# MIAMI SPRINGS GENERAL EMPLOYEES RETIREMENT SYSTEM ANNUAL ACTUARIAL VALUATION AS OF OCTOBER 1, 2018

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2020







April 25, 2019

Board of Trustees City of Miami Springs General Employees Retirement System Miami Springs, Florida

#### Re: City of Miami Springs General Employees Retirement System 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 Miami Springs General Employees Retirement System 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 report 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 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, 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. Board of Trustees City of Miami Springs General Employees Retirement System April 25, 2019 Page ii

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 Cost Method. The investment return assumption was prescribed by the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Cost Method 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 Miami Springs General Employees 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.

Peter N. Strong and Nicolas Lahaye 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, MAA, FCA Enrolled Actuary No. 17-6975

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**SECTION A** 

**DISCUSSION OF VALUATION RESULTS** 

## **DISCUSSION OF VALUATION RESULTS**

### **Comparison of Required Employer Contributions**

The required employer contribution developed in this year's valuation is compared below to last year's results.

	For FYE 9/30/2020 Based on 10/1/2018 Valuation	Based on         Based on           10/1/2018         10/1/2017	
Required Employer Contribution Before Threshold is Applied, assuming equal installments throughout the year As % of Covered Payroll	\$ 611,475 16.62 %	\$    571,381 16.70  %	\$  40,094 (0.08) %
Required Employer Contribution After Threshold is Applied, assuming equal installments throughout the year As % of Covered Payroll	\$ 489,695 13.31 %	\$ 456,762 13.35 %	\$  32,933 (0.04) %
Required Employer Contribution After Threshold is Applied, assuming full payment on October 1st As % of Covered Payroll	\$ 472,860 12.85 %	\$ 440,599 12.88 %	\$  32,261 (0.03) %
As % of Total Payroll including DROP participants	11.73 %	11.53 %	0.20 %
Member Contribution Rate	8.31 %	8.35 %	(0.04) %

The required contribution of \$472,860 has been calculated under the assumption that full payment will be made on October 1, 2019. The actual employer contribution for the year ending September 30, 2018 was \$420,570. The required contribution reflecting actual payment timing was \$420,570.

#### **Revision in Benefits**

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

#### **Revisions in Actuarial Assumptions or Methods**

The assumed investment return assumption has been reduced by 0.25% from 7.25% to 7.00%. The impact of the assumption changes was an increase in the required contribution of 1.75% of covered payroll (as of the beginning of the contribution year and before the threshold is applied).



#### **Actuarial Experience**

There was a net actuarial gain of \$568,425 for the year which means that actual experience was more favorable than expected. The gain is primarily due to a recognized investment return (on the actuarial value of assets) above the assumed rate of 7.25%. The actual investment return was 9.9% based on the actuarial value of assets and 11.2% based on the market value of assets. There were also demographic experience gains primarily due to higher mortality experience among retirees than expected. The net actuarial gain reduced the required employer contribution by 1.43% of covered payroll (as of the beginning of the contribution year and before the threshold is applied).

#### **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 91.1% this year (after reflecting the assumption change) compared to 90.1% last year. The funded ratio this year was 93.4% prior to reflecting the assumption change.

#### **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*	16.11 %
Experience (Gains) or Losses	(1.43)
Revision in Assumptions/Methods	1.75
Amortization Payment on UAAL	(0.35)
Normal Cost Rate	0.00
Administrative Expense	(0.03)
Contribution Rate This Year*	16.05

\*Before threshold is applied, assuming full payment on October 1st.

### **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 \$1,188,249 as of the valuation date (see Section C). This difference will be gradually recognized over the next five years. In turn, the computed employer contribution rate will decrease by approximately 2.95% of covered payroll (as of the beginning of the contribution year and before the threshold is applied) over the same period in the absence of offsetting losses.



### **Relationship to Market Value**

If we were not using an asset smoothing method, the City contribution rate would have been 13.10% (as of the beginning of the contribution year and before the threshold is applied) and the funded ratio would have been 97.0%. The market value-based funded ratio was 94.5% last year. In the absence of other gains and losses or assumption changes, the City contribution rate would be expected to decrease to approximately that level over the next five 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;
- 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	5.5	5.5
Ratio of actuarial accrued liability to payroll	5.7	5.8
Ratio of actives to retirees and beneficiaries	0.9	0.8
Ratio of net cash flow to market value of assets (Net of DROP)	-3.6%	-4.4%
Duration of the actuarial accrued liability	10.9	10.5

### **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 Covered Annual Payroll Average Annual Payroll Average Age Average Past Service Average Age at Hire	\$ \$	76 3,554,733 46,773 40.1 6.8 33.3	\$ \$	73 3,305,740 45,284 40.4 6.5 33.9			
RETIREES, BENEFICIARIES & DROP			-				
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	83 1,269,488 15,295 72.9	\$ \$	87 1,297,058 14,909 73.0			
DISABILITY RETIREES							
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	2 30,030 15,015 66.7	\$ \$	2 30,030 15,015 65.7			
TERMINATED VESTED MEMBERS							
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	7 59,306 8,472 52.7	\$ \$	7 66,642 9,520 51.2			



ACTUARIALLY DETERMINED (REQUIRED) CONTRIBUTION (ADC)							
A. Valuation Date	October 1, 2018	October 1, 2018	October 1, 2018	October 1, 2017			
	After Changes & Assuming City Contribution made October 1st	After Changes	Before Changes	Assuming City Contribution made October 1st			
B. ADC to Be Paid During Fiscal Year Ending	9/30/2020	9/30/2020	9/30/2020	9/30/2019			
C. Assumed Dates of Employer Contributions	10/1/2019	Evenly	Evenly	10/1/2018			
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 154,035	\$ 154,035	\$ 118,950	\$ 169,482			
E. Employer Normal Cost	416,619	416,619	389,293	363,119			
F. Employer ADC if Paid on the Valuation Date: D+E	570,654	570,654	508,243	532,601			
G. Employer ADC Adjusted for Frequency of Payments	570,654	590,718	526,733	532,601			
H. Employer ADC as % of Covered Payroll	16.05 %	16.62 %	14.82 %	16.11 %			
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	3.50 %	3.50 %	3.50 %	3.50 %			
J. Covered Payroll for Contribution Year	3,679,149	3,679,149	3,679,149	3,421,441			
K. Employer ADC for Contribution Year Before Threshold: H x J	590,503	611,475	545,250	551,194			
L. Employer ADC as % of Covered Payroll in Contribution Year Before 10% Threshold: K÷J	16.05 %	16.62 %	14.82 %	16.11 %			
M. Employer ADC after Threshold	472,860	489,695	456,582	440,599			
N. Employer ADC as % of Covered Payroll after Threshold: M ÷ J	12.85 %	13.31 %	12.41 %	12.88 %			
O. Member Contribution Rate	8.31 %*	8.31 %	7.41 %	8.35 %*			

\* Member Contributions are still assumed to be made evenly throughout the year.



	ACTUARIAL VALUE OF BENEFITS AND ASSETS						
	Valuation Date Actuarial Present Value of All Projected	October 1, 2018 After Changes	October 1, 2018 Before Changes	October 1, 2017			
	Benefits for						
	1. Active Members						
	a. Service Retirement Benefits	\$ 8,933,323	\$ 8,528,769	\$ 7,642,646			
	b. Vesting Benefits	1,352,632	1,271,089	1,117,765			
	c. Disability Benefits	79,949	76,793	70,291			
	d. Preretirement Death Benefits	168,812	161,491	147,960			
	e. Return of Member Contributions	122,207	121,898	128,795			
	f. Total	10,656,923	10,160,040	9,107,457			
	2. Inactive Members						
	a. Service Retirees & Beneficiaries	12,634,367	12,390,532	12,643,926			
	b. Disability Retirees	266,226	261,447	265,609			
	c. Terminated Vested Members	469,564	453,020	514,049			
	d. Total	13,370,157	13,104,999	13,423,584			
	3. Total for All Members	24,027,080	23,265,039	22,531,041			
С.	Actuarial Accrued (Past Service)						
	Liability	20,182,852	19,689,692	19,316,048			
D.	Actuarial Value of Accumulated Plan Benefits per FASB No. 35	18,401,621	17,972,044	17,789,173			
Ε.	Plan Assets						
	1. Market Value	19,572,086	19,572,086	18,262,527			
	2. Actuarial Value	18,383,837	18,383,837	17,403,690			
<b>F</b> .	Unfunded Actuarial Accrued Liability: (C - E2)	1,799,015	1,305,855	1,912,358			
G.	Actuarial Present Value of Projected Covered Payroll	26,945,811	26,543,190	23,899,339			
н.	Actuarial Present Value of Projected Member Contributions	1,347,291	1,327,159	1,194,967			
١.	Accumulated Value of Active Member Contributions	1,618,941	1,618,941	1,412,819			



	CALCULATION OF EMPLOYER NORMAL COST						
A.	Valuation Date	October 1, 2018 After Changes					
В.	Normal Cost for						
	<ol> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total for Future Benefits</li> <li>Assumed Amount for Administrative Expenses</li> <li>Total Normal Cost</li> </ol>	\$ 367,649 105,567 4,235 8,752 19,492 505,695 <u>88,661</u> 594,356	\$ 346,913 99,398 4,046 8,329 <u>19,683</u> 478,369 <u>88,661</u> 567,030	\$ 324,994 90,070 3,697 7,818 18,522 445,101 <u>83,305</u> 528,406			
C.	Expected Member Contribution	177,737	177,737	165,287			
D.	Employer Normal Cost: B8-C	416,619	389,293	363,119			
E.	Employer Normal Cost as % of Covered Payroll	11.72 %	10.95 %	10.98 %			



## LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

UAAL Amoritzation Period and Payments									
Original UAAL						Cι	urrent UAAL		
FYE	Source	Amortization Period (Years)		Amount	Years Remaining		Amount	P	ayment
10/1/2009	Initial Unfunded	30	\$	(27,259)	21	\$	133,476	\$	11,512
10/1/2010	(Gain)/Loss	20		117,494	12		110,853		13,044
10/1/2010	Assumption Change	30		140,520	22		152,146		12,855
10/1/2011	(Gain)/Loss	20		327,186	13		271,665		30,378
10/1/2011	Assumption Change	30		147,089	23		139,160		11,538
10/1/2012	(Gain)/Loss	20		377,521	14		325,718		34,808
10/1/2012	Assumption Change	30		152,846	24		146,395		11,929
10/1/2013	(Gain)/Loss	20		203,827	15		175,313		17,989
10/1/2013	Assumption Change	30		156,294	25		146,562		11,754
10/1/2014	(Gain)/Loss	20		(279,983)	16		(250,990)		(24,831)
10/1/2015	(Gain)/Loss	20		(12,884)	17		(12,283)		(1,176)
10/1/2016	(Gain)/Loss	20		(16,073)	18		(15,751)		(1,463)
10/1/2016	Assumption Change	30		326,373	28		327,815		25,242
10/1/2017	(Gain)/Loss	20		(257,623)	19		(252,197)		(22,805)
10/1/2017	Assumption Change	30		480,156	29		476,398		36,264
10/1/2018	(Gain)/Loss	20		(568,425)	20		(568,425)		(50,145)
10/1/2018	Assumption Change	30		493,160	30		493,160		37,142
			\$	1,760,219		\$	1,799,015	\$	154,035

### **Amortization Schedule**

The UAAL is being liquidated as a level dollar amount over the number of years remaining in the amortization period. The following schedule illustrates the expected amortization of the UAAL:

Amortization Schedule					
Year	Expected UAAL				
2018	\$ 1,799,015				
2019	1,760,130				
2020	1,718,522				
2021	1,674,001				
2022	1,626,363				
2023	1,575,393				
2028	1,261,747				
2033	971,239				
2038	856,797				
2043	365,260				
2048	0				



## **ACTUARIAL GAINS AND LOSSES**

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

Deri	Derivation of the Current UAAL					
1.	Last Year's UAAL	\$	1,912,358			
2.	Last Year's Employer Normal Cost*		251,054			
3.	Last Year's Contributions		420,570			
4.	Interest at the Assumed Rate on: a. 1 and 2 for one year b. 3 from dates paid c. a - b	_	156,847 25,409 131,438			
5.	This Year's Expected UAAL: 1 + 2 - 3 + 4c		1,874,280			
6.	This Year's Actual UAAL (Before any changes in benefits and/or assumptions)		1,305,855			
7.	Net Actuarial Gain (Loss): (5) - (6)		568,425			
8.	Gain (Loss) due to investments		470,201			
9.	Gain (Loss) due to other sources		98,224			
10.	Change in UAAL due to assumption change		493,160			
11.	This Year's Actual UAAL (After assumption change)		1,799,015			

\*Reflecting 8.39% employee contribution rate for fiscal year beginning October 1, 2017.

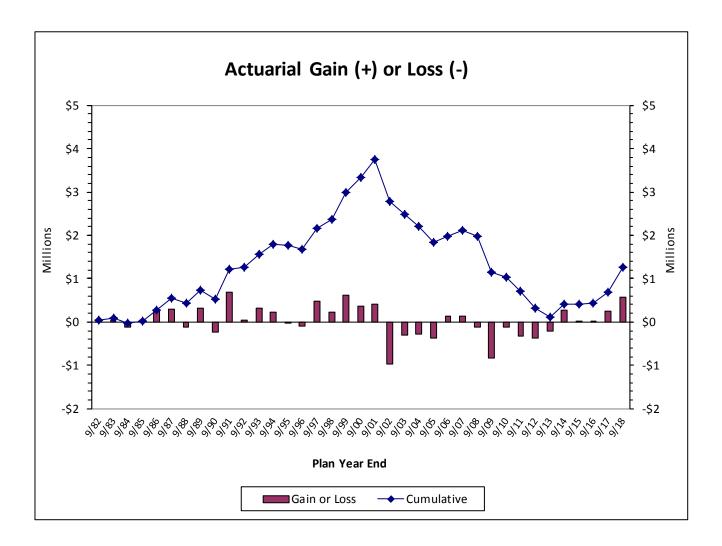


Net actuarial gains in previous years have been as follows:

Year Ended		Net Gain (Loss)	
9/30	Program A	Program B	Total
1982	\$ (2,335)	\$ 44,869	\$ 42,534
1982	46,535	5 44,805 581	47,116
1984	(58,275)	(57,793)	(116,068)
1985	(10,290)	56,699	46,409
1986	82,066	164,139	246,205
1987	119,175	170,784	289,959
1988	(17,814)	(110,004)	(127,818)
1989			315,845
1990			(226,101)
1991			697,646
1992			41,913
1993			314,306
1994			229,013
1995			(23,052)
1996			(94,520)
1997			470,551
1998			216,517
1999			612,683
2000			360,328
2001			412,403
2002			(973,805)
2003			(306,284)
2004			(276,317)
2005			(368,464)
2006			141,707
2007			136,442
2008			(127,451)
2009			(834,865)
2010 2011			(117,494) (327,186)
2012			(377,521)
2013			(203,827)
2014			279,983
2015			12,884
2016			16,073
2017			257,623
2018			568,425

Note: After 1988, Programs A and B combined.





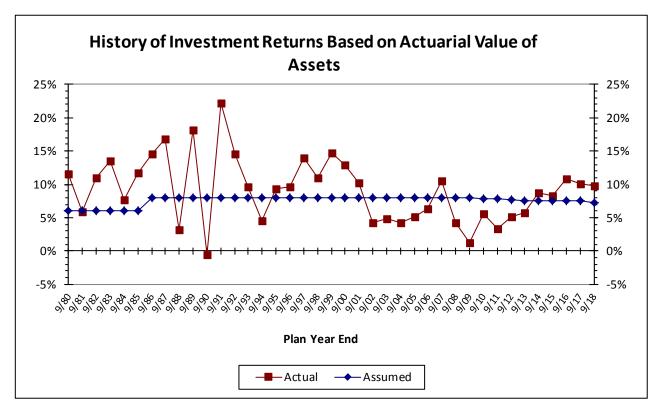


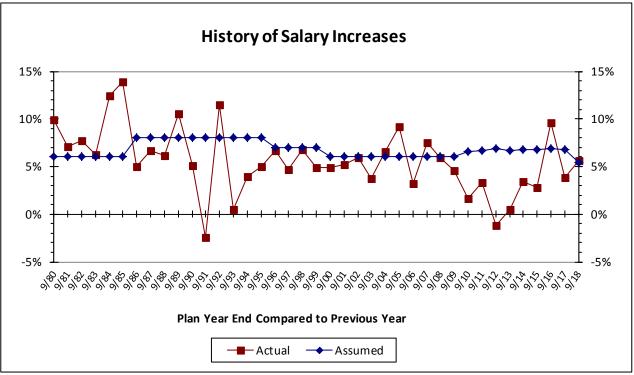
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

	Investment Return		Salary Ir	ncreases
Year Ending	Actual	Assumed	Actual	Assumed
9/30/1980	11.6 %	6.0 %	9.9 %	6.0 %
9/30/1981	5.9	6.0	7.1	6.0
9/30/1982	11.0	6.0	7.7	6.0
9/30/1983	13.6	6.0	6.3	6.0
9/30/1984	7.7	6.0	12.4	6.0
9/30/1985	11.8	6.0	13.9	6.0
9/30/1986	14.5	8.0	5.0	8.0
9/30/1987	16.8	8.0	6.7	8.0
9/30/1988	3.2	8.0	6.2	8.0
9/30/1989	18.2	8.0	10.6	8.0
9/30/1990	(0.5)	8.0	5.1	8.0
9/30/1991	22.2	8.0	(2.4)	8.0
9/30/1992	14.6	8.0	11.5	8.0
9/30/1993	9.6	8.0	0.5	8.0
9/30/1994	4.6	8.0	4.0	8.0
9/30/1995	9.4	8.0	5.0	8.0
9/30/1996	9.6	8.0	6.7	7.0
9/30/1997	13.9	8.0	4.7	7.0
9/30/1998	11.0	8.0	6.8	7.0
9/30/1999	14.7	8.0	4.9	7.0
9/30/2000	12.9	8.0	4.9	6.0
9/30/2001	10.2	8.0	5.2	6.0
9/30/2002	4.3	8.0	5.9	6.0
9/30/2003	4.8	8.0	3.7	6.0
9/30/2004	4.2	8.0	6.6	6.0
9/30/2005	5.2	8.0	9.2	6.0
9/30/2006	6.3	8.0	3.2	6.0
9/30/2007	10.6	8.0	7.5	6.0
9/30/2008	4.2	8.0	5.9	6.0
9/30/2009	1.3	8.0	4.6	6.0
9/30/2010	5.6	7.9	1.7	6.6
9/30/2011	3.3	7.8	3.3	6.7
9/30/2012	5.1	7.7	(1.2)	6.9
9/30/2013	5.8	7.6	0.5	6.7
9/30/2014	8.8	7.5	3.4	6.8
9/30/2015	8.4	7.5	2.9	6.8
9/30/2016	10.8	7.5	9.6	6.8
9/30/2017	10.1	7.5	3.9	6.8
9/30/2018	9.9	7.25	5.7	5.4
Averages	9.0 %		5.6 %	

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









Actual (A) Compared to Expected (E) Decrements Among Active Employees													
Year	Num Add Duri Ye	led ing	DF	ice & ROP ement	Disab Retire	•	De	ath	Te Vested	erminat Other		tals	Active Members End of
Ended	Α	Ε	Α	E	Α	E	Α	E	Α	Α	Α	Ε	Year
9/30/2002	17	16	8	12	0	0	0	0	3	5	8	4	88
9/30/2003	9	7	0	9	0	0	1	0	4	2	6	4	90
9/30/2004	10	17	3	10	0	0	0	0	2	12	14	4	83
9/30/2005	12	17	6	7	0	1	0	1	3	8	11	3	78
9/30/2006	19	15	3	7	0	0	0	0	0	12	12	3	82
9/30/2007	6	8	0	7	0	0	0	0	2	6	8	3	80
9/30/2008	7	12	0	10	0	0	1	0	1	10	11	3	75
9/30/2009	4	6	1	10	0	0	0	0	1	4	5	3	73
9/30/2010	12	6	2	8	0	0	0	0	1	3	4	5	79
9/30/2011	6	15	11	8	0	0	1	0	0	3	3	6	70
9/30/2012	4	12	5	5	0	0	0	0	2	5	7	6	62
9/30/2013	4	11	5	3	0	0	0	0	3	3	6	4	55
9/30/2014	4	9	5	4	0	0	1	0	1	2	3	4	50
9/30/2015	9	7	4	3	0	0	0	0	2	1	3	4	52
9/30/2016	28	10	3	2	1	0	0	0	1	5	6	5	70
9/30/2017	15	12	0	1	0	0	0	0	3	9	12	9	73
9/30/2018	14	11	1	1	0	0	0	0	1	9	10	10	76
9/30/2019				3		0		0				9	
17 Yr Totals *	180	191	57	107	1	1	4	1	30	99	129	80	

# Actual (A) Compared to Expected (E) Decrements

\* Totals are through current Plan Year only



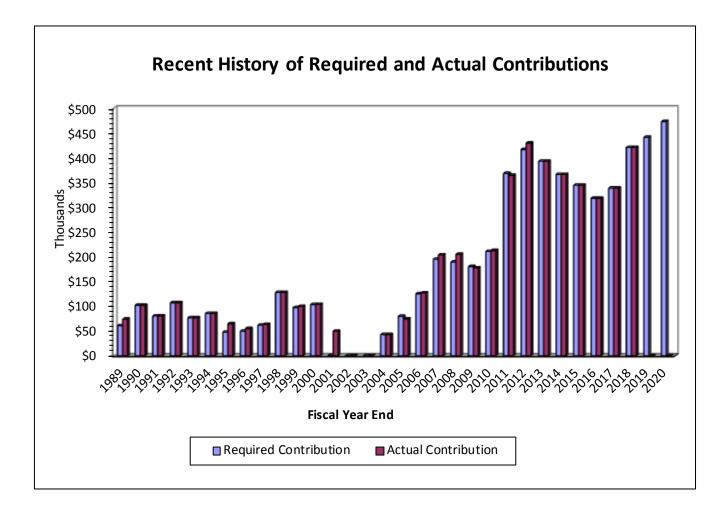
RECENT HISTORY OF VALUATION RESULTS									
	Num	per of						Employer No	ormal Cost
Valuation Date	Active Members	Inactive Members	Covered Annual Payroll	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Amount	% of Payroll
10/1/91	86	33	\$ 2,162,473	\$ 4,555,581	\$ 3,460,829	\$ (1,094,752)	131.6 %	\$ 67,697	3.13 %
10/1/92	85	36	2,442,571	4,976,504	4,237,651	(738,853)	117.4	75,670	3.10
10/1/93	95	36	2,491,348	5,460,492	4,369,493	(1,090,999)	125.0	42,189	1.69
10/1/94	95	35	2,550,907	5,752,917	4,456,390	(1,296,527)	129.1	44,036	1.73
10/1/95	97	40	2,602,431	6,270,385	5,318,611	(951,774)	117.9	54,597	2.10
10/1/96	98	41	2,863,384	6,830,478	5,955,713	(874,765)	114.7	113,027	3.95
10/1/97	96	42	2,916,129	7,703,046	6,380,390	(1,322,656)	120.7	85,972	2.95
10/1/98	94	44	2,977,751	8,495,731	6,883,280	(1,612,451)	123.4	74,966	2.52
10/1/99	90	49	2,863,379	9,646,613	7,308,588	(2,338,025)	132.0	(48,901)	(1.71)
10/1/00	93	51	3,069,479	10,780,335	8,273,005	(2,507,330)	130.3	(50,445)	(1.64)
10/1/01	87	53	2,987,599	11,671,813	9,132,700	(2,539,113)	127.8	(86,060)	(2.88)
10/1/02	88	60	3,222,834	11,845,208	9,776,521	(2,068,687)	121.2	38,617	1.20
10/1/03	90	62	3,262,260	12,040,035	10,265,029	(1,775,006)	117.3	73,162	2.24
10/1/04	83	66	3,160,625	12,194,853	10,766,920	(1,427,933)	113.3	114,745	3.63
10/1/05	78	72	3,155,692	12,407,308	11,326,985	(1,080,323)	109.5	178,678	5.66
10/1/06	82	66	3,157,952	12,767,033	11,434,793	(1,332,240)	111.7	173,533	5.50
10/1/07	80	68	3,364,865	13,786,880	12,271,087	(1,515,793)	112.4	166,555	4.95
10/1/08	75	67	3,429,028	13,945,299	12,736,662	(1,208,637)	109.5	194,819	5.68
10/1/09	73	67	3,495,598	13,736,039	13,708,780	(27,259)	100.2	347,141	9.93
10/1/10	79	66	3,731,068	14,132,944	14,515,197	382,253	97.4	379,050	10.16
10/1/11	70	74	3,221,566	14,316,041	15,232,512	916,471	94.0	337,176	10.47
10/1/12	62	78	2,821,874	14,537,003	15,971,613	1,434,610	91.0	305,853	10.84
10/1/13	55	84	2,430,353	14,657,002	16,482,270	1,825,268	88.9	265,890	10.94
10/1/14	50	88	2,238,008	15,260,442	16,757,713	1,497,271	91.1	260,482	11.64
10/1/15	52	93	2,379,287	15,830,330	17,237,855	1,407,525	91.8	287,565	12.09
10/1/16	70	97	3,112,373	16,570,614	18,254,929	1,684,315	90.8	349,525	11.23
10/1/17	73	96	3,305,740	17,403,690	19,316,048	1,912,358	90.1	363,119	10.98
10/1/18	76	92	3,554,733	18,383,837	20,182,852	1,799,015	91.1	416,619	11.72



	RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS				
		Required (	City		
Valuation	For Fiscal Year Ended	Contributi	on*	Actual City	
Date	September 30		% of	Contribution	
		Amount	Payroll		
10/1/87	1989	60,925	3.35	74,102	
10/1/88	1990	101,962	5.32	101,962	
10/1/89	1991	80,477	3.69	80,477	
10/1/90	1992	107,013	4.80	107,013	
10/1/91	1993	76,662	3.55	76,662	
10/1/92	1994	85,691	3.51	85,691	
10/1/93	1995	47,776	1.92	64,713	
10/1/94	1996	49,868	1.95	55,128	
10/1/95	1997	61,827	2.38	63,427	
10/1/96	1998	127,995	4.47	127,995	
10/1/97	1999	97,357	3.34	99,564	
10/1/98	2000	103,440	3.47	103,846	
10/1/99	2001	789	0.03	49,687	
10/1/00	2002	0	0.00	0	
10/1/01	2003	0	0.00	0	
10/1/02	2004	42,827	1.36	42,827	
10/1/03	2005	79,730	2.35	74,265	
10/1/04	2006	125,237	3.81	126,928	
10/1/05	2007	194,946	5.94	203,625	
10/1/06	2008	189,174	5.76	204,774	
10/1/07	2009	180,222	5.15	177,356	
10/1/08	2010	210,762	5.91	212,519	
10/1/09	2011	368,268	10.13	364,282	
10/1/10	2012	416,357	10.73	429,403	
10/1/11	2013	392,670	11.72	392,670	
10/1/12	2014	366,204	12.48	366,204	
10/1/13	2015	344,236	13.62	344,236	
10/1/14	2016	317,957	13.66	317,957	
10/1/15	2017	338,551	13.68	338,551	
10/1/16	2018	420,570	12.99	420,570	
10/1/17	2019	440,599	12.88		
10/1/18	2020	472,860	12.85		

\* Reflecting threshold after fiscal year ending September 30, 2010 and reflecting beginning of year expected contribution timing (October 1<sup>st</sup>) after fiscal year ending September 30, 2013.







## **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:

- 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) dollar contributions over a reasonable period of future years.

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

### **Valuation Assumptions**

**The actuarial assumptions used** in the valuation are shown in this Section. With the exception of the mortality assumption, which is prescribed by Florida Statutes, all assumptions listed herein were established following the Assumption Study and Experience Review for the Nine-Year Period Ending September 30, 2016, dated December 22, 2017.

#### **Economic Assumptions**

**The investment return rate** assumed in the valuations is 7.00% per year, compounded annually (net after investment expenses). This rate was 7.25% in the previous valuation.

The **Inflation Rate** assumed in this valuation was 2.5% per year. The Inflation Rate is defined to be the expected long-term rate of annual 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 7.00% investment return rate translates to an assumed real rate of return over inflation of 4.50%.



**The assumed rates of salary increase** for individual active members are shown below. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. Part of the assumption is for productivity, merit and/or seniority increase, and 2.5% recognizes inflation.

		% Increase in Salary			
	Years of	Merit and	Base	Total	
_	Service	Seniority	(Economic)	Increase	
	0-1	4.00%	2.50%	6.50%	
	2 - 3	3.75	2.50	6.25	
	4 - 11	3.50	2.50	6.00	
	12 - 15	1.75	2.50	4.25	
	16+	1.00	2.50	3.50	

#### **Demographic Assumptions**

**The mortality table** for healthy lives is the RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 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 Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes Chapter 112.63.

Sample	Probability of		Future Life		
Attained	Dying Nex	kt Year	Expectance	cy (years)	
Ages (in 2018)	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	

#### FRS Healthy Post-Retirement Mortality for Regular Class Members

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



Sample	Probabil	ity of	Future	ıture Life	
Attained	Dying Nex	xt Year	Expectan	cy (years)	
Ages (in 2018)	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	

#### FRS Healthy Pre-Retirement Mortality for Regular Class Members

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

For disabled lives, the RP-2000 Mortality Table for Disabled Annuitants was used, with a two year set forward for females and a four year setback for males, with no provision being made for future mortality improvements. These are the same rates currently in use for Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes Chapter 112.63.

Sample	Probability of		Future Life		
Attained	Dying Nex	xt Year	Expectance	cy (years)	
Ages (in 2018)	Men	Women	Men	Women	
50	2.38 %	1.35 %	20.25	23.74	
55	3.03	1.87	17.78	20.46	
60	3.67	2.41	15.55	17.43	
65	4.35	3.13	13.44	14.58	
70	5.22	4.29	11.39	11.96	
75	6.58	5.95	9.43	9.65	
80	8.70	8.23	7.65	7.66	

#### FRS Disabled Mortality for Regular Class Members



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

Number of Years	
After First Eligibility	Probability of
for Normal Retirement	Normal Retirement
0	50 %
1 - 10	25
11+	100

The rate of retirement is 5% for each year of eligibility for early retirement.

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

Years of	% of Active Members
Service	Separating Within Next Year
0 - 2	20.0 %
3 - 4	12.5
5 - 8	5.5
9 - 17	4.0
18+	3.0

**Rates of disability** among active members were as shown below. These are the same rates currently in use for Regular Class members of the Florida Retirement System (FRS).

	% Becoming Disabled within Next Year				
Sample	Non S	ervice-	Service-C	onnected	
Ages	Males	Females	Males	Females	
20	0.000%	0.000%	0.000%	0.000%	
25	0.010%	0.010%	0.001%	0.001%	
30	0.010%	0.010%	0.001%	0.001%	
35	0.020%	0.010%	0.001%	0.001%	
40	0.020%	0.020%	0.001%	0.001%	
45	0.080%	0.060%	0.004%	0.001%	
50	0.160%	0.100%	0.006%	0.006%	
55	0.250%	0.160%	0.006%	0.006%	
60	0.300%	0.260%	0.010%	0.013%	



# Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the expenses over the previous 2 years. Assumed administrative expenses are added to the Normal Cost.
Benefit Service	Exact fractional service is used to determine the amount of benefit payable.
Decrement Operation	Disability and mortality decrements operate during retirement eligibility.
Decrement Timing	Decrements of all types are assumed to occur at the beginning of the year.
Eligibility Testing	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Forfeitures	For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.
Incidence of Contributions	Employer contributions are assumed to be made in equal installments at the end of each pay period. 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.
Marriage Assumption	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Normal Form of Benefit	A life annuity is the normal form of benefit.
Pay Increase Timing	Middle of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Service Credit Accruals	It is assumed that members accrue one year of service credit per year.



## **GLOSSARY OF TERMS**

Actuarial Accrued Liability (AAL)	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
Actuarially Determined Contribution (ADC)	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADC consists of the Employer Normal Cost and Amortization Payment.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV)	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits (APVFB)	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.



Actuarial Value of Assets	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution (ADC).
Amortization Method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
Amortization Payment	That portion of the plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Amortization Period	The period used in calculating the Amortization Payment.
Closed Amortization Period	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Equivalent Single Amortization Period	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
Experience Gain/Loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.



Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
GASB	Governmental Accounting Standards Board.
GASB No. 67 and GASB No. 68	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
Open Amortization Period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.



**SECTION C** 

**PENSION FUND INFORMATION** 

## Statement of Plan Assets at Market Value

	Septen	nber 3	80
Item	 2018	2017	
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$	-
B. Receivables:			
1. Member Contributions	\$ -	\$	-
2. Employer Contributions	-		-
3. Investment Income and Other Receivables	 46,644		46,699
4. Total Receivables	\$ 46,644	\$	46,699
C. Investments			
1. Short Term Investments	\$ 565,560	\$	390,689
2. Domestic Equities	13,446,944		11,854,604
3. International Equities	-		-
4. Domestic Fixed Income	4,787,183		5,181,273
5. International Fixed Income	-		-
6. Real Estate	1,714,377		1,597,589
7. Private Equity	 -		-
8. Total Investments	\$ 20,514,064	\$	19,024,155
D. Liabilities			
1. Benefits Payable	\$ -	\$	-
2. Accrued Expenses and Other Payables	(16,769)		(24,179)
3. Total Liabilities	\$ (16,769)	\$	(24,179)
E. Total Market Value of Assets Available for Benefits	\$ 20,543,939	\$	19,046,675
F. DROP Accounts	\$ (971,853)	\$	(784,148)
G. Market Value Net of Reserves	\$ 19,572,086	\$	18,262,527
H. Allocation of Investments*			
1. Short Term Investments	2.8%		2.0%
2. Domestic Equities	65.5%		62.4%
3. International Equities	0.0%		0.0%
4. Domestic Fixed Income	23.3%		27.2%
5. International Fixed Income	0.0%		0.0%
6. Real Estate	8.4%		8.4%
7. Private Equity	 0.0%		0.0%
8. Total Investments	100.0%		100.0%

\*Excluding amounts due to broker from short-term investments (\$0 as of September 30, 2018; \$6,988 as of September 30, 2017).



			 Septemb	oer 30	
		Item	 2018		2017
A. N	Market	Value of Assets at Beginning of Year	\$ 19,046,675	\$	18,089,807
B. F	Revenu	es and Expenditures			
	1. Con <sup>-</sup>	tributions			
	a.	Employee Contributions	\$ 285,901	\$	283,972
	b.	Employer Contributions	420,570		338,551
	с.	Purchased Service Credit	 -		
	d.	Total	\$ 706,471	\$	622,523
	2. Inve	stment Income			
	a.	Interest, Dividends, and Other Income	\$ 436,907	\$	408,237
	b.	Net Realized/Unrealized Gains/(Losses)	1,803,517		1,739,426
	c.	Investment Expenses	(134,107)		(126,293)
	d.	Net Investment Income	\$ 2,106,317	\$	2,021,370
	3. Ben	efits and Refunds			
	a.	Regular Monthly Benefits	\$ (1,076,808)	\$	(1,121,990)
	b.	Refunds	(60,181)		(18,047)
	с.	Lump Sum Benefits Paid	-		-
	d.	DROP Distributions	(85,166)		(463,036)
	e.	Total	\$ (1,222,155)	\$	(1,603,073)
	4. Adm	ninistrative and Miscellaneous Expenses	\$ (93,369)	\$	(83,952)
	5. Tran	sfers	\$ -	\$	-
C. N	Market	Value of Assets at End of Year	\$ 20,543,939	\$	19,046,675
D. [	DROP A	ccounts	\$ (971,853)	\$	(784,148)
E. Market Value Net of Reserves		\$ 19,572,086	\$	18,262,527	

## **Reconciliation of Plan Assets**



	Valuation Date – September 30	2017	2018	2019	2020	2021	2022
A.	Actuarial Value of Assets Beginning of Year	\$ 17,530,720	\$ 18,187,838				
В.	Market Value End of Year	19,046,675	20,543,939				
C.	Market Value Beginning of Year	18,089,807	19,046,675				
D.	Non-Investment/Administrative Net Cash Flow	(1,064,502)	(609,053)				
E.	Investment Income						
	E1. Actual Market Total: B-C-D	2,021,370	2,106,317				
	E2. Assumed Rate of Return	7.50%	7.25%	7.00%	7.00%	7.00%	7.00%
	E3. Assumed Amount of Return	1,283,349	1,306,704				
	E4. Amount Subject to Phase-In: E1–E3	738,021	799,613				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.2 x E4	147,604	159,923				
	F2. First Prior Year	96,061	147,604	159,923			
	F3. Second Prior Year	(86,378)	96,061	147,604	159,923		
	F4. Third Prior Year	152,991	(86,378)	96,061	147,604	159,923	
	F5. Fourth Prior Year	127,993	152,991	(86,378)	96,063	147,605	159,921
	F6. Total Phase-Ins	438,271	470,201	317,210	403,590	307,528	159,921
G.	Actuarial Value of Assets End of Year						
	G1. Preliminary Actuarial Value of Assets End of Year:						
	A+D+E3+F6	\$ 18,187,838	\$ 19,355,690				
	G2. Upper Corridor Limit: 120%*B	22,856,010	24,652,727				
	G3. Lower Corridor Limit: 80%*B	15,237,340	16,435,151				
	G4. Actuarial Value of Assets End of Year	18,187,838	19,355,690				
	G5. DROP Accounts	(784,148)	(971,853)				
	G6. Final Actuarial Value of Assets End of Year	17,403,690	18,383,837				
Н.	Difference between Market & Actuarial Value of Assets	858,837	1,188,249				
١.	Actuarial Rate of Return	10.06%	9.86%				
J.	Market Value Rate of Return	11.44%	11.15%				
к	Ratio of Actuarial Value of Assets to Market Value	95.49%	94.22%				

#### **Development of Actuarial Value of Assets**

The Actuarial Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment income (Line E4) are phased-in over a closed 5-year period. 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 the assumed rate, Actuarial Value of Assets will tend to be greater than Market Value. If assumed rates are exactly realized for 5 consecutive years, Actuarial Value of Assets will become equal to Market Value.



## **Reconciliation of DROP Accounts**

Year Ended 9/30	Balance at Beginning of Year	Ad	justment	Credits	_1	nterest	Dis	stributions	Balance at End of Year
2010	\$ 343,289	\$	-	\$ 76,894	\$	8,837	\$	(285,437)	\$ 143,583
2011	\$ 143,583	\$	-	\$ 101,170	\$	(4,076)	\$	(110,841)	\$ 129,836
2012	\$ 129,836	\$	-	\$ 274,088	\$	44,504	\$	-	\$ 448,428
2013	\$ 448,428	\$	-	\$ 356,657	\$	74,150	\$	(108,760)	\$ 770,476
2014	\$ 770,476	\$	108,760	\$ 332,430	\$	97,472	\$	(304,766)	\$1,004,372
2015	\$1,004,372	\$	36,550	\$ 326,274	\$	50,098	\$	(224,555)	\$1,192,739
2016	\$1,192,739	\$	-	\$ 462,292	\$	112,193	\$	(807,118)	\$ 960,106
2017	\$ 960,106	\$	-	\$ 203,086	\$	83,992	\$	(463,036)	\$ 784,148
2018	\$ 784,148	\$	-	\$ 177,648	\$	95,223	\$	(85,166)	\$ 971,853



Year Ending	Investment I	Rate of Return
September 30	Market Value	Actuarial Value
1978	6.1 %	
1979	5.1	
1980	5.2	11.6 %
1981	2.1	5.9
1982	21.3	11.0
1983	13.6	13.6
1984	5.9	7.7
1985	17.5	11.8
1986	18.9	14.5
1987	11.1	16.8
1988	4.0	3.2
1989	18.2	18.2
1990	(0.5)	(0.5)
1991	22.2	22.2
1992	14.6	14.6
1993	11.5	9.6
1994	1.2	4.6
1995	19.3	9.4
1996	12.4	9.6
1997	28.3	13.9
1998	5.8	11.0
1999	12.9	14.7
2000	8.9	12.9
2001	1.5	10.2
2002	(4.6)	4.3
2003	14.5	4.8
2004	8.7	4.2
2005	9.0	5.2
2006	6.6	6.3
2007	13.4	10.6
2008	(12.8)	4.2
2009	(3.2)	1.3
2010	7.3	5.6
2011	(3.7)	3.3
2012	19.4	5.1
2013	12.2	5.8
2014	12.0	8.8
2015	4.5	8.4
2016	10.0	10.8
2017	11.4	10.1
2018	11.2	9.9
Average Returns:		
Last 5 Years	9.8 %	9.6 %
Last 10 Years	7.9 %	6.9 %
All Years	9.0 %	9.0 %
All leals	5.0 /0	5.0 /0

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



**SECTION D** 

**FINANCIAL ACCOUNTING INFORMATION** 

	FASB NO. 35 INFORMATION									
Α.	Valuation Date	October 1, 2018	October 1, 2017							
В.	Actuarial Present Value of Accumulated Plan Benefits									
	1. Vested Benefits									
	<ul> <li>a. Members Currently Receiving Payments</li> <li>b. Terminated Vested Members</li> <li>c. Other Members</li> <li>d. Total</li> </ul>	\$ 12,900,593 469,564 4,989,445 18,359,602	\$ 12,909,535 514,049 4,328,380 17,751,964							
	<ol> <li>Non-Vested Benefits</li> <li>Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2</li> </ol>	42,019 18,401,621	37,209 17,789,173							
	4. Accumulated Contributions of Active Members	1,618,941	1,412,819							
C.	Changes in the Actuarial Present Value of Accumulated Plan Benefits									
	<ol> <li>Total Value at Beginning of Year</li> <li>Increase (Decrease) During the Period</li> </ol>	17,789,173	17,138,714							
	Attributable to:									
	a. Plan Amendment b. Change in Actuarial Assumptions c. Latest Member Data, Benefits Accumulated	0 429,577	0 393,403							
	and Decrease in the Discount Period d. Benefits Paid (net basis) e. Net Increase	1,497,508 (1,314,637) 612,448	1,600,179 (1,343,123) 650,459							
	3. Total Value at End of Period	18,401,621	17,789,173							
D.	Market Value of Assets	19,572,086	18,262,527							
E.	Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods									



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

Fiscal year ending September 30,	 2019*	2018	2017	2016	2015	2014
Total pension liability						
Service Cost	\$ 478,369	\$ 449,371	\$ 425,585	\$ 327,212	\$ 298,401	\$ 318,230
Interest	1,480,779	1,446,426	1,346,316	1,332,765	1,326,920	1,281,464
Benefit Changes	-	-	-	-	-	-
Difference between actual & expected experience	(114,573)	185,603	603,966	109,558	(166,972)	34,570
Assumption Changes	506,126	461,742	347,759	-	-	-
Benefit Payments	(1,592,051)	(1,161,974)	(1,585,026)	(1,731,453)	(993,482)	(908,927)
Refunds	 (52,364)	(60,181)	(18,047)	(39,929)	(53 <i>,</i> 595)	(60 <i>,</i> 675)
Net Change in Total Pension Liability	706,286	1,320,987	1,120,553	(1,847)	411,272	664,662
Total Pension Liability - Beginning	20,768,373	19,447,386	18,326,833	18,328,680	17,917,408	17,252,746
Total Pension Liability - Ending (a)	\$ 21,474,659	\$ 20,768,373	\$ 19,447,386	\$ 18,326,833	\$ 18,328,680	\$ 17,917,408
Plan Fiduciary Net Position						
Contributions - Employer	\$ 440,599	\$ 420,570	\$ 338,551	\$ 317,957	\$ 344,236	\$ 366,204
Contributions – Employer (from state)	-	-	-	-	-	-
Contributions – Non-Employer contributing entity	-	-	-	-	-	-
Contributions - Member	296,820	285,901	283,972	252,554	208,312	188,555
Net Investment Income	1,418,649	2,106,317	2,021,370	1,720,828	766,343	1,903,591
Benefit Payments	(1,592,051)	(1,161,974)	(1,585,026)	(1,731,453)	(993,482)	(908,927)
Refunds	(52,364)	(60,181)	(18,047)	(39,929)	(53 <i>,</i> 595)	(60,675)
Administrative Expense	(88,661)	(93 <i>,</i> 369)	(83,952)	(82,657)	(82,212)	(76,422)
Other	 -	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	422,992	1,497,264	956,868	437,300	189,602	1,412,326
Plan Fiduciary Net Position - Beginning	 20,543,939	19,046,675	18,089,807	17,652,507	17,462,905	16,050,579
Plan Fiduciary Net Position - Ending (b)	\$ 20,966,931	\$ 20,543,939	\$ 19,046,675	\$ 18,089,807	\$ 17,652,507	\$ 17,462,905
Net Pension Liability - Ending (a) - (b)	507,728	224,434	400,711	237,026	676,173	454,503
Plan Fiduciary Net Position as a Percentage						
of Total Pension Liability	97.64 %	98.92 %	97.94 %	98.71 %	96.31 %	97.46 %
Covered Payroll	\$ 3,554,733	\$ 3,407,640	\$ 3,124,004	\$ 2,757,140	\$ 2,284,123	\$ 2,388,786
Net Pension Liability as a Percentage						
of Covered Payroll	14.28 %	6.59 %	12.83 %	8.60 %	29.60 %	19.03 %

\* 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

	Total			Plan Fiduciary Net Position		Net Pension Liability
FY Ending September 30,	Pension Liability	Plan Fiduciary Net Position	 et Pension Liability	as a % of Total Pension Liability	Covered Payroll	Liability as a % of Covered Payroll
September 50,	Liability	Netrostion	 Liability			
2014	\$ 17,917,408	\$ 17,462,905	\$ 454,503	97.46%	\$2,388,786	19.03%
2015	18,328,680	17,652,507	676,173	96.31%	2,284,123	29.60%
2016	18,326,833	18,089,807	237,026	98.71%	2,757,140	8.60%
2017	19,447,386	19,046,675	400,711	97.94%	3,124,004	12.83%
2018	20,768,373	20,543,939	224,434	98.92%	3,407,640	6.59%
2019*	21,474,659	20,966,931	507,728	97.64%	3,554,733	14.28%

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



# NOTES TO EMPLOYERS 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	2.5%									
Salary Increases	3.5% to 6.5% depending on service, including inflation									
Investment Rate of Return	7.00%									
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition									
Mortality	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 Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes Chapter 112.63.									
Other Information:										
Notes	See Discussion of Valuation Results in Section A of this report.									



# SCHEDULE OF CONTRIBUTIONS GASB Statement No. 67

FY Ending September 30,	De	ctuarially etermined ntribution	Actual htribution*		Contribution Deficiency Covered (Excess) Payroll			Actual Contribution as a % of Covered Payroll	
2014 2015 2016 2017 2018	\$	366,204 344,236 317,957 338,551 420,570	\$ 366,204 344,236 317,957 338,551 420,570	*	\$	- - - -	\$	2,388,786 2,284,123 2,757,140 3,124,004 3,407,640	15.33% 15.07% 11.53% 10.84% 12.34%
2019**		440,599	440,599			-		3,554,733	12.39%

\* A receivable City contribution for the fiscal year ending September 30, 2014 of \$12,537, deposited after September 30, 2014, is reflected in the 2014 fiscal year actual contribution figure and excluded from the 2015 fiscal year.

\*\* 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: Notes October 1, 2017 Actuarially determined contributions are calculated as of October 1, which is one year prior to the expected contribution date and the beginning of the fiscal year in which the contribution is due.

#### Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method Amortization Method Remaining Amortization Period Asset Valuation Method Inflation Salary Increases Investment Rate of Return Retirement Age	Entry Age Normal Level Dollar, Closed 21 years (single equivalent period) 5-year smoothed market 2.5% 3.5% to 6.5% depending on service, including inflation 7.25% 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 Regular Class members of the Florida Retirement System (FRS), as mandated by Florida Statutes Chapter 112.63.
Other Information:	
Notes	See Discussion of Valuation Results in the October 1, 2017 Actuarial Valuation Report (dated April 25, 2018).



# 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:

Current Single Discount								
1% Decrease			Rate Assumption		1% Increase			
6.00%			7.00%		8.00%			
\$	2,777,503	\$	507,728	\$	(1,389,786)			

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

\* 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		
Α.	Active Members	-			
1.	Number Included in Last Valuation	73	70		
2.	New Members Included in Current Valuation	14	15		
3.	Non-Vested Employment Terminations	(9)	(9)		
4.	Vested Employment Terminations	(1)	(3)		
5.	DROP Participation	0	0		
6.	Service Retirements	(1)	0		
7.	Disability Retirements	0	0		
8.	Deaths	0	0		
9.	Transfer from General Employees	0	0		
10.	Number Included in This Valuation	76	73		
В.	Terminated Vested Members				
1.	Number Included in Last Valuation	7	6		
2.	Additions from Active Members	1	3		
3.	Lump Sum Payments/Refund of Contributions	0	(2)		
4.	Payments Commenced	(1)	0		
5.	Deaths	0	0		
6.	Other	0	0		
7.	Number Included in This Valuation	7	7		
С.	DROP Plan Members				
1.	Number Included in Last Valuation	7	11		
2.	Additions from Active Members	0	0		
3.	Retirements	(1)	(4)		
4.	Deaths Resulting in No Further Payments	0	0		
5.	Other - Data Adjustment	0	0		
6.	Number Included in This Valuation	6	7		
D.	Service Retirees, Disability Retirees and Beneficia	aries			
1.	Number Included in Last Valuation	82	80		
2.	Additions from Active Members	1	0		
3.	Additions from Terminated Vested Members	1	0		
4.	Additions from DROP Plan	1	4		
5.	Deaths Resulting in No Further Payments	(6)	(3)		
6.	Deaths Resulting in New Survivor Benefits	0	0		
7.	End of Certain Period - No Further Payments	0	0		
8.	Other - Data Adjustment	0	1		
9.	Number Included in This Valuation	79	82		



Active Members as of October 1, 2018 Years of Service to Valuation Date													
A so Crown	0.1	1.2	2.2	3-4					20.24	25.20	20.24	25.	Tatala
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35+	Totals
15-19 NO.	1	0	0	0	0	0	0	0	0	0	0	0	1
TOT PAY	35,421	0	0	0	0	0	0	0	0	0	0	0	35,421
AVG PAY	35,421	0	0	0	0	0	0	0	0	0	0	0	35,421
20.24.00	1	4	0	4	0	0	0	0	0	0	0	0	2
20-24 NO.	1	1	0	1	0	0	0	0	0	0	0	0	3
ΤΟΤ ΡΑΥ	29,108 29,108	34,917	0 0	36,272	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0	100,297
AVG PAY	29,108	34,917	0	36,272	0	0	0	0	0	0	0	0	33,432
25-29 NO.	8	4	4	1	0	1	0	0	0	0	0	0	18
TOT PAY	254,479	113,048	147,455	36,435	0	43,677	0	0	0	0	0	0	595,094
AVG PAY	31,810	28,262	36,864	36,435	0	43,677	0	0	0	0	0	0	33,061
30-34 NO.	2	3	5	0	0	3	1	0	0	0	0	0	14
TOT PAY			191,910	0	0	172,310	53,810	0	0	0	0	0	574,094
AVG PAY	28,324	33,139	38,382	0		57,437	53,810	0	0	0	0	0	41,007
		-											
35-39 NO.	1	1	1	1	0	1	0	0	0	0	0	0	5
ΤΟΤ ΡΑΥ	26,454	51,292	39,039	33,306	0	- /	0	0	0	0	0	0	,
AVG PAY	26,454	51,292	39,039	33,306	0	40,583	0	0	0	0	0	0	38,135
40-44 NO.	0	0	0	2	1	1	1	1	0	0	0	0	6
TOT PAY	0	0	0	164,832	82,710	100,462	53 <i>,</i> 860	42,096	0	0	0	0	443,960
AVG PAY	0	0	0	82,416	82,710	100,462	53 <i>,</i> 860	42,096	0	0	0	0	73,993
45-49 NO.	0	1	1	1	0	0	1	1	0	1	0	0	6
TOT PAY	0	51,477	39,039	38,419	0		100,005	41,940	0	53,157	0	0	324,037
AVG PAY	0	51,477	39,039	38,419	0		100,005	41,940	0	53,157	0	0	54,006
	1	0	0	1	0	0	2	3	0	1	1	0	9
50-54 NO. TOT PAY	ı 30,948	0 0	0	ı 45,872	0	-	2 131,858	-	0	1 96,038	1 58,632	0 0	9 525,650
AVG PAY	30,948 30,948	0	0	45,872 45,872	0	0	65,929	54,101	0	96,038 96,038	58,632	0	525,650 58,406
55-59 NO.	0	0	2	0	0	1	2	2	0	0	0	1	8
ΤΟΤ ΡΑΥ	0	0	106,014	0	0	29,783	,	108,889	0	0	0	,	376,360
AVG PAY	0	0	53,007	0	0	29,783	39,258	54,444	0	0	0	53,158	47,045
60-64 NO.	0	0	1	1	0	0	1	1	0	0	0	0	4
ΤΟΤ ΡΑΥ	0	0	33,402	34,497	0	0	41,083	54,383	0	0	0	0	163,365
AVG PAY	0	0	33,402	34,497	0	0	41,083	54 <i>,</i> 383	0	0	0	0	40,841
65-99 NO.	0	1	0	0	0	1	0	0	0	0	0	0	2
TOT PAY	0	25,273	0	0		91,533	0	0	0	0	0	0	116,806
AVG PAY	0	25,273	0	0		91,533	0	0	0	0	0	0	58,403
	1 /	11	14	0	1	0	8	8	0	n	1	1	76
TOT NO.	14 422.059	11 275 422		8 200 622	1 82 710				0	2		ı 53,158	
			556,859 30 776				459,132			149,195			
AVG AMT	30,933	34,129	39,170	48,704	02,/10	59,/94	57,392	51,201	U	74,598	50,032	53,158	45,339



$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Inactive Members as of October 1, 2018						
AgeNumberAnnualAnnualAnnualAnnualAnnualAgeNumberBenefitsNumberBenefitsNumberBenefitsNumberUnder 2020 - 2425 - 2930 - 3435 - 3919,36040 - 44115,98345 - 49122,125127,45955 - 595333,9639153,06760 - 64960 - 64122,125170 - 74118,30870 - 74180 - 8480 - 84390 - 94390 - 94390 - 943	Beneficiaries		Total				
Age         Number         Benefits         Number         Benefits         Number         Benefits         Number           Under 20         -         <	Total			Total			
Under 20 $20 - 24$ $25 - 29$ $30 - 34$ $35 - 39$ 19,360 $40 - 44$ 115,983 $45 - 49$ $50 - 54$ 122,125127,459 $55 - 59$ 533,9639199,064 $60 - 64$ 9153,067 $65 - 69$ 12232,063 $70 - 74$ 10118,308 $75 - 79$ 15226,177 $80 - 84$ 17,90510133,519 $85 - 89$ 345,213 $90 - 94$ 219,287			Annual		Annual		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Number	Number B	Benefits	Number	Benefits		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	-	-	-	-		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	-	-	-	-		
35 - 39       1       9,360       -       -       -       -       -         40 - 44       1       15,983       -       -       -       -       -         45 - 49       -       -       -       -       -       -       -       -         50 - 54       -       -       1       22,125       1       27,459       -         55 - 59       5       33,963       -       -       9       199,064         60 - 64       -       -       -       -       9       153,067         65 - 69       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       -       -       3       45,213         90 - 94       -       -       -       -       3       45,213         90 - 94       -       -       -       -       2       19,287	-	-	-	-	-		
40 - 44       1       15,983       -       -       -       -         45 - 49       -       -       -       -       -       -       -         50 - 54       -       -       1       22,125       1       27,459         55 - 59       5       33,963       -       -       9       199,064         60 - 64       -       -       -       -       9       153,067         65 - 69       -       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       -       -       3       45,213         90 - 94       -       -       -       -       3       45,213	-	-	-	-	-		
45 - 49       -       -       -       -       -       -         50 - 54       -       -       1       22,125       1       27,459         55 - 59       5       33,963       -       -       9       199,064         60 - 64       -       -       -       9       153,067         65 - 69       -       -       -       9       153,067         65 - 69       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       -       -       3       45,213         90 - 94       -       -       -       -       3       45,213	-	-	-	1	9,360		
45 - 49       -       -       -       -       -       -         50 - 54       -       -       1       22,125       1       27,459         55 - 59       5       33,963       -       -       9       199,064         60 - 64       -       -       -       9       153,067         65 - 69       -       -       -       9       153,067         65 - 69       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       -       -       3       45,213         90 - 94       -       -       -       -       3       45,213							
50 - 54       -       -       1       22,125       1       27,459         55 - 59       5       33,963       -       -       9       199,064         60 - 64       -       -       -       -       9       153,067         65 - 69       -       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       -       2       19,287	1	1	7,236	2	23,219		
55 - 59       5       33,963       -       -       9       199,064         60 - 64       -       -       -       9       153,067         65 - 69       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       3       45,213         90 - 94       -       -       -       2       19,287	-	-	-	-	-		
60 - 64       -       -       -       9       153,067         65 - 69       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       2       19,287	-	-	-	2	49,584		
65 - 69       -       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       2       19,287	-	-	-	14	233,027		
65 - 69       -       -       -       -       12       232,063         70 - 74       -       -       -       10       118,308         75 - 79       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       2       19,287	4		44 527	10	464.604		
70 - 74       -       -       -       -       10       118,308         75 - 79       -       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       -       2       19,287	1	1	11,537	10	164,604		
75 - 79       -       -       -       -       15       226,177         80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       -       2       19,287	-	-	-	12	232,063		
80 - 84       -       -       1       7,905       10       133,519         85 - 89       -       -       -       -       3       45,213         90 - 94       -       -       -       -       2       19,287	2		16,024	12	134,332		
85 - 89     -     -     -     3     45,213       90 - 94     -     -     -     2     19,287	2	2	6,484	17	232,661		
85 - 89     -     -     -     3     45,213       90 - 94     -     -     -     2     19,287	1	1	12,104	12	153,528		
90 - 94 2 19,287	2		12,104	5	61,811		
	2		10,598	3	30,824		
95-99 2 33,811	1	±	11,337	2	30,824		
95 - 99 2 33,811 100 & Over	-		-				
Total         7         59,306         2         30,030         73         1,187,968	- 10	- 10	- 81,520	92	1,358,824		



**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 Miami Springs, Florida, Chapter 35, Article I, and was most recently amended under Ordinance No. 1080-2015 passed and adopted on May 27, 2015. The Plan is also governed by certain provisions of Part VII, Chapter 112, <u>Florida Statutes</u> and the Internal Revenue Code.

#### B. Effective Date

January 1, 1960

#### 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 employees, except police officers and firefighters, who work at least 1000 hours per year. Employees appointed to director positions (City Manager, Assistant City Manager, or Department Director) after May 27, 2015 have the option to join the Plan.

#### F. Credited Service

Service is measured as the total number years and fractional parts of years of service rendered to the City. No service is credited for any periods of employment for which the member received a refund of their contributions.

#### G. Compensation

Salary or wages paid for personal services rendered to the City, but not including allowances for food, clothing, shelter, or travel expense.

## H. Final Average Salary (FAS)

The average of the highest Compensation over any 5 years of Credited Service out of the last 10 years prior to termination or retirement. Compensation for FAS excludes overtime and lump sum payments at retirement for unused sick leave and vacation pay.



#### I. Normal Retirement

Eligibility:	A member may retire on the first day of the month coincident with or next following the earlier of:				
	<ul><li>(1) age 62 and 5 years of Credited Service, or</li><li>(2) when age plus Credited Service equals 75 years.</li></ul>				
Benefit:	1.75% of FAS multiplied by each year of Credited Service prior to 10/1/89, plus 2.50% of FAS multiplied by each year of Credited Service after 10/1/89; former program A members receive credit at the rate of 1.00% for service prior to 10/1/89.				
Normal Form of Benefit:	Single life Annuity; other options are also available.				
COLA:	None				
Early Retirement					
Eligibility:	A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 55 and 10 years of Credited Service.				

Benefit: The Normal Retirement Benefit is reduced by .25% for each month by which the Early Retirement date precedes the Normal Retirement date.

#### Normal Form

J.

of Benefit: Single life Annuity; other options are 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

- Eligibility: Any member who has 10 or more years of Credited Service and becomes totally and permanently disabled and rendered incapacitated for duty in the employ of the City is immediately eligible for a disability benefit. The 10 year requirement is waived if the member is receiving Worker's Compensation.
- Benefit: The accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of disability payable immediately. If a member is receiving Worker's Compensation, the minimum benefit is 25% of salary; upon termination of Worker's Compensation, benefit is recomputed by allowing additional service credit from date of retirement to age 60.



Normal Form

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

COLA: None

#### M. Non-Service Connected Disability

- Eligibility: Any member who has 10 or more years of Credited Service and becomes totally and permanently disabled and rendered incapacitated for duty in the employ of the City is immediately eligible for a disability benefit. The 10 year requirement is waived if the member is receiving Worker's Compensation.
- Benefit: The accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of disability payable immediately. If a member is receiving Worker's Compensation, the minimum benefit is 25% of salary; upon termination of Worker's Compensation, benefit is recomputed by allowing additional service credit from date of retirement to age 60.

#### Normal Form

- of Benefit: Payable for life or until recovery from disability; other options are also available.
- COLA: None

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

- Eligibility: Members with 10 or more years of Credited Service are eligible for survivor benefits.
- Benefit: The beneficiary will receive the member's accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death.

#### Normal Form

of Benefit: Payable immediately as though the member had retired on the date of death and elected the 100% Joint & Survivor option.

COLA: None

The beneficiary of a plan member who dies with less than 10 years of Credited Service will receive a refund of the member's accumulated contributions with interest.

#### O. Other Pre-Retirement Death

- Eligibility: Members with 10 or more years of Credited Service are eligible for survivor benefits.
- Benefit: The beneficiary will receive the member's accrued Normal Retirement Benefit taking into account compensation earned and service credited as of the date of death.



Normal Form

of Benefit: Payable immediately as though the member had retired on the date of death and elected the 100% Joint & Survivor option.

COLA: None

The beneficiary of a plan member who dies with less than 10 years of Credited Service 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 forms of benefits available to all retirees are a 10 Year Certain and Life Annuity and the 50% and 100% Joint and Survivor options.

#### R. Vested Termination

- Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service.
- Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins on the member's Normal Retirement date determined as though the member had remained in full-time employment. Alternatively, a member may elect a refund of their own accumulated contributions with interest or, if the member had 10 years of Credited Service, a reduced Early Retirement Benefit any time after age 55.

#### Normal Form

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

#### COLA: None

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 credited at a rate that is determined by the Board each year.



#### T. Member Contributions

5.0% of Compensation; when the total annual required contribution is greater than 15% of payroll, the amount over 15% is shared equally by the City and the members.

#### U. Employer Contributions

Any additional amount determined by the actuary needed to fund the plan properly according to State laws. When the total annual required contribution is greater than 15% of payroll (the threshold of 15% of payroll is comprised on the City contribution of 10% of payroll and the member contribution rate of 5% of pay), the amount over 15% is shared equally by the City and the members.

#### V. Cost of Living Increases

Not Applicable

## W. 13<sup>th</sup> Check

Not Applicable

#### X. Deferred Retirement Option Plan

Eligibility:	Plan members are eligible for the DROP upon the attainment of the earlier of:
	<ul><li>(1) age 62 and 5 years of Credited Service, or</li><li>(2) when age plus Credited Service equals 75 years.</li></ul>
	Members must make a written election to participate in the DROP.
Benefit:	The member's Credited Service and FAS 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 FAS.
Maximum DROP Period:	60 months
Interest Credited:	The member's DROP account is credited or debited at an interest rate to be set by the Board.
Normal Form of Benefit:	The plan member may elect from 1 of the 2 following options:
	<ol> <li>Lump Sum, or</li> <li>Any other form of payment selected by the participant, approved by the Board and conforming to all applicable laws.</li> </ol>
COLA:	None



#### Y. Other Ancillary Benefits

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

#### Z. Changes from Previous Valuation

There were no changes in plan provisions since the previous valuation.

