

**CITY OF CLEARWATER EMPLOYEES' PENSION PLAN**  
ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2016

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2017





March 24, 2016

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

Dear Board Members:

The results of the January 1, 2016 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.

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 purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2017. This report should not be relied on for any purpose other than the purpose described above. 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, 2015. 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 Plan 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 Actuarial Assumptions and Cost Method Section.

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 Plan 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.

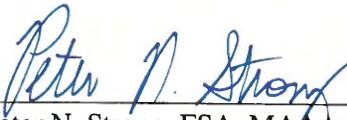
Peter N. Strong and Trisha Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

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.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

  
\_\_\_\_\_  
Peter N. Strong, FSA, MAAA  
Enrolled Actuary No. 14-6975

  
\_\_\_\_\_  
Trisha Amrose, MAAA  
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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:

	<b>For FYE 9/30/2017 Based on 1/1/2016 Valuation</b>	<b>For FYE 9/30/2016 Based on 1/1/2015 Valuation</b>	<b>Increase (Decrease)</b>
Required Employer/State Contribution	\$ 8,944,103	\$ 8,767,703	\$ 176,400
As % of Covered Payroll	11.15 %	11.68 %	(0.53) %
Estimated State Contribution	12,000	12,000	0
As % of Covered Payroll	0.02 %	0.02 %	0.00 %
Required Employer Contribution	8,932,103	8,755,703	176,400
As % of Covered Payroll	11.13 %	11.66 %	(0.53) %
Credit Balance	15,570,503	10,381,518	5,188,985

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 2016 and 2017 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, 2015 were \$13,217,982 and \$12,000, respectively, for a total of \$13,229,982, compared to the required contribution of \$8,767,703. The excess contribution of \$4,462,279 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**

Effective January 1, 2016, the mortality table was changed from the fully generational RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvements projected to all future years from the year 2000 using Scale BB, to the mortality rates used by the Florida Retirement System (FRS). The current FRS mortality rates are based on the fully generational RP-2000 Mortality Table for Annuitants with white collar and blue collar adjustments which vary between hazardous and non-hazardous duty members. Mortality improvement continues to be projected from the year 2000 to all future years using Scale BB. 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. As a result of the change in the mortality assumption, the required contribution was reduced by \$330,019 (0.41% of covered pay).

### **Actuarial Experience**

There was a net actuarial experience loss of \$475,313 during the year, which means that actual experience was less favorable than expected. The loss is primarily due to greater than expected salary increases (8.65% actual versus 4.09% expected). Salary increases were greater than expected mainly because reported pensionable earnings for the year ending December 31, 2015 included 27 pay periods instead of 26. Average salary increases would have been approximately 4.6% if 2015 reported pensionable earnings had only included 26 pay periods. The loss was mostly offset by a recognized investment return (on the smoothed actuarial value of assets) above the assumed rate of 7.0%. The investment return was 7.64% based on the actuarial value of assets even though it was (0.28%) based on the market value of assets, as excess market value returns in recent years continue to be phased in to the actuarial value of assets.

Under Chapter 112.66 of the Florida Statutes, 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 loss 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	11.66 %
Change in Benefits	0.00
Change in Assumptions and Methods	(0.41)
Amortization Payment on UAAL	0.00
Normal Cost	(0.27)
Experience Gain/Loss	0.00
Change in Administrative Expenses	0.15
Change in State Revenue	<u>0.00</u>
Contribution Rate This Year	11.13

### **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 102.92% this year compared to 101.89% last year. Not including the credit balance in the actuarial value of assets, the funded ratio is 101.10% this year compared to 100.63% last year. This funded ratio (not including the credit balance) was 100.60% 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 year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

The Actuarial Value of Assets exceeds the Market Value of Assets by \$8,664,398 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. In turn, the UAL amortization payment is expected to increase. If there are no experience losses and the return on the market value of assets is 7.0% in 2016 (net of investment expenses) as assumed, it is projected that the City contribution requirement as of January 1, 2017 for the fiscal year ending September 30, 2018 will remain in the range of approximately 11%-12% 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 11.13% of covered payroll (since the annual payment to amortize the UAL would remain at \$0 due to Chapter 112.66 of the Florida Statutes), and the funded ratio (excluding the credit balance) would have been 100.09%. The funded ratio based on the market value of assets (excluding the credit balance) last year was 107.6%.

### **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**

<b>PARTICIPANT DATA</b>		
	January 1, 2016	January 1, 2015
<b>ACTIVE MEMBERS</b>		
Number	1,505	1,482
Covered Annual Payroll	\$ 80,250,993	\$ 75,078,542
Average Annual Payroll	\$ 53,323	\$ 50,660
Average Age	44.5	44.7
Average Past Service	11.1	11.3
Average Age at Hire	33.4	33.4
<b>RETIREES &amp; BENEFICIARIES</b>		
Number	1,037	990
Annual Benefits	\$ 36,972,899	\$ 34,727,568
Average Annual Benefit	\$ 35,654	\$ 35,078
Average Age	65.9	65.8
<b>DISABILITY RETIREES</b>		
Number	137	135
Annual Benefits	\$ 3,837,858	\$ 3,642,626
Average Annual Benefit	\$ 28,014	\$ 26,982
Average Age	63.4	63.2
<b>TERMINATED VESTED MEMBERS</b>		
Number	63	69
Annual Benefits	\$ 1,230,068	\$ 1,287,474
Average Annual Benefit	\$ 19,525	\$ 18,659
Average Age	50.4	51.7

<b>ACTUARIALLY DETERMINED CONTRIBUTION (ADC)</b>			
A. Valuation Date	January 1, 2016 <i>After Assumption Change</i>	January 1, 2016 <i>Before Assumption Change</i>	January 1, 2015
B. ADC to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2016
C. Assumed Date of Employer Contrib.	Evenly during first two quarters of fiscal year	Evenly during first two quarters of fiscal year	Evenly during first two quarters of fiscal year
D. Annual Payment to Amortize Unfunded Actuarial Liability	\$ 0 *	\$ 0 *	\$ 0 *
E. Employer Normal Cost	8,358,975	8,667,404	8,194,115
F. ADC if Paid on the Valuation Date: D+E	8,358,975	8,667,404	8,194,115
G. ADC Adjusted for Frequency of Payments	8,944,103	9,274,122	8,767,703
H. ADC as % of Covered Payroll	11.15 %	11.56 %	11.68 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	0.00 %	0.00 %	0.00 %
J. Covered Payroll for Contribution Year	80,250,993	80,250,993	75,078,542
K. ADC for Contribution Year: H x J	8,944,103	9,274,122	8,767,703
L. Estimate of State Revenue in Contribution Year	12,000	12,000	12,000
M. Required Employer Contribution (REC) in Contribution Year	8,932,103	9,262,122	8,755,703
N. REC as % of Covered Payroll in Contribution Year: M ÷ J	11.13 %	11.54 %	11.66 %
O. Credit Balance	15,570,503	15,570,503	10,381,518

\* 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.

<b>ACTUARIAL VALUE OF BENEFITS AND ASSETS</b>			
A. Valuation Date	January 1, 2016 <i>After Assumption Change</i>	January 1, 2016 <i>Before Assumption Change</i>	January 1, 2015
<b>B. Actuarial Present Value of All Projected Benefits for</b>			
1. Active Members			
a. Service Retirement Benefits	\$ 346,868,915	\$ 355,374,695	\$ 342,575,863
b. Vesting Benefits	35,105,321	36,071,581	35,447,512
c. Disability Benefits	13,817,873	15,250,204	14,668,239
d. Preretirement Death Benefits	10,280,425	5,842,243	5,717,753
e. Return of Member Contributions	2,811,989	2,590,690	2,375,571
f. Total	408,884,523	415,129,413	400,784,938
2. Inactive Members			
a. Service Retirees & Beneficiaries	495,874,052	495,777,951	468,689,797
b. Disability Retirees	49,834,468	51,374,715	48,987,429
c. Terminated Vested Members	14,216,453	14,322,566	15,467,289
d. Total	559,924,973	561,475,232	533,144,515
3. Total for All Members	968,809,496	976,604,645	933,929,453
C. Actuarial Accrued (Past Service) Liability	857,177,619	861,458,028	824,274,144
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	807,130,603	811,050,604	782,286,584
E. Plan Assets			
1. Market Value	873,505,080	873,505,080	897,025,140
2. Actuarial Value	882,169,478	882,169,478	839,868,311
3. Actuarial Value Excluding Credit Balance	866,598,975	866,598,975	829,486,793
F. Actuarial Present Value of Projected Covered Payroll	600,851,333	607,200,631	569,273,667
G. Actuarial Present Value of Projected Member Contributions	53,256,611	53,826,133	50,430,672
H. Accumulated Value of Active Member Contributions	60,112,481	60,112,481	58,657,980
I. Unfunded Actuarial Accrued Liability (UAAL) Based on EAN Method = C. - E.3.	(9,421,356)	(5,140,947)	(5,212,649)
J. Funded Ratio = E.2. / C.	102.92%	102.40%	101.89%
K. Funded Ratio Excluding Credit Balance = E.3. / C.	101.10%	100.60%	100.63%

<b>CALCULATION OF EMPLOYER NORMAL COST ENTRY AGE NORMAL METHOD</b>			
A. Valuation Date	January 1, 2016 <i>After Assumption Change</i>	January 1, 2016 <i>Before Assumption Change</i>	January 1, 2015
B. Normal Cost for			
1. Service Retirement Benefits	\$ 10,488,778	\$ 10,854,490	\$ 10,301,632
2. Vesting	2,036,821	2,096,550	1,994,171
3. Disability Benefits	1,363,963	1,493,072	1,395,826
4. Death Benefits	456,044	239,906	228,103
5. Refund of Contributions	<u>729,238</u>	<u>699,255</u>	<u>652,925</u>
6. Total for Future Benefits	15,074,844	15,383,273	14,572,657
7. Assumed Amount for Administrative Expenses	<u>302,086</u>	<u>302,086</u>	<u>179,906</u>
8. Total Normal Cost	15,376,930	15,685,359	14,752,563
C. Expected Member Contributions	7,017,955	7,017,955	6,558,448
D. Employer Normal Cost: B8 - C	8,358,975	8,667,404	8,194,115
E. Employer Normal Cost as % of Covered Payroll	10.42%	10.80%	10.91%

<b>Reconciliation of Credit Balance</b>	
Credit Balance at Beginning of Year	\$ 10,381,518
Required Employer Contribution	- 8,755,703
Employer Contribution Made	+ 13,217,982
Interest on Credit Balance	<u>+ 726,706</u>
Credit Balance at End of Year	15,570,503

**LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)**

<b>UAAL Amortization Period and Payments</b>					
<b>Original UAAL</b>			<b>Current UAAL</b>		
<b>Date Established</b>	<b>Source</b>	<b>Amount</b>	<b>Years Remaining</b>	<b>Amount</b>	<b>Payment</b>
1/1/2015	Fresh Start	\$ (5,212,649)	22	\$ (5,616,260)	\$ (474,526)
1/1/2016	(Gain)/Loss	475,313	15	475,313	48,773
1/1/2016	Assumption Change	<u>(4,280,409)</u>	25	<u>(4,280,409)</u>	<u>(343,275)</u>
		(9,017,745)		(9,421,356)	(769,028)

### 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:

<b>Amortization Schedule</b>	
<b>Year</b>	<b>Expected UAAL</b>
2016	\$ (9,421,356)
2017	(9,257,996)
2018	(9,083,195)
2019	(8,896,159)
2020	(8,696,030)
2021	(8,481,892)
2026	(7,164,240)
2031	(5,316,164)
2036	(2,424,028)
2041	-

### 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:

<b>A. Derivation of the Current UAAL</b>	
1. Last Year's UAAL	\$ (5,212,649)
2. Employer Normal Cost for Contribution Year	8,194,115
3. Last Year's Contributions	8,767,703 *
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	208,703
b. 3 from dates paid	38,726
c. a - b	169,977
5. This Year's Expected UAAL: 1 + 2 - 3 + 4c	(5,616,260)
6. This Year's Actual UAAL (Before any changes in benefits and assumptions):	(5,140,947)
7. Net Actuarial Gain (Loss): (5) - (6)	(475,313)
8. Gain (Loss) Due to Investments	5,590,074
9. Gain (Loss) Due to other sources	(6,065,387)

*\* 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:**

<b>Year Ending 12/31</b>	<b>Gain (Loss)</b>	<b>Change in Employer Cost Rate*</b>
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 **

*\* 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 2015 loss 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).*

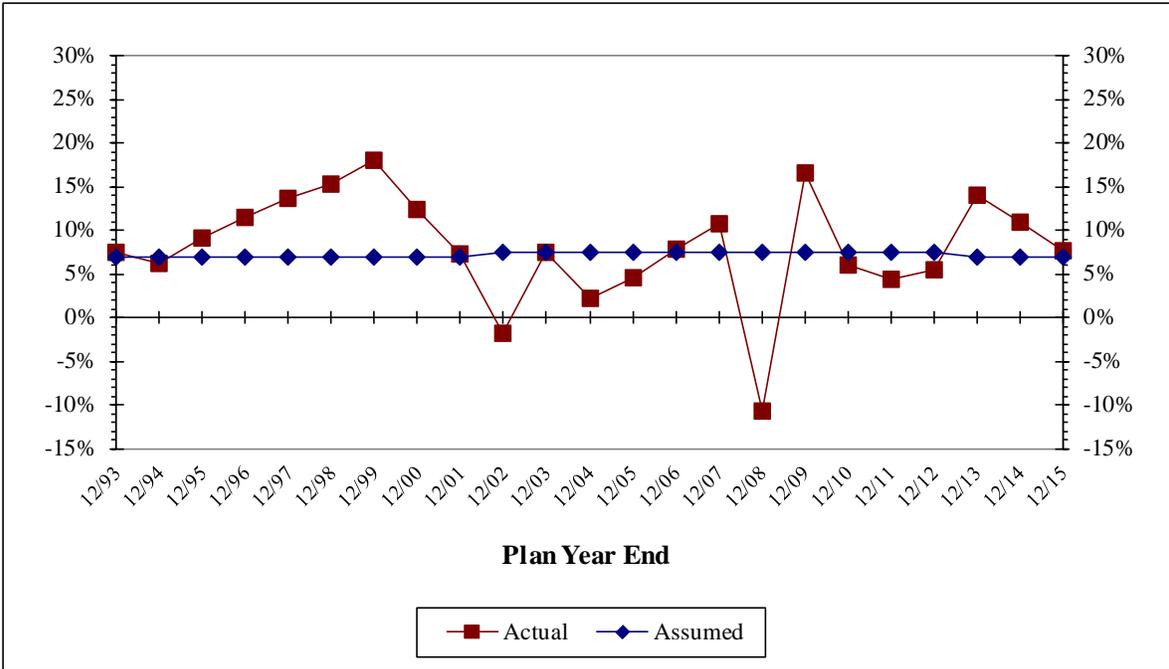
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the actual fund earnings and salary increase rates compared to the assumed rates for the last few years:

Year Ending	Investment Return		Salary Increases	
	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
Averages	7.94 %	---	5.44 %	---

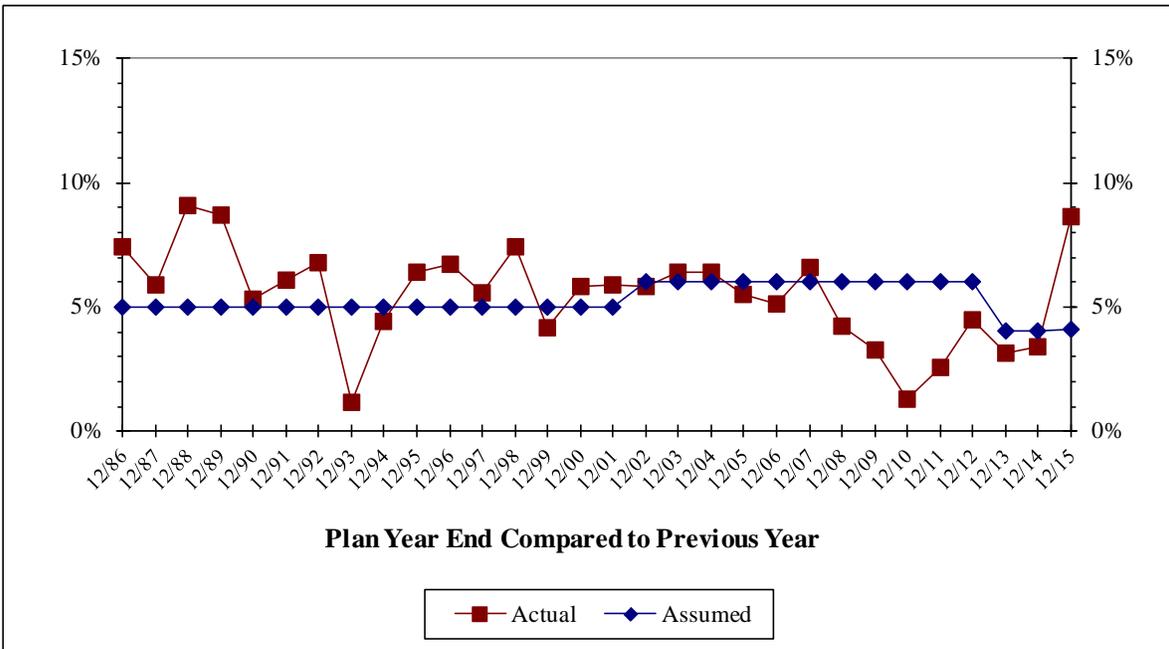
\* Salary for the year ending 12/31/2015 includes 27 pay periods rather than 26.

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



### History of Salary Increases



<b>Actual (A) Compared to Expected (E) Decrements Among Active Employees</b>															
<b>Year Ended</b>	<b>Number Added During Year</b>		<b>Service Retirement</b>		<b>Disability Retirement</b>		<b>Death</b>		<b>Terminations</b>				<b>Active Members End of Year</b>		
	<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>	<b>Vested</b>		<b>Other</b>			<b>Totals</b>	
									<b>A</b>	<b>E</b>	<b>A</b>	<b>E</b>		<b>A</b>	<b>E</b>
12/31/2009	49	110	54	57	0	6	0	2	10	46	56	93	<b>1,567</b>		
12/31/2010	78	137	68	51	2	6	3	2	15	49	64	85	<b>1,508</b>		
12/31/2011	84	124	43	49	6	6	0	2	11	64	75	84	<b>1,468</b>		
12/31/2012	119	113	51	52	3	6	1	2	18	40	58	81	<b>1,474</b>		
12/31/2013	102	98	27	42	2	3	4	2	11	54	65	79	<b>1,478</b>		
12/31/2014	135	131	45	51	5	3	2	2	21	58	79	78	<b>1,482</b>		
12/31/2015	145	122	43	52	7	3	1	2	18	53	71	82	<b>1,505</b>		
12/31/2016				60		3		3				89			
7 Yr Totals *	712	835	331	354	25	33	11	14	104	364	468	582			

\* Totals are through current Plan Year only.

<b>Actual (A) Compared to Expected (E) Deaths Among Retirees and Beneficiaries</b>				
<b>Year Ended</b>	<b>Actual During Year</b>		<b>Expected During Year</b>	
	<b>Number</b>	<b>Annual Pensions</b>	<b>Number</b>	<b>Annual Pensions</b>
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			25	708,907

RECENT HISTORY OF VALUATION RESULTS									
Valuation Date	Number of		Covered Annual Payroll	Actuarial Value of Assets	Actuarial Accrued Liability (Entry Age)	Unfunded Actuarial Liability (Entry Age)*	Funded Ratio	Employer Normal Cost*	
	Active Members	Inactive Members						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

\* 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.

RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS										
Valuation	End of Year To Which Valuation Applies	Required Contributions						Actual Contributions		
		Employer & State		Estimated State		Net Employer		Employer	State	Total
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll			
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	---	---	---

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.

### Economic Assumptions

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

The **Wage Inflation Rate** assumed in this valuation was 2.50% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macro economic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

The assumed **real rate of return** over wage inflation is defined to be the portion of total investment return that is more than the assumed wage inflation rate. Considering other economic assumptions, the 7.00% investment return rate translates to an assumed real rate of return over wage 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 increase, and 2.50% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

**% Increase in Salary - Hazardous Duty**

<b>Years of Service</b>	<b>Merit and Seniority</b>	<b>Base (Inflation)</b>	<b>Total Increase</b>
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 - Non-Hazardous Duty**

<b>Years of Service</b>	<b>Merit and Seniority</b>	<b>Base (Inflation)</b>	<b>Total Increase</b>
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 Mortality Table for annuitants with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 90% blue collar adjustment and a 10% white collar adjustment. These are the same rates currently in use for Special Risk Class members of the Florida Retirement System (FRS) (and they are based on a statewide experience study).

**FRS Healthy Mortality for Special Risk Class Members**

<b>Sample Attained Ages (in 2016)</b>	<b>Probability of Dying Next Year</b>		<b>Future Life Expectancy (years)</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
50	0.54 %	0.23 %	33.78	38.21
55	0.67	0.32	29.14	33.19
60	0.91	0.48	24.56	28.29
65	1.32	0.75	20.17	23.56
70	2.04	1.25	16.05	19.10
75	3.31	2.12	12.34	15.04
80	5.45	3.55	9.15	11.43

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For active members, the probabilities of dying before retirement were based upon the same mortality table as members dying after 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 and 40% of the RP2000 Mortality with a White Collar adjustment 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 Special Risk Class members of the Florida Retirement System (FRS) (and they are based on a statewide experience study).

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

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	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 Mortality Table for annuitants with future improvements in mortality projected to all future years using Scale BB. For females, the base mortality rates include a 100% white collar adjustment. For males, the base mortality rates include a 50% blue collar adjustment and a 50% white collar adjustment. These are the same rates currently in use for Non-Special Risk Class members of the Florida Retirement System (FRS) (and they are based on a statewide experience study).

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

Sample Attained Ages (in 2016)	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.55 %	0.23 %	34.55	38.21
55	0.60	0.32	29.92	33.19
60	0.77	0.48	25.25	28.29
65	1.16	0.75	20.73	23.56
70	1.81	1.25	16.49	19.10
75	3.01	2.12	12.64	15.04
80	5.10	3.55	9.33	11.43

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For active members, the probabilities of dying before retirement were based upon the same mortality table as members dying after 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) (and they are based on a statewide experience study).

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

<b>Sample Attained Ages</b>	<b>Probability of Dying Next Year</b>		<b>Future Life Expectancy (years)</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
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

Before the change in assumptions, the mortality table was the fully generational RP-2000 Combined Healthy Participant Mortality Table for males and females. Mortality improvements are projected to all future years from the year 2000 using Scale BB.

<b>Sample Attained Ages (in 2016)</b>	<b>Probability of Dying Next Year</b>		<b>Future Life Expectancy (years)</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
50	0.20 %	0.16 %	35.58	38.00
55	0.35	0.25	30.45	32.85
60	0.60	0.43	25.51	27.83
65	1.05	0.80	20.84	23.06
70	1.74	1.38	16.52	18.66
75	2.97	2.32	12.63	14.68
80	5.05	3.78	9.28	11.17

*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:

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**Hazardous Duty Retirement**

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Years of Service	Age	Probability of 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

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**Non-Hazardous Duty Retirement**

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Years of Service	Age	Probability of Retirement
10 - 19	65 - 69	45 %
	70 - 74	50
	75 & Over	100
20 - 29	55 - 59	20
	60 - 64	25
	65 - 69	45
	70 & Over	100
30 & Over	Under 65	40
	65 - 69	50
	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.

### Hazardous Duty Withdrawal - Males and Females

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

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

#### Non-Hazardous Duty Withdrawal - Females

Years of Service	Age	% of Active Members Separating Within Next Year
Under 1	Under 25	35.0 %
	25 - 34	30.0
	35 - 39	25.0
	40 - 49	20.0
	50 - 59	15.0
	60 & Over	5.0
1	Under 30	25.0
	30 - 59	15.0
	60 & Over	10.0
2	Under 45	15.0
	45 - 59	7.5
	60 & Over	6.5
3	Under 30	20.0
	30 - 59	10.0
	60 & Over	5.0
4	Under 30	15.0
	30 - 34	12.5
	35 - 44	10.0
	45 & Over	5.0
5 & Over	Under 30	7.5
	30 - 39	6.5
	40 - 44	5.0
	45 & Over	4.0

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

<b>Hazardous Duty Disability</b>			
<b>Sample</b>	<b>% of Active Members Becoming Disabled Within Next Year</b>		
	<b>Ages</b>	<b>Males</b>	<b>Females</b>
	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

<b>Non-Hazardous Duty Disability</b>			
<b>Sample</b>	<b>% of Active Members Becoming Disabled Within Next Year</b>		
	<b>Ages</b>	<b>Males</b>	<b>Females</b>
	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
	70	0.67	0.67

## Miscellaneous and Technical Assumptions

<b><i>Administrative &amp; Investment Expenses</i></b>	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.
<b><i>Benefit Service</i></b>	Exact fractional service is used to determine the amount of benefit payable.
<b><i>Cost of Living Increases</i></b>	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.
<b><i>Decrement Operation</i></b>	Disability and mortality decrements operate during retirement eligibility.
<b><i>Decrement Timing</i></b>	Decrement of all types are assumed to occur at the beginning of the year.
<b><i>Eligibility Testing</i></b>	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.
<b><i>Forfeitures</i></b>	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.
<b><i>Incidence of Contributions</i></b>	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.
<b><i>Marriage Assumption</i></b>	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 active member valuation purposes.

***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

<b><i>Actuarial Accrued Liability (AAL)</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	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.
<b><i>Actuarial Cost Method</i></b>	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.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value (APV)</i></b>	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.
<b><i>Actuarial Present Value of Future Benefits (APVFB)</i></b>	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.
<b><i>Actuarial Valuation</i></b>	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).
<b><i>Actuarial Value of Assets</i></b>	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).

<b><i>Amortization Method</i></b>	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.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Actuarially Determined Contribution (ADC)</i></b>	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.
<b><i>Closed Amortization Period</i></b>	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.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	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.
<b><i>Experience Gain/Loss</i></b>	A measure of the difference between the normal cost rate from last year and the normal cost rate from this year.
<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 68 and GASB No. 67</i></b>	These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<b><i>Open Amortization Period</i></b>	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.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

**SECTION C**  
**PENSION FUND INFORMATION**

**Statement of Plan Assets at Market Value**

Item	December 31	
	2015	2014
A. Cash and Cash Equivalents (Operating Cash)	\$ -	\$ -
B. Receivables		
1. Member Contributions	\$ -	\$ -
2. Employer Contributions	7,172,984	8,100,300
3. Investment Income and Other Receivables	2,317,272	2,512,142
4. Total Receivables	\$ 9,490,256	\$ 10,612,442
C. Investments		
1. Short-Term Investments	\$ 7,911,301	\$ 11,566,747
2. Domestic Equities	432,163,634	450,794,323
3. International Equities	113,230,315	110,222,671
4. Commodities	-	-
5. Domestic Fixed Income	245,680,935	266,691,996
6. International Fixed Income	-	-
7. Real Estate	66,204,558	48,080,996
8. Private Equity	-	-
9. Total Investments	\$ 865,190,743	\$ 887,356,733
D. Liabilities		
1. Benefits Payable	\$ -	\$ -
2. Accrued Expenses and Other Payables	(1,175,919)	(944,035)
3. Total Liabilities	\$ (1,175,919)	\$ (944,035)
E. Total Market Value of Assets Available for Benefits	\$ 873,505,080	\$ 897,025,140
F. Allocation of Investments		
1. Short-Term Investments	0.91%	1.30%
2. Domestic Equities	49.95%	50.80%
3. International Equities	13.09%	12.42%
4. Commodities	0.00%	0.00%
5. Domestic Fixed Income	28.40%	30.06%
6. International Fixed Income	0.00%	0.00%
7. Real Estate	7.65%	5.42%
8. Private Equity	0.00%	0.00%
9. Total Investments	100.00%	100.00%

### Reconciliation of Plan Assets

Item	December 31	
	2015	2014
A. Market Value of Assets at Beginning of Year	\$ 897,025,140	\$ 846,966,929
B. Revenues and Expenditures		
1. Contributions		
a. Employee Contributions	\$ 6,808,046	\$ 7,095,129
b. Employer Contributions	13,217,982	15,404,370
c. State Contributions	12,000	12,000
d. Total	\$ 20,038,028	\$ 22,511,499
2. Investment Income		
a. Interest, Dividends, and Other Income	\$ 18,157,941	\$ 16,733,940
b. Net Realized Gains/(Losses)	40,834,745	54,622,256
c. Net Unrealized Gains/(Losses)	(56,180,886)	499,182
d. Investment Expenses	(5,274,984)	(4,898,709)
e. Net Investment Income	\$ (2,463,184)	\$ 66,956,669
3. Benefits and Refunds		
a. Refunds	\$ (936,127)	\$ (1,393,782)
b. Regular Monthly Benefits	(39,856,691)	(37,836,269)
c. Partial Lump-Sum Benefits Paid	-	-
d. Total	\$ (40,792,818)	\$ (39,230,051)
4. Administrative and Miscellaneous Expenses	\$ (302,086)	\$ (179,906)
5. Transfers	\$ -	\$ -
C. Market Value of Assets at End of Year	\$ 873,505,080	\$ 897,025,140

## Development of Actuarial Value of Assets

Valuation Date - December 31	2014	2015	2016	2017	2018	2019
A. Actuarial Value of Assets Beginning of Year	\$ 772,411,068	\$ 839,868,311				
B. Market Value End of Year	897,025,140	873,505,080				
C. Market Value Beginning of Year	846,966,929	897,025,140				
D. Non-Investment/Administrative Net Cash Flow	(16,898,458)	(21,056,876)				
E. Investment Income						
E1. Actual Market Total: B-C-D	66,956,669	(2,463,184)				
E2. Assumed Rate of Return	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
E3. Assumed Amount of Return	58,338,901	61,768,947				
E4. Amount Subject to Phase-In: E1-E3	8,617,768	(64,232,131)				
F. Phase-In Recognition of Investment Income						
F1. Current Year: 0.2 x E4	1,723,554	(12,846,426)				
F2. First Prior Year	14,539,026	1,723,554	(12,846,426)			
F3. Second Prior Year	8,472,595	14,539,026	1,723,554	(12,846,426)		
F4. Third Prior Year	(10,299,653)	8,472,595	14,539,026	1,723,554	(12,846,426)	
F5. Fourth Prior Year	11,581,278	(10,299,653)	8,472,595	14,539,026	1,723,552	(12,846,427)
F6. Total Phase-Ins	26,016,800	1,589,096	11,888,749	3,416,154	(11,122,874)	(12,846,427)
<b>G. Actuarial Value of Assets End of Year</b>						
G1. Preliminary Actuarial Value of Assets	\$ 839,868,311	\$ 882,169,478				
G2. Upper Corridor Limit: 120%*B	\$1,076,430,168	\$1,048,206,096				
G3. Lower Corridor Limit: 80%*B	\$ 717,620,112	\$ 698,804,064				
G4. Funding Value End of Year	\$ 839,868,311	\$ 882,169,478				
G5. Credit Balance	\$ 10,381,518	\$ 15,570,503				
G6. Final Actuarial Value of Assets	\$ 829,486,793	\$ 866,598,975				
H. Recognized Investment Earnings	\$ 84,355,701	\$ 63,358,043				
I. Difference between Market & Actuarial Value	\$ 57,156,829	\$ (8,664,398)				
<b>J. Actuarial Rate of Return</b>	11.04%	7.64%				
<b>K. Market Value Rate of Return</b>	7.99%	-0.28%				
<b>L. Ratio of Actuarial Value of Assets to Market Value</b>	93.63%	100.99%				

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.

### Investment Rate of Return

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
<b>Average returns:</b>		
Last five years:	7.41 %	8.48 %
Last ten years:	6.77 %	7.07 %
All years:	9.14 %	7.94 %

*\*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**

<b>FASB NO. 35 INFORMATION</b>		
A. Valuation Date	January 1, 2016	January 1, 2015
<b>B. Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 545,708,520	\$ 517,677,226
b. Terminated Vested Members	14,216,453	15,467,289
c. Other Members	231,093,716	232,124,866
d. Total	<u>791,018,689</u>	<u>765,269,381</u>
2. Non-Vested Benefits	16,111,914	17,017,203
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	807,130,603	782,286,584
4. Accumulated Contributions of Active Members	60,112,481	58,657,980
<b>C. Changes in the Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Total Value at Beginning of Year	782,286,584	755,555,771
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	(3,920,001)	0
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	69,556,838	65,960,864
d. Benefits Paid	<u>(40,792,818)</u>	<u>(39,230,051)</u>
e. Net Increase	24,844,019	26,730,813
3. Total Value at End of Period	807,130,603	782,286,584
<b>D. Market Value of Assets</b>	873,505,080	897,025,140
<b>E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods</b>		

**SECTION E**  
**MISCELLANEOUS INFORMATION**

<b>RECONCILIATION OF MEMBERSHIP DATA</b>		
	<b>From 1/1/2015 To 1/1/2016</b>	<b>From 1/1/2014 To 1/1/2015</b>
<b>A. Active Members</b>		
1. Number Included in Last Valuation	1,482	1,478
2. New Members Included in Current Valuation	145	134
3. Non-Vested Employment Terminations	(53)	(58)
4. Vested Employment Terminations	(18)	(21)
5. Service Retirements	(43)	(45)
6. Disability Retirements	(4)	(5)
7. Deaths	(1)	(2)
8. Pending Disabilities	(3)	0
9. Data Corrections/Rehired Members	0	1
10. Number Included in This Valuation	<u>1,505</u>	<u>1,482</u>
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	69	60
2. Additions from Active Members	18	21
3. Lump Sum Payments/Refund of Contributions	(7)	(5)
4. Payments Commenced	(17)	(7)
5. Deaths	0	0
6. Conversion from Disability/Rehired Members	0	0
7. Data Corrections	0	0
8. Number Included in This Valuation	<u>63</u>	<u>69</u>
<b>C. Service Retirees, Disability Retirees and Beneficiaries</b>		
1. Number Included in Last Valuation	1,125	1,084
2. Additions from Active Members	47	50
3. Additions from Terminated Vested Members	17	7
4. Deaths Resulting in No Further Payments	(19)	(16)
5. Deaths Resulting in New Survivor Benefits	1	2
6. Pending Disabilities	3	0
7. End of Certain Period - No Further Payments	0	(2)
8. Data Correction/Waiver of Benefits	0	0
9. Number Included in This Valuation	<u>1,174</u>	<u>1,125</u>

## ACTIVE PARTICIPANT DISTRIBUTION

### ALL ACTIVE MEMBERS

Age Group	Years of Service to Valuation Date												Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
15-19 NO.	1	0	0	0	0	0	0	0	0	0	0	0	1
TOT PAY	26,473	0	0	0	0	0	0	0	0	0	0	0	26,473
AVG PAY	26,473	0	0	0	0	0	0	0	0	0	0	0	26,473
20-24 NO.	31	15	8	1	1	0	0	0	0	0	0	0	56
TOT PAY	1,020,605	588,564	253,342	35,014	39,996	0	0	0	0	0	0	0	1,937,521
AVG PAY	32,923	39,238	31,668	35,014	39,996	0	0	0	0	0	0	0	34,599
25-29 NO.	38	22	20	12	8	23	1	0	0	0	0	0	124
TOT PAY	1,316,329	883,101	869,198	446,301	378,821	1,126,310	37,501	0	0	0	0	0	5,057,561
AVG PAY	34,640	40,141	43,460	37,192	47,353	48,970	37,501	0	0	0	0	0	40,787
30-34 NO.	26	23	19	13	12	60	26	0	0	0	0	0	179
TOT PAY	912,552	946,648	845,964	596,145	547,975	3,250,212	1,299,487	0	0	0	0	0	8,398,983
AVG PAY	35,098	41,159	44,524	45,857	45,665	54,170	49,980	0	0	0	0	0	46,922
35-39 NO.	9	14	8	5	11	42	53	15	0	0	0	0	157
TOT PAY	313,546	637,109	416,141	209,260	481,365	2,616,145	3,216,155	895,901	0	0	0	0	8,785,622
AVG PAY	34,838	45,508	52,018	41,852	43,760	62,289	60,682	59,727	0	0	0	0	55,959
40-44 NO.	12	9	10	6	7	47	57	55	9	0	0	0	212
TOT PAY	448,574	347,341	431,038	254,970	323,289	2,365,271	3,459,857	4,111,296	662,689	0	0	0	12,404,325
AVG PAY	37,381	38,593	43,104	42,495	46,184	50,325	60,699	74,751	73,632	0	0	0	58,511
45-49 NO.	9	12	2	9	3	23	54	58	38	10	0	0	218
TOT PAY	345,667	485,772	92,728	415,957	172,586	1,233,708	3,577,100	4,064,021	3,027,798	713,241	0	0	14,128,578
AVG PAY	38,407	40,481	46,364	46,217	57,529	53,639	66,243	70,069	79,679	71,324	0	0	64,810
50-54 NO.	7	15	4	9	7	32	46	41	32	37	5	0	235
TOT PAY	270,717	572,738	202,905	316,480	341,812	1,347,830	2,326,657	2,434,051	2,144,668	2,556,337	354,791	0	12,868,986
AVG PAY	38,674	38,183	50,726	35,164	48,830	42,120	50,580	59,367	67,021	69,090	70,958	0	54,762
55-59 NO.	7	2	4	5	5	24	39	36	22	18	8	0	170
TOT PAY	244,598	131,162	126,807	193,923	186,631	1,217,610	1,762,969	1,833,823	1,272,179	1,232,356	575,310	0	8,777,368
AVG PAY	34,943	65,581	31,702	38,785	37,326	50,734	45,204	50,940	57,826	68,464	71,914	0	51,632
60-64 NO.	3	1	3	4	4	15	17	25	22	8	4	2	108
TOT PAY	100,475	42,667	96,207	123,974	205,777	695,907	807,482	1,273,636	1,320,216	520,377	281,969	174,656	5,643,343
AVG PAY	33,492	42,667	32,069	30,994	51,444	46,394	47,499	50,945	60,010	65,047	70,492	87,328	52,253
65+ NO.	2	0	0	1	1	10	12	6	6	6	1	0	45
TOT PAY	65,821	0	0	39,286	29,363	448,316	613,357	284,489	334,963	356,725	49,913	0	2,222,233
AVG PAY	<u>32,910</u>	<u>0</u>	<u>0</u>	<u>39,286</u>	<u>29,363</u>	<u>44,832</u>	<u>51,113</u>	<u>47,415</u>	<u>55,827</u>	<u>59,454</u>	<u>49,913</u>	<u>0</u>	<u>49,383</u>
TOT NO.	145	113	78	65	59	276	305	236	129	79	18	2	1,505
TOT AMT	5,065,357	4,635,102	3,334,330	2,631,310	2,707,615	14,301,309	17,100,565	14,897,217	8,762,513	5,379,036	1,261,983	174,656	80,250,993
AVG AMT	34,933	41,019	42,748	40,482	45,892	51,816	56,067	63,124	67,926	68,089	70,110	87,328	53,323

**ACTIVE PARTICIPANT DISTRIBUTION**  
**HAZARDOUS DUTY MEMBERS**

Age Group	Years of Service to Valuation Date												Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
15-19 NO.	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24 NO.	8	6	0	0	0	0	0	0	0	0	0	0	14
TOT PAY	379,838	335,263	0	0	0	0	0	0	0	0	0	0	715,101
AVG PAY	47,480	55,877	0	0	0	0	0	0	0	0	0	0	51,079
25-29 NO.	11	6	7	1	3	9	0	0	0	0	0	0	37
TOT PAY	523,236	351,185	421,779	62,363	214,268	621,022	0	0	0	0	0	0	2,193,853
AVG PAY	47,567	58,531	60,254	62,363	71,423	69,002	0	0	0	0	0	0	59,293
30-34 NO.	5	6	6	5	4	25	6	0	0	0	0	0	57
TOT PAY	240,580	367,284	373,964	319,491	259,776	1,896,156	494,116	0	0	0	0	0	3,951,367
AVG PAY	48,116	61,214	62,327	63,898	64,944	75,846	82,353	0	0	0	0	0	69,322
35-39 NO.	3	5	4	1	2	24	27	6	0	0	0	0	72
TOT PAY	124,870	295,581	247,770	65,997	148,821	1,741,471	2,078,700	513,265	0	0	0	0	5,216,475
AVG PAY	41,623	59,116	61,943	65,997	74,411	72,561	76,989	85,544	0	0	0	0	72,451
40-44 NO.	3	0	2	0	1	12	25	35	5	0	0	0	83
TOT PAY	152,883	0	132,790	0	59,166	880,792	2,026,552	3,136,130	458,005	0	0	0	6,846,318
AVG PAY	50,961	0	66,395	0	59,166	73,399	81,062	89,604	91,601	0	0	0	82,486
45-49 NO.	1	1	0	1	1	9	31	30	21	3	0	0	98
TOT PAY	52,265	60,980	0	88,072	67,625	679,653	2,545,008	2,697,464	2,076,205	318,908	0	0	8,586,180
AVG PAY	52,265	60,980	0	88,072	67,625	75,517	82,097	89,915	98,867	106,303	0	0	87,614
50-54 NO.	1	1	0	0	1	2	8	7	12	11	1	0	44
TOT PAY	58,071	94,547	0	0	99,514	178,506	646,580	689,345	1,128,667	1,012,737	120,008	0	4,027,975
AVG PAY	58,071	94,547	0	0	99,514	89,253	80,823	98,478	94,056	92,067	120,008	0	91,545
55-59 NO.	0	1	0	0	0	4	1	2	1	3	3	0	15
TOT PAY	0	78,151	0	0	0	410,222	85,576	164,433	90,310	321,593	323,456	0	1,473,741
AVG PAY	0	78,151	0	0	0	102,556	85,576	82,217	90,310	107,198	107,819	0	98,249
60-64 NO.	0	0	0	0	0	2	1	0	0	0	0	1	4
TOT PAY	0	0	0	0	0	174,911	76,665	0	0	0	0	130,620	382,196
AVG PAY	0	0	0	0	0	87,456	76,665	0	0	0	0	130,620	95,549
65+ NO.	0	0	0	0	0	1	1	0	0	0	0	0	2
TOT PAY	0	0	0	0	0	75,935	135,717	0	0	0	0	0	211,652
AVG PAY	0	0	0	0	0	75,935	135,717	0	0	0	0	0	105,826
TOT NO.	32	26	19	8	12	88	100	80	39	17	4	1	426
TOT AMT	1,531,743	1,582,991	1,176,303	535,923	849,170	6,658,668	8,088,914	7,200,637	3,753,187	1,653,238	443,464	130,620	33,604,858
AVG AMT	47,867	60,884	61,911	66,990	70,764	75,667	80,889	90,008	96,236	97,249	110,866	0	78,885

**ACTIVE PARTICIPANT DISTRIBUTION**  
**NON-HAZARDOUS DUTY MEMBERS**

Age Group	Years of Service to Valuation Date												Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35+	
15-19 NO.	1	0	0	0	0	0	0	0	0	0	0	0	1
TOT PAY	26,473	0	0	0	0	0	0	0	0	0	0	0	26,473
AVG PAY	26,473	0	0	0	0	0	0	0	0	0	0	0	26,473
20-24 NO.	23	9	8	1	1	0	0	0	0	0	0	0	42
TOT PAY	640,767	253,301	253,342	35,014	39,996	0	0	0	0	0	0	0	1,222,420
AVG PAY	27,859	28,145	31,668	35,014	39,996	0	0	0	0	0	0	0	29,105
25-29 NO.	27	16	13	11	5	14	1	0	0	0	0	0	87
TOT PAY	793,093	531,916	447,419	383,938	164,553	505,288	37,501	0	0	0	0	0	2,863,708
AVG PAY	29,374	33,245	34,417	34,903	32,911	36,092	37,501	0	0	0	0	0	32,916
30-34 NO.	21	17	13	8	8	35	20	0	0	0	0	0	122
TOT PAY	671,972	579,364	472,000	276,654	288,199	1,354,056	805,371	0	0	0	0	0	4,447,616
AVG PAY	31,999	34,080	36,308	34,582	36,025	38,687	40,269	0	0	0	0	0	36,456
35-39 NO.	6	9	4	4	9	18	26	9	0	0	0	0	85
TOT PAY	188,676	341,528	168,371	143,263	332,544	874,674	1,137,455	382,636	0	0	0	0	3,569,147
AVG PAY	31,446	37,948	42,093	35,816	36,949	48,593	43,748	42,515	0	0	0	0	41,990
40-44 NO.	9	9	8	6	6	35	32	20	4	0	0	0	129
TOT PAY	295,691	347,341	298,248	254,970	264,123	1,484,479	1,433,305	975,166	204,684	0	0	0	5,558,007
AVG PAY	32,855	38,593	37,281	42,495	44,021	42,414	44,791	48,758	51,171	0	0	0	43,085
45-49 NO.	8	11	2	8	2	14	23	28	17	7	0	0	120
TOT PAY	293,402	424,792	92,728	327,885	104,961	554,055	1,032,092	1,366,557	951,593	394,333	0	0	5,542,398
AVG PAY	36,675	38,617	46,364	40,986	52,481	39,575	44,874	48,806	55,976	56,333	0	0	46,187
50-54 NO.	6	14	4	9	6	30	38	34	20	26	4	0	191
TOT PAY	212,646	478,191	202,905	316,480	242,298	1,169,324	1,680,077	1,744,706	1,016,001	1,543,600	234,783	0	8,841,011
AVG PAY	35,441	34,157	50,726	35,164	40,383	38,977	44,213	51,315	50,800	59,369	58,696	0	46,288
55-59 NO.	7	1	4	5	5	20	38	34	21	15	5	0	155
TOT PAY	244,598	53,011	126,807	193,923	186,631	807,388	1,677,393	1,669,390	1,181,869	910,763	251,854	0	7,303,627
AVG PAY	34,943	53,011	31,702	38,785	37,326	40,369	44,142	49,100	56,279	60,718	50,371	0	47,120
60-64 NO.	3	1	3	4	4	13	16	25	22	8	4	1	104
TOT PAY	100,475	42,667	96,207	123,974	205,777	520,996	730,817	1,273,636	1,320,216	520,377	281,969	44,036	5,261,147
AVG PAY	33,492	42,667	32,069	30,994	51,444	40,077	45,676	50,945	60,010	65,047	70,492	44,036	50,588
65+ NO.	2	0	0	1	1	9	11	6	6	6	1	0	43
TOT PAY	65,821	0	0	39,286	29,363	372,381	477,640	284,489	334,963	356,725	49,913	0	2,010,581
AVG PAY	32,911	0	0	39,286	29,363	41,376	43,422	47,415	55,827	59,454	49,913	0	46,758
TOT NO.	113	87	59	57	47	188	205	156	90	62	14	1	1,079
TOT AMT	3,533,614	3,052,111	2,158,027	2,095,387	1,858,445	7,642,641	9,011,651	7,696,580	5,009,326	3,725,798	818,519	44,036	46,646,135
AVG AMT	31,271	35,082	36,577	36,761	39,541	40,652	43,959	49,337	55,659	60,094	58,466	44,036	43,231

**INACTIVE PARTICIPANT DISTRIBUTION**

<b>Age Group</b>	<b>Terminated Vested</b>		<b>Disabled</b>		<b>Retired</b>		<b>Deceased with Beneficiary</b>	
	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	7	75,676
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	1	17,587	1	47,460	-	-	1	33,124
35-39	5	70,126	1	40,554	-	-	-	-
40-44	10	207,610	5	231,151	-	-	1	50,168
45-49	15	362,736	6	231,968	22	962,794	3	48,531
50-54	18	358,057	12	464,210	63	2,849,336	9	267,317
55-59	5	73,039	24	631,315	145	5,975,751	11	191,203
60-64	9	140,913	27	700,801	217	9,196,253	17	410,632
65-69	-	-	28	742,488	231	8,584,315	15	391,461
70-74	-	-	15	306,645	102	3,587,393	18	404,564
75-79	-	-	11	285,142	61	1,892,380	27	494,284
80-84	-	-	4	94,940	31	808,582	16	190,457
85-89	-	-	3	61,184	10	185,903	14	191,340
90-94	-	-	-	-	11	164,218	3	10,262
95-99	-	-	-	-	1	4,671	1	2,284
100 & Over	-	-	-	-	-	-	-	-
<b>Total</b>	63	1,230,068	137	3,837,858	894	34,211,596	143	2,761,303
<b>Average Age</b>		50		63		65		69

**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, Florida Statutes (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:

- (1) age 55 with 20 years of Credited Service, or
- (2) 30 years of Credited Service regardless of age, or
- (3) age 65 with 10 years of Credited Service.

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:

- (1) age 60 with 25 years of Credited Service, or
- (2) age 65 with 10 years of Credited Service

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:

- (1) age 55 with 10 years of Credited Service, or
- (2) 20 years of Credited Service regardless of age.

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:

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.

**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.

**Benefit:** Participant's accrued Normal Retirement Benefit taking into account Compensation earned and service credited until the date of disability. 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:** 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 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, 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.

**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**

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.

Vesting is determined in accordance with the following table.

<b>Years of Credited Service</b>	<b>% of Normal Retirement Benefits</b>
Less Than 10	0%
10 or more	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: 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.

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.