GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

CITY OF BOYNTON BEACH MUNICIPAL FIREFIGHTERS' PENSION TRUST FUND
ACTUARIAL VALUATION REPORT AS OF OCTOBER 1, 2015

ANNUAL EMPLOYER CONTRIBUTION IS DETERMINED BY THIS VALUATION FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 2017

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March 31, 2016

Board of Trustees
City of Boynton Beach Municipal
Firefighters' Pension Trust Fund
Boynton Beach, Florida

Re: City of Boynton Beach Municipal Firefighters' Pension Trust Fund Actuarial Valuation as of October 1, 2015 and Actuarial Disclosures

Dear Board Members:

The results of the October 1, 2015 Annual Actuarial Valuation of the City of Boynton Beach Municipal Firefighters' Pension Trust Fund 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 purposes of the valuation are to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2017, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67. This report also includes estimated GASB Statement No. 67 information for the fiscal year ending September 30, 2016. This report should not be relied on for any purpose other than the purpose 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 and other information through September 30, 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 future measurements.

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

The valuation was based upon information furnished by the Plan Administrator concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator.

In addition, this report was prepared using certain assumptions prescribed by the Board as described in the section of this report entitled Actuarial Assumptions and Cost Method.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the City of Boynton Beach Municipal Firefighters' Pension Trust Fund 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 Jeffrey Amrose actuaries 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 report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

Peter N. Strong
Peter N. Strong, FSA, MAAA, FCA
Enrolled Actuary No. 14-06975

Jeff Amrose
Jeffrey Amrose, MAAA, FCA
Enrolled Actuary No. 14-06599

TABLE OF CONTENTS

SECTION A

DISCUSSION OF VALUATION RESULTS

DISCUSSION OF VALUATION RESULTS

Comparison of Required Employer Contributions

A comparison of the required employer contribution developed in this and the last actuarial valuation is shown below. The required contribution dollar amounts shown below are estimates only. The contribution policy of the City is to contribute the dollar amount determined by multiplying the required percentage of payroll determined as of the valuation date by the projected pensionable payroll for the year.

	For FYE 9/30/17 Based on 10/1/2015 Valuation if contributed on 10/1/2016	For FYE 9/30/16 Based on 10/1/2014 Valuation if contributed on 10/1/2015	Increase (Decrease)
Required Employer/State Contribution	$ 5,075,517	$ 4,856,683	$ 218,834
As % of Covered Payroll	49.10 %	49.44 %	(0.34) %
Estimated State Contribution	$ 781,954	$ 781,954	$ 0
As % of Covered Payroll	7.56 %	7.96 %	(0.40) %
Required Employer Contribution	$ 4,293,563	$ 4,074,729	$ 218,834
As % of Covered Payroll	41.54 %	41.48 %	0.06 %

The required employer contribution has been computed under the assumption that the amount to be received from the State this year will be at least $781,954. If the State revenue is less than this amount, the City will have to make up the difference. The required employer contribution for the fiscal year ending September 30, 2016 calculated based on the October 1, 2014 valuation was revised to reflect this estimated State contribution.

The employer contribution listed above is for the City's fiscal year ending September 30, 2017 and has been calculated as though payment is made in a single lump sum on October 1, 2016. The actual employer contribution for the fiscal year ending September 30, 2015 was $3,930,996. The minimum required employer contribution was $3,930,996.

Ordinance 06-692 (adopted in 2006), which added the 2% deferred COLA and increased member contributions by 5.0% of covered payroll, was intended to be cost neutral. Under the terms of this Ordinance, the actuarial cost of the COLA must be reevaluated every three years to ensure it remains cost neutral. The last reevaluation was completed as of October 1, 2012 (applicable to State money received during the fiscal year ending September 30, 2013), so a new reevaluation has recently been completed as of October 1, 2015 (applicable to State money received during the fiscal year ending September 30, 2016). This latest reevaluation has shown that the annual actuarial cost of the COLA is $77,632 higher than it was as of October 1, 2012. Therefore, the base amount of regular Chapter 175 State contributions increased by this amount, from $704,322 to $781,954, beginning in the fiscal year ending September 30, 2016.

Revisions in Benefits

There have been no changes in benefits since the prior valuation.

Revisions in Actuarial Assumptions or Methods

There have been no changes in actuarial assumptions or methods since the prior valuation.

The Actuarial Standard of Practice (ASOP) with regard to the mortality assumption, ASOP No. 35 Section 4.1.1, states *"The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement."* There is currently no margin for future mortality improvement in the current mortality assumption. We recommend an update to the mortality assumption to reflect increased longevity and to reflect future mortality improvements. A change in the mortality assumption to use the same mortality rates used in the actuarial valuation of the Florida Retirement System (FRS) will be required in next year's actuarial valuation report. This change is expected to cause an increase in the annual required employer contribution of approximately $350,000 to $375,000 and a reduction in the funded ratio of about 3%.

Actuarial Experience

There was a net actuarial experience gain of $209,489 for the year, which means that overall actual experience was slightly more favorable than expected. The actuarial gain is primarily due to average salary increases that were less than expected (4.9% actual versus 6.2% expected). The gain was offset somewhat by lower than expected return on the actuarial value of assets. The net investment return on the actuarial value of assets was 7.31% versus an assumed return of 7.50%. The net investment return on the market value of assets was 0.36%.

The net actuarial gain for the year has caused a decrease in the annual required employer contribution of 0.11% of covered payroll.

Additional Payments Toward Unfunded Actuarial Liability

The City of Boynton Beach and the Firefighters' Union have mutually consented to use $1,000,000 of the Accumulated Excess State Contribution reserve to reduce the Plan's Unfunded Actuarial Liability (UAL). This is being done in three annual increments with the first increment ($333,333) occurring as of October 1, 2015. The second and third increments ($333,333 and $333,334) will be applied as of October 1, 2016 and October 1, 2017, respectively. The use of $333,333 as of October 1, 2015 was used to reduce the UAL amortization bases created on October 1, 1992. The net effect was a decrease in the annual required employer contribution of 0.51% of covered payroll.

Funded Ratio

The funded ratio was 59.8% this year compared to 57.7% last year. The funded ratio was 59.5% this year before recognizing the additional payments toward the UAL from the Excess State Reserve. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued liability.

Analysis of Change in Employer Contribution

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

Contribution rate last year	41.48	%
Revision in Benefits	0.00	
Experience (Gains) or Losses	(0.11)	
Additional UAAL Payment from State Reserve	(0.51)	
Amortization Payment on UAAL	0.18	
Normal Cost Rate	(0.03)	
Administrative Expense	0.13	
State Contribution	0.40	
Contribution rate this year	41.54	%

According to Florida Administrative Code (Statute 112), the payroll growth assumption may not exceed the average payroll growth during the last ten years. The ten year average rate this year was equal to

4.22% compared to the assumed rate of 4.0%.

Required Contributions in Later Years

The current calculated City contribution requirement is 41.54% of payroll starting October 1, 2016. Under the asset smoothing method, market value gains and losses are recognized over five years. As of October 1, 2015, the actuarial value of assets exceeded the market value by $807,433. Once all the gains and losses through September 30, 2015 have been fully recognized in the actuarial value of assets, the employer contribution rate will increase by roughly 0.41% of payroll unless there are offsetting gains.

Another important factor to consider looking down the road is the annual payment on the unfunded actuarial liability (UAL). This payment is computed as a level percentage of covered payroll under the assumption that covered payroll will rise by 4.0% per year. According to Florida Administrative Code (Statute 112), this payroll growth assumption may not exceed the average payroll growth during the last ten years, which is currently 4.22%. Once the average payroll growth rate over the trailing ten years falls below 4.0%, which is expected to take place next year (as of October 1, 2016), the actual ten-year average payroll growth rate will need to be used instead of 4.0%. This will cause an increase in the employer contribution rate. If the current rate this year had been 2.0% instead of 4.0%, for instance, the employer contribution rate would have increased by approximately 5.1% of covered pay (or nearly $530,000). The average rate of payroll growth during the past six years has been less than 0%. If this trend continues through 2019, then the UAL will have to be amortized as a level dollar amount. If the UAL were amortized as a level dollar amount this year, the employer contribution would have increased by approximately 10.8% of covered pay (or more than $1.1 million.)

Relationship to Market Value

If Market Value had been the basis for the valuation, the City contribution rate would have been 41.95% and the funded ratio would have been 59.1%.

13th Check Provision

The Plan provides for a 13th check if there is a net actuarial gain for the previous year. Though the Plan experienced a gain during the prior plan year, the cumulative balance of actuarial gains and losses is negative (a net loss), so no funds are available to provide 13th checks in 2015.

Conclusion

It is important to note that if the FRS mortality assumption had been in place this year, the Trust Fund's market value of assets would not be sufficient to cover the liabilities for current retirees. As of October 1, 2015, this shortfall would be approximately $2.0 million. The funded ratio would be about 57.0% this year if the FRS mortality assumption was used, whereas it was over 100% in the year 2000. Steps have been taken in recent years to address this issue, such as strengthening the actuarial assumptions, including lowering the investment return assumption from 8.5% to 7.5% over time, and applying an additional $1,000,000 towards the unfunded liability. However, we recommend further steps be considered, such as reducing the amortization period and/or reducing the payroll growth assumption used in the amortization of the unfunded liability.

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

CHAPTER REVENUE

Increments in Chapter revenue over that received in 1998 must first be used to fund the cost of compliance with minimum benefits. Once minimums are met, any subsequent additional Chapter revenue must be used to provide extra benefits.

As of the valuation date, all minimum Chapter requirements have been met.

Actuarial Confirmation of the Use of State Chapter Money	
1. Fire Regular	$ 704,322
Fire Supplemental	0
Total Base Amount Previous Plan Year	704,322
2. Fire Regular	963,573
Fire Supplemental	0
Total Amount Received for Previous Plan Year	963,573
3. Adjustment to Base Amount Due to Reevaluation of COLA cost	0
4. Excess Funds for Previous Plan Year	259,251
5. Accumulated Excess at Beginning of Previous Year	2,723,916
6. Prior Excess Used in Previous Plan Year	158,984
7. Accumulated Excess as of September 30, 2015 (Available for Benefit Improvements)	2,824,183
8. Excess Used as of October 1, 2015 to Reduce the Plan's Unfunded Actuarial Liability	333,333
9. Accumulated Excess as of Valuation Date	2,490,850

Note: The above exhibit confirms the use of State Chapter 175 Money for the fiscal year ending September 30, 2015. In the fiscal year ending September 30, 2016, the Base Amount for Fire Regular State Chapter 175 Money will increase to $781,954 due to the reevaluation of the actuarial cost of the COLA.

SECTION B

VALUATION RESULTS

PARTICIPANT DATA				
	October 1, 2015		October 1, 2014	
ACTIVE MEMBERS				
Number		118		119
Covered Annual Payroll	$	10,221,317	$	9,823,480
Average Annual Payroll	$	86,621	$	82,550
Average Age		38.9		37.9
Average Past Service		10.9		10.1
Average Age at Hire		28.0		27.8
RETIREES & BENEFICIARIES & DROP				
Number		98		97
Annual Benefits	$	5,389,431	$	5,315,085
Average Annual Benefit	$	54,994	$	54,795
Average Age		61.1		60.2
DISABILITY RETIREES				
Number		1		1
Annual Benefits	$	41,782	$	40,963
Average Annual Benefit	$	41,782	$	40,963
Average Age		50.3		49.3
TERMINATED VESTED MEMBERS				
Number		2		1
Annual Benefits	$	58,665	$	35,771
Average Annual Benefit	$	29,333	$	35,771
Average Age		41.8		46.1

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)			
A. Valuation Date	October 1, 2015 *After Additional UAAL Payment*	October 1, 2015 *Before Additional UAAL Payment*	October 1, 2014
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2016
C. Assumed Date of Employer Contrib.	10/1/2016	10/1/2016	10/1/2015
D. Annual Payment to Amortize Unfunded Actuarial Liability	$ 2,912,970	$ 2,965,445	$ 2,842,385
E. Employer Normal Cost	2,105,539	2,105,539	2,014,298
F. ADEC if Paid on the Valuation Date: D+E	5,018,509	5,070,984	4,856,683
G. ADEC Adjusted for Frequency of Payments	5,018,509	5,070,984	4,856,683
H. ADEC as % of Covered Payroll	49.10 %	49.61 %	49.44 %
I. Assumed Rate of Increase in Covered Payroll to Contribution Year	N/A %	N/A %	N/A %
J. Covered Payroll for Contribution Year	10,337,101 *	10,337,101 *	9,469,072 *
K. Covered Payroll per Valuation	10,221,317	10,221,317	9,823,480
L. ADEC for Contribution Year: H x J, but not less than G	5,075,517	5,128,236	4,856,683
M. Estimate of State Revenue in Contribution Year	781,954	781,954	781,954
N. Actuarially Determined Employer Contribution (ADEC) in Contribution Year	4,293,563	4,346,282	4,074,729
O. ADEC as % of Covered Payroll in Contribution Year: N ÷ (Max of J and K)	41.54 %	42.05 %	41.48 %

*Estimated payroll from Finance Department. Actual contributions should be no less than the listed percentage of payroll multiplied by actual covered payroll.

ACTUARIAL VALUE OF BENEFITS AND ASSETS

A. Valuation Date	October 1, 2015 *After Additional UAAL Payment*	October 1, 2015 *Before Additional UAAL Payment*	October 1, 2014
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	$ 64,535,711	$ 64,535,711	$ 60,332,290
b. Vesting Benefits	3,931,931	3,931,931	4,061,247
c. Disability Benefits	1,799,269	1,799,269	1,795,467
d. Preretirement Death Benefits	829,790	829,790	820,258
e. Return of Member Contributions	120,989	120,989	136,592
f. Total	71,217,690	71,217,690	67,145,854
2. Inactive Members			
a. Service Retirees & Beneficiaries	63,338,026	63,338,026	63,037,423
b. Disability Retirees	695,583	695,583	686,532
c. Terminated Vested Members	587,340	587,340	371,166
d. Total	64,620,949	64,620,949	64,095,121
3. Total for All Members	135,838,639	135,838,639	131,240,975
C. Actuarial Accrued (Past Service) Liability per GASB No. 25	110,826,525	110,826,525	105,309,014
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	98,889,292	98,889,292	93,844,530
E. Plan Assets			
1. Market Value	65,450,324	65,116,991	65,148,932
2. Actuarial Value	66,257,757	65,924,424	60,766,720
F. Unfunded Actuarial Accrued Liability: C-E2	44,568,768	44,902,101	44,542,294
G. Actuarial Present Value of Projected Covered Payroll	80,605,730	80,605,730	83,474,543
H. Actuarial Present Value of Projected Member Contributions	9,672,688	9,672,688	10,016,945
I. Accumulated Value of Member Contributions	9,728,194	9,728,194	8,732,736
J. Funded Ratio: E2/C	59.8%	59.5%	57.7%

ENTRY AGE NORMAL METHOD
CALCULATION OF EMPLOYER NORMAL COST

A. Valuation Date	October 1, 2015	October 1, 2014
B. Normal Cost for		
1. Service Retirement Benefits	$ 2,721,874	$ 2,618,928
2. Vesting Benefits	243,175	234,861
3. Disability Benefits	155,009	146,701
4. Preretirement Death Benefits	44,362	43,429
5. Return of Member Contributions	40,262	38,711
6. Total for Future Benefits	3,204,682	3,082,630
7. Assumed Amount for Administrative Expenses	127,415	110,486
8. Total Normal Cost	3,332,097	3,193,116
C. Expected Member Contribution	1,226,558	1,178,818
D. Employer Normal Cost: B8-C	2,105,539	2,014,298
E. Employer Normal Cost as a % of Covered Payroll	20.60%	20.50%

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

BEFORE ADDITIONAL UAAL PAYMENT

A. UAAL Amortization Period and Payments					
Original UAAL			Current UAAL		
Date Established	Amortization Period (Years)	Amount	Years Remaining	Amount	Payment
10/1/1992	30	$ 415,550	7	$ 267,174	$ 42,060
10/1/1992	30	795,483	7	510,960	80,438
10/1/1996	26	807,234	7	592,261	93,237
10/1/1997	30	1,201,102	12	1,204,075	119,593
10/1/1999	30	613,865	14	683,516	60,007
10/1/2000	30	(1,240,378)	15	(1,372,209)	(114,162)
10/1/2001	30	857,564	16	976,242	77,305
10/1/2003	30	4,337,161	18	5,159,505	374,231
10/1/2004	30	4,373,725	19	5,231,343	364,856
10/1/2005	30	(1,004,416)	20	(1,205,623)	(81,071)
10/1/2005	30	3,040,117	20	3,649,123	245,381
10/1/2006	30	2,426,747	21	2,899,772	188,455
10/1/2006	30	1,889,229	21	2,257,481	146,713
10/1/2007	30	(12,675)	22	(14,957)	(942)
10/1/2007	30	(1,424,046)	22	(1,683,177)	(105,953)
10/1/2008	30	4,046,900	23	4,726,010	288,719
10/1/2009	30	3,681,910	24	4,240,268	251,858
10/1/2010	30	1,249,043	25	1,417,174	81,975
10/1/2010	30	2,256,012	25	2,559,692	148,063
10/1/2010	30	(43,572)	25	(49,437)	(2,860)
10/1/2011	30	1,378,822	26	1,528,506	86,235
10/1/2011	30	3,739,943	26	4,145,952	233,905
10/1/2012	30	1,446,560	27	1,541,925	84,965
10/1/2012	30	(161,237)	27	(171,866)	(9,470)
10/1/2013	30	199,486	28	209,445	11,287
10/1/2013	30	818,309	28	859,158	46,298
10/1/2013	30	3,401,164	28	3,570,947	192,431
10/1/2014	30	(408,227)	29	(418,258)	(22,068)
10/1/2014	30	1,753,497	29	1,796,588	94,793
10/1/2015	30	(209,489)	30	(209,489)	(10,834)
		$40,225,383		$44,902,101	$ 2,965,445

B. Amortization Schedule

The UAAL is being amortized as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule	
Year	**Expected UAAL**
2015	$ 44,902,101
2016	45,081,920
2017	45,147,695
2018	45,085,792
2019	44,881,326
2020	44,518,086
2025	40,669,645
2030	31,813,610
2035	16,445,529
2040	3,787,641

LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

AFTER ADDITIONAL UAAL PAYMENT

A. UAAL Amortization Period and Payments					
Original UAAL			Current UAAL		
Date Established	Amortization Period (Years)	Amount	Years Remaining	Amount	Payment
10/1/1992	30	$ 415,550	7	$ -	$ -
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		$40,225,383		$44,568,768	$ 2,912,970

B. Amortization Schedule

The UAAL is being amortized as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

Amortization Schedule	
Year	**Expected UAAL**
2015	$ 44,568,768
2016	44,779,999
2017	44,881,797
2018	44,860,966
2019	44,703,092
2020	44,392,477
2025	40,669,645
2030	31,813,610
2035	16,445,529
2040	3,787,641

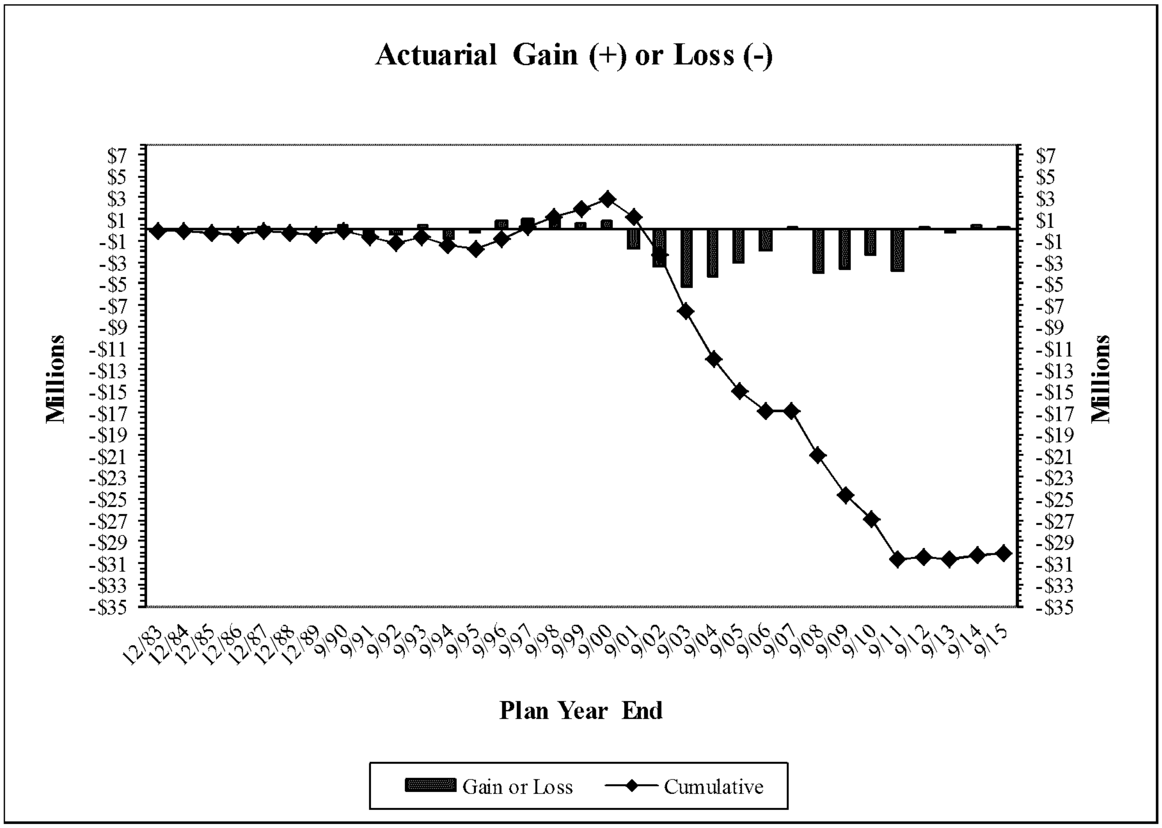
ACTUARIAL GAINS AND LOSSES

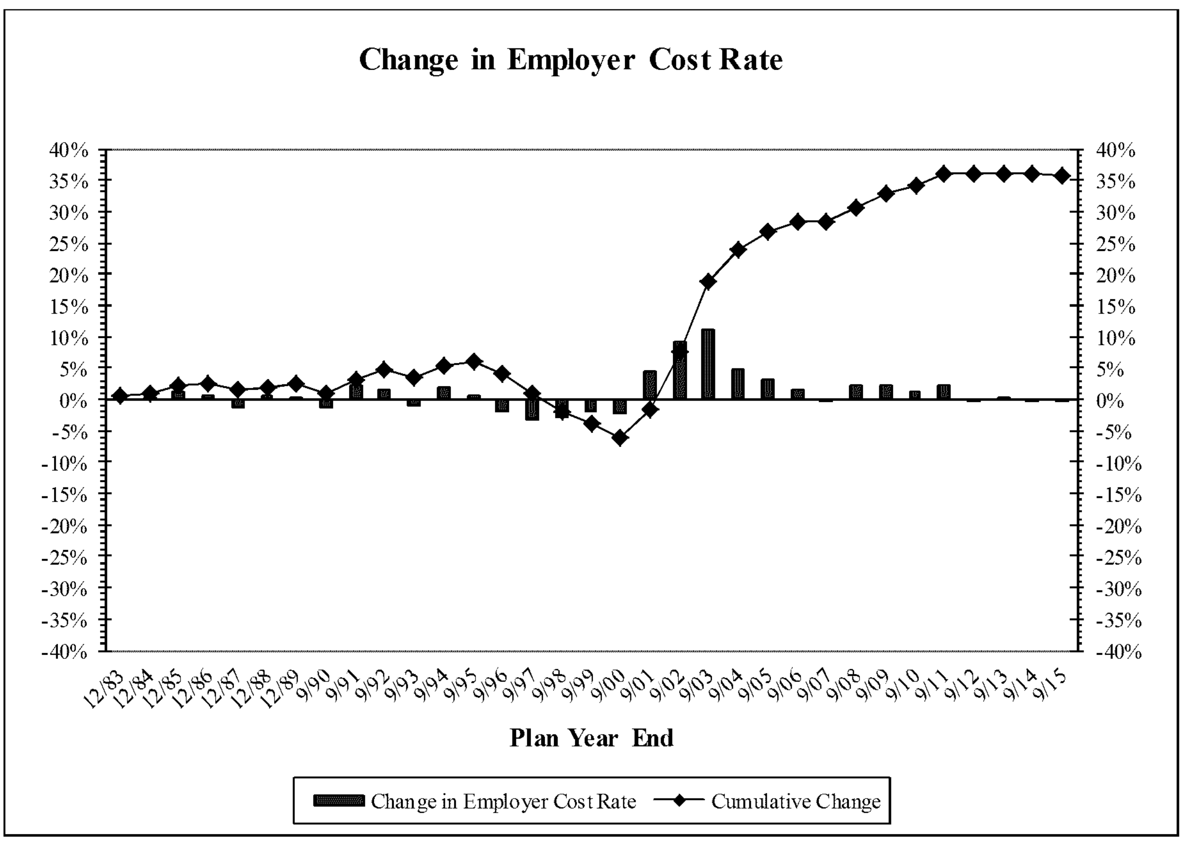
The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. 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	$ 44,542,294
2. Last Year's Employer Normal Cost	2,014,298
3. Last Year's Contributions	4,635,318
4. Interest at the Assumed Rate on:	
a. 1 and 2 for one year	3,491,744
b. 3 from dates paid	301,428
c. a - b	3,190,316
5. This Year's Expected UAAL: 1 + 2 - 3 + 4c	45,111,590
6. This Year's Actual UAAL (Before any changes in benefits and/or assumptions)	44,902,101
7. Net Actuarial Gain (Loss): (5) - (6)	209,489
8. Gain (Loss) due to investments	(138,946)
9. Gain (Loss) due to other sources	348,435

Net actuarial gains in previous years have been as follows:

Year Ended	Change in Employer Cost Rate	Gain (Loss)
12/31/83	0.77 %	$ (111,129)
12/31/84	0.13	(20,619)
12/31/85	1.27	(227,011)
12/31/86	0.50	(99,006)
12/31/87	(1.18)	279,837
12/31/88	0.52	(128,401)
12/31/89	0.41	(106,588)
9/30/90	(1.42)	371,790
9/30/91	2.09	(638,650)
9/30/92	1.61	(476,505)
9/30/93	(1.07)	483,965
9/30/94	1.76	(800,443)
9/30/95	0.56	(270,698)
9/30/96	(1.95)	895,789
9/30/97	(3.08)	1,049,747
9/30/98	(2.78)	1,020,121
9/30/99	(1.89)	722,161
9/30/00	(2.21)	891,463
9/30/01	4.44	(1,682,484)
9/30/02	9.11	(3,495,525)
9/30/03	11.31	(5,238,993)
9/30/04	4.88	(4,373,725)
9/30/05	3.04	(3,040,117)
9/30/06	1.44	(1,889,229)
9/30/07	(0.01)	12,675
9/30/08	2.33	(4,056,993)
9/30/09	2.16	(3,681,910)
9/30/10	1.25	(2,256,012)
9/30/11	2.12	(3,739,943)
9/30/12	(0.09)	161,237
9/30/13	0.12	(199,486)
9/30/14	(0.22)	408,227
9/30/15	(0.11)	209,489


Actuarial Gain (+) or Loss (-)
Millions
$7
-$35
Plan Year End
12/83
9/15
Gain or Loss
Cumulative

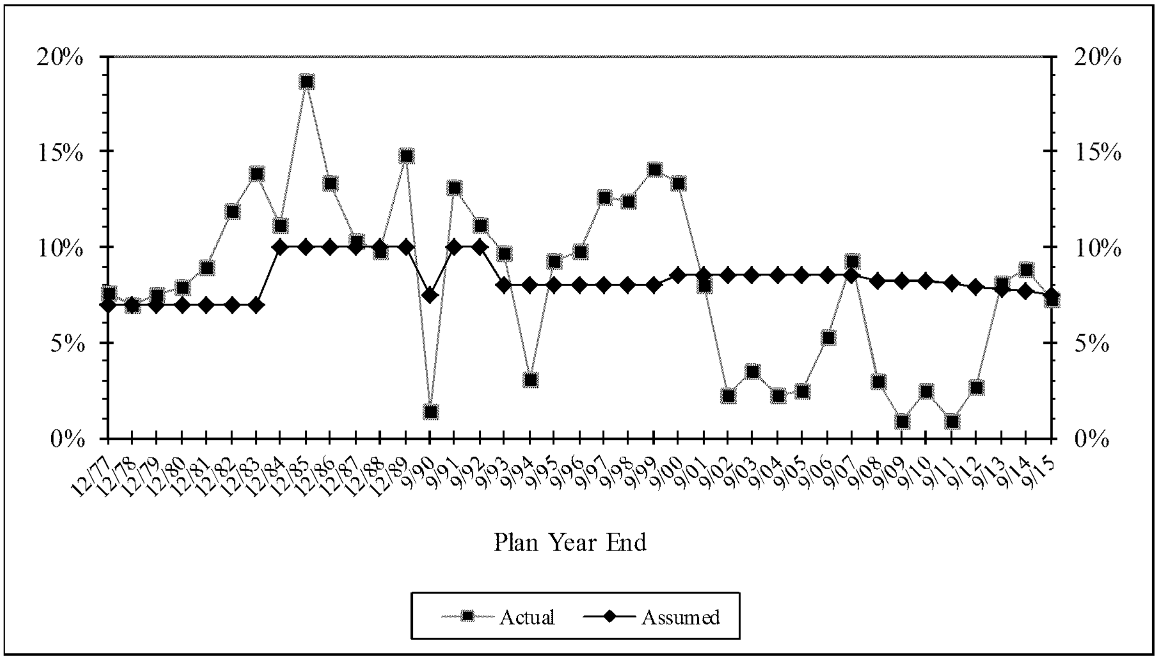

Change in Employer Cost Rate
40%
-40%
Plan Year End
12/83
9/15
Change in Employer Cost Rate
Cumulative Change

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:

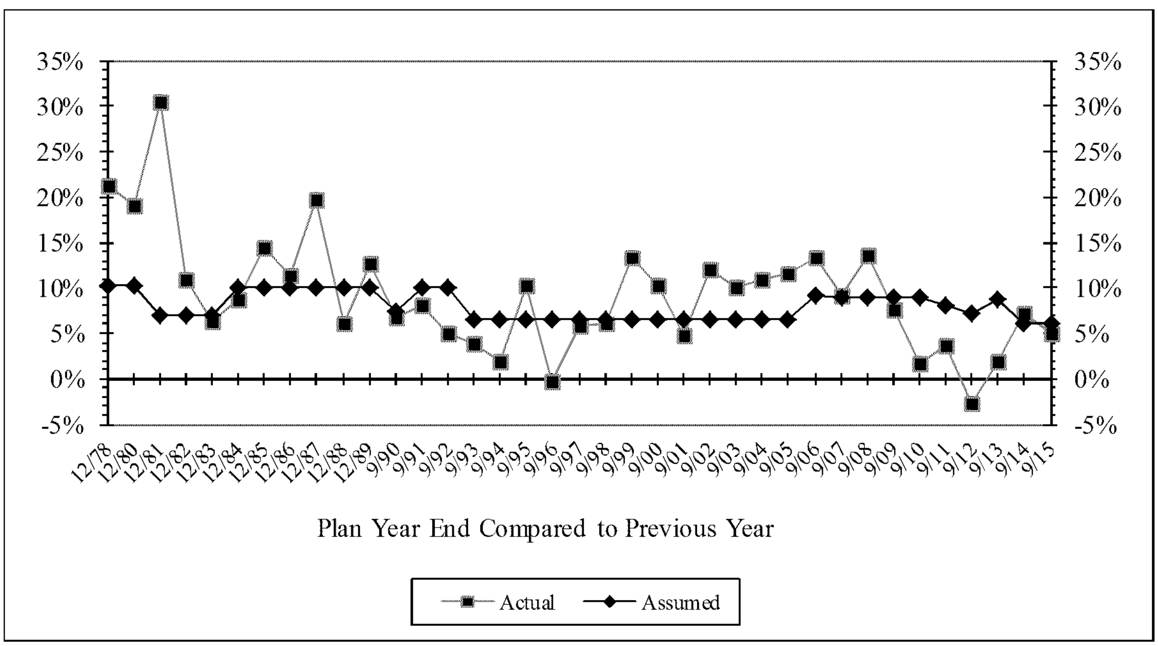
Year Ending	Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
12/31/1977	7.6 %	7.0 %		10.3 %
12/31/1978	7.0	7.0	21.3 %	(2 years)
12/31/1979	7.5	7.0		10.3
12/31/1980	7.9	7.0	19.0	(2 years)
12/31/1981	9.0	7.0	30.5	7.0
12/31/1982	11.9	7.0	11.0	7.0
12/31/1983	13.9	7.0	6.4	7.0
12/31/1984	11.1	10.0	8.8	10.0
12/31/1985	18.7	10.0	14.5	10.0
12/31/1986	13.4	10.0	11.4	10.0
12/31/1987	10.3	10.0	19.7	10.0
12/31/1988	9.8	10.0	6.1	10.0
12/31/1989	14.8	10.0	12.8	10.0
9/30/1990 (9 mos.)	1.4	7.5	6.7	7.5
9/30/1991	13.1	10.0	8.0	10.0
9/30/1992	11.2	10.0	4.9	10.0
9/30/1993	9.7	8.0	4.0	6.5
9/30/1994	3.1	8.0	2.0	6.5
9/30/1995	9.3	8.0	10.3	6.5
9/30/1996	9.8	8.0	(0.2)	6.5
9/30/1997	12.6	8.0	5.9	6.5
9/30/1998	12.4	8.0	6.1	6.5
9/30/1999	14.1	8.0	13.3	6.5
9/30/2000	13.3	8.5	10.3	6.5
9/30/2001	8.0	8.5	4.8	6.5
9/30/2002	2.3	8.5	12.1	6.5
9/30/2003	3.5	8.5	10.0	6.5
9/30/2004	2.2	8.5	11.0	6.5
9/30/2005	2.5	8.5	11.7	6.5
9/30/2006	5.3	8.5	13.3	9.2
9/30/2007	9.3	8.50	9.2	8.9
9/30/2008	3.0	8.25	13.6	8.9
9/30/2009	0.9	8.25	7.6	8.9
9/30/2010	2.5	8.25	1.8	8.9
9/30/2011	0.9	8.10	3.7	8.1
9/30/2012	2.7	7.95	(2.8)	7.1
9/30/2013	8.1	7.80	1.9	8.7
9/30/2014	8.8	7.65	7.2	6.0
9/30/2015	7.3	7.50	4.9	6.2
Averages	8.2 %	---	8.6 %	---

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

History of Investment Return Based on Actuarial Value of Assets



History of Salary Increases



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

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
									Vested	Other	Totals		
	A	E	A	E	A	E	A	E	A	A	A	E	
9/30/2002	1	10	6	5	0	0	0	0	1	3	4	3	**83**
9/30/2003	15	1	1	5	0	0	0	0	0	0	0	3	**97**
9/30/2004	22	14	13	4	0	0	0	0	0	1	1	3	**105**
9/30/2005	1	4	2	1	0	0	0	0	0	2	2	4	**102**
9/30/2006	19	3	0	2	0	0	0	0	1	2	3	4	**118**
9/30/2007	5	4	1	3	0	0	0	0	0	3	3	4	**119**
9/30/2008	5	1	0	5	1	0	0	0	0	0	0	4	**123**
9/30/2009	1	6	5	6	0	0	0	0	0	1	1	4	**118**
9/30/2010	11	4	3	3	0	0	0	0	0	1	1	4	**125**
9/30/2011	0	11	10	8	0	0	0	0	1	0	1	4	**114**
9/30/2012	3	2	1	2	0	0	0	0	1	0	1	4	**115**
9/30/2013	10	7	6	2	0	0	0	0	0	1	1	4	**118**
9/30/2014	3	2	0	1	0	0	0	0	0	2	2	2	**119**
9/30/2015	1	2	1	1	0	0	0	0	1	0	1	2	**118**
9/30/2016				1		0		0				2	
14 Yr Totals *	97	71	49	48	1	0	0	0	5	16	21	49	

Cumulative Actuarial Gains (Losses)

The Plan provides for a 13th check if there is a net actuarial gain for the previous year. There was an actuarial gain during the prior plan year. However, there is a limitation on 13th checks tied to actuarial gains provided in Chapter 112.61, Florida Statutes. The cumulative amount used to pay for 13th checks may not exceed the cumulative amount of actuarial gains. Since the cumulative amount of gains is negative (a net loss), no 13th check is payable.

Cumulative Actuarial Gains (Losses)

Year Ending 9/30	Balance at Beginning of Year	Interest	Gain (Loss) for Year	13th Check	Balance at End of Year
2001	0	0	(1,682,484)	0	(1,682,484)
2002	(1,682,484)	(143,011)	(3,495,525)	0	(5,321,020)
2003	(5,321,020)	(452,287)	(5,238,993)	0	(11,012,300)
2004	(11,012,300)	(936,045)	(4,373,725)	0	(16,322,070)
2005	(16,322,070)	(1,387,376)	(3,040,117)	0	(20,749,563)
2006	(20,749,563)	(1,763,713)	(1,889,229)	0	(24,402,505)
2007	(24,402,505)	(2,074,213)	12,675	0	(26,464,043)
2008	(26,464,043)	(2,183,284)	(4,056,993)	0	(32,704,320)
2009	(32,704,320)	(2,698,106)	(3,681,910)	0	(39,084,336)
2010	(39,084,336)	(3,224,458)	(2,256,012)	0	(44,564,806)
2011	(44,564,806)	(3,609,749)	(3,739,943)	0	(51,914,498)
2012	(51,914,498)	(4,127,203)	161,237	0	(55,880,464)
2013	(55,880,464)	(4,358,676)	(199,486)	0	(60,438,626)
2014	(60,438,626)	(4,623,555)	408,227	0	(64,653,954)
2015	(64,653,954)	(4,849,047)	209,489	0	(69,293,512)

RECENT HISTORY OF VALUATION RESULTS

Valuation Date	Number of Active Members	Number of Inactive Members	Covered Annual Payroll	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UFAAL)	Funded Ratio	Employer Normal Cost Amount	Employer Normal Cost % of Payroll
10/1/91	87	14	$ 4,140,245	$ 10,146,641	$ 11,062,660	$ 916,019	91.7 %	$ 524,296	12.66 %
10/1/92	85	15	4,161,027	11,900,656	13,491,102	1,590,446	88.2	455,150	10.94
10/1/93	89	15	4,423,684	13,756,391	14,807,586	1,051,195	92.9	437,594	9.89
10/1/94	89	16	4,481,528	14,804,836	16,168,850	1,364,014	91.6	539,543	12.04
10/1/95	89	19	4,839,178	16,884,081	18,482,980	1,598,899	91.3	604,768	12.50
10/1/96	90	22	4,695,354	19,269,217	20,604,396	1,335,179	93.5	527,257	11.23
10/1/97	88	39	4,238,988	22,220,848	23,723,850	1,503,002	93.7	361,957	8.54
10/1/98	90	39	4,543,670	24,978,058	25,301,177	323,119	98.7	258,961	5.70
10/1/99	92	40	5,083,063	28,290,983	28,286,754	(4,229)	100.0	217,814	4.29
10/1/00	90	46	5,305,002	31,629,211	29,402,853	(2,226,358)	107.6	72,822	1.37
10/1/01	92	53	5,201,958	33,397,848	34,916,820	1,518,972	95.6	475,187	9.13
10/1/02	83	60	5,143,446	33,877,028	39,432,154	5,555,126	85.9	956,733	18.60
10/1/03	97	60	6,079,095	34,694,072	42,431,717	7,737,645	81.8	979,363	16.11
10/1/04	105	73	6,135,813	35,118,847	47,240,329	12,121,482	74.3	995,918	16.23
10/1/05	102	75	6,763,318	35,386,328	49,620,257	14,233,929	71.3	1,186,288	17.54
10/1/06	118	75	8,152,400	36,863,141	55,565,182	18,702,041	66.3	1,256,931	15.42
10/1/07	119	76	8,806,744	43,503,237	61,054,498	17,551,261	71.3	1,490,649	16.93
10/1/08	123	77	10,130,185	45,330,615	67,141,898	21,811,283	67.5	1,711,705	16.90
10/1/09	118	82	10,350,054	46,448,767	72,211,379	25,762,612	64.3	1,724,525	16.66
10/1/10	125	84	10,506,008	48,521,964	78,046,241	29,524,277	62.2	1,831,347	17.43
10/1/11	114	93	9,781,772	49,140,415	84,384,761	35,244,346	58.2	1,793,275	18.33
10/1/12	115	94	9,375,520	50,548,749	88,420,130	37,871,381	57.2	1,787,181	19.06
10/1/13	118	100	9,128,801	55,474,480	98,003,969	42,529,489	56.6	1,772,505	19.42
10/1/14	119	99	9,823,480	60,766,720	105,309,014	44,542,294	57.7	2,014,298	20.50
10/1/15	118	101	10,221,317	66,257,757	110,826,525	44,568,768	59.8	2,105,539	20.60

RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS

Valuation	End of Year To Which Valuation Applies	Required Contributions								
		Employer & State		Estimated State		Net Employer		Actual Contributions		
		Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll	Employer	State	Total
10/1/91	9/30/92	634,614	15.33	158,161	3.82	476,453	11.51	467,841	166,773	634,614
10/1/92	9/30/93	647,325	15.56	166,773	4.01	480,552	11.55	489,303	158,022	647,325
10/1/93	9/30/94	626,697	14.17	158,022	3.57	468,675	10.59	423,653	203,044	626,697
10/1/94	9/30/95	737,247	16.45	195,089	4.35	542,158	12.10	518,847	218,401	737,248
10/1/95	9/30/96	807,150	16.68	218,401	4.51	588,749	12.17	521,707	285,443	807,150
10/1/96	9/30/97	776,723	16.54	285,443	6.08	491,280	10.46	422,898	353,826	776,724
10/1/97	9/30/98	710,387	16.76	349,086	8.24	361,301	8.52	349,375	361,012	710,387
10/1/98	9/30/99	597,198	13.14	351,241	7.73	245,957	5.41	245,957	361,012	606,969
10/1/99	9/30/00	512,235	10.08	351,241	6.91	160,994	3.17	80,559	365,934	446,493
10/1/00	9/30/01	292,146	5.51	365,934	6.90	0	0.00	0	365,715	365,715
10/1/01	9/30/02	825,167	15.86	384,640	7.39	440,527	8.47	361,877	463,290	825,167
10/1/02	9/30/03	1,359,690	26.44	463,290	9.01	896,400	17.43	922,724	499,520	1,422,244
10/1/03	9/30/04	1,655,219	27.23	499,520	8.22	1,155,699	19.01	1,155,699	549,804	1,705,503
10/1/04	9/30/05	1,988,852	32.41	549,804	8.96	1,439,048	23.45	1,439,048	589,543	2,028,591
10/1/05	9/30/06	2,339,568	34.59	589,543	8.72	1,750,025	25.87	1,750,025	589,543	2,339,568
10/1/06	9/30/07	2,664,373	32.68	589,543	7.23	2,074,830	25.45	2,074,830	589,543	2,664,373
10/1/07	9/30/08	2,845,292	32.31	589,543	6.70	2,255,749	25.61	2,255,749	589,543	2,845,292
10/1/08	9/30/09	3,380,771	33.37	579,772	5.73	2,800,384	27.64	2,800,384	579,772	3,380,156
10/1/09	9/30/10	3,678,119	35.54	589,543	5.60	3,088,576	29.94	3,098,347	633,115	3,731,462
10/1/09	9/30/11	3,606,278	34.04	633,115	5.98	2,973,163	28.06	3,026,506	623,344	3,649,850
10/1/10	9/30/12	3,771,466	35.16	623,344	5.81	3,148,122	29.35	3,148,122	623,344	3,771,466
10/1/11	9/30/13	4,272,215	40.87	704,322	6.74	3,567,893	34.13	3,648,871	704,322	4,353,193
10/1/12	9/30/14	4,226,469	44.58	704,322	7.43	3,522,147	37.15	3,522,147	704,322	4,226,469
10/1/13	9/30/15	4,635,318	48.78	704,322	7.41	3,930,996	41.37	3,930,996	704,322	4,635,318
10/1/14	9/30/16	4,856,683	49.44	781,954	7.96	4,074,729	41.48	N/A	N/A	N/A
10/1/15	9/30/17	5,075,517	49.10	781,954	7.56	4,293,563	41.54	N/A	N/A	N/A

ACTUARIAL ASSUMPTIONS AND COST METHOD

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

(i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;

(ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

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

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

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

Valuation Assumptions

The actuarial assumptions used in the valuation are shown in this Section.

Economic Assumptions

The investment return rate assumed in the valuation is 7.50% per year, compounded annually (net after investment expenses).

The **Wage Inflation Rate** assumed in this valuation was 3.5% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic 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 7.50% investment return rate translates to an assumed real rate of return over wage inflation of 3.5%.

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 4.00% per year. The average increase over the most recent ten years is 4.22%. Florida administrative code requires using the lesser of the two rates for purposes of amortizing unfunded liabilities as a level percent of pay, but not less than zero.

Pay increase assumptions for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and the other 3.5% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

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

	% Increase in Salary		
Years of Service	Merit and Seniority	Base (Economic)	Total Increase
1	11.0%	3.5%	14.5%
2	8.5%	3.5%	12.0%
3	8.5%	3.5%	12.0%
4	6.0%	3.5%	9.5%
5	1.5%	3.5%	5.0%
6	4.0%	3.5%	7.5%
7	1.5%	3.5%	5.0%
8	1.5%	3.5%	5.0%
9	4.0%	3.5%	7.5%
10-15	0.5%	3.5%	4.0%
16-19	5.0%	3.5%	8.5%
20 & Over	0.0%	3.5%	3.5%

Demographic Assumptions

The mortality table was the 1983 Group Annuity Mortality.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.39 %	0.16 %	29.23	34.96
55	0.61	0.25	24.87	30.28
60	0.92	0.42	20.68	25.71
65	1.56	0.71	16.73	21.33
70	2.75	1.24	13.22	17.17
75	4.46	2.40	10.20	13.42
80	7.41	4.30	7.68	10.24

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. This table does not include any margin for future mortality improvements.

For disabled retirees, the regular mortality tables are set forward 5 years in ages to reflect impaired longevity.

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

Retirement Rates

Service	Age <50	50 - 54	55	56 - 59	60+
10 - 19	N/A	10.0%	40.0%	40.0%	100.0%
20	40.0%	80.0%	80.0%	100.0%	100.0%
21 - 24	40.0%	80.0%	100.0%	100.0%	100.0%
25+	50.0%	80.0%	100.0%	100.0%	100.0%

The rate of retirement is 10% for each year of eligibility for early retirement.

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

Sample Ages	% of Active Members Separating Within Next Year
20	1.5 %
25	1.5
30	1.5
35	1.5
40	2.5
45	1.5
50	1.0
55	0.0

Rates of disability among active members (75% of disabilities are assumed to be service-connected).

Sample Ages	% Becoming Disabled within Next Year
20	0.09 %
25	0.10
30	0.12
35	0.15
40	0.20
45	0.34
50	0.67
55	1.03

Miscellaneous and Technical Assumptions

Administrative & Investment Expenses	The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the average of the prior two years' expenses. 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	Benefits are increased by 2% per year beginning five years after benefit commencement.
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	The employer contribution is assumed to be made in one full payment on October 1st of each year (at the beginning 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.
Liability Load	Projected retirement benefits are loaded by a unique amount for each member to allow for the inclusion of unused sick and vacation pay in final average earnings. These individual loads are based on the number of hours of unused sick and vacation reported for each member as of September 27, 2013.
Marriage Assumption	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Normal Form of Benefit	A ten year certain and life thereafter annuity is the Normal Form of Benefit.
Pay Increase Timing	Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Service Credit Accruals	It is assumed that members accrue one year of service credit per year.

GLOSSARY

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 items needed for compliance with GASB.
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 employer contribution (ADEC).

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

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

SECTION C

PENSION FUND INFORMATION

SUMMARY OF ASSETS

Item		September 30 2015		2014
A. Cash and Cash Equivalents (Operating Cash)	$	48,503	$	37,728
B. Receivables:				
1. Member Contributions	$	-	$	-
2. Employer Contributions		29,486		29,486
3. State Contributions		-		-
4. Investment Income and Other Receivables		303,787		426,840
5. Prepaid Expenses		4,834		4,891
6. Total Receivables	$	338,107	$	461,217
C. Investments				
1. Short Term Investments	$	1,513,346	$	1,117,490
2. Domestic Equities		40,497,654		40,676,697
3. International Equities		10,489,329		10,796,441
4. Domestic Fixed Income		16,443,965		14,633,139
5. International Fixed Income		3,525,422		3,814,078
6. Real Estate		7,881,031		6,992,603
7. Private Equity		-		-
8. Total Investments	$	80,350,747	$	78,030,448
D. Liabilities				
1. Benefits Payable	$	-	$	-
2. Accrued Expenses and Other Payables		(330,664)		(250,302)
3. Total Liabilities	$	(330,664)	$	(250,302)
E. Total Market Value of Assets Available for Benefits	$	80,406,693	$	78,279,091
F. Reserves				
1. State Contribution Reserve	$	(2,490,850)	$	(2,723,916)
2. DROP Accounts		(12,465,519)		(10,406,243)
3. Total Reserves	$	(14,956,369)	$	(13,130,159)
G. Market Value Net of Reserves	$	65,450,324	$	65,148,932
F. Allocation of Investments				
1. Short Term Investments		1.88%		1.43%
2. Domestic Equities		50.40%		52.13%
3. International Equities		13.05%		13.84%
4. Domestic Fixed Income		20.47%		18.75%
5. International Fixed Income		4.39%		4.89%
6. Real Estate		9.81%		8.96%
7. Private Equity		0.00%		0.00%
8. Total Investments		100.00%		100.00%

PENSION FUND INCOME & DISBURSEMENTS

Item			September 30 2015		2014
A.	Market Value of Assets at Beginning of Year		$ 78,279,091		$ 69,382,320
B.	Revenues and Expenditures				
	1. Contributions				
		a. Employee Contributions	$ 1,195,448		$ 1,191,111
		b. Employer Contributions	3,930,996		3,522,147
		c. State Contributions	963,573		1,016,561
		d. Service Purchase	56,082		100,662
		e. Rollover to DROP	139,860		343,843
		f. Total	$ 6,285,959		$ 6,174,324
	2. Investment Income				
		a. Interest, Dividends, and Other Income	$ 2,807,568		$ 2,043,910
		b. Net Realized Gains/(Losses)	2,323,121		1,768,311
		c. Net Unrealized Gains/(Losses)	(4,559,343)		3,650,979
		d. Investment Expenses	(288,493)		(275,620)
		e. Net Investment Income	$ 282,853		$ 7,187,580
	3. Benefits and Refunds				
		a. Refunds	$ (4,622)		$ (50,673)
		b. Regular Monthly Benefits	(3,990,792)		(3,961,419)
		c. DROP Distributions	(154,373)		(224,700)
		d. Ad Hoc Payments from State Reserve	(158,984)		(105,951)
		e. Total	$ (4,308,771)		$ (4,342,743)
	4. Administrative and Miscellaneous Expenses		$ (132,439)		$ (122,390)
	5. Transfers		$ -		$ -
C.	Market Value of Assets at End of Year		$ 80,406,693		$ 78,279,091
D.	Reserves				
	1. State Contribution Reserve		$ (2,490,850)		$ (2,723,916)
	2. DROP Accounts		$ (12,465,519)		$ (10,406,243)
	3. Total Reserves		$ (14,956,369)		$ (13,130,159)
E.	Market Value Net of Reserves		$ 65,450,324		$ 65,148,932

ACTUARIAL VALUE OF ASSETS

	Valuation Date - September 30	2014	2015	2016	2017	2018	2019
A.	Actuarial Value of Assets Beginning of Year	$ 66,252,365	$ 73,896,879	$ -	$ -	$ -	$ -
B.	Market Value End of Year	78,279,091	80,406,693	-	-	-	-
C.	Market Value Beginning of Year	69,382,320	78,279,091	-	-	-	-
D.	Non-Investment/Administrative Net Cash Flow	1,709,191	1,844,749	-	-	-	-
E.	Investment Income						
	E1. Actual Market Total: B-C-D	7,187,580	282,853	-	-	-	-
	E2. Assumed Rate of Return	7.65%	7.50%	7.50%	7.50%	7.50%	7.50%
	E3. Assumed Amount of Return	5,133,682	5,611,444	-	-	-	-
	E4. Amount Subject to Phase-In: E1–E3	2,053,898	(5,328,591)	-	-	-	-
F.	Phase-In Recognition of Investment Income						
	F1. Current Year: 0.2 x E4	410,780	(1,065,718)	-	-	-	-
	F2. First Prior Year	704,354	410,780	(1,065,718)	-	-	-
	F3. Second Prior Year	814,394	704,354	410,780	(1,065,718)	-	-
	F4. Third Prior Year	(1,002,756)	814,394	704,354	410,780	(1,065,718)	-
	F5. Fourth Prior Year	(125,131)	(1,002,756)	814,394	704,354	410,778	(1,065,719)
	F6. Total Phase-Ins	801,641	(138,946)	863,810	49,416	(654,940)	(1,065,719)
G.	**Actuarial Value of Assets End of Year**						
	G1. Preliminary Actuarial Value of Assets End of Year:	$ 73,896,879	$ 81,214,126	$ -	$ -	$ -	$ -
	G2. Upper Corridor Limit: 120%*B	93,934,909	96,488,032	-	-	-	-
	G3. Lower Corridor Limit: 80%*B	62,623,273	64,325,354	-	-	-	-
	G4. Funding Value End of Year	73,896,879	81,214,126	-	-	-	-
	G5. Less: State Contribution Reserve	(2,723,916)	(2,490,850)	-	-	-	-
	G6. Less: DROP Account Balance	(10,406,243)	(12,465,519)	-	-	-	-
	G7. Final Funding Value End of Year	60,766,720	66,257,757	-	-	-	-
	G8. Final Market Value End of Year	65,148,932	65,450,324	-	-	-	-
H.	Difference between Market & Actuarial Value of Assets	4,382,212	(807,433)	-	-	-	-
I.	**Actuarial Rate of Return**	8.84%	7.31%	0.00%	0.00%	0.00%	0.00%
J.	**Market Value Rate of Return**	10.23%	0.36%	0.00%	0.00%	0.00%	0.00%
K.	**Ratio of Actuarial Value of Assets to Market Value**	94.40%	101.00%	0.00%	0.00%	0.00%	0.00%

RECONCILIATION OF DROP ACCOUNTS	
Value at beginning of year	$ 10,406,243
Payments credited to accounts	+ 1,280,351
Rollovers into DROP	+ 139,860
Investment Earnings credited	+ 793,438
Withdrawals from accounts	- 154,373
Value at end of year	12,465,519

INVESTMENT RATE OF RETURN

Year Ended	Investment Rate of Return	
	Market Value	Actuarial Value
12/31/1982	NA %	11.9 %
12/31/1983	15.2	13.9
12/31/1984	11.7	11.1
12/31/1985	23.1	18.7
12/31/1986	11.8	13.4
12/31/1987	5.3	10.3
12/31/1988	10.9	9.8
12/31/1989	15.9	14.8
9/30/1990 (9 mos.)	(1.6)	1.4
9/30/1991	19.6	13.1
9/30/1992	12.7	11.2
9/30/1993	13.1	9.7
9/30/1994	0.2	3.1
9/30/1995	18.8	9.3
9/30/1996	13.1	9.8
9/30/1997	24.5	12.6
9/30/1998	11.4	12.4
9/30/1999	11.8	14.1
9/30/2000	9.4	13.3
9/30/2001	(7.7)	8.0
9/30/2002	(5.6)	2.3
9/30/2003	15.3	3.5
9/30/2004	6.4	2.2
9/30/2005	7.9	2.5
9/30/2006	5.2	5.3
9/30/2007	12.3	9.3
9/30/2008	(17.1)	3.0
9/30/2009	(0.2)	0.9
9/30/2010	8.5	2.5
9/30/2011	(0.9)	0.9
9/30/2012	17.1	2.7
9/30/2013	13.6	8.1
9/30/2014	10.2	8.8
9/30/2015	0.4	7.3
Average Returns:		
Last Five Years	7.8 %	5.5 %
Last Ten Years	4.5 %	4.8 %
All Years	8.5 %	8.2 %

SECTION D

FINANCIAL ACCOUNTING INFORMATION

FASB NO. 35 INFORMATION

A. Valuation Date	October 1, 2015	October 1, 2014
B. Actuarial Present Value of Accumulated Plan Benefits		
1. Vested Benefits		
a. Members Currently Receiving Payments	$ 64,033,609	$ 63,723,955
b. Terminated Vested Members	587,340	371,166
c. Other Members	31,951,585	27,809,934
d. Total	96,572,534	91,905,055
2. Non-Vested Benefits	2,316,758	1,939,475
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	98,889,292	93,844,530
4. Accumulated Contributions of Active Members	9,728,194	8,732,736
C. Changes in the Actuarial Present Value of Accumulated Plan Benefits		
1. Total Value at Beginning of Year	93,844,530	88,311,151
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	0	1,590,880
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	10,320,527	10,006,831
d. Benefits Paid net of DROP activity	(5,275,765)	(6,064,332)
e. Net Increase	5,044,762	5,533,379
3. Total Value at End of Period	98,889,292	93,844,530
D. Market Value of Assets	65,450,324	65,148,932
E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Methods		

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

Fiscal year ending September 30,	2016*	2015	2014
Total pension liability			
Service Cost	$ 3,204,682	$ 2,988,536	$ 2,772,724
Interest	9,525,162	8,955,215	8,188,369
Benefit Changes	-	-	-
Difference between actual & expected experience	(856,530)	708,071	(28,363)
Assumption Changes	-	1,809,581	-
Benefit Payments	(5,530,288)	(4,304,149)	(4,292,070)
Refunds	(34,099)	(4,622)	(50,673)
Other (Increase in Excess State Reserve)	181,619	259,251	312,239
Other (Rollovers into DROP)	-	139,860	343,843
Net Change in Total Pension Liability	6,490,546	10,551,743	7,246,069
Total Pension Liability - Beginning	126,579,666	116,027,923	108,781,854
Total Pension Liability - Ending (a)	$ 133,070,212	$ 126,579,666	$ 116,027,923
Plan Fiduciary Net Position			
Contributions - Employer (from City)	$ 4,152,361	$ 3,930,996	$ 3,522,147
Contributions - Employer (from State)	963,573	963,573	1,016,561
Contributions - Non-Employer Contributing Entity	-	-	-
Contributions - Members	1,226,558	1,251,530	1,291,773
Net Investment Income	6,183,516	282,853	7,187,580
Benefit Payments	(5,530,288)	(4,304,149)	(4,292,070)
Refunds	(34,099)	(4,622)	(50,673)
Administrative Expense	(127,415)	(132,439)	(122,390)
Other (Rollovers into DROP)	-	139,860	343,843
Net Change in Plan Fiduciary Net Position	6,834,206	2,127,602	8,896,771
Plan Fiduciary Net Position - Beginning	80,406,693	78,279,091	69,382,320
Plan Fiduciary Net Position - Ending (b)	$ 87,240,899	$ 80,406,693	$ 78,279,091
Net Pension Liability - Ending (a) - (b)	45,829,313	46,172,973	37,748,832
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	65.56 %	63.52 %	67.47 %
Covered Employee Payroll	$ 12,000,000	$ 11,784,702	$ 11,307,953
Net Pension Liability as a Percentage of Covered Employee Payroll	381.91 %	391.80 %	333.83 %

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

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

FY Ending September 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Employee Payroll	Net Pension Liability as a % of Covered Employee Payroll
2014	$ 116,027,923	$ 78,279,091	$ 37,748,832	67.47%	$ 11,307,953	333.83%
2015	126,579,666	80,406,693	46,172,973	63.52%	11,784,702	391.80%
2016*	133,070,212	87,240,899	45,829,313	65.56%	12,000,000	381.91%

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

NOTES TO NET PENSION LIABILITY
GASB Statement No. 67

Valuation Date:	October 1, 2015
Measurement Date:	September 30, 2016

Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	3.5%
Salary Increases	Varies by years of service from 3.5% to 14.5% (see Table in Actuarial Assumptions Section)
Investment Rate of Return	7.50%
Retirement Age	Rates vary by age and years of service (see Table in Actuarial Assumptions Section)
Mortality	1983 Group Annuity Mortality Table for males and females

Other Information:

Notes	See Discussion of Valuation Results on Page 1

SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

FY Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Actual Contribution as a % of Covered Employee Payroll
2014	$ 4,226,469	$ 4,226,469	$ -	$ 11,307,953	37.38%
2015	4,635,318	4,635,318	-	11,784,702	39.33%
2016*	4,856,683	4,934,315	(77,632)	12,000,000	41.12%

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

NOTES TO SCHEDULE OF CONTRIBUTIONS
GASB Statement No. 67

Valuation Date:	October 1, 2014
Notes	Actuarially determined contribution rates are calculated as of October 1, which is two year(s) prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	22 years (Single equivalent amortization period)
Asset Valuation Method	5-year smoothed market
Inflation	3.5%
Salary Increases	Varies by years of service from 3.5% to 14.5% (see Table in Actuarial Assumptions Section)
Investment Rate of Return	7.50%
Retirement Age	Rates vary by age and years of service (see Table in Actuarial Assumptions Section)
Mortality	1983 Group Annuity Mortality Table for males and females

Other Information:

Notes	See Discussion of Valuation Results on Page 1 of the October 1, 2014 Actuarial Valuation Report

SINGLE DISCOUNT RATE
GASB Statement No. 67

A single discount rate of 7.50% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.50%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between the total actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments (7.50%) was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.50%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of the Net Pension Liability to the Single Discount Rate Assumption

1% Decrease 6.50%	Current Single Discount Rate Assumption 7.50%	1% Increase 8.50%
$ 59,832,474	$ 45,829,313	$ 34,171,335

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

SECTION E

MISCELLANEOUS INFORMATION

RECONCILIATION OF MEMBERSHIP DATA	From 10/1/14 To 10/1/15	From 10/1/13 To 10/1/14
A. Active Members		
1. Number Included in Last Valuation	119	118
2. New Members Included in Current Valuation	0	3
3. Non-Vested Employment Terminations	0	(2)
4. Vested Employment Terminations	(1)	0
5. DROP Participation	(1)	0
6. Service Retirements	0	0
7. Disability Retirements	0	0
8. Deaths	0	0
9. Transfer from General Employees	1	0
10. Number Included in This Valuation	118	119
B. Terminated Vested Members		
1. Number Included in Last Valuation	1	1
2. Additions from Active Members	1	0
3. Lump Sum Payments/Refund of Contributions	0	0
4. Payments Commenced	0	0
5. Deaths	0	0
6. Other	0	0
7. Number Included in This Valuation	2	1
C. DROP Plan Members		
1. Number Included in Last Valuation	14	15
2. Additions from Active Members	1	0
3. Retirements	(2)	0
4. Deaths Resulting in No Further Payments	0	0
5. Other (Death Resulting in Survivor Benefits)	0	(1)
6. Number Included in This Valuation	13	14
D. Service Retirees, Disability Retirees and Beneficiaries		
1. Number Included in Last Valuation	84	84
2. Additions from Active Members	0	0
3. Additions from Terminated Vested Members	0	0
4. Additions from DROP Plan	2	1
5. Deaths Resulting in No Further Payments	0	(1)
6. Deaths Resulting in New Survivor Benefits	0	0
7. End of Certain Period - No Further Payments	0	0
8. Other -- Lump Sum Distributions	0	0
9. Number Included in This Valuation	86	84

ACTIVE PARTICIPANT DISTRIBUTION

	Years of Service to Valuation Date										
Age Group	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25+	Totals
15-19 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0
20-24 NO.	0	0	1	0	0	0	0	0	0	0	1
TOT PAY	0	0	59,383	0	0	0	0	0	0	0	59,383
AVG PAY	0	0	59,383	0	0	0	0	0	0	0	59,383
25-29 NO.	0	0	3	2	0	2	0	0	0	0	7
TOT PAY	0	0	175,733	123,605	0	148,540	0	0	0	0	447,878
AVG PAY	0	0	58,578	61,803	0	74,270	0	0	0	0	63,983
30-34 NO.	0	1	4	1	0	14	4	0	0	0	24
TOT PAY	0	45,496	223,599	62,056	0	1,022,060	343,710	0	0	0	1,696,921
AVG PAY	0	45,496	55,900	62,056	0	73,004	85,928	0	0	0	70,705
35-39 NO.	0	2	1	0	0	15	12	0	0	0	30
TOT PAY	0	97,612	58,137	0	0	1,080,473	1,075,063	0	0	0	2,311,285
AVG PAY	0	48,806	58,137	0	0	72,032	89,589	0	0	0	77,043
40-44 NO.	0	0	0	0	0	2	16	12	0	0	30
TOT PAY	0	0	0	0	0	143,671	1,453,272	1,220,721	0	0	2,817,664
AVG PAY	0	0	0	0	0	71,836	90,830	101,727	0	0	93,922
45-49 NO.	0	0	0	0	0	2	7	8	1	0	18
TOT PAY	0	0	0	0	0	140,326	641,879	818,425	114,804	0	1,715,434
AVG PAY	0	0	0	0	0	70,163	91,697	102,303	114,804	0	95,302
50-54 NO.	0	0	1	0	0	0	1	5	0	0	7
TOT PAY	0	0	113,071	0	0	0	100,243	529,615	0	0	742,929
AVG PAY	0	0	113,071	0	0	0	100,243	105,923	0	0	106,133
55-59 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0
60-64 NO.	0	0	0	0	0	0	0	0	0	0	0
TOT PAY	0	0	0	0	0	0	0	0	0	0	0
AVG PAY	0	0	0	0	0	0	0	0	0	0	0
65-99 NO.	0	0	0	0	0	0	1	0	0	0	1
TOT PAY	0	0	0	0	0	0	135,193	0	0	0	135,193
AVG PAY	0	0	0	0	0	0	135,193	0	0	0	135,193
TOT NO.	0	3	10	3	0	35	41	25	1	0	118
TOT AMT	0	143,108	629,923	185,661	0	2,535,070	3,749,360	2,568,761	114,804	0	9,926,687
AVG AMT	0	47,703	62,992	61,887	0	72,431	91,448	102,750	114,804	0	84,124

INACTIVE PARTICIPANT DISTRIBUTION

	Terminated Vested		Disabled		Retired		Deceased with Beneficiary	
Age	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits	Number	Total Benefits
Under 20	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	1	22,894	-	-	-	-	-	-
40-44	-	-	-	-	1	90,426	-	-
45-49	1	35,771	-	-	7	588,472	-	-
50-54	-	-	1	41,782	17	1,238,336	1	29,935
55-59	-	-	-	-	21	1,035,393	1	57,724
60-64	-	-	-	-	23	1,187,145	-	-
65-69	-	-	-	-	11	630,294	1	39,510
70-74	-	-	-	-	6	278,429	3	67,809
75-79	-	-	-	-	2	44,018	1	14,517
80-84	-	-	-	-	-	-	-	-
85-89	-	-	-	-	2	71,281	1	16,142
90-94	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-
Total	2	58,665	1	41,782	90	5,163,794	8	225,637
Average Age		42		50		60		70
Liability		587,340		695,583		61,117,035		2,220,991

SECTION F

SUMMARY OF PLAN PROVISIONS

SUMMARY OF PLAN PROVISIONS

A. Ordinances

Plan established under the Code of Ordinances for the City of Boynton Beach, Florida, Chapter 18, Article IV, and was most recently amended under Ordinance No. 14-019 passed and adopted on its second reading on September 3, 2014. The Plan is also governed by certain provisions of Chapter 175, Florida Statutes, Part VII, Chapter 112, Florida Statutes and the Internal Revenue Code.

B. Effective Date

Date was not provided.

C. Plan Year

October 1 through September 30

D. Type of Plan

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

E. Eligibility Requirements

All full-time firefighters are eligible to participate.

F. Credited Service

Service is measured as the total length of employment for which the firefighter received Compensation from the City and made Member Contributions to the plan. No service is credited for any periods of employment for which the member received a refund of their contributions.

G. Compensation

Cash compensation exclusive of bonuses and incentive pay, but including overtime earnings not to exceed 300 hours and lump sum payment of accumulated unused sick and vacation hours, but not to exceed the number of accumulated sick and vacation hours as of September 27, 2013.

H. Final Average Compensation (FAC)

The average of Compensation over the highest 3 years during the last 10 years of Credited Service.

I. Normal Retirement

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

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

Benefit: 3.00% of FAC multiplied by years of Credited Service.

Normal Form
of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.

J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 50 and 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 the Normal Retirement date.

Normal Form
of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.

K. Delayed Retirement

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

L. Service Connected Disability

Eligibility: Any member who becomes totally and permanently disabled as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: 66 2/3% of Compensation in effect on the date of disability, reduced by amounts payable under Social Security PIA with a minimum benefit equal to 42% of FAC.

Normal Form
of Benefit: Payable until death or recovery from disability; other options are also available.

COLA: Each disability retiree who retires on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.

M. Non-Service Connected Disability

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

Benefit: 2.5% of FAC multiplied by years of Credited Service with a minimum benefit equal to 25% of FAC.

Normal Form of Benefit: Payable until death or recovery from disability; other options are also available.

COLA: Each disability retiree who retires on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.

N. Death in the Line of Duty

Eligibility: Members are eligible for survivor benefits after the completion of 10 or more years of Credited Service.

Benefit: Spouse will receive 2.5% of the member's FAC multiplied by years of Credited Service.

Normal Form of Benefit: Paid until death or remarriage of spouse.

COLA: Each surviving spouse whose benefits began on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after benefits began.

The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions.

O. Other Pre-Retirement Death

Eligibility: Members are eligible for survivor benefits after the completion of 10 or more years of Credited Service.

Benefit: Spouse will receive 2.5% of the member's FAC multiplied by years of Credited Service.

Normal Form of Benefit: Paid until death or remarriage of spouse.

COLA: Each surviving spouse whose benefits began on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after benefits began.

The beneficiary of a plan member with less than 10 years of Credited Service at the time of death will receive a refund of the member's accumulated contributions.

P. Post Retirement Death

Benefit determined by the form of benefit elected upon retirement.

Q. Optional Forms

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are a Single Life Annuity or the 50%, 66 2/3%, 75% and 100% Joint and Survivor options. A Social Security option is also available for members retiring prior to the time they are eligible for Social Security retirement benefits.

R. Vested Termination

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 10 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins on the date that would have been the member's Normal Retirement date had they continued employment. Alternatively, members can elect a reduced Early Retirement benefit any time after age 50.

Normal Form of Benefit: 10 Years Certain and Life thereafter; other options are also available.

COLA: Each member who retires on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1^{st} of each year beginning 5 years after retirement.

Members terminating employment with less than 10 years of Credited Service will receive a refund of their own accumulated contributions.

S. Refunds

Eligibility: All members 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.

T. Member Contributions

12% of compensation

U. Employer Contributions

Chapter 175 Premium Tax Refunds and any additional amount determined by the actuary needed to fund the plan properly according to State laws.

V. Cost of Living Increases

Each retiree, beneficiary and disability retiree who retires or enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1^{st} of each year beginning 5 years after retirement.

W. Changes from Previous Valuation

There have been no changes since the prior valuation.

X. 13^{th} Check

In years in which a cumulative net actuarial gain has been determined, there shall be payable an ad-hoc thirteenth check paid in December.

Y. Deferred Retirement Option Plan

Eligibility: Plan members who have less than 30 years of Credited Service but have met one of the following criteria are eligible for the DROP:

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

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

Benefit: The member's Credited Service and FAC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and FAC.

Maximum DROP Period: The earlier of 5 years of participation in the DROP or 30 years of employment.

Interest Credited: The member's DROP account is credited at an interest rate based upon the option chosen by the member. Members must elect from 1 of the 3 following options:

1. Gain or loss at the same rate earned by the Plan, or
2. Guaranteed rate of 7%, or
3. The rate earned by a self-directed account utilizing mutual funds selected by the Board.

Normal Form of Benefit: Options include a lump sum or equal periodic payments.

COLA: Each member who enters the DROP on or after December 1, 2006 will receive a 2.0% increase in benefits on October 1st of each year beginning 5 years after retirement.

Z. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Boynton Beach Municipal Firefighters' Pension Trust Fund liability if continued beyond the availability of funding by the current funding source.

GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

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www.gabrielroeder.com

March 31, 2016

Ms. Barbara La Due
Pension Administrator
Renaissance Executive Suites
1500 Gateway Blvd. Suite 220
Boynton Beach, Florida 33426

Re: City of Boynton Beach Municipal Firefighters' Pension Trust Fund

Dear Barbara:

Enclosed is a Supplemental Actuarial Valuation Report illustrating the impact of a reevaluation of the cost of the 2% COLA, which was first implemented by Ordinance 06-092. The results are based on census and asset data as of October 1, 2015.

This report was prepared in compliance with Ordinance 06-092, which requires an actuarial reevaluation of the cost of the COLA every three years. The last time this reevaluation was completed was as of October 1, 2012. A copy of this report should be provided to the City. This report may be provided to parties other than the City only in its entirety and only with the Board's permission. GRS is not responsible for unauthorized use of this report.

The purpose of this report is to describe the financial effect of the changes summarized above. 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 calculations are based upon assumptions regarding future events, which may or may not materialize. 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 additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, or that conditions have changed since the calculations were made, you should contact the author of the report prior to relying on information in the report.

The calculations in this report are based upon information furnished by the Plan Administrator for the October 1, 2015 Actuarial Valuation concerning Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We reviewed this information for internal reasonability 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 Plan Administrator.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the City of Boynton Beach Municipal Firefighters' Pension Trust

Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Peter N. Strong and Jeffrey 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 undersigned actuaries are independent of the plan sponsor.

We welcome your questions and comments.

Sincerely yours,

Peter N. Strong, FSA, MAAA
Senior Consultant & Actuary

Jeffrey Amrose, MAAA
Senior Consultant & Actuary

PNS/jc
Enclosures

SUPPLEMENTAL ACTUARIAL VALUATION REPORT

Plan

City of Boynton Beach Municipal Firefighters' Pension Trust Fund

Valuation Date

October 1, 2015

Date of Report

March 31, 2016

Report Requested by

Automatic actuarial reevaluation of the cost of the COLA under Ordinance 06-092, which must be completed every three years

Prepared by

Peter N. Strong

Group Valued

All active and inactive Firefighters

Plan Assumptions and Methods Being Considered for Change

None

Plan Provisions Being Considered:

- Reevaluation of the actuarial cost of the 2% annual COLA deferred 5 years for members who retire or enter the DROP after October 1, 2006
- Reevaluation of the increase in member contributions from 7% to 12%

Participants Affected

All active participants as well as inactive participants who are currently receiving the COLA

Actuarial Assumptions and Methods

Same as October 1, 2015 Actuarial Valuation Report.

Some of the key assumptions/methods are:
Investment Return – 7.50%
Salary Increase – 3.5% to 14.5% per year depending on service
Cost Method – Entry Age Normal

Amortization Period for Any Change in Actuarial Accrued Liability

30 years

Summary of Data Used in Report

See attached page

Actuarial Impact of Proposal(s)

See attached page(s)

Other Cost Considerations

None

PARTICIPANT DATA		
	October 1, 2015 *Valuation*	October 1, 2015 *Reevaluation of Cost of COLA (If No COLA)*
ACTIVE MEMBERS		
Number	118	118
Covered Annual Payroll	$ 10,221,317	$ 10,221,317
Average Annual Payroll	$ 86,621	$ 86,621
Average Age	38.9	38.9
Average Past Service	10.9	10.9
Average Age at Hire	28.0	28.0
RETIREES, BENEFICIARIES & DROP		
Number	98	98
Annual Benefits	$ 5,389,431	$ 5,361,339
Average Annual Benefit	$ 54,994	$ 54,708
Average Age	61.1	61.1
DISABILITY RETIREES		
Number	1	1
Annual Benefits	$ 41,782	$ 39,373
Average Annual Benefit	$ 41,782	$ 39,373
Average Age	50.3	50.3
TERMINATED VESTED MEMBERS		
Number	2	2
Annual Benefits	$ 58,665	$ 58,665
Average Annual Benefit	$ 29,333	$ 29,333
Average Age	41.8	41.8

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC) - CURRENT ASSUMPTIONS			
A. Valuation Date	October 1, 2015 *Valuation 12.0 % Member Contributions with COLA*	October 1, 2015 *Valuation Without COLA and 7.0% Member Contributions*	October 1, 2015 *Valuation Increase in Amount of State Chapter 175 Funds Used*
B. ADEC to Be Paid During Fiscal Year Ending	9/30/2017	9/30/2017	9/30/2017
C. Assumed Date of Employer Contrib.	10/1/2015	10/1/2015	10/1/2015
D. Annual Payment to Amortize Unfunded Actuarial Liability	$ 2,912,970	$ 2,627,459	$ 2,912,970
E. Employer Normal Cost	2,105,539	2,188,868	2,105,539
F. ADEC if Paid on the Valuation Date: D+E	5,018,509	4,816,327	5,018,509
G. ADEC Adjusted for Frequency of Payments	5,018,509	4,816,327	5,018,509
H. ADEC as % of Covered Payroll	49.10 %	47.12 %	49.10 %
I. Estimate of Regular Base Chapter 175 Contributions in Contribution Year	704,322	579,772	781,954
J. Required Employer Contribution in Contribution Year	4,314,187	4,236,555	4,236,555
K. Increase in Use of Chapter 175 Funds	N/A	N/A	$ 77,632

ACTUARIAL VALUE OF BENEFITS AND ASSETS - CURRENT ASSUMPTIONS

A. Valuation Date	October 1, 2015 *Valuation* *12.0 % Member* *Contributions* *with COLA*	October 1, 2015 *Valuation* *Without COLA* *and 7.0% Member* *Contributions*	October 1, 2015 *Valuation* *Increase in Amount* *of State Chapter* *175 Funds Used*
B. Actuarial Present Value of All Projected Benefits for			
1. Active Members			
a. Service Retirement Benefits	$ 64,535,711	$ 56,189,256	$ 64,535,711
b. Vesting Benefits	3,931,931	3,399,558	3,931,931
c. Disability Benefits	1,799,269	1,578,555	1,799,269
d. Preretirement Death Benefits	829,790	701,405	829,790
e. Return of Member Contributions	120,989	100,777	120,989
f. Total	71,217,690	61,969,551	71,217,690
2. Inactive Members			
a. Service Retirees & Beneficiaries	63,338,026	57,701,778	63,338,026
b. Disability Retirees	695,583	514,575	695,583
c. Terminated Vested Members	587,340	501,934	587,340
d. Total	64,620,949	58,718,287	64,620,949
3. Total for All Members	135,838,639	120,687,838	135,838,639
C. Actuarial Accrued (Past Service) Liability per GASB No. 25	110,826,525	99,045,926	110,826,525
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	N/A	N/A	N/A
E. Plan Assets			
1. Market Value	65,450,324	59,190,286	65,450,324
2. Actuarial Value	66,257,757	59,997,719	66,257,757
F. Unfunded Actuarial Accrued Liability:	44,568,768	39,048,207	44,568,768
G. Actuarial Present Value of Projected Covered Payroll	80,605,730	80,605,730	80,605,730
H. Actuarial Present Value of Projected Member Contributions	9,672,688	5,642,401	9,672,688
I. Funded Ratio: E2/C	59.8 %	60.6 %	59.8 %

CALCULATION OF EMPLOYER NORMAL COST - CURRENT ASSUMPTIONS

A. Valuation Date	October 1, 2015 *Valuation* *12.0 % Member Contributions with COLA*	October 1, 2015 *Valuation* *Without COLA and 7.0% Member Contributions*	October 1, 2015 *Valuation* *Increase in Amount of State Chapter 175 Funds Used*
B. Normal Cost for			
1. Service Retirement Benefits	$ 2,721,874	$ 2,371,195	$ 2,721,874
2. Vesting Benefits	243,175	210,309	243,175
3. Disability Benefits	155,009	134,549	155,009
4. Preretirement Death Benefits	44,362	37,412	44,362
5. Return of Member Contributions	40,262	23,480	40,262
6. Total for Future Benefits	3,204,682	2,776,945	3,204,682
7. Assumed Amount for Administrative Expenses	127,415	127,415	127,415
8. Total Normal Cost	3,332,097	2,904,360	3,332,097
As % of Covered Payroll	32.60 %	28.41 %	32.60 %
C. Expected Member Contribution	1,226,558	715,492	1,226,558
As % of Covered Payroll	12.00 %	7.00 %	12.00 %
D. Net Employer Normal Cost: B8-C	2,105,539	2,188,868	2,105,539
As % of Covered Payroll	20.60 %	21.41 %	20.60 %