

City of Palm Beach Gardens Police Officers' Pension Fund

Actuarial Valuation Report as of October 1, 2019
Annual Employer Contribution for the Fiscal Year
Ending September 30, 2021





March 9, 2020

Board of Trustees
City of Palm Beach Gardens
Police Officers Pension Fund
Palm Beach Gardens, Florida

Dear Board Members:

The results of the October 1, 2019 Annual Actuarial Valuation of the Palm Beach Gardens Police Officers' Pension Fund are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Pension Fund (Plan) and those designated or approved by the Board. This report may be provided to parties other than the Plan 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 Plan's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2021, 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, 2020. 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, 2019. The valuation was based upon information furnished by the Plan Administrator concerning Plan 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.

Board of Trustees
March 9, 2020

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. All actuarial assumptions used in this report are reasonable for the purposes of this valuation.

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 Palm Beach Gardens Police Officers' Pension 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.

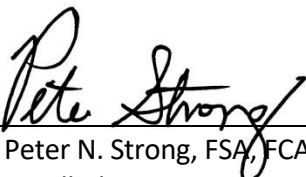
Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein. The signing actuaries are independent of the plan sponsor.

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 
Peter N. Strong, FSA, FCA, MAAA
Enrolled Actuary No. 17-06975

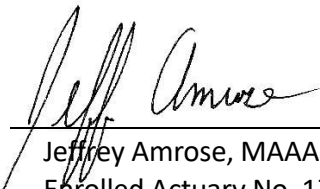
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SECTION A

DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Employer Contributions

A comparison of the required employer contribution developed in this year's actuarial valuation and the previous valuation is as follows.

	For FYE 9/30/2021 Based on 10/1/2019 Valuation	For FYE 9/30/2020 Based on 10/1/2018 Valuation*	Increase (Decrease)
Required City/State Contribution	\$ 4,730,303	\$ 4,299,668	\$ 430,635
As % of Covered Payroll	52.46 %	55.41 %	(2.95) %
Estimated Credit for State Contribution	\$ 694,576	\$ 694,576	\$ 0
As % of Covered Payroll	7.70 %	8.95 %	(1.25) %
Required City Contribution	\$ 4,035,727	\$ 3,605,092	\$ 430,635
As % of Covered Payroll	44.76 %	46.46 %	(1.70) %
As % of Total Payroll including DROP participants	41.18 %	39.27 %	1.91 %

* Based on Results from August 21, 2019 Actuarial Impact Statement

The required employer contribution for the fiscal year ending September 30, 2021 has been discounted for interest on the basis that the City contribution is made in full at the beginning of the year and the State contribution is received in mid-August.

The contribution has also been computed under the assumption that the amount to be received from the State on behalf of police officers and credited towards the required contribution in 2020 and 2021 will be \$694,576 respectively. If the actual amounts differ from these amounts, then the net City contributions should be adjusted by the difference.

Total payroll for the fiscal year ending September 30, 2021, including pay for members participating in the DROP, is expected to be approximately \$9.80 million (compared to \$9.02 million for expected non-DROP covered payroll). City contribution requirements have also been shown above as a percentage of total payroll (including DROP members.)

Actual employer and State contributions used to fund the Plan during the year ending September 30, 2019 were \$3,566,126 and \$694,576, respectively, for a total of \$4,260,702. The annual required contribution was \$3,754,169. The \$694,576 in contributions from the State includes



a Base Amount of \$292,446, a Gap amount of \$182,769, and half the Growth amount (\$438,723) of \$219,361.

Revisions in Benefits

Under Ordinance 17, 2019, the following changes were made:

- Normal Retirement Eligibility: A member with less than ten years of service on September 13, 2012 may retire on the first day of the month coincident with or next following the earlier of:
 - (1) age 52 and 10 years of Credited Service, or
 - (2) 20 years of Credited Service regardless of age.
- For service accrued after October 1, 2019, the benefit multiplier was changed from 2.75% to 3.00% of AME (multiplied by years of Credited Service after October 1, 2019).

The impact of these changes was measured in the August 21, 2019 Actuarial Impact Statement. The prior year results in this valuation report (as of October 1, 2018) reflect these changes.

Revisions in Actuarial Assumptions or Methods

The investment return assumption has been lowered from 6.6% to 6.5%. This assumption change caused the required City contribution to increase by 1.74% of covered payroll (or \$157,249).

There have been no other changes in assumptions or methods since the prior valuation.

Actuarial Experience

There was a net actuarial experience gain of \$278,506 for the year, which means that actual experience was more favorable than expected. The gain is primarily due to a recognized investment above the assumed rate of 6.6%. The investment return was 2.1% based on market value of assets and 7.5% based on actuarial value of assets. This gain was partially offset due to higher than expected salary increases (9.0% actual versus 6.0% expected) and mortality experience (there were no deaths reported during the year). The net actuarial gain decreased the required employer contribution by 0.33% of covered payroll (or \$29,754).

Funded Ratio

This year's funded ratio is 78.2% compared to 76.7% last year (after reflecting the benefit changes). The funded ratio was 79.0% before the assumption change. The ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

Analysis of Change in Employer Contribution

The components of change in the City contribution rate are as follows:

City Contribution rate last year	46.46 %
Change in assumptions	1.74
Payment on unfunded liability	(4.71)
Experience (gain)/loss	(0.33)
Change in Normal Cost Rate	0.52
Change in administrative expense	(0.10)
Change in State revenue (reflecting timing discount)	<u>1.18</u>
City Contribution rate this year	44.76

The reduction in the City contribution rate due to the payment on the unfunded liability was primarily due to a significant increase in covered payroll. Covered payroll increased by 16.2% while the payment on the unfunded liability remained approximately the same dollar amount. This caused the payment on the unfunded liability as a percentage of payroll to decrease significantly.

Variability of Future Contribution Rates

The Actuarial Cost Method used to determine the contribution rate is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary significantly from year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

The Market Value of Assets exceeds the Actuarial Value of Assets by \$3,289,720 as of the valuation date (see Section C). This difference will be gradually recognized in the absence of offsetting losses. In turn, the computed employer contribution rate will decrease by approximately 3.83% of covered payroll.

Relationship to Market Value

If Market Value had been the basis for the valuation, the required net City contribution rate would have been 40.93% (a dollar amount of approximately \$3.69 million) and the funded ratio would have been 81.4%. The market value-based funded ratio was 85.1% last year (after reflecting the benefit changes). In the absence of other gains and losses, and before recognition of the additional phase-in of the change in the investment return assumption, the City contribution rate should decrease toward that level over the next few years.



Conclusion

The Florida Retirement System (FRS) updated its mortality tables in its July 1, 2019 actuarial valuation. These new tables are required to be used in the October 1, 2020 Actuarial Valuation for this Plan. We note that it has been almost five years since the last Experience Study was performed for this Plan (in 2015). In consideration of the upcoming required changes in the mortality table, we recommend an Experience Study be performed.

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;
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 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:

	2019	2018
Ratio of the market value of assets to total payroll	9.5	11.0
Ratio of actuarial accrued liability to payroll	11.7	12.9
Ratio of actives to retirees and beneficiaries	1.4	1.3
Ratio of net cash flow to market value of assets	-1.3%	-2.2%

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

The Base Amount is the amount of Premium Tax Revenue received for calendar year 2002. This amount must be used to fund Chapter minimum benefits. The Gap Amount is the difference between the amounts of Premium Tax Revenue received for calendar year 2002 and calendar year 2012. This amount must be used to fund the cost of benefits that are in excess of Chapter minimum benefits. The Growth Amount is revenue in excess of the amount received for calendar year 2012. This amount must be shared 50% - 50% between Share Plan accounts and the cost to fund the Plan.

Actuarial Confirmation of the Use of State Chapter Money	
1. Base Amount (2002 Premium Tax Revenue (PTR))	\$ 292,446
2. PTR Received for Calendar year 2012	475,215
3. Gap Amount: (2) - (1)	182,769
4. PTR Received for Previous Plan Year	913,938
5. Growth Amount for Previous Plan Year: (4) - (2)	438,723
6. Accumulated Excess at Beginning of Previous Year	0
7. Prior Excess Used to Reduce UAAL: 50% of (6)	0
8. Amount Used to Fund Share plan Accounts: 50% of [(5) + (6)]	219,362
9. Amount Used to Fund Plan: (1) + (3) + 50% of (5)	694,576
10. Accumulated Excess as of Valuation Date	0

SECTION B

VALUATION RESULTS

PARTICIPANT DATA		
	October 1, 2019	October 1, 2018*
ACTIVE MEMBERS		
Number	111	102
Covered Annual Payroll	\$ 8,587,100	\$ 7,390,648
Average Annual Payroll	\$ 77,361	\$ 72,457
Average Age	38.8	38.6
Average Past Service	8.9	8.7
Average Age at Hire	29.9	29.9
RETIRES, BENEFICIARIES & DROP**		
Number	71	71
Annual Benefits	\$ 5,192,163	\$ 5,177,313
Average Annual Benefit	\$ 73,129	\$ 72,920
Average Age	59.2	58.2
DISABILITY RETIREES		
Number	10	10
Annual Benefits	\$ 272,822	\$ 272,822
Average Annual Benefit	\$ 27,282	\$ 27,282
Average Age	63.2	62.2
TERMINATED VESTED MEMBERS		
Number	3	3
Annual Benefits	\$ 147,116	\$ 147,116
Average Annual Benefit	\$ 49,039	\$ 49,039
Average Age	47.1	46.1

* From August 21, 2019 Actuarial Impact Statement .

** Does not include deferred supplemental benefits for DROP members.

ACTUARILY DETERMINED EMPLOYER CONTRIBUTION (ADEC)			
A. Valuation Date	October 1, 2019 <i>After Change</i>	October 1, 2019 <i>Before Change</i>	October 1, 2018*
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2021	9/30/2021	9/30/2020
C. Assumed Dates of Employer Contributions	10/1/2020	10/1/2020	10/1/2019
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 2,421,880	\$ 2,324,527	\$ 2,373,079
E. Employer Normal Cost	2,047,426	1,994,469	1,685,934
F. ADEC if Paid on the Valuation Date: D+E	4,469,306	4,318,996	4,059,013
G. ADEC Adjusted for Frequency of Payments	4,469,306	4,318,996	4,059,013
H. ADEC as % of Covered Payroll	52.05 %	50.30 %	54.92 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	5.00 %	5.00 %	5.00 %
J. Covered Payroll for Contribution Year	9,016,455	9,016,455	7,760,180
K. ADEC for Contribution Year: H x J	4,693,065	4,535,277	4,261,891
L. Estimated Credit for State Revenue in Contribution Year	694,576	694,576	694,576
M. Estimated State Revenue discounted Discounted to Beginning of Year	657,338	656,799	656,799
N. Required Employer Contribution (REC) in Contribution Year: K-M	4,035,727	3,878,478	3,605,092
O. REC as % of Covered Payroll in Contribution Year: N ÷ J	44.76 %	43.02 %	46.46 %

* From August 21, 2019 Actuarial Impact Statement.

ACTUARIAL VALUE OF BENEFITS AND ASSETS

A. Valuation Date	October 1, 2019 <i>After Change</i>	October 1, 2019 <i>Before Change</i>	October 1, 2018*
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 49,013,956	\$ 48,102,981	\$ 41,171,579
b. Vesting Benefits	943,454	919,381	823,367
c. Disability Benefits	1,897,784	1,867,816	1,846,422
d. Preretirement Death Benefits	795,443	781,435	706,520
e. Return of Member Contributions	68,900	68,820	64,291
f. Total	<u>52,719,537</u>	<u>51,740,433</u>	<u>44,612,179</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	65,890,215	65,234,782	65,904,940
b. Disability Retirees	2,496,163	2,478,483	2,525,451
c. Terminated Vested Members	1,485,528	1,464,776	1,368,247
d. Total	<u>69,871,906</u>	<u>69,178,041</u>	<u>69,798,638</u>
3. Total for All Members	122,591,443	120,918,474	114,410,817
C. Actuarial Accrued (Past Service) Liability	100,213,161	99,129,067	95,578,444
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	95,694,823	94,644,696	90,306,283
E. Plan Assets			
1. Market Value	81,617,471	81,617,471	81,320,298
2. Actuarial Value	78,327,751	78,327,751	73,266,612
F. Unfunded Actuarial Accrued Liability: C - E2	21,885,410	20,801,316	22,311,832
G. Actuarial Present Value of Projected Covered Payroll	75,259,471	74,813,236	65,330,988
H. Actuarial Present Value of Projected Member Contributions	6,472,314	6,433,938	5,618,465
I. Accumulated Value of Contributions for Active Members	5,426,202	5,426,202	4,771,113
J. Funded Ratio: E2 ÷ C	78.2%	79.0%	76.7%

* All numbers except FASB No. 35 (Item D.) are from the August 21, 2019 Actuarial Impact Statement.



CALCULATION OF EMPLOYER NORMAL COST			
A. Valuation Date	October 1, 2019 <i>After Change</i>	October 1, 2019 <i>Before Change</i>	October 1, 2018*
B. Normal Cost for			
1. Service Retirement Benefits	\$ 2,246,742	\$ 2,199,206	\$ 1,857,710
2. Vesting Benefits	89,189	87,144	74,642
3. Disability Benefits	207,600	205,245	171,594
4. Preretirement Death Benefits	81,760	80,623	71,476
5. Return of Member Contributions	<u>20,910</u>	<u>21,026</u>	<u>18,169</u>
6. Total for Future Benefits	2,646,201	2,593,244	2,193,591
7. Assumed Amount for Administrative Expenses	<u>139,716</u>	<u>139,716</u>	<u>127,939</u>
8. Total Normal Cost	2,785,917	2,732,960	2,321,530
9. Total as a % of Covered Payroll	32.44%	31.83%	31.41%
C. Expected Member Contribution	738,491	738,491	635,596
D. Employer Normal Cost: B8-C	2,047,426	1,994,469	1,685,934
E. Employer Normal Cost as a % of Covered Payroll	23.84%	23.23%	22.81%

* From August 21, 2019 Actuarial Impact Statement.

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

A. UAAL Amortization Period and Payments						
Original UAAL			Current UAAL			
Date Established	Amortization Period (Years)	Amount	Years Remaining	Amount	Payment	
					After Change	Before Change
10/1/1993	30	(194,444)	4	(53,225)	(14,588)	(14,608)
10/1/1995	30	796,975	6	379,303	73,570	73,730
10/1/1996	30	(189,977)	7	(106,827)	(18,289)	(18,336)
10/1/2000	30	3,639,273	11	3,012,900	367,928	369,440
10/1/2005	30	975,210	13	880,642	96,153	96,617
10/1/2005	30	5,273,728	13	4,762,331	519,977	522,483
10/1/2006	30	12,571,515	13	11,174,376	1,220,080	1,225,959
10/1/2008	15	3,319,494	4	922,259	252,779	253,117
10/1/2009	15	(137,951)	5	(60,849)	(13,749)	(13,773)
10/1/2010	15	348,981	6	175,678	34,075	34,149
10/1/2011	15	(718,288)	7	(399,956)	(68,474)	(68,650)
10/1/2011	15	847,054	7	471,655	80,749	80,957
10/1/2011	15	(6,706,717)	7	(3,734,421)	(639,345)	(640,995)
10/1/2012	15	(751,599)	8	(479,602)	(73,961)	(74,181)
10/1/2012	15	792,519	8	505,716	77,988	78,220
10/1/2013	15	(151,072)	9	(103,450)	(14,594)	(14,643)
10/1/2013	15	836,318	9	572,695	80,789	81,061
10/1/2013	15	755,890	9	517,618	73,020	73,265
10/1/2014	15	(732,488)	10	(539,258)	(70,435)	(70,699)
10/1/2014	15	876,591	10	645,346	84,292	84,607
10/1/2015	15	893,801	11	710,835	86,805	87,162
10/1/2015	15	750,916	11	597,197	72,928	73,228
10/1/2016	15	(420,988)	12	(364,116)	(41,905)	(42,092)
10/1/2016	15	1,038,564	12	898,264	103,379	103,841
10/1/2017	15	(1,012,819)	13	(928,867)	(101,419)	(101,907)
10/1/2017	15	989,323	13	907,319	99,066	99,543
10/1/2018	15	(1,690,656)	14	(1,608,765)	(167,584)	(168,449)
10/1/2018	15	1,030,495	14	980,581	102,147	102,674
10/1/2018	15	1,412,878	14	1,344,443	140,050	140,772
10/1/2019	15	(278,506)	15	(278,506)	(27,812)	(27,965)
10/1/2019	15	<u>1,084,094</u>	15	<u>1,084,094</u>	<u>108,260</u>	<u>N/A</u>
		\$ 25,248,114		\$ 21,885,410	\$ 2,421,880	\$ 2,324,527

B. Amortization Schedule

The UAAL is being amortized as a level dollar amount. The expected amortization schedule is as follows:

Amortization Schedule	
Year	Expected UAAL
2019	\$ 21,885,410
2020	20,728,658
2021	19,496,719
2022	18,184,703
2023	16,787,407
2024	15,552,959
2029	6,447,753
2034	0

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:

1. Last Year's UAAL*	\$ 22,311,832
2. Last Year's Employer Normal Cost*	1,685,934
3. Last Year's Employer Contributions**	4,260,702
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	1,583,853
b. 3 from dates paid	241,095
c. a - b	1,342,758
5. This Year's Expected UAAL Prior to Revision: 1 + 2 - 3 + 4c	21,079,822
6. Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions	1,084,094
7. This Year's Expected UAAL: 5 + 6	22,163,916
8. This Year's Actual UAAL	21,885,410
9. Net Actuarial Gain (Loss): 7 - 8	278,506
10. Gain (Loss) Due to Investments (Net AVA basis)	839,830
11. Gain (Loss) from Other Sources	(561,324)

* From August 21, 2019 Actuarial Impact Statement.

**Includes the Base amount of \$292,446, the Gap amount of \$182,769, half the Growth amount of \$438,723 (\$219,361), and the City contribution of \$3,566,126.

Experience gains/losses for the past few years are as follows:

Year Ending September 30	Gain (Loss)
1996	\$ (284,232)
1997	(994,552)
1998	(674,477)
1999	(424,754)
2000	68,592
2001	(435,534)
2002	(2,162,823)
2003	(949,324)
2004	(246,347)
2005	(1,006,694)
2006	(1,517,294)
2007	251,668
2008	(3,319,494)
2009	137,951
2010	(348,981)
2011	718,288
2012	751,599
2013	151,072
2014	732,488
2015	(893,801)
2016	420,988
2017	1,012,819
2018	1,690,656
2019	278,506

Cumulative Actuarial Gains (Losses)				
Year Ending 9/30	Balance at Beginning of Year	Gain (Loss) for Year	COLA	Balance at End of Year
2001	\$ 0	\$ (435,534)	\$ 0	\$ (435,534)
2002	(435,534)	(2,162,823)	0	(2,598,357)
2003	(2,598,357)	(949,324)	0	(3,547,681)
2004	(3,547,681)	(246,347)	0	(3,794,028)
2005	(3,794,028)	(1,006,694)	0	(4,800,722)
2006	(4,800,722)	(1,517,294)	0	(6,318,016)
2007	(6,318,016)	251,668	0	(6,066,348)
2008	(6,066,348)	(3,319,494)	0	(9,385,842)
2009	(9,385,842)	137,951	0	(9,247,891)
2010	(9,247,891)	(348,981)	0	(9,596,872)
2011	(9,596,872)	718,288	0	(8,878,584)
2012	(8,878,584)	751,599	0	(8,126,985)
2013	(8,126,985)	151,072	0	(7,975,913)
2014	(7,975,913)	732,488	0	(7,243,425)
2015	(7,243,425)	(893,801)	0	(8,137,226)
2016	(8,137,226)	420,988	0	(7,716,238)
2017	(7,716,238)	1,012,819	0	(6,703,419)
2018	(6,703,419)	1,690,656	0	(5,012,763)
2019	(5,012,763)	278,506	0	(4,734,257)

An actuarial experience loss occurred during fiscal year 2019. Since the cumulative actuarial experience since fiscal year 2001 is negative, a COLA cannot be paid.

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 several years:

Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
9/30/1990	9.1 %	8.0 %	9.1 %	6.5 %
9/30/1991	8.6	8.0	9.5	6.5
9/30/1992	8.2	8.0	10.9	6.5
9/30/1993	8.8	8.0	14.1	6.5
9/30/1994	2.4	8.0	0.6	6.5
9/30/1995	18.2	8.0	12.8	6.5
9/30/1996	5.2	8.0	3.6	6.5
9/30/1997	10.3	8.0	11.5 *	6.5
9/30/1998	9.2	8.0	10.0	6.5
9/30/1999	9.6	8.0	8.4	6.5
9/30/2000	9.0	8.0	5.9	6.5
9/30/2001	6.3	8.5	1.1	6.0
9/30/2002	(1.6)	8.5	11.8	6.0
9/30/2003	3.7	8.5	7.4	6.0
9/30/2004	3.9	8.5	16.4	6.0
9/30/2005	4.8	8.5	3.6	6.0
9/30/2006	6.5	8.5	9.7	6.0
9/30/2007	8.1	7.5	8.8	7.5
9/30/2008	3.6	7.5	13.8	7.5
9/30/2009	4.4	7.5	1.0	7.5
9/30/2010	5.6	7.5	7.7	7.5
9/30/2011	4.6	7.5	(1.9)	7.5
9/30/2012	7.0	7.4	0.4	7.5
9/30/2013	8.4	7.3	4.8	7.5
9/30/2014	8.7	7.2	1.0	7.5
9/30/2015	7.0	7.1	7.6	7.5
9/30/2016	7.7	6.9	4.5	5.8
9/30/2017	8.7	6.8	6.1	5.9
9/30/2018	9.1	6.7	7.0	5.9
9/30/2019	7.5	6.6	9.0	6.0
Average for Years Shown	7.0	7.7	7.1	6.6

* Actual raises during the year were less than 10.0%. However, there was a problem of underreporting of compensation in the previous year that resulted in the 11.5% average increase.

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.

**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	Vested	Other	Totals		
									A	A	A	E	
9/30/2002	10	5	2	4	0	0	0	0	1	2	3	2	90
9/30/2003	14	9	3	5	1	0	0	0	1	4	5	3	95
9/30/2004	10	7	2	6	1	0	0	0	1	3	4	3	98
9/30/2005	11	4	2	8	0	0	0	0	0	2	2	3	105
9/30/2006	7	5	1	9	0	1	0	0	0	4	4	3	107
9/30/2007	5	5	3	6	0	1	0	0	1	1	2	3	107
9/30/2008	2	3	3	5	0	1	0	0	0	0	0	3	106
9/30/2009	5	7	6	8	0	1	0	0	1	0	1	3	104
9/30/2010	3	14	11	5	0	1	0	0	1	2	3	3	93
9/30/2011	4	13	11	2	0	1	0	0	0	2	2	2	84
9/30/2012	2	12	8	1	0	0	1	0	0	3	3	2	74
9/30/2013	7	6	4	0	0	0	0	0	1	1	2	2	75
9/30/2014	5	6	5	1	0	0	0	0	1	0	1	2	74
9/30/2015	9	5	3	0	0	0	0	0	1	1	2	2	78
9/30/2016	13	5	3	4	0	0	0	0	0	2	2	3	86
9/30/2017	8	3	1	3	0	0	0	0	0	2	2	3	91
9/30/2018	16	5	2	4	0	0	0	0	1	2	3	3	102
9/30/2019	12	3	0	4	0	0	0	0	1	2	3	4	111
9/30/2020				5		0		0				4	
18 Yr Totals *	143	117	70	75	2	6	1	0	11	33	44	49	

* Totals are through current Plan Year only.

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			
10/1/1993	9/30/1994	\$242,083	8.36 %	\$135,153	4.67 %	\$106,930	3.69 %	\$117,381	\$151,324	\$268,705
10/1/1994	9/30/1995	244,317	7.76	148,072	4.70	96,245	3.06	96,245	162,247	258,492
10/1/1995	9/30/1996	404,856	12.02	162,247	4.82	242,609	7.20	242,609	195,597	438,206
10/1/1996	9/30/1997	438,074	12.24	195,597	5.47	242,477	6.78	242,477	227,106	469,583
10/1/1997	9/30/1998	592,522	15.30	227,106	5.86	365,416	9.44	365,416	235,819	601,235
10/1/1998	9/30/1999	760,142	16.98	235,819	5.27	524,323	11.71	524,323	236,636	760,959
10/1/1999	9/30/2000	853,790	18.09	235,819	5.00	617,971	13.09	638,017	215,773	853,790
10/1/2000	9/30/2001	935,273	18.14	215,773	4.18	719,500	13.95	719,500	225,892	945,392
10/1/2001	9/30/2002	1,005,662	20.49	225,892	4.60	779,770	15.89	779,770	235,818	1,015,588
10/1/2002	9/30/2003	1,425,328	25.58	235,818	4.23	1,189,510	21.35	1,189,510	235,818	1,425,328
10/1/2002	9/30/2004	1,475,340	25.58	235,818	4.09	1,239,522	21.49	1,239,522	235,818	1,475,340
10/1/2003	9/30/2005	1,704,041	27.49	235,818	3.80	1,468,223	23.69	1,468,223	235,818	1,704,041
10/1/2004	9/30/2006	1,931,054	27.62	235,818	3.37	1,695,236	24.25	1,695,236	412,644	2,107,880
10/1/2005	9/30/2007	3,176,791	41.86	412,644	5.44	2,764,147	36.42	2,764,147	412,644	3,176,791
10/1/2006	9/30/2008	3,556,548	40.70	412,644	4.72	3,143,904	35.98	3,143,904	412,644	3,556,548
10/1/2007	9/30/2009	3,762,323	40.19	412,644	4.41	3,349,679	35.78	3,349,679	412,644	3,762,323
10/1/2008	9/30/2010	4,368,612	42.27	412,644	3.99	3,955,968	38.28	3,955,968	412,644	4,368,612
10/1/2009	9/30/2011	4,298,216	44.06	412,644	4.23	3,885,572	39.83	3,885,572	412,644	4,298,216
10/1/2010	9/30/2012	4,198,183	47.04	412,644	4.62	3,785,539	42.42	3,785,539	412,644	4,198,183
10/1/2011	9/30/2013	3,113,406	51.80	412,644	6.87	2,700,762	44.93	2,700,762	412,644	3,113,406
10/1/2012	9/30/2014	3,125,279	60.62	412,644	8.00	2,712,635	52.62	2,712,635	412,644	3,125,279
10/1/2013	9/30/2015	3,357,569	65.26	951,196	18.49	2,406,373	46.77	3,007,780	951,196	3,958,976
10/1/2014	9/30/2016	3,316,250	68.00	412,644	8.46	2,903,606	59.54	2,897,754	559,237	3,456,991
10/1/2015	9/30/2017	3,256,067	61.11	559,237	10.50	2,696,830	50.61	2,843,423	549,701	3,393,124
10/1/2016	9/30/2018	3,394,168	56.55	549,701	9.16	2,844,467	47.39	2,834,931	569,925	3,404,856
10/1/2017	9/30/2019	3,754,169	56.33	569,925	8.55	3,184,244	47.78	3,566,126	694,576	4,260,702
10/1/2018	9/30/2020	4,299,668	55.41	694,576	8.95	3,605,092	46.46	---	---	---
10/1/2019	9/30/2021	4,730,303	52.46	694,576	7.70	4,035,727	44.76	---	---	---



RECENT HISTORY OF UAAL AND FUNDED RATIO

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL As % of Covered Payroll (b - a) / c
10/1/1993	\$ 2,424,981	\$ 2,479,049	\$ 54,068	97.8 %	\$ 2,896,359	1.9 %
10/1/1994	2,714,651	2,552,412	(162,239)	106.4	3,148,412	(5.2)
10/1/1995	3,517,565	3,807,393	289,828	92.4	3,367,324	8.6
10/1/1996	4,443,592	4,855,280	411,688	91.5	3,578,473	11.5
10/1/1997	5,511,310	6,954,077	1,442,767	79.3	3,872,799	37.3
10/1/1998	6,700,726	8,988,231	2,287,505	74.5	4,476,807	51.1
10/1/1999	8,162,736	11,019,072	2,856,336	74.1	4,720,813	60.5
10/1/2000	9,795,534	14,097,068	4,301,534	69.5	5,156,136	83.4
10/1/2001	11,417,844	16,106,731	4,688,887	70.9	4,908,315	95.5
10/1/2002	12,303,486	19,140,962	6,837,476	64.3	5,572,514	122.7
10/1/2003	14,231,515	22,196,413	7,964,898	64.1	5,989,146	133.0
10/1/2004	16,405,794	24,962,551	8,556,757	65.7	6,755,078	126.7
10/1/2005	18,950,104	35,004,203	16,054,099	54.1	7,332,448	218.9
10/1/2006	22,740,838	46,503,218	23,762,380	48.9	8,322,332	285.5
10/1/2007	27,799,386	52,230,511	24,431,125	53.2	8,915,563	274.0
10/1/2008	32,261,274	60,450,441	28,189,167	53.4	9,842,874	286.4
10/1/2009	36,834,622	65,550,027	28,715,405	56.2	9,290,829	309.1
10/1/2010	41,948,009	71,341,740	29,393,731	58.8	8,499,722	345.8
10/1/2011	45,709,740	68,822,738	23,112,998	66.4	5,724,225	403.8
10/1/2012	49,859,298	72,156,731	22,297,433	69.1	4,910,023	454.1
10/1/2013	53,201,682	76,848,944	23,647,262	69.2	4,899,915	482.6
10/1/2014	56,757,337	80,119,974	23,362,637	70.8	4,644,608	503.0
10/1/2015	60,233,951	83,858,731	23,624,780	71.8	5,074,483	465.6
10/1/2016	63,743,084	86,868,365	23,125,281	73.4	5,716,252	404.6
10/1/2017	68,169,196	90,458,183	22,288,987	75.4	6,347,238	351.2
10/1/2018	73,266,612	95,578,444	22,311,832	76.7	7,390,648	301.9
10/1/2019	78,327,751	100,213,161	21,885,410	78.2	8,587,100	254.9

ACTUARIAL ASSUMPTIONS AND COST METHOD

Valuation Methods

The actuarial assumptions used in the valuation are shown in this Section. Both the economic and decrement assumptions were established following the Experience Investigation for the Eight Years Ended September 30, 2014.

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) are being amortized by level (principal & interest combined) dollar contributions over a reasonable period of future years. New amortization bases are amortized over 15 years. As of October 1, 2017, the amortization periods for bases with more than 15 years remaining were reduced to 15 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 6.5% per year, compounded annually (net after investment expenses).



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

The assumed **real rate of return** over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 6.5% investment return rate translates to an assumed real rate of return over inflation of 4.0%.

The rate of salary increase used for individual members varies by years of service. Total salaries are assumed to increase 7.0% per year in years zero through three, and 5.5% per year thereafter. Part of the assumption is for merit and/or seniority increase, productivity increases, and changes in labor market conditions, and 2.5% recognizes inflation. This assumption is used to project a member’s current salary to the salaries upon which benefits will be based.

Demographic Assumptions (Current Assumptions)

The mortality table is 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 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 currently used in the July 1, 2018 Actuarial Valuation of the Florida Retirement System (FRS) for Special Risk Class members.

FRS Healthy Post-Retirement Mortality for Special Risk Class Members

Sample Attained Ages (in 2019)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.53 %	0.23 %	34.12	38.50
55	0.66	0.32	29.49	33.48
60	0.89	0.46	24.92	28.58
65	1.28	0.72	20.51	23.83
70	1.95	1.21	16.36	19.36
75	3.17	2.04	12.61	15.26
80	5.21	3.42	9.37	11.62

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 2019)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.22 %	0.15 %	35.11	38.85
55	0.39	0.24	30.00	33.70
60	0.70	0.39	25.12	28.68
65	1.20	0.69	20.55	23.86
70	1.95	1.21	16.36	19.36
75	3.17	2.04	12.61	15.26
80	5.21	3.42	9.37	11.62

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

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 RP2000 Annuitant Mortality Table with a White Collar adjustment with no age setback, both with no provision being made for future mortality improvements. These are the same rates currently used in the July 1, 2018 Actuarial Valuation of the Florida Retirement System (FRS) for Special Risk Class members.

FRS Disabled Mortality for Special Risk Class Members

Sample Attained Ages (in 2019)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	1.67 %	0.91 %	23.74	27.06
55	2.03	1.26	20.77	23.37
60	2.47	1.67	17.91	19.90
65	3.07	2.24	15.15	16.62
70	3.90	3.18	12.52	13.58
75	5.30	4.60	10.02	10.86
80	7.59	6.66	7.80	8.48

The rates of retirement used to measure the probability of eligible members retiring during the next year are as follows:

Service	Age								
	under 45	45	46-49	50-51	52-54	55-56	57-59	60	
10 - 19	N/A	N/A	N/A	2.5%	22.5%	22.5%	50.0%	50.0%	
20	35.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	100.0%	
21 - 22	15.0%	15.0%	15.0%	65.0%	65.0%	65.0%	65.0%	100.0%	
23 - 24	15.0%	15.0%	50.0%	50.0%	50.0%	65.0%	65.0%	100.0%	
25+	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

If at any point a member reaches the maximum benefit of 75% of his or her Average Monthly Earnings, his or her probability of retirement is assumed to be 100%.

Rates of separation from active membership are as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members separating from employment for reasons other than retirement, death or disability.

Years of Service	Age	% of Active Members Separating Within Next Year
0-2	All	10.5 %
3	All	3.0
4+	Under 35	2.0
4+	35 - 44	1.0
4+	45 +	0.5

Rates of disability among active members (75% of disabilities are assumed to be service-connected) are as follows:

Sample Ages	% Becoming Disabled within Next Year
20	0.126 %
25	0.135
30	0.162
35	0.207
40	0.270
45	0.459
50	0.900
55	1.395

Miscellaneous and Technical Assumptions

<i>Administrative & Investment Expenses</i>	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.
<i>Benefit Service</i>	Exact fractional service is used to determine the amount of benefit payable.
<i>Decrement Operation</i>	Disability and mortality decrements operate during retirement eligibility.
<i>Decrement Timing</i>	Decrements of all types are assumed to occur at the beginning of the year.
<i>Eligibility Testing</i>	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.
<i>Forfeitures</i>	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.
<i>Incidence of Contributions</i>	Employer contributions are assumed to be made in equal installments at the end of each quarter. 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.
<i>Liability Load</i>	Projected normal and early retirement benefits are loaded based on the dollar amount of each active member's frozen accrued leave as of September 13, 2012 to allow for the inclusion of unused sick and vacation pay (frozen as of September 13, 2012) in final average earnings.
<i>Marriage Assumption</i>	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 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.

Service Credit Accruals

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

GLOSSARY

<i>Actuarial Accrued Liability (AAL)</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	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.
<i>Actuarial Cost Method</i>	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.
<i>Actuarial Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value (APV)</i>	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.
<i>Actuarial Present Value of Future Benefits (APVFB)</i>	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.
<i>Actuarial Valuation</i>	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 Employer Contribution (ADEC).
<i>Actuarial Value of Assets</i>	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. 67 and
GASB No. 68***

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.

SECTION C

PENSION FUND INFORMATION

Statement of Plan Assets at Market Value

Item	September 30	
	2019	2018
A. Cash and Cash Equivalents (Operating Cash)	\$ 3,191,995	\$ 2,066,018
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. State Contributions	-	664,636
4. Investment Income and Other Receivables	453,291	432,507
5. Total Receivables	<u>\$ 453,291</u>	<u>\$ 1,097,143</u>
C. Investments		
1. Short Term Investments	\$ 345,878	\$ 82,214
2. Domestic Equities	61,276,146	68,096,427
3. International Equities	286,420	153,485
4. Domestic Fixed Income	24,772,200	18,700,143
5. International Fixed Income	-	-
6. Real Estate	9,813,168	9,289,566
7. Private Equity	-	-
8. Total Investments	<u>\$ 96,493,812</u>	<u>\$ 96,321,835</u>
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Prepaid Contribution	(1,692,331)	(1,783,063)
3. Accrued Expenses and Other Payables	(61,357)	(52,651)
4. Total Liabilities	<u>\$ (1,753,688)</u>	<u>\$ (1,835,714)</u>
E. Total Market Value of Assets Available for Benefits	\$ 98,385,410	\$ 97,649,282
F. Reserves		
1. State Contribution Reserve	\$ -	\$ -
2. Share Plan Accounts	(674,975)	(427,806)
3. DROP Accounts	(16,092,964)	(15,901,178)
4. Total Reserves	<u>\$ (16,767,939)</u>	<u>\$ (16,328,984)</u>
G. Market Value Net of Reserves	\$ 81,617,471	\$ 81,320,298
H. Allocation of Investments		
1. Short Term Investments	0.3%	0.1%
2. Domestic Equities	63.5%	70.7%
3. International Equities	0.3%	0.2%
4. Domestic Fixed Income	25.7%	19.4%
5. International Fixed Income	0.0%	0.0%
6. Real Estate	10.2%	9.6%
7. Private Equity	0.0%	0.0%
8. Total Investments	<u>100.0%</u>	<u>100.0%</u>



Reconciliation of Plan Assets

Item	September 30	
	2019	2018
A. Market Value of Assets at Beginning of Year	\$ 97,649,282	\$ 90,176,684
B. Revenues and Expenditures		
1. Contributions		
a. Member Contributions	\$ 694,166	\$ 599,553
b. Employer Contributions	3,566,126	2,834,931
c. State Contributions	913,938	664,636
d. Total	<u>\$ 5,174,230</u>	<u>\$ 4,099,120</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 1,187,153	\$ 1,120,575
b. Unrealized Gains/(Losses)	943,994	8,044,171
c. Realized Gains/(Losses)	223,869	784,488
d. Investment Expenses	(308,794)	(290,690)
e. Net Investment Income	<u>\$ 2,046,222</u>	<u>\$ 9,658,544</u>
3. Benefits and Refunds		
a. Regular Monthly Benefits	\$ (4,887,309)	\$ (4,602,912)
b. Refunds	(56,045)	(12,573)
c. Lump Sum Benefits	-	-
d. DROP Distributions	(1,396,206)	(1,534,914)
e. Total	<u>\$ (6,339,560)</u>	<u>\$ (6,150,399)</u>
4. Administrative and Miscellaneous Expenses	\$ (144,764)	\$ (134,667)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 98,385,410	\$ 97,649,282
D. Reserves		
1. State Contribution Reserve	\$ -	\$ -
2. Share Plan Accounts	(674,975)	(427,806)
3. DROP Accounts	(16,092,964)	(15,901,178)
4. Total Reserves	<u>\$ (16,767,939)</u>	<u>\$ (16,328,984)</u>
E. Market Value Net of Reserves	\$ 81,617,471	\$ 81,320,298

Reconciliation of DROP Accounts

Year Ended 9/30	Balance at Beginning of Year	Credits	Interest	Distributions	Adjustments	Balance at End of Year
2002	\$ -	\$ 25,536	\$ 559	\$ -	\$ -	\$ 26,095
2003	26,095	35,048	962	(33,734)	-	28,371
2004	28,371	67,278	4,210	-	-	99,859
2005	99,859	107,716	9,307	(54,224)	-	162,658
2006	162,658	88,332	13,653	-	-	264,643
2007	264,643	164,844	22,183	-	-	451,670
2008	451,670	188,434	24,255	(215,043)	2,665	451,981
2009	451,981	557,339	46,178	-	-	1,055,498
2010	1,055,498	993,753	96,296	(91,000)	-	2,054,547
2011	2,054,547	1,426,393	167,922	(254,626)	-	3,394,236
2012	3,394,236	2,128,627	283,101	(227,800)	-	5,578,164
2013	5,578,164	2,387,180	441,602	(93,400)	-	8,313,546
2014	8,313,546	2,649,761	628,054	(286,037)	35,976	11,341,300
2015	11,341,300	2,530,933	799,667	(970,920)	-	13,700,980
2016	13,700,980	2,007,023	941,464	(786,637)	-	15,862,830
2017	15,862,830	1,190,808	988,899	(2,413,552)	-	15,628,985
2018	15,628,985	823,324	983,783	(1,534,914)	-	15,901,178
2019	15,901,178	575,336	1,012,656	(1,396,206)	-	16,092,964

Calculation of Actuarial Value of Assets

Item	Year Ending September 30	
	2019	2018
A. Beginning of Year Assets*		
1. Market Value	\$ 97,649,282 *	\$ 90,176,684 *
2. Actuarial Value	89,595,596	84,110,946
B. End of Year Market Value of Assets*	98,385,410	97,649,282
C. Net of Contributions		
Less Disbursements	(1,310,094) *	(2,185,946) *
D. Actual Net Investment Earnings	2,046,222	9,658,544
E. Expected Investment Earnings	5,987,758	5,657,174
F. End of Year Expected Actuarial Value	94,273,260	87,582,174
G. End of Year Market Value Less Expected Actuarial Value: B - F	4,112,150	10,067,108
H. 20% of Difference	822,430	2,013,422
I. End of Year Assets		
1. Actuarial Value: F + H	95,095,690	89,595,596
2. Final Actuarial Value Within 80% to 120% of Market Value	95,095,690	89,595,596
J. State Contribution Reserve	0	0
K. Share Plan Accounts	674,975	427,806
L. DROP Accounts	16,092,964	15,901,178
M. Final Actuarial Value of Assets: I2 - J - K - L	78,327,751	73,266,612
N. Recognized Investment Earnings	6,810,188	7,670,596
O. Recognized Rate of Return	7.5%	9.1%

* Before offset of DROP Account Balances and Reserves.

Year Ending September 30	Investment Rate of Return	
	Market Value *	Actuarial Value
1990	9.1 %	9.1 %
1991	8.6	8.6
1992	8.2	8.2
1993	8.8	8.8
1994	2.4	2.4
1995	18.2	18.2
1996	5.2	5.2
1997	24.2	10.3
1998	5.3	9.2
1999	11.6	9.6
2000	6.7	9.0
2001	(7.8)	6.3
2002	(6.5)	(1.6)
2003	12.7	3.7
2004	8.6	3.9
2005	9.6	4.8
2006	6.4	6.5
2007	11.5	8.1
2008	(13.9)	3.6
2009	6.7	4.4
2010	9.8	5.6
2011	(0.4)	4.6
2012	18.0	7.0
2013	14.2	8.4
2014	10.4	8.7
2015	1.3	7.0
2016	10.9	7.7
2017	13.1	8.7
2018	10.7	9.1
2019	2.1	7.5
Average Returns:		
Last 5 Years	7.5 %	8.0 %
Last 10 Years	8.9 %	7.4 %
All Years	7.2 %	7.0 %

* Net of investment expenses after 2005.

The above rates are based on the retirement system's financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.

SECTION D

FINANCIAL ACCOUNTING INFORMATION

FASB NO. 35 INFORMATION

A. Valuation Date	October 1, 2019	October 1, 2018
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 68,386,378	\$ 68,430,391
b. Terminated Vested Members	1,485,528	1,368,247
c. Other Members	23,704,868	18,768,479
d. Total	<u>93,576,774</u>	<u>88,567,117</u>
2. Non-Vested Benefits	2,118,049	1,739,166
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	95,694,823	90,306,283
4. Accumulated Contributions of Active Members	5,426,202	4,771,113
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	90,306,283	86,994,322
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment and Change in Actuarial Assumptions	2,998,313	1,002,237
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	7,908,917	7,748,533
d. Benefits Paid (net basis)	<u>(5,518,690)</u>	<u>(5,438,809)</u>
e. Net Increase	5,388,540	3,311,961
3. Total Value at End of Period	95,694,823	90,306,283
D. Market Value of Assets	81,617,471	81,320,298
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,	2020*	2019	2018
Total pension liability			
Service Cost	\$ 2,593,244	\$ 2,000,321	\$ 1,673,425
Interest	7,597,084	7,238,249	7,039,556
Benefit Changes	-	1,667,089	-
Difference between actual & expected experience	626,257	395,555	569,580
Assumption Changes	1,095,264	1,035,169	989,170
Benefit Payments	(5,782,239)	(6,283,515)	(6,137,826)
Refunds	(27,976)	(56,045)	(12,573)
Other (Net Change in Share Plan Reserve)	219,362	219,362	94,711
Net Change in Total Pension Liability	6,320,996	6,216,185	4,216,043
Total Pension Liability - Beginning	115,309,523	109,093,338	104,877,295
Total Pension Liability - Ending (a)	\$ 121,630,519	\$ 115,309,523	\$ 109,093,338
Plan Fiduciary Net Position			
Contributions - Employer (from City)	\$ 3,691,966	\$ 3,566,126	\$ 2,834,931
Contributions - Employer (from State)	913,938	913,938	664,636
Contributions - Non-Employer Contributing Entity	-	-	-
Contributions - Member	738,491	694,166	599,553
Net Investment Income	6,495,361	2,046,222	9,658,544
Benefit Payments	(5,782,239)	(6,283,515)	(6,137,826)
Refunds	(27,976)	(56,045)	(12,573)
Administrative Expense	(139,716)	(144,764)	(134,667)
Other	-	-	-
Net Change in Plan Fiduciary Net Position	5,889,825	736,128	7,472,598
Plan Fiduciary Net Position - Beginning	98,385,410	97,649,282	90,176,684
Plan Fiduciary Net Position - Ending (b)	\$ 104,275,235	\$ 98,385,410	\$ 97,649,282
Net Pension Liability - Ending (a) - (b)	17,355,284	16,924,113	11,444,056
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	85.73 %	85.32 %	89.51 %
Covered Payroll	\$ 8,600,000	\$ 8,071,698	\$ 6,971,547
Net Pension Liability as a Percentage of Covered Payroll	201.81 %	209.67 %	164.15 %

* 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 disclosure reports 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	\$ 90,998,913	\$ 72,626,331	\$ 18,372,582	79.81%	\$ 4,548,698	403.91%
2015	96,205,515	74,092,896	22,112,619	77.02%	4,908,663	450.48%
2016	101,877,717	82,113,694	19,764,023	80.60%	5,260,709	375.69%
2017	104,877,295	90,176,684	14,700,611	85.98%	5,994,337	245.24%
2018	109,093,338	97,649,282	11,444,056	89.51%	6,971,547	164.15%
2019	115,309,523	98,385,410	16,924,113	85.32%	8,071,698	209.67%
2020*	121,630,519	104,275,235	17,355,284	85.73%	8,600,000	201.81%

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

NOTES TO SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY

GASB Statement No. 67

Valuation Date: October 1, 2019
Measurement Date: September 30, 2020

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	2.5%
Salary Increases	5.5% to 7.0% depending on service, including inflation
Investment Rate of Return	6.5%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
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 as used for Special Risk Class members of the Florida Retirement System (FRS) in the July 1, 2018 Actuarial Valuation. 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.

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	\$ 3,125,279	\$ 3,125,279	\$ -	\$ 4,548,698	68.71%
2015	3,357,659	3,420,424	(62,765)	4,908,663	69.68%
2016	3,316,250	3,456,991	(140,741)	5,260,709	65.71%
2017	3,256,067	3,393,124	(137,057)	5,994,337	56.61%
2018	3,394,168	3,404,856	(10,688)	6,971,547	48.84%
2019	3,754,169	4,260,702	(506,533)	8,071,698	52.79%
2020*	4,299,668	4,299,668	-	8,600,000	50.00%

* 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, 2018
Notes Actuarially determined contributions are calculated as of the October 1st which is two year(s) 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 Percent, Closed
Remaining Amortization Period	14 years (single equivalent period)
Asset Valuation Method	Recognizes 20% of difference between market value of assets and expected actuarial asset value
Inflation	2.5%
Salary Increases	5.5% to 7.0% depending on service, including inflation
Investment Rate of Return	6.60%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
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 as used for Special Risk Class members of the Florida Retirement System (FRS) in the July 1, 2018 Actuarial Valuation. 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, 2018 Actuarial Valuation Report and the Actuarial Impact Statement dated August 21, 2019. The Plan was amended in 2019 to change the Normal Retirement Date for members with less than 10 years of service on September 13, 2012 to the earlier of age 52 and 10 years of Credited Service or 20 years of Credited Service regardless of age and to increase the benefit multiplier to 3.0% for service on and after October 1, 2019.



SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 6.50% 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 6.50%. 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 (6.50%) 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 6.50%, 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*

1% Decrease	Current Single Discount Rate Assumption	1% Increase
5.50%	6.50%	7.50%
\$29,549,102	\$17,355,284	\$7,262,901

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

SECTION E

MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA		
	From 10/1/18 To 10/1/19	From 10/1/17 To 10/1/18
A. Active Members		
1. Number Included in Last Valuation	102	91
2. New Members	12	16
3. Non-Vested Employment Terminations	(2)	(2)
4. Vested Employment Terminations	(1)	(1)
5. Service Retirements	0	(1)
6. DROP Retirement	0	(1)
7. Disability Retirements	0	0
8. Deaths	0	0
9. Other -- Rehires	0	0
10. Number Included in This Valuation	111	102
B. Terminated Vested Members		
1. Number Included in Last Valuation	3	3
2. Additions from Active Members	1	1
3. Lump Sum Payments/Refund of Contributions	(1)	(1)
4. Payments Commenced	0	0
5. Deaths	0	0
6. Other -- Rehires	0	0
7. Number Included in This Valuation	3	3
C. DROP Plan Members		
1. Number Included in Last Valuation	12	14
2. Additions from Active Members	0	1
3. Retirements	(5)	(3)
4. Deaths Resulting in No Further Payments	0	0
5. Other	0	0
6. Number Included in This Valuation	7	12
D. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	69	65
2. Additions from Active Members	0	1
3. Additions from Terminated Vested Members	0	0
4. Additions from DROP	5	3
5. Deaths Resulting in No Further Payments	0	0
6. Deaths Resulting in New Survivor Benefits	0	0
7. End of Certain Period - No Further Payments	0	0
8. Other	0	0
9. Number Included in This Valuation	74	69

ACTIVE PARTICIPANT DISTRIBUTION

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 & Up	
15-24 NO.	2	0	0	2	0	0	0	0	0	0	4
TOT PAY	117,974	0	0	128,132	0	0	0	0	0	0	246,106
AVG PAY	58,987	0	0	64,066	0	0	0	0	0	0	61,527
25-29 NO.	4	8	3	2	0	1	0	0	0	0	18
TOT PAY	235,948	456,174	181,317	128,132	0	65,348	0	0	0	0	1,066,919
AVG PAY	58,987	57,022	60,439	64,066	0	65,348	0	0	0	0	59,273
30-34 NO.	5	3	2	4	3	6	2	0	0	0	25
TOT PAY	294,935	175,873	123,900	256,264	192,259	392,088	160,319	0	0	0	1,595,638
AVG PAY	58,987	58,624	61,950	64,066	64,086	65,348	80,160	0	0	0	63,826
35-39 NO.	0	2	0	1	2	4	6	2	0	0	17
TOT PAY	0	113,734	0	64,066	128,132	256,593	468,983	198,802	0	0	1,230,310
AVG PAY	0	56,867	0	64,066	64,066	64,148	78,164	99,401	0	0	72,371
40-44 NO.	0	0	1	0	0	1	5	4	0	0	11
TOT PAY	0	0	60,439	0	0	65,348	414,797	330,715	0	0	871,299
AVG PAY	0	0	60,439	0	0	65,348	82,959	82,679	0	0	79,209
45-49 NO.	0	1	0	0	0	0	4	11	2	0	18
TOT PAY	0	57,018	0	0	0	0	342,781	978,728	187,096	0	1,565,623
AVG PAY	0	57,018	0	0	0	0	85,695	88,975	93,548	0	86,979
50-54 NO.	0	1	0	0	0	0	1	3	3	0	8
TOT PAY	0	72,754	0	0	0	0	74,444	272,214	295,681	0	715,093
AVG PAY	0	72,754	0	0	0	0	74,444	90,738	98,560	0	89,387
55-59 NO.	0	0	0	0	0	0	3	1	1	0	5
TOT PAY	0	0	0	0	0	0	241,674	90,300	91,472	0	423,446
AVG PAY	0	0	0	0	0	0	80,558	90,300	91,472	0	84,689
60-64 NO.	0	0	1	0	2	1	0	1	0	0	5
TOT PAY	0	0	114,262	0	270,420	155,745	0	85,446	0	0	625,873
AVG PAY	0	0	114,262	0	135,210	155,745	0	85,446	0	0	125,175
65-69 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.	11	15	7	9	7	13	21	22	6	0	111
TOT AMT	648,857	875,553	479,918	576,594	590,811	935,122	1,702,998	1,956,205	574,249	0	8,340,307
AVG AMT	58,987	58,370	68,560	64,066	84,402	71,932	81,095	88,918	95,708	0	75,138



INACTIVE PARTICIPANT DISTRIBUTION

Age Group	Terminated Vested		Disabled		Retired*		Deceased with Beneficiary	
	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	1	22,952	-	-	-	-	-	-
45-49	2	124,164	-	-	8	503,033	-	-
50-54	-	-	-	-	12	899,981	-	-
55-59	-	-	4	110,723	28	2,434,641	-	-
60-64	-	-	2	52,775	9	685,517	-	-
65-69	-	-	3	91,473	3	208,975	1	33,777
70-74	-	-	1	17,851	3	153,144	1	32,070
75-79	-	-	-	-	5	219,436	1	21,589
80-84	-	-	-	-	-	-	-	-
85-89	-	-	-	-	-	-	-	-
90-94	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-
Total	3	147,116	10	272,822	68	5,104,727	3	87,436
Average Age		47		63		59		72

* Does not include deferred supplemental benefits for DROP members

SECTION F

SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

The Plan was established under the Code of Ordinances for the City of Palm Beach Gardens, Florida, Chapter 50, Article III, and was most recently amended under Ordinance No. 17, 2019. 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

July 1, 1972

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 for membership on the first day of the month coincident with or next following date of employment.

F. Credited Service

Service is measured as the total number of full years (and fraction thereof) of continuous service from the date of employment to the date of termination. No service is credited for any periods of employment for which the member received a refund of employee contributions.

G. Compensation

Base pay, but not less than the amount of total W-2 Compensation prior to September 13, 2012.

H. Average Monthly Earnings (AME)

The average of Compensation over the last 5 years of Credited Service; includes a lump sum payment of unused leave pay (no more than the dollar amount of unused leave accrued as of September 13, 2012).



I. Normal Retirement

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

- (1) age 52 and 10 years of Credited Service, or
- (2) 20 years of Credited Service regardless of age.

Benefit: For service accrued before September 13, 2012, 3.5% of AME multiplied by years of Credited Service. For service accrued from September 13, 2012 through October 1, 2019, 2.75% of AME multiplied by years of Credited Service. For service accrued after October 1, 2019, 3.00% of AME multiplied by years of Credited Service. The maximum benefit is equal to 75% of AME, or the percentage earned as of September 13, 2012, if greater.

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

Supplemental Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries in pay status.

COLA: None

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.

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

Supplemental Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries in pay status.

COLA: None

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 for a period of at least 6 months resulting from an act occurring in the performance of service for the City is eligible for a disability benefit.

Benefit: 60% of the current rate of pay, but no less than the accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability. Disability benefits, when combined with Social Security, Worker's Compensation or any other local, state or federal government benefits, cannot exceed and will be limited to the AME on the date of disability.

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

Supplemental Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries in pay status.

COLA: None

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 for a period of at least 6 months is eligible for a disability benefit.

Benefit: 2.5% of AME multiplied by Credited Service, but not less than 25% of salary or the accrued Normal Retirement Benefit taking into account compensation earned and service credited until the date of disability. Disability benefits, when combined with Social Security, Worker's Compensation or any other local, state or federal government benefits, cannot exceed and will be limited to the AME on the date of disability.

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

Supplemental Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries in pay status.

COLA: None



N. Death in the Line of Duty

Eligibility: Members who die as a result of personal injury or disease arising out of the member's actual performance of duties are eligible for survivor benefits regardless of Credited Service.

Benefit: The surviving spouse will receive the greater of:

- (1) 50% of the member's AME, or
- (2) the member's accrued Normal Retirement Benefit as of the date of death with no actuarial reduction for Early Retirement.

If there is no spouse, or if the surviving spouse dies, the spouse's benefit determined above shall be distributed equally among any eligible children. If there is no spouse or eligible children, the benefit will be paid to the deceased member's estate.

Normal Form

of Benefit: Spouse's benefits are payable until death; children's benefits are payable until age 18 (24 if a full-time student), marriage, death, or adoption. Benefits paid to a member's estate may be paid as a lump sum at the discretion of the Board of Trustees.

Supplemental

Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries in pay status.

COLA: None

O. Other Pre-Retirement Death

Eligibility: Members are eligible for survivor benefits after the completion of 5 or more years of Credited Service.

Benefit: The survivor benefit payable to the designated beneficiary is the member's accrued Normal Retirement Benefit. Benefit is payable at the member's Early or Normal retirement date and will be actuarially reduced for Early Retirement when applicable.

Normal Form

of Benefit: For member's eligible for Normal or Delayed Retirement on the date of death, the designated beneficiary's benefit will be paid for life. For members not yet eligible, benefits will be paid for 10 years.

Supplemental

Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries in pay status.



COLA: None

The beneficiary of a plan member with less than 5 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions without interest.

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.

R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service (see vesting table below).

Years of Credited Service	Vested %
Under 5	0%
5	25
6	40
7	55
8	70
9	85
10 or more	100

Benefit: The benefit is the member's vested accrued Normal Retirement Benefit as of the date of termination. Benefit begins at the member's Normal Retirement date. Alternatively, members with at least 10 years of Credited Service may elect to receive an actuarially reduced Early Retirement Benefit any time after age 50.

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

Supplemental Benefit: A monthly supplemental benefit of \$12.50 per year of Credited Service is payable to all retirees and their beneficiaries once in pay status.

COLA: None

Members terminating employment with less than 5 years of Credited Service will receive a refund of their own accumulated contributions without interest.



S. Refunds

Eligibility: All members terminating employment with less than 5 years of Credited Service are eligible. Optionally, vested members (those with 5 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 without interest.

T. Member Contributions

8.6% of Compensation

U. State Contributions

Chapter 185 Premium Tax Refunds

V. Employer Contributions

Any additional amount needed to fund the plan properly according to State laws.

W. Cost of Living Increases

None.

X. 13th Check

Not Applicable

Y. Deferred Retirement Option Plan

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

- (1) age 52 and 10 years of Credited Service, or
- (2) 20 years of Credited Service regardless of age.

Members may delay entry into the DROP until the later of (1) completion of 25 years of service, or (2) the date the maximum benefit percentage of 75% of Average Monthly Earnings is attained.

Benefit: The member's Credited Service and AME are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and AME.

Maximum
DROP Period: 60 months



Interest

Credited: The member's DROP account is credited quarterly at an interest rate based upon the option chosen by the member. Members must elect from 1 of the 2 following options:

1. Gain or loss at the same rate earned by the Plan, or
2. Guaranteed rate of 6.5% per annum.

Normal Form

of Benefit: Lump Sum; member may also elect that the DROP distribution be paid in 3 equal payments over 3 years or used to purchase an annuity to be paid in monthly installments; member may also elect to defer payment of the DROP distribution until the latest date allowable under Internal Revenue Code Section 401(a)(9).

COLA: None

Z. Other Ancillary Benefits

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

AA. Changes from Previous Valuation

Under Ordinance 17, 2019, the following changes were made:

- Normal Retirement Eligibility: A member with less than ten years of service on September 13, 2012 may retire on the first day of the month coincident with or next following the earlier of:
 - (1) age 52 and 10 years of Credited Service, or
 - (2) 20 years of Credited Service regardless of age.
- Normal Retirement Benefit: For service accrued before September 13, 2012, 3.5% of AME multiplied by years of Credited Service. For service accrued from September 13, 2012 through October 1, 2019, 2.75% of AME multiplied by years of Credited Service. For service accrued after October 1, 2019, 3.00% of AME multiplied by years of Credited Service.