

CITY OF BOYNTON BEACH PENSION PLAN FOR GENERAL EMPLOYEES

ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2018

ANNUAL EMPLOYER CONTRIBUTION IS DETERMINED BY
THIS VALUATION FOR THE PLAN YEAR ENDING
SEPTEMBER 30, 2020



April 22, 2019

Board of Trustees
City of Boynton Beach Pension Plan
for General Employees
Boynton Beach, Florida

**Re: City of Boynton Beach Pension Plan for General Employees
Actuarial Valuation as of October 1, 2018 and Actuarial Disclosures**

Dear Board Members:

The results of the October 1, 2018 Annual Actuarial Valuation of the City of Boynton Beach Pension Plan for General Employees are presented in this report.

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

The purposes of the valuation are to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2020, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2018. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2019. 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 and other information through September 30, 2018. The valuation was based upon information furnished by the Plan Administrator concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator.

This report was prepared using certain assumptions approved by the Board as authorized under Florida Statutes and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Methods. The investment return assumption was prescribed by the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Methods section were prescribed by the Florida Statutes in accordance with Florida Statutes Chapter 112.63. All actuarial assumptions used in this report are reasonable for 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 City of Boynton Beach Pension Plan for General Employees 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.

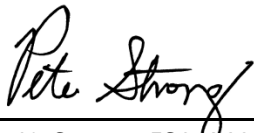
The signing actuaries are independent of the plan sponsor.

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.

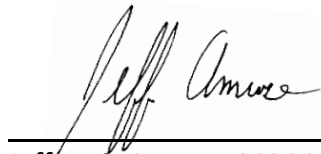
Gabriel, Roeder, Smith & Company will be pleased to review this valuation and Report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY



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



Jeffrey S. Amrose, MAAA
Enrolled Actuary No. 17-06599



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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 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.

	For FYE 9/30/20 Based On 10/01/2018 Valuation if contributed on 10/1/2019	For FYE 9/30/19 Based On 10/01/2017 Valuation if contributed on 10/1/2018	Increase (Decrease)
Required Employer Contribution As % of Covered Payroll	\$ 7,289,319 32.61 %	\$ 7,320,463 32.34 %	\$ (31,144) 0.27 %

The employer contribution listed above is for the City's fiscal year ending September 30, 2020 and has been calculated as though payment is made in a single lump sum on October 1, 2019.

The actual City contribution for 2018 was \$7,110,298, an amount equal to the minimum required payment.

Revisions in Benefits

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

Revisions in Actuarial Assumptions and Methods

The assumed investment return assumption has been reduced by 0.12% from 7.30% to 7.18%. The assumption is scheduled to be reduced by 0.10% per year each year until a target of 7.00% is reached. However, if the actuarial experience gains incurred during the year ending on the valuation date are sufficient to offset the impact of more than a 10 basis point reduction in the investment return assumption, then the investment return assumption will be reduced by an amount that fully offsets the impact of the actuarial experience gains. For the current plan year, the net actuarial experience gain more than offset the impact of changing the investment return assumption to 7.20%. The revised "neutral" new investment return assumption was determined to be 7.18%.

The assumption change on its own caused an increase in the required employer contribution of 1.13% of covered payroll, or \$252,589.

Actuarial Experience

There was a net actuarial experience gain of \$2,345,780 during the year, which means actual experience was more favorable than expected. This gain was primarily due to delayed recognition of positive investment returns in fiscal years ending 2016 and 2017 (12.3% and 11.6% respectively). In addition, the investment return on a market value basis for this year was 9.0%. The excess between 9.0% and the assumed rate of 7.3% is being spread over five years, while portions of experience from the previous four years are being recognized this year. The net result was an investment return on an actuarial value of assets during fiscal year 2018 of 8.6%.

Demographic experience also resulted in an experience gain, primarily due to lower actual salary increases than expected. Actual salary increases were 2.6%, on average, for continuing active members versus average expected salary increases of 5.2%. This salary increase experience was partially offset by more retirements than expected and fewer deaths amongst retirees than expected.

The net actuarial experience gain resulted in a decrease in the required employer contributions of 1.12% of covered payroll, or \$250,354.

Funded Ratio

The funded ratio this year is 86.4% compared to 83.9% last year. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability. The funded ratio this year was 87.5% prior to reflecting the assumption changes.

Relationship to Market Value

If Market Value had been the basis for the valuation, the City contribution rate for the fiscal year ending September 30, 2020 would have been 29.07% (or \$6,498,022) and the funded ratio would have been 90.5%. This funded ratio (on a market value basis) is up from 87.4% last year. In the absence of assumption changes, plan changes and future gains and losses, the City contribution rate should decrease toward that level over the next few years.

Analysis of Change in Employer Contribution

The components of change in the required contribution as a percent of payroll are as follows:

Contribution rate last year	32.34 %
Experience (Gain) / Loss	(1.12)
Change in Plan Benefits	0.00
Change in Assumptions and Methods	1.13
Change in Normal Cost Rate	(0.02)
Change in Payment on UAAL	0.30
Change in Administrative Expense	(0.02)
Contribution rate this year	<u>32.61 %</u>

According to the Florida Administrative Code, the payroll growth assumption may not exceed the average payroll growth over the last ten years. The ten year average rate this year was equal to (2.45%) compared to the assumed rate of 2.8%. Since the actual ten year average is less than 0%, there is no payroll growth assumption applied, and the unfunded actuarial liability is being amortized as a level dollar amount. This did not impact the contribution requirement this year, as the ten-year average payroll growth rate was also less than 0% for the previous valuation.

The change in payment on the UAAL was primarily caused by a 1.2% decrease in covered payroll from October 1, 2017 to October 1, 2018. The UAAL amortization payments are scheduled to remain level each year (since there was no payroll growth assumption applied for the previous valuation), so when covered payroll decreases, the amortization payment as a percentage of covered payroll increases.

Required Contributions in Later Years

It is important to keep in mind that under the asset smoothing method, asset gains and losses are recognized over five years. As of September 30, 2018, the market value of assets exceeded the actuarial value by \$7,435,809. Once all the gains through September 30, 2018 are fully recognized in the actuarial asset values, the contribution rate will decrease by approximately 3.54% of payroll unless there are offsetting experience losses or other changes. Also, since the unfunded actuarial liability is being amortized as a level dollar amount, the contribution rate should tend to decrease over time, assuming covered payroll increases in future years.

Conclusion

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 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:

	<u>2018</u>	<u>2017</u>
Ratio of the market value of assets to total payroll	7.6	6.9
Ratio of the actuarial accrued liability to payroll	8.4	7.9
Ratio of actives to retirees and beneficiaries	0.9	0.9
Ratio of net cash flow to net market value of assets (Net of DROP and Elective Benefits)	-1.3	-1.5
Duration of the actuarial accrued liability	11.2	11.2

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.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

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.

SECTION B

VALUATION RESULTS

PARTICIPANT DATA		
	October 1, 2018	October 1, 2017
ACTIVE MEMBERS		
Number	372	383
Covered Annual Payroll	\$ 21,744,181	\$ 22,019,397
Average Annual Payroll	\$ 58,452	\$ 57,492
Average Age	45.7	45.2
Average Past Service	9.4	9.2
Average Age at Hire	36.3	36.0
RETIREES & BENEFICIARIES & DROP		
Number	419	408
Annual Benefits	\$ 11,034,519	\$ 10,611,960
Average Annual Benefit	\$ 26,335	\$ 26,010
Average Age	69.2	68.9
DISABILITY RETIREES		
Number	1	1
Annual Benefits	\$ 5,717	\$ 5,717
Average Annual Benefit	\$ 5,717	\$ 5,717
Average Age	78.3	77.3
TERMINATED VESTED MEMBERS		
Number	51	49
Annual Benefits	\$ 865,655	\$ 782,146
Average Annual Benefit	\$ 16,974	\$ 15,962
Average Age	50.6	50.0

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)			
A. Valuation Date	October 1, 2018 <i>After Changes</i>	October 1, 2018 <i>Before Changes</i>	October 1, 2017
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2020	9/30/2020	9/30/2019
C. Assumed Date of Employer Contrib.	10/1/2019	10/1/2019	10/1/2018
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 4,925,089	\$ 4,767,059	\$ 5,009,345
E. Employer Normal Cost	2,166,376	2,076,959	2,111,672
F. ADEC if Paid on the Valuation Date: D+E	7,091,465	6,844,018	7,121,017
G. ADEC Adjusted for Frequency of Payments	7,091,465	6,844,018	7,121,017
H. ADEC as % of Covered Payroll	32.61 %	31.48 %	32.34 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	2.80 %	2.80 %	2.80 %
J. Covered Payroll for Contribution Year	22,353,018	22,353,018	22,635,940
K. ADEC for Contribution Year: H x J	7,289,319	7,036,730	7,320,463
L. ADEC as % of Covered Payroll in Contribution Year: K ÷ J	32.61 %	31.48 %	32.34 %

ACTUARIAL VALUE OF BENEFITS AND ASSETS			
A. Valuation Date	October 1, 2018 <i>After Changes</i>	October 1, 2018 <i>Before Changes</i>	October 1, 2017
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$ 78,966,109	\$ 77,331,510	\$ 77,366,497
b. Vesting Benefits	5,306,625	5,149,680	5,171,582
c. Disability Benefits	-	-	-
d. Preretirement Death Benefits	1,632,271	1,597,484	1,645,373
e. Return of Member Contributions	<u>289,324</u>	<u>288,982</u>	<u>301,951</u>
f. Total	86,194,329	84,367,656	84,485,403
2. Inactive Members			
a. Service Retirees & Beneficiaries	116,342,002	115,175,262	110,982,837
b. Disability Retirees	48,868	48,488	49,570
c. Terminated Vested Members	<u>6,501,458</u>	<u>6,390,263</u>	<u>5,400,076</u>
d. Total	122,892,328	121,614,013	116,432,483
3. Total for All Members	209,086,657	205,981,669	200,917,886
C. Actuarial Accrued (Past Service) Liability	182,264,746	180,043,073	174,748,664
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	168,180,460	166,144,131	162,068,975
E. Plan Assets			
1. Market Value	164,916,043	164,916,043	152,758,298
2. Actuarial Value	157,480,234	157,480,234	146,536,041
F. Unfunded Actuarial Accrued Liability	24,784,512	22,562,839	28,212,623
G. Actuarial Present Value of Projected Covered Payroll	169,645,491	168,496,996	170,000,461
H. Actuarial Present Value of Projected Member Contributions	11,875,184	11,794,790	11,900,033
I. Accumulated Contributions of Active Members	11,672,996	11,672,996	11,478,273
J. Funded Ratio: E2/C	86.4%	87.5%	83.9%

CALCULATION OF EMPLOYER NORMAL COST

A. Valuation Date	October 1, 2018 <i>After Changes</i>	October 1, 2018 <i>Before Changes</i>	October 1, 2017
B. Normal Cost for			
1. Service Retirement Benefits	\$ 2,991,350	\$ 2,914,693	\$ 2,951,328
2. Vesting Benefits	380,519	369,139	377,995
3. Disability Benefits	-	-	-
4. Preretirement Death Benefits	77,946	76,044	77,541
5. Return of Member Contributions	<u>100,916</u>	<u>101,438</u>	<u>101,987</u>
6. Total for Future Benefits	3,550,731	3,461,314	3,508,851
7. Assumed Amount for Administrative Expenses	<u>137,738</u>	<u>137,738</u>	<u>144,179</u>
8. Total Normal Cost	3,688,469	3,599,052	3,653,030
C. Expected Member Contribution	1,522,093	1,522,093	1,541,358
D. Employer Normal Cost: B8-C	2,166,376	2,076,959	2,111,672
E. Employer Normal Cost as % of Covered Payroll	9.96 %	9.55 %	9.59 %

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

Original UAAL			Current UAAL		
Date Established	Source	Amount	Years Remaining	Amount	Payment
10/1/14	Method Change; All Bases Combined	34,955,982	5	20,769,165	4,748,874
10/1/15	Experience (Gain)/Loss	(3,180,306)	12	(2,643,912)	(313,561)
10/1/16	Experience (Gain)/Loss	1,992,792	13	1,831,080	206,504
10/1/16	Assumption Changes	4,282,548	28	4,190,504	327,751
10/1/17	Experience (Gain)/Loss	(1,037,851)	14	(997,956)	(107,619)
10/1/17	Assumption Changes	1,776,743	29	1,759,738	136,106
10/1/18	Experience (Gain)/Loss	(2,345,780)	15	(2,345,780)	(243,040)
10/1/18	Assumption Changes	2,221,673	30	2,221,673	170,074
		<u>\$ 38,665,801</u>		<u>\$ 24,784,512</u>	<u>\$ 4,925,089</u>

Amortization Schedule

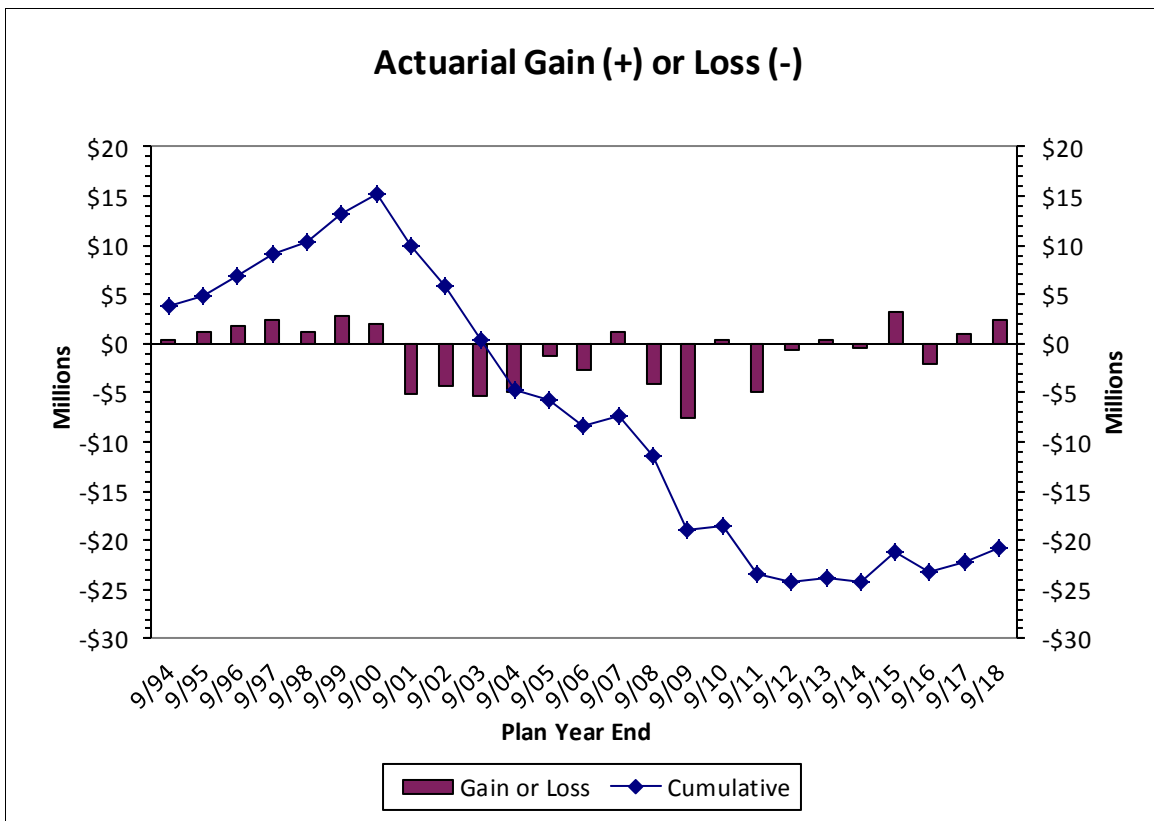
The UAAL is being amortized as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule	
Year	Expected UAAL
2018	\$ 24,784,512
2019	21,285,332
2020	17,534,909
2021	13,515,205
2022	9,206,886
2023	4,589,230
2028	5,400,921
2033	5,809,828
2038	4,295,973
2043	2,154,793
2048	-

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	\$ 28,212,623
2. Last Year's Employer Normal Cost	2,111,672
3. Last Year's Contributions	7,110,298
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	2,213,674
b. 3 from dates paid	519,052
c. a - b	<u>1,694,622</u>
5. This Year's Expected UAAL 1 + 2 - 3 + 4c	24,908,619
6. This Year's Actual UAAL (Before any changes in benefits or assumptions)	22,562,839
7. Net Actuarial Gain (Loss): (5) - (6)	2,345,780
8. Gain (Loss) due to investments	2,171,737
9. Gain (Loss) due to other sources	174,043

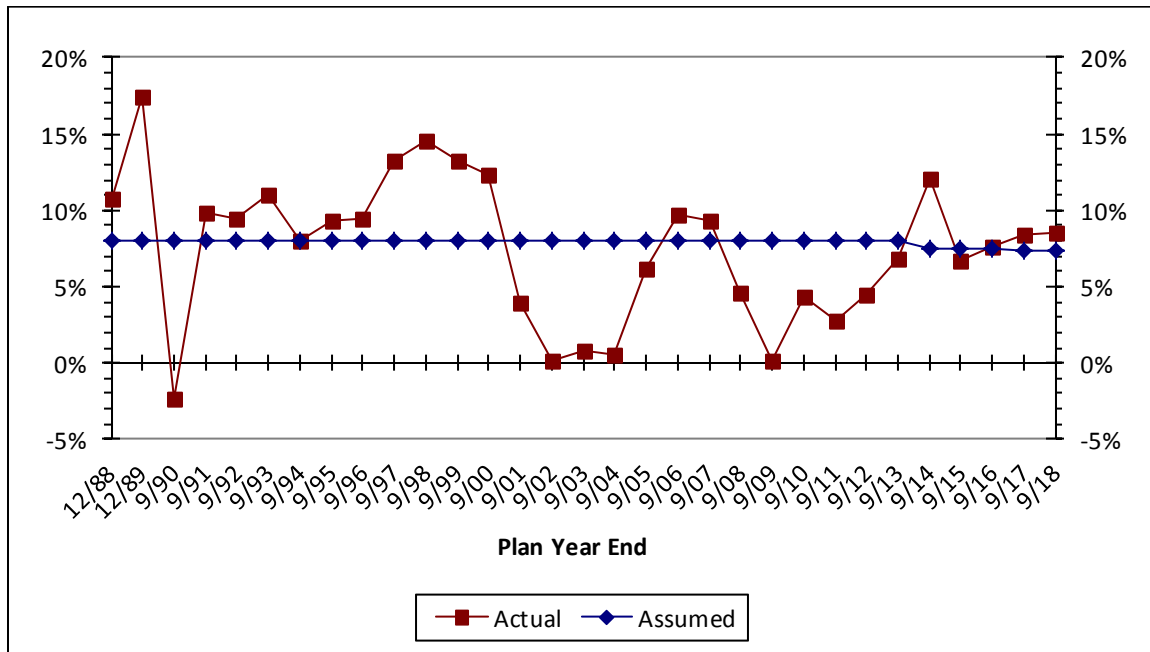


The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last several years:

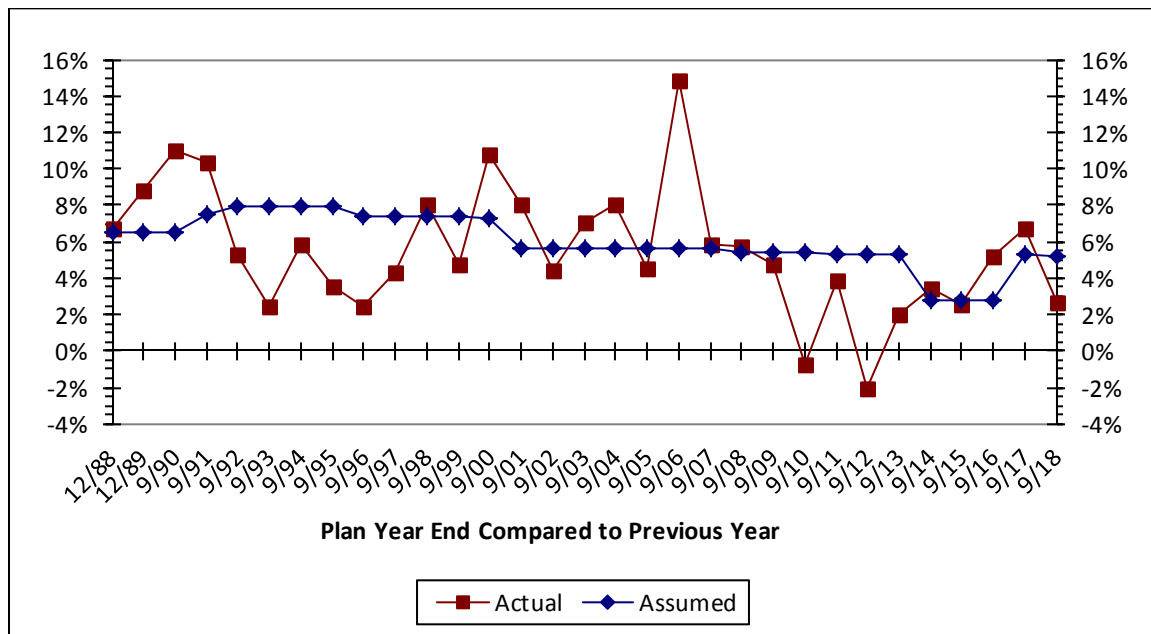
Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
12/31/1988	10.8 %	8.0 %	6.7 %	6.5 %
12/31/1989	17.4	8.0	8.8	6.5
9/30/1990 (9 mos.)	(2.3)	8.0	11.0	6.5
9/30/1991	9.9	8.0	10.3	7.5
9/30/1992	9.5	8.0	5.3	7.9
9/30/1993	11.0	8.0	2.5	7.9
9/30/1994	8.0	8.0	5.8	7.9
9/30/1995	9.3	8.0	3.6	7.9
9/30/1996	9.4	8.0	2.4	7.4
9/30/1997	13.3	8.0	4.3	7.4
9/30/1998	14.5	8.0	8.0	7.4
9/30/1999	13.2	8.0	4.8	7.4
9/30/2000	12.3	8.0	10.8	7.3
9/30/2001	3.9	8.0	8.0	5.6
9/30/2002	0.2	8.0	4.4	5.6
9/30/2003	0.8	8.0	7.1	5.6
9/30/2004	0.5	8.0	8.1	5.6
9/30/2005	6.2	8.0	4.5	5.6
9/30/2006	9.7	8.0	14.8	5.6
9/30/2007	9.3	8.0	5.8	5.6
9/30/2008	4.6	8.0	5.7	5.4
9/30/2009	0.1	8.0	4.8	5.4
9/30/2010	4.3	8.0	(0.7)	5.4
9/30/2011	2.8	8.0	3.9	5.3
9/30/2012	4.5	8.0	(2.0)	5.3
9/30/2013	6.9	8.0	2.0	5.3
9/30/2014	12.1	7.5	3.5	2.8
9/30/2015	6.7	7.5	2.5	2.8
9/30/2016	7.6	7.5	5.2	2.8
9/30/2017	8.4	7.4	6.7	5.3
9/30/2018	8.6	7.3	2.6	5.2
Averages	7.5 %	---	5.5 %	---

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

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	Vested	Other	Totals		
									A	A	A	E	
9/30/2002	41	48	15	8	0	0	1	0	6	26	32	53	542
9/30/2003	40	45	11	11	0	0	0	1	9	25	34	44	537
9/30/2004	50	77	39	10	0	0	1	1	7	30	37	39	510
9/30/2005	54	53	12	9	0	0	1	1	11	29	40	37	511
9/30/2006	70	56	9	11	0	0	1	1	17	29	46	36	525
9/30/2007	65	50	10	11	0	0	2	1	15	23	38	40	540
9/30/2008	35	49	10	11	0	0	1	1	14	24	38	41	526
9/30/2009	18	34	13	15	0	0	1	1	3	17	20	34	510
9/30/2010	10	41	21	21	0	0	2	1	7	11	18	34	479
9/30/2011	8	92	34	15	0	0	3	1	33	22	55	20	395
9/30/2012	36	44	16	14	0	0	1	1	9	18	27	14	387
9/30/2013	52	53	19	13	0	0	1	1	14	19	33	20	386
9/30/2014	39	46	15	15	0	0	1	1	12	18	30	26	379
9/30/2015	62	65	24	16	0	0	2	1	9	30	39	25	376
9/30/2016	54	58	19	8	0	0	1	1	10	28	38	31	372
9/30/2017	66	55	18	13	0	0	1	1	7	29	36	31	383
9/30/2018	35	46	14	10	0	0	0	1	7	25	32	33	372
9/30/2019				11		0		1				28	
17 Yr Totals *	735	912	299	211	0	0	20	16	190	403	593	558	

* Totals are through current Plan Year only.

Cumulative Gains and Losses (13th Check)

Cumulative Actuarial Gains (Losses)				
Year Ending 9/30	Balance at Beginning of Year	Gain (Loss) for Year	13th Check	Balance at End of Year
2001		(5,127,867)	0	(5,127,867)
2002	(5,127,867)	(4,227,408)	0	(9,355,275)
2003	(9,355,275)	(5,398,187)	0	(14,753,462)
2004	(14,753,462)	(4,994,196)	229,585	(19,977,242)
2005	(19,977,242)	(1,174,319)	0	(21,151,561)
2006	(21,151,561)	(2,594,867)	0	(23,746,428)
2007	(23,746,428)	1,095,313	0	(22,651,115)
2008	(22,651,115)	(4,187,334)	0	(26,838,449)
2009	(26,838,449)	(7,545,634)	0	(34,384,083)
2010	(34,384,083)	390,808	0	(33,993,275)
2011	(33,993,275)	(4,879,520)	0	(38,872,795)
2012	(38,872,795)	(644,791)	0	(39,517,586)
2013	(39,517,586)	321,148	0	(39,196,438)
2014	(39,196,438)	(486,050)	0	(39,682,488)
2015	(39,682,488)	3,180,306	0	(36,502,182)
2016	(36,502,182)	(1,992,792)	0	(38,494,974)
2017	(38,494,974)	1,037,851	0	(37,457,123)
2018	(37,457,123)	2,345,780	0	(35,111,343)

Note: The 13th check provision was enacted by Ordinance No. 02-026.
The first year that the 13th check was based on is the year ended 9/30/2001.

RECENT HISTORY OF VALUATION RESULTS								
Valuation Date	Number of		Covered Annual Payroll	Actuarial Accrued Liability (AAL)	Actuarial Value of Assets	Funded Ratio	Unfunded AAL (UFAAL)	Employer Normal Cost Rate
	Active Members	Inactive Members						
10/1/90	482	75	\$ 12,420	\$ 24,889	\$ 16,850	67.7 %	\$ 8,039	7.36 %
10/1/91	471	87	13,102	27,010	19,734	73.1	7,276	7.74
10/1/92	450	94	12,941	28,851	22,703	78.7	6,148	8.07
10/1/93	460	94	13,019	30,143	26,050	86.4	4,093	8.81
10/1/94	464	99	13,624	32,946	29,302	88.9	3,644	8.54
10/1/95	469	107	13,912	35,345	33,038	93.5	2,307	8.99
10/1/96	475	112	14,216	37,310	36,927	99.0	383	9.13
10/1/97	476	124	14,485	41,351	42,227	102.1	(876)	9.50
10/1/98	470	150	15,946	46,076	47,971	104.1	(1,895)	8.77
10/1/99	499	153	17,094	49,546	53,943	108.9	(4,397)	8.37
10/1/00	526	155	18,984	57,605	60,452	104.9	(2,847)	7.49
10/1/01	549	178	20,548	65,223	62,194	95.4	3,029	6.89
10/1/02	542	187	20,937	69,575	62,227	89.4	7,348	6.89
10/1/03	537	200	21,995	75,848	62,499	82.4	13,350	7.11
10/1/04	510	241	21,211	83,258	62,845	75.5	20,413	7.22
10/1/05	511	249	21,739	88,499	66,477	75.1	22,022	7.14
10/1/06	525	256	24,942	98,272	73,022	74.3	25,250	7.16
10/1/07	540	268	26,601	104,360	79,841	76.5	24,519	7.33
10/1/08	526	276	27,853	112,907	84,042	74.4	28,865	7.32
10/1/09	510	285	28,182	121,690	90,975	74.8	30,715	7.56
10/1/10	479	299	26,149	125,795	96,128	76.4	29,667	7.43
10/1/11	395	350	22,183	132,394	98,246	74.2	34,148	7.85
10/1/12	387	371	20,957	135,450	100,908	74.5	34,542	7.91
10/1/13	386	387	20,496	143,760	107,263	74.6	36,497	8.16
10/1/14	379	407	20,315	155,232	120,276	77.5	34,956	8.89
10/1/15	376	425	19,961	156,905	128,384	81.8	28,521	8.69
10/1/16	372	451	20,616	167,539	136,924	81.7	30,615	9.30
10/1/17	383	458	22,019	174,749	146,536	83.9	28,213	9.59
10/1/18	372	471	21,744	182,265	157,480	86.4	24,785	9.96

Note: Dollar amounts are in thousands.

RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS				
Valuation	Applies to Fiscal Year Ending	Required Employer Contribution		Actual Contribution
		Amount	% of Payroll	
1/1/89	9/30/90	\$ 1,184,478	10.50 %	\$ 1,184,478
1/1/90	9/30/91	1,249,624	10.50	1,291,072
10/1/90	9/30/91	1,503,350	11.17	1,503,350
10/1/91	9/30/92	1,551,773	10.93	1,551,773
10/1/92	9/30/93	1,611,251	11.49	1,611,251
10/1/93	9/30/94	1,539,169	10.91	1,539,169
10/1/94	9/30/95	1,505,804	10.20	1,505,804
10/1/95	9/30/96	1,339,622	8.95	1,339,622
10/1/96	9/30/97	1,168,158	7.81	1,180,810
10/1/97	9/30/98	1,069,863	7.02	1,069,863
10/1/98	9/30/99	952,994	5.68	952,994
10/1/99	9/30/00	686,732	3.82	686,732
10/1/00	9/30/01	595,970	3.03	595,970
10/1/01	9/30/02	1,039,900	4.88	1,039,900
10/1/02	9/30/03	1,542,574	7.37	1,542,574
10/1/03	9/30/04	2,243,356	10.20	2,243,356
10/1/04	9/30/05	2,851,454	13.44	2,851,454
10/1/05	9/30/06	2,805,595	12.91	2,805,595
10/1/06	9/30/07	3,584,452	14.37	3,584,452
10/1/07	9/30/08	3,909,961	14.70	3,909,961
10/1/08	9/30/09	4,800,411	17.24	4,800,411
10/1/09	9/30/10	5,415,919	19.22	5,415,919
10/1/09	9/30/11	4,694,544	18.43	4,694,545
10/1/10	9/30/12	4,502,590	19.40	4,502,590
10/1/11	9/30/13	6,630,714	27.80	6,630,714
10/1/12	9/30/14	6,780,773	31.35	6,780,773
10/1/13	9/30/15	7,273,067	33.43	7,273,068
10/1/14	9/30/16	7,608,338	33.99	7,615,053
10/1/15	9/30/17	6,951,693	32.24	6,951,693
10/1/16	9/30/18	7,110,298	33.55	7,110,298
10/1/17	9/30/19	7,320,463	32.34	na
10/1/18	9/30/20	7,289,319	32.61	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 as a level (principal & interest combined) percent of payroll. The actual payroll growth average over the last 10 years was (2.45%) compared to the assumed rate of 2.8%. Florida administrative code requires using the lesser of the two rates for purposes of amortizing unfunded liabilities as a level percent of pay, but not less than zero.

Actuarial Value of Assets - The Actuarial Value of Assets phase in the difference between the expected investment earnings and actual investment earnings 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 7.18% per year, compounded annually (net after investment expenses). This rate was 7.3% in the previous valuation. The investment return assumption is intended to be reduced each year until reaching a target rate of 7.0%.

The **Inflation Rate** assumed in this valuation was 2.8% per year. The Inflation Rate is defined to be the expected long-term rate of increases in the prices of goods and services.

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 7.18% investment return rate translates to an assumed real rate of return over inflation of 4.38%.

The assumed rates of salary increases are based on years of service as shown in the table below. Part of the assumption is for productivity, merit and/or seniority increases, and 2.8% recognizes inflation.

Years of Service	% Increase in Salary		
	Merit and Seniority	Base (Economic)	Total Increase
1-2	5.8%	2.8%	8.6%
3-9	3.0%	2.8%	5.8%
10-14	1.7%	2.8%	4.5%
15-19	1.2%	2.8%	4.0%
20+	0.7%	2.8%	3.5%

Demographic Assumptions

The mortality table is the RP-2000 Combined Healthy Participant Mortality Tables (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for postretirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates currently in use for Non-Special Risk Class members of the Florida Retirement System (FRS), as mandated under Florida Statutes, Chapter 112.63.

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

Sample Attained Ages (in 2018)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.55 %	0.23 %	34.77	38.40
55	0.60	0.32	30.14	33.39
60	0.76	0.47	25.48	28.48
65	1.13	0.73	20.95	23.74
70	1.75	1.22	16.69	19.27
75	2.92	2.07	12.82	15.19
80	4.95	3.47	9.47	11.56

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

FRS Healthy Pre-Retirement Mortality for Non-Special Risk Class Members

Sample Attained Ages (in 2018)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.21 %	0.15 %	35.69	38.75
55	0.36	0.24	30.57	33.61
60	0.61	0.39	25.64	28.59
65	1.07	0.70	20.99	23.76
70	1.75	1.22	16.69	19.27
75	2.92	2.07	12.82	15.19
80	4.95	3.47	9.47	11.56

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

For disabled retirees, the mortality table was the RP-2000 Mortality for Disabled Annuitants with ages set back 4 years for males and set forward 2 years for females. These are the same rates currently in use for Non-Special Risk Class members of FRS.

The rates of retirement used to measure the probability of eligible members retiring during the next year are shown below.

<u>Years after Attainment of NRD</u>	<u>Rate</u>
At NRD	80%
NRD + 1	30
NRD + 2	30
NRD + 3	30
NRD + 4	30
NRD + 5	100

Assumed rate is 5% for each year eligible for Early Retirement.

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

Sample Ages	Years of Service	Percent Separating within Next Year
ALL	0	34.0%
	1	21.3
	2	12.8
	3	8.5
	4	6.0
25	5 & Over	5.1
30		5.1
35		5.1
40		5.1
45		3.0
50		1.3
55		1.3
60		1.3

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 the same as last year's actual non-investment 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>	Mortality decrements operate during retirement eligibility.
<i>Decrement Timing</i>	Decrement 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 at the beginning of the fiscal year. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<i>Liability Load</i>	Projected retirement benefits are loaded by a unique amount for each member to allow for the inclusion of unused sick and vacation pay in final average earnings. These individual loads are based on the number of hours of unused sick and vacation reported for each member as of June 17, 2013.
<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.
<i>Normal Form of Benefit</i>	A life annuity is the normal form of benefit.
<i>Pay Increase Timing</i>	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.
<i>Service Credit Accruals</i>	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, non retired 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.
<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).

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

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

Item	September 30	
	2018	2017
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$ -
B. Receivables:		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. Investment Income and Other Receivables	399,106	327,036
4. Prepaid Expenses	8,793	616,496
5. Total Receivables	\$ 407,899	\$ 943,532
C. Investments		
1. Short Term Investments	\$ 3,820,087	\$ 4,852,106
2. Domestic Equities	125,162,017	103,880,306
3. International Equities	-	-
4. Domestic Fixed Income	22,258,793	34,108,499
5. International Fixed Income	-	-
6. Real Estate	28,821,492	22,858,187
7. Private Equity	-	-
8. Total Investments	\$ 180,062,389	\$ 165,699,098
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	-	-
3. Accounts Payable	(269,605)	(230,451)
4. Due to Brokers	(479,918)	(478,066)
5. Total Liabilities	\$ (749,523)	\$ (708,517)
E. Total Market Value of Assets Available for Benefits	\$ 179,720,765	\$ 165,934,113
F. Reserves		
1. Elective Benefits	(357,309)	(329,794)
2. DROP Accounts	(14,447,413)	(12,846,021)
3. Total Reserves	\$ (14,804,722)	\$ (13,175,815)
G. Market Value Net of Reserves	\$ 164,916,043	\$ 152,758,298
H. Allocation of Investments		
1. Short Term Investments	2.1%	2.9%
2. Domestic Equities	69.5%	62.7%
3. International Equities	0.0%	0.0%
4. Domestic Fixed Income	12.4%	20.6%
5. International Fixed Income	0.0%	0.0%
6. Real Estate	16.0%	13.8%
7. Private Equity	0.0%	0.0%
8. Total Investments	100.0%	100.0%

RECONCILIATION OF PLAN ASSETS

Item	September 30	
	2018	2017
A. Market Value of Assets at Beginning of Year	\$ 165,934,113	\$ 149,625,375
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 1,532,846	\$ 1,520,068
b. Employer Contributions	7,110,298	6,951,693
c. State Contributions	-	-
d. Other Income	-	-
e. Total	<u>\$ 8,643,144</u>	<u>\$ 8,471,761</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 3,575,584	\$ 3,236,972
b. Realized Gains (Losses)	7,181,975	4,001,793
c. Unrealized Gains (Losses)	5,320,484	11,257,303
d. Investment Expenses	<u>(827,688)</u>	<u>(765,795)</u>
e. Net Investment Income	<u>\$ 15,250,355</u>	<u>\$ 17,730,273</u>
3. Benefits and Refunds		
a. Refunds	\$ (158,309)	\$ (139,840)
b. Regular Monthly Benefits	(8,869,799)	(8,695,648)
c. DROP Distribution	<u>(941,001)</u>	<u>(913,629)</u>
d. Total	<u>\$ (9,969,109)</u>	<u>\$ (9,749,117)</u>
4. Administrative and Miscellaneous Expenses	\$ (137,738)	\$ (144,179)
C. Market Value of Assets at End of Year	\$ 179,720,765	\$ 165,934,113
D. Reserves		
1. Elective Benefits	\$ (357,309)	\$ (329,794)
2. DROP Accounts	<u>(14,447,413)</u>	<u>(12,846,021)</u>
3. Total Reserves	<u>\$ (14,804,722)</u>	<u>\$ (13,175,815)</u>
E. Market Value Net of Reserves	\$ 164,916,043	\$ 152,758,298

RECONCILIATION OF DROP ACCOUNTS	
Value at beginning of year	\$ 12,846,021
Payments credited to accounts	+ 1,584,362
Investment Earnings credited	+ 958,031
Withdrawals from accounts	- <u>941,001</u>
Value at end of year	14,447,413

DERIVATION OF ACTUARIAL VALUE OF ASSETS

Valuation Date - September 30	2017	2018	2019	2020	2021	2022
A. Actuarial Value of Assets Beginning of Year	\$ 148,448,879	\$ 159,711,856	\$ -	\$ -	\$ -	\$ -
B. Market Value End of Year	165,934,113	179,720,765	-	-	-	-
C. Market Value Beginning of Year	149,625,375	165,934,113	-	-	-	-
D. Non-Investment/Administrative Net Cash Flow	(1,421,535)	(1,463,703)	-	-	-	-
E. Investment Income						
E1. Actual Market Total: B-C-D	17,730,273	15,250,355	-	-	-	-
E2. Assumed Rate of Return	7.40%	7.30%	7.18%	7.08%	7.00%	7.00%
E3. Assumed Amount of Return	11,189,833	11,865,066	-	-	-	-
E4. Amount Subject to Phase-In: E1-E3	6,540,440	3,385,289	-	-	-	-
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.20 x E4	1,308,088	677,058	-	-	-	-
F2. First Prior Year	1,204,918	1,308,088	677,058	-	-	-
F3. Second Prior Year	(1,606,523)	1,204,918	1,308,088	677,058	-	-
F4. Third Prior Year	588,196	(1,606,523)	1,204,918	1,308,088	677,058	-
F5. Fourth Prior Year	-	588,196	(1,606,521)	1,204,917	1,308,088	677,057
F6. Total Phase-Ins	1,494,679	2,171,737	1,583,543	3,190,063	1,985,146	677,057
G. Actuarial Value of Assets End of Year						
G1. Preliminary Actuarial Value of Assets	\$ 159,711,856	\$ 172,284,956	\$ -	\$ -	\$ -	\$ -
G2. Upper Corridor Limit: 120%*B	199,120,936	215,664,918	-	-	-	-
G3. Lower Corridor Limit: 80%*B	132,747,290	143,776,612	-	-	-	-
G4. Funding Value End of Year	159,711,856	172,284,956	-	-	-	-
G5. Less: DROP Account	12,846,021	14,447,413	-	-	-	-
G6. Less: Elective Contributions	329,794	357,309	-	-	-	-
G7. Funding Value End of Year	146,536,041	157,480,234	-	-	-	-
H. Difference between Market & Actuarial Value	\$ 6,222,257	\$ 7,435,809	\$ -	\$ -	\$ -	\$ -
I. Actuarial Rate of Return	8.39%	8.64%	0.00%	0.00%	0.00%	0.00%
J. Market Value Rate of Return	11.63%	9.04%	0.00%	0.00%	0.00%	0.00%
K. Ratio of Actuarial Value of Assets to Market Value	96.25%	95.86%	0.00%	0.00%	0.00%	0.00%

INVESTMENT RATE OF RETURN

Year Ended	Investment Rate of Return	
	Market Value	Actuarial Value
12/31/88	NA	10.8 %
12/31/89	NA	17.4
9/30/90 (9 mos.)	NA	(2.3)
9/30/91	NA	9.9
9/30/92	NA	9.5
9/30/93	NA	11.0
9/30/94	NA	8.0
9/30/95	NA	9.3
9/30/96	NA	9.4
9/30/97	24.6 %	13.3
9/30/98	8.6	14.5
9/30/99	11.5	13.2
9/30/00	9.8	12.3
9/30/01	(9.4)	3.9
9/30/02	(6.4)	0.2
9/30/03	14.8	0.8
9/30/04	6.9	0.5
9/30/05	10.5	6.2
9/30/06	6.8	9.7
9/30/07	14.3	9.3
9/30/08	(15.0)	4.6
9/30/09	(0.3)	0.1
9/30/10	8.5	4.3
9/30/11	(0.5)	2.8
9/30/12	17.8	4.5
9/30/13	13.7	6.9
9/30/14	10.0	12.1
9/30/15	1.2	6.7
9/30/16	12.3	7.6
9/30/17	11.6	8.4
9/30/18	9.0	8.6
Average Returns:		
Last Five Years	8.7 %	8.7 %
Last Ten Years	8.2 %	6.2 %
All Years	6.9 %	7.5 %

SECTION D

FINANCIAL ACCOUNTING INFORMATION

FASB NO. 35 INFORMATION		
A. Valuation Date	October 1, 2018	October 1, 2017
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 116,390,870	\$ 111,032,407
b. Terminated Vested Members	6,501,458	5,400,076
c. Other Members	44,537,107	42,792,215
d. Total	167,429,435	159,224,698
2. Non-Vested Benefits	751,025	2,844,277
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	168,180,460	162,068,975
4. Accumulated Contributions of Active Members	11,672,996	11,478,273
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	162,068,975	155,827,524
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	2,036,329	1,635,051
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	14,687,626	15,204,676
d. Benefits Paid (Net basis)	(10,612,470)	(10,598,276)
e. Net Increase	6,111,485	6,241,451
3. Total Value at End of Period	168,180,460	162,068,975
D. Market Value of Assets	164,916,043	152,758,298
E. Funded Ratio: D / C3	98.1 %	94.3 %
F. 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,	2019*	2018	2017	2016	2015	2014
Total pension liability						
Service Cost	\$ 3,461,314	\$ 3,435,186	\$ 3,115,194	\$ 2,990,326	\$ 2,954,646	\$ 2,968,214
Interest	14,074,014	13,626,918	12,836,669	12,699,614	11,691,291	11,192,833
Benefit Changes	-	-	-	-	5,680,646	-
Difference between actual & expected experience	(276,922)	484,186	2,006,523	(4,891,541)	1,191,720	(13,973)
Assumption Changes	2,245,982	1,800,889	4,538,235	-	-	-
Benefit Payments	(11,427,464)	(9,810,800)	(9,609,277)	(8,304,937)	(7,593,403)	(7,796,109)
Refunds	(117,503)	(158,309)	(139,840)	(211,319)	(191,378)	(198,139)
Other (Contributions Toward Elective Benefits)	-	30,897	34,453	36,826	40,842	44,092
Net Change in Total Pension Liability	7,959,421	9,408,967	12,781,957	2,318,969	13,774,364	6,196,918
Total Pension Liability - Beginning	195,105,878	185,696,911	172,914,954	170,595,985	156,821,621	150,624,703
Total Pension Liability - Ending (a)	\$203,065,299	\$195,105,878	\$185,696,911	\$172,914,954	\$170,595,985	\$156,821,621
Plan Fiduciary Net Position						
Contributions - Employer	\$ 7,320,463	\$ 7,110,298	\$ 6,951,693	\$ 7,615,053	\$ 7,273,068	\$ 6,780,773
Contributions - Member	1,522,093	1,532,846	1,520,068	1,450,369	1,439,239	1,492,985
Net Investment Income	13,064,794	15,250,355	17,730,273	16,354,236	1,605,790	11,833,483
Benefit Payments	(11,427,464)	(9,810,800)	(9,609,277)	(8,304,937)	(7,593,403)	(7,796,109)
Refunds	(117,503)	(158,309)	(139,840)	(211,319)	(191,378)	(198,139)
Administrative Expense	(137,738)	(137,738)	(144,179)	(141,114)	(142,577)	(135,227)
Other	-	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	10,224,645	13,786,652	16,308,738	16,762,288	2,390,739	11,977,766
Plan Fiduciary Net Position - Beginning	179,720,765	165,934,113	149,625,375	132,863,087	130,472,348	118,494,582
Plan Fiduciary Net Position - Ending (b)	\$189,945,410	\$179,720,765	\$165,934,113	\$149,625,375	\$132,863,087	\$130,472,348
Net Pension Liability - Ending (a) - (b)	13,119,889	15,385,113	19,762,798	23,289,579	37,732,898	26,349,273
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	93.54 %	92.11 %	89.36 %	86.53 %	77.88 %	83.20 %
Covered Employee Payroll	\$ 21,744,181	\$ 21,456,414	\$ 21,223,071	\$ 20,193,471	\$ 19,977,100	\$ 20,698,471
Net Pension Liability as a Percentage of Covered Employee Payroll	60.34 %	71.70 %	93.12 %	115.33 %	188.88 %	127.30 %

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

SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY

GASB Statement No. 67

FY Ending September 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Employee Payroll	Net Pension Liability as a % of Covered Employee Payroll
2014	\$ 156,821,621	\$ 130,472,348	\$ 26,349,273	83.20%	\$ 20,698,471	127.30%
2015	170,595,985	132,863,087	37,732,898	77.88%	19,977,100	188.88%
2016	172,914,954	149,625,375	23,289,579	86.53%	20,193,471	115.33%
2017	185,696,911	165,934,113	19,762,798	89.36%	21,223,071	93.12%
2018	195,105,878	179,720,765	15,385,113	92.11%	21,456,414	71.70%
2019*	203,065,299	189,945,410	13,119,889	93.54%	21,744,181	60.34%

* 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, 2018
Measurement Date: September 30, 2019

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	2.8%
Salary Increases	3.5% to 8.6% depending on years of completed service, including inflation
Investment Rate of Return	7.18%
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 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates currently in use for Non-Special Risk Class members of the Florida Retirement System (FRS), as required under Florida Statutes, Chapter 112.63.

Other Information:

Notes See Discussion of Valuation Results on Page 1. Effective as of October 1, 2018, the investment return assumption was changed from 7.30% to 7.18%.

SCHEDULE OF CONTRIBUTIONS

GASB Statement No. 67

<u>FY Ending September 30,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Employee Payroll</u>	<u>Actual Contribution as a % of Covered Employee Payroll</u>
2014	\$ 6,780,773	\$ 6,780,773	\$ -	\$ 20,698,471	32.76%
2015	7,273,067	7,273,068	(1)	19,977,100	36.41%
2016	7,608,338	7,615,053	(6,715)	20,193,471	37.71%
2017	6,951,693	6,951,693	-	21,223,071	32.76%
2018	7,110,298	7,110,298	-	21,456,414	33.14%
2019*	7,320,463	7,320,463	-	21,744,181	33.67%

* 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, 2017
Notes Actuarially determined contribution rates are calculated as of October 1, 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 Dollar, Closed
Remaining Amortization Period	7 years (Single equivalent amortization period)
Asset Valuation Method	5-year smoothed market
Inflation	2.8%
Salary Increases	3.5% to 8.6% depending on years of completed service, including inflation
Investment Rate of Return	7.30%
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 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates currently in use for Non-Special Risk Class members of the Florida Retirement System (FRS), as required under Florida Statutes, Chapter 112.63.

Other Information:
Notes See Discussion of Valuation Results on Page 1 of the October 1, 2017 Actuarial Valuation Report.

SINGLE DISCOUNT RATE

GASB Statement No. 67

A single discount rate of 7.18% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.18%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (7.18%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.18%, 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
6.18%	7.18%	8.18%
\$33,767,531	\$13,119,889	(\$4,285,833)

*** 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 10/1/17 To 10/1/18	From 10/1/16 To 10/1/17
A. Active Members		
1. Number Included in Last Valuation	383	372
2. New Members Included in Current Valuation	35	61
3. Non-Vested Employment Terminations	(25)	(29)
4. Vested Employment Terminations	(7)	(7)
5. DROP Participation	(8)	(12)
6. Service Retirements	(6)	(6)
7. Disability Retirements	0	0
8. Deaths	0	(1)
9. Other -- Data Adjustments	<u>0</u>	<u>5</u>
10. Number Included in This Valuation	372	383
B. Terminated Vested Members		
1. Number Included in Last Valuation	49	51
2. Additions from Active Members	7	7
3. Lump Sum Payments/Refund of Contributions	0	(5)
4. Payments Commenced	(5)	(4)
5. Deaths	0	0
6. Other	<u>0</u>	<u>0</u>
7. Number Included in This Valuation	51	49
C. DROP Plan Members		
1. Number Included in Last Valuation	46	56
2. Additions from Active Members	8	12
3. Retirements	(9)	(24)
4. Deaths Resulting in No Further Payments	0	0
5. Other -- Data Adjustments	<u>0</u>	<u>2</u>
6. Number Included in This Valuation	45	46
D. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	363	344
2. Additions from Active Members	6	6
3. Additions from Terminated Vested Members	5	4
4. Additions from DROP Plan	9	24
5. Deaths Resulting in No Further Payments	(8)	(17)
6. Deaths Resulting in New Survivor Benefits	1	4
7. End of Certain Period - No Further Payments	0	0
8. Other -- Data Adjustments	<u>(1)</u>	<u>(2)</u>
9. Number Included in This Valuation	375	363

ACTIVES – DISTRIBUTION OF SERVICE & SALARY

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	25-29	30 & Up	
15-19 NO.	0	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0	0
20-24 NO.	1	0	2	0	0	0	0	0	0	0	0	3
TOT PAY	33,324	0	73,181	0	0	0	0	0	0	0	0	106,505
AVG PAY	33,324	0	36,590	0	0	0	0	0	0	0	0	35,502
25-29 NO.	7	5	10	4	3	2	0	0	0	0	0	31
TOT PAY	332,340	228,876	467,644	189,809	128,948	119,381	0	0	0	0	0	1,466,998
AVG PAY	47,477	45,775	46,764	47,452	42,983	59,690	0	0	0	0	0	47,323
30-34 NO.	4	13	6	9	3	4	5	0	0	0	0	44
TOT PAY	191,655	535,284	263,793	395,183	172,978	186,249	239,225	0	0	0	0	1,984,367
AVG PAY	47,914	41,176	43,966	43,909	57,659	46,562	47,845	0	0	0	0	45,099
35-39 NO.	7	5	4	6	1	9	6	2	0	0	0	40
TOT PAY	358,100	242,170	170,336	355,291	39,345	419,818	341,589	127,468	0	0	0	2,054,117
AVG PAY	51,157	48,434	42,584	59,215	39,345	46,646	56,932	63,734	0	0	0	51,353
40-44 NO.	4	4	4	4	2	6	6	11	4	0	0	45
TOT PAY	286,793	168,809	182,340	211,260	93,448	389,203	347,547	601,794	261,780	0	0	2,542,974
AVG PAY	71,698	42,202	45,585	52,815	46,724	64,867	57,924	54,709	65,445	0	0	56,511
45-49 NO.	3	5	2	5	0	9	14	9	8	3	0	58
TOT PAY	188,444	324,674	104,212	225,274	0	585,213	795,467	559,884	541,665	193,836	0	3,518,669
AVG PAY	62,815	64,935	52,106	45,055	0	65,024	56,819	62,209	67,708	64,612	0	60,667
50-54 NO.	5	2	1	2	3	3	11	10	15	4	0	56
TOT PAY	237,777	128,877	88,022	134,158	153,262	176,617	764,698	673,143	1,044,322	289,957	0	3,690,833
AVG PAY	47,555	64,438	88,022	67,079	51,087	58,872	69,518	67,314	69,621	72,489	0	65,908
55-59 NO.	4	5	0	1	5	5	11	10	10	1	0	52
TOT PAY	182,763	351,597	0	82,309	364,085	380,087	602,741	550,702	596,688	66,528	0	3,177,500
AVG PAY	45,691	70,319	0	82,309	72,817	76,017	54,795	55,070	59,669	66,528	0	61,106
60-64 NO.	0	4	4	1	0	4	9	10	2	0	0	34
TOT PAY	0	193,949	255,915	35,381	0	218,249	602,627	651,187	134,224	0	0	2,091,532
AVG PAY	0	48,487	63,979	35,381	0	54,562	66,959	65,119	67,112	0	0	61,516
65-99 NO.	0	0	0	0	2	1	2	2	1	0	1	9
TOT PAY	0	0	0	0	93,901	81,108	152,325	155,351	65,542	0	82,166	630,393
AVG PAY	0	0	0	0	46,950	81,108	76,162	77,676	65,542	0	82,166	70,044
TOT NO.	35	43	33	32	19	43	64	54	40	8	1	372
TOT AMT	1,811,196	2,174,236	1,605,443	1,628,665	1,045,967	2,555,925	3,846,219	3,319,529	2,644,221	550,321	82,166	21,263,888
AVG AMT	51,748	50,564	48,650	50,896	55,051	59,440	60,097	61,473	66,106	68,790	82,166	57,161

INACTIVES – DISTRIBUTION OF AGES & ANNUAL BENEFITS

Age	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	2	26,520	-	-	-	-	-	-
35-39	6	121,829	-	-	-	-	1	20,221
40-44	8	144,693	-	-	-	-	-	-
45-49	4	82,637	-	-	3	118,691	1	11,503
50-54	13	226,335	-	-	14	613,341	1	14,056
55-59	10	151,854	-	-	56	2,224,689	4	77,700
60-64	8	111,787	-	-	69	2,247,360	5	59,448
65-69	-	-	-	-	78	2,167,092	1	7,016
70-74	-	-	-	-	63	1,489,493	5	64,112
75-79	-	-	1	5,717	50	1,010,124	5	55,772
80-84	-	-	-	-	22	327,087	4	43,515
85-89	-	-	-	-	25	355,337	2	41,188
90-94	-	-	-	-	8	74,209	1	6,541
95-99	-	-	-	-	1	6,024	-	-
100 & Over	-	-	-	-	-	-	-	-
Total	51	865,655	1	5,717	389	10,633,447	30	401,072
Average Age		51		78		69		70
Liability		6,501,458		48,868		112,540,780		3,801,222

SECTION F

SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

Plan established under the Code of Ordinances for the City of Boynton Beach, Florida, Chapter 18, Article II, and was most recently amended under Ordinance No.15-008 passed and adopted on its second reading on March 2, 2015. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

April 1, 1968

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 general employees who work at least 30 hours per week are eligible to participate on the first day of employment.

F. Credited Service

Service in the employment of the City is measured as years and months and is computed to the nearest whole month. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

Gross earnings including overtime, but excluding bonuses and flexible benefits, payments for unused accumulated sick and vacation pay in excess of the amount accumulated as of June 17, 2013, and overtime in excess of 300 hours per year. Prior to June 18, 2013, all unused accumulated sick and vacation pay and all overtime were included in the definition of pensionable compensation.

H. Final Average Monthly Compensation (FAMC)

The average of Compensation over the highest 60 consecutive months during the last 120 months of Credited Service. The amount of accumulated unused sick and vacation hours included in pensionable salary shall be limited to the lesser of the amount as of June 17, 2013 or the amount paid at retirement.

I. Normal Retirement

- Eligibility:** A member may retire on the first day of the month coincident with or next following the earliest of:
- (1) age 62 and 5 years of Credited Service, or
 - (2) age 55 and 25 years of Credited Service, or
 - (3) 30 years of Credited Service regardless of age.
- Benefit:** 3% of FAMC multiplied by years of Credited Service with a maximum equal to 75% of FAMC.
- Normal Form of Benefit:** Single life annuity; other options are also available.
- COLA:** In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

J. Early Retirement

- Eligibility:** A member who has less than 30 years of Credited Service may elect to retire earlier than the Normal Retirement Eligibility upon the earlier of:
- (1) age 55 and 10 years of Credited Service, or
 - (2) age 52 and 25 years of Credited Service.
- Benefit:** The Normal Retirement Benefit is reduced by 3% for each year by which the Early Retirement date precedes the Normal Retirement date.
- Normal Form of Benefit:** Single life annuity; other options are also available.
- COLA:** In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

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 is unable to perform all the material duties of their occupation as a result from an act occurring in the performance of service for the City 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. The benefit is payable on the member's Normal Retirement date.
- Normal Form of Benefit:** Single life annuity; other options are also available.
- COLA:** In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

M. Non-Service Connected Disability

- Eligibility:** Any member who becomes totally and permanently disabled and is unable to perform all the material duties of their occupation 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. The benefit is payable on the member's Normal Retirement date.
- Normal Form of Benefit:** Single life annuity; other options are also available.
- COLA:** In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

N. Death in the Line of Duty

- Eligibility:** Any member with 5 or more years of Credited Service whose death is determined to be the result of a service incurred injury is eligible for survivor benefits.
- Benefit:** Beneficiary will have the choice of receiving either an immediate lump sum payment or a monthly survivor benefit.

The immediate lump sum payment will be the greater of a refund of the member's contributions with interest at the annual rate of 5%, or the lump sum value of the member's accrued Normal Retirement Benefit payable at the earliest retirement date.

The monthly survivor benefit will be equal to the accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death with payments starting at the earliest retirement date. If the "earliest date" precedes the member's Normal Retirement Date, then the accrued benefit will be subject to the Early Retirement reduction.

Normal Form
of Benefit: Optional lump sum or a monthly benefit payable for the life of the beneficiary.

COLA: In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

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 with interest at 5.0%.

O. Other Pre-Retirement Death

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

Benefit: Beneficiary will have the choice of receiving either an immediate lump sum payment or a monthly survivor benefit.

The immediate lump sum payment will be the greater of a refund of the member's contributions with interest at the annual rate of 5%, or the lump sum value of the member's accrued Normal Retirement Benefit payable at the earliest retirement date.

The monthly survivor benefit will be equal to the accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death with payments starting at the earliest retirement date. If the "earliest date" precedes the member's Normal Retirement Date, then the accrued benefit will be subject to the Early Retirement reduction.

Normal Form
of Benefit: Optional lump sum or a monthly benefit payable for the life of the beneficiary.

COLA: In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

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 with 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 form of benefit available to all retirees is the 66 2/3% Joint and Survivor Annuity option. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits. Upon approval of the Plan Administrator, other options are also available as long as actuarial equivalence is maintained.

R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service 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. The benefit begins at either age 62, at age 55 if the member had or would have had 25 or more years of Credited Service on or before attaining age 55, or at the age at which the member would have had 25 years of Credited Service (had employment continued) if this age is between ages 55 and 62.

Normal Form of Benefit: Single life annuity; other options are also available.

COLA: In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

Members terminating employment with less than 5 years of Credited Service will receive a refund of their own accumulated contributions with 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 with interest. Interest is currently credited at 5% per annum.

T. Member Contributions

7% of Compensation.

U. Employer Contributions

The amount determined by the actuary needed to fund the plan properly according to State laws.

V. Cost of Living Increases

In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

W. 13th Check

As described under the COLA subsections, in lieu of COLA increases a thirteenth check will be paid to retirees on each July 1st following a fiscal year in which the net investment return exceeds the assumed rate of investment return and the Plan has experienced a cumulative gain.

X. Deferred Retirement Option Plan

Eligibility: Plan members who have met one of the following criteria are eligible for the DROP:

- (1) age 62 and 5 years of Credited Service, or
- (2) age 55 and 25 years of Credited Service, or
- (3) 30 years of Credited Service regardless of age.

Members must make a written election to participate in the DROP within the first 30 years of employment.

Benefit: The member's Credited Service and FAMC 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 FAMC.

Maximum
DROP Period: 5 years

Interest

Credited: The member's DROP account is credited at an interest rate based upon the option chosen by the member. Members must elect from 1 of the 3 following options:

1. Gain or loss at the same rate earned by the Plan, or
2. Guaranteed rate of 7%, or
3. 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%.

Normal Form

of Benefit: Options include a lump sum or an annuity.

COLA: In lieu of receiving a COLA, a supplemental benefit may be paid in years that investment return exceeds the assumed rate of return. The amount that investment return exceeds the assumed return will be divided equally among all participants. The supplemental benefit will not be paid if the Plan has experienced cumulative losses from all sources after October 1, 2001.

Y. Other Ancillary Benefits

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

Z. Changes from Previous Valuation

None.