

## **CITY OF CLEARWATER EMPLOYEES' PENSION PLAN** ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2017

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2018

March 24, 2017

Board of Trustees City of Clearwater Employees' Pension Plan Clearwater, Florida

Dear Board Members:

The results of the January 1, 2017 Annual Actuarial Valuation of the City of Clearwater Employees' Pension Plan are presented in this report.

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.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report does not include an assessment of the risks of future experience not meeting the actuarial assumptions. Such an assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the Plan's financial condition.

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 and to determine the employer contribution rate for the fiscal year ending September 30, 2018. 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 findings in this report are based on data or other information through December 31, 2016. 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 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 otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the City.

In addition, this report was prepared using certain assumptions approved by the Board and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Methods. The prescribed assumptions are the assumed mortality rates detailed in the Actuarial Assumptions and Methods section in accordance with Florida House Bill 1309 (codified in Chapter 2015-157).

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.

Peter N. Strong 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

Peter N. Strong, FSA, MAAA Enrolled Actuary No. 14-6975 Trisha Amrose, MAAA Enrolled Actuary No. 14-8010

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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 9/30/2018 Based on 1/1/2017 Valuation	For FYE 9/30/2017 Based on 1/1/2016 Valuation	Increase (Decrease)
Required Employer/State Contribution	\$ 8,659,427 10.92 %	\$ 8,944,103 11.15 %	\$ (284,676) (0.23) %
As % of Covered Payroll	10.92 %	11.13 %	(0.23) %
Estimated State Contribution	12,000	12,000	0
As % of Covered Payroll	0.01 %	0.02 %	(0.01) %
Required Employer Contribution	8,647,427	8,932,103	(284,676)
As % of Covered Payroll	10.91 %	11.13 %	(0.22) %
Credit Balance	19,445,883	15,570,503	3,875,380

The contribution has been adjusted for interest on the basis that payments are made uniformly during the first two quarters of the City's fiscal year. The required employer contribution has been computed under the assumption that the amount to be received from the State on behalf of police officers and firefighters in 2017 and 2018 will be \$12,000. If the actual payment from the State falls below this amount, then the City must increase its contribution by the difference.

The actual Employer and State contributions during the year ending December 31, 2016 were \$11,717,548 and \$12,000, respectively, for a total of \$11,729,548, compared to the required contribution of \$8,944,103. The excess contribution of \$2,785,445 was used to increase the credit balance.

The minimum required City contribution is 7% of covered payroll.

#### **Revisions in Benefits**

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

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

The mortality assumption for active members prior to retirement was revised in accordance with a revision to the active member pre-retirement mortality assumption used by the Florida Retirement System (FRS) in their July 1, 2016 Actuarial Valuation. No revisions were made to mortality rates applicable to retirees. Prior to this revision, pre-retirement mortality rates for active members were the same as the post-retirement rates for active members and retirees. This change was made in compliance with Florida House Bill 1309, which requires all public pension plans in Florida to use the same mortality tables used in either of the last two actuarial valuation reports of FRS effective January 1, 2016. A more detailed description can be found in the section of this report titled Actuarial Assumptions and Cost Method. As a result of the change in the pre-retirement mortality assumption, the required contribution increased by 0.11% of covered payroll, or \$83,845.

For informational purposes, if this year's valuation had been completed using the mortality rates assumed prior to January 1, 2016 (the RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvements projected with Scale BB) rather than the mortality rates mandated by the Florida Statutes, the required City contribution for FY 2018 would have been \$8,885,377, or 11.21% of covered payroll, and the funded ratio (excluding the credit balance) as of January 1, 2017 would have been 102.74%.

#### Actuarial Experience

There was a net actuarial experience gain of \$18,096,188 during the year, which means that actual experience was more favorable than expected. The gain is primarily due to a recognized investment return (on the smoothed actuarial value of assets) above the assumed rate of 7.0% and lower than expected salary increases. Although the investment return on the market value of assets was 6.70%, the investment return was 8.22% based on the actuarial value of assets, as previously unrecognized investment gains were phased in. In addition, actual average salary increases were 1.23%, compared to an expected average increase of 4.13%. Salary increases were lower than expected mainly because reported pensionable earnings for the year ending December 31, 2015 included 27 pay periods, whereas 26 pay periods are included in the

reported pensionable earnings for the year ending December 31, 2016. An experience gain also resulted from retirement experience (there were 49 retirements during the year versus 60 expected). Mortality experience was a minor offsetting source of experience loss, as there were fewer retiree deaths during the year than expected (20 actual deaths with \$498,746 in annual pensions versus 25 expected deaths with \$708,907 in annual pensions).

Under Chapter 112.66 of the Florida Statues, the annual payment to amortize the UAL may not reduce the contribution required to fund the Normal Cost. As a result, since the annual payment to amortize the UAL is below \$0, the actuarial experience gain had no direct effect on the required employer contribution.

#### Analysis of Change in Employer Contribution

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

Contribution Rate Last Year	11.13 %
Change in Benefits	0.00
Change in Assumptions and Methods	0.11
Amortization Payment on UAAL	0.00
Normal Cost	(0.33)
Experience Gain/Loss	0.00
Change in Administrative Expenses	0.01
Change in State Revenue	<u>(0.01)</u>
Contribution Rate This Year	10.91

### **Funded Ratio**

One measure of the Plan's funding progress is the ratio of the actuarial value of assets to the actuarial accrued liability. Including the credit balance in the actuarial value of assets, the funded ratio is 105.38% this year compared to 102.92% last year. Not including the credit balance in the actuarial value of assets, the funded ratio is 103.17% this year compared to 101.10% last year. This funded ratio (not including the credit balance) was 103.21% before the change in the mortality assumption.

### 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 yearto-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 Actuarial Value of Assets exceeds the Market Value of Assets by \$22,413,724 as of the valuation date (see Section C). This difference will be phased in over the next few years in the absence of offsetting gains. If there are no experience losses and the return on the market value of assets is 7.0% in 2017 (net of investment expenses) as assumed, it is projected that the City contribution requirement as of January 1, 2018 for the fiscal year ending September 30, 2019 will remain in the range of approximately 10%-11% of covered payroll.

#### **Relationship to Market Value**

If Market Value had been the basis for the valuation, the City contribution rate would have remained at 10.91% of covered payroll (since the annual payment to amortize the UAL would have remained at \$0 due to Chapter 112.66 of the Florida Statutes), and the funded ratio (excluding the credit balance) would have been 100.62%. The funded ratio based on the market value of assets (excluding the credit balance) last year was 100.09%.

#### **Conclusion**

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

**SECTION B** VALUATION RESULTS

PARTICIPANT DATA					
	January 1, 2017 January 1, 2016				
ACTIVE MEMBERS					
Number Covered Annual Payroll Average Annual Payroll Average Age	\$ \$	1,520 79,276,100 52,155 44.3	\$ \$	1,505 80,250,993 53,323 44,5	
Average Past Service Average Age at Hire		10.9 33.4		11.1 33.4	
RETIREES & BENEFICIARIES					
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	1,078 39,298,148 36,455 66.3	\$ \$	1,037 36,972,899 35,654 65.9	
DISABILITY RETIREES			•		
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	134 3,889,865 29,029 63.2	\$ \$	137 3,837,858 28,014 63.4	
TERMINATED VESTED MEMBERS					
Number Annual Benefits Average Annual Benefit Average Age	\$ \$	66 1,254,568 19,009 50.1	\$ \$	63 1,230,068 19,525 50.4	

ACTUARIALLY DETERMINED CONTRIBUTION (ADC)					
A. Valuation Date	January 1, 2017 After Assumption Change	January 1, 2017 Before Assumption Change	January 1, 2016		
<ul><li>B. ADC to Be Paid During Fiscal Year Ending</li><li>C. Assumed Date of Employer Contrib.</li></ul>	9/30/2018 Evenly during	9/30/2018 Evenly during	9/30/2017 Evenly during		
D. Annual Payment to Amortize Unfunded Actuarial Liability	first two quarters of fiscal year \$ 0 *	first two quarters of fiscal year \$ 0 *	first two quarters of fiscal year \$ 0 *		
<ul><li>E. Employer Normal Cost</li><li>F. ADC if Paid on the Valuation Date: D+E</li></ul>	8,092,922 8,092,922	8,014,563 8,014,563	8,358,975 8,358,975		
G. ADC Adjusted for Frequency of Payments	8,659,427	8,575,582	8,944,103		
<ul><li>H. ADC as % of Covered Payroll</li><li>I. Assumed Rate of Increase in Covered Payroll to Contribution Year</li></ul>	10.92 % 0.00 %	0.00 %	11.15 % 0.00 %		
J. Covered Payroll for Contribution Year	79,276,100	79,276,100	80,250,993		
K. ADC for Contribution Year: H x J	8,659,427	8,575,582	8,944,103		
L. Estimate of State Revenue in Contribution Year	12,000	12,000	12,000		
M. Required Employer Contribution (REC) in Contribution Year	8,647,427	8,563,582	8,932,103		
N. REC as % of Covered Payroll in Contribution Year: M ÷ J	10.91 %	10.80 %	11.13 %		
O. Credit Balance	19,445,883	19,445,883	15,570,503		

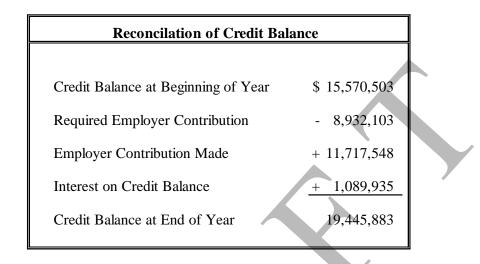
\* The annual payment to amortize the UAL is less than \$0; however, under Chapter 112.66 of the Florida Statutes, the annual payment to amortize the UAL may not reduce the contribution below the amount required to fund the Normal Cost.

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ACTUARIAL VALUE OF BENEFITS AND ASSETS				
A. Valuation Date	January 1, 2017 After Assumption Change	January 1, 2017 Before Assumption Change	January 1, 2016	
<ul> <li>B. Actuarial Present Value of All Projected Benefits for <ol> <li>Active Members</li> <li>Service Retirement Benefits</li> <li>Vesting Benefits</li> <li>Vesting Benefits</li> <li>Disability Benefits</li> <li>Preretirement Death Benefits</li> <li>Return of Member Contributions</li> <li>Total</li> </ol> </li> </ul>	\$ 344,686,807 34,490,262 13,745,145 5,984,099 2,778,269 401,684,582	\$ 339,084,990 34,091,593 13,592,191 9,988,053 <u>2,984,718</u> 399,741,545	\$ 346,868,915 35,105,321 13,817,873 10,280,425 2,811,989 408,884,523	
<ol> <li>Inactive Members         <ul> <li>a. Service Retirees &amp; Beneficiaries</li> <li>b. Disability Retirees</li> <li>c. Terminated Vested Members</li> <li>d. Total</li> </ul> </li> <li>Total for All Members</li> </ol>	524,368,640 50,425,996 14,083,542 588,878,178 990,562,760	524,368,640 50,425,996 14,083,542 588,878,178 988,619,723	495,874,052 49,834,468 14,216,453 559,924,973 968,809,496	
C. Actuarial Accrued (Past Service) Liability	880,316,652	880,012,709	857,177,619	
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	835,933,687	836,067,811	807,130,603	
<ul> <li>E. Plan Assets <ol> <li>Market Value</li> <li>Actuarial Value</li> <li>Actuarial Value Excluding Credit Balance</li> </ol> </li> <li>F. Actuarial Present Value of Projected Covered Payroll</li> </ul>	905,261,405 927,675,129 908,229,246 601,882,706	905,261,405 927,675,129 908,229,246 595,983,669	873,505,080 882,169,478 866,598,975 600,851,333	
<ul> <li>G. Actuarial Present Value of Projected Member Contributions</li> </ul>	53,377,255	52,851,227	53,256,611	
H. Accumulated Value of Active Member Contributions	60,655,020	60,655,020	60,112,481	
I. Unfunded Actuarial Accrued Liability (UAAL) Based on EAN Method = C E.3.	(27,912,594)	(28,216,537)	(9,421,356)	
J. Funded Ratio = E.2. / C.	105.38%	105.42%	102.92%	
K. Funded Ratio Excluding Credit Balance = E.3. / C.	103.17%	103.21%	101.10%	

CALCULATION OF EMPLOYER NORMAL COST ENTRY AGE NORMAL METHOD					
A. Valuation Date	January 1, 2017	January 1, 2017	January 1, 2016		
	After Assumption Change	Before Assumption Change			
B. Normal Cost for					
1. Service Retirement Benefits	\$ 10,431,629	\$ 10,160,752	\$ 10,488,778		
2. Vesting	2,024,528	1,997,067	2,036,821		
3. Disability Benefits	1,335,018	1,330,914	1,363,963		
4. Death Benefits	248,588	445,115	456,044		
5. Refund of Contributions	695,405	722,961	729,238		
6. Total for Future Benefits	14,735,168	14,656,809	15,074,844		
7. Assumed Amount for					
Administrative Expenses	301,781	301,781	302,086		
8. Total Normal Cost	15,036,949	14,958,590	15,376,930		
C. Expected Member Contributions	6,944,027	6,944,027	7,017,955		
D. Employer Normal Cost: B8 - C	8,092,922	8,014,563	8,358,975		
E. Employer Normal Cost as % of					
Covered Payroll	10.21%	10.11%	10.42%		
		<u> </u>			



UAAL Amortization Period and Payments					
Original UAAL				Current UAA	L
Date Established	Source	Amount	Years Remaining	Amount	Payment
1/1/2015 1/1/2016 1/1/2016 1/1/2017 1/1/2017	Fresh Start (Gain)/Loss Assumption Change (Gain)/Loss Assumption Change	\$ (5,212,649) 475,313 (4,280,409) (18,096,188) <u>303,943</u>	14 24	\$ (6,033,770) 511,090 (4,597,669) (18,096,188) <u>303,943</u>	\$ (520,421) 54,617 (374,641) (1,856,882) 24,375
		(26,809,990)		(27,912,594)	(2,672,952)

# LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)

# **Amortization Schedule**

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	
2017	\$ (27,912,594)	
2018	(27,006,413)	
2019	(26,036,803)	
2020	(24,999,321)	
2021	(23,889,215)	
2022	(22,701,401)	
2027	(15,392,439)	
2032	(5,082,800)	
2037	(1,771,300)	
2042	-	

#### 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:

*	
A. Derivation of the Current UAAL	
1. Last Year's UAAL	\$ (9,421,356)
2. Employer Normal Cost for Contribution Year	8,358,975
3. Last Year's Contributions	8,944,103 *
<ul> <li>4. Interest at the Assumed Rate on:</li> <li>a. 1 and 2 for one year</li> <li>b. 3 from dates paid</li> <li>c. a - b</li> </ul>	(74,367) <u>39,498</u> (113,865)
5. This Year's Expected UAAL: 1+2-3+4c	(10,120,349)
6. This Year's Actual UAAL (Before any	
changes in benefits and assumptions)	(28,216,537)
7. Net Actuarial Gain (Loss): (5) - (6)	18,096,188
8. Gain (Loss) Due to Investments	10,817,097
9. Gain (Loss) Due to other sources	7,279,091

\* Excludes the portion of the actual contribution above the required contribution that was used to increase the credit balance.

Gains (losses) in previous years have been as follows:

		Change in	
Year Ending	Gain	Employer	
12/31	(Loss)	Cost Rate*	
2009	\$32,358,262	(4.89) %	
2010	2,311,412	(0.37)	
2011	(13,721,771)	2.28	
2012	(7,015,253)	1.15	
2013	62,452,347	(11.02)	
2014	34,213,347	(6.01)	
2015	(475,313)	0.07 **	
2016	18,096,188	(2.51) **	

# \* Before 2015, Change in Normal Cost Rate.

\*\* Before reflecting Chapter 112.66 of the Florida Statutes. Since the annual payment to amortize the UAL is less than \$0, the net effect of the 2016 gain on the required employer contribution is \$0 after reflecting Chapter 112.66 of the Florida Statutes (the requirement to fund at least the normal cost).

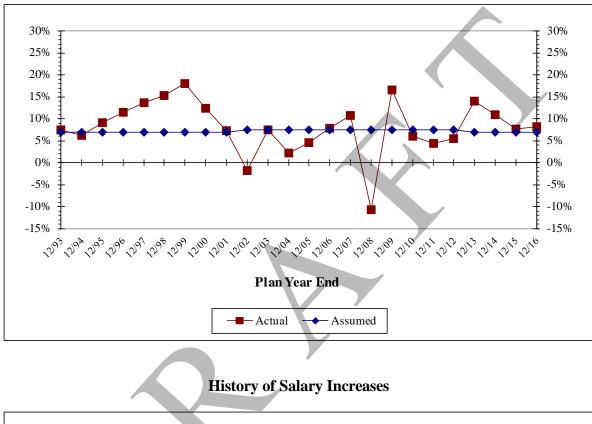


The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

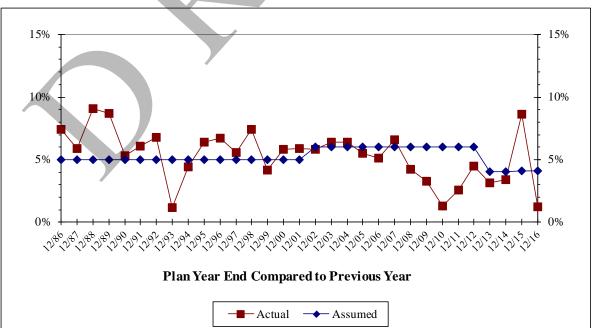
	Investment Return		Salary In	creases
Year Ending	Actual	Assumed	Actual	Assumed
12/31/1986	N/A	7.00 %	7.40 %	5.00 %
12/31/1987	N/A	7.00	5.90	5.00
12/31/1988	N/A	7.00	9.10	5.00
12/31/1989	N/A	7.00	8.70	5.00
12/31/1990	N/A	7.00	5.30	5.00
12/31/1991	N/A	7.00	6.10	5.00
12/31/1992	N/A	7.00	6.80	5.00
12/31/1993	7.42 %	7.00	1.20	5.00
12/31/1994	6.28	7.00	4.40	5.00
12/31/1995	9.14	7.00	6.40	5.00
12/31/1996	11.54	7.00	6.70	5.00
12/31/1997	13.74	7.00	5.60	5.00
12/31/1998	15.28	7.00	7.40	5.00
12/31/1999	17.96	7.00	4.20	5.00
12/31/2000	12.42	7.00	5.80	5.00
12/31/2001	7.40	7.00	5.90	5.00
12/31/2002	(1.85)	7.50	5.80	6.00
12/31/2003	7.45	7.50	6.40	6.00
12/31/2004	2.18	7.50	6.38	6.00
12/31/2005	4.58	7.50	5.49	6.00
12/31/2006	7.87	7.50	5.15	6.00
12/31/2007	10.68	7.50	6.62	6.00
12/31/2008	(10.61)	7.50	4.25	6.00
12/31/2009	16.53	7.50	3.29	6.00
12/31/2010	5.98	7.50	1.27	6.00
12/31/2011	4.46	7.50	2.56	6.00
12/31/2012	5.50	7.50	4.48	6.00
12/31/2013	14.04	7.00	3.16	4.07
12/31/2014	11.04	7.00	3.38	4.04
12/31/2015	7.64	7.00	8.65 *	4.09
12/31/2016	8.22	7.00	1.23 *	4.13
Averages	7.95 %		5.30 %	

\* Salary for the year ending 12/31/2015 included 27 pay periods rather than 26.

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



Actual (A) Compared to Expected (E) Decrements Among Active Employees													
	Ad Du	mber Ided ıring		vice	Disab	•				erminat	_		Active Members
Year Ended	Y A	ear E	Retire A	ement E	Retire A	ment E	De: A	ath E	Vested	Other A	To A	tals E	End of Year
Lilueu	A	Ľ	A	Ľ	A	Ľ	A	E	A	A	A	Ľ	Ital
12/31/2009	49	110	54	57	0	6	0	2	10	46	56	93	1,567
12/31/2010	78	137	68	51	2	6	3	2	15	49	64	85	1,508
12/31/2011	84	124	43	49	6	6	0	2	11	64	75	84	1,468
12/31/2012	119	113	51	52	3	6	1	2	18	40	58	81	1,474
12/31/2013	102	98	27	42	2	3	4	2	11	54	65	79	1,478
12/31/2014	135	131	45	51	5	3	2	2	21	58	79	78	1,482
12/31/2015	145	122	43	52	7	3	1	2	18	53	71	82	1,505
12/31/2016	159	144	49	60	4	3	2	3	18	71	89	89	1,520
12/31/2017				59		3		2				91	
8 Yr Totals *	871	979	380	414	29	36	13	17	122	435	557	671	

\* Totals are through current Plan Year only.

Actual (A) Compared to Expected (E) Deaths Among Retirees and Beneficiaries								
		Actual	During Year	Expected During Year				
	Year		Annual		Annual			
	Ended	Number	Pensions	Number	Pensions			
	12/31/2009	12	\$ 142,606	16	\$ 313,189			
	12/31/2010	12	139,508	18	363,242			
	12/31/2011	13	220,877	19	416,467			
	12/31/2012	12	232,755	20	466,010			
	12/31/2013	20	401,192	20	480,787			
	12/31/2014	16	275,728	21	510,892			
	12/31/2015	19	385,405	22	558,603			
	12/31/2016	20	498,746	25	708,907			
	12/31/2017			26	753,482			

	RECENT HISTORY OF VALUATION RESULTS									
	Numb	er of		Actuarial Accrued		Unfunded Actuarial		Employer Normal Cost*		
Valuation Date	Active Members	Inactive Members	Covered Annual Payroll	Actuarial Value of Assets	Liability (Entry Age)	Liability (Entry Age)*	Funded Ratio	Amount	% of Payroll	
1/1/07	1,692	819	\$ 79,385,090	\$ 559,830,590	N/A	N/A	N/A	\$ 9,192,407	11.58 %	
1/1/08	1,641	878	80,371,617	610,979,087	N/A	N/A	N/A	6,920,400	8.61	
1/1/09	1,628	903	82,104,837	536,834,473	N/A	N/A	N/A	20,005,238	24.37	
1/1/10	1,567	955	80,443,199	618,444,906	\$ 647,167,565	\$ 28,722,659	95.6 %	15,879,628	19.74	
1/1/11	1,508	1,024	76,505,599	646,956,800	672,786,812	25,830,012	96.2	15,461,725	20.21	
1/1/12	1,468	1,072	74,765,020	664,087,199	702,438,432	38,351,233	94.5	17,064,100	22.82	
1/1/13	1,474	1,127	74,422,344	688,731,221	774,749,811	86,018,590	88.9	12,845,501	17.26	
1/1/14	1,478	1,144	74,254,159	772,411,068	795,927,127	23,516,059	97.0	4,626,039	6.23	
1/1/15	1,482	1,194	75,078,542	829,486,793	824,274,144	(5,212,649)	100.6	8,194,115	10.91	
1/1/16	1,505	1,237	80,250,993	866,598,975	857,177,619	(9,421,356)	101.1	8,358,975	10.42	
1/1/17	1,520	1,278	79,276,100	908,229,246	880,316,652	(27,912,594)	103.2	8,092,922	10.21	

\* Starting with the January 1, 2015 valuation, the Employer Normal Cost is calculated under the Entry Age Normal Method and the Credit Balance is excluded from the Actuarial Value of Assets.

Results before January 1, 2010 are from the January 1, 2009 Report prepared by PricewaterhouseCoopers.

	End of		R	equired Cor	ntributions	5				
	Year To	Employer	& State	Estimate	ed State	Net Empl	oyer	Actual Contributions		
Valuation	Which Valuation		% of		% of		% of			
Date	Applies	Amount	Payroll	Amount	Payroll	Amount	Payroll	Employer	State	Total
1/1/07	9/30/08	\$ 12,532,399	15.79 %	\$ 12,000	0.02 %	\$ 12,520,399	15.77 %	\$ 12,520,399	\$ 12,000	\$ 12,532,399
1/1/08	9/30/09	10,086,978	12.55	12,000	0.01	10,074,978	12.54	10,074,978	12,000	10,086,978
1/1/09	9/30/10	23,960,586	29.18	12,000	0.01	23,948,586	29.17	23,948,586	12,000	23,960,586
1/1/10	9/30/11	19,373,992	24.08	12,000	0.01	19,361,992	24.07	19,361,992	12,000	19,373,992
1/1/11	9/30/12	18,898,567	24.70	12,000	0.01	18,886,567	24.69	18,886,567	12,000	18,898,567
1/1/12	9/30/13	20,925,720	27.99	12,000	0.02	20,913,720	27.97	20,913,720	12,000	20,925,720
1/1/13	9/30/14	19,608,078	26.35	12,000	0.02	19,596,078	26.33	19,596,078	12,000	19,608,078
1/1/14	9/30/15	10,803,098	14.55	12,000	0.02	10,791,098	14.53	10,791,098	12,000	10,803,098
1/1/15	9/30/16	8,767,703	11.68	12,000	0.02	8,755,703	11.66	8,755,703	12,000	8,767,703
1/1/16	9/30/17	8,944,103	11.15	12,000	0.02	8,932,103	11.13	8,932,103	12,000	8,944,103
1/1/17	9/30/18	8,659,427	10.92	12,000	0.02	8,647,427	10.91			

## **RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS**

Results before January 1, 2010 are from the January 1, 2009 Report prepared by PricewaterhouseCoopers.

## 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 amount contributions over a reasonable period of future years.

Actuarial Value of Assets - The Actuarial Value of Assets phase in the difference between the expected and actual return on 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 Study Report as of January 1, 2012 covering the five years ending December 31, 2011.

# **Economic Assumptions**

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

The **Inflation Rate** assumed in this valuation is 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 7.00% investment return rate translates to an assumed real rate of return over inflation of 4.50%.

*The rate of salary increase* used for individual members can be seen in the tables below. Part of the assumption is for merit and/or seniority increases and productivity increases, and 2.50% recognizes inflation, including price inflation and other macroeconomic forces. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

Years of	Merit and	Base	Total
Service	Seniority	(Inflation)	Increase
1	5.40%	2.50%	7.90%
2	5.20%	2.50%	7.70%
3	4.50%	2.50%	7.00%
4	2.75%	2.50%	5.25%
5 - 14	1.75%	2.50%	4.25%
15 and Higher	1.00%	2.50%	3.50%

#### % Increase in Salary - Hazardous Duty

#### % Increase in Salary - Non-Hazardous Duty

Years of	Merit and	Base	Total
Service	Seniority	(Inflation)	Increase
1	5.40%	2.50%	7.90%
2	3.25%	2.50%	5.75%
3	2.50%	2.50%	5.00%
4	2.00%	2.50%	4.50%
5 - 9	1.50%	2.50%	4.00%
10 and Higher	1.00%	2.50%	3.50%

### **Demographic Assumptions**

*The mortality table* for Hazardous Duty members 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 future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 90% blue collar adjustment and a 10% white collar adjustment. These are the same rates used for Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

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

Sample Attained	Probability of Dying Next Year		Future Life Expectancy (years)		
Ages (in 2017)	Men Women		Men	Women	
50	0.54 %	0.23 %	33.90	38.31	
55	0.67	0.32	29.26	33.29	
60	0.90	0.47	24.68	28.39	
65	1.31	0.74	20.28	23.65	
70	2.01	1.24	16.15	19.19	
75	3.26	2.09	12.43	15.11	
80	5.37	3.51	9.23	11.49	

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

Sample Attained	Probability of Dying Next Year		Future Expectanc	
Ages (in 2017)	Men	Women	Men	Women
50	0.23 %	0.15 %	34.89	38.66
55	0.39	0.24	29.77	33.51
60	0.71	0.39	24.89	28.49
65	1.23	0.70	20.33	23.67
70	2.01	1.24	16.15	19.19
75	3.26	2.09	12.43	15.11
80	5.37	3.51	9.23	11.49

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

This assumption is used to measure the probabilities of active members dying prior to retirement. All deaths before retirement are assumed to be non-service connected.

For disabled retirees, the mortality table used was 60% of the RP-2000 Mortality Table for Disabled Annuitants with ages set back 4 years for males and set forward 2 years for females, and 40% of the RP-2000 Annuitants Mortality Table with a White Collar adjustment with no age set back, both with no provision being made for future mortality improvements. These are the same rates used for Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

## FRS Disabled Mortality for Special Risk Class Members

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

*The mortality table* for Nonhazardous Duty members 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 future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. These are the same rates currently in use for Non-Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

Sample Attained	Probabil Dying Nex	U C	Future Life Expectancy (years)		
Ages (in 2017)	Men	Women	Men	Women	
50	0.55 %	0.23 %	34.66	38.31	
55	0.60	0.32	30.03	33.29	
60	0.76	0.47	25.36	28.39	
65	1.15	0.74	20.84	23.65	
70	1.78	1.24	16.59	19.19	
75	2.97	2.09	12.73	15.11	
80	5.03	3.51	9.40	11.49	

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

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

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

Sample Attained	Probabili Dying Nex		Future Life Expectancy (years)		
Ages (in 2017)	Men	Women	Men	Women	
50	0.21 %	0.15 %	35.58	38.66	
55	0.36	0.24	30.46	33.51	
60	0.61	0.39	25.53	28.49	
65	1.08	0.70	20.88	23.67	
70	-1.78	1.24	16.59	19.19	
75	2.97	2.09	12.73	15.11	
80	5.03	3.51	9.40	11.49	

This assumption is used to measure the probabilities of active members dying prior to retirement. All deaths before retirement are assumed to be non-service connected.

For disabled retirees, the mortality table used was the RP-2000 mortality for disabled annuitants, set-back 4 years for males and set-forward 2 years for females, with no provision being made for future mortality improvements. These are the same rates currently in use for Non-Special Risk Class members of the Florida Retirement System (FRS) in their actuarial valuation as of July 1, 2016.

#### FRS Disabled Mortality for Non-Special Risk Class Members

Sample Attained	Probability of Dying Next Year		Future Life Expectancy (years)		
Ages	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	

The rates of retirement used to measure the probability of eligible members retiring under normal and early retirement eligibility during the next year were as follows:

	ardous Duty R	letirement
Years of	<b>A</b> ==	Probability of
<u>Service</u> 10 - 19	Age	Retirement
10 - 19	50 - 59	10 %
	60 - 64	50
	65 & Over	100
20 & Over	Under 45	20
	45 - 49	15
	50 - 54	25
	55 - 59	35
	60 - 64	50
	65 & Over	100
Non-H	lazardous Duty	Retirement
Years of		
	Age	Probability of Retirement
Years of		Probability of
Years of Service	Age	Probability of Retirement
Years of Service	Age 65 - 69	Probability of Retirement 45 %
Years of Service 10 - 19	<b>Age</b> 65 - 69 70 - 74 75 & Over	Probability of <u>Retirement</u> 45 % 50 100
Years of Service	Age 65 - 69 70 - 74 75 & Over 55 - 59	Probability of Retirement           45 %           50           100           20
Years of Service 10 - 19	Age 65 - 69 70 - 74 75 & Over 55 - 59 60 - 64	Probability of Retirement           45 %           50           100           20           25
Years of Service 10 - 19	Age 65 - 69 70 - 74 75 & Over 55 - 59 60 - 64 65 - 69	Probability of Retirement           45 %           50           100           20           25           45
Years of Service 10 - 19	Age 65 - 69 70 - 74 75 & Over 55 - 59 60 - 64	Probability of Retirement           45 %           50           100           20           25
Years of Service 10 - 19	Age 65 - 69 70 - 74 75 & Over 55 - 59 60 - 64 65 - 69	Probability of Retirement           45 %           50           100           20           25           45

70 & Over

100

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Years of Service	Age	% of Active Members Separating Within Next Year
Under 1	All Ages	12.8 %
1	All Ages	5.7
2	All Ages	4.8
3 & Over	Under 30	4.0
	30 - 49	1.0
	50 & Over	0.0

Non-Hazardous Duty Withdrawal - Males		Non-Hazardous Duty Withdrawal - Females			
Years of Service	Age	% of Active Members Separating Within Next Year	Years of Service	Age	% of Active Members Separating Within Next Year
Under 1	Under 30	25.0 %	Under 1	Under 25	35.0 %
	30 - 34	20.0		25 - 34	30.0
	35 - 49	15.0	*	35 - 39	25.0
	50 - 59	10.0		40 - 49	20.0
	60 & Over	5.0		50 - 59	15.0
				60 & Over	5.0
1	Under 60	15.0			
	60 & Over	10.0	1	Under 30	25.0
				30 - 59	15.0
2	Under 45	10.0		60 & Over	10.0
	45 & Over	5.0			
			2	Under 45	15.0
3	Under 25	15.0		45 - 59	7.5
	25 - 34	12.5		60 & Over	6.5
	35 & Over	5.0			
			3	Under 30	20.0
4	Under 30	15.0		30 - 59	10.0
	30 - 44	10.0		60 & Over	5.0
	45 & Over	5.0			
			4	Under 30	15.0
5 & Over	Under 30	12.5		30 - 34	12.5
	30 - 34	7.0		35 - 44	10.0
	35 - 39	6.0		45 & Over	5.0
	40 - 44	5.0			
	45 - 49	3.5	5 & Over	Under 30	7.5
	50 - 54	4.0		30 - 39	6.5
	55 - 59	5.0		40 - 44	5.0
	60 & Over	7.5		45 & Over	4.0

	Hazardous Duty Dis % of Active Mem		
Sample _	Disabled Within Next Year		
Ages	Males	Females	
20	0.25 %	0.375 %	
25	0.25	0.375	
30	0.25	0.375	
35	0.30	0.450	
40	0.40	0.600	
45	0.50	0.750	
50	0.55	0.825	
55	0.60	0.900	
60	0.75	1.125	
65	1.00	1.500	
70	1.75	2.625	

Rates of disability among active members (100% of disabilities are assumed to be service-connected).

-	No Sample	on-Hazardous Duty D % of Active Memb Disabled Within	ers Becoming
	Ages	Males	Females
	20	0.05 %	0.05 %
	25	0.05	0.05
	30	0.05	0.05
	35	0.06	0.06
	40	0.07	0.07
	45	0.09	0.09
	50	0.12	0.12
	55	0.17	0.17
	60	0.27	0.27
	65	0.42	0.42
<b>X</b>	70	0.67	0.67

# Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the net return after investment expenses. Annual administrative expenses are assumed to be equal to the administrative expenses of the previous year. Assumed administrative expenses are added to the Normal Cost.
Benefit Service	Exact fractional service is used to determine the amount of benefit payable.
Cost of Living Increases	The adjustment is 1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. There is a five-year delay in the COLA for non-grandfathered non-hazardous duty members for benefits accrued after January 1, 2013. There is no COLA for non-grandfathered hazardous duty members for benefits accrued after January 1, 2013.
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 during the first two quarters of the fiscal year. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Marriage Assumption	85% of males and 85% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be five years older than female spouses for all active members and for members who became inactive after January 1, 2009. For members who became inactive on or before January 1, 2009, spouses ages are based on the assumed beneficiary dates of birth provided by the prior actuary.

*Normal Form of Benefit* The normal form of benefit is a life annuity for non-grandfathered non-hazardous duty members. For all other members, the normal form of benefit is a life annuity that includes a survivor benefit where after the participant's death, 100% is payable to the spouse for five years, after which the benefit is reduced to 50%.

**Pay Increase Timing** End of fiscal year. This is equivalent to assuming that reported pays represent the annual rate of pay on the valuation date. The pay used for the valuation is equal to the greater of the actual pay for the plan year increased by the salary scale assumption rate (which varies by years of service) and the annual rate of pay on the valuation date.

Service Credit Accruals

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

# GLOSSARY

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.
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 the Funded Ratio and the Actuarially Determined Contribution (ADC).
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).

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.
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 the normal cost rate from last year and the normal cost rate from this year.
Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
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

Valuation Date

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

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.

GRS

SECTION C

PENSION FUND INFORMATION

	December 31						
Item		2016		2015			
A. Cash and Cash Equivalents (Operating Cash)	\$	-	\$	-			
B. Receivables							
1. Member Contributions	\$	_	\$	_			
2. Employer Contributions		5,462,001		7,172,984			
3. Investment Income and Other Receivables		2,295,576		2,317,272			
4. Total Receivables	\$	7,757,577	\$	9,490,256			
C. Investments							
1. Short-Term Investments	\$	10,199,335	\$	7,911,301			
2. Domestic Equities		389,773,760		432,163,634			
3. International Equities		159,375,680		113,230,315			
4. Commodities		-					
5. Domestic Fixed Income		254,108,019		245,680,935			
6. International Fixed Income		-					
7. Real Estate		84,706,678		66,204,558			
8. Private Equity		-		-			
9. Total Investments	\$	898,163,472	\$	865,190,743			
D. Liabilities							
1. Benefits Payable	\$	-	\$	-			
2. Accrued Expenses and Other Payables		(659,644)		(1,175,919			
3. Total Liabilities	\$	(659,644)	\$	(1,175,919			
E. Total Market Value of Assets Available for Benefits	\$	905,261,405	\$	873,505,080			
F. Allocation of Investments							
1. Short-Term Investments		1.14%		0.919			
2. Domestic Equities		43.40%		49.95%			
3. International Equities		17.74%		13.099			
4. Commodities		0.00%		0.009			
5. Domestic Fixed Income		28.29%		28.409			
<ol> <li>International Fixed Income</li> </ol>		0.00%		0.009			
7. Real Estate		9.43%		7.659			
8. Private Equity		0.00%		0.009			
9. Total Investments		100.00%		100.009			

## Statement of Plan Assets at Market Value

	December 31						
Item		2016		2015			
A. Market Value of Assets at Beginning of Year	\$	873,505,080	\$	897,025,140			
B. Revenues and Expenditures							
1. Contributions							
a. Employee Contributions	\$	6,745,883	\$	6,808,046			
b. Employer Contributions		11,717,548		13,217,982			
c. State Contributions		12,000		12,000			
d. Total	\$	18,475,431	\$	20,038,028			
2. Investment Income							
a. Interest, Dividends, and Other Income	\$	17,968,591	\$	18,157,941			
b. Net Realized Gains/(Losses)		37,295,825		40,834,745			
c. Net Unrealized Gains/(Losses)		7,582,732		(56,180,886)			
d. Investment Expenses		(5,165,139)		(5,274,984)			
e. Net Investment Income	\$	57,682,009	\$	(2,463,184)			
3. Benefits and Refunds	•						
a. Refunds	\$	(1,226,578)	\$	(936,127)			
b. Regular Monthly Benefits		(42,872,756)		(39,856,691)			
c. Partial Lump-Sum Benefits Paid		-		-			
d. Total	\$	(44,099,334)	\$	(40,792,818)			
4. Administrative and Miscellaneous Expenses	\$	(301,781)	\$	(302,086)			
5. Transfers	\$	-	\$	-			
C. Market Value of Assets at End of Year	\$	905,261,405	\$	873,505,080			
<b>7</b>							

## **Reconciliation of Plan Assets**

Valuation Date - December 31	2015	2016	2017	2018	2019	2020
A. Actuarial Value of Assets Beginning of Year	\$ 839,868,311	\$ 882,169,478				
B. Market Value End of Year	873,505,080	905,261,405				
C. Market Value Beginning of Year	897,025,140	873,505,080				
D. Non-Investment/Administrative Net Cash Flow	(21,056,876)	(25,925,684)				
E. Investment Income						
E1. Actual Market Total: B-C-D	(2,463,184)	57,682,009				
E2. Assumed Rate of Return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
E3. Assumed Amount of Return	61,768,947	60,007,730				
E4. Amount Subject to Phase-In: E1-E3	(64,232,131)	(2,325,721)				
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.2 x E4	(12,846,426)	(465,144)				
F2. First Prior Year	1,723,554	(12,846,426)	(465,144)			
F3. Second Prior Year	14,539,026	1,723,554	(12,846,426)	(465,144)		
F4. Third Prior Year	8,472,595	14,539,026	1,723,554	(12,846,426)	(465,144)	
F5. Fourth Prior Year	(10,299,653)	8,472,595	14,539,026	1,723,552	(12,846,427)	(465,145)
F6. Total Phase-Ins	1,589,096	11,423,605	2,951,010	(11,588,018)	(13,311,571)	(465,145)
G. Actuarial Value of Assets End of Year						
G1. Preliminary Actuarial Value of Assets	\$ 882,169,478	\$ 927,675,129				
G2. Upper Corridor Limit: 120%*B	\$1,048,206,096	\$1,086,313,686				
G3. Lower Corridor Limit: 80%*B	\$ 698,804,064	\$ 724,209,124				
G4. Funding Value End of Year	\$ 882,169,478	\$ 927,675,129				
G5. Credit Balance	\$ 15,570,503	\$ 19,445,883				
G6. Final Actuarial Value of Assets	\$ 866,598,975	\$ 908,229,246				
H. Recognized Investment Earnings	\$ 63,358,043	\$ 71,431,335				
I. Difference between Market & Actuarial Value	\$ (8,664,398)	\$ (22,413,724)				
J. Actuarial Rate of Return	7.64%	8.22%				
K. Market Value Rate of Return	-0.28%	6.70%				
L. Ratio of Actuarial Value of Assets to Market Value	100.99%	102.48%				

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.

Plan Year Ending		
December 31	Market*	Actuarial*
1986	13.21 %	N/A
1987	10.78	N/A
1988	9.12	N/A
1989	20.84	N/A
1990	6.21	N/A
1991	28.52	N/A
1992	6.49	N/A
1993	9.29	7.42 %
1994	0.89	6.28
1995	23.36	9.14
1996	14.80	11.54
1997	17.49	13.74
1998	16.74	15.28
1999	18.61	17.96
2000	(3.43)	12.42
2001	(5.16)	7.40
2002	(8.83)	(1.85)
2003	20.08	7.45
2004	9.73	2.18
2005	6.67	4.58
2006	11.80	7.87
2007	7.29	10.68
2008	(27.01)	(10.61)
2009	30.93	16.53
2010	17.50	5.98
2011	(0.32)	4.46
2012	13.92	5.50
2013	16.90	14.04
2014	7.99	11.04
2015	(0.28)	7.64
2016	6.70	8.22
Average returns:		
Last five years:	8.88 %	9.25 %
Last ten years:	6.27 %	7.10 %
All years:	9.06 %	7.95 %

#### **Investment Rate of Return**

\*Before investment expenses prior to 2013.

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 INFORMA	ATION	
A. Valuation Date	January 1, 2017	January 1, 2016
<ul> <li>B. Actuarial Present Value of Accumulated Plan Benefits</li> <li>1. Vector Browfite</li> </ul>		
<ol> <li>Vested Benefits         <ol> <li>Members Currently Receiving Payments</li> <li>Terminated Vested Members</li> <li>Other Members</li> <li>Total</li> </ol> </li> </ol>	\$ 574,794,636 14,083,542 233,198,125 822,076,303	\$ 545,708,520 14,216,453 231,093,716 791,018,689
<ol> <li>Non-Vested Benefits</li> <li>Total Actuarial Present Value of Accumulated</li> </ol>	13,857,384	16,111,914
<ul><li>Plan Benefits: 1d + 2</li><li>4. Accumulated Contributions of Active Members</li></ul>	835,933,687 60,655,020	807,130,603 60,112,481
<ul> <li>C. Changes in the Actuarial Present Value of Accumulated Plan Benefits</li> <li>1. Total Value at Beginning of Year</li> <li>2. Increase (Decrease) During the Period Attributable to:</li> </ul>	807,130,603	782,286,584
<ul><li>a. Plan Amendment</li><li>b. Change in Actuarial Assumptions</li></ul>	0 (134,124)	0 (3,920,001)
<ul> <li>c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period</li> <li>d. Benefits Paid</li> <li>e. Net Increase</li> </ul>	73,036,542 (44,099,334) 28,803,084	69,556,838 (40,792,818) 24,844,019
<ul><li>3. Total Value at End of Period</li><li>D. Market Value of Assets</li></ul>	835,933,687 905,261,405	807,130,603 873,505,080
<ul> <li>D. Market value of Assets</li> <li>E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods</li> </ul>	705,201,405	073,303,000

SECTION E

MISCELLANEOUS INFORMATION

To 1/1/2017To 1/1/20A. Active Members1. Number Included in Last Valuation $1,505$ $1,482$ 2. New Members Included in Current Valuation $158$ $145$ 3. Non-Vested Employment Terminations $(71)$ $(53)$ 4. Vested Employment Terminations $(18)$ $(18)$ 5. Service Retirements $(49)$ $(43)$ 6. Disability Retirements $(4)$ $(4)$ 7. Deaths $(2)$ $(1)$ 8. Pending Disabilities $0$ $(3)$ 9. Data Corrections/Rehired Members $1,520$ $1,505$ <b>B. Terminated Vested Members</b> $1$ $0$ 10. Number Included in This Valuation $63$ $69$ 2. Additions from Active Members $18$ $18$ 3. Lump Sum Payments/Refund of Contributions $(6)$ $(7)$ 4. Payments Commenced $9$ $(17)$ 5. Deaths $0$ $0$ 6. Conversion from Disability/Rehired Members $1$ 0. Data Corrections $1$ $0$ 8. Number Included in This Valuation $66$ $63$ C. Service Retirees, Disability Retirees and Beneficiaries $0$ 1. Number Included in This Valuation $1,174$ $1,125$ 2. Additions from Active Members $53$ $47$ 3. Additions from Active Members $53$ $47$ 4. Deaths Resulting in No Further Payments $(20)$ $(19)$		<b>RECONCILIATION OF MEMBERS</b>	SHIP DATA	
A. Active Members         1. Number Included in Last Valuation       1,505         2. New Members Included in Current Valuation       158         3. Non-Vested Employment Terminations       (71)         (53)       (71)         4. Vested Employment Terminations       (71)         (53)       (18)         5. Service Retirements       (49)         6. Disability Retirements       (4)         7. Deaths       (2)         8. Pending Disabilities       0         9. Data Corrections/Rehired Members       1         10. Number Included in This Valuation       1,520         11. Number Included in Last Valuation       63         2. Additions from Active Members       18         3. Lump Sum Payments/Refund of Contributions       (6)         4. Payments Commenced       (9)         5. Deaths       0         6. Conversion from Disability/Rehired Members       1         0       0         10. Number Included in This Valuation       66         63       69         2. Additions from Disability/Rehired Members       0         0       0         10. Data Corrections       1         11. Number Included in This Valuation       1,174			From 1/1/2016	From 1/1/2015
1. Number Included in Last Valuation       1,505       1,482         2. New Members Included in Current Valuation       158       145         3. Non-Vested Employment Terminations       (71)       (53)         4. Vested Employment Terminations       (18)       (18)         5. Service Retirements       (49)       (43)         6. Disability Retirements       (4)       (4)         7. Deaths       (2)       (1)         8. Pending Disabilities       0       (3)         9. Data Corrections/Rehired Members       1,520       1,505         9. Data Corrections/Rehired Members       0       (3)         10. Number Included in Last Valuation       63       69         2. Additions from Active Members       18       18         3. Lump Sum Payments/Refund of Contributions       (6)       (7)         4. Payments Commenced       (9)       (17)         5. Deaths       0       0         6. Conversion from Disability/Rehired Members       11       0         7. Data Corrections       1       0         8. Number Included in This Valuation       66       63         7. Data Corrections       1       0         8. Number Included in This Valuation       66       63			To 1/1/2017	<u>To 1/1/2016</u>
2. New Members Included in Current Valuation       158       145         3. Non-Vested Employment Terminations       (71)       (53)         4. Vested Employment Terminations       (18)       (18)         5. Service Retirements       (49)       (43)         6. Disability Retirements       (4)       (4)         7. Deaths       (2)       (1)         8. Pending Disabilities       0       (3)         9. Data Corrections/Rehired Members       1       0         10. Number Included in This Valuation       1,520       1,505         B. Terminated Vested Members       18       18         1. Number Included in Last Valuation       63       69         2. Additions from Active Members       18       18         3. Lump Sum Payments/Refund of Contributions       (6)       (7)         4. Payments Commenced       (9)       (17)         5. Deaths       0       0         6. Conversion from Disability/Rehired Members       (1)       0         7. Data Corrections       1       0       0         8. Number Included in This Valuation       1,174       0       0         9. Number Included in Last Valuation       1,174       1,125       2. Additions from Active Members       5	А.	Active Members		
2. New Members Included in Current Valuation       158       145         3. Non-Vested Employment Terminations       (71)       (53)         4. Vested Employment Terminations       (18)       (18)         5. Service Retirements       (49)       (43)         6. Disability Retirements       (4)       (4)         7. Deaths       (2)       (1)         8. Pending Disabilities       0       (3)         9. Data Corrections/Rehired Members       1       0         10. Number Included in This Valuation       1,520       1,505         B. Terminated Vested Members       18       18         1. Number Included in Last Valuation       63       69         2. Additions from Active Members       18       18         3. Lump Sum Payments/Refund of Contributions       (6)       (7)         4. Payments Commenced       (9)       (17)         5. Deaths       0       0         6. Conversion from Disability/Rehired Members       (1)       0         7. Data Corrections       1       0       0         8. Number Included in This Valuation       1,174       0       0         9. Number Included in Last Valuation       1,174       1,125       2. Additions from Active Members       5				
3. Non-Vested Employment Terminations $(71)$ $(53)$ 4. Vested Employment Terminations $(18)$ $(18)$ $(18)$ 5. Service Retirements $(49)$ $(43)$ 6. Disability Retirements $(4)$ $(4)$ $(4)$ 7. Deaths $(2)$ $(1)$ 8. Pending Disabilities $0$ $(3)$ 9. Data Corrections/Rehired Members $1$ $0$ 10. Number Included in This Valuation $1,520$ $1,505$ <b>B. Terminated Vested Members</b> $18$ $18$ 3. Lump Sum Payments/Refund of Contributions $(6)$ $(7)$ 4. Payments Commenced $(9)$ $(17)$ 5. Deaths $0$ $0$ 6. Conversion from Disability/Rehired Members $1$ 7. Data Corrections $-1$ $0$ 8. Number Included in This Valuation $66$ $63$ 7. Data Corrections $-1$ $0$ 8. Number Included in This Valuation $-1$ $0$ 7. Data Corrections $-1$ $0$ 8. Number Included in This Valuation $66$ $63$ C. Service Retirees, Disability Retirees and Beneficiaries $-1$ 1. Number Included in Last Valuation $1,174$ $1,125$ 2. Additions from Active Members $53$ $47$ 3. Additions from Terminated Vested Members $9$ $17$ 4. Deaths Resulting in No Further Payments $(20)$ $(19)$	1.			
4. Vested Employment Terminations(18)(18)5. Service Retirements(49)(43)6. Disability Retirements(4)(4)7. Deaths(2)(1)8. Pending Disabilities0(3)9. Data Corrections/Rehired Members $1$ 010. Number Included in This Valuation1,5201,505B. Terminated Vested Members1. Number Included in Last Valuation63692. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Active Members53474. Deaths Resulting in No Further Payments(20)(19)	2.	New Members Included in Current Valuation	158	
5.Service Retirements(49)(43)6.Disability Retirements(4)(4)7.Deaths(2)(1)8.Pending Disabilities0(3)9.Data Corrections/Rehired Members1010.Number Included in This Valuation1,5201,505B.Terminated Vested Members18181.Number Included in Last Valuation63692.Additions from Active Members18183.Lump Sum Payments/Refund of Contributions(6)(7)4.Payments Commenced(9)(17)5.Deaths006.Conversion from Disability/Rehired Members(1)07.Data Corrections108.Number Included in This Valuation6663C.Service Retirees, Disability Retirees and Beneficiaries53473.Additions from Active Members53473.Additions from Terminated Vested Members9174.Deaths Resulting in No Further Payments(20)(19)	3.			
6. Disability Retirements(4)(4)7. Deaths(2)(1)8. Pending Disabilities0(3)9. Data Corrections/Rehired Members1010. Number Included in This Valuation1,5201,505B. Terminated Vested Members1. Number Included in Last Valuation63692. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members1107. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Active Members53474. Deaths Resulting in No Further Payments(20)(19)				(18)
7. Deaths(2)(1)8. Pending Disabilities0(3)9. Data Corrections/Rehired Members1010. Number Included in This Valuation1,5201,505 <b>B. Terminated Vested Members</b> 63692. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in Last Valuation6663 <b>C. Service Retirees, Disability Retirees and Beneficiaries</b> 1,1741,1251. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	5.	Service Retirements	(49)	(43)
8. Pending Disabilities       0       (3)         9. Data Corrections/Rehired Members       1       0         10. Number Included in This Valuation       1,520       1,505 <b>B. Terminated Vested Members</b> 63       69         2. Additions from Active Members       18       18         3. Lump Sum Payments/Refund of Contributions       (6)       (7)         4. Payments Commenced       (9)       (17)         5. Deaths       0       0         6. Conversion from Disability/Rehired Members       (1)       0         7. Data Corrections       1       0         8. Number Included in Last Valuation       66       63         7. Data Corrections       1       0         8. Number Included in This Valuation       66       63         7. Data Corrections       1       0         8. Number Included in Last Valuation       1,174       1,125         2. Additions from Active Members       53       47         3. Additions from Terminated Vested Members       9       17         4. Deaths Resulting in No Further Payments       (20)       (19)	6.	Disability Retirements	(4)	(4)
9. Data Corrections/Rehired Members1010. Number Included in This Valuation1,5201,505 <b>B. Terminated Vested Members</b> 63691. Number Included in Last Valuation63692. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663 <b>C. Service Retirees, Disability Retirees and Beneficiaries</b> 1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	7.	Deaths	(2)	(1)
10. Number Included in This Valuation1,5201,505B. Terminated Vested Members1. Number Included in Last Valuation63692. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	8.	Pending Disabilities	0	(3)
B. Terminated Vested Members1. Number Included in Last Valuation632. Additions from Active Members183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths06. Conversion from Disability/Rehired Members(1)7. Data Corrections18. Number Included in This Valuation666663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1741,1252. Additions from Active Members9174. Deaths Resulting in No Further Payments(20)(19)	9.	Data Corrections/Rehired Members	1	0
1. Number Included in Last Valuation63692. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	10.	Number Included in This Valuation	1,520	1,505
2. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	В.	Terminated Vested Members		
2. Additions from Active Members18183. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)				
3. Lump Sum Payments/Refund of Contributions(6)(7)4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	1.		63	69
4. Payments Commenced(9)(17)5. Deaths006. Conversion from Disability/Rehired Members(1)07. Data Corrections <u>1</u> 08. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	2.	Additions from Active Members	18	18
5. Deaths06. Conversion from Disability/Rehired Members(1)7. Data Corrections18. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1742. Additions from Active Members533. Additions from Terminated Vested Members94. Deaths Resulting in No Further Payments(20)	3.	Lump Sum Payments/Refund of Contributions	(6)	(7)
6. Conversion from Disability/Rehired Members(1)07. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	4.	Payments Commenced	(9)	(17)
7. Data Corrections108. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	5.		0	0
8. Number Included in This Valuation6663C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	6.	Conversion from Disability/Rehired Members	(1)	0
C. Service Retirees, Disability Retirees and Beneficiaries1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	7.	Data Corrections	1	0
1. Number Included in Last Valuation1,1741,1252. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	8.	Number Included in This Valuation	66	63
2. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	C.	Service Retirees, Disability Retirees and Beneficiari	es	
2. Additions from Active Members53473. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)				
3. Additions from Terminated Vested Members9174. Deaths Resulting in No Further Payments(20)(19)	1.		1,174	1,125
4. Deaths Resulting in No Further Payments (20) (19)	2.	Additions from Active Members	53	47
	3.	Additions from Terminated Vested Members	9	17
5 De ethe De cultice in New Cuminen Denefite 1	4.		(20)	(19)
5. Deaths Resulting in New Survivor Benefits I I	5.	Deaths Resulting in New Survivor Benefits	1	1
6. Pending Disabilities 0 3	6.	Pending Disabilities	0	3
7. End of Certain Period - No Further Payments(3)	7.	End of Certain Period - No Further Payments	(3)	0
8. Data Correction/Waiver of Benefits (2) 0	8.	Data Correction/Waiver of Benefits	(2)	0
9. Number Included in This Valuation1,2121,174	9.	Number Included in This Valuation	1,212	1,174

# ACTIVE PARTICIPANT DISTRIBUTION

## ALL ACTIVE MEMBERS

					Years o	of Service to	Valuation Da	nte					
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	27,003	0	0	0	0	0	0	0	0	0	0	0	27,003
AVG PAY	27,003	0	0	0	0	0	0	0	0	0	0	0	27,003
20-24 NO.	27	19	8	3	1	0	0	0	0	0	0	0	58
TOT PAY	917,365	655,724	306,647	100,846	32,655	0	0	0	0	0	0	0	2,013,237
AVG PAY	33,976	34,512	38,331	33,615	32,655	0	0	0	0	0	0	0	34,711
25-29 NO.	46	40	19	15	6	18	0	0	0	0	0	0	144
TOT PAY	1,597,584	1,588,335	768,812	624,016	214,744	919,466	0	0	0	0	0	0	5,712,957
AVG PAY	34,730	39,708	40,464	41,601	35,791	51,081	0	0	0	0	0	0	39,673
30-34 NO.	24	19	21	21	16	46	41	0	0	0	0	0	188
TOT PAY	831,116	874,928	909,855	924,175	714,446	2,573,824	2,032,639	0	0	0	0	0	8,860,983
AVGPAY	34,630	46,049	43,326	44,008	44,653	55,953	49,577	0	0	0	0	0	47,133
35-39 NO.	17	10	12	9	5	39	52	12	0	0	0	0	156
TOT PAY	631,448	383,302	568,742	489,029	234,339	2,107,540	3,261,729	612,910	0	0	0	0	8,289,039
AVGPAY	37,144	38,330	47,395	54,337	46,868	54,039	62,726	51,076	0	0	0	0	53,135
40-44 NO.	5	8	9	10	7	35	53	62	11	0	0	0	200
TOT PAY	149,790	335,294	327,838	424,206	292,150	1,714,115	3,185,559	4,439,602	698,128	0	0	0	11,566,682
AVGPAY	29,958	41,912	36,426	42,421	41,736	48,975	60,105	71,606	63,466	0	0	0	57,833
45-49 NO.	15	8	10	4	8	23	51	52	44	8	0	0	223
43-49 NO. TOT PAY	577,930	° 356,342	433,600	162,639	° 327,522	1,242,352	3,179,937	3,764,707	3,391,072	° 535,338	0	0	225 13,971,439
AVGPAY	38,529	44,543	43,360	40,660	40,940	1,242,332 54,015	62,352	72,398	5,391,072 77,070	66,917	0	0	62,652
AVOIAI	36,329	44,040	43,300	40,000	40,940	54,015	02,332	12,390	11,010	00,917	0	0	02,052
50-54 NO.	11	7	6	-2-	8	26	34	44	40	30	5	0	213
TOT PAY	368,443	295,973	229,366	104,390	336,023	1,143,765	1,734,676	2,528,420	2,808,765	2,087,211	451,533	0	12,088,565
AVG PAY	33,495	42,282	38,228	52,195	42,003	43,991	51,020	57,464	70,219	69,574	90,307	0	56,754
55-59 NO.	9	6	8	5	5	18	48	34	26	10	11	1	181
TOT PAY	338,782	232,847	404,432	162,282	203,552	781,298	2,293,004	1,585,221	1,411,474	546,975	688,792	44,635	8,693,294
AVG PAY	37,642	38,808	50,554	32,456	40,710	43,405	47,771	46,624	54,287	54,698	62,617	44,635	48,029
60-64 NO.	3	4	0	2	4	15	23	30	18	14	3	3	119
TOT PAY	115,898	132,660	0	70,954	130,660	691,194	1,159,594	1,448,074	1,045,575	1,055,572	206,308	232,872	6,289,361
AVGPAY	38,633	33,165	0	35,477	32,665	46,080	50,417	48,269	58,088	75,398	68,769	77,624	52,852
65+ NO.	0	2	1	0	1	6	10	3	7	6	1	0	37
TOT PAY	0	70,193	43,519	0	38,230	226,684	442,668	159,383	389,909	341,551	51,403	0	1,763,540
AVGPAY	0	35,096	43,519	0	38,230	37,781	44,267	53,128	55,701	56,925	51,403	0	47,663
TOT NO	150	100	94	71	(1	227	212	227	140	<i>c</i> 0	20		1.500
TOT NO. TOT AMT	158 5,555,359	123 4,925,598	94 3,992,811	71 3,062,537	61 2,524,321	226 11,400,238	312 17,289,806	237 14,538,317	146 9,744,923	68 4,566,647	20 1,398,036	4 277,507	1,520 79,276,100
	5,555,559 35,161	4,925,598 40,046	3,992,811 42,477	3,062,537 43,134	2,524,321 41,382	11,400,238 50,444		14,538,317 61,343	9,744,923 66,746		1,398,036 69,902	69,377	
AVG AMT	35,101	40,040	42,477	45,154	41,382	30,444	55,416	01,343	00,/40	67,157	09,902	07,377	52,155

## ACTIVE PARTICIPANT DISTRIBUTION

#### HAZARDOUS DUTY MEMBERS

					Years	of Service to	Valuation D	ate					
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.	0	0	0	0	0	0	0	0	0	0	0	0	C
TOT PAY	0	0	0	0	0	0	0	0	0	0	0	0	C
AVG PAY	0	0	0	0	0	0	0	0	0	0	0	0	C
20-24 NO.	11	4	3	0	0	0	0	0	0	0	0	0	18
TOT PAY	479,618	234,118	167,660	0	0	0	0	0	0	0	0	0	881,396
AVG PAY	43,602	58,530	55,887	0	0	0	0	0	0	0	0	0	48,966
25-29 NO.	11	12	6	5	0	7	0	0	0	0	0	0	41
TOT PAY	514,483	701,975	342,425	301,744	0	497,016	0	0	0	0	0	0	2,357,643
AVG PAY	46,771	58,498	57,071	60,349	0	71,002	0	0	0	0	0	0	57,503
30-34 NO.	6	7	7	6	5	21	11	0	0	0	0	0	63
TOT PAY	272,040	412,506	440,729	364,635	313,814	1,623,569	846,150	0	0	0	0	0	4,273,443
AVGPAY	45,340	58,929	62,961	60,773	62,763	77,313	76,923	0	0	0	0	0	67,832
35-39 NO.	2	1	5	5	2	17	27	3	0	0	0	0	62
TOT PAY	97,003	64,075	292,400	314,975	125,939	1,186,273	2,125,727	264,406	0	0	0	0	4,470,798
AVGPAY	48,502	64,075	58,480	62,995	62,970	69,781	78,731	88,135	0	0	0	0	72,110
40-44 NO.	0	2	0	2	0	10	25	39	4	0	0	0	82
TOT PAY	0	138,328	0	121,065	0	725,358	1,938,339	3,455,899	347,822	0	0	0	6,726,811
AVGPAY	0	69,164	0	60,533	0	72,536	77,534	88,613	86,956	0	0	0	82,034
45-49 NO.	2	1	1	0	0	7	26	31	24	2	0	0	94
TOT PAY	123,877	69,914	62,107	0-	0	487,822	2,067,341	2,724,859	2,288,041	189,346	0	0	8,013,307
AVGPAY	61,939	69,914	62,107	0	0	69,689	79,513	87,899	95,335	94,673	0	0	85,248
50-54 NO.	0	1	0	0	1	2	8	8	17	10	2	0	49
TOT PAY	0	71,585	0	0	89,270	189,789	622,453	777,675	1,599,917	952,116	235,449	0	4,538,254
AVGPAY	0	71,585	0	0	89,270	94,895	77,807	97,209	94,113	95,212	117,725	0	92,617
55-59 NO.	0	0	2	0	0	1	4	0	1	0	3	0	11
TOT PAY	0	0	207,478	0	0	117,830	377,553	0	77,164	0	292,409	0	1,072,434
AVGPAY	0	0	103,739	0	0	117,830	94,388	0	77,164	0	97,470	0	97,494
60-64 NO.	1	0	0	0	0	0	3	1	0	1	0	1	7
TOT PAY	58,071	0	0	0	0	0	301,766	78,156	0	99,572		117,191	654,756
AVGPAY	58,071	0	0	0	0	0	100,589	78,156	0	99,572	0	117,191	93,537
65+ NO.	0	0	0	0	0	0	0	0	0	0	0	0	C
TOT PAY	0	0	0	0	0	0	0	0	0	0	0	0	C
AVG PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT NO.	33	28	24	18	8	65	104	82	46	13	5	1	427
TOT AMT	1,545,092	1,692,501	1,512,799	1,102,419	529,023	4,827,657	8,279,329	7,300,995	4,312,944	1,241,034		117,191	32,988,842
AVG AMT	46,821	60,446	63,033	61,246	66,128	74,272	79,609	89,037	93,760	95,464	,	117,191	77,257

## ACTIVE PARTICIPANT DISTRIBUTION

#### NON-HAZARDOUS DUTY MEMBERS

					Vears of	f Service to V	Valuation Dat	0					
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	27,003	0	0	0	0	0	0	0	0	0	0	0	27,003
AVGPAY	27,003	0	0	0	0	0	0	0	0	0	0	0	27,003
20-24 NO.	16	15	5	3	1	0	0	0	0	0	0	0	40
TOT PAY	437,747	421,606	138,987	100,846	32,655	0	0	0	0	0	0	0	1,131,841
AVGPAY	27,359	28,107	27,797	33,615	32,655	0	0	0	0	0	0	0	28,296
25-29 NO.	35	28	13	10	6	11	0	0	0	0	0	0	103
TOT PAY	1,083,101	886,360	426,387	322,272	214,744	422,450	0	0	0	0	0	0	3,355,314
AVGPAY	30,946	31,656	32,799	32,227	35,791	38,405	0	0	0	0	0	0	32,576
30-34 NO.	18	12	14	15	11	25	30	0	0	0	0	0	125
TOT PAY	559,076	462,422	469,126	559,540	400,632	950,255	1,186,489	0	0	0	0	0	4,587,540
AVGPAY	31,060	38,535	33,509	37,303	36,421	38,010	39,550	0	0	0	0	0	36,700
35-39 NO.	15	9	7	4	3	22	25	9	0	0	0	0	94
TOT PAY	534,445	319,227	276,342	174,054	108,400	921,267	1,136,002	348,504	0	0	0	0	3,818,241
AVG PAY	35,630	35,470	39,477	43,514	36,133	41,876	45,440	38,723	0	0	0	0	40,620
40-44 NO.	5	6	9	8	7	25	28	23	7	0	0	0	118
TOT PAY	149,790	196,966	327,838	303,141	292,150	988,757	1,247,220	983,703	350,306	0	0	0	4,839,871
AVG PAY	29,958	32,828	36,426	37,893	41,736	39,550	44,544	42,770	50,044	0	0	0	41,016
45-49 NO.	13	7	9	4	8	16	25	21	20	6	0	0	129
TOT PAY	454,053	286,428	371,493	162,639	327,522	754,530	1,112,596	1,039,848	1,103,031	345,992	0	0	5,958,132
AVG PAY	34,927	40,918	41,277	40,660	40,940	47,158	44,504	49,517	55,152	57,665	0	0	46,187
50-54 NO.	11	6	6	2	7	24	26	36	23	20	3	0	164
TOT PAY	368,443	224,388	229,366	104,390	246,753	953,976	1,112,223	1,750,745	1,208,848	1,135,095	216,084	0	7,550,311
AVGPAY	33,495	37,398	38,228	52,195	35,250	39,749	42,778	48,632	52,559	56,755	72,028	0	46,038
55-59 NO.	9	6	6	5	5	17	44	34	25	10	8	1	170
TOT PAY	338,782	232,847	196,954	162,282	203,552	663,468	1,915,451	1,585,221	1,334,310	546,975	396,383	44,635	7,620,860
AVGPAY	37,642	38,808	32,826	32,456	40,710	39,028	43,533	46,624	53,372	54,698	49,548	44,635	44,829
60-64 NO.	2	4	0	2	4	15	20	29	18	13	3	2	112
TOT PAY	57,827	132,660	0	70,954	130,660	691,194	857,828	1,369,918	1,045,575	956,000	206,308	115,681	5,634,605
AVGPAY	28,914	33,165	0	35,477	32,665	46,080	42,891	47,239	58,088	73,538	68,769	57,841	50,309
65+ NO.	0	2	1	0	1	6	10	3	7	6	1	0	37
TOT PAY	0	70,193	43,519	0	38,230	226,684	442,668	159,383	389,909	341,551	51,403	0	1,763,540
AVG PAY	0	35,097	43,519	0	38,230	37,781	44,267	53,128	55,701	56,925	51,403	0	47,663
TOT NO.	125	95	70	53	53	161	208	155	100	55	15	2	1,093
TOT NO. TOT AMT	4,010,267	93 3,233,097	2,480,012	35 1,960,118	1,995,298	6,572,581	208 9,010,477	7,237,322	5,431,979	3,325,613	870,178	5 160,316	46,287,258
AVG AMT	32,082	34,033	2,480,012 35,429	36,983	37,647	40,823	43,320	46,692	54,320	60,466	58,012	53,439	40,287,238

								sed with
	Termina	ated Vested	I	Disabled	R	Retired		eficiary
		Total		Total		Total		Total
Age Group	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	-	-	-	-	-	-	5	59,710
20-24	-	-	-	-	-		-	-
25-29	-	-	-	-	-	-	-	-
30-34	1	17,587	2	83,502	-	-	1	33,621
35-39	5	94,550	1	41,162		-	_	-
40-44	11	209,680	4	173,596	2	70,751	1	50,921
45-49	14	301,032	10	396,078	21	907,681	3	49,259
50-54	23	484,855	8	310,690	67	2,985,300	9	272,252
55-59	5	50,050	22	669,347	131	5,684,695	9	191,194
60-64	7	96,814	26	693,195	225	9,693,509	19	403,633
65-69	-	-	28	762,187	229	8,770,209	16	399,476
70-74	-	-	14	289,834	141	4,964,867	19	447,965
75-79	-	-	12	298,114	62	1,985,907	26	553,334
80-84	-	-	6	149,031	30	881,782	22	287,913
85-89	-	-	1	23,129	15	336,324	9	109,464
90-94	-	-	-	-	6	70,507	7	59,751
95-99	-	-	-	-	2	25,805	1	2,318
100 & Over	-		-	-	-	-	-	-
Total	66	1,254,568	134	3,889,865	931	36,377,337	147	2,920,811
Average Age		50		63		66		70

# INACTIVE PARTICIPANT DISTRIBUTION

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 Clearwater, Florida, Chapter 2, Article V, Division 3 and was most recently amended under Ordinance No. 8333-12 passed and adopted on July 19, 2012 and enacted by public referendum in November 2012. The Plan is also governed by certain provisions of Part VII, Chapter 112, <u>Florida Statutes</u> (F.S.) and the Internal Revenue Code.

#### **B.** Effective Date

Restated Plan Effective Date: January 1, 2013 (previous restated Plan Effective Date was January 1, 1996).

#### C. Plan Year

January 1 through December 31.

## D. Type of Plan

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

## E. Eligibility Requirements

All full-time permanent employees of the City are required to participate and become participants on their date of hire.

#### F. Grandfathered Members

Members who are eligible for normal retirement as of January 1, 2013 are grandfathered in the plan provisions in effect before Ordinance No. 8333-12.

## G. Credited Service

Credited Service is measured as the total number of years and fractional parts of years from the date of employment to the date of termination or retirement. No service is credited for any periods of employment for which a participant received a refund of their contributions.

## H. Compensation

The total compensation for services rendered to the City reportable on the participant's W-2 form, plus all tax deferred, tax sheltered or tax exempt items of income derived from elective employee payroll deductions or salary reductions, but excluding any lump sum payments of unused vacation and sick leave, pay for off-duty employment, and clothing, car or meal allowances.

Effective January 1, 2013: For non-grandfathered hazardous duty members, the amount of overtime included in Compensation is limited to 300 hours per year; For non-grandfathered non-hazardous duty members, Compensation excludes overtime and additional pay above the base rate of pay.

## I. Average Monthly Compensation (AMC)

One-twelfth of the average of Compensation during the highest 5 years out of the last 10 years preceding termination or retirement.

## J. Normal Retirement

Eligibility:	For Non-Hazardous Duty Employment
	A participant hired before January 1, 2013 may retire on the first day of the month coincident with or next following the earliest of:
	<ul> <li>(1) age 55 with 20 years of Credited Service, or</li> <li>(2) 30 years of Credited Service regardless of age, or</li> <li>(3) age 65 with 10 years of Credited Service.</li> </ul>
	A participant hired on or after January 1, 2013 may retire on the first day of the month coincident with or next following the earliest of:
	<ul><li>(1) age 60 with 25 years of Credited Service, or</li><li>(2) age 65 with 10 years of Credited Service</li></ul>
	For Hazardous Duty Employment-Police Officers and Firefighters
	A participant may retire on the first day of the month coincident with or next following the earlier of:
	<ul><li>(1) age 55 with 10 years of Credited Service, or</li><li>(2) 20 years of Credited Service regardless of age.</li></ul>
Benefit:	2.75% of AMC multiplied by years of Credited Service.
	For Non-Hazardous Duty participants hired on or after January 1, 2013, 2.00% of AMC multiplied by years of Credited Service.
Normal Form	
of Benefit:	For Non-Hazardous Duty Employment (Non-Grandfathered)
	A monthly annuity is paid for the life of the participant.
	For Hazardous Duty Employment-Police Officers and Firefighters (and Grandfathered Non-Hazardous Duty Employment)
	A monthly annuity is paid for the life of the participant. After the participant's death, 100% of the Normal Retirement Benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the original amount. The survivor annuity ceases upon death or remarriage of the spouse. 120 monthly payments are guaranteed for police officers and firefighters. Optional forms of benefits are available.

#### COLA: For Non-Hazardous Duty Employment

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is a five-year delay (after the retirement date) until this COLA is applied to benefits accrued after January 1, 2013.

For Hazardous Duty Employment-Police Officers and Firefighters

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

#### K. Early Retirement

- Eligibility: Police Officers and Firefighters may elect to retire earlier than the Normal Retirement Eligibility upon the attainment of age 50 with 10 years of Credited Service.
- Benefit: The Normal Retirement Benefit is reduced by 3.0% for each year by which the Early Retirement date precedes age 55.

#### Normal Form

- of Benefit: A monthly annuity is paid for the life of the participant. After the participant's death, 100% of the Normal Retirement Benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the original amount. The survivor annuity ceases upon death or remarriage of the spouse. 120 monthly payments are guaranteed for police officers and firefighters. Optional forms of benefits are available.
- COLA: 1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

#### L. Delayed Retirement

Same as Normal Retirement taking into account Compensation earned and service credited until the date of actual retirement.

#### M. Service Connected Disability

- Eligibility: Any participant who becomes totally and permanently disabled due to an illness or injury contracted in the line of duty and is deemed to be unable to perform useful and efficient service to the City is immediately eligible for a disability benefit.
- Benefit: For Non-Hazardous Duty Employment

Participant's accrued Normal Retirement Benefit taking into account Compensation earned and service credited until the date of disability. Benefit is guaranteed to be no

less than 42% of the participant's AMC (66 2/3% of the participant's AMC if grandfathered). Disability benefits, when combined with Worker's Compensation benefits, cannot exceed and will be limited to 100% of the participant's AMC on the date of disability.

For Hazardous Duty Employment-Police Officers and Firefighters

Participant's accrued Normal Retirement Benefit taking into account Compensation earned and service credited until the date of disability. Benefit is guaranteed to be no less than 66 2/3% of the participant's AMC. Disability benefits, when combined with Worker's Compensation benefits, cannot exceed and will be limited to 100% of the participant's AMC on the date of disability.

#### Normal Form of Benefit: <u>For Non-Hazardous Duty Employment (Non-Grandfathered)</u>

A monthly annuity is paid for the life of the participant.

For Hazardous Duty Employment-Police Officers and Firefighters (and Grandfathered Non-Hazardous Duty Employment)

A monthly annuity is paid for the life of the participant. After the participant's death, 100% of the Normal Retirement Benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the original amount. The survivor annuity ceases upon death or remarriage of the spouse. 120 monthly payments are guaranteed for police officers and firefighters. Optional forms of benefits are available.

#### COLA: For Non-Hazardous Duty Employment

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is a five-year delay (after the retirement date) until this COLA is applied to benefits accrued after January 1, 2013.

For Hazardous Duty Employment-Police Officers and Firefighters

**1**.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

#### N. Non-Service Connected Disability

Eligibility: Any participant who has 10 or more years of Credited Service and becomes totally and permanently disabled and is deemed to be unable to perform useful and efficient service to the City is immediately eligible for a disability benefit.

#### Normal Form

#### of Benefit: For Non-Hazardous Duty Employment (Non-Grandfathered)

A monthly annuity is paid for the life of the participant.

# For Hazardous Duty Employment-Police Officers and Firefighters (and Grandfathered Non-Hazardous Duty Employment)

A monthly annuity is paid for the life of the participant. After the participant's death, 100% of the Normal Retirement Benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the original amount. The survivor annuity ceases upon death or remarriage of the spouse. 120 monthly payments are guaranteed for police officers and firefighters. Optional forms of benefits are available.

## COLA: For Non-Hazardous Duty Employment

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is a five-year delay (after the retirement date) until this COLA is applied to benefits accrued after January 1, 2013.

For Hazardous Duty Employment-Police Officers and Firefighters

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

## O. Death in the Line of Duty

- Eligibility: Any participant whose employment is terminated by reason of death in the line of duty is eligible for survivor benefits.
- Benefit: Beneficiary will be paid the participant's accrued benefit based upon Credited Service and AMC as of the date of death. Benefit is guaranteed to be no less than 66 2/3% of the participant's AMC.

Normal Form

of Benefit: 100% of the participant's accrued benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the original amount. The survivor annuity ceases upon death or remarriage of the spouse. 120 monthly payments are guaranteed for police officers and firefighters.

## COLA: For Non-Hazardous Duty Employment

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is a five-year delay (after the retirement date) until this COLA is applied to benefits accrued after January 1, 2013.

For Hazardous Duty Employment-Police Officers and Firefighters

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

In lieu of the benefits described above, the participant's beneficiary can elect to receive a refund of participant's accumulated contributions with interest.

## P. Other Pre-Retirement Death

Eligibility:	Any participant who dies with 10 or more years of Credited Service is eligible for survivor benefits.
Benefit:	Beneficiary will be paid the participant's accrued benefit based upon Credited Service and AMC as of the date of death.
Normal Form	
of Benefit:	100% of the participant's accrued benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the paid and the paid an
	original amount. The survivor annuity ceases upon death or remarriage of the spouse.
	120 monthly payments are guaranteed for police officers and firefighters.
COLA	E. N Harradara Data Englandari
COLA:	For Non-Hazardous Duty Employment
	1.5% annually commencing on each April 1 for all retirees and beneficiaries who have
	received at least 6 monthly benefit payments. For non-grandfathered members (not
	eligible for normal retirement on January 1, 2013), there is a five-year delay (after the
	retirement date) until this COLA is applied to benefits accrued after January 1, 2013.
	For Hazardous Duty Employment-Police Officers and Firefighters
	1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits

In lieu of the benefits described above, a participant's beneficiary can elect to receive a refund of the participant's accumulated contributions with interest. Accumulated contributions, plus interest, will be refunded for all participants with less than 10 years of Credited Service.

accrued after January 1, 2013.

## Q. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

#### **R.** Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity, a 10 Year Certain and Life Annuity, or the 50%, 66 2/3% (for police officers and firefighters), 75% or 100% Joint and Survivor options. Members may also elect a partial lump sum equal to 10%, 20%, or 30% of the value of the normal retirement benefit with the remaining monthly retirement benefit reduced accordingly.

#### S. Vested Termination

Vesting is determined in accordance with the following table.

Years of Credited Service	% of Normal Retirement Benefits
Less Than 10 10 or more	0% 100%
	•

Benefit:	The participant's accrued Normal Retirement Benefit as of the date of termination.
	Benefit begins on the member's Normal Retirement date. Alternatively, police officers
	and firefighters may elect to receive an actuarially reduced Early Retirement Benefit
	any time after age 50.

Normal Form of Benefit: <u>For Non-Hazardous Duty Employment (Non-Grandfathered)</u>

A monthly annuity is paid for the life of the participant.

For Hazardous Duty Employment-Police Officers and Firefighters (and Grandfathered Non-Hazardous Duty Employment)

A monthly annuity is paid for the life of the participant. After the participant's death, 100% of the Normal Retirement Benefit shall be paid as a survivor annuity to the spouse for 5 years. After 5 years, such survivor annuity is reduced to 50% of the original amount. The survivor annuity ceases upon death or remarriage of the spouse. 120 monthly payments are guaranteed for police officers and firefighters. Optional forms of benefits are available.

Eligibility: A participant has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service provided employee contributions are not refunded.

## COLA: For Non-Hazardous Duty Employment

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is a five-year delay (after the retirement date) until this COLA is applied to benefits accrued after January 1, 2013.

For Hazardous Duty Employment-Police Officers and Firefighters

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

Plan participants with less than 10 years of Credited Service will receive a refund of their own accumulated contributions with interest.

## T. Refunds

Eligibility: All participants terminating employment with less than 10 years of Credited Service are eligible. Optionally, vested members (those with 10 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 5% simple interest paid in a single lump sum.

#### **U. Member Contributions**

8% of Compensation for Non-Hazardous Duty participants.10% of Compensation for Hazardous Duty participants (8% of Compensation if grandfathered).

## V. Employer Contributions

Each plan year, the Employer must contribute a minimum of 7% of the Compensation of all employees participating in the plan, plus any additional amount determined by the actuary needed to fund the plan properly according to State laws.

#### W. Cost of Living Increases

#### For Non-Hazardous Duty Employment

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is a five-year delay (after the retirement date) until this COLA is applied to benefits accrued after January 1, 2013.

## For Hazardous Duty Employment-Police Officers and Firefighters

1.5% annually commencing on each April 1 for all retirees and beneficiaries who have received at least 6 monthly benefit payments. For non-grandfathered members (not eligible for normal retirement on January 1, 2013), there is no COLA for benefits accrued after January 1, 2013.

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

Not Applicable

## Y. Deferred Retirement Option Plan

Not Applicable

## Z. Other Ancillary Benefits

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

## AA. Changes from Previous Valuation

There have been no changes from the previous valuation.