

City of Delray Beach General Employees' Retirement Plan

ACTUARIAL VALUATION REPORT
AS OF OCTOBER 1, 2019

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR
ENDING SEPTEMBER 30, 2021





May 15, 2020

Board of Trustees
City of Delray Beach General
Employees' Retirement Plan
Delray Beach, Florida

Re: Actuarial Valuation as of October 1, 2019

Dear Board Members:

The results of the October 1, 2019 Annual Actuarial Valuation of the City of Delray Beach General Employees' Retirement Plan are presented in this report. This report does not reflect the recent and still developing impact of COVID-19, which may significantly impact demographic and economic experience.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

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 and No. 68 for the fiscal year ending September 30, 2019. This report also includes estimated GASB Statement 67 information for the fiscal year ending September 30, 2020. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A but does not include a 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.

The findings in this report are based on data or other information through September 30, 2019. 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; 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 measurements.

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 valuation was based upon information furnished by the Plan Administrator and City 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 and City.

This report was prepared using certain assumptions approved by the Board as authorized under Florida Statutes and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Methods. The investment return assumption was prescribed by the Board and the assumed mortality rates detailed in the Actuarial Assumptions and Methods section were prescribed by the Florida Statutes in accordance with Chapter 112.63, 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.

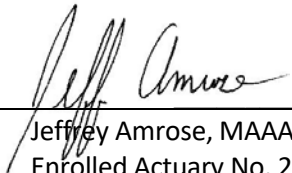
This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate. In my opinion, the techniques and assumptions used are reasonable, 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 AND COMPANY

By



Jeffrey Amrose, MAAA
Enrolled Actuary No. 20-6599
Senior Consultant & Actuary

By



Trisha Amrose, MAAA
Enrolled Actuary No. 20-8010
Consultant & Actuary



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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 9/30/2021 Based on 10/1/2019 Valuation	For FYE 9/30/2020 Based on 10/1/2018 Valuation	Increase (Decrease)
Required Employer Contribution			
If Paid on October 1			
Date of Payment	10/1/2020	10/1/2019	
Dollar Amount	\$ 3,123,630	\$ 2,866,796	\$ 256,834
As % of Covered Payroll	14.88 %	14.32 %	0.56 %
If Paid on December 31			
Date of Payment	12/31/2020	12/31/2019	
Dollar Amount	\$ 3,175,056	\$ 2,913,994	\$ 261,062
As % of Covered Payroll	15.12 %	14.55 %	0.57 %

This Report reflects an employer contribution of \$2,866,796 paid in October, 2019 for the fiscal year ending September 30, 2020. The required contribution was \$2,866,796 as determined in the October 1, 2018 Actuarial Valuation Report.

Revisions in Benefits

There were no revisions in benefits since the previous 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 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.

This change decreased the required contribution by \$284,837 or 1.36% of pay.

Actuarial Experience

There has been a net actuarial loss of \$233,575 for the year, which means that actual experience was less favorable than expected. The net loss caused the required employer contribution to increase by approximately \$19,000 or 0.09% of covered payroll. Actual mortality experience was a source of experience loss, as there was a lower decrease in benefit payments due to mortality experience than expected (\$51,912 versus \$146,620 expected). This loss was partially offset by gains from a recognized return on the actuarial value of assets of 7.5% compared to the assumed rate of 6.75%.



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 this year is 94.8% compared to 93.1% last year. The funded ratio was 93.2% before the change in the mortality assumption this year.

Analysis of Change in Employer Contribution

The increase in the normal cost caused the required employer contribution to increase by about \$130,000 before reflecting the assumption change. The increase in the normal cost is primarily due to a 4.85% increase in the total covered payroll from October 1, 2018 to October 1, 2019. This increase in total covered payroll is due to the following two factors:

- Average annual salary increases of 5.0% for the 337 continuing active members.
 - These actual average salary increases of 5.0% were in line with the expected increase of 5.1%.
 - The 5.0% average salary increases translated into \$864,000 of pay increases as compared to the \$885,000 of expected pay increases from an average increase of 5.1%.
 - There were 318 continuing active members in last year's report which compares unfavorably to 337 continuing active members in this year's report (i.e., contributed to higher payroll in 2019 compared to 2018).
- There were 14 more active members (55 new members and 41 who terminated or retired) as of October 1, 2019 as compared to October 1, 2018.

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

Contribution rate last year*	14.55 %
Changes in Assumptions	(1.36)
Experience gain/loss	0.09
Change in Normal Cost rate	(0.12)
Amortization payment on UAAL	1.73
Change in administrative expense	<u>0.23</u>
Contribution rate this year*	15.12

* Assuming the contribution is paid on December 31.



Components of Required City Contribution

The required City contribution for the fiscal year ending September 30, 2021 is \$3,123,630 assuming the full payment is made on October 1, 2020. Below is a breakdown of this required contribution amount from last year and this year reflecting an October 1 payment date.

	For FYE 9/30/2021 Based on 10/1/2019 Valuation	For FYE 9/30/2020 Based on 10/1/2018 Valuation	Increase (Decrease)
Employer Normal Cost	2,289,630	2,238,987	50,643
Amortization Payments on UAAL due to:			
Prior experience gains and losses	(187,935)	(207,528)	19,593
Changes in assumptions	606,676	806,906	(200,230)
Change in Salary increase assumption	(171,760)	(171,760)	0
Change in Funding Method	450,846	450,846	0
Creating of Tiered benefit structure	0	(386,827)	386,827
Plan Amendment - Prior ERIP's	135,270	135,270	0
Plan Amendment - 0% Ee Contributions at 30 YOS	903	902	1
Total Required Contribution	3,123,630	2,866,796	256,834

The Employer Normal Cost remained relatively level as a percentage of covered payroll from the October 1, 2018 valuation to the October 1, 2019 valuation, but covered payroll increased by about 5% which caused the Employer Normal Cost to increase as a dollar amount. The Amortization Payments on the UAAL due to prior experience gains and losses increased because an experience loss base was established as of October 1, 2019. Additionally, the Amortization Payments on the UAAL increased due to the expiring credit base from the creation of the tiered benefit structure in 2009. Finally, the Amortization Payments on the UAAL decreased due to the change in the mortality assumption for the current valuation.

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 \$3,664,910 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 1.5% of covered payroll.

Additionally, next year, an amortization charge base will expire which will cause the required employer contribution for the fiscal year ending September 30, 2022 to decrease by approximately \$135,000.



Estimated Required City Contribution for FYE 2022

The estimated required employer contribution for FYE 2022 is compared to the required employer contribution for FYE 2021 reflecting a December 31 payment date:

	Estimated Required Employer Contribution for FYE 9/30/2022	For FYE 9/30/2021 Based on 10/1/2019 Valuation	Increase (Decrease)
Required Employer Contribution			
Date of Payment	12/31/2021	12/31/2020	
Dollar Amount	\$ 3,050,000 ^{1, 2}	\$ 3,175,056	\$ (125,056)
As % of Covered Payroll	14.10 % ^{1, 2}	15.12 %	(1.02) %

¹ Estimated Required Employer Contribution for FYE 2022 assuming no gains, losses, or assumption changes and a 3% increase in total covered payroll for FYE 2020.

² For each new hire and vacancy that is added after the valuation date, the Required Employer Contribution will increase by approximately 10.2% of their covered payroll.

Relationship to Market Value

If Market Value had been the basis for the valuation, the City contribution rate would have been 13.63% (assuming a contribution payment date of December 31, 2020) and the funded ratio would have been 97.5%. In the absence of other gains and losses, the City contribution rate should decrease to that level over the next several years.

Conclusion

The remainder of this Report includes detailed actuarial valuation results, information relating to the pension fund, financial accounting information, employee data and a summary of plan provisions.

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	2019	2018
Ratio of the market value of assets to total payroll	6.47	6.80
Ratio of actuarial accrued liability to payroll	6.64	6.80
Ratio of actives to retirees and beneficiaries	1.10	1.08
Ratio of net cash flow to market value of assets	(2.9) %	(3.2) %

RATIO OF MARKET VALUE OF ASSETS TO PAYROLL

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

RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL

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

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

RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES

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

RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS

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



ADDITIONAL RISK ASSESSMENT

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

SECTION B

VALUATION RESULTS

PARTICIPANT DATA			
	October 1, 2019 <i>After Changes</i>	October 1, 2019 <i>Before Changes</i>	October 1, 2018
ACTIVE MEMBERS			
Number	392	392	378
Covered Annual Payroll	\$ 20,997,013	\$ 20,997,013	\$ 20,025,730
Average Annual Payroll	\$ 53,564	\$ 53,564	\$ 52,978
Average Age	47.7	47.7	47.5
Average Past Service	9.1	9.1	9.3
Average Age at Hire	38.6	38.6	38.2
RETIREES, BENEFICIARIES & DROP			
Number	354	354	347
Annual Benefits	\$ 7,714,379	\$ 7,714,379	\$ 7,359,542
Average Annual Benefit	\$ 21,792	\$ 21,792	\$ 21,209
Average Age	69.7	69.7	69.4
DISABILITY RETIREES			
Number	2	2	3
Annual Benefits	\$ 34,011	\$ 34,011	\$ 46,412
Average Annual Benefit	\$ 17,006	\$ 17,006	\$ 15,471
Average Age	58.7	58.7	60.4
TERMINATED VESTED MEMBERS			
Number	81	81	78
Annual Benefits	\$ 1,353,632	\$ 1,353,632	\$ 1,288,700
Average Annual Benefit	\$ 16,712	\$ 16,712	\$ 16,522
Average Age	50.9	50.9	50.5



ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)

A. Valuation Date	October 1, 2019 <i>After Changes</i>	October 1, 2019 <i>Before Changes</i>	October 1, 2018
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2021	9/30/2021	9/30/2020
C. Assumed Date of Employer Contrib.	12/31/2020	12/31/2020	12/31/2019
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 781,264	\$ 968,833	\$ 588,110
E. Employer Normal Cost	2,144,853	2,219,788	2,097,413
F. ADEC if Paid on the Valuation Date: D + E	2,926,117	3,188,621	2,685,523
G. ADEC if Paid on the First Day of the Next Fiscal Year	3,123,630	3,403,853	2,866,796
H. ADEC if Paid on December 31	3,175,056	3,459,893	2,913,994
I. ADEC as % of Covered Payroll*	15.12 %	16.48 %	14.55 %
J. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %
K. Covered Payroll for Contribution Year	20,997,013	20,997,013	20,025,730
L. ADEC for Contribution Year*	3,175,056	3,459,893	2,913,994
M. ADEC as % of Covered Payroll in Contribution Year: L ÷ K*	15.12 %	16.48 %	14.55 %

*Assuming the contribution is paid on the date in Item C.



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	\$ 59,708,344	\$ 60,386,539	\$ 58,319,878
b. Vesting Benefits	3,650,226	3,773,119	3,605,331
c. Disability Benefits	946,779	927,362	1,135,535
d. Preretirement Death Benefits	1,891,046	2,581,032	2,400,133
e. Return of Member Contributions	155,890	155,789	156,961
f. Total	<u>66,352,285</u>	<u>67,823,841</u>	<u>65,617,838</u>
2. Inactive Members			
a. Service Retirees & Beneficiaries	84,569,624	85,665,643	81,990,594
b. Disability Retirees	331,353	327,882	462,629
c. Terminated Vested Members	8,867,668	9,172,248	8,364,319
d. Total	<u>93,768,645</u>	<u>95,165,773</u>	<u>90,817,542</u>
3. Total for All Members	160,120,930	162,989,614	156,435,380
C. Actuarial Accrued (Past Service) Liability (Entry Age Normal)	139,342,065	141,728,974	136,185,423
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	125,672,282	127,859,976	122,883,899
E. Plan Assets			
1. Market Value	135,796,532	135,796,532	136,078,674
2. Actuarial Value	132,131,622	132,131,622	126,825,625
F. Unfunded Actuarial Accrued Liability	7,210,443	9,597,352	9,359,798
G. Actuarial Present Value of Projected Covered Payroll	166,963,778	166,408,410	156,870,145
H. Actuarial Present Value of Projected Member Contributions	5,523,366	5,506,417	5,156,526



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	\$ 2,170,124	\$ 2,189,407	\$ 2,080,421
2. Vesting Benefits	347,362	358,442	343,656
3. Disability Benefits	42,577	41,740	68,737
4. Preretirement Death Benefits	129,786	175,087	165,632
5. Return of Member Contributions	<u>60,478</u>	<u>60,586</u>	<u>57,807</u>
6. Total for Future Benefits	2,750,327	2,825,262	2,716,253
7. Assumed Amount for Administrative Expenses	<u>122,724</u>	<u>122,724</u>	<u>75,401</u>
8. Total Normal Cost	2,873,051	2,947,986	2,791,654
C. Expected Member Contribution	728,198	728,198	694,241
D. Employer Normal Cost: B8-C	2,144,853	2,219,788	2,097,413
E. Employer Normal Cost as a % of Covered Payroll	10.22%	10.57%	10.47%

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

UAAL Amortization Period and Payments								
Original UAAL				Current UAAL				
Years	Source	Amort. Period (Years)	Amount	Years	Amount	10/1/2019 Payment	Estimated 10/1/2020 Payment	Estimated 10/1/2021 Payment
10/1/2009	Method Change - Aggregate to Entry Age	25	\$ 5,602,731	15	\$ 4,171,903	\$ 422,338	\$ 422,338	\$ 422,338
10/1/2010	Experience Loss	25	394,904	16	304,770	29,724	29,724	29,724
10/1/2011	Experience Loss	25	1,799,033	17	1,451,517	136,869	136,869	136,869
10/1/2011	Assumption Change - Salary Scale	25	(2,114,885)	17	(1,706,355)	(160,899)	(160,899)	(160,899)
10/1/2012	Experience Loss	25	539,648	18	453,588	41,482	41,482	41,482
10/1/2012	Plan Amendment - 0% Ee Contributions at 30	25	11,000	18	9,246	846	846	846
10/1/2013	Experience Gain	25	(1,043,610)	19	(325,355)	(28,938)	(28,938)	(28,938)
10/1/2014	Experience Gain	25	(769,762)	20	(693,483)	(60,134)	(60,134)	(60,134)
10/1/2015	Experience Gain	25	(1,180,685)	21	(1,099,029)	(93,114)	(93,114)	(93,114)
10/1/2015	Plan Amendment - ERIP	5	554,774	1	126,717	126,717	-	-
10/1/2016	Experience Gain	25	(1,268,865)	22	(1,205,006)	(99,945)	(99,945)	(99,945)
10/1/2016	Mandated Mortality Assumption Change	25	2,414,868	22	2,293,334	190,212	190,212	190,212
10/1/2017	Experience Gain	25	(450,190)	23	(435,439)	(35,418)	(35,418)	(35,418)
10/1/2018	Experience Gain	25	(1,080,810)	24	(1,063,099)	(84,933)	(84,933)	(84,933)
10/1/2018	Assumption Changes (Exp. Sty)	25	7,198,427	24	7,080,468	565,671	565,671	565,671
10/1/2019	Experience Loss	25	233,575	25	233,575	18,355	18,355	18,355
10/1/2019	Mandated Mortality Assumption Change	25	(2,386,909)	25	(2,386,909)	(187,569)	(187,569)	(187,569)
			\$ 5,606,540		\$ 7,210,443	\$ 781,264	\$ 654,547	\$ 654,547

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

Amortization Schedule					
Year	Expected UAAL	UAAL Payment	Year	Expected UAAL	UAAL Payment
2019	\$ 7,210,443	\$ 781,264	2032	\$ 2,712,494	\$ 654,547
2020	6,863,154	654,547	2033	2,196,858	654,547
2021	6,627,688	654,547	2034	1,646,417	232,209
2022	6,376,328	654,547	2035	1,509,667	202,485
2023	6,108,001	654,547	2036	1,395,417	226,515
2024	5,821,562	654,547	2037	1,247,803	184,187
2025	5,515,789	654,547	2038	1,135,410	213,125
2026	5,189,375	654,547	2039	984,539	273,259
2027	4,840,929	654,547	2040	759,292	366,373
2028	4,468,963	654,547	2041	419,441	276,106
2029	4,071,889	654,547	2042	153,010	311,524
2030	3,648,013	654,547	2043	-	-
2031	3,195,525	654,547	2044	-	-



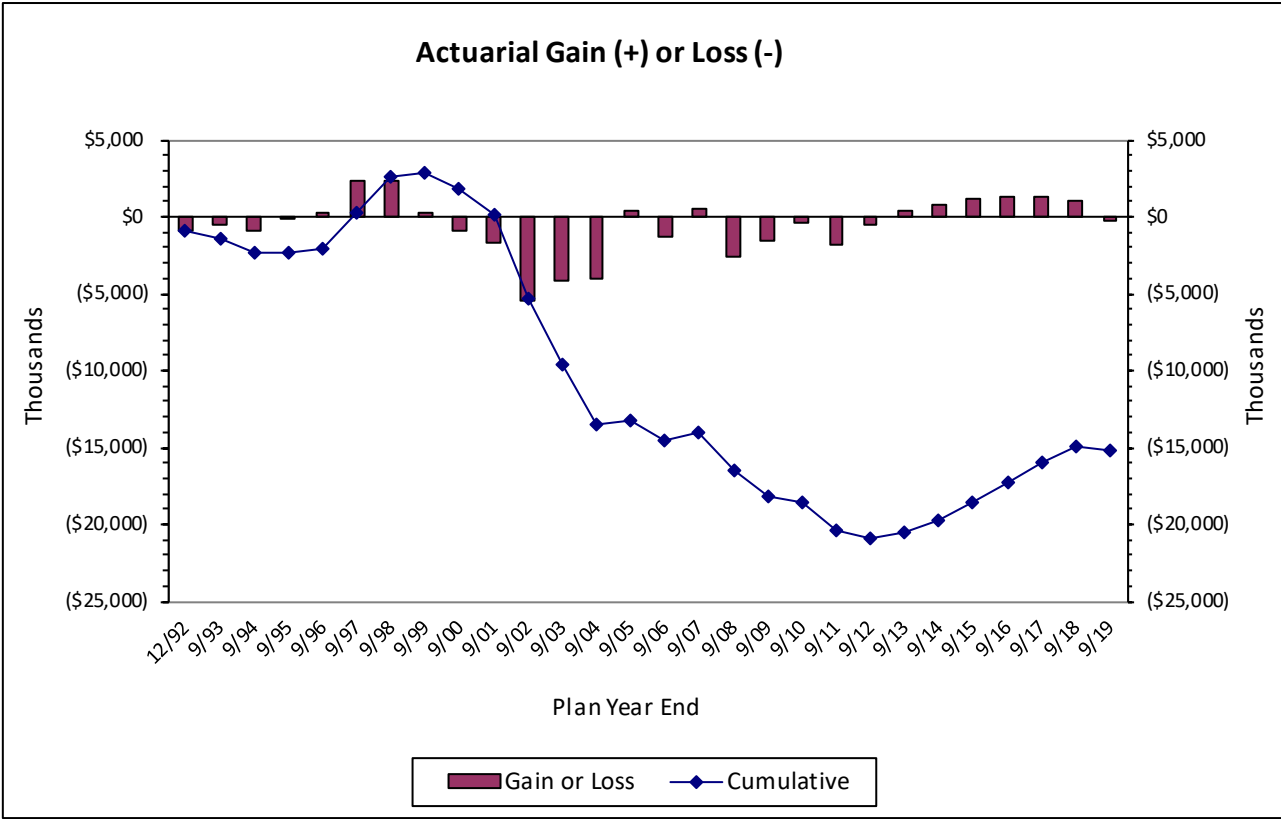
ACTUARIAL GAINS AND LOSSES

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

1. Last Year's UAAL	\$ 9,359,798
2. Last Year's Employer Normal Cost	2,097,413
3. Last Year's Contributions	2,866,796
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	773,362
b. 3 from dates paid	0
c. a - b	<u>773,362</u>
5. This Year's Expected UAAL Prior to Revision: 1 + 2 - 3 + 4c	9,363,777
6. Change in UAAL Due to Plan Amendments and/or Changes in Actuarial Assumptions	(2,386,909)
7. This Year's Expected UAAL (after changes): 5 + 6	6,976,868
8. This Year's Actual UAAL (after changes)	7,210,443
9. Net Actuarial Gain/(Loss): 7 - 8	(233,575)
10. Gain/(Loss) Due to Investment	916,227
11. Gain/(Loss) Due to Other Sources	(1,149,802)

Net actuarial gains in previous years have been as follows:

Year Ended	Gain (Loss)
12/31/92	\$ (939,614)
9/30/93	(492,398)
9/30/94	(937,094)
9/30/95	(32,368)
9/30/96	260,299
9/30/97	2,354,556
9/30/98	2,333,750
9/30/99	246,466
9/30/00	(955,923)
9/30/01	(1,750,230)
9/30/02	(5,428,126)
9/30/03	(4,212,406)
9/30/04	(3,989,929)
9/30/05	351,084
9/30/06	(1,334,136)
9/30/07	563,904
9/30/08	(2,574,633)
9/30/09	(1,599,294)
9/30/10	(394,904)
9/30/11	(1,799,033)
9/30/12	(539,648)
9/30/13	373,386
9/30/14	769,762
9/30/15	1,180,685
9/30/16	1,268,865
9/30/17	450,190
9/30/18	1,080,810
9/30/19	(233,575)



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.

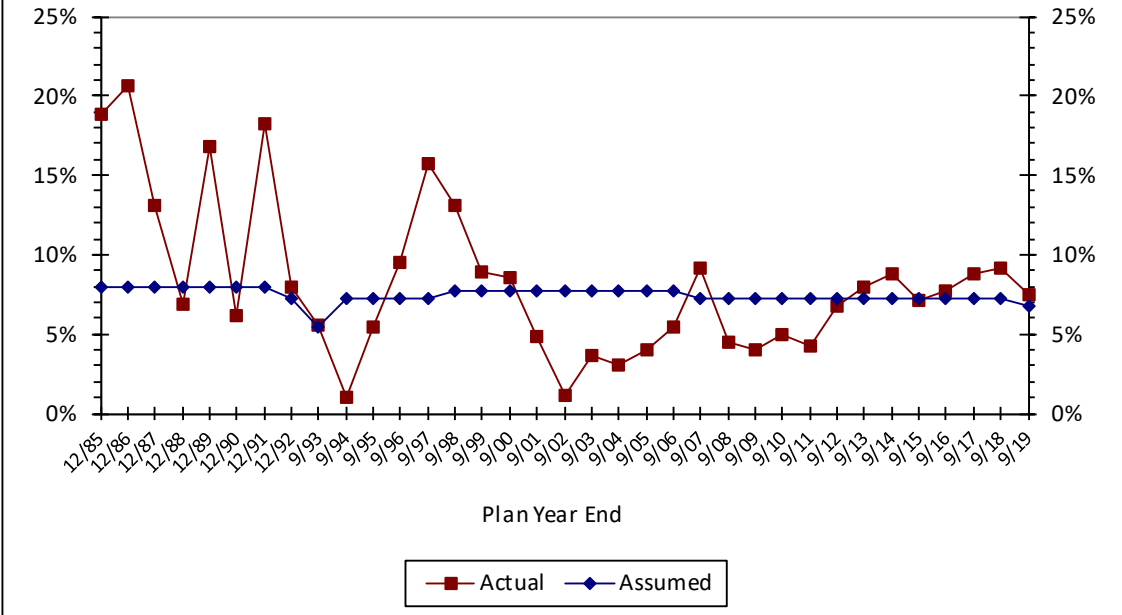
Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
12/31/1985	18.8 %	8.0 %	5.6 %	7.0 %
12/31/1986	20.6	8.0	9.7	7.0
12/31/1987	13.1	8.0	11.4	7.0
12/31/1988	6.9	8.0	4.6	7.0
12/31/1989	16.8	8.0	9.0	7.0
12/31/1990	6.2	8.0	9.7	7.0
12/31/1991	18.2	8.0	4.6	7.0
12/31/1992	7.9	7.25	5.9	5.0
9/30/1993 (9 mos.)	5.6	5.4	3.8	3.8
9/30/1994	1.0	7.25	3.3	5.0
9/30/1995	5.5	7.25	3.3	5.0
9/30/1996	9.5	7.25	3.5	5.0
9/30/1997	15.7	7.25	4.7	5.0
9/30/1998	13.1	7.75	3.0	5.0
9/30/1999	8.9	7.75	4.5	5.0
9/30/2000	8.6	7.75	5.2	5.0
9/30/2001	4.9	7.75	5.3	5.0
9/30/2002	1.1	7.75	5.9	5.0
9/30/2003	3.6	7.75	7.6	5.0
9/30/2004	3.1	7.75	4.5	5.0
9/30/2005	4.0	7.75	5.6	5.0
9/30/2006	5.5	7.75	5.3	5.0
9/30/2007	9.1	7.25	6.9	5.6
9/30/2008	4.5	7.25	4.8	5.8
9/30/2009	4.0	7.25	1.5	5.8
9/30/2010	5.0	7.25	0.9	5.7
9/30/2011	4.3	7.25	1.1	5.7
9/30/2012	6.7	7.25	0.5	2.0
9/30/2013	8.0	7.25	2.3	2.0
9/30/2014	8.8	7.25	4.0	2.0
9/30/2015	7.1	7.25	3.4	5.7
9/30/2016	7.7	7.25	6.3	5.6
9/30/2017	8.8	7.25	8.4	5.7
9/30/2018	9.2	7.25	5.5	5.9
9/30/2019	7.5	6.75	5.0	5.1
Averages	8.2 %	---	5.1 %	---

Note: Figures prior to 1990 were determined by the Wyatt Company.

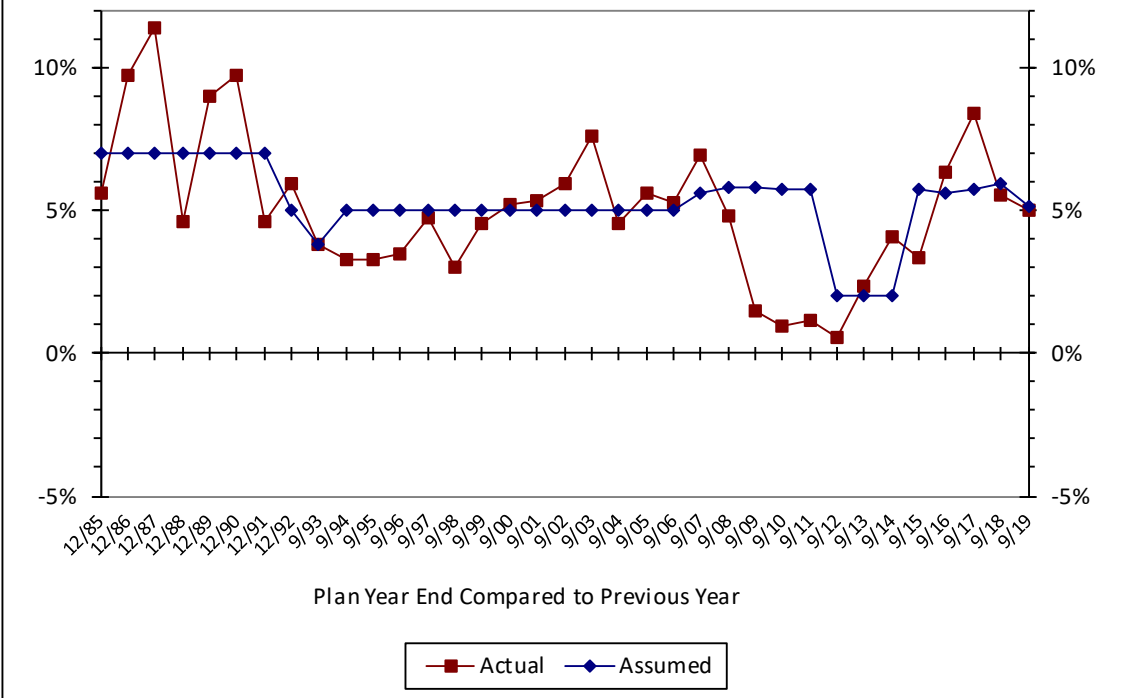
The actual investment return rates shown above are based on the actuarial value of assets. The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.



History of Investment Return Based on Actuarial Value of Assets



History of Salary Increases



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

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
	A	E	A	E	A	E	A	E	A	A	A	E	
9/30/2002	46	20	8	15	0	1	0	1	6	6	12	15	379
9/30/2003	34	29	9	15	1	1	0	1	10	9	19	16	384
9/30/2004	41	28	9	13	2	1	0	1	8	9	17	15	397
9/30/2005	30	38	8	13	1	1	1	1	13	15	28	15	389
9/30/2006	44	40	13	15	0	1	1	1	13	13	26	15	393
9/30/2007	45	36	20 *	13	0	1	1	1	6	9	15	21	402
9/30/2008	40	27	13	11	0	1	0	1	8	6	14	22	415
9/30/2009	24	15	7	11	0	1	0	1	3	5	8	23	424
9/30/2010	21	28	11	13	1	1	0	1	4	12	16	22	417
9/30/2011	13	41	26	14	0	1	1	1	10	4	14	20	389
9/30/2012	17	34	17	13	0	1	2	1	10	5	15	17	372
9/30/2013	26	39	16 *	12	0	1	2	1	7	14	21	16	359
9/30/2014	17	34	15	12	0	1	0	1	9	10	19	16	342
9/30/2015	35	48	20 *	12	0	1	1	1	19	8	27	14	329
9/30/2016	37	45	16	13	0	1	1	1	16	12	28	16	321
9/30/2017	75	39	13	11	0	1	1	1	13	12	25	16	357
9/30/2018	60	39	13	13	0	1	1	1	6	19	25	22	378
9/30/2019	55	41	11	14	0	1	1	1	4	25	29	25	392
9/30/2020				12		1		1				28	
18 Yr Totals **	660	621	245	233	5	18	13	18	165	193	358	326	

* Reflects Early Retirement Incentive Program during the Plan Year.

** Totals are through current Plan Year only.

RECENT HISTORY OF VALUATION RESULTS

Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	UAAL	Employer Normal Cost	
	Active Members	Inactive Members				Amount	% of Payroll
1/1/90	283	88	\$ 7,217,876	\$ 18,735,866	\$ (935,024)	\$ 742,838	10.3 %
1/1/91	309	90	8,119,144	19,989,234	(4,673,532)	1,136,638	14.0
1/1/92	324	101	8,653,137	23,834,584	0	425,248	4.9
1/1/93	337	101	9,402,160	25,545,873	0	590,537	6.3
10/1/93	350	103	9,976,616	29,169,341	0	698,784	7.0
10/1/94	350	108	10,140,270	29,541,506	0	703,611	6.9
10/1/95	343	112	10,123,923	31,138,947	0	707,347	7.0
10/1/96	352	121	10,483,367	33,939,706	0	705,909	6.7
10/1/97	354	132	10,838,339	39,004,018	0	0	---
10/1/98	350	137	10,830,498	47,654,038	0	0	---
10/1/99	351	145	11,221,039	51,167,747	0	0	---
10/1/00	352	158	11,683,131	54,085,492	0	76,657	0.7
10/1/01	353	167	12,166,399	55,160,299	0	299,443	2.5
10/1/02	379	173	13,369,199	54,452,798	0	638,906	4.8
10/1/03	384	183	14,807,342	56,610,019	0	1,313,414	8.9
10/1/04	397	197	15,844,035	58,552,571	0	1,832,201	11.6
10/1/05	389	215	16,203,652	61,455,670	0	1,829,172	11.3
10/1/06	393	232	16,839,131	70,326,850	0	2,088,750	12.4
10/1/07	399	252	17,817,350	77,436,230	0	2,293,259	12.9
10/1/08	415	261	18,990,051	80,987,834	0	2,745,258	14.5
10/1/09	424	267	19,359,146	84,476,640	2,756,027	2,073,422	10.7
10/1/10	417	272	18,988,947	87,826,931	3,269,096	2,059,007	10.8
10/1/11	389	292	17,817,131	90,513,860	3,032,918	1,869,059	10.5
10/1/12	372	311	16,937,526	94,643,819	3,679,352	1,792,979	10.6
10/1/13	359	326	16,527,919	99,910,051	4,040,481	1,746,728	10.6
10/1/14	342	346	15,895,095	106,280,221	3,268,828	1,700,725	10.7
10/1/15	329	373	15,371,826	110,517,353	2,657,108	1,632,887	10.6
10/1/16	321	394	15,449,062	114,758,424	3,777,860	1,674,276	10.8
10/1/17	357	414	18,060,007	120,289,534	3,283,106	1,940,915	10.7
10/1/18	378	428	20,025,730	126,825,625	9,359,798	2,097,413	10.5
10/1/19	392	437	20,997,013	132,131,622	7,210,443	2,144,853	10.2



RECENT HISTORY OF UAAL AND FUNDED RATIO

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) - Entry Age (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL As % of Covered Payroll (b - a) / c
10/1/1996	33,939,706	27,354,746	(6,584,960)	124.1	10,483,367	(62.8)
10/1/1997	39,004,018	27,946,800	(11,057,218)	139.6	10,838,339	(102.0)
10/1/1998	43,376,078	30,159,065	(13,217,013)	143.8	10,830,498	(122.0)
10/1/1999	51,167,747	36,138,126	(15,029,621)	141.6	11,221,039	(133.9)
10/1/2000	54,085,492	41,859,407	(12,226,085)	129.2	11,683,131	(104.6)
10/1/2001	55,160,299	44,423,811	(10,736,488)	124.2	12,166,399	(88.2)
10/1/2002	54,452,798	48,000,804	(6,451,994)	113.4	13,369,199	(48.3)
10/1/2003	56,610,019	53,583,420	(3,026,599)	105.6	14,807,342	(20.4)
10/1/2004	58,552,571	59,247,630	695,059	98.8	15,844,035	4.4
10/1/2005	61,455,670	62,126,597	670,927	98.9	16,203,652	4.1
10/1/2006	70,326,850	71,373,310	1,046,460	98.5	16,839,131	6.2
10/1/2007	77,436,230	78,839,518	1,403,288	98.2	17,817,350	7.9
10/1/2008	80,987,834	84,913,592	3,925,758	95.4	18,990,051	20.7
10/1/2009	84,476,640	87,232,667	2,756,027	96.8	19,359,146	14.2
10/1/2010	87,826,931	91,096,027	3,269,096	96.4	18,988,947	17.2
10/1/2011	90,513,860	93,546,778	3,032,918	96.8	17,817,131	17.0
10/1/2012	94,643,819	98,323,171	3,679,352	96.3	16,937,526	21.7
10/1/2013	99,910,051	103,950,532	4,040,481	96.1	16,527,919	24.4
10/1/2014	106,280,221	109,549,049	3,268,828	97.0	15,895,095	20.6
10/1/2015	110,517,353	113,174,461	2,657,108	97.7	15,371,826	17.3
10/1/2016	114,758,424	118,536,284	3,777,860	96.8	15,449,062	24.5
10/1/2017	120,289,534	123,572,640	3,283,106	97.3	18,060,007	18.2
10/1/2018	126,825,625	136,185,423	9,359,798	93.1	20,025,730	46.7
10/1/2019	132,131,622	139,342,065	7,210,443	94.8	20,997,013	34.3



RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS

Valuation	End of Year To Which Valuation Applies	Required Contributions		Actual Contributions
		Amount	% of Payroll	
1/1/90	9/30/91	\$ 769,008	10.65 %	\$ 769,008
1/1/91	9/30/92	824,612	10.16	824,612
1/1/92	9/30/93	456,078	5.27	456,078
1/1/93	9/30/94	633,351	6.74	633,351
10/1/93	9/30/95	762,329	7.64	762,329
10/1/94	9/30/96	767,595	7.57	767,595
10/1/95	9/30/97	771,671	7.62	771,671
10/1/96	9/30/98	770,101	7.35	770,101
10/1/97	9/30/99	0	---	0
10/1/98	9/30/00	0	---	0
10/1/99	9/30/01	0	---	0
10/1/00	9/30/02	84,122	0.72	84,122
10/1/01	9/30/03	328,603	2.70	328,603
10/1/02	9/30/04	701,388	5.25	701,388
10/1/03	9/30/05	1,441,861	9.74	1,441,861
10/1/04	9/30/06	2,011,383	12.69	2,011,383
10/1/05	9/30/07	2,008,058	12.39	2,008,058
10/1/06 *	9/30/08	2,398,379	14.35	2,398,379
10/1/07	9/30/09	2,502,936	14.05	2,502,936
10/1/08	9/30/10	2,996,262	15.78	2,996,262
10/1/09 **	9/30/11	2,305,392	11.91	2,305,392
10/1/10	9/30/12	2,365,620	12.46	2,365,620
10/1/11	9/30/13	2,128,666	11.95	2,128,666
10/1/12 ***	9/30/14	2,093,769	12.36	2,093,769
10/1/13	9/30/15	2,168,192	13.12	2,168,192
10/1/14	9/30/16	2,046,827	12.88	2,046,827
10/1/15 ****	9/30/17	1,969,163	12.81	1,969,163
10/1/16	9/30/18	2,114,120	13.68	2,114,120
10/1/17	9/30/19	2,360,582	13.07	2,360,582
10/1/18	9/30/20	2,866,796	14.32	2,866,796
10/1/19	9/30/21	3,175,056	15.12	---

* From October 19, 2007 Actuarial Impact Statement.

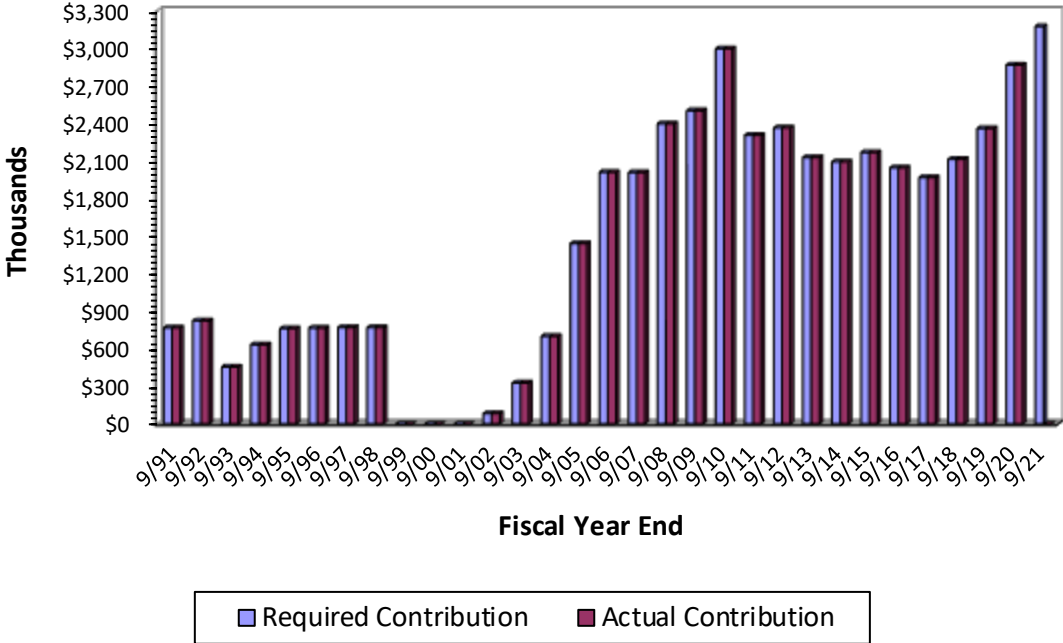
** From October 4, 2010 Actuarial Impact Statement.

*** From September 13, 2013 Actuarial Impact Statement.

**** From May 6, 2016 Actuarial Impact Statement.



Recent History of Required and Actual Contributions



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) dollar 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. Both the economic and decrement assumptions were established following the Experience Investigation for the Eight Years Ended September 30, 2018, dated June 12, 2019. The mortality assumption is mandated by Chapter 112.63, Florida Statutes.

Economic Assumptions

The investment return rate assumed in the valuations is 6.75% per year, compounded annually (net after investment expense).

The **Inflation Rate** assumed in this valuation was 2.50% per year. The Inflation Rate is defined to be the expected long-term rate of increases in the prices of goods and services.

The assumed **real rate of return** over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 6.75% investment return rate translates to an assumed real rate of return over inflation of 4.25%.

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 2.50% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

The rates of salary increase used for individual members 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	4.25%	2.50%	6.75%
2	4.25%	2.50%	6.75%
3	3.25%	2.50%	5.75%
4	3.25%	2.50%	5.75%
5 - 14	2.50%	2.50%	5.00%
15 - 19	2.00%	2.50%	4.50%
20 and higher	1.25%	2.50%	3.75%

Demographic Assumptions

The mortality table for General Employees is the PUB-2010 Headcount Weighted Below Median Employee Male Table (pre-retirement), the PUB-2010 Headcount Weighted Below Median Employee Female Table (pre-retirement), the PUB-2010 Headcount Weighted Below Median Healthy Retiree Male Table (post-retirement) and the PUB-2010 Headcount Weighted Below Median Retiree Female Table (post-retirement). These tables use ages set back one year for males and future improvements in mortality projected to all future years after 2010 using scale MP 2018. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2019.

FRS Healthy Post-Retirement Mortality for Regular Class Members

Sample Attained Ages (in 2019)	Probability of		Future Life	
	Dying Next Year		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

FRS Healthy Pre-Retirement Mortality for Regular Class Members

Sample Attained Ages (in 2019)	Probability of		Future Life	
	Dying Next Year		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

For disabled retirees, the mortality table used was the PUB-2010 Headcount-Weighted General Disabled Retiree Tables with ages set forward 3 years for males and females.

FRS Healthy Disabled Mortality for Regular Class Members

Sample Attained Ages	Probability of		Future Life	
	Dying Next Year		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:

Early Retirement		
Age	Service	Rates
0 - 54	20 +	4.0%
55 - 59	All	7.5%

**Normal Retirement for Members
Within Ten Years of Age 60 or 30 Years
of Service as of October 5, 2010**

Age	Years of Service	Rates
0 - 59	30	80.0%
0 - 59	31+	25.0%
60	All	70.0%
61 - 62	All	25.0%
63 - 64	All	45.0%
65	All	85.0%
66 - 69	All	55.0%
70+	All	100.0%

**Normal Retirement for Other Members
Hired Before October 5, 2010**

Age	Years of Service	Rates
0 - 61	30	80.0%
0 - 61	31+	25.0%
62	All	70.0%
63 - 64	All	25.0%
65 - 66	All	45.0%
67	All	85.0%
68 - 69	All	55.0%
70 +	All	100.0%

**Normal Retirement for Other Members
Hired After October 5, 2010**

Age	Rates
65	70.0%
66 - 67	25.0%
68 - 69	45.0%
70+	100.0%

Rates of disability among active members (20% of future disability retirements are assumed to be service-connected):

Sample Ages	% Becoming Disabled within Next Year
0 - 24	0.20 %
25 - 29	0.18
30 - 34	0.18
35 - 39	0.20
40 - 44	0.24
45 - 49	0.27
50 - 54	0.33
55 - 59	0.45

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.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	15.0 %
	1	15.0
	2	14.5
	3	10.5
	4	9.0
20	5 and over	9.0
25		9.0
30		9.0
35		9.0
40		5.5
45		4.8
50		4.0
55		4.0
60		3.5

Changes Since 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 before considering investment expenses. Annual administrative and investment expenses are assumed to be equal to the average of the expenses over the previous 2 years. Assumed administrative and investment expenses are added to the Normal Cost.
<i>Benefit Service</i>	Exact fractional service is used to determine the amount of benefit payable.
<i>Decrement Operation</i>	Disability and mortality decrements operate during retirement eligibility.
<i>Decrement Timing</i>	Decrements of all types are assumed to occur at the beginning of the year.
<i>Eligibility Testing</i>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<i>Forfeitures</i>	For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions.
<i>Incidence of Contributions</i>	Employer contributions are assumed to be made in one payment at the end of December. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<i>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>	Life Annuity. For married participants within ten years of attaining age 60 or 30 years of service as of October 5, 2010, a monthly income payable for life of member; upon death of member, 100% of member's benefit payable to spouse for one year and 60% thereafter until death or remarriage of spouse. Other optional forms are also available.
<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.



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>Actuarially Determined Employer Contribution (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>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 contribution (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>Closed Amortization Period</i>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Equivalent Single Amortization Period</i>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<i>Experience Gain/Loss</i>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as

projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

GASB

Governmental Accounting Standards Board.

***GASB No. 67 and
GASB No. 68***

These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

Normal Cost

The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

Open Amortization Period

An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

***Unfunded Actuarial
Accrued Liability***

The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

Valuation Date

The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

SECTION C

PENSION FUND INFORMATION

Statement of Plan Assets at Market Value

Item	September 30	
	2019	2018
A. Cash and Cash Equivalents (Operating Cash)	\$ 1,566,938	\$ 1,423,509
B. Receivables		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	2,866,796	2,360,582
3. Investment Income and Other Receivables	664,080	1,045,946
4. Total Receivables	<u>\$ 3,530,876</u>	<u>\$ 3,406,528</u>
C. Investments		
1. Short Term Investments	\$ -	\$ -
2. Domestic Equities	86,275,362	94,623,512
3. International Equities	5,836,687	5,928,136
4. Domestic and International Fixed Income	39,260,185	31,670,349
5. Real Estate	-	-
6. DROP Accounts (ICMA)	6,826,645	7,033,390
7. Total Investments	<u>\$ 138,198,879</u>	<u>\$ 139,255,387</u>
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(673,516)	(973,360)
3. Total Liabilities	<u>\$ (673,516)</u>	<u>\$ (973,360)</u>
E. Total Market Value of Assets Available for Benefits	\$ 142,623,177	\$ 143,112,064
F. DROP Accounts	\$ (6,826,645)	\$ (7,033,390)
G. Market Value Net of Reserves	\$ 135,796,532	\$ 136,078,674
H. Allocation of Investments*		
1. Short Term Investments	0.0%	0.0%
2. Domestic Equities	62.4%	67.9%
3. International Equities	4.3%	4.3%
4. Domestic and International Fixed Income	28.4%	22.7%
5. Real Estate	0.0%	0.0%
6. DROP Accounts (ICMA)	4.9%	5.1%
7. 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	\$ 136,078,674	\$ 127,065,505
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions*	\$ 1,206,890	\$ 799,106
b. Employer Contributions	2,866,796	2,360,582
c. Total	<u>\$ 4,073,686</u>	<u>\$ 3,159,688</u>
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 3,029,749	\$ 3,870,239
b. Net Realized/Unrealized Gains/(Losses)**	842,429	9,636,994
c. Investment Expenses	<u>(251,664)</u>	<u>(272,812)</u>
d. Net Investment Income	\$ 3,620,514	\$ 13,234,421
3. Benefits and Refunds		
a. Regular Monthly Benefits	\$ (7,686,562)	\$ (7,181,239)
b. Refunds	(117,583)	(126,451)
c. Lump Sum Benefits Paid	-	-
d. Total	<u>\$ (7,804,145)</u>	<u>\$ (7,307,690)</u>
4. Administrative and Miscellaneous Expenses	\$ (172,197)	\$ (73,250)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 135,796,532	\$ 136,078,674

* Includes buyback payments.

** The breakdown of this amount between realized gains/(losses) and unrealized gains/(losses) was not provided.

Actuarial Value of Assets

The Actuarial Value of Assets is determined by recognizing 20% of the difference between market value of assets and expected actuarial asset value.

Item	September 30	
	2019	2018
A. Beginning of Year Assets		
1. Market Value	\$ 136,078,674	\$ 127,065,505
2. Actuarial Value	126,825,625	120,289,534
B. End of Year Market Value of Assets	135,796,532	136,078,674
C. Net of Contributions Less Disbursements*	(3,902,656)	(4,221,252)
D. Actual Net Investment Earnings*	3,620,514	13,234,421
E. Expected Investment Earnings*	8,292,426	8,444,081
F. Expected Actuarial Value End of Year: A2 + C + E	131,215,395	124,512,363
G. End of Year Market Value Less Expected Actuarial Value: B - F	4,581,137	11,566,311
H. 20% of Difference	916,227	2,313,262
I. End of Year Assets		
1. Actuarial Value: F + H	132,131,622	126,825,625
2. Final Actuarial Value Within 80% to 120% of Market Value	132,131,622	126,825,625
J. Recognized Investment Earnings	9,208,653	10,757,343
K. Recognized Rate of Return	7.5%	9.2%

* Net of investment expenses.



Investment Rate of Return

Year Ended	Market Value Basis*	Actuarial Value Basis	Investment Return Assumption
12/31/85	24.0 %	18.8 %	8.0 %
12/31/86	21.1	20.6	8.0
12/31/87	5.8	13.1	8.0
12/31/88	8.6	6.9	8.0
12/31/89	24.2	16.8	8.0
12/31/90	3.3	6.2	8.0
12/31/91	28.3	18.2	8.0
12/31/92	6.3	7.9	7.25
9/30/93 (9 months)	4.3	5.6	5.40
9/30/94	(2.9)	1.0	7.25
9/30/95	21.1	5.5	7.25
9/30/96	14.8	9.5	7.25
9/30/97	23.3	15.7	7.25
9/30/98	5.6	13.1	7.75
9/30/99	12.2	8.9	7.75
9/30/00	8.7	8.6	7.75
9/30/01	(1.0)	4.9	7.75
9/30/02	(5.1)	1.1	7.75
9/30/03	13.8	3.6	7.75
9/30/04	6.4	3.1	7.75
9/30/05	8.1	4.0	7.75
9/30/06	6.2	5.5	7.75
9/30/07	11.3	9.1	7.25
9/30/08	(12.4)	4.5	7.25
9/30/09	1.9	4.0	7.25
9/30/10	9.6	5.0	7.25
9/30/11	1.2	4.3	7.25
9/30/12	18.1	6.7	7.25
9/30/13	13.0	8.0	7.25
9/30/14	12.0	8.8	7.25
9/30/15	0.4	7.1	7.25
9/30/16	10.4	7.7	7.25
9/30/17	12.8	8.8	7.25
9/30/18	10.7	9.2	7.25
9/30/19	2.7	7.5	6.75
Average Returns:			
Last 5 Years	7.3 %	8.1 %	7.1 %
Last 10 Years	8.9 %	7.3 %	7.2 %
All Years	9.1 %	8.2 %	7.5 %

* Net of investment expenses after 2005.

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



DROP Account Reconciliation

Year	Investment				
Ending 9/30	Beginning Balance	Credits	Earnings (net of fees)	Distributions	Ending Balance
2007	\$1,188,609	\$ 435,466	\$ 92,530	\$ 264,147	\$1,452,458
2008	1,452,458	507,624	(33,856)	163,223	1,763,003
2009	1,763,003	558,740	98,242	249,723	2,170,262
2010	2,170,262	674,648	105,540	901,876	2,048,574
2011	2,048,574	778,292	51,293	524,993	2,353,166
2012	2,353,166	945,467	169,156	331,627	3,136,162
2013	3,136,162	1,199,170	148,168	282,268	4,201,232
2014	4,201,232	1,259,921	154,600	879,338	4,736,415
2015	4,736,415	1,445,136	66,143	909,785	5,337,909
2016	5,337,909	1,204,795	176,791	1,053,317	5,666,178
2017	5,666,178	1,307,136	254,780	729,336	6,498,758
2018	6,498,758	1,142,565	284,457	892,390	7,033,390
2019	7,033,390	1,484,185	161,785	1,852,715	6,826,645

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	\$ 84,900,977	\$ 82,453,223
b. Terminated Vested Members	8,867,668	8,364,319
c. Other Members	<u>30,054,514</u>	<u>30,346,634</u>
d. Total	123,823,159	121,164,176
2. Non-Vested Benefits		
	1,849,123	1,719,723
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2		
	125,672,282	122,883,899
4. Accumulated Contributions of Active Members		
	5,129,400	4,741,414
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year		
	122,883,899	110,937,038
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	(2,187,694)	6,853,641
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	12,780,222	12,400,910
d. Benefits Paid	<u>(7,804,145)</u>	<u>(7,307,690)</u>
e. Net Increase	2,788,383	11,946,861
3. Total Value at End of Period		
	125,672,282	122,883,899
D. Market Value of Assets		
	135,796,532	136,078,674
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods		

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

Fiscal year ending September 30,	2020*	2019	2018	2017	2016	2015	2014
Total Pension Liability							
Service Cost	\$ 2,825,262	\$ 2,741,412	\$ 2,493,225	\$ 2,119,345	\$ 2,192,881	\$ 2,203,313	\$ 2,249,595
Interest	9,377,641	9,169,248	8,777,037	8,375,249	8,161,233	7,791,771	7,502,443
Benefit Changes	-	-	-	-	522,720	-	-
Difference between actual & expected experience	1,621,501	1,452,111	1,447,271	(821,344)	(1,097,920)	1,375,784	-
Assumption Changes	(2,628,018)	7,018,332	-	2,634,532	-	-	-
Benefit Payments	(8,144,378)	(7,686,562)	(7,181,239)	(6,903,465)	(6,468,203)	(5,882,586)	(5,355,711)
Refunds	(70,139)	(117,583)	(126,451)	(68,352)	(66,862)	(111,160)	(80,592)
Net Change in Total Pension Liability	2,981,869	12,576,958	5,409,843	5,335,965	3,243,849	5,377,122	4,315,735
Total Pension Liability - Beginning	140,210,004	127,633,046	122,223,203	116,887,238	113,643,389	108,266,267	103,950,532
Total Pension Liability - Ending (a)	\$ 143,191,873	\$ 140,210,004	\$ 127,633,046	\$ 122,223,203	\$ 116,887,238	\$ 113,643,389	\$ 108,266,267
Plan Fiduciary Net Position							
Contributions - Employer	\$ 2,866,796	\$ 2,360,582	\$ 2,151,438	\$ 1,969,163	\$ 2,046,827	\$ 2,168,946	\$ 2,093,769
Contributions - Member	728,198	1,206,890	799,106	717,598	618,705	948,466	1,126,054
Net Investment Income	8,909,461	3,620,514	13,197,103	14,474,143	11,005,137	445,258	12,196,449
Benefit Payments	(8,144,378)	(7,686,562)	(7,181,239)	(6,903,465)	(6,468,203)	(5,882,586)	(5,355,711)
Refunds	(70,139)	(117,583)	(126,451)	(68,352)	(66,862)	(111,160)	(80,592)
Administrative Expense	(122,724)	(172,197)	(73,250)	(77,552)	(82,336)	(73,706)	(79,025)
Other	-	-	-	-	-	-	-
Net Change in Plan Fiduciary Net Position	4,167,214	(788,356)	8,766,707	10,111,535	7,053,268	(2,504,782)	9,900,944
Plan Fiduciary Net Position - Beginning	132,929,736	133,718,092	124,951,385	114,839,850	107,786,582	110,291,364	100,390,420
Plan Fiduciary Net Position - Ending (b)	\$ 137,096,950	\$ 132,929,736	\$ 133,718,092	\$ 124,951,385	\$ 114,839,850	\$ 107,786,582	\$ 110,291,364
Net Pension Liability - Ending (a) - (b)	6,094,923	7,280,268	(6,085,046)	(2,728,182)	2,047,388	5,856,807	(2,025,097)
Plan Fiduciary Net Position as a Percentage							
of Total Pension Liability	95.74 %	94.81 %	104.77 %	102.23 %	98.25 %	94.85 %	101.87 %
Covered Payroll	\$ 20,997,013	\$ 20,025,730	\$ 18,060,007	\$ 15,449,062	\$ 15,371,826	\$ 15,895,095	\$ 16,527,919
Net Pension Liability as a Percentage							
of Covered Payroll	29.03 %	36.35 %	(33.69)%	(17.66)%	13.32 %	36.85 %	(12.25)%

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



SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY
GASB Statement No. 67

FY Ending September 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2014	\$ 108,266,267	\$ 110,291,364	\$ (2,025,097)	101.87%	\$ 16,527,919	(12.25)%
2015	113,643,389	107,786,582	5,856,807	94.85%	15,895,095	36.85%
2016	116,887,238	114,839,850	2,047,388	98.25%	15,371,826	13.32%
2017	122,223,203	124,951,385	(2,728,182)	102.23%	15,449,062	(17.66)%
2018	127,633,046	133,718,092	(6,085,046)	104.77%	18,060,007	(33.69)%
2019	140,210,004	132,929,736	7,280,268	94.81%	20,025,730	36.35%
2020*	143,191,873	137,096,950	6,094,923	95.74%	20,997,013	29.03%

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

NOTES TO SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY
GASB Statement No. 67

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

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	2.5%
Salary Increases	3.75% - 6.75% based on service, including inflation
Investment Rate of Return	6.75%
Retirement Age	Experience-based table of rates
Mortality	PUB-2010 Headcount Weighted Below Median Employee Male Table (pre-retirement), the PUB-2010 Headcount Weighted Below Median Employee Female Table (pre-retirement), the PUB-2010 Headcount Weighted Below Median Healthy Retiree Male Table (post-retirement) and the PUB-2010 Headcount Weighted Below Median Retiree Female Table (post-retirement). These tables use ages set back one year for males and future improvements in mortality projected to all future years after 2010 using scale MP 2018. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2019.

Other Information:

Notes See Discussion of Valuation Results in the October 1, 2019 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
2014	\$ 2,093,769	\$ 2,093,769	\$ -	\$ 16,527,919	12.67%
2015	2,168,946	2,168,946	-	15,895,095	13.65%
2016	2,046,827	2,046,827	-	15,371,826	13.32%
2017	1,969,163	1,969,163	-	15,449,062	12.75%
2018	2,151,438	2,151,438	-	18,060,007	11.91%
2019	2,360,582	2,360,582	-	20,025,730	11.79%
2020*	2,866,796	2,866,796	-	20,997,013	13.65%

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

NOTES TO SCHEDULE OF CONTRIBUTIONS

GASB Statement No. 67

Valuation Date: October 1, 2018

Notes Actuarially determined contributions are calculated as of October 1, which is two years prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	25 years
Asset Valuation Method	5-year smoothed market
Inflation	2.5%
Salary Increases	3.75% - 6.75% based on service, including inflation
Investment Rate of Return	6.75%
Retirement Age	Experience-based table of rates
Mortality	RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for postretirement mortality), with mortality improvements projected to all future years after 2000 using Scale BB. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. For females, the base mortality rates include a 100% white collar adjustment. These are the same rates used for Regular Class members of the Florida Retirement System (FRS) in the July 1, 2018 FRS actuarial valuation, as mandated by Chapter 112.63, Florida Statutes.

Other Information:

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

SINGLE DISCOUNT RATE GASB Statement No. 67

A single discount rate of 6.75% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 6.75%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (6.75%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 6.75%, 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 for September 30, 2019 Reporting Date

1% Decrease	Current Single Discount Rate Assumption	1% Increase
5.75%	6.75%	7.75%
\$ 23,964,175	\$ 7,280,268	\$ (6,688,949)

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption for September 30, 2020 Reporting Date*

1% Decrease	Current Single Discount Rate Assumption	1% Increase
5.75%	6.75%	7.75%
\$ 22,789,483	\$ 6,094,923	\$ (7,927,666)

* 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 10/01/18 To 10/01/19	From 10/01/17 To 10/01/18
A. Active Members		
1. Number Included in Last Valuation	378	357
2. New Members Included in Current Valuation	55	60
3. Non-Vested Employment Terminations	(25)	(19)
4. Vested Employment Terminations	(4)	(6)
5. Service Retirements	(2)	(1)
6. Disability Retirements	0	0
7. Deaths	(1)	(1)
8. Transfer to Police & Fire	0	0
9. DROP Retirements	(9)	(12)
10. ERIP and Early Retirements	<u>0</u>	<u>0</u>
11. Number Included in This Valuation	392	378
B. Terminated Vested Members		
1. Number Included in Last Valuation	78	79
2. Additions from Active Members	4	7
3. Lump Sum Payments/Refund of Contributions	0	(1)
4. Payments Commenced	(2)	(7)
5. Deaths	0	0
6. Other - Data Correction	<u>1</u>	<u>0</u>
7. Number Included in This Valuation	81	78
C. DROP Plan Members		
1. Number Included in Last Valuation	42	39
2. Additions from Active Members	9	12
3. Retirements	(14)	(9)
4. Deaths Resulting in No Further Payments	0	0
5. Other- Death benefit moved to beneficiaries	<u>(1)</u>	<u>0</u>
6. Number Included in This Valuation	36	42
D. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	308	296
2. Additions from Active Members	2	1
3. Additions from Terminated Vested Members	2	7
4. Additions from DROP Plan	14	9
5. Deaths Resulting in No Further Payments	(7)	(5)
6. Deaths Resulting in New Survivor Benefits	1	(3)
7. End of Certain Period - No Further Payments *	(1)	0
8. Other- Data Correction	<u>1</u>	<u>3</u>
9. Number Included in This Valuation	320	308

*Includes deferred death benefit.

ACTIVE PARTICIPANT SCATTER

Age Group	Years of Service to Valuation Date											Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30 & Up	
20-24 NO.	0	2	2	1	0	0	0	0	0	0	0	5
TOT PAY	0	82,234	65,927	38,272	0	0	0	0	0	0	0	186,433
AVG PAY	0	41,117	32,964	38,272	0	0	0	0	0	0	0	37,287
25-29 NO.	0	6	6	6	1	3	0	0	0	0	0	22
TOT PAY	0	261,877	212,527	248,582	38,413	105,969	0	0	0	0	0	867,368
AVG PAY	0	43,646	35,421	41,430	38,413	35,323	0	0	0	0	0	39,426
30-34 NO.	1	8	6	4	3	5	3	1	0	0	0	31
TOT PAY	41,704	326,586	279,581	146,181	114,813	230,092	176,951	60,000	0	0	0	1,375,908
AVG PAY	41,704	40,823	46,597	36,545	38,271	46,018	58,984	60,000	0	0	0	44,384
35-39 NO.	0	9	4	9	2	12	6	2	0	0	0	44
TOT PAY	0	431,055	235,280	469,153	66,723	589,721	309,700	70,924	0	0	0	2,172,556
AVG PAY	0	47,895	58,820	52,128	33,362	49,143	51,617	35,462	0	0	0	49,376
40-44 NO.	0	8	9	7	2	7	9	5	0	0	0	47
TOT PAY	0	427,845	407,698	442,828	91,694	303,264	521,266	274,019	0	0	0	2,468,614
AVG PAY	0	53,481	45,300	63,261	45,847	43,323	57,918	54,804	0	0	0	52,524
45-49 NO.	2	5	4	3	2	6	10	12	6	1	0	51
TOT PAY	131,800	318,016	243,708	169,966	139,785	290,338	480,319	661,942	386,412	64,650	0	2,886,936
AVG PAY	65,900	63,603	60,927	56,655	69,892	48,390	48,032	55,162	64,402	64,650	0	56,607
50-54 NO.	0	4	7	8	6	8	12	9	6	5	0	65
TOT PAY	0	304,060	509,888	336,520	420,363	437,272	670,476	502,487	367,629	309,621	0	3,858,316
AVG PAY	0	76,015	72,841	42,065	70,060	54,659	55,873	55,832	61,272	61,924	0	59,359
55-59 NO.	0	9	9	3	1	6	14	15	11	3	4	75
TOT PAY	0	414,914	553,067	96,482	47,503	332,710	760,009	742,291	676,761	285,415	260,989	4,170,141
AVG PAY	0	46,102	61,452	32,161	47,503	55,452	54,286	49,486	61,524	95,138	65,247	55,602
60-64 NO.	0	1	3	10	3	8	10	1	2	1	0	39
TOT PAY	0	49,754	133,002	493,086	116,292	574,634	580,856	58,714	131,152	43,805	0	2,181,295
AVG PAY	0	49,754	44,334	49,309	38,764	71,829	58,086	58,714	65,576	43,805	0	55,931
65 & Up NO.	0	1	1	3	1	4	1	1	0	0	1	13
TOT PAY	0	28,650	142,223	174,485	71,885	237,635	45,429	42,208	0	0	86,931	829,446
AVG PAY	0	28,650	142,223	58,162	71,885	59,409	45,429	42,208	0	0	86,931	63,804
TOT NO.	3	53	51	54	21	59	65	46	25	10	5	392
TOT AMT	173,504	2,644,991	2,782,901	2,615,555	1,107,471	3,101,635	3,545,006	2,412,585	1,561,954	703,491	347,920	20,997,013
AVG AMT	57,835	49,905	54,567	48,436	52,737	52,570	54,539	52,448	62,478	70,349	69,584	53,564



INACTIVE PARTICIPANT DISTRIBUTION

Age	Terminated Vested		Disabled		Retired		Beneficiary		Total	
	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	0	0	0	0	0	0	1	2,952	1	2,952
20 - 24	0	0	0	0	0	0	1	7,894	1	7,894
25 - 29	0	0	0	0	0	0	0	0	0	0
30 - 34	1	11,904	0	0	0	0	2	15,648	3	27,552
35 - 39	5	38,628	0	0	0	0	1	6,410	6	45,038
40 - 44	12	115,044	0	0	0	0	3	8,510	15	123,554
45 - 49	17	325,760	0	0	0	0	3	11,726	20	337,486
50 - 54	20	380,208	0	0	7	328,406	0	0	27	708,614
55 - 59	24	450,120	2	34,011	9	395,121	5	78,312	40	957,564
60 - 64	2	31,968	0	0	75	2,293,922	3	26,466	80	2,352,356
65 - 69	0	0	0	0	76	1,753,234	5	77,145	81	1,830,379
70 - 74	0	0	0	0	63	1,293,576	7	57,913	70	1,351,489
75 - 79	0	0	0	0	30	668,762	6	56,178	36	724,940
80 - 84	0	0	0	0	20	254,998	5	36,204	25	291,202
85 - 89	0	0	0	0	15	194,511	4	22,309	19	216,820
90 - 94	0	0	0	0	8	89,268	2	9,554	10	98,822
95 - 99	0	0	0	0	0	0	2	17,766	2	17,766
100 & Over	0	0	0	0	1	7,594	0	0	1	7,594
Total	81	1,353,632	2	34,011	304	7,279,392	50	434,987	437	9,102,022
Average Age		51		59		70		67		66

SECTION F

SUMMARY OF PLAN PROVISIONS

City of Delray Beach

General Employees' Retirement Plan

SUMMARY OF PLAN PROVISIONS

A. Ordinances

The Plan was established under the Code of Ordinances for the City of Delray Beach, Florida, Title 3, Chapter 35, Sections 35.085-35.110 and was most recently amended under Ordinance No. 30-15 passed and adopted on its second reading on November 17, 2015. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

B. Effective Date

January 1, 1965; restated April 22, 1974

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

Full-time employees who are not police officers or firefighters are eligible upon completion of one year of service. City commissioners may not be included.

F. Credited Service

Service is measured as the period of continuous employment, expressed in years and tenths of a year, as a general employee from the employee's most recent date of hire to the date of termination. Credited service includes all periods of paid leave and all periods of unpaid leave up to a maximum of 30 days except as required by the Uniformed Services Employment and Reemployment Rights Act of 1994.

In the event that a member of this plan also has credited service with the City as a police officer or firefighter subsequent to membership in this plan, then such other credited service shall be used in determining vesting and eligibility for normal retirement. Such other credited service will not be considered in determining benefits under this system.



G. Compensation

Basic compensation paid to a participant for services rendered to the City excluding overtime, commissions, bonuses, expenses allowances and any other extraordinary compensation.

H. Final Monthly Compensation (FMC)

For members hired on or before October 5, 2010, the average of the highest 36 consecutive months of Compensation out of the last 120 months of Credited Service immediately preceding retirement or termination; the FMC will not be less than the 24-month average of Compensation as of October 5, 2010. For members hired after October 5, 2010, the average of the highest 60 consecutive months of Compensation out of the last 120 months of Credited Service immediately preceding retirement or termination. Payments for unused leave are not included.

I. Normal Retirement

Eligibility: Members within ten years of attaining age 60 or 30 years of service as of October 5, 2010 may retire on the first day of the month coincident with or next following the earlier of:

- (1) age 60 with 10 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Other members hired on or before October 5, 2010 may retire on the first day of the month coincident with or next following the earlier of:

- (1) age 62 with 10 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Members hired after October 5, 2010 may retire on the first day of the month coincident with or next following attainment of age 65 with 10 years of Credited Service.

Benefit: 2.50% of FMC multiplied by Credited Service with a maximum benefit of 75% of FMC. For members with 10 or more years of Credited Service, the minimum monthly benefit is \$500.

Members may elect to receive a 3% multiplier for future service (and a maximum benefit of 90% of Average Monthly Earnings) by contributing an additional 3.45% of pay. These members may also choose to purchase the 3% multiplier for past service by contributing the full actuarial cost.



Normal Form
of Benefit: Life annuity. For married participants within ten years of attaining age 60 or 30 years of service as of October 5, 2010, a monthly income payable for life of member; upon death of member, 100% of member's benefit payable to spouse for one year and 60% thereafter until death or remarriage of spouse. Other optional forms are also available.

COLA: None

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of:

- (1) age 55 with 15 years of Credited Service, or
- (2) 20 years of Credited Service regardless of age.

Benefit: The Normal Retirement Benefit is actuarially reduced by 5% for each year by which the Early Retirement date precedes the Normal Retirement date.

Normal Form
of Benefit: Life annuity. For married participants within ten years of attaining age 60 or 30 years of service as of October 5, 2010, a monthly income payable for life of member; upon death of member, 100% of member's benefit payable to spouse for one year and 60% thereafter until death or remarriage of spouse. Other optional forms 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 incurs a total and permanent disability arising out of and in the course of city employment is immediately eligible for a disability benefit.

Benefit: 60% of FMC in effect at date of disability, reduced by amounts payable from Social Security, and in certain cases, by compensation earned from other sources.



Benefit begins 5 months after the date of disability and is payable until the earlier of:

- (a) death
- (b) recovery from disability
- (c) age 65 for those who became disabled prior to age 60 or 5 years after the date of disability for those who became disabled after age 60.

Normal Form: Life annuity

COLA: None

M. Non-Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled after completing 10 years of Credited Service is immediately eligible for a disability benefit.

Benefit: 2.0% of FMC in effect at date of disability multiplied by Credited Service with a maximum benefit of 50% of FMC. Benefits will be reduced by amounts payable from Social Security, and in certain cases, by compensation earned from other sources.

Benefit begins 5 months after the date of disability and is payable until the earlier of:

- (a) death
- (b) recovery from disability
- (c) age 65 for those who became disabled prior to age 60 or 5 years after the date of disability for those who became disabled after age 60.

Normal Form: Life annuity

COLA: None

N. Death in the Line of Duty

Eligibility: Any member whose death arises out of and in the course of city employment is immediately eligible for a survivor benefit.

Benefit: \$10,000 lump sum, plus a monthly income of 60% of FMC on the date of death payable to the spouse until death or remarriage, or in the case of a non-spouse beneficiary, the actuarial equivalent of the member's lifetime benefit of 60% of FMC payable for life, plus a monthly income of 7 1/2% of the FMC payable to each unmarried child under age 18 (age 22 if full-time student), subject to an overall limitation of 90% of FMC.



Normal Form

of Benefit: Lump sum in addition to monthly benefits payable until death or the remarriage of a spouse. Children's benefits are payable until death, marriage or the attainment of age 18 (age 22 if a full-time student).

COLA: None

O. Other Pre-Retirement Death

Eligibility: Members are eligible for survivor benefits after the completion of 1 or more years of Credited Service.

Benefit: For those with less than 5 years of Credited Service, a \$5,000 lump sum is payable to the spouse or designated beneficiary.

For those with 5 or more years of Credited Service, a \$10,000 lump sum, plus a monthly income paid to the spouse until death or remarriage equal to 65% of the member's Normal Retirement Benefit accrued on the date of death with a minimum equal to 20% of the member's FMC, or in the case of a non-spouse beneficiary, the actuarial equivalent of the member's lifetime benefit of 65% of the member's Normal Retirement Benefit paid for life, plus a monthly income of 7 1/2% of the FMC payable to each unmarried child under age 18 (age 22 if full-time student), subject to an overall limitation of 50% of FMC.

Normal Form

of Benefit: Lump sum in addition to monthly benefits payable until death or the remarriage of a spouse. Children's benefits are payable until death, marriage or the attainment of age 18 (age 22 if a full-time student).

COLA: None

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 retirees are the 10 Year Certain and Life option or the 50%, 66 2/3%, 75% or 100% Joint and Survivor options. Lump sums may be paid when the monthly benefit is less than \$50.

R. Vested Termination

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



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

Normal Form

of Benefit: Life annuity. For married participants within ten years of attaining age 60 or 30 years of service as of October 5, 2010, a monthly income payable for life of member; upon death of member, 100% of member's benefit payable to spouse for one year and 60% thereafter until death or remarriage of spouse. Other optional forms are also available.

COLA: None

Vesting is determined in accordance with the following table.

YEARS OF CREDITED SERVICE	% OF NORMAL RETIREMENT BENEFITS
Less Than 5	None
5	50%
6	60
7	70
8	80
9	90
10 or more	100

S. Non-vested Termination

Eligibility: All members terminating employment with less than 5 years of Credited Service are eligible.

Benefit: Refund of the member's contributions.

T. Member Contributions

3.05%. Those members who elect to receive the 3% multiplier must contribute an additional 3.45%, for a total of 6.50%. Contributions cease upon attainment of 30 years of Credited Service.

U. Employer Contributions

The 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: Members within ten years of attaining age 60 or 30 years of service as of October 5, 2010 who have met one of the following criteria are eligible for the DROP:

- (1) age 60 with 10 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Other members hired on or before October 5, 2010 who have met one of the following criteria are eligible for the DROP:

- (1) age 62 with 10 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Members hired after October 5, 2010 are eligible for the DROP upon attaining age 65 with 10 years of Credited Service.

Members who meet eligibility must submit a written election to participate in the DROP.

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

**Maximum
DROP Period:** 60 months

**Interest
Credited:** The member's DROP account is credited at an interest rate equal to the actual investment return earned by the pension plan or by the member's self directed investments.

**Normal Form
of Benefit:** Lump Sum, or equal quarterly or annual installments spread over a period of time designated by the retiree.

Y. Other Ancillary Benefits

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

Z. Changes from Previous Valuation

See Section A of the report under the Revisions in Benefits section.

