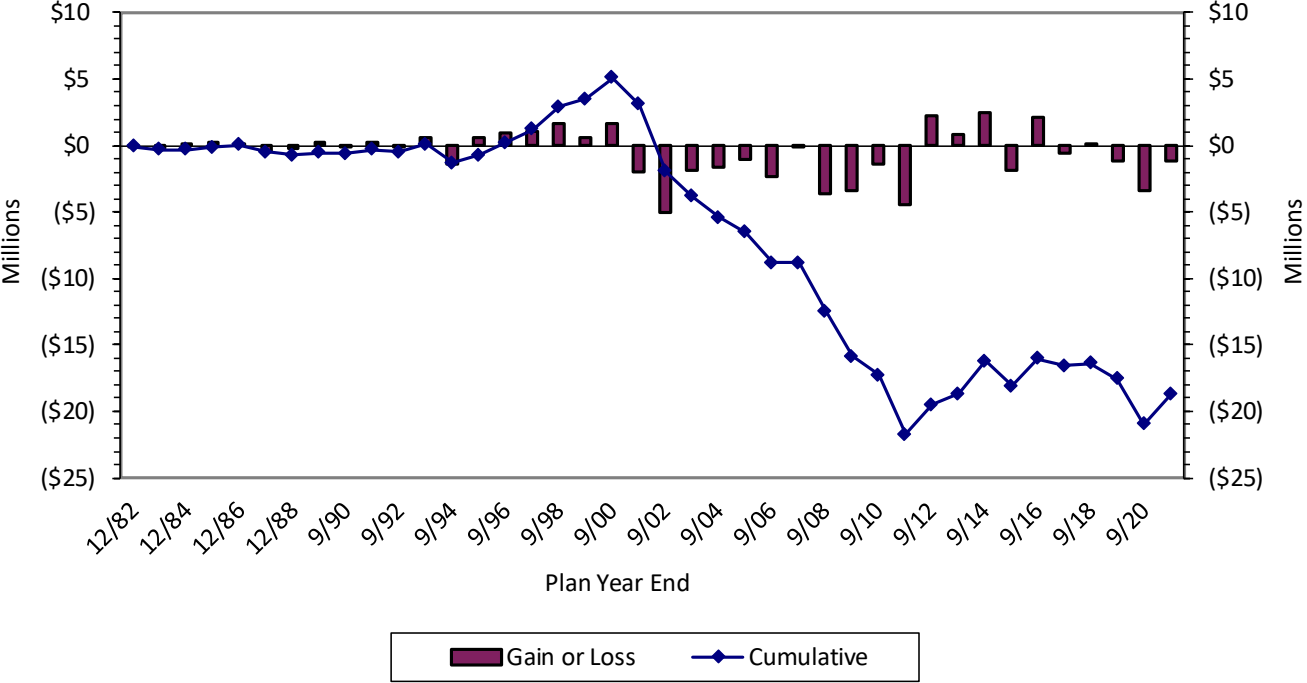
### HISTORY OF NET ACTUARIAL GAINS AND LOSSES

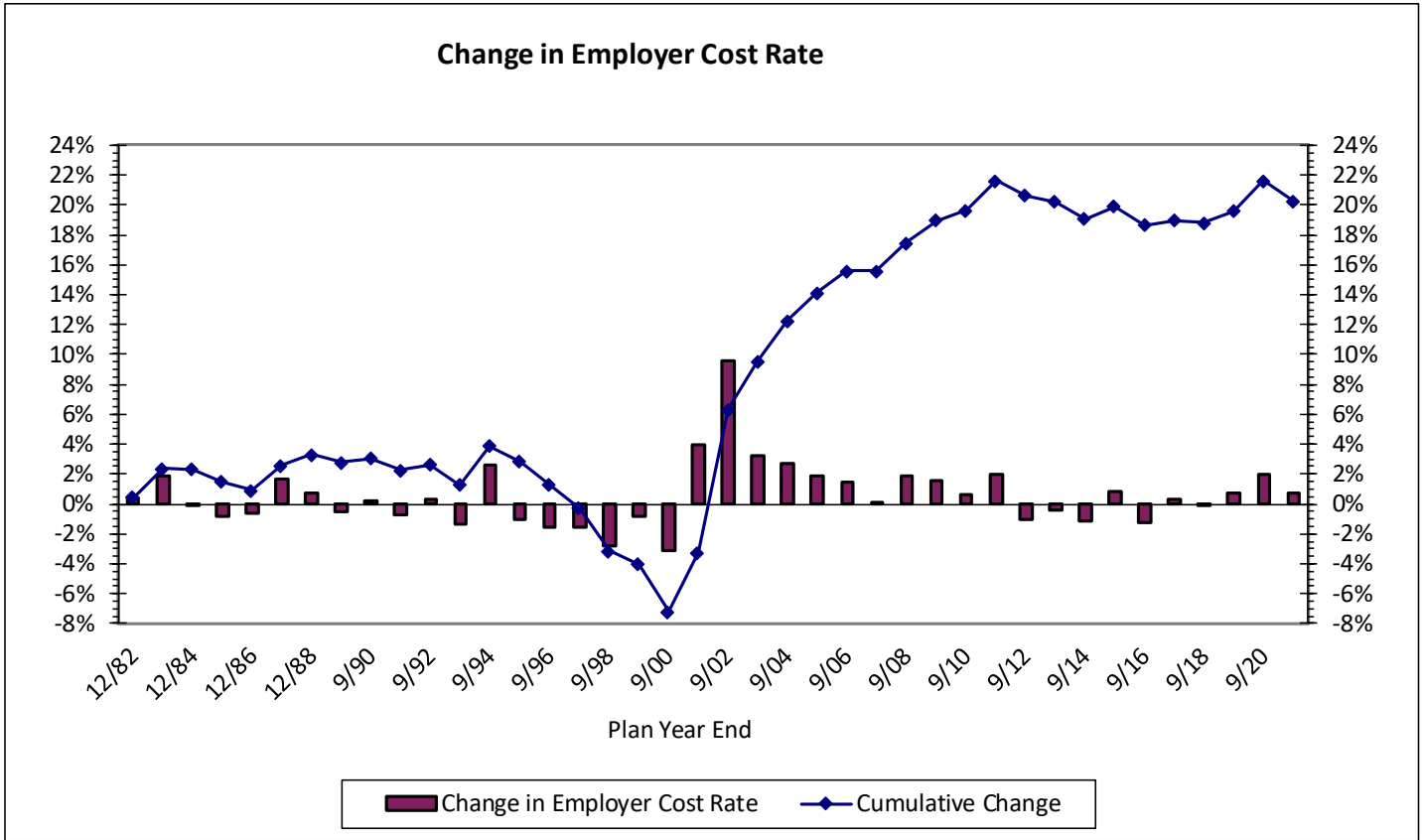
Year Ended	Change in Employer Cost Rate *	Gain (Loss)
12/31/82	0.46 %	\$ (56,551)
12/31/83	1.92	(265,213)
12/31/84	(0.04)	6,977
12/31/85	(0.85)	185,443
12/31/86	(0.59)	158,678
12/31/87	1.67	(516,444)
12/31/88	0.74	(254,892)
12/31/89	(0.52)	206,590
9/30/90	0.24	(94,609)
9/30/91	(0.74)	286,744
9/30/92	0.35	(142,237)
9/30/93	(1.34)	564,365
9/30/94	2.57	(1,370,604)
9/30/95	(1.01)	574,379
9/30/96	(1.56)	938,153
9/30/97	(1.60)	1,008,362
9/30/98	(2.85)	1,694,077
9/30/99	(0.88)	568,386
9/30/00	(3.16)	1,596,887
9/30/01	3.92	(1,978,307)
9/30/02	9.58	(5,069,210)
9/30/03	3.22	(1,870,014)
9/30/04	2.75	(1,615,637)
9/30/05	1.85	(1,083,369)
9/30/06	1.46	(2,307,394)
9/30/07	0.02	(16,404)
9/30/08	1.84	(3,582,504)
9/30/09	1.54	(3,419,100)
9/30/10	0.66	(1,404,570)
9/30/11	1.98	(4,476,765)
9/30/12	(1.01)	2,249,576
9/30/13	(0.38)	794,394
9/30/14	(1.18)	2,463,259
9/30/15	0.86	(1,896,466)
9/30/16	(1.28)	2,092,313
9/30/17	0.31	(542,252)
9/30/18	(0.12)	183,111
9/30/19	0.76	(1,147,748)
9/30/20	2.02	(3,443,838)
9/30/21	0.69	(1,207,414)

\* Before 9/30/06, change in Employer Normal Cost.



### Actuarial Gain (+) or Loss (-)





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:



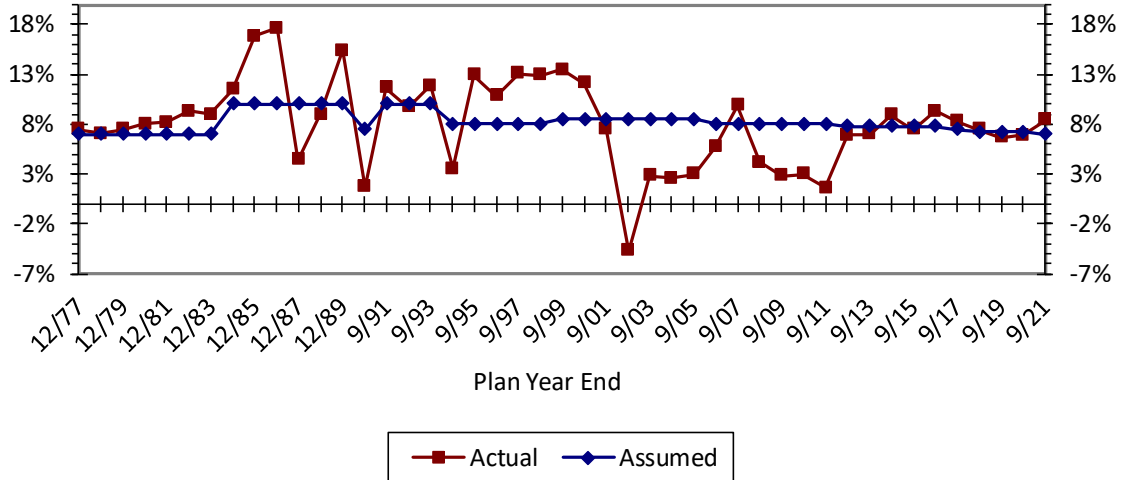
## HISTORY OF INVESTMENT EARNINGS AND SALARY INCREASES

Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
12/31/1977	7.5 %	7.00 %		
12/31/1978	7.1	7.00	18.3 %	10.3% (2 yrs)
12/31/1979	7.5	7.00		
12/31/1980	8.0	7.00	21.2	10.3 (2 yrs)
12/31/1981	8.2	7.00	23.6	7.0
12/31/1982	9.3	7.00	14.6	7.0
12/31/1983	9.0	7.00	14.8	7.0
12/31/1984	11.5	10.00	6.8	10.0
12/31/1985	16.8	10.00	18.6	10.0
12/31/1986	17.6	10.00	16.3	10.0
12/31/1987	4.4	10.00	15.3	10.0
12/31/1988	9.0	10.00	6.7	10.0
12/31/1989	15.4	10.00	12.4	10.0
9/30/1990 (9 mos.)	1.7	7.50	6.1	10.0
9/30/1991	11.6	10.00	2.5	10.0
9/30/1992	9.7	10.00	5.4	10.0
9/30/1993	11.9	10.00	3.1	10.0
9/30/1994	3.5	8.00	7.0	6.3
9/30/1995	12.9	8.00	8.5	5.8
9/30/1996	10.8	8.00	4.9	6.3
9/30/1997	13.1	8.00	8.7	6.3
9/30/1998	12.9	8.00	4.6	6.3
9/30/1999	13.5	8.50	10.9	6.1
9/30/2000	12.1	8.50	3.4	6.3
9/30/2001	7.5	8.50	6.0	5.9
9/30/2002	(4.7)	8.50	17.2	5.9
9/30/2003	2.8	8.50	9.5	5.9
9/30/2004	2.6	8.50	11.5	6.0
9/30/2005	3.0	8.50	9.6	6.0
9/30/2006	5.7	8.00	14.4	6.0
9/30/2007	9.9	8.00	5.7	6.1
9/30/2008	4.2	8.00	13.1	6.1
9/30/2009	2.8	8.00	9.3	6.1
9/30/2010	3.0	8.00	0.2	6.1
9/30/2011	1.6	8.00	7.3	5.8
9/30/2012	6.9	7.75	(3.1)	5.9
9/30/2013	7.0	7.75	0.1	5.8
9/30/2014	8.9	7.75	1.0	5.8
9/30/2015	7.5	7.75	8.6	5.8
9/30/2016	9.3	7.75	1.5	5.7
9/30/2017	8.3	7.50	10.4	5.7
9/30/2018	7.5	7.25	5.0	5.8
9/30/2019	6.7	7.25	5.4	5.7
9/30/2020	6.9	7.25	16.9	5.8
9/30/2021	8.4	7.00	8.7	5.8
Averages	8.0 %	---	8.6 %	---

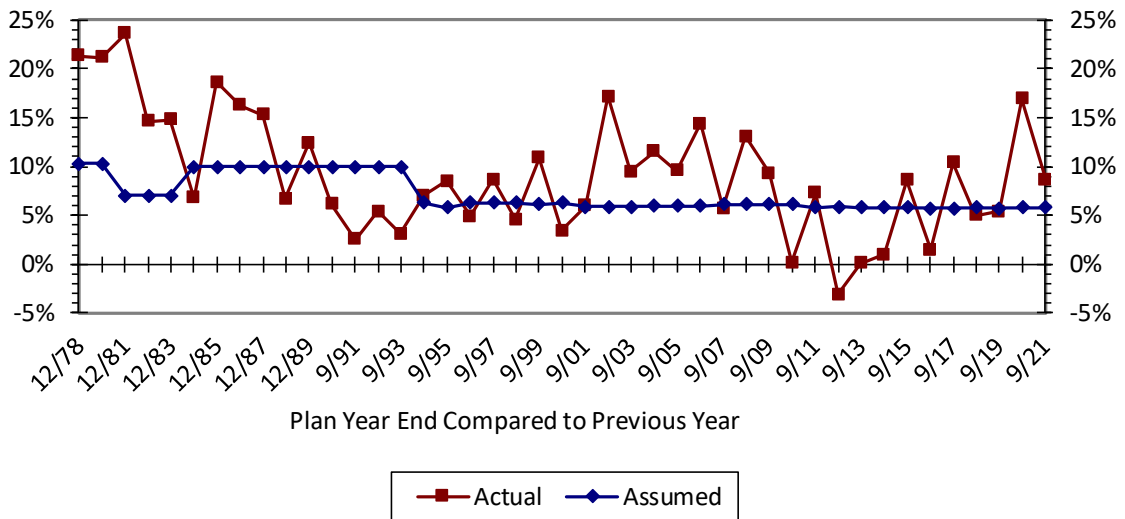
The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.



### 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	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	A	A	Totals		
											A	E	
9/30/2002	14	17	1	1	0	0	0	0	1	15	16	8	119
9/30/2003	14	9	6	4	0	0	0	0	1	2	3	9	124
9/30/2004	8	23	14	0	0	0	0	0	2	7	9	9	109
9/30/2005	21	14	1	1	0	0	0	0	3	10	13	8	116
9/30/2006	25	10	3	2	0	0	0	0	1	6	7	9	131
9/30/2007	17	4	3	3	0	0	0	0	0	1	1	11	144
9/30/2008	14	9	2	1	0	0	0	0	0	7	7	12	149
9/30/2009	8	6	3	7	0	0	0	0	0	3	3	11	151
9/30/2010	5	8	4	2	0	0	0	0	1	3	4	11	148
9/30/2011	5	9	5	4	0	0	0	0	2	2	4	10	144
9/30/2012	9	7	3	1	0	0	0	0	2	2	4	4	146
9/30/2013	5	10	3	1	0	0	0	0	4	3	7	7	141
9/30/2014	5	7	2	1	0	0	0	0	2	3	5	6	139
9/30/2015	9	11	3	2	1	0	0	0	4	3	7	4	137
9/30/2016	17	21	7	1	0	0	0	0	11	3	14	4	133
9/30/2017	15	12	7	3	1	0	1	0	1	2	3	5	136
9/30/2018	13	20	10	4	0	0	0	0	5	5	10	5	129
9/30/2019	5	9	4	1	0	0	0	0	0	5	5	5	125
9/30/2020	2	6	4	4	0	0	0	0	1	1	2	4	121
9/30/2021	5	11	8	7	0	0	0	0	2	1	3	4	115
9/30/2022				5		0		0				4	
20 Yr Totals *	216	223	93	50	2	0	1	0	43	84	127	146	

\* Totals are through current Plan Year only.



**SUPPLEMENTAL PENSION DISTRIBUTION**

	<b>Balance at Beginning of Year</b>	<b>Gain (Loss) for Year</b>	<b>Supplemental Payment</b>	<b>Balance at End of Year</b>
2000	\$ 0	\$ 1,596,887	\$ 0	\$ 1,596,887
2001	1,596,887	(1,978,307)	0	(381,420)
2002	(381,420)	(5,069,210)	0	(5,450,630)
2003	(5,450,630)	(1,870,014)	0	(7,320,644)
2004	(7,320,644)	(1,615,637)	0	(8,936,281)
2005	(8,936,281)	(1,083,369)	0	(10,019,650)
2006	(10,019,650)	(2,307,394)	0	(12,327,044)
2007	(12,327,044)	(16,404)	0	(12,343,448)
2008	(12,343,448)	(3,582,504)	0	(15,925,952)
2009	(15,925,952)	(3,419,100)	0	(19,345,052)
2010	(19,345,052)	(1,404,570)	0	(20,749,622)
2011	(20,749,622)	(4,476,765)	0	(25,226,387)
2012	(25,226,387)	2,249,576	0	(22,976,811)
2013	(22,976,811)	794,394	0	(22,182,417)
2014	(22,182,417)	2,463,259	0	(19,719,158)
2015	(19,719,158)	(1,896,466)	0	(21,615,625)
2016	(21,615,625)	2,092,313	0	(19,523,311)
2017	(19,523,311)	(542,252)	0	(20,065,563)
2018	(20,065,563)	183,111	0	(19,882,452)
2019	(19,882,452)	(1,147,748)	0	(21,030,200)
2020	(21,030,200)	(3,443,838)	0	(24,474,038)
2021	(24,474,038)	(1,207,414)	0	(25,681,452)

Under certain conditions, participants in payment status can receive a supplemental distribution per Section 18-177 of the Plan. The cumulative actuarial gain for plan years beginning after 9/30/1999 must be a positive amount for a supplemental payment to occur.

RECENT HISTORY OF VALUATION RESULTS									
Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	Actuarial Accrued Liability	UFAAL	Funded Ratio	Employer Normal Cost	
	Active Members	Inactive Members						Amount	% of Payroll
10/1/00	124	56	\$ 6,907,740	\$ 32,559,614	\$ 33,726,879	\$ 1,167,265	96.5 %	\$ 464,164	6.72 %
10/1/01	122	75	6,555,316	34,331,760	37,715,963	3,384,203	91.0	726,204	11.08
10/1/02	119	75	7,382,088	32,133,373	40,604,148	8,470,775	79.1	1,538,895	20.85
10/1/03	124	81	7,917,021	33,206,438	44,029,168	10,822,730	75.4	1,935,704	24.45
10/1/04	109	94	7,207,008	34,495,794	48,154,162	13,658,368	71.6	2,043,434	28.35
10/1/05	116	96	7,836,390	35,445,474	56,691,347	21,245,873	62.5	1,238,339	15.80
10/1/06	131	100	9,302,405	37,691,909	61,468,267	23,776,358	61.3	1,441,317	15.49
10/1/07	144	103	10,296,812	41,981,125	66,068,756	24,087,631	63.5	1,587,552	15.42
10/1/08	149	104	11,532,888	44,277,726	72,349,643	28,071,917	61.2	1,774,031	15.38
10/1/09	151	107	12,537,968	46,116,985	78,055,403	31,938,418	59.1	1,931,395	15.40
10/1/10	148	109	12,134,525	48,129,593	81,957,204	33,827,611	58.7	1,895,893	15.62
10/1/11	144	113	12,397,266	49,115,728	89,656,412	40,540,684	54.8	2,126,920	17.16
10/1/12	146	116	11,789,237	52,594,653	91,924,429	39,329,776	57.2	2,114,509	17.94
10/1/13	141	122	11,302,523	56,693,338	95,951,447	39,258,109	59.1	2,132,984	18.87
10/1/14	139	123	11,142,832	62,320,013	99,965,363	37,645,350	62.3	2,214,983	19.88
10/1/15	137	130	11,774,623	67,380,705	106,464,806	39,084,101	63.3	2,425,913	20.60
10/1/16	133	147	11,075,682	73,166,635	113,697,993	40,531,358	64.4	2,415,066	21.81
10/1/17	136	154	11,831,766	79,329,597	123,846,951	44,517,354	64.1	2,707,417	22.88
10/1/18	129	167	11,169,188	85,593,282	129,814,370	44,221,088	65.9	2,522,537	22.58
10/1/19	125	170	11,224,143	91,483,689	136,045,300	44,561,611	67.2	2,538,904	22.62
10/1/20	121	171	12,665,666	97,629,937	147,247,813	49,617,876	66.3	2,747,186	21.69
10/1/21	115	181	12,717,839	105,675,722	157,898,327	52,222,605	66.9	2,828,989	22.24

**RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS**

Valuation Date	End of Year To Which Valuation Applies	Required Contributions						Actual Contributions		
		Employer & State		Estimated State		Net Employer		Employer	State	Total
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll			
10/1/98	9/30/99	863,996	13.88	427,874	6.87	436,122	7.01	426,129	427,874	854,003
10/1/99	9/30/00	920,372	12.92	427,874	6.00	492,498	6.92	490,425	429,945	920,370
10/1/00	9/30/01	742,646	10.75	429,945	6.22	312,701	4.53	312,701	430,572	743,273
10/1/01	9/30/02	1,053,863	16.08	443,454	6.77	610,409	9.31	610,409	443,454	1,053,863
10/1/02	9/30/03	1,929,458	26.14	443,454	6.01	1,486,004	20.13	1,486,004	465,087	1,951,091
10/1/03	9/30/04	2,343,601	29.60	465,087	5.87	1,878,514	23.73	1,878,514	465,087	2,343,601
10/1/04	9/30/05	2,571,109	35.67	465,087	6.45	2,106,022	29.22	2,106,022	465,087	2,571,109
10/1/05	9/30/06	2,808,957	35.85	465,087	5.93	2,343,870	29.92	2,343,870	465,087	2,808,957
10/1/06	9/30/07	3,030,547	32.58	465,087	5.00	2,565,460	27.58	2,685,841	465,087	3,150,928
10/1/07	9/30/08	3,236,241	31.43	465,087	4.52	2,771,154	26.91	2,771,154	465,087	3,236,241
10/1/08	9/30/09	3,710,169	32.17	465,087	4.03	3,245,082	28.14	3,245,082	465,087	3,710,169
10/1/09	9/30/10	4,153,603	33.13	465,087	3.71	3,688,516	29.42	3,688,516	465,087	4,153,603
10/1/09	9/30/11	3,997,173	31.78	465,087	3.70	3,532,086	28.08	3,552,348	465,087	4,017,435
10/1/10	9/30/12	4,098,955	32.55	465,087	3.69	3,633,868	28.86	3,633,868	465,087	4,098,955
10/1/11	9/30/13	4,701,572	36.68	465,087	3.63	4,236,485	33.05	4,236,485	465,087	4,701,572
10/1/12	9/30/14	4,560,918	38.54	465,087	3.93	4,095,831	34.61	4,159,736	465,087	4,624,823
10/1/13	9/30/15	4,830,346	41.73	465,087	4.02	4,365,259	37.71	4,365,259	465,087	4,830,346
10/1/14	9/30/16	4,856,392	42.26	465,087	4.05	4,391,305	38.21	4,391,305	465,087	4,856,392
10/1/15	9/30/17	5,256,615	43.16	465,087	3.82	4,791,528	39.34	4,791,528	465,087	5,256,615
10/1/16	9/30/18	5,820,145	51.64	465,087	4.13	5,355,058	47.51	5,355,058	465,087	5,820,145
10/1/17	9/30/19	6,272,374	51.72	465,087	3.83	5,807,287	47.89	5,809,713	465,087	6,274,800
10/1/18	9/30/20	6,280,602	54.86	465,087	4.06	5,815,515	50.80	5,815,515	465,087	6,280,602
10/1/19	9/30/21	6,464,517	56.19	465,087	4.04	5,999,430	52.15	5,999,430	465,087	6,464,517
10/1/20	9/30/22	7,154,550	55.11	465,087	3.58	6,689,463	51.53	na	na	na
10/1/21	9/30/23	7,601,166	58.31	465,087	3.57	7,136,079	54.74	na	na	na

## ACTUARIAL ASSUMPTIONS AND COST METHOD

### VALUATION METHODS

**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 phase in the difference between the expected actuarial value and actual market value of assets at the rate of 20% per year. 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 6.9% per year, compounded annually (net after investment expenses). *This rate was 7.0% in the previous valuation.*

The **Wage Inflation Rate** assumed in this valuation is 2.5% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macro economic 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.

The **Price Inflation Rate** assumed in this valuation was 2.25% per year.

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 price inflation rate. Considering other economic assumptions, the 6.9% investment return rate translates to an assumed real rate of return over price inflation of 4.65%.



**The rates of salary increase** are as follows and are based on the Experience Study dated November 2, 2020.

Age	% Increase in Salary		
	Merit and Seniority	Price Inflation	Total Increase
Under 25	9.50%	2.25%	11.75%
25-29	4.50%	2.25%	6.75%
30-39	3.50%	2.25%	5.75%
40 & Over	2.25%	2.25%	4.50%

Projected service retirement benefits are increased to allow for the inclusion of unused sick and vacation pay in average final earnings. The increase amount is unique for each member based on the number of hours of accumulated sick and vacation time reported for each member as of June 18, 2013.

For purposes of financing the unfunded liabilities, total payroll is assumed to grow at the Wage Inflation assumption of 2.50% per year using a forward looking methodology, as permitted under Florida Statutes, Chapter 112.64(5)(b).

#### DEMOGRAPHIC ASSUMPTIONS

**The mortality tables** are based on the PUB-2010 Headcount Weighted Mortality Tables described below, with mortality improvements projected for healthy lives to all future years after 2010 using Scale MP-2018. No mortality improvement is projected for disabled lives.

	Pre-Retirement PUB-2010 Table	Post-Retirement PUB-2010 Table
Female Healthy	Headcount Weighted Safety Employee Female Table, set forward 1 year	Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year
Male Healthy	Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year	Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year
Female Disabled	N/A	80% Headcount Weighted General Disabled Retiree Female Table; 20% Headcount Weighted Safety Disabled Retiree Female Table
Male Disabled	N/A	80% Headcount Weighted General Disabled Retiree Male Table; 20% Headcount Weighted Safety Disabled Retiree Male Table

These are the same rates as used by the Florida Retirement System (FRS) in their July 1, 2020 Actuarial Valuation Report for Special Risk class members. 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.





**FRS Healthy Post-Retirement Mortality for Special Risk Class Members**

Sample Attained Ages (in 2021)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.42 %	0.20 %	32.50	36.33
55	0.56	0.36	27.73	31.30
60	0.92	0.61	23.14	26.51
65	1.32	0.92	18.87	22.00
70	2.08	1.45	14.86	17.74
75	3.54	2.42	11.27	13.82
80	6.30	4.16	8.19	10.35

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 Ages (in 2021)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.16 %	0.11 %	35.66	39.58
55	0.26	0.16	30.58	34.44
60	0.43	0.22	25.63	29.37
65	0.69	0.30	20.86	24.35
70	1.18	0.55	16.34	19.45
75	2.08	1.07	12.10	14.75
80	6.30	4.16	8.19	10.35

This assumption is used to measure the probabilities of active members dying prior to retirement (75% of deaths are assumed to be service connected).

**FRS Disabled Mortality for Special Risk Class Members**

Sample Attained Ages (in 2021)	Probability of Dying Next Year		Future Life Expectancy (years)	
	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

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



**The rates of retirement** used to measure the probability of eligible members retiring during the next year are as follows and are based on the Experience Study dated November 2, 2020.

Service	Age					
	under 45	45-49	50	51-54	55-59	60
10 - 14	N/A	N/A	5.0%	5.0%	60.0%	100.0%
15	N/A	N/A	60.0%	40.0%	60.0%	100.0%
16 - 19	N/A	N/A	60.0%	10.0%	60.0%	100.0%
20	60.0%	80.0%	60.0%	10.0%	100.0%	100.0%
21 - 24	40.0%	40.0%	40.0%	10.0%	100.0%	100.0%
25+	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Upon reaching a benefit of 85% of Average Final Compensation (the maximum benefit), members are assumed to have a 100% probability of retirement.

**Rates of separation from active membership** are as shown below (rates do not apply to members eligible to retire and do not include separation due to death/disability) and are based on the Experience Study dated November 2, 2020.

Years of Service	Sample Ages	% of Active Members Separating Within Next Year
0 - 1	ALL	16.0%
1 - 2		11.0%
2 - 3		7.5%
3 - 4		7.5%
4 - 5		5.0%
5 - 9		4.0%
10 - 14		3.0%
15 and over	Under 40	3.0%
	40 - 49	1.5%
	50 and over	0.0%

**Rates of disability** among active members (90% of disabilities are assumed to be service connected) are based on the Experience Study dated November 2, 2020. *The old assumption table was used in the previous valuation:*

Sample Ages	% Becoming Disabled 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

<b><i>Administrative &amp; Investment Expenses</i></b>	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.
<b><i>Benefit Service</i></b>	Exact fractional service is used to determine the amount of benefit payable.
<b><i>Decrement Operation</i></b>	Disability and mortality decrements operate during retirement eligibility.
<b><i>Decrement Timing</i></b>	Decrement of all types are assumed to occur at the beginning of the year.
<b><i>Eligibility Testing</i></b>	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.
<b><i>Forfeitures</i></b>	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.
<b><i>Incidence of Contributions</i></b>	Employer contributions are assumed to be made at the beginning of the year effective October 1, 2011. 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.
<b><i>Liability Load</i></b>	Projected normal and early 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 accumulated sick and vacation time reported for each member as of June 18, 2013. Normal Retirement liabilities for active members and retiree liabilities for retirees with DROP accounts are each increased by 0.4% and 0.3%, respectively, to account for a guaranteed rate of return on DROP accounts (7.0%) that is higher than the assumed rate of return.
<b><i>Marriage Assumption</i></b>	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.
<b><i>Normal Form of Benefit</i></b>	A 10-year certain and life annuity is the normal form of benefit.



***Pay Increase Timing***

Middle of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.

## GLOSSARY

<b><i>Actuarial Accrued Liability (AAL)</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	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.
<b><i>Actuarial Cost Method</i></b>	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.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value (APV)</i></b>	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.
<b><i>Actuarial Present Value of Future Benefits (APVFB)</i></b>	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.
<b><i>Actuarial Valuation</i></b>	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, such as the Funded Ratio and the Actuarially Determined Contribution (ADEC).
<b><i>Actuarial Value of Assets</i></b>	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 contribution (ADEC).

<b><i>Actuarially Determined Contribution (ADEC)</i></b>	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.
<b><i>Amortization Method</i></b>	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.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution or ADEC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Closed Amortization Period</i></b>	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.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	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.
<b><i>Experience Gain/Loss</i></b>	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.
<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.



<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 68 and GASB No. 67</i></b>	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.
<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b><i>Open Amortization Period</i></b>	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.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	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.

**SECTION C**

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**PENSION FUND INFORMATION**

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## SUMMARY OF ASSETS

Item	September 30	
	2021	2020
A. Cash and Cash Equivalents (Operating Cash)	\$ 2,373	\$ 2,373
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. State Contributions	-	-
4. Buy-Back Installment Payments	44,772	73,547
5. Receivables for Securities Sold plus Prepaid Expenses	552,567	560,590
6. DROP Loans	137,665	174,190
7. Total Receivables	\$ 735,004	\$ 808,327
C. Investments		
1. Short-Term Investments	\$ -	\$ -
2. Domestic Equities	39,521,985	28,877,771
3. Real Estate	7,874,733	7,086,338
4. Multi-Asset Core Fund (Equities)	46,517,652	43,181,046
5. Multi-Manager Bond Fund (Fixed Income)	38,471,189	32,148,047
6. Total Investments	\$ 132,385,559	\$ 111,293,202
D. Liabilities and Reserves		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(183,595)	(216,697)
3. Total Liabilities and Reserves	\$ (183,595)	\$ (216,697)
E. Total Market Value of Assets Available for Benefits	\$ 132,939,341	\$ 111,887,205
F. Reserves		
1. State Contribution Reserve	\$ (306,156)	\$ (316,042)
2. DROP Accounts	(17,152,201)	(15,223,228)
3. Supplemental Benefit Reserve	(2,779,045)	(2,450,684)
	\$ (20,237,402)	\$ (17,989,954)
G. Market Value Net of Reserves	\$ 112,701,939	\$ 93,897,251
H. Allocation of Investments		
1. Short-Term Investments	0.00%	0.00%
2. Domestic Equities	29.85%	25.95%
3. Real Estate	5.95%	6.36%
4. Multi-Asset Core Fund (Equities)	35.14%	38.80%
5. Multi-Manager Bond Fund (Fixed Income)	29.06%	28.89%
6. Total Investments	100.00%	100.00%



**PENSION FUND DISBURSEMENTS & INCOME**

<u>Item</u>	<u>September 30</u>	
	<u>2021</u>	<u>2020</u>
A. Market Value of Assets at Beginning of Year	\$ 111,887,205	\$ 107,300,912
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 1,170,591	\$ 1,078,307
b. Employer Contributions	5,999,430	5,815,515
c. State Contributions	895,165	907,957
d. Buy Back Contributions	90,244	88,692
e. DROP Rollover	148,639	59,006
f. Change in Value of Remaining Buy Back Payments	(28,775)	(81,249)
g. Total	\$ 8,275,294	\$ 7,868,228
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 10,279	\$ 1,670
b. Net Realized Gains/(Losses)	12,951,532	4,735,134
c. Net Unrealized Gain/(Losses)	8,555,017	741,045
d. Investment Expenses	(727,933)	(741,095)
e. Net Investment Income	\$ 20,788,895	\$ 4,736,754
3. Benefits and Refunds		
a. Refunds	\$ (13,824)	\$ (97,633)
b. Regular Monthly Benefits to Retirees	(6,657,994)	(6,469,543)
c. Supplemental Distributions and DROP Loans	(553,696)	(516,009)
d. DROP Distributions	(599,309)	(770,090)
e. Total	\$ (7,824,823)	\$ (7,853,275)
4. Administrative and Miscellaneous Expenses	\$ (187,230)	\$ (165,414)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 132,939,341	\$ 111,887,205
D. Reserves		
1. State Contribution Reserve	\$ (306,156)	\$ (316,042)
2. DROP Accounts	(17,152,201)	(15,223,228)
3. Supplemental Benefit Reserve	(2,779,045)	(2,450,684)
4. Total Reserves	\$ (20,237,402)	\$ (17,989,954)
E. Market Value Net of Reserves	\$ 112,701,939	\$ 93,897,251



**ACTUARIAL VALUE OF ASSETS**

<b>Valuation Date – September 30</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
A. Actuarial Value of Assets Beginning of Year	\$ 108,078,649	\$ 115,619,891	\$ -	\$ -	\$ -	\$ -
B. Market Value End of Year	111,887,205	132,939,341	-	-	-	-
C. Market Value Beginning of Year	107,300,912	111,887,205	-	-	-	-
D. Non-Investment/Administrative Net Cash Flow	(150,461)	263,241				
E. Investment Income						
E1. Actual Market Total: B-C-D	4,736,754	20,788,895	-	-	-	-
E2. Assumed Rate of Return	7.25%	7.00%	6.90%	6.90%	6.90%	6.90%
E3. Assumed Amount of Return	8,041,060	8,312,586	-	-	-	-
E4. Amount Subject to Phase-In: E1–E3	(3,304,306)	12,476,309	-	-	-	-
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.2 x E4	(660,861)	2,495,262	-	-	-	-
F2. First Prior Year	(424,347)	(660,861)	2,495,262	-	-	-
F3. Second Prior Year	(123,552)	(424,347)	(660,861)	2,495,262	-	-
F4. Third Prior Year	430,902	(123,552)	(424,347)	(660,861)	2,495,262	-
F5. Fourth Prior Year	428,501	430,904	(123,550)	(424,345)	(660,863)	2,495,261
F6. Total Phase-Ins	(349,357)	1,717,406	1,286,504	1,410,056	1,834,399	2,495,261
<b>G. Actuarial Value of Assets End of Year</b>						
G1. Preliminary Actuarial Value of Assets:	\$ 115,619,891	\$ 125,913,124	\$ -	\$ -	\$ -	\$ -
G2. Upper Corridor Limit: 120%*B	134,264,646	159,527,209	-	-	-	-
G3. Lower Corridor Limit: 80%*B	89,509,764	106,351,473	-	-	-	-
G4. Funding Value End of Year	115,619,891	125,913,124	-	-	-	-
G5. Less: State Contribution Reserve	(316,042)	(306,156)	-	-	-	-
G6. Less: DROP Account Balances	(15,223,228)	(17,152,201)	-	-	-	-
G7. Less: Supplemental Benefit Reserve	(2,450,684)	(2,779,045)	-	-	-	-
G8. Final Funding Value End of Year	97,629,937	105,675,722	-	-	-	-
H. Difference between Market & Actuarial Value	\$ (3,732,686)	\$ 7,026,217	\$ -	\$ -	\$ -	\$ -
<b>I. Actuarial Rate of Return</b>	6.94%	8.45%	0.00%	0.00%	0.00%	0.00%
<b>J. Market Value Rate of Return</b>	4.30%	18.07%	0.00%	0.00%	0.00%	0.00%
<b>K. Ratio of Actuarial Value to Market Value</b>	103.34%	94.71%	0.00%	0.00%	0.00%	0.00%



<b>RECONCILIATION OF DROP ACCOUNTS</b>	
Value at beginning of year	\$ 15,223,228
Adjustment to beginning of year balances	+ (4,934)
Payments credited to accounts	+ 1,189,517
Rollovers into DROP account	+ 148,639
Investment Earnings credited	+ 1,158,535
Withdrawals from accounts	- 599,309
Net Loan Activity	+ <u>36,525</u>
Value at end of year	17,152,201

**INVESTMENT RATE OF RETURN**

Year Ended	Investment Rate of Return	
	Market Value	Actuarial Value
12/31/82	16.4 %	9.3 %
12/31/83	12.3	9.0
12/31/84	11.9	11.5
12/31/85	23.0	16.8
12/31/86	19.0	17.6
12/31/87	0.3	4.4
12/31/88	10.4	9.0
12/31/89	20.6	15.4
9/30/90 (9 mos.)	(1.9)	1.7
9/30/91	14.4	11.6
9/30/92	10.0	9.7
9/30/93	12.6	11.9
9/30/94	1.1	3.5
9/30/95	19.1	12.9
9/30/96	12.8	10.8
9/30/97	20.2	13.1
9/30/98	10.1	12.9
9/30/99	10.5	13.5
9/30/00	9.8	12.1
9/30/01	(9.1)	7.5
9/30/02	(9.2)	(4.7)
9/30/03	16.1	2.8
9/30/04	8.3	2.6
9/30/05	10.6	3.0
9/30/06	6.9	5.7
9/30/07	13.1	9.9
9/30/08	(15.1)	4.2
9/30/09	(0.8)	2.8
9/30/10	10.2	3.0
9/30/11	(0.6)	1.6
9/30/12	18.0	6.9
9/30/13	9.8	7.0
9/30/14	10.3	8.9
9/30/15	1.9	7.5
9/30/16	10.6	9.3
9/30/17	9.9	8.3
9/30/18	6.5	7.5
9/30/19	5.2	6.7
9/30/20	4.3	6.9
9/30/21	18.1	8.4
<b>Average Returns:</b>		
<b>Last Five Years</b>	8.7 %	7.6 %
<b>Last Ten Years</b>	9.3 %	7.7 %
<b>All Years</b>	8.7 %	8.0 %



## **SECTION D**

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### **FINANCIAL ACCOUNTING INFORMATION**

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**FASB NO. 35 INFORMATION**

A. Valuation Date	October 1, 2021	October 1, 2020
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 96,774,294	\$ 88,847,589
b. Terminated Vested Members	6,379,942	5,325,841
c. Other Members	<u>39,968,099</u>	<u>38,978,254</u>
d. Total	143,122,335	133,151,684
2. Non-Vested Benefits	748,936	1,060,025
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	143,871,271	134,211,709
4. Accumulated Contributions of Active Members	6,783,552	6,697,804
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	134,211,709	120,469,757
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	1,884,013	4,458,596
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	15,634,015	16,839,012
d. Benefits Paid (Net basis, including credits to DROP accounts)	<u>(7,858,466)</u>	<u>(7,555,656)</u>
e. Net Increase	9,659,562	13,741,952
3. Total Value at End of Period	143,871,271	134,211,709
D. Market Value of Assets	112,701,939	93,897,251
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,	<b>2022*</b>	<b>2021</b>	<b>2020</b>
<b>Total pension liability</b>			
Service Cost	\$ 3,452,837	\$ 3,553,623	\$ 3,151,301
Interest	12,076,754	11,567,515	10,983,024
Benefit Changes	-	-	16,771
Difference between actual & expected experience	3,186,572	3,435,967	708,903
Assumption Changes	2,100,964	2,129,859	-
Benefit Payments	(8,588,798)	(7,810,999)	(7,755,642)
Refunds	(30,355)	(13,824)	(97,633)
Other (Adjustments to Reserves)	533,256	678,639	598,703
<b>Net Change in Total Pension Liability</b>	<b>12,731,230</b>	<b>13,540,780</b>	<b>7,605,427</b>
<b>Total Pension Liability - Beginning</b>	<b>173,112,174</b>	<b>159,571,394</b>	<b>151,965,967</b>
<b>Total Pension Liability - Ending (a)</b>	<b>\$ 185,843,404</b>	<b>\$ 173,112,174</b>	<b>\$ 159,571,394</b>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer (from City)	\$ 6,689,463	\$ 5,999,430	\$ 5,815,515
Contributions - Employer (from State)	895,165	895,165	907,957
Contributions - Non-Employer Contributing Entity	-	-	-
Contributions - Member	1,208,195	1,260,835	1,166,999
Net Investment Income	9,377,258	20,788,895	4,736,754
Benefit Payments	(8,588,798)	(7,810,999)	(7,755,642)
Refunds	(30,355)	(13,824)	(97,633)
Administrative Expense	(176,322)	(187,230)	(165,414)
Other	-	148,639	59,006
<b>Net Change in Plan Fiduciary Net Position</b>	<b>9,374,606</b>	<b>21,080,911</b>	<b>4,667,542</b>
<b>Plan Fiduciary Net Position - Beginning</b>	<b>132,894,569</b>	<b>111,813,658</b>	<b>107,146,116</b>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<b>\$ 142,269,175</b>	<b>\$ 132,894,569</b>	<b>\$ 111,813,658</b>
<b>Net Pension Liability - Ending (a) - (b)</b>	<b>43,574,229</b>	<b>40,217,605</b>	<b>47,757,736</b>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>76.55 %</b>	<b>76.77 %</b>	<b>70.07 %</b>
<b>Covered Payroll</b>	<b>\$ 13,000,000</b>	<b>\$ 13,006,567</b>	<b>\$ 12,682,527</b>
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	<b>335.19 %</b>	<b>309.21 %</b>	<b>376.56 %</b>

\* These figures are estimates only. Actual figures will be provided after the end of the fiscal year. Note that only three years are shown here for summary purposes. The actual September 30, 2022 GASB 67 disclosure report will include all years (up to 10) beginning with the first year GASB 67 was implemented (Fiscal Year 2014).





**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 Covered Payroll
2014	\$ 111,783,071	\$ 76,282,065	\$ 35,501,006	68.24%	\$ 11,070,863	320.67%
2015	116,958,988	78,209,708	38,749,280	66.87%	11,553,613	335.39%
2016	124,555,848	86,202,090	38,353,758	69.21%	11,279,375	340.03%
2017	133,418,274	95,209,495	38,208,779	71.36%	11,834,364	322.86%
2018	145,145,193	101,982,716	43,162,477	70.26%	11,552,888	373.61%
2019	151,965,967	107,146,116	44,819,851	70.51%	11,268,875	397.73%
2020	159,571,394	111,813,658	47,757,736	70.07%	12,682,527	376.56%
2021	173,112,174	132,894,569	40,217,605	76.77%	13,006,567	309.21%
2022*	185,843,404	142,269,175	43,574,229	76.55%	13,000,000	335.19%

**\* 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, 2021  
Measurement Date: September 30, 2022

**Methods and Assumptions Used to Determine Net Pension Liability:**

Actuarial Cost Method	Entry Age Normal
Inflation	2.25%
Salary Increases	4.5% to 11.75% depending on age, including inflation.
Investment Rate of Return	6.90%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
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 post-retirement 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 7.00% to 6.90%.



**SCHEDULE OF CONTRIBUTIONS**  
**GASB Statement No. 67**

FY Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2014	\$ 4,560,918	\$ 4,624,823	\$ (63,905)	\$ 11,070,863	41.77%
2015	4,830,346	4,830,346	-	11,553,613	41.81%
2016	4,856,392	4,856,392	-	11,279,375	43.06%
2017	5,256,615	5,256,615	-	11,834,364	44.42%
2018	5,820,145	5,820,145	-	11,552,888	50.38%
2019	6,272,374	6,274,800	(2,426)	11,268,875	55.68%
2020	6,280,602	6,280,602	-	12,682,527	49.52%
2021	6,464,517	6,464,517	-	13,006,567	49.70%
2022*	7,154,550	7,154,550	-	13,000,000	55.04%

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

**NOTES TO SCHEDULE OF CONTRIBUTIONS**  
**GASB Statement No. 67**

**Valuation Date:** October 1, 2020  
**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	16 years (single equivalent period)
Asset Valuation Method	5-year smoothed market
Inflation	2.3%
Salary Increases	4.5% to 11.75% depending on age, including inflation.
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
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 post-retirement 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 in the October 1, 2020 Actuarial Valuation Report.



**SINGLE DISCOUNT RATE  
GASB Statement No. 67**

A single discount rate of 6.90% 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 6.90%. 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 (6.90%) 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 6.90%, 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\***

	<b>Current Single Discount</b>	
<b>1% Decrease</b>	<b>Rate Assumption</b>	<b>1% Increase</b>
<b>5.90%</b>	<b>6.90%</b>	<b>7.90%</b>
\$ 62,828,717	\$ 43,574,229	\$ 27,619,061

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

**SECTION E**

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**MISCELLANEOUS INFORMATION**

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<b>RECONCILIATION OF MEMBERSHIP DATA</b>		
	<b>From 10/1/20 To 10/1/21</b>	<b>From 10/1/19 To 10/1/20</b>
<b>A. Active Members</b>		
1. Number Included in Last Valuation	121	125
2. New Members Included in Current Valuation	5	1
3. Non-Vested Employment Terminations	(1)	(1)
4. Vested Employment Terminations	(2)	(1)
5. DROP Participation	(7)	(4)
6. Service Retirements	(1)	0
7. Disability Retirements	0	0
8. Deaths	0	0
9. Other--Rehires	0	1
10. Number Included in This Valuation	<u>115</u>	<u>121</u>
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	21	23
2. Additions from Active Members	2	1
3. Lump Sum Payments/Refund of Contributions	0	(1)
4. Payments Commenced	(1)	(1)
5. Deaths	0	0
6. Other--Rehires	0	(1)
7. Number Included in This Valuation	<u>22</u>	<u>21</u>
<b>C. DROP Plan Members</b>		
1. Number Included in Last Valuation	15	15
2. Additions from Active Members	7	4
3. Retirements	(4)	(4)
4. Deaths Resulting in No Further Payments	0	0
5. Other	0	0
6. Number Included in This Valuation	<u>18</u>	<u>15</u>
<b>D. Service Retirees, Disability Retirees and Beneficiaries</b>		
1. Number Included in Last Valuation	135	132
2. Additions from Active Members	1	0
3. Additions from Terminated Vested Members	1	1
4. Additions from DROP Plan	4	4
5. Deaths Resulting in No Further Payments	0	(2)
6. Deaths Resulting in New Survivor Benefits	0	0
7. End of Certain Period - No Further Payments	0	0
8. Other -- Lump Sum Distributions	0	0
9. Number Included in This Valuation	<u>141</u>	<u>135</u>



**ACTIVE PARTICIPANT SCATTER**

Age Group	Years of Service to Valuation Date										Totals	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25+		
20-24 NO.	1	0	1	0	0	0	0	0	0	0	0	2
TOT PAY	61,650	0	69,548	0	0	0	0	0	0	0	0	131,198
AVG PAY	61,650	0	69,548	0	0	0	0	0	0	0	0	65,599
25-29 NO.	1	0	0	4	4	2	0	0	0	0	0	11
TOT PAY	61,650	0	0	315,437	348,441	170,566	0	0	0	0	0	896,094
AVG PAY	61,650	0	0	78,859	87,110	85,283	0	0	0	0	0	81,463
30-34 NO.	3	0	2	4	1	15	5	0	0	0	0	30
TOT PAY	184,949	0	135,437	323,830	80,249	1,418,051	603,840	0	0	0	0	2,746,356
AVG PAY	61,650	0	67,719	80,958	80,249	94,537	120,768	0	0	0	0	91,545
35-39 NO.	0	0	1	1	1	6	10	6	0	0	0	25
TOT PAY	0	0	67,517	73,690	84,180	527,212	1,238,050	725,330	0	0	0	2,715,979
AVG PAY	0	0	67,517	73,690	84,180	87,869	123,805	120,888	0	0	0	108,639
40-44 NO.	0	0	0	0	0	3	2	15	2	0	0	22
TOT PAY	0	0	0	0	0	303,464	272,836	1,925,460	315,484	0	0	2,817,244
AVG PAY	0	0	0	0	0	101,155	136,418	128,364	157,742	0	0	128,057
45-49 NO.	0	0	0	0	0	2	1	8	1	0	0	12
TOT PAY	0	0	0	0	0	253,787	110,713	1,010,583	104,958	0	0	1,480,041
AVG PAY	0	0	0	0	0	126,894	110,713	126,323	104,958	0	0	123,337
50-54 NO.	0	0	0	0	1	1	0	4	3	0	0	9
TOT PAY	0	0	0	0	81,536	92,559	0	487,156	426,728	0	0	1,087,979
AVG PAY	0	0	0	0	81,536	92,559	0	121,789	142,243	0	0	120,887
55-59 NO.	0	0	0	1	0	0	1	0	0	0	0	2
TOT PAY	0	0	0	162,619	0	0	101,984	0	0	0	0	264,603
AVG PAY	0	0	0	162,619	0	0	101,984	0	0	0	0	132,302
60-64 NO.	0	1	0	0	1	0	0	0	0	0	0	2
TOT PAY	0	126,059	0	0	136,329	0	0	0	0	0	0	262,388
AVG PAY	0	126,059	0	0	136,329	0	0	0	0	0	0	131,194
TOT NO.	5	1	4	10	8	29	19	33	6	0	0	115
TOT AMT	308,249	126,059	272,502	875,576	730,735	2,765,639	2,327,423	4,148,529	847,170	0	0	12,401,882
AVG AMT	61,650	126,059	68,126	87,558	91,342	95,367	122,496	125,713	141,195	0	0	107,842





**INACTIVE PARTICIPANT SCATTER**

<b>Age Group</b>	<b>Terminated Vested</b>		<b>Disabled</b>		<b>Retired</b>		<b>Deceased with Beneficiary</b>	
	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	7	190,096	-	-	1	34,216	-	-
40-44	9	242,198	-	-	1	58,957	-	-
45-49	3	78,681	-	-	16	1,235,315	1	53,739
50-54	3	74,560	2	98,634	25	1,639,666	-	-
55-59	-	-	-	-	28	1,508,815	1	23,843
60-64	-	-	4	83,032	31	1,740,961	2	49,128
65-69	-	-	3	61,035	16	700,484	-	-
70-74	-	-	3	78,232	10	433,587	3	94,931
75-79	-	-	2	28,399	7	217,454	-	-
80-84	-	-	-	-	2	37,019	-	-
85-89	-	-	-	-	1	27,637	-	-
90-94	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-
<b>Total</b>	<b>22</b>	<b>585,535</b>	<b>14</b>	<b>349,332</b>	<b>138</b>	<b>7,634,111</b>	<b>7</b>	<b>221,641</b>
<b>Average Age</b>		<b>43</b>		<b>66</b>		<b>60</b>		<b>65</b>



## **SECTION F**

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### **SUMMARY OF PLAN PROVISIONS**

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## SUMMARY OF PLAN PROVISIONS

### A. Ordinances

Plan established under the Code of Ordinances for the City of Boynton Beach, Florida, Chapter 18, Article III, and was most recently amended under Ordinance No. 20-010 passed and adopted on its second reading on May 19, 2020. The Plan is also governed by certain provisions of Chapter 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

### B. Effective Date

August 15, 1981

### 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 police officers are eligible to participate on the first day of employment.

### F. Credited Service

Service is measured as the aggregate numbers of years and fractional parts of years of service for which a police officer 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

Total cash remuneration including up to 300 hours of overtime and lump sum payments for the lesser of the amount of sick and vacation leave accumulated as of June 18, 2013 or the amount cashed out at retirement, but exclusive of any payments for extra duty or special detail work.

### H. Average Final Compensation (AFC)

The average of Compensation over the highest 5 years during the last 10 years of Credited Service.

### I. Normal Retirement

Eligibility: All members hired prior to October 1, 2019 may retire on the first day of the month coincident with or next following the earliest of:

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



- (2) age 50 and 15 years of Credited Service, or
- (3) 20 years of Credited Service regardless of age.

All members hired on or after October 1, 2019 may retire on the first day of the month coincident with or next following the earliest of:

- (1) age 55 and 10 years of Credited Service, or
- (2) 25 years of Credited Service regardless of age.

**Benefit:** All Members hired prior to October 1, 2015: 3.5% of AFC multiplied by years of Credited Service.

All Members hired on or after October 1, 2015: 3.0% of AFC multiplied by years of Credited Service.

The total benefit is limited to 85% of AFC, provided that in all cases, the benefit will not be less than 2.75% of AFC for each year of Credited Service. However, the 85% of AFC limitation does not apply to Members who were eligible for Normal Retirement as of October 1, 2019.

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

**COLA** None

**Supplemental Benefit:** A supplemental benefit is paid each year. Please see Item V. for a full description.

#### **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 1.5% for each year by which the Early Retirement date precedes the Normal Retirement date. For this purpose, the Normal Retirement date is the earlier of the date the member would have attained age 55 or completed 20 years of Credited Service (25 years of Credited Service if hired on or after October 1, 2019) had the member continued employment as a police officer.

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

**COLA:** None

**Supplemental Benefit:** A supplemental benefit is paid each year. Please see Item V. for a full description.



## **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 and unable to render useful and efficient service as a police officer 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 the member's basic rate of earnings in effect on the date of disability, reduced by amounts payable under Worker's Compensation and Social Security PIA with a minimum benefit being the greater of the accrued Normal Retirement benefit on the date of disability or 42% of AFC.

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

**COLA:** None

**Supplemental Benefit:** A supplemental benefit is paid each year. Please see Item V. for a full description.

## **M. Non-Service Connected Disability**

**Eligibility:** Any member with 10 years of Credited Service who becomes totally and permanently disabled and unable to render useful and efficient service as a police officer is eligible for a disability benefit.

**Benefit:** The accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of disability with a minimum benefit equal to 25% of AFC and a maximum benefit equal to 60% of AFC.

**Normal Form of Benefit:** 10 years Certain and Life thereafter; other options are also available.

**COLA:** None

**Supplemental Benefit:** A supplemental benefit is paid each year. Please see Item V. for a full description.

## **N. Death in the Line of Duty**

**Eligibility:** Any member whose death is determined to be the result of a service incurred injury is eligible for survivor benefits regardless of Credited Service.

**Benefit:** Spouse will receive the accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death with a minimum



benefit equal to 30% of AFC. If there is no spouse, benefits will be paid to the deceased member's estate.

Normal Form  
of Benefit: Paid until death of spouse.

COLA: None

Supplemental  
Benefit: A supplemental benefit is paid each year. Please see Item V. for a full description.

#### **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 the accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death. If there is no spouse, benefits will be paid to the deceased member's estate.

Normal Form  
of Benefit: Paid until death or remarriage of spouse; or 10 years to the member's estate.

COLA: None

Supplemental  
Benefit: A supplemental benefit is paid each year. Please see Item V. for a full description.

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, the 50%, 66 2/3%, 75% and 100% Contingent Annuitant options and the 50%, 66 2/3%, 75% and 100% Survivor Annuity options.

#### **R. Vested Termination**

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service (10 years of Credited Service if hired on or after October 1, 2016) if they elect to leave their accumulated contributions in the fund.

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



For members with at least 5 years of Credited Service (10 years of Credited Service if hired on or after October 1, 2016), the benefit begins on the date that would have been the member's Normal Retirement date had they continued employment until attaining age 55 with 10 years of Credited Service or upon reaching what would have been 20 years of Credited Service (25 years of Credited Service if hired on or after October 1, 2019). Alternatively, members with at least 10 years of Credited Service can elect a reduced Early Retirement benefit any time after age 50.

**Normal Form**

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

COLA: None

**Supplemental**

Benefit: A supplemental benefit is paid each year. Please see Item V. for a full description.

Members terminating employment with less than 5 years (10 years of Credited Service if hired on or after October 1, 2016) of Credited Service will receive a refund of their own accumulated contributions.

**S. Refunds**

Eligibility: All members terminating employment with less than 5 years of Credited Service (10 years of Credited Service if hired on or after October 1, 2016) are eligible. Optionally, vested members (those with 5 or more years of Credited Service if hired prior to October 1, 2016; 10 or more years of Credited Service if hired on or after October 1, 2016) may elect a refund in lieu of the vested benefits otherwise due.

Benefit: Refund of the member's contributions.

**T. Member Contributions**

8.5% of Compensation. Member contributions in excess of 7.0% of Compensation are used to pay down the Unfunded Actuarial Liability and are not used to reduce the City contribution.

**U. Employer Contributions**

Chapter 185 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

**V. Supplemental Benefit**

All retirees and beneficiaries in pay status are entitled to a monthly supplemental pension benefit paid in a lump sum on October 1 of each year. The supplemental benefit is funded by a 1% of pay contribution from the members (during the first 20 years of service) and a 1% of pay contribution from the Chapter 185 money. The benefit pool is divided according to the total number of shares of all eligible retirees on a pro-rata basis. The number of shares allotted to each eligible retiree is the sum of credited service at retirement (maximum of 20 years) and the number of years the



participant has been retired (maximum of 20 years). An individual retiree's distribution is the number of shares multiplied by the share value. The benefit ceases upon the later of the death of the retired member or beneficiary.

#### **W. 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 and 10 years of Credited Service, or
- (2) age 50 and 15 years of Credited Service (if hired prior to October 1, 2019), or
- (3) 20 years of Credited Service (25 years of Credited Service if hired on or after October 1, 2019) 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 prior to October 1, 2019, the member's DROP account is credited at an interest rate based upon the option chosen by the member. Members must elect 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. A percentage of the DROP credited at the same rate earned by the Plan and the remaining percentage credited with earnings at a guaranteed rate of 7%.

For members hired on or after October 1, 2019, the member's DROP account is credited at the same rate earned by the Plan, but 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, equal annual payments over 5 years, or monthly installments based upon actuarial tables until the balance is paid out.

**COLA:** None

**Supplemental  
Benefit:** A supplemental benefit is paid each year. Please see Item V. for a full description.





**X. Other Ancillary Benefits**

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

**Y. Changes Since Previous Valuation**

None.