

City of Miramar Retirement Plan for General Employees

Actuarial Valuation Report as of October 1, 2019

Annual Employer Contribution for the Fiscal Year
Ending September 30, 2021





May 29, 2020

Board of Trustees
City of Miramar Retirement Plan for General Employees
Miramar, Florida

Dear Board Members:

The results of the October 1, 2019 Annual Actuarial Valuation of the City of Miramar Retirement 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, 2021, and to determine the actuarial information for GASB Statement No. 67 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 more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

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

The findings in this report are based on data and other information through September 30, 2019. 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 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 assumed mortality rates detailed in the Actuarial Assumptions and Methods section were prescribed by Chapter 112.63 of the Florida Statutes. 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 Retirement System 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.

Jeffrey Amrose and Trisha Amrose are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

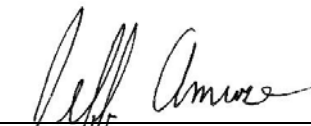
The signing actuaries are independent of the plan sponsor.

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 AND COMPANY

By: 
Jeffrey Amrose, MAAA
Enrolled Actuary No. 20-6599


By: 
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Enrolled Actuary No. 20-8010



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SECTION A

DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Employer Contributions

The minimum required employer contribution developed in this year's valuation is compared below with that of the previous valuation:

	For FYE 9/30/21 Based on 10/1/2019 Valuation	For FYE 9/30/20 Based on 10/1/2018 Valuation	Increase (Decrease)
Required Employer Contribution	\$ 5,487,932	\$ 5,220,546	\$ 267,386
As % of Covered Payroll	25.84 %	26.67 %	(0.83) %

The contribution has been adjusted for interest on the basis that employer contributions are made in equal payments at the end of each month. The actual employer contribution during the year ending September 30, 2019 was \$4,563,783 compared to the required amount of \$4,563,783.

Revisions in Benefits

There were no benefit changes in connection with this valuation.

Revisions in Actuarial Assumptions or Methods

The mortality tables were updated from the mortality rates used by the Florida Retirement System (FRS) for Regular Class members in the July 1, 2018 FRS Actuarial Valuation to the rates used in the July 1, 2019 FRS Actuarial Valuation. Please see the Actuarial Assumptions and Cost Method section for more details. Chapter 112.63(1)(f) of the Florida Statutes mandates the use of the mortality tables used in either of the two most recently published actuarial valuation reports of FRS.

The impact of this assumption change was a decrease in the required employer contribution of 1.18% of covered payroll, or about \$250,000.

Actuarial Experience

During the past year, there was a net actuarial loss of \$2,680,051 for the year, which means that actual experience was less favorable than expected. This loss is primarily due to higher than expected salary increases (6.4% actual versus 5.2% expected) and lower retiree mortality than expected. This loss was partially offset due to a recognized investment return above the assumed rate of 7.0%. The investment return on the actuarial value of assets this year was 7.8% versus the expected return of 7.0%. The return on the market value of assets was 4.7%. The net actuarial loss increased the required employer contribution by 1.01% of covered payroll.



Funded Ratio

The funded ratio, one measure of the Plan's financial health, is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability. The funded ratio is 81.1% this year compared to 79.8% last year. The funded ratio was 79.8% before the change in assumptions described above.

Analysis of Change in Employer Contribution

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

Contribution rate last year	26.67 %
Revision in Benefits	0.00
Revision in Assumptions/Methods	(1.18)
Amortization Payment on UAAL	(0.72)
Actuarial Experience	1.01
Change in Administrative Expense	(0.04)
Normal Cost Rate	<u>0.10</u>
Contribution rate this year	25.84

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 \$3,083,306 as of the valuation date (see Section C). This difference will be gradually recognized and, in the absence of offsetting losses, the computed contribution rate will gradually decrease by approximately 1.2% of covered payroll.

Another potential area of variability has to do with the annual payment on the unfunded accrued liability (UAL). This payment is computed as a level percent of covered payroll under the assumption that covered payroll will rise by 3.5% per year. According to the Florida Statutes, this payroll growth assumption may not exceed the average growth over the last ten years which was 2.24% as of October 1, 2019. When the ten-year average falls below 3.5%, the amortization payments increase in the short term. For example, if the payroll growth assumption is lowered to 0%, the UAL payment will increase from \$2,293,451 to \$2,609,562.

Relationship to Market Value

If market value had been the basis for the valuation, the City contribution rate would have been 24.7% and the funded ratio would have been 83.5%.



Other Cost Considerations

Due to the ordinances that allow members to purchase additional airtime service, the City's exposure to risk has increased. If the experience of the Plan does not meet the assumptions used to determine the cost of the additional airtime service purchase, there can be a significant increase in the Actuarially Determined Employer Contributions.

Conclusion

The remainder of this Report includes detailed actuarial valuation results, pension fund 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. 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	5.3	5.4
Ratio of actuarial accrued liability to payroll	6.4	6.4
Ratio of actives to retirees and beneficiaries	2.1	2.1
Ratio of net cash flow to market value of assets	1.7%	1.1%

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

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

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

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

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

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

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



RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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

ADDITIONAL RISK ASSESSMENT

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

SECTION B

VALUATION RESULTS

PARTICIPANT DATA		
	October 1, 2019	October 1, 2018
ACTIVE MEMBERS		
Number	399	370
Covered Annual Payroll	\$ 20,519,929	\$ 18,912,658
Average Annual Payroll	\$ 51,428	\$ 51,115
Average Age	46.8	47.4
Average Past Service	9.1	9.9
Average Age at Hire	37.7	37.5
TRANSFERS TO MANAGEMENT PENSION PLAN		
Number	46	39
Covered Annual Payroll	\$ 3,477,759	\$ 2,881,040
Average Annual Payroll	\$ 75,603	\$ 73,873
Average Age	45.8	46.6
Average Past Service	11.4	12.1
Average Age at Hire	34.4	34.5
RETIREES, BENEFICIARIES & DROP		
Number	192	175
Annual Benefits	\$ 5,261,944	\$ 4,542,280
Average Annual Benefit	\$ 27,406	\$ 25,956
Average Age	68.1	67.8
DISABILITY RETIREES		
Number	0	0
Annual Benefits	\$ 0	\$ 0
Average Annual Benefit	\$ 0	\$ 0
Average Age	0.0	0.0
TERMINATED VESTED MEMBERS		
Number	29	31
Annual Benefits	\$ 336,750	\$ 372,483
Average Annual Benefit	\$ 11,612	\$ 12,016
Average Age	46.9	47.5

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)

	October 1, 2019 <i>After Changes</i>	October 1, 2019 <i>Before Changes</i>	October 1, 2018
A. Valuation Date			
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2021	9/30/2021	9/30/2020
C. Assumed Date of Employer Contrib.	Monthly	Monthly	Monthly
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$2,293,451	\$2,451,241	\$2,206,205
E. Employer Normal Cost	2,820,853	2,897,471	2,658,966
F. ADEC if Paid on the Valuation Date: D+E	5,114,304	5,348,712	4,865,171
G. ADEC Adjusted for Frequency of Payments	5,302,193	5,545,213	5,043,908
H. ADEC as % of Covered Payroll	25.84%	27.02%	26.67%
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	3.50%	3.50%	3.50%
J. Covered Payroll for Contribution Year	21,238,127	21,238,127	19,574,601
K. ADEC for Contribution Year: H x J	5,487,932	5,738,542	5,220,546
L. ADEC as % of Covered Payroll in Contribution Year: K ÷ J	25.84%	27.02%	26.67%

ACTUARIAL VALUE OF BENEFITS AND ASSETS

A. Valuation Date	October 1, 2019 <i>After Changes</i>	October 1, 2019 <i>Before Changes</i>	October 1, 2018
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	\$104,897,086	\$106,078,904	\$99,423,912
b. Vesting Benefits	2,568,650	2,638,741	2,469,890
c. Disability Benefits	-	-	-
d. Preretirement Death Benefits	1,229,066	1,747,713	1,704,177
e. Return of Member Contributions	592,666	596,886	475,828
f. Total	<u>109,287,468</u>	<u>111,062,244</u>	<u>104,073,807</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	56,456,450	57,256,930	49,316,837
b. Disability Retirees	-	-	-
c. Terminated Vested Members	2,368,239	2,428,896	2,718,397
d. Total	<u>58,824,689</u>	<u>59,685,826</u>	<u>52,035,234</u>
3. Total for All Members	168,112,157	170,748,070	156,109,041
C. Actuarial Accrued (Past Service) Liability (Entry Age Normal)	130,754,435	132,873,821	121,155,987
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	113,041,482	114,830,120	102,114,050
E. Plan Assets			
1. Market Value	109,153,908	109,153,908	102,634,352
2. Actuarial Value	106,070,602	106,070,602	96,716,399
F. Unfunded Actuarial Accrued Liability: C - E2	24,683,833	26,803,219	24,439,588
G. Actuarial Present Value of Projected Covered Payroll	166,637,282	166,097,368	153,602,520
H. Actuarial Present Value of Projected Member Contributions	15,830,542	15,779,250	14,592,240

CALCULATION OF EMPLOYER NORMAL COST

A. Valuation Date	October 1, 2019 <i>After Changes</i>	October 1, 2019 <i>Before Changes</i>	October 1, 2018
B. Normal Cost for			
1. Service Retirement Benefits	\$ 4,087,236	\$ 4,134,716	\$ 3,793,266
2. Vesting Benefits	313,226	320,649	293,613
3. Disability Benefits	-	-	-
4. Preretirement Death Benefits	53,229	73,809	69,746
5. Return of Member Contributions	<u>163,893</u>	<u>165,028</u>	<u>151,147</u>
6. Total for Future Benefits	4,617,584	4,694,202	4,307,772
7. Assumed Amount for Administrative Expenses	<u>152,662</u>	<u>152,662</u>	<u>147,897</u>
8. Total Normal Cost	4,770,246	4,846,864	4,455,669
C. Expected Member Contribution	1,949,393	1,949,393	1,796,703
D. Employer Normal Cost: B8-C	2,820,853	2,897,471	2,658,966
E. Employer Normal Cost as a % of Covered Payroll	13.75%	14.12%	14.06%

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability (UAAL) is being amortized as a level percent of payroll over the number of years remaining in the amortization period. Details relating to the UAAL are as follows:

UAAL Amortization Period and Payments					
Original UAAL			Current UAAL		
Date Established	Amort'n Period (Years)	Amount	Years Left	Amount	Payment
10/1/92	30	\$ 906,927	3	\$ 416,953	\$ 145,355
10/1/95	27	279,914	3	123,448	43,035
10/1/96	26	(332,115)	3	(143,476)	(50,017)
10/1/98	30	2,010,011	9	2,036,250	269,555
10/1/00	30	321,627	11	352,537	39,824
10/1/01	30	2,640,282	12	2,967,630	313,747
10/1/04	30	74,216	15	77,956	7,010
10/1/06	30	12,595,577	17	13,324,237	1,100,420
10/1/07	30	(139,274)	18	(143,665)	(11,429)
10/1/08	30	1,925,373	18	1,971,899	156,878
10/1/08	30	66,477	18	68,086	5,417
10/1/09	30	695,601	18	703,726	55,986
10/1/10	30	(632,820)	18	(632,710)	(50,336)
10/1/11	30	(2,216,869)	18	(2,225,089)	(177,020)
10/1/12	30	(1,652,882)	18	(1,648,050)	(131,113)
10/1/12	30	2,471,180	18	2,463,961	196,024
10/1/13	30	(141,139)	18	(139,426)	(11,092)
10/1/14	30	(1,937,085)	18	(1,902,252)	(151,337)
10/1/14	30	(587,540)	18	(576,974)	(45,902)
10/1/15	30	(1,549,922)	18	(1,534,285)	(122,062)
10/1/16	30	2,502,544	18	2,501,530	199,013
10/1/16	30	1,693,006	18	1,692,321	134,635
10/1/17	20	(245,602)	18	(242,642)	(19,304)
10/1/18	20	(2,793,725)	19	(2,801,424)	(215,320)
10/1/18	20	7,392,258	19	7,412,627	569,742
10/1/19	20	2,680,051	20	2,680,051	199,532
10/1/19	20	(2,119,386)	20	(2,119,386)	(157,790)
		\$ 23,906,684		\$ 24,683,833	\$ 2,293,451

Amortization Schedule	
Year	Expected UAAL
2019	\$ 24,683,833
2020	23,957,741
2021	23,125,821
2022	22,179,465
2023	21,267,639
2024	20,236,782
2029	13,288,729
2034	5,228,159
2039	0

ACTUARIAL GAINS AND LOSSES

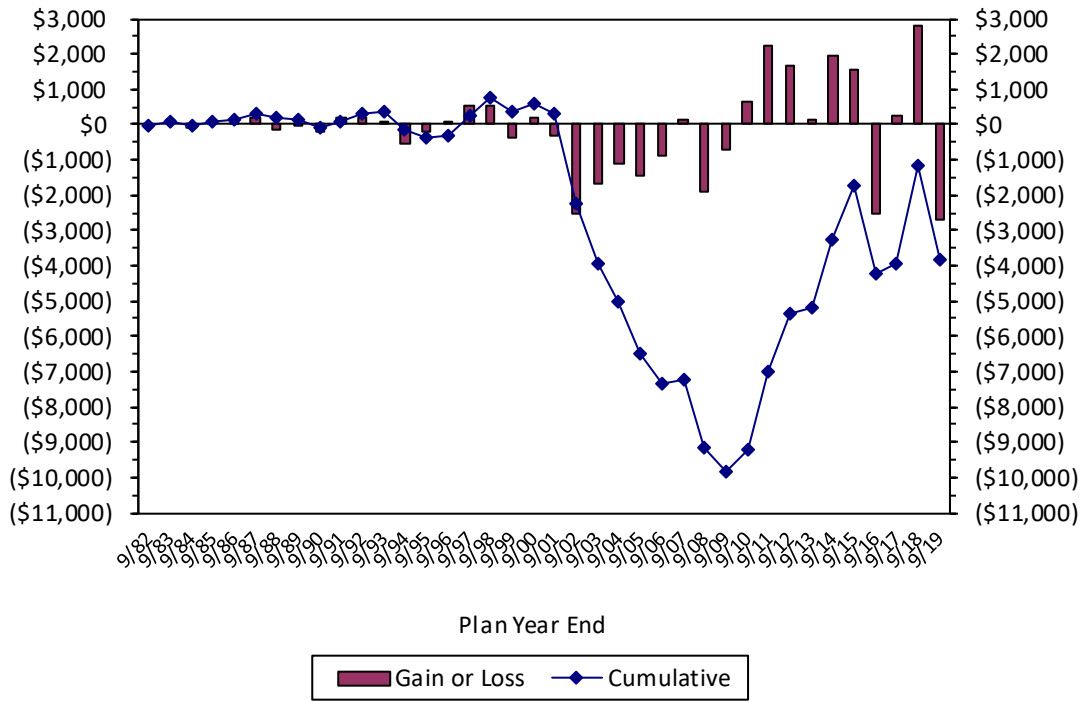
The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. 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.

1. Last Year's UAAL	\$ 24,439,588
2. Last Year's Employer Normal Cost	2,519,930
3. Last Year's Contributions	4,563,783
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	1,887,166
b. 3 from dates paid	<u>159,732</u>
c. a - b	1,727,434
5. This Year's Expected UAAL Before any Changes in Benefits or Actuarial Assumptions: 1 + 2 - 3 + 4c	24,123,169
6. Changes in UAAL due to Changes in Benefits and/or Actuarial Assumptions	(2,119,386)
7. This Year's Expected UAAL After any Changes in Benefits or Actuarial Assumptions: 5 + 6	22,003,783
8. This Year's Actual UAAL After any Changes in Benefits or Actuarial Assumptions	24,683,833
9. Net Actuarial Gain (Loss): 7 - 8	(2,680,051)
10. Gain (Loss) due to Investments	770,826
11. Gain (Loss) from Other Sources	(3,450,877)

Net actuarial gains in previous years have been as follows:

Year Ended	Gain (Loss)
9/30/82	\$ (31,425)
9/30/83	114,376
9/30/84	(111,852)
9/30/85	91,168
9/30/86	77,855
9/30/87	168,749
9/30/88	(136,043)
9/30/89	(46,060)
9/30/90	(206,652)
9/30/91	180,050
9/30/92	215,626
9/30/93	61,680
9/30/94	(541,952)
9/30/95	(218,095)
9/30/96	75,549
9/30/97	556,188
9/30/98	531,585
9/30/99	(389,336)
9/30/00	213,729
9/30/01	(296,343)
9/30/02	(2,548,111)
9/30/03	(1,688,190)
9/30/04	(1,114,239)
9/30/05	(1,454,715)
9/30/06	(857,903)
9/30/07	139,274
9/30/08	(1,925,373)
9/30/09	(695,601)
9/30/10	632,820
9/30/11	2,216,869
9/30/12	1,652,882
9/30/13	141,139
9/30/14	1,937,085
9/30/15	1,549,922
9/30/16	(2,502,544)
9/30/17	245,602
9/30/18	2,793,725
9/30/19	(2,680,051)

Actuarial Gain (+) or Loss (-) in \$000

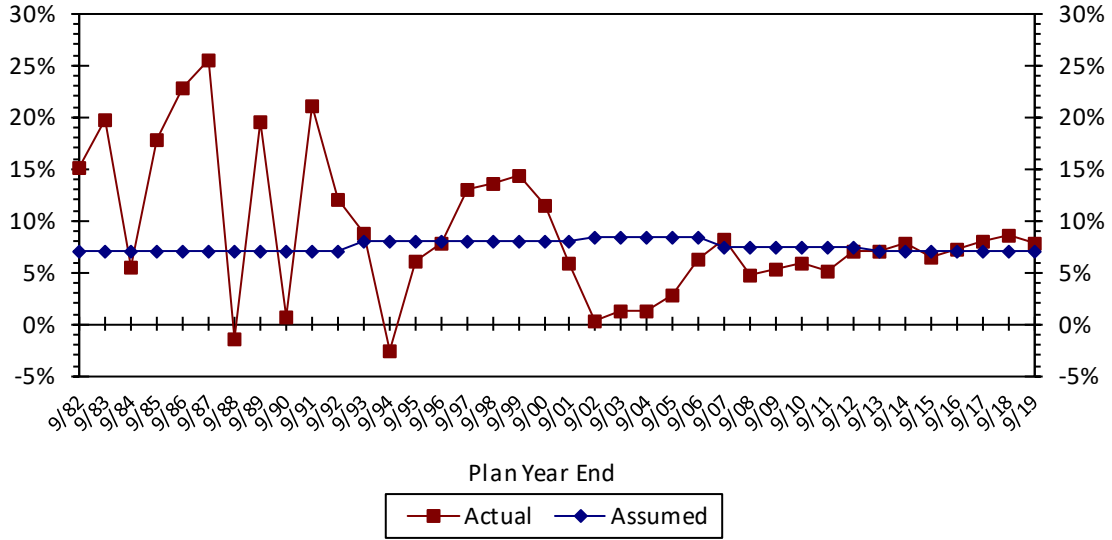


The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

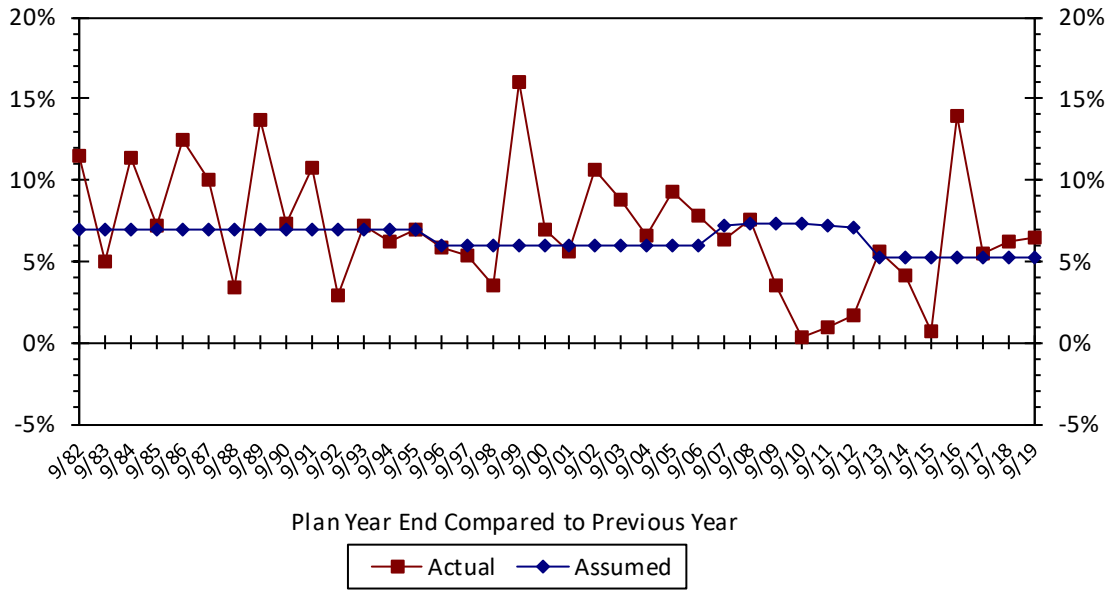
Year Ended	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
9/30/1982	15.2 %	7.0 %	11.5 %	7.0 %
9/30/1983	19.7	7.0	5.0	7.0
9/30/1984	5.6	7.0	11.4	7.0
9/30/1985	17.8	7.0	7.2	7.0
9/30/1986	22.8	7.0	12.5	7.0
9/30/1987	25.5	7.0	10.0	7.0
9/30/1988	(1.4)	7.0	3.4	7.0
9/30/1989	19.5	7.0	13.7	7.0
9/30/1990	0.8	7.0	7.3	7.0
9/30/1991	21.2	7.0	10.8	7.0
9/30/1992	12.1	7.0	2.9	7.0
9/30/1993	8.8	8.0	7.2	7.0
9/30/1994	(2.6)	8.0	6.2	7.0
9/30/1995	6.1	8.0	7.0	7.0
9/30/1996	7.9	8.0	5.8	6.0
9/30/1997	13.1	8.0	5.4	6.0
9/30/1998	13.6	8.0	3.5	6.0
9/30/1999	14.4	8.0	16.0	6.0
9/30/2000	11.5	8.0	6.9	6.0
9/30/2001	6.0	8.0	5.6	6.0
9/30/2002	0.4	8.5	10.6	6.0
9/30/2003	1.3	8.5	8.8	6.0
9/30/2004	1.4	8.5	6.6	6.0
9/30/2005	2.8	8.5	9.3	6.0
9/30/2006	6.3	8.5	7.8	6.0
9/30/2007	8.2	7.5	6.4	7.2
9/30/2008	4.7	7.5	7.5	7.3
9/30/2009	5.3	7.5	3.5	7.3
9/30/2010	5.9	7.5	0.3	7.3
9/30/2011	5.2	7.5	1.0	7.2
9/30/2012	7.1	7.5	1.7	7.1
9/30/2013	7.1	7.0	5.6	5.3
9/30/2014	7.9	7.0	4.1	5.2
9/30/2015	6.6	7.0	0.7	5.2
9/30/2016	7.3	7.0	14.0	5.2
9/30/2017	8.1	7.0	5.5	5.2
9/30/2018	8.6	7.0	6.3	5.2
9/30/2019	7.8	7.0	6.4	5.2
Averages	8.7 %	---	6.9 %	---

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 year.

History of Investment Return Based on Actuarial Value of Assets



History of Salary Increases



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

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
									A	A	A	E	
9/30/2002	47	26	3	10	0	0	2	0	1	20	21	21	315
9/30/2003	49	33	5	11	0	0	0	0	0	28	28	23	331
9/30/2004	24	29	7	12	0	0	1	0	0	21	21	24	326
9/30/2005	34	28	2	12	0	0	0	0	1	25	26	23	332
9/30/2006	38	34	9	16	0	0	0	0	4	21	25	22	336
9/30/2007	43	33	9	6	0	0	2	1	5	17	22	22	346
9/30/2008	38	29	11	10	0	0	1	0	7	10	17	22	355
9/30/2009	26	13	1	11	0	0	0	0	2	10	12	21	368
9/30/2010	10	22	9	11	0	0	0	0	3	10	13	21	356
9/30/2011	10	24	12	13	0	0	0	0	3	9	12	17	342
9/30/2012	20	17	9	10	0	0	0	1	1	7	8	15	345
9/30/2013	8	27	7	9	0	0	0	1	9	11	20	15	326
9/30/2014	66	30	7	10	0	0	2	1	16	5	21	12	362
9/30/2015	34	29	11	11	0	0	1	1	11	6	17	18	367
9/30/2016	45	29	6	10	0	0	1	1	5	17	22	20	383
9/30/2017	47	35	9	12	0	0	0	1	3	23	26	22	395
9/30/2018	16	41	7	16	0	0	0	1	2	32	34	23	370
9/30/2019	69	40	15	16	0	0	0	1	1	24	25	20	399
9/30/2020				16		0		1				25	
18 Yr Totals*	624	519	139	206	0	0	10	9	74	296	370	361	

*Totals are through current Plan Year only

RECENT HISTORY OF VALUATION RESULTS										
Val'n Date	Members			Covered Annual Payroll	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio	Unfunded Accrued Liability*	Employer Normal Cost	
	Active	Tranfers	Inactive						Amount	% of Payroll
10/1/91	155	0	28	\$ 3,791,608	\$ 5,755,484	\$3,887,280	67.5 %	\$ 1,868,204	\$ 347,924	9.18
10/1/92	153	0	27	3,828,610	7,460,668	4,676,965	62.7	2,783,703	335,611	8.77
10/1/93	150	0	31	3,941,805	8,316,453	5,523,508	66.4	2,792,945	337,448	8.56
10/1/94	159	0	35	4,245,282	8,566,456	5,799,369	67.7	2,767,087	309,510	7.29
10/1/95	159	0	40	4,439,160	9,620,232	6,569,842	68.3	3,050,390	332,050	7.48
10/1/96	179	0	53	4,916,226	10,264,653	7,541,595	73.5	2,723,058	337,081	6.86
10/1/97	195	0	54	5,517,191	11,665,750	8,992,352	77.1	2,673,398	316,466	5.74
10/1/98	225	0	55	6,268,490	15,311,469	10,699,744	69.9	4,611,725	190,010	3.03
10/1/99	248	0	60	7,679,770	17,227,937	12,651,484	73.4	4,576,453	260,742	3.39
10/1/00	279	0	74	8,566,811	19,689,391	14,747,083	74.9	4,942,308	268,031	3.13
10/1/01	294	0	76	9,364,564	23,812,244	16,224,735	68.1	7,587,509	523,556	5.59
10/1/02	315	0	80	10,721,371	25,023,776	16,952,546	67.7	8,071,230	923,808	8.62
10/1/03	331	0	85	11,709,816	26,703,564	18,174,348	68.1	8,529,216	1,221,854	10.43
10/1/04	326	0	89	12,048,134	28,359,036	19,802,166	69.8	8,556,870	1,402,080	11.64
10/1/05	332	0	91	13,114,665	30,628,040	22,047,382	72.0	8,580,658	1,750,510	13.35
10/1/06 ¹	336	0	99	13,873,156	41,885,478	25,272,213	60.3	16,613,265	1,967,872	14.18
10/1/06 ²	336	0	99	13,873,156	49,163,003	28,044,325	57.0	21,118,678	1,939,835	13.98
10/1/07	346	0	113	14,535,824	53,419,254	31,745,788	59.4	21,673,466	1,948,205	13.40
10/1/08 ³	355	0	128	15,496,532	59,503,283	35,825,281	60.2	23,678,002	2,080,393	13.42
10/1/08 ⁴	355	0	128	15,496,532	59,569,760	35,825,281	60.1	23,744,479	2,082,430	13.44
10/1/09	368	0	127	16,445,474	64,891,443	40,321,175	62.1	24,570,268	2,207,508	13.42
10/1/10	356	0	132	15,857,109	69,579,260	45,625,503	65.6	23,953,757	2,145,252	13.53
10/1/11	342	0	143	14,859,096	71,998,407	50,418,463	70.0	21,579,944	2,020,614	13.60
10/1/12 ⁵	345	0	150	15,013,902	75,769,705	55,865,187	73.7	19,904,518	2,047,888	13.64
10/1/12 ⁶	345	0	150	15,013,902	78,240,885	55,865,187	71.4	22,375,698	1,855,798	12.36
10/1/13	326	0	162	14,844,382	83,346,149	61,142,516	73.4	22,203,633	1,824,059	12.29
10/1/14 ⁷	365	0	168	16,302,969	87,364,948	67,278,502	77.0	20,086,446	1,990,137	12.21
10/1/14 ⁸	362	10	168	15,938,891	87,039,087	67,540,181	77.6	19,498,906	1,990,865	12.49
10/1/15	367	10	187	15,909,213	90,561,560	73,172,736	80.8	17,388,824	2,003,702	12.59
10/1/16 ⁹	383	13	195	18,367,256	98,972,204	79,714,847	80.5	19,257,357	2,336,645	12.72
10/1/16 ¹⁰	383	13	195	18,367,256	100,665,210	79,714,847	79.2	20,950,363	2,389,307	13.01
10/1/17	395	28	202	19,188,218	107,983,298	87,592,902	81.1	20,390,396	2,519,930	13.13
10/1/18 ¹¹	370	39	206	18,912,658	113,763,729	96,716,399	85.0	17,047,330	2,524,607	13.35
10/1/18 ¹²	370	39	206	18,912,658	121,155,987	96,716,399	79.8	24,439,588	2,658,966	14.06
10/1/19 ¹³	399	46	221	20,519,929	132,873,821	106,070,602	79.8	26,803,219	2,897,471	14.12
10/1/19 ¹⁴	399	46	221	20,519,929	130,754,435	106,070,602	81.1	24,683,833	2,820,853	13.75

* Based on Frozen Entry Age funding method before 10/1/2006

¹Before assumption/method changes

²After assumption/method changes, including lowering the investment return from 8.5% to 7.5%

³Before Plan change

⁴After Plan change (implementation of DROP)

⁵Before assumption changes

⁶After assumption changes, as shown in the Actuarial Assumptions and Cost Method section of the 10/1/2012 Report

⁷Before Plan Changes

⁸After Plan Changes

⁹Before Plan Changes

¹⁰After Plan Changes

¹¹Before Benefit Changes

¹²After Benefit Changes

¹³Before Assumption Change

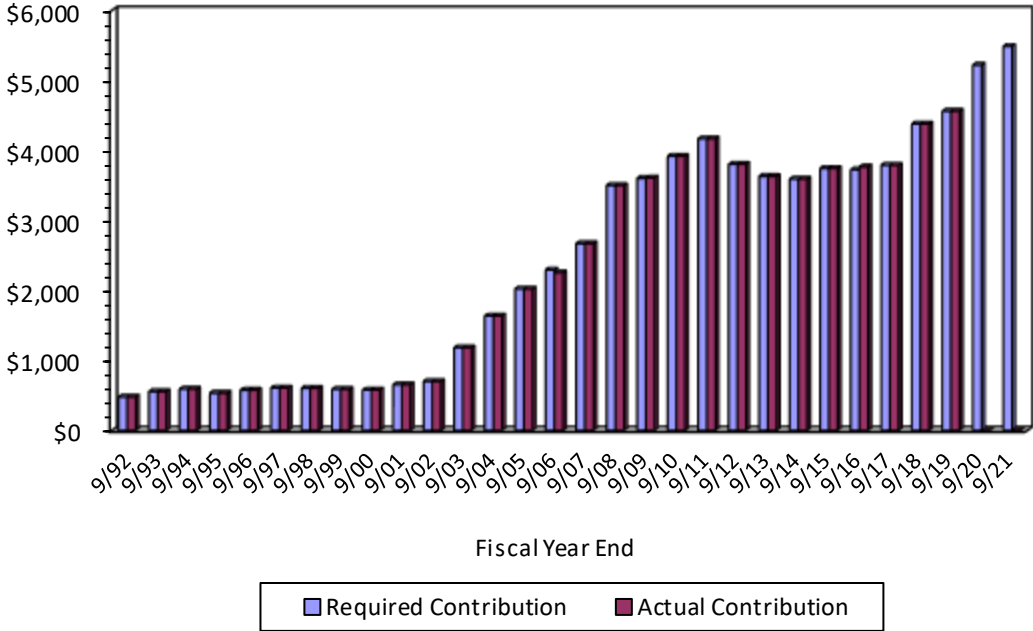
¹⁴After Assumption Change



RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS

Valuation	For the Fiscal Year Ending	Required Contributions		Actual Contributions
		Amount	% of	
10/1/91	9/30/92	\$ 480,870	12.68 %	\$ 480,870
10/1/92	9/30/93	558,324	14.58	558,324
10/1/93	9/30/94	594,197	15.07	594,197
10/1/94	9/30/95	536,438	12.64	536,438
10/1/94	9/30/96	579,353	13.65	579,353
10/1/95	9/30/97	611,014	13.76	611,014
10/1/96	9/30/98	607,592	12.36	607,592
10/1/97	9/30/99	591,353	10.72	591,353
10/1/98	9/30/00	580,824	9.27	582,147
10/1/99	9/30/01	655,890	8.54	655,890
10/1/00	9/30/02	702,318	8.20	702,318
10/1/01	9/30/03	1,184,917	12.65	1,184,917
10/1/02	9/30/04	1,636,832	14.54	1,636,832
10/1/03	9/30/05	2,025,037	16.47	2,025,037
10/1/04	9/30/06	2,296,073	18.15	2,255,591
10/1/05	9/30/07	2,671,457	19.40	2,671,457
10/1/06	9/30/08	3,500,405	24.03	3,500,405
10/1/07	9/30/09	3,603,503	23.61	3,609,608
10/1/08	9/30/10	3,918,143	24.08	3,918,143
10/1/09	9/30/11	4,170,161	24.15	4,170,166
10/1/10	9/30/12	3,804,517	22.85	3,804,517
10/1/11	9/30/13	3,632,157	23.28	3,632,157
10/1/12	9/30/14	3,594,261	23.13	3,594,261
10/1/13	9/30/15	3,745,727	24.38	3,745,727
10/1/14	9/30/16	3,761,259	22.80	3,767,869
10/1/15	9/30/17	3,792,128	23.03	3,792,128
10/1/16	9/30/18	4,379,929	23.04	4,379,929
10/1/17	9/30/19	4,563,783	22.98	4,563,783
10/1/18	9/30/20	5,220,546	26.67	---
10/1/19	9/30/21	5,487,932	25.84	---

Recent History of Required and Actual Contributions (\$000)



ACTUARIAL ASSUMPTIONS AND COST METHOD

Valuation Methods

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

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

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

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

Actuarial Value of Assets - The Actuarial Value of Assets phase in the difference between the expected actuarial value and actual market value of assets at the rate of 20% per year. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section. The covered group is too small to provide statistically significant experience on which to base certain demographic assumptions. Mortality is based on a commonly used fully generational mortality table and projection scale that is mandated by the Florida Statutes. The retirement age assumption tracks the eligibility requirements for normal retirement. The investment return assumption was updated in the year 2012.

Economic Assumptions

The investment return rate assumed in the valuation is 7.0% per year, compounded annually (net of investment expenses).

The **Wage Inflation Rate** assumed in this valuation was 2.5% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macro-economic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.



The assumed **real rate of return** over wage inflation is defined to be the portion of total investment return that is more than the assumed wage inflation rate. Considering other economic assumptions, the 7.0% investment return rate translates to an assumed real rate of return over wage inflation of 4.5%.

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 3.5% per year, but not more than the most recent ten year average, which is 2.24%.

Pay increase assumptions for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and the other 2.5% recognizes wage inflation, including price inflation, productivity increases, and other macro-economic forces.

The rates of salary increase used for general employees are in accordance with the following table. This assumption is used to project a member’s current salary to the salaries upon which benefits will be based.

Years of Service	% Increase in Salary		
	Merit and Seniority	Base (Economic)	Total Increase
1	5.0%	2.5%	7.5%
2	4.5%	2.5%	7.0%
3	4.0%	2.5%	6.5%
4	3.5%	2.5%	6.0%
5	3.0%	2.5%	5.5%
6+	2.5%	2.5%	5.0%

Demographic Assumptions

The mortality tables used in the valuation are based on the PUB-2010 Headcount Weighted Mortality Tables described below, with mortality improvements projected to all future years after 2010 using Scale MP-2018.

	Pre-Retirement PUB-2010 Table	Post-Retirement PUB-2010 Table
Female (General)	Headcount Weighted General Below Median Employee Female Table	Headcount Weighted General Below Median Healthy Retiree Female Table
Male (General)	Headcount Weighted General Below Median Employee Male Table, set back 1 year	Headcount Weighted General Below Median Healthy Retiree Male Table, set back 1 year

These are the same rates as used by the Florida Retirement System (FRS) in their July 1, 2019 Actuarial Valuation Report for Regular class members (other than K-12 School Instructional Personnel). Florida Statutes Chapter 112.63(1)(f) mandates the use of the mortality tables from either of the two most recently published actuarial valuation reports of FRS.

The following table present post-retirement mortality rates and life expectancies at illustrative ages. These assumptions are used to measure the probabilities of each benefit payment being made after retirement.

Post-Retirement Mortality Used for General members (FRS Regular Class Healthy Tables)

Sample Attained Ages (in 2019)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.19 %	0.58 %	32.93	36.77
55	0.98	0.58	28.57	32.33
60	1.15	0.60	24.50	27.81
65	1.30	0.69	20.48	23.25
70	1.81	1.10	16.49	18.78
75	2.90	1.92	12.79	14.60
80	4.91	3.47	9.52	10.87

The following table present pre-retirement mortality rates and life expectancies at illustrative ages. These assumptions are used to measure the probabilities of active members dying prior to retirement.

Pre-Retirement Mortality Used for General members (FRS Regular Class Healthy Tables)

Sample Attained Ages (in 2019)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.19 %	0.11 %	37.55	40.11
55	0.30	0.18	32.54	34.99
60	0.47	0.26	27.70	29.98
65	0.65	0.37	23.04	25.06
70	0.90	0.57	18.50	20.24
75	1.37	0.95	14.07	15.56
80	2.17	1.60	9.78	11.07

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

The following table present post-employment disabled lives, the Headcount Weighted General Disabled Retiree Tables, set forward 3 years for males and females.



Post-Retirement Mortality for Disabled Lives for General members (FRS Regular Class Healthy Tables)

Sample Attained Ages (in 2019)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	2.02 %	1.64 %	20.99	23.92
55	2.53	1.91	18.18	20.88
60	3.08	2.27	15.50	17.88
65	3.93	2.83	12.94	14.91
70	5.08	3.79	10.53	12.07
75	6.98	5.46	8.29	9.45
80	10.12	8.31	6.33	7.19

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

Retirement Ages	Rate	Years of Service	Rate
65	40 %	20	25 %
66	20	21	15
67	20	22	15
68	20	23	15
69	20	24	15
70	100	25	30
71	100	26	20
72	100	27	20
73	100	28	20
74	100	29	20
75	100	30	100

The rate of retirement is 5% for each year of eligibility 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 or disability). This assumption measures the probabilities of members remaining in employment.

**Years of
Service Turnover**

1	19.0%
5	7.0%
10	4.0%
15	1.5%
20+	0.0%

Rates of disability are not applicable.

Changes from Prior Valuation: The mortality tables were updated from the mortality rates used by the Florida Retirement System (FRS) for Regular Class members in the July 1, 2018 FRS Actuarial Valuation to the rates used in the July 1, 2019 FRS Actuarial Valuation.

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>Benefit For Members Moved to the 401(a) Plan</i>	Three members are assumed to pay the required amounts per Ordinance No. 16-01 to have their dates of hire in this Pension Plan be set to their original dates of hire.
<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>	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>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>	End of fiscal year. This is equivalent to assuming that reported pays represent the rate of pay on the valuation date.
<i>Service Credit Accruals</i>	It is assumed that members accrue one year of service credit per year.
<i>Structure for Current Dual Service Members</i>	The active dual service members as of October 1, 2015 are assumed to elect the benefit structure with the greatest present value.

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 No. 67.
<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 contributions (ADEC).

<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>Actuarially Determined Employer Contributions (ADEC)</i>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADEC consists of the Employer Normal Cost and 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 the normal cost rate from last year and the normal cost rate from this year.
<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. 67 and GASB No. 68</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. 67 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 68 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>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 at Market Value

Item	September 30	
	2019	2018
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$ -
B. Receivables		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	-	-
3. Investment Income	151,390	124,994
4. Other Receivables	361,701	352,400
5. Total Receivables	<u>\$ 513,091</u>	<u>\$ 477,394</u>
C. Investments		
1. Short Term Investments	\$ 2,075,077	\$ 1,570,214
2. Domestic Equities	69,530,994	66,574,563
3. International Equities	-	-
4. Domestic Fixed Income	24,882,812	22,598,084
5. International Fixed Income	-	-
6. Real Estate	-	-
7. Alternative Investments	12,041,741	11,312,091
8. DROP Investments	3,126,099	2,783,004
9. Total Investments	<u>\$ 111,656,723</u>	<u>\$ 104,837,956</u>
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(97,341)	(75,697)
3. Total Liabilities	<u>\$ (97,341)</u>	<u>\$ (75,697)</u>
E. Total Market Value of Assets Available for Benefits	\$ 112,072,473	\$ 105,239,653
F. DROP Accounts	\$ (3,126,099)	\$ (2,783,004)
G. Employee Contributions Receivable (Buyback Receivable)	\$ 207,534	\$ 177,703
H. Market Value Net of Reserves	\$ 109,153,908	\$ 102,634,352
I. Allocation of Investments		
1. Short Term Investments	1.9%	1.5%
2. Domestic Equities	62.3%	63.5%
3. International Equities	0.0%	0.0%
4. Domestic Fixed Income	22.2%	21.5%
5. International Fixed Income	0.0%	0.0%
6. Real Estate	0.0%	0.0%
7. Alternative Investments	10.8%	10.8%
8. DROP Investments	2.8%	2.7%
9. 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	\$ 105,239,653	\$ 93,856,027
B. Revenues and Expenditures		
1. Contributions		
a. Member Contributions	\$ 2,176,302	\$ 1,749,136
b. Employer Contributions	4,563,783	4,379,929
c. Other Income	-	-
d. Total	<u>\$ 6,740,085</u>	<u>\$ 6,129,065</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 2,388,778	\$ 2,203,605
b. Net Realized / Unrealized Gains/(Losses)*	2,996,954	8,405,062
c. Investment Expenses	<u>(431,291)</u>	<u>(360,756)</u>
d. Net Investment Income	\$ 4,954,441	\$ 10,247,911
3. Benefits and Refunds		
a. Regular Monthly Benefits	\$ (4,189,566)	\$ (4,020,508)
b. Refunds	(78,311)	(118,803)
c. Lump Sum Benefits Paid	-	-
d. DROP Distributions	<u>(439,608)</u>	<u>(702,936)</u>
e. Total	\$ (4,707,485)	\$ (4,842,247)
4. Administrative and Miscellaneous Expenses	\$ (154,221)	\$ (151,103)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 112,072,473	\$ 105,239,653
D. DROP Accounts	\$ (3,126,099)	\$ (2,783,004)
E. Employee Contributions Receivable (Buyback Receivable)	\$ 207,534	\$ 177,703
F. Market Value Net of Reserves	\$ 109,153,908	\$ 102,634,352

* The breakdown of Realized and Unrealized Gains / (Losses) was not provided.



Calculation of Actuarial Value of Assets

Item	September 30	
	2019	2018
A. Beginning of Year Assets		
1. Market Value*	\$ 105,239,653	\$ 93,856,027
2. Actuarial Value*	99,321,700	90,342,754
B. End of Year Market Value of Assets*	112,072,473	105,239,653
C. Net of Contributions Less Disbursements	1,878,379	1,135,715
D. Actual Net Investment Earnings	4,954,441	10,247,911
E. Expected Investment Earnings	7,018,262	6,363,743
F. Expected Actuarial Value End of Year: A2 + C + E	108,218,341	97,842,212
G. End of Year Market Value Less Expected Actuarial Value: B - F	3,854,132	7,397,441
H. 20% of Difference	770,826	1,479,488
I. End of Year Assets		
1. Actuarial Value: F + H	108,989,167	99,321,700
2. Actuarial Value Within 80% to 120% of Market Value	108,989,167	99,321,700
J. DROP Account Balance	(3,126,099)	(2,783,004)
K. Employee Contributions Receivable (Buyback Receivable)	207,534	177,703
L. Final Actuarial Value of Assets	106,070,602	96,716,399
M. Recognized Investment Earnings	7,789,088	7,843,231
N. Recognized Rate of Return	7.8%	8.6%
O. Gain (Loss) Due to Investments	770,826	1,479,488

* Before offset of DROP Account Balance.



Reconciliation of DROP Accounts

Value at beginning of year	\$ 2,783,004
Payments credited to accounts	695,313
Investment Earnings credited	87,390
Withdrawals from accounts	<u>(439,608)</u>
Value at end of year	3,126,099

Year Ending	Investment Rate of Return	
	Market Value*	Actuarial Value
9/30/1982	15.3 %	15.2 %
9/30/1983	19.8	19.7
9/30/1984	5.6	5.6
9/30/1985	17.8	17.8
9/30/1986	22.7	22.8
9/30/1987	25.5	25.5
9/30/1988	(1.4)	(1.4)
9/30/1989	19.5	19.5
9/30/1990	0.8	0.8
9/30/1991	21.2	21.2
9/30/1992	12.1	12.1
9/30/1993	9.8	8.8
9/30/1994	(1.6)	(2.6)
9/30/1995	17.4	6.1
9/30/1996	14.2	7.9
9/30/1997	27.7	13.1
9/30/1998	13.5	13.6
9/30/1999	12.7	14.4
9/30/2000	4.6	11.5
9/30/2001	(10.0)	6.0
9/30/2002	(9.8)	0.4
9/30/2003	16.6	1.3
9/30/2004	10.0	1.4
9/30/2005	8.2	2.8
9/30/2006	9.1	6.3
9/30/2007	10.8	8.2
9/30/2008	(10.8)	4.7
9/30/2009	7.2	5.3
9/30/2010	7.8	5.9
9/30/2011	1.6	5.2
9/30/2012	15.0	7.1
9/30/2013	9.2	7.1
9/30/2014	11.2	7.9
9/30/2015	1.7	6.6
9/30/2016	9.9	7.3
9/30/2017	11.2	8.1
9/30/2018	10.8	8.6
9/30/2019	4.7	7.8
Average Returns:		
Last 5 Years	7.6 %	7.7 %
Last 10 Years	8.2 %	7.2 %
All Years	9.4 %	8.7 %

* Net of investment expenses after 9/30/2005.



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	\$ 56,456,450	\$ 49,316,837
b. Terminated Vested Members	2,368,239	2,718,397
c. Other Members	<u>51,552,236</u>	<u>48,467,313</u>
d. Total	110,376,925	100,502,547
2. Non-Vested Benefits	2,664,557	1,611,503
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	113,041,482	102,114,050
4. Accumulated Contributions of Active Members	13,764,885	12,788,388
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	102,114,050	89,458,017
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	6,911,785
b. Change in Actuarial Assumptions	(1,788,638)	0
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	17,679,260	10,335,930
d. Benefits Paid	<u>(4,963,190)</u>	<u>(4,591,682)</u>
e. Net Increase	10,927,432	12,656,033
3. Total Value at End of Period	113,041,482	102,114,050
D. Market Value of Assets	109,153,908	102,634,352

**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	\$ 3,768,682	\$ 3,769,297	\$ 3,518,217	\$ 3,032,270	\$ 3,077,703	\$ 2,802,948
Interest	8,324,458	7,797,926	6,980,442	6,788,829	6,509,284	6,096,343
Benefit Changes	8,486,542	-	-	(702,521)	-	-
Difference between actual & expected experience	(1,216,442)	730,141	3,597,097	(2,192,133)	(1,242,827)	(94,738)
Assumption Changes	-	-	1,867,865	-	-	-
Benefit Payments	(4,629,174)	(4,723,444)	(4,183,986)	(4,942,919)	(3,366,671)	(2,782,930)
Refunds	(78,311)	(118,803)	(46,475)	(176,740)	(124,124)	(86,573)
Net Change in Total Pension Liability	14,655,755	7,455,117	11,733,160	1,806,786	4,853,365	5,935,050
Total Pension Liability - Beginning	117,505,892	110,050,775	98,317,615	96,510,829	91,657,464	85,722,414
Total Pension Liability - Ending (a)	\$ 132,161,647	\$ 117,505,892	\$ 110,050,775	\$ 98,317,615	\$ 96,510,829	\$ 91,657,464
Plan Fiduciary Net Position						
Contributions - Employer	\$ 4,563,783	\$ 4,379,929	\$ 3,792,128	\$ 3,767,869	\$ 3,745,727	\$ 3,594,261
Contributions - Non-Employer Contributing Entity	-	-	-	-	-	-
Contributions - Member	2,176,302	1,749,136	1,812,841	1,966,498	1,213,840	1,192,804
Net Investment Income	4,954,431	10,247,911	9,374,839	7,507,462	1,233,954	7,245,995
Benefit Payments	(4,629,174)	(4,723,444)	(4,183,986)	(4,942,919)	(3,366,671)	(2,782,930)
Refunds	(78,311)	(118,803)	(46,475)	(176,740)	(124,124)	(86,573)
Administrative Expense	(154,221)	(151,103)	(144,690)	(181,082)	(159,433)	(125,266)
Other	-	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	6,832,810	11,383,626	10,604,657	7,941,088	2,543,293	9,038,291
Plan Fiduciary Net Position - Beginning	105,239,663	93,856,037	83,251,380	75,310,292	72,766,999	63,728,708
Plan Fiduciary Net Position - Ending (b)	\$ 112,072,473	\$ 105,239,663	\$ 93,856,037	\$ 83,251,380	\$ 75,310,292	\$ 72,766,999
Net Pension Liability - Ending (a) - (b)	20,089,174	12,266,229	16,194,738	15,066,235	21,200,537	18,890,465
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	84.80 %	89.56 %	85.28 %	84.68 %	78.03 %	79.39 %
Covered Payroll*	\$ 18,912,658	\$ 19,188,218	\$ 18,367,256	\$ 15,909,213	\$ 15,938,891	\$ 14,844,382
Net Pension Liability as a Percentage of Covered Payroll	106.22 %	63.93 %	88.17 %	94.70 %	133.01 %	127.26 %

* Based on valuation payroll.



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	\$ 91,657,464	\$ 72,766,999	\$ 18,890,465	79.39%	\$ 14,844,382	127.26%
2015	\$ 96,510,829	\$ 75,310,292	\$ 21,200,537	78.03%	\$ 15,938,891	133.01%
2016	\$ 98,317,615	\$ 83,251,380	\$ 15,066,235	84.68%	\$ 15,909,213	94.70%
2017	\$ 110,050,775	\$ 93,856,037	\$ 16,194,738	85.28%	\$ 18,367,256	88.17%
2018	\$ 117,505,892	\$ 105,239,663	\$ 12,266,229	89.56%	\$ 19,188,218	63.93%
2019	\$ 132,161,647	\$ 112,072,473	\$ 20,089,174	84.80%	\$ 18,912,658	106.22%

* Based on valuation payroll.



NOTES TO EMPLOYER'S 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	2.50%
Salary Increases	5.0% - 7.5%, including inflation
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates
Mortality	The healthy post-retirement mortality table is the RP-2000 Mortality Table for annuitants with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in the July 1, 2016 FRS actuarial valuation.

Other Information:

Notes See Discussion of Valuation Results from the October 1, 2018 Actuarial Valuation Report.



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
2009	\$ 3,603,503	\$ 3,609,608	\$ (6,105)	\$ 15,496,532	23.29%
2010	\$ 3,918,143	\$ 3,918,143	\$ -	\$ 16,445,474	23.83%
2011	\$ 4,170,161	\$ 4,170,166	\$ (5)	\$ 15,857,109	26.30%
2012	\$ 3,804,517	\$ 3,804,517	\$ -	\$ 14,859,096	25.60%
2013	\$ 3,632,157	\$ 3,632,157	\$ -	\$ 15,013,902	24.19%
2014	\$ 3,594,261	\$ 3,594,261	\$ -	\$ 14,844,382	24.21%
2015	\$ 3,745,727	\$ 3,745,727	\$ -	\$ 15,938,891	23.50%
2016	\$ 3,761,259	\$ 3,767,869	\$ (6,610)	\$ 15,909,213	23.68%
2017	\$ 3,792,128	\$ 3,792,128	\$ -	\$ 18,367,256	20.65%
2018	\$ 4,379,929	\$ 4,379,929	\$ -	\$ 19,188,218	22.83%
2019	\$ 4,563,783	\$ 4,563,783	\$ -	\$ 18,912,658	24.13%

* Based on valuation payroll.

NOTES TO SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

Valuation Date: October 1, 2017
Notes Actuarially determined contributions 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 Percent, Closed
Remaining Amortization Period	20 years
Asset Valuation Method	The difference between the expected actuarial value of assets and actual market value of assets is recognized over 5 years
Inflation	2.5%
Salary Increases	5.0% - 7.5%, including inflation
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates
Mortality	The healthy post-retirement mortality table is the RP-2000 Mortality Table for annuitants with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in the July 1, 2016 FRS actuarial valuation.

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

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

A single discount rate of 7.00% 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 7.00%. 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 (7.00%) 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 7.00%, 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 6.00%	Current Single Discount Rate Assumption 7.00%	1% Increase 8.00%
\$35,629,206	\$20,089,174	\$7,041,752

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	370	395
2. New Members Included in Current Valuation	67	14
3. Non-Vested Employment Terminations	(12)	(16)
4. Vested Employment Terminations	(1)	(2)
5. DROP Participation	(11)	(3)
6. Service Retirements	(4)	(4)
7. Disability Retirements	0	0
8. Transfer in Plan	0	2
9. Transfer out of Plan	(12)	(15)
10. Deaths	0	0
11. Data Correction	<u>2</u>	<u>(1)</u>
12. Number Included in This Valuation	399	370
B. Transfer to Management Plan		
1. Number Included in Last Valuation	39	28
2. New Members Included in Current Valuation	12	15
3. Non-Vested Employment Terminations	(1)	0
4. Vested Employment Terminations	0	(1)
5. DROP Participation	(2)	(1)
6. Service Retirements	0	0
7. Deaths	0	0
8. Data Correction	<u>(2)</u>	<u>(2)</u>
9. Number Included in This Valuation	46	39
C. Terminated Vested Members		
1. Number Included in Last Valuation	31	29
2. Additions from Active Members	1	3
3. Lump Sum Payments/Refund of Contributions	0	0
4. Payments Commenced	(3)	0
5. Data Correction	0	0
6. Other-- Death	<u>0</u>	<u>(1)</u>
7. Number Included in This Valuation	29	31
D. DROP Plan Members		
1. Number Included in Last Valuation	12	10
2. Additions from Active Members/Transfers	13	4
3. Retirements	(2)	(2)
4. Deaths Resulting in No Further Payments	0	0
5. Other	<u>0</u>	<u>0</u>
6. Number Included in This Valuation	23	12
E. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	163	163
2. Additions from Active Members/Transfers	4	4
3. Additions from Terminated Vested Members	3	1
4. Additions from DROP Plan	2	2
5. Deaths Resulting in No Further Payments	(2)	(5)
6. End of Certain Period - No Further Payments	(1)	(2)
7. Adjustment	<u>0</u>	<u>0</u>
8. Number Included in This Valuation	169	163



**ACTIVE PARTICIPANTS (INCLUDING TRANSFERS TO MANAGEMENT PLAN)
AS OF OCTOBER 1, 2019**

Ages	Years of Service to Valuation Date										Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25+	
20-24	9	0	1	0	1	0	0	0	0	0	11
Tot Pay	348,978	0	45,778	0	52,150	0	0	0	0	0	446,906
Avg Pay	38,775	0	45,778	0	52,150	0	0	0	0	0	40,628
25-29	8	3	5	5	0	4	1	0	0	0	26
Tot Pay	288,552	116,790	237,372	206,450	0	150,488	39,389	0	0	0	1,039,041
Avg Pay	36,069	38,930	47,474	41,290	0	37,622	39,389	0	0	0	39,963
30-34	9	6	10	5	4	8	4	0	0	0	46
Tot Pay	358,559	253,525	457,686	222,392	187,165	391,825	282,967	0	0	0	2,154,119
Avg Pay	39,840	42,254	45,769	44,478	46,791	48,978	70,742	0	0	0	46,829
35-39	6	4	5	2	3	13	13	4	1	0	51
Tot Pay	275,110	154,827	233,563	91,095	146,764	659,921	729,744	178,870	116,150	0	2,586,044
Avg Pay	45,852	38,707	46,713	45,548	48,921	50,763	56,134	44,718	116,150	0	50,707
40-44	4	2	6	4	3	13	9	12	2	0	55
Tot Pay	163,245	73,388	317,686	190,125	145,653	583,619	442,336	785,072	140,547	0	2,841,671
Avg Pay	40,811	36,694	52,948	47,531	48,551	44,894	49,148	65,423	70,274	0	51,667
45-49	6	2	6	10	3	7	9	15	4	1	63
Tot Pay	255,151	59,596	270,094	485,283	111,228	369,409	554,043	1,045,208	256,621	67,836	3,474,469
Avg Pay	42,525	29,798	45,016	48,528	37,076	52,773	61,560	69,681	64,155	67,836	55,150
50-54	2	4	4	0	2	8	16	14	8	1	59
Tot Pay	96,229	189,888	136,557	0	151,017	381,744	848,282	919,387	570,193	95,758	3,389,055
Avg Pay	48,114	47,472	34,139	0	75,508	47,718	53,018	65,670	71,274	95,758	57,442
55-59	6	1	2	5	1	9	16	19	5	0	64
Tot Pay	257,672	39,883	157,683	220,057	70,492	514,591	867,175	1,277,550	348,677	0	3,753,780
Avg Pay	42,945	39,883	78,842	44,011	70,492	57,177	54,198	67,239	69,735	0	58,653
60-64	0	3	1	1	2	10	9	16	10	1	53
Tot Pay	0	126,842	30,644	30,310	103,810	471,729	589,022	1,131,659	737,787	87,823	3,309,626
Avg Pay	0	42,281	30,644	30,310	51,905	47,173	65,447	70,729	73,779	87,823	62,446
65+	0	0	1	0	2	3	4	4	3	0	17
Tot Pay	0	0	41,102	0	147,931	196,634	195,649	236,333	185,328	0	1,002,977
Avg Pay	0	0	41,102	0	73,966	65,545	48,912	59,083	61,776	0	58,999
Tot No.	50	25	41	32	21	75	81	84	33	3	445
Tot Pay	2,043,496	1,014,739	1,928,165	1,445,712	1,116,210	3,719,960	4,548,607	5,574,079	2,355,303	251,417	23,997,688
Avg Pay	40,870	40,590	47,028	45,179	53,153	49,599	56,156	66,358	71,373	83,806	53,927



**INACTIVE PARTICIPANTS
AS OF OCTOBER 1, 2019**

Age	Terminated		Disabled		Retirees		Deceased with	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 40	8	65,154	0	-	0	-	2	26,919
40-44	4	53,127	0	-	2	54,631	0	-
45-49	8	83,057	0	-	7	231,491	0	-
50-54	3	35,216	0	-	12	508,575	0	-
55-59	4	58,692	0	-	14	750,732	2	34,539
60-64	2	41,504	0	-	29	1,118,220	3	41,611
65-69	0	-	0	-	39	958,501	2	20,554
70-74	0	-	0	-	23	489,549	2	44,975
75-79	0	-	0	-	31	664,420	0	-
80-84	0	-	0	-	12	209,111	0	-
85-89	0	-	0	-	9	88,271	1	8,199
90 & Up	0	-	0	-	2	11,646	0	-
Total	29	336,750	0	-	180	5,085,147	12	176,797

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 Miramar, Florida, Chapter 15, Article V, and was most recently amended under Ordinance No. 19-09, passed and adopted on November 28, 2018. The Plan is also governed by certain provisions Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

December 1, 1980-Amended Plan; Initial Effective Date was August 14, 1967 (Prior Plan)

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 general employees are eligible for membership on their dates of employment.

F. Credited Service

Service is measured as the total number years and completed months from the date of employment to the date of termination, retirement, disability or death. Vacations and other paid leaves of absence are included. Unpaid leaves of absence are not included. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation/Earnings

Basic rate of pay from the City, excluding overtime, bonuses, commissions and any other extraordinary compensation. Payments for unused leave are not included.

H. Average Monthly Earnings (AME)

The average of Earnings over the highest 3 years of Credited Service.



I. Normal Retirement

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

- (1) age 65 and 7 years of Credited Service, or
- (2) 20 years of Credited Service regardless of age.

Benefit: Credited Service multiplied by the percentage of AME as provided in the following table.

Years of Credited Service	Multiplier Applied to Service
Up to 20 years	3.25%
Above 20 years	3.00

Normal Form of Benefit: Single Life Annuity; other options also available.

COLA: None

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 55 and 7 years of Credited Service.

Benefit: The Normal Retirement Benefit is reduced by 6.0% for each year by which the Early Retirement date precedes what would have been the member’s Normal Retirement date if the member had continued employment with the City.

Normal Form of Benefit: Single Life Annuity; other options also available.

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

Not Applicable

M. Non-Service Connected Disability

Not Applicable



N. Death in the Line of Duty

Eligibility: Any vested member who dies prior to commencement of benefits is eligible for survivor benefits.

Benefit: For members eligible for an Early, Normal or Delayed Retirement, the benefit is calculated as though the member had retired on the date of death and had chosen the 10 Year Certain and Life Annuity option.

For members who die with 7 or more years of Credited Service but before they are eligible for Early Retirement, a monthly benefit is computed as though the member survived until their Early Retirement date.

Normal Form of Benefit: Benefit is payable for 10 years.

COLA: None

The beneficiary of a member who dies prior to being vested will receive a refund of the member's accumulated contributions with interest. The beneficiary of a non-vested member may elect to utilize accumulated, unused leave toward Credited Service at the time of death in order to meet the minimum vesting requirements of the Plan.

O. Other Pre-Retirement Death

Eligibility: Any vested member who dies prior to commencement of benefits is eligible for survivor benefits.

Benefit: For members eligible for an Early, Normal or Delayed Retirement, the benefit is calculated as though the member had retired on the date of death and had chosen the 10 Year Certain and Life Annuity option.

For members who die with 7 or more years of Credited Service but before they are eligible for Early Retirement, a monthly benefit is computed as though the member survived until their Early Retirement date.

Normal Form of Benefit: Benefit is payable for 10 years.

COLA: None

The beneficiary of a member who dies prior to being vested will receive a refund of the member's accumulated contributions with interest. The beneficiary of a non-vested member may elect to utilize accumulated, unused leave toward Credited Service at the time of death in order to meet the minimum vesting requirements of the Plan.



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 10 Year Certain and Life Annuity and the 50%, 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 7 years of Credited Service (see vesting table below).

Years Of Credited Service	Vested Percentage
Less Than 7	0%
7 or more	100

Benefit: The member’s accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of termination. Benefit is payable at the member’s Normal Retirement date.

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

COLA: None

Members terminating employment with less than 7 years of Credited Service will receive a refund of the member’s accumulated contributions with interest.

S. Refunds

Eligibility: All members terminating employment with less than 7 years of Credited Service are eligible. Optionally, vested members (those with 7 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 shall be credited to member contributions at the rates decided by the board on an annual interest crediting date to be established by the board. In no event may such interest rate exceed five (5) percent per year.

T. Member Contributions

9.50% of Earnings (1.5% from 10/1/94 through 3/31/95; 3% from 4/1/95 through 9/30/99, 7.36% 10/1/99 through 9/30/18).



U. Employer Contributions

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

V. Cost of Living Increases

Not Applicable

W. 13th Check

Not Applicable

X. Deferred Retirement Option Plan

Eligibility: The City Manager is eligible for the DROP upon the attainment of 20 years of Credited Service. All other members are eligible to enter the DROP at the earliest eligibility for normal retirement.

A written irrevocable election must be made to participate in the DROP.

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.

The City Manager may also elect to have all or a portion of their accumulated sick leave transferred to the DROP.

**Maximum
DROP Period:** 5 years

**Interest
Credited:** General Employees: DROP account balances are self-directed by members participating in the DROP, using the self-directed mutual fund options available under the DROP program.

City Manager: 50% of the City Manager's DROP account is credited or debited at an interest rate equal to the actual investment return earned by the pension plan and 50% of the funds will be invested in a special investment option established by the Board and the City Manager.

**Normal Form
of Benefit:** Members may choose from a lump sum, periodic payments, or rollover of balance to another qualified retirement plan. The City Manager may choose from the above options and a deferral of the distribution of the balance as permitted by law or any other distribution as permitted by law.

COLA: General employees: None
City Manager: 2.0% compounded annually for a period of 15 years.



Y. Other Ancillary Benefits

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

Z. Changes from Previous Valuation

None.