

CITY OF PENSACOLA  
FIREFIGHTERS' RELIEF AND PENSION FUND

ACTUARIAL VALUATION AND REPORT  
AS OF OCTOBER 1, 2016  
(Revised March 2, 2017)

CONTRIBUTIONS APPLICABLE TO THE PLAN/  
FISCAL YEAR ENDED SEPTEMBER 30, 2018

March 2, 2017

Board of Trustees  
City of Pensacola  
Firefighters' Relief and Pension Fund  
222 West Main Street  
Pensacola, FL 32502

Re: City of Pensacola  
Firefighters' Relief and Pension Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Pensacola Firefighters' Relief and Pension Fund. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Chapters 112, and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Board of Trustees, financial reports prepared by the custodian banks and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

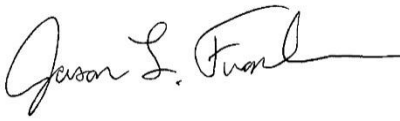
The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Pensacola, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Pensacola Firefighters' Relief and Pension Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By:   
\_\_\_\_\_  
Jason L. Franken  
Enrolled Actuary #14-06888

JLF/lke  
Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Pensacola Firefighters' Relief and Pension Fund, performed as of October 1, 2016, has been completed, and the results are presented in this Report. The results of this valuation are applicable to the plan/fiscal year ended September 30, 2018.

The contribution requirements developed in this valuation, compared with amounts developed in the November 17, 2016 actuarial impact statement, are as follows:

Valuation Date	10/1/2016	10/1/2015
Applicable Plan/Fiscal Year End	<u>9/30/2018</u>	<u>9/30/2017</u>
Total Required Contribution	2,484,307	2,826,147
Member Contributions (Est.)	490,664	504,862
City and State Required Contribution	1,993,643	2,321,285
State Contribution	628,071	628,071
Balance from City <sup>1</sup>	1,365,572	1,693,214

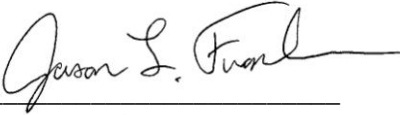
<sup>1</sup> As requested by the Division of Retirement, the required contribution from the combination of City and State sources for the year ending September 30, 2017 is \$2,321,285. The City and State contribution for the fiscal year ending September 30, 2018 is \$1,993,643 based on the City's policy of contributing on October 1<sup>st</sup>. This approach saves approximately \$80,000 over the prior approach of contributing uniformly throughout the year.

As can be seen, the Required Contribution from City and State sources has again decreased considerably since the actuarial impact statement was performed. The decrease was attributable to favorable experience realized by the plan during the year. The primary sources of favorable experience were as follows: a COLA rate of 0.90% which was less than assumed, a 9.34% investment return (Actuarial Asset basis) exceeding the 7.75% assumption, and average salary decreases, despite increases being assumed. The favorable experience was offset in part by less than anticipated inactive mortality. Additionally, the method for valuing COLAs has been adjusted to account for the fact that DROP members hired prior to July 1, 1999 receive COLAs during DROP participation; this adjustment also offset the favorable experience.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By:   
Jason L. Franken, FSA, EA, MAAA

By:   
Tyler A. Koftan

### Plan Changes Since Prior Valuation

There following plan changes were made since the prior valuation:

1. The definition of Actuarial Equivalent was changed to be in line with the interest and mortality assumptions utilized in the most recent actuarial valuation.
2. The definitions of Compensation, Salary, and Earnings were changed to include additional regular pay, and to clarify that overtime pay maximums are per plan year.
3. The definition of Years of Service was changed to reflect only whole years of service. For vested members, service also includes major fractional parts of a year.
4. It was clarified that DROP members hired before July 1, 1999 receive COLAs during DROP participation.

### Actuarial Assumption/Method Changes Since Prior Valuation

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

# COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Benefits <u>10/1/2016</u>	Old Benefits <u>10/1/2016</u>	<u>10/1/2015</u>
A. Participant Data			
Number Included			
Actives	88	88	86
Service Retirees	81	81	73
DROP Retirees	20	20	30
Beneficiaries	32	32	33
Disability Retirees	55	55	55
Terminated Vested	<u>3</u>	<u>3</u>	<u>3</u>
Total	279	279	280
Total Annual Payroll	\$4,164,100	\$4,164,100	\$4,277,804
Payroll Under Assumed Ret. Age	4,164,100	4,164,100	4,277,804
Annual Rate of Payments to:			
Service Retirees	4,325,107	4,325,107	3,839,002
DROP Retirees	1,055,898	1,055,898	1,599,109
Beneficiaries	952,207	952,207	938,601
Disability Retirees	1,812,730	1,812,730	1,762,607
Terminated Vested	31,115	31,115	31,115
B. Assets			
Actuarial Value <sup>1</sup>	116,121,744	116,121,744	110,711,895
Market Value <sup>1</sup>	113,883,891	113,883,891	108,697,588
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	27,558,582	26,826,728	27,042,732
Disability Benefits	2,576,215	2,576,215	2,751,383
Death Benefits	778,036	778,036	835,203
Vested Benefits	427,684	427,684	459,809
Refund of Contributions	60,033	60,033	66,311
Service Retirees	56,321,512	56,321,512	49,165,228
DROP Retirees <sup>1</sup>	20,725,567	20,645,758	30,337,492
Beneficiaries	9,351,810	9,351,810	9,231,448
Disability Retirees	20,589,654	20,589,654	20,120,027
Terminated Vested	291,921	291,921	270,028
Excess State Monies Reserve	<u>0</u>	<u>0</u>	<u>0</u>
Total	138,681,014	137,869,351	140,279,661



C. Liabilities - (Continued)	New Benefits <u>10/1/2016</u>	Old Benefits <u>10/1/2016</u>	<u>10/1/2015</u>
Present Value of Future Salaries	43,804,240	43,804,240	47,804,780
Present Value of Future Member Contributions	4,818,466	4,818,466	5,258,526
Normal Cost (Retirement)	1,024,360	1,003,236	1,032,372
Normal Cost (Disability)	180,905	180,905	181,214
Normal Cost (Death)	58,747	58,747	57,729
Normal Cost (Vesting)	24,159	24,159	25,138
Normal Cost (Refunds)	<u>9,974</u>	<u>9,974</u>	<u>13,554</u>
Total Normal Cost	1,298,145	1,277,021	1,310,007
Present Value of Future Normal Costs	13,021,506	12,949,732	14,272,567
Accrued Liability (Retirement)	17,046,967	16,386,887	15,466,007
Accrued Liability (Disability)	914,888	914,888	976,182
Accrued Liability (Death)	224,206	224,206	239,958
Accrued Liability (Vesting)	189,020	189,020	197,750
Accrued Liability (Refunds)	3,963	3,963	2,974
Accrued Liability (Inactives) <sup>1</sup>	107,280,464	107,200,655	109,124,223
Excess State Monies Reserve	<u>0</u>	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability	125,659,508	124,919,619	126,007,094
Unfunded Actuarial Accrued Liability (UAAL)	9,537,764	8,797,875	15,295,199
Funded Ratio (AVA / AL)	92.4%	93.0%	87.9%

D. Actuarial Present Value of Accrued Benefits

Vested Accrued Benefits			
Inactives <sup>1</sup>	107,280,464	107,200,655	109,124,223
Actives	5,730,828	5,491,946	4,436,473
Member Contributions	<u>4,203,776</u>	<u>4,203,776</u>	<u>3,778,987</u>
Total	117,215,068	116,896,377	117,339,683
Non-vested Accrued Benefits	<u>4,504,483</u>	<u>4,131,881</u>	<u>3,847,067</u>
Total Present Value Accrued Benefits	121,719,551	121,028,258	121,186,750
Funded Ratio (MVA / PVAB)	93.6%	94.1%	89.7%

Increase (Decrease) in Present Value of  
Accrued Benefits Attributable to:

Plan Amendments	691,293	0	
Assumption Changes	0	0	
New Accrued Benefits	0	(275,109)	
Benefits Paid	0	(8,929,344)	
Interest	0	9,045,961	
Other	<u>0</u>	<u>0</u>	
Total	691,293	(158,492)	

	New Benefits	Old Benefits	
Valuation Date	10/1/2016	10/1/2016	10/1/2015
Applicable to Fiscal Year Ending	<u>9/30/2018</u>	<u>9/30/2018</u>	<u>9/30/2017</u>

#### E. Pension Cost

Normal Cost <sup>2</sup>	\$1,390,573	\$1,367,945	\$1,405,507
Administrative Expenses <sup>2</sup>	113,463	113,463	99,588
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2016) <sup>2</sup>	980,271	916,468	1,321,052
Total Required Contribution	2,484,307	2,397,876	2,826,147
Expected Member Contributions <sup>2</sup>	490,664	490,664	504,862
Expected City & State Contribution	1,993,643	1,907,212	2,321,285

#### F. Past Contributions

Plan Years Ending: 9/30/2016

City and State Requirement 3,822,480

#### Actual Contributions Made:

Members (excluding buyback)	421,774
City	3,198,669
State	<u>628,071</u>
Total	4,248,514

G. Net Actuarial (Gain)/Loss (4,604,429)

<sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2016 and 9/30/2015.

<sup>2</sup> Contributions developed as of 10/1/2016 displayed above have been adjusted to account for assumed salary increases.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Accrued Liability</u>
2016	9,537,764
2017	9,290,903
2018	9,257,066
2025	8,195,463
2032	2,728,183
2046	0

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	-3.74%	7.15%
Year Ended	9/30/2015	11.22%	7.16%
Year Ended	9/30/2014	5.98%	6.86%

(ii) 3 Year Comparison of Investment Return on Actuarial Value

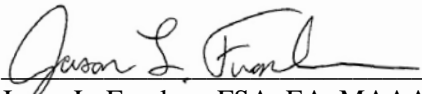
		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	9.34%	7.75%
Year Ended	9/30/2015	7.54%	8.00%
Year Ended	9/30/2014	9.02%	8.00%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2016	\$4,164,100
	10/1/2006	4,840,218
(b) Total Increase		-13.97%
(c) Number of Years		10.00
(d) Average Annual Rate		-1.49%

## STATEMENT BY ENROLLED ACTUARY

This actuarial valuation 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, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. 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.



Jason L. Franken, FSA, EA, MAAA  
Enrolled Actuary #14-6888

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman  
Bureau of Local  
Retirement Systems  
Post Office Box 9000  
Tallahassee, FL 32315-9000

Ms. Sarah Carr  
Municipal Police and Fire  
Pension Trust Funds  
Division of Retirement  
Post Office Box 3010  
Tallahassee, FL 32315-3010

# RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2015	\$15,295,199
(2)	Sponsor Normal Cost developed as of October 1, 2015	839,449
(3)	Expected administrative expenses for the year ended September 30, 2016	92,821
(4)	Expected interest on (1), (2) and (3)	1,254,032
(5)	Sponsor contributions to the System during the year ended September 30, 2016	3,826,740
(6)	Expected interest on (5)	252,457
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2016 (1)+(2)+(3)+(4)-(5)-(6)	13,402,304
(8)	Change to UAAL due to Benefit Change	739,889
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(4,604,429)
(10)	Unfunded Accrued Liability as of October 1, 2016	9,537,764

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2016 <u>Amount</u>	Amortization <u>Amount</u>
Plan Change	10/1/1987	1	\$215,454	\$215,454
Method Change	10/1/1994	8	(\$586,328)	(\$93,795)
Assump Change	10/1/1994	8	(\$3,699,474)	(\$591,804)
Assump Change	10/1/1999	13	(\$2,787,367)	(\$322,811)
Plan Change	10/1/1999	13	\$7,990,928	\$925,446
Plan Change	10/1/2001	15	\$133,817	\$14,289
Plan Change	10/1/2001	15	\$62,007	\$6,621
Method Change	10/1/2005	19	\$5,813,966	\$551,785
Actuarial Gain	10/1/2006	20	(\$48,864)	(\$4,533)
Assump Change	10/1/2006	20	\$1,197,010	\$111,052
Actuarial Gain	10/1/2007	21	(\$2,531,446)	(\$230,058)
Actuarial Loss	10/1/2008	22	\$4,480,160	\$399,583
Actuarial Gain	10/1/2009	23	(\$5,118,640)	(\$448,781)
Actuarial Loss	10/1/2010	24	\$603,912	\$52,127
Actuarial Loss	10/1/2011	25	\$4,563,019	\$388,276
Assump Change	10/1/2011	25	(\$285,323)	(\$24,279)
Actuarial Loss	10/1/2012	26	\$3,867,638	\$324,828
Actuarial Gain	10/1/2013	27	(\$3,390,117)	(\$281,330)
Actuarial Gain	10/1/2014	28	(\$745,647)	(\$61,201)

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2016 <u>Amount</u>	Amortization <u>Amount</u>
Benefit Change	10/1/2014	28	(\$3,216,436)	(\$263,997)
Actuarial Gain	10/1/2015	29	(\$425,776)	(\$34,595)
Assump Change	10/1/2015	29	\$7,312,027	\$594,121
Benefit Change	10/1/2015	29	(\$2,216)	(\$180)
Benefit Change	10/1/2016	30	\$739,889	59,562
Actuarial Gain	10/1/2016	30	<u>(4,604,429)</u>	<u>(370,665)</u>
			9,537,764	915,115

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2015	\$15,295,199
(2) Expected UAAL as of October 1, 2016	13,402,304
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(1,729,413)
Salary Increases	(1,762,565)
Active Decrements	(188,007)
Inactive Mortality	947,620
COLAs Lower Than Expected	(1,981,927)
Other	<u>109,863</u>
Increase in UAAL due to (Gain)/Loss	(4,604,429)
Benefit Changes	<u>739,889</u>
(4) Actual UAAL as of October 1, 2016	\$9,537,764

# PROJECTED UNFUNDED ACTUARIAL ACCRUED LIABILITY

Plan Year	Fiscal Year	Expected UAAL	Expected Amortization Payment UAAL	Expected UAAL on 9/30
9/30/2016	9/30/2018	9,537,764	915,115	9,290,903
9/30/2017	9/30/2019	9,290,903	699,661	9,257,066
9/30/2018	9/30/2020	9,257,066	699,661	9,220,605
9/30/2019	9/30/2021	9,220,605	699,661	9,181,317
9/30/2020	9/30/2022	9,181,317	699,661	9,138,984
9/30/2021	9/30/2023	9,138,984	699,661	9,093,371
9/30/2022	9/30/2024	9,093,371	699,661	9,044,223
9/30/2023	9/30/2025	9,044,223	699,668	8,991,259
9/30/2024	9/30/2026	8,991,259	1,385,260	8,195,463
9/30/2025	9/30/2027	8,195,463	1,385,260	7,337,993
9/30/2026	9/30/2028	7,337,993	1,385,260	6,414,072
9/30/2027	9/30/2029	6,414,072	1,385,260	5,418,543
9/30/2028	9/30/2030	5,418,543	1,385,266	4,345,855
9/30/2029	9/30/2031	4,345,855	782,625	3,839,381
9/30/2030	9/30/2032	3,839,381	782,610	3,293,671
9/30/2031	9/30/2033	3,293,671	761,715	2,728,183
9/30/2032	9/30/2034	2,728,183	761,715	2,118,869
9/30/2033	9/30/2035	2,118,869	761,715	1,462,334
9/30/2034	9/30/2036	1,462,334	761,704	754,930
9/30/2035	9/30/2037	754,930	209,925	587,241
9/30/2036	9/30/2038	587,241	103,424	521,312
9/30/2037	9/30/2039	521,312	333,465	202,405
9/30/2038	9/30/2040	202,405	(66,113)	289,328
9/30/2039	9/30/2041	289,328	382,696	(100,606)
9/30/2040	9/30/2042	(100,606)	330,536	(464,557)
9/30/2041	9/30/2043	(464,557)	(33,478)	(464,488)
9/30/2042	9/30/2044	(464,488)	(358,245)	(114,477)
9/30/2043	9/30/2045	(114,477)	(76,940)	(40,446)
9/30/2044	9/30/2046	(40,446)	248,230	(311,049)
9/30/2045	9/30/2047	(311,049)	(311,049)	0



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rates

#### *Healthy Lives:*

**Female:** RP2000 Generational, 100% Annuitant White Collar, Scale BB

**Male:** RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

#### *Disabled Lives:*

**Female:** 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale

**Male:** 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale

The above stated mortality rates are required by law, effective October 1, 2016 and have been early implemented in conjunction with this actuarial valuation.

### Termination Rates

See Table 1 below. This is supported by the results of an experience study for the period 2006 – 2011.

### Disability Rates

See Table 2 below. 66.7% of disabilities are assumed to be In Line of Duty (ILOD). This is based on an experience study performed in 2011.

### Assumed Retirement Age

See Table 3 below. In addition to this table, 75% of members with 25 or more years of service are assumed to retire. This is based on an experience study for the period 2006 – 2011.

### Interest Rate

7.75% per year, compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

### Salary Increases

See Table 4 below. This is based on an experience study for the period 2006 – 2011.

### Cost-of-Living Adjustment

1.25% for those hired on or after June 20, 2015.  
2.00% for those retiring after June 10, 2015 and hired before that date.  
2.875% per year for those retiring prior to June 10, 2015.

### Payroll Growth

None.

Administrative Expenses

\$105,921 annually. This is equal to the actual non-investment-related expenses paid out of the trust during the year.

Marriage

100% are assumed married with husbands 3 years older than wives.

Actuarial Asset Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual actuarial value investment return against expected actuarial value investment return) over a five-year period.

Funding Method

Entry Age Normal Actuarial Cost Method. A load based on the salary increase at the current 7.12% assumption is used to develop the dollar funding requirements. There is no interest adjustment to reflect the October 1<sup>st</sup> deposit.

Table 1: Termination Table

<u>Years of Service</u>	<u>Termination Rates</u>
1	3.25%
2	3.00%
3	2.75%
4	2.50%
5	2.25%
6	2.00%
7	1.75%
8	1.50%
9	1.25%
10	1.00%
11+	0.50%

Table 2: Disability Table

<u>Age</u>	<u>Disability Rates</u>
20	0.15%
25	0.17%
30	0.19%
35	0.32%
40	0.45%
45	1.33%
50	2.20%
55	2.63%
60	3.05%

Table 3: Retirement Table

<u>Age</u>	<u>Retirement Rates</u>
50	5%
51	10%
52 - 55	25%
56	100%

Table 4: Salary Increase Table

<u>Age</u>	<u>Increase Rates</u>
20	12.68%
25	11.09%
30	8.55%
35	6.73%
40	6.09%
45	5.64%
50	5.32%
55	5.00%

## VALUATION NOTES

Total Annual Payroll is the projected annual rate of pay as of the valuation date for all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals
  - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
  - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age .
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

# PARTIAL HISTORY OF PREMIUM TAX REFUNDS

Received During <u>Fiscal Year</u>	<u>Amount</u>	Increase from <u>Previous Year</u>
1998	435,288.82	_____%
1999	446,175.43	2.5%
2000	430,632.86	-3.5%
2001	398,542.75	-7.5%
2002	467,483.17	17.3%
2003	426,820.13	-8.7%
2004	587,798.91	37.7%
2005	579,685.92	-1.4%
2006	674,181.18	16.3%
2007	766,923.14	13.8%
2008	799,134.89	4.2%
2009	530,169.21	-33.7%
2010	638,919.66	20.5%
2011	635,647.22	-0.5%
2012	667,019.50	4.9%
2013	666,509.03	-0.1%
2014	742,106.25	11.3%
2015	698,091.40	-5.9%
2016	628,070.73	-10.0%

## RECENT COMPENSATION AND INVESTMENT EXPERIENCE

Valuation Date	Compensation		Investment Return*		
	% Increase (Decrease)	Assumed Increase	Market Value	Actuarial Value	Assumed
10/1/2016	(3.74%)	7.15%	9.18%	9.34%	7.75%
10/1/2015	11.22%	7.16%	(1.56%)	7.54%	8.00%
10/1/2014	5.98%	6.86%	10.49%	9.02%	8.00%
10/1/2013	(4.15%)	6.62%	13.88%	8.64%	8.00%
10/1/2012	6.19%	6.58%	18.62%	3.40%	8.00%
10/1/2011	6.55%	7.28%	(2.24%)	2.93%	8.00%
10/1/2010	0.94%	7.50%	10.19%	5.09%	8.00%
10/1/2009	(0.49%)	7.50%	6.71%	5.13%	8.00%
10/1/2008	12.80%	7.70%	(13.30%)	5.70%	8.00%
10/1/2007	6.30%	7.20%	14.50%	11.10%	8.00%
Last 5 Years	2.92%	6.87%	9.91%	7.57%	7.95%
Last 10 Years	4.01%	7.15%	6.23%	6.76%	7.97%

\*Computed as  $2I/(A+B-I)$ , where A is beginning value, B is ending value and I is investment return

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2016

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	114,122.17	114,122.17
Money Market	2,940,743.00	2,940,743.00
Cash	(15.41)	(15.41)
Total Cash and Equivalents	3,054,849.76	3,054,849.76
Receivables:		
Member Contributions in Transit	8,037.02	8,037.02
City Contributions in Transit	73.00	73.00
Investment Income	304,442.59	304,442.59
Total Receivable	312,552.61	312,552.61
Investments:		
Fixed Income	28,450,841.32	28,536,295.57
Equities	56,354,000.90	64,915,798.46
Mutual Funds:		
Equity	3,140,296.11	6,156,675.10
Pooled/Common/Commingled Funds:		
Master Limited Partnership	2,724,633.95	2,022,483.48
Partnerships	2,184,284.62	1,855,320.94
Real Estate	5,624,691.62	7,179,920.17
Total Investments	98,478,748.52	110,666,493.72
Total Assets	101,846,150.89	114,033,896.09
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	136,700.72	136,700.72
Administrative Expenses	13,304.50	13,304.50
Total Liabilities	150,005.22	150,005.22
NET POSITION RESTRICTED FOR PENSIONS	101,696,145.67	113,883,890.87



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2016  
Market Value Basis

ADDITIONS

Contributions:

Member	421,774.19
Buy-Back	44,064.00
City	3,198,669.06
State	628,070.73

Total Contributions	4,292,577.98
---------------------	--------------

Investment Income:

Net Realized Gain (Loss)	938,262.05
Unrealized Gain (Loss)	6,560,154.31
Net Increase in Fair Value of Investments	7,498,416.36
Interest & Dividends	3,119,975.26
Less Investment Expense <sup>1</sup>	(689,401.54)

Net Investment Income	9,928,990.08
-----------------------	--------------

Total Additions	14,221,568.06
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DEDUCTIONS

Distributions to Members:

Benefit Payments	6,754,389.53
Lump Sum DROP Distributions	2,134,930.95
Refunds of Member Contributions	40,023.57

Total Distributions	8,929,344.05
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Administrative Expense	105,921.16
------------------------	------------

Total Deductions	9,035,265.21
------------------	--------------

Net Increase in Net Position	5,186,302.85
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NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	108,697,588.02
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End of the Year	113,883,890.87
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<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
September 30, 2016

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2016	2017	2018	2019	2020
09/30/2012	7,864,114	0	0	0	0	0
09/30/2013	5,633,537	1,126,707	0	0	0	0
09/30/2014	3,776,895	1,510,758	755,379	0	0	0
09/30/2015	(10,133,353)	(6,080,012)	(4,053,341)	(2,026,671)	0	0
09/30/2016	1,505,867	1,204,694	903,520	602,347	301,173	0
Total		(2,237,853)	(2,394,442)	(1,424,324)	301,173	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including Prepaid Contribution, 09/30/2015	109,387,401
Actuarial Value of Assets, including Prepaid Contribution, 09/30/2015	111,401,708
Contributions Less Benefit Payments & Admin Expenses	(5,432,500)
Expected Investment Earnings on Actuarial Value*	8,423,123
Actual Net Investment Earnings	9,928,990
2016 Actuarial Investment Gain/(Loss)	<u>1,505,867</u>

\*Expected Investment Earnings =  $0.0775 * [111,401,708 + 0.5 * (5,432,500)]$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2016	113,883,891
(2) Gains/(Losses) Not Yet Recognized	(2,237,853)
(3) Actuarial Value of Assets, 09/30/2016, (1) - (2)	<u>116,121,744</u>
(A) 09/30/2015 Actuarial Asset, including Prepaid Contributions:	111,401,708
(I) Net Investment Income:	
1. Interest and Dividends	3,119,975
2. Realized Gains (Losses)	938,262
3. Change in Actuarial Value	6,783,700
4. Investment Expenses	(689,402)
Total	<u>10,152,536</u>
(B) 09/30/2016 Actuarial Assets, including Prepaid Contributions:	116,121,744
Actuarial Asset Rate of Return = $2I/(A+B-I)$ :	9.34%
Market Value of Assets Rate of Return:	9.18%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	1,729,413
10/01/2016 Limited Actuarial Assets:	116,121,744

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
SEPTEMBER 30, 2016  
Actuarial Asset Basis

REVENUES

Contributions:		
Member	421,774.19	
Buy-Back	44,064.00	
City	3,198,669.06	
State	628,070.73	
Total Contributions		4,292,577.98
Earnings from Investments:		
Interest & Dividends	3,119,975.26	
Net Realized Gain (Loss)	938,262.05	
Change in Actuarial Value	6,783,700.31	
Total Earnings and Investment Gains		10,841,937.62

EXPENDITURES

Distributions to Members:		
Benefit Payments	6,754,389.53	
Lump Sum DROP Distributions	2,134,930.95	
Refunds of Member Contributions	40,023.57	
Total Distributions		8,929,344.05
Expenses:		
Investment related <sup>1</sup>	689,401.54	
Administrative	105,921.16	
Total Expenses		795,322.70
Change in Net Assets for the Year		5,409,848.85
Net Assets Beginning of the Year		110,711,895.02
Net Assets End of the Year <sup>2</sup>		116,121,743.87

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2015 to September 30, 2016

Beginning of the Year Balance	3,621,668.51
Plus Additions	1,357,726.81
Investment Return Earned	139,403.53
Less Distributions	(2,134,930.95)
End of the Year Balance	2,983,867.90

## STATISTICAL DATA <sup>1</sup>

	<u>10/1/2013</u>	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2016</u>
<u>Actives</u>				
Number	93	89	86	88
Average Current Age	40.6	37.4	36.4	37.2
Average Age at Employment	25.6	25.9	25.8	26.0
Average Past Service	15.1	11.5	10.6	11.2
Average Annual Salary	\$49,183	\$48,091	\$49,742	\$47,319
<u>Service Retirees</u>				
Number		74	73	81
Average Current Age		66.5	66.9	66.5
Average Annual Benefit		\$52,391	\$52,589	\$53,396
<u>DROP Retirees</u>				
Number		24	30	20
Average Current Age		52.9	52.6	52.7
Average Annual Benefit		\$52,311	\$53,304	\$52,795
<u>Beneficiaries</u>				
Number		34	33	32
Average Current Age		74.2	73.8	75.9
Average Annual Benefit		\$27,363	\$28,442	\$29,756
<u>Disability Retirees</u>				
Number		56	55	55
Average Current Age		67.4	68.3	68.6
Average Annual Benefit		\$32,212	\$32,047	\$32,959
<u>Terminated Vested <sup>2</sup></u>				
Number		0	1	1
Average Current Age		N/A	47.2	48.2
Average Annual Benefit		N/A	\$31,115	\$31,115

<sup>1</sup> Prior to 10/1/2014, averages were salary weighted.

<sup>2</sup> Excludes nonvested terminated Members awaiting a refund of Member Contributions.

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	4	1	0	0	0	0	0	0	0	0	5
25 - 29	5	3	2	1	0	2	0	0	0	0	0	13
30 - 34	1	1	2	2	1	4	9	0	0	0	0	20
35 - 39	1	0	0	0	0	5	3	2	0	0	0	11
40 - 44	0	0	1	0	0	1	7	7	2	0	0	18
45 - 49	0	0	0	0	0	0	1	3	8	0	0	12
50 - 54	0	0	0	0	0	0	0	2	5	1	0	8
55 - 59	0	0	0	0	0	0	0	0	1	0	0	1
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	8	6	3	1	12	20	14	16	1	0	88

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2015	86
b. Terminations	
i. Vested (partial or full) with deferred benefits	(1)
ii. Non-vested or full lump sum distribution received	(4)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>0</u>
g. Continuing participants	81
h. New entrants	<u>7</u>
i. Total active life participants in valuation	88

### 2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested Deferred	<u>Total</u>
a. Number prior valuation	73	30	33	55	3	194
Retired	9	(9)	0	0	0	0
DROP	0	0	0	0	0	0
Vested Deferred	0	0	0	0	1	1
Death, With Survivor	(1)	0	1	0	0	0
Death, No Survivor	0	0	(1)	(1)	0	(2)
Disabled	0	(1)	0	1	0	0
Refund of Contributions	0	0	0	0	(1)	(1)
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	(1)	0	0	(1)
Data Corrections	0	0	0	0	0	0
b. Number current valuation	81	20	32	55	3	191

## SUMMARY OF PLAN PROVISIONS

(Through Ordinance No.07-15 and Florida Statutes Chapter 2015-206)

### Eligibility

Employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.

### Credited Service

Complete years of service. For vested members, service also includes major fractional parts of a year.

### Salary

Regular wages, longevity pay, station or watch captain pay, special duty pay, bonuses, lump-sum payments not made at termination, inclusive of elective deferrals, deferred compensation or tax-sheltered annuity programs.

Employees hired on or after June 10, 2015 have no overtime included in Salary.

Employees who were non-vested as of June 10, 2015 a maximum of 200 hours of overtime per plan year (including additional regular pay) are included in Salary.

Employees who were vested as of June 10, 2015, a maximum of 300 hours of overtime per plan year (including additional regular pay) are included in Salary.

### Average Final Compensation

Average Salary for the best 2 years out of the last 5 years of Credited Service for Members with 20 or more years of Credited Service as of June 10, 2015.

Average Salary for the last 5 years of Credited Service for Members with less than 20 years of Credited Service as of June 10, 2015.

### Member Contributions

11.00% of Salary.

### City and State Contributions

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.

### Normal Retirement

#### Date

Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.

#### Benefit

At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation,



plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

Form of Benefit

If single, single life annuity (options available). If married, 75% joint and survivor annuity.

For Members hired on or after June 10, 2015 the form of benefit is a 10-year Certain and Life Annuity.

Early Retirement

Eligibility

Age 50 and 10 Years of Credited Service.

Benefit

Accrued benefit, reduced 3% per year.

Vesting

Schedule

100% after 10 years of Credited Service.

Benefit Amount

Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.

Disability

Eligibility

Total and permanent disability.

Benefit

Service Incurred

The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.

Non-Service Incurred

The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.

Duration

Payable as a 75% joint and survivor benefit. Options available.

### Death Benefits

#### Pre-Retirement

Vested 75% of monthly accrued benefit payable to designated beneficiary for life.

Non-Vested Refund of accumulated contributions without interest.

Post-Retirement Benefits payable to beneficiary in accordance with option selected at retirement.

### Board of Trustees

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other 4 appointed by City Council.

### Deferred Retirement Option Plan

Eligibility Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).

Participation Not to exceed 60 months.

Rate of Return 1.3% annually.

Form of Distribution Cash lump sum (options available) at termination of employment.

### Cost-of-Living Adjustment

Eligibility All members in payment status.

Increase Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who are hired on or after June 10, 2015.

No increases are provided during DROP participation for Members who were hired after July 1, 1999 and enter DROP after June 10, 2015.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	114,122
Money Market	2,940,743
Cash	(15)
Total Cash and Equivalents	3,054,850
Receivables:	
Member Contributions in Transit	8,037
City Contributions in Transit	73
Investment Income	304,443
Total Receivable	312,553
Investments:	
Fixed Income	28,536,296
Equities	64,915,798
Mutual Funds:	
Equity	6,156,675
Pooled/Common/Commingled Funds:	
Master Limited Partnership	2,022,484
Partnerships	1,855,321
Real Estate	7,179,920
Total Investments	110,666,494
Total Assets	114,033,897
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	136,701
Administrative Expenses	13,305
Total Liabilities	150,006
NET POSITION RESTRICTED FOR PENSIONS	113,883,891

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2016  
Market Value Basis

ADDITIONS

## Contributions:

Member	421,774	
Buy-Back	44,064	
City	3,198,669	
State	628,071	
Total Contributions		4,292,578
Investment Income:		
Net Increase in Fair Value of Investments	7,498,416	
Interest & Dividends	3,119,975	
Less Investment Expense <sup>1</sup>	(689,401)	
Net Investment Income		9,928,990
Total Additions		14,221,568

DEDUCTIONS

## Distributions to Members:

Benefit Payments	6,754,389	
Lump Sum DROP Distributions	2,134,931	
Refunds of Member Contributions	40,024	
Total Distributions		8,929,344
Administrative Expense		105,921
Total Deductions		9,035,265
Net Increase in Net Position		5,186,303
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		108,697,588
End of the Year		113,883,891

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2016)

### Plan Description

#### *Plan Administration*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two Commission appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other four appointed by Commission.

#### *Plan Membership as of October 1, 2015:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	191
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	86
	280

#### *Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

##### Normal Retirement:

Date: Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.

Benefit: At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

##### Early Retirement:

Date: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year.

##### Vesting:

Schedule: 100% after 10 years of Credited Service.

Benefit Amount: Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.

##### Disability:

Eligibility: Total and permanent disability.

Benefit Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.

Benefit Non-Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.

##### Pre-Retirement Death Benefits:

Vested: 75% of monthly accrued benefit payable to designated beneficiary for life.

Non-Vested: Refund of accumulated contributions without interest.

##### Cost of Living Adjustment:

Eligibility: All members in payment status.

Increase: Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who are hired on or after June 10, 2015.

No increases are provided during DROP participation for Members who enter DROP after June 10, 2015.

*Contributions*

Member Contributions: 11.00% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII Chapter 112, Florida Statutes.

*Investments**Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2016:

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic Equity	40%
International Equity	15%
Bonds	25%
Convertibles	10%
Private Real Estate	5%
MLPs	5%
<u>Total</u>	<u>100%</u>

*Concentrations:*

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

*Rate of Return:*

For the year ended September 30, 2016, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 9.18 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).

Participation: Not to exceed 60 months.

Rate of Return: 1.3% annually.

The DROP balance as September 30, 2016 is \$2,983,868.

## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2016 were as follows:

Total Pension Liability	\$ 128,507,887
Plan Fiduciary Net Position	\$ (113,883,891)
Sponsor's Net Pension Liability	<u>\$ 14,623,996</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	88.62%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2015 updated to September 30, 2016 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	5.00% - 12.68%
Discount Rate	7.75%
Investment Rate of Return	7.75%

*Mortality Rates Healthy Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

*Mortality Rates Disabled Lives:*

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The most recent actuarial experience study used to review the other significant assumptions was dated November 28, 2011.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2016 the inflation rate assumption of the investment advisor was 2.70%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2016 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	8.0%
International Equity	3.0%
Bonds	4.4%
Convertibles	6.4%
Private Real Estate	4.6%
MLPs	10.4%

Discount Rate:  
The Discount Rate used to measure the Total Pension Liability was 7.75 percent.  
The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those 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 was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease	Current	1% Increase
	6.75%	Discount Rate	8.75%
		7.75%	
Sponsor's Net Pension Liability	\$ 29,674,834	\$ 14,623,996	\$ 2,217,567



**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	1,340,661	1,189,882	1,578,578
Interest	9,595,671	9,016,289	9,116,288
Changes of benefit terms	802,334	(4,080,439)	-
Differences between Expected and Actual Experience	(482,293)	30,585	-
Changes of assumptions	-	7,780,467	-
Contributions - Buy Back	44,064	-	-
Benefit Payments, including Refunds of Employee Contributions	(8,929,344)	(6,788,324)	(8,163,106)
Net Change in Total Pension Liability	2,371,093	7,148,460	2,531,760
Total Pension Liability - Beginning	126,136,793	118,988,333	116,456,573
Total Pension Liability - Ending (a)	<u>\$128,507,886</u>	<u>\$126,136,793</u>	<u>\$ 118,988,333</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,198,669	3,636,173	2,355,481
Contributions - State	628,071	698,091	742,106
Contributions - Employee	421,774	474,193	457,361
Contributions - Buy Back	44,064	-	-
Net Investment Income	9,928,990	(1,770,463)	10,938,657
Benefit Payments, including Refunds of Employee Contributions	(8,929,344)	(6,788,324)	(8,163,106)
Administrative Expense	(105,921)	(92,821)	(86,564)
Net Change in Plan Fiduciary Net Position	5,186,303	(3,843,151)	6,243,935
Plan Fiduciary Net Position - Beginning	108,697,588	112,540,739	106,296,804
Plan Fiduciary Net Position - Ending (b)	<u>\$113,883,891</u>	<u>\$108,697,588</u>	<u>\$ 112,540,739</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 14,623,995</u>	<u>\$ 17,439,205</u>	<u>\$ 6,447,594</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	88.62%	86.17%	94.58%
Covered Employee Payroll <sup>1</sup>	\$ 3,834,292	\$ 7,494,388	\$ 4,157,835
Net Pension Liability as a percentage of Covered Employee Payroll	381.40%	232.70%	155.07%

**Notes to Schedule:**

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

*Changes of assumptions:*

For measurement date 09/30/2016, the inflation assumption rate was lowered from 3.00% to 2.70%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

For measurement date 09/30/2015, amounts reported as changes of assumptions were resulted from lowering the investment rate of return from 8.00% to 7.75%.

As approved at the October 21, 2015 Board Meeting, we have employed the special risk mortality tables reflected in the Florida Retirement System Actuarial Valuation as of July 1, 2014.

*Changes of benefit terms:*

For measurement date 09/30/2016, amounts reported as changes of benefit terms were resulted from the following plan changes:

1. The definition of Actuarial Equivalent was changed to be in line with the interest and mortality assumptions utilized in the most recent actuarial valuation.
2. The definitions of Compensation, Salary, and Earnings were changed to include additional regular pay, and to clarify that overtime pay maximums are per plan year.
3. The definition of Years of Service was changed to reflect only whole years of service. For vested members, service also includes major fractional parts of a year.
4. It was clarified that DROP members hired before July 1, 1999 receive COLAs during DROP participation.

For measurement date 09/30/2015, amounts reported as changes of benefit terms were resulted from the following plan changes:

1. COLA for those retiring after June 10, 2015:
  - a. Employees who retire or enter DROP after June 10, 2015 will receive a maximum COLA of 2.0%.
  - b. Employees hired after June 10, 2015 will receive a maximum COLA of 1.25%.
2. Employees hired after June 10, 2015 – spousal benefits shall be determined in conformity with those spousal benefits offered to Special Risk class members in the Florida Retirement System
3. Overtime
  - a. Vested employees on June 10, 2015 – maximum 300 hours of overtime pensionable
  - b. Non-vested employees on June 10, 2015 – maximum 200 hours of overtime pensionable
  - c. Employees hired after June 10, 2015 – no overtime pensionable
4. Average Final Compensation
  - a. Employees with 20 or more years of service on June 10, 2015 will remain the same (highest 2 of the last 5 years)
  - b. Employees with less than 20 years of service on June 10, 2015 will be an average of the last 5 years of credited service
5. DROP – participants entering DROP after June 10, 2015:
  - a. Interest rate will be 1.3%
  - b. No Cost-of-Living Adjustment (COLA) while in DROP

## SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014	09/30/2013	09/30/2012
Actuarially Determined Contribution	3,822,480	4,334,264	3,097,587	3,234,358	3,494,389
Contributions in relation to the					
Actuarially Determined Contributions	3,826,740	4,334,264	3,097,587	3,234,358	3,562,977
Contribution Deficiency (Excess)	<u>\$ (4,260)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (68,588)</u>
Covered Employee Payroll <sup>1</sup>	\$ 3,834,292	\$ 7,494,388	\$ 4,157,835	\$ 4,574,063	\$ 4,847,354
Contributions as a percentage of					
Covered Employee Payroll	99.80%	57.83%	74.50%	70.71%	73.50%
	09/30/2011	09/30/2010	09/30/2009	09/30/2008	09/30/2007 <sup>2</sup>
Actuarially Determined Contribution	3,286,284	3,441,454	3,691,271	3,704,687	3,605,366
Contributions in relation to the					
Actuarially Determined Contributions	3,321,453	3,441,454	3,699,133	3,741,734	3,785,634
Contribution Deficiency (Excess)	<u>\$ (35,169)</u>	<u>\$ -</u>	<u>\$ (7,862)</u>	<u>\$ (37,047)</u>	<u>\$ (180,268)</u>
Covered Employee Payroll <sup>1</sup>	\$ 4,695,857	\$ 5,009,434	\$ 5,175,498	\$ 5,512,891	\$ 5,041,086
Contributions as a percentage of					
Covered Employee Payroll	70.73%	68.70%	71.47%	67.87%	75.10%

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

<sup>2</sup> October 1, 2008 valuation report and older were prepared by Gabriel Roeder Smith & Company.

Notes to Schedule

Valuation Date: 10/01/2014 (AIS 09/24/2015)

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

Methods and assumptions used to determine contribution rates:

Funding Method:	Entry Age Normal Actuarial Cost Method. A load based on the salary increase at the current 7.01% assumption is used to develop the dollar funding requirements. There is no interest adjustment to reflect the October 1st deposit.
Amortization Method:	Level % of Payroll, Closed.
Remaining Amortization Period:	30 Years (as of 10/01/2014 valuation).
Mortality Rates:	RP-2000 Combined Healthy Projected to 2011 - Sex Distinct. Based on a study of over 650 public safety funds, the RP-2000 table (with no projection) reflects a 10% margin for future mortality improvements.
Disability Mortality Rates:	RP-2000 Disabled Mortality Projected to 2011 – Sex Distinct.
Termination Rates:	See Table 1 on following page.
Disability Rates:	See Table 2 on following page. 66.7% of disabilities are assumed to be In Line of Duty (ILOD).
Assumed Retirement Age:	See Table 3 on following page. In addition to this table, 75% of members with 25 or more years of service are assumed to retire.
Interest Rate:	8% per year, compounded annually, net of investment related expenses.

Salary Increases:	See below Table 4.
Cost-of-Living Adjustment:	1.25% for those hired on or after June 20, 2015. 2.00% for those retiring after June 10, 2015 and hired before that date. 2.875% per year for those retiring prior to June 10, 2015.
Payroll Growth:	0.60% per year (in 2014, capped at 0.00% per year as limited by historical 10 year payroll growth).
Actuarial Asset Method:	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Table 1: Termination Table:

Years of Service	Termination Rates
1	3.25%
2	3.00%
3	2.75%
4	2.50%
5	2.25%
6	2.00%
7	1.75%
8	1.50%
9	1.25%
10	1.00%
11+	0.50%

Table 2: Disability Table:

Age	Disability Rates
20	0.15%
25	0.17%
30	0.19%
35	0.32%
40	0.45%
45	1.32%
50	2.20%
55	2.63%
60	3.05%

Table 3: Retirement Table:

Age	Retirement Rates
50	5%
51	10%
52 - 55	25%
56	100%

Table 4: Salary increase Table:

Age	Increase Rates
20	12.68%
25	11.09%
30	8.55%
35	6.73%
40	6.09%
45	5.64%
50	5.32%
55	5.00%

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Annual Money-Weighted Rate of Return			
Net of Investment Expense	9.18%	-1.56%	10.16%

## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2017)

## General Information about the Pension Plan

*Plan Description*

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two Commission appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other four appointed by Commission.

Employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.

*Plan Membership as of October 1, 2015:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	191
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	86
	<hr/>
	280
	<hr/>

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits.

Normal Retirement:

Date: Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.

Benefit: At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

Early Retirement:

Date: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year.

Vesting:

Schedule: 100% after 10 years of Credited Service.

Benefit Amount: Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.

Disability:

Eligibility: Total and permanent disability.

Benefit Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.

Benefit Non-Service Incurred: The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.

Pre-Retirement Death Benefits:

Vested: 75% of monthly accrued benefit payable to designated beneficiary for life.

Non-Vested: Refund of accumulated contributions without interest.

Cost of Living Adjustment:

Eligibility: All members in payment status.

Increase: Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who are hired on or after June 10, 2015.

No increases are provided during DROP participation for Members who enter DROP after June 10, 2015.

*Contributions*

Member Contributions: 11.00% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII Chapter 112, Florida Statutes.

## Net Pension Liability

The measurement date is September 30, 2016.

The measurement period for the pension expense was October 1, 2015 to September 30, 2016.

The reporting period is October 1, 2016 through September 30, 2017.

The Sponsor's Net Pension Liability was measured as of September 30, 2016.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

### *Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2015 updated to September 30, 2016 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	5.00% - 12.68%
Discount Rate	7.75%
Investment Rate of Return	7.75%

### *Mortality Rates Healthy Lives:*

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

### *Mortality Rates Disabled Lives:*

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

The most recent actuarial experience study used to review the other significant assumptions was dated November 28, 2011.

The Long-Term Expected Rate of Return on Pension Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, Net of Pension Plan investment expenses and inflation) are developed for each major asset class.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2016 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	40%	8.00%
International Equity	15%	3.00%
Bonds	25%	4.40%
Convertibles	10%	6.40%
Private Real Estate	5%	4.60%
MLPs	5%	10.40%
Total	100%	

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those 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 was applied to all periods of projected benefit payments to determine the Total Pension Liability.



## CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2016	\$ 126,136,793	\$ 108,697,588	\$ 17,439,205
Changes for a Year:			
Service Cost	1,340,661	-	1,340,661
Interest	9,595,671	-	9,595,671
Differences between Expected and Actual Experience	(482,293)	-	(482,293)
Changes of assumptions	-	-	-
Changes of benefit terms	802,334	-	802,334
Contributions - Employer	-	3,198,669	(3,198,669)
Contributions - State	-	628,071	(628,071)
Contributions - Employee	-	421,774	(421,774)
Contributions - Buy Back	44,064	44,064	-
Net Investment Income	-	9,928,990	(9,928,990)
Benefit Payments, including Refunds of Employee Contributions	(8,929,344)	(8,929,344)	-
Administrative Expense	-	(105,921)	105,921
Net Changes	2,371,093	5,186,303	(2,815,210)
Reporting Period Ending at September 30, 2017	\$ 128,507,886	\$ 113,883,891	\$ 14,623,995

*Sensitivity of the Net Pension Liability to changes in the Discount Rate.*

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.75%	7.75%	8.75%
Sponsor's Net Pension Liability	\$ 29,674,834	\$ 14,623,995	\$ 2,217,567

*Pension Plan Fiduciary Net Position.*

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2016**

For the year ended September 30, 2016, the Sponsor will recognize a Pension Expense of \$390,393.

On September 30, 2016, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	22,938	-
Changes of assumptions	5,835,351	-
Net difference between Projected and Actual Earnings on Pension Plan investments	6,979,032	-
Employer and State Contributions subsequent to the measurement date	3,826,740	-
Total	<u>\$ 16,664,061</u>	<u>\$ -</u>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2016.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2017	\$ 3,566,386
2018	\$ 3,566,386
2019	\$ 3,566,386
2020	\$ 2,138,163
2021	\$ -
Thereafter	\$ -

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2017**

For the year ended September 30, 2017, the Sponsor will recognize a Pension Expense of \$6,290,599.

On September 30, 2017, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	15,292	361,719
Changes of assumptions	3,890,234	-
Net difference between Projected and Actual Earnings on Pension Plan investments	4,014,445	-
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	<u>TBD</u>	<u>\$ 361,719</u>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2017.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2018	\$ 3,108,072
2019	\$ 3,108,072
2020	\$ 1,679,849
2021	\$ (337,741)
2022	\$ -
Thereafter	\$ -

# SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

## Last 10 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2017 09/30/2016	09/30/2016 09/30/2015	09/30/2015 09/30/2014
Total Pension Liability			
Service Cost	1,340,661	1,189,882	1,578,578
Interest	9,595,671	9,016,289	9,116,288
Changes of benefit terms	802,334	(4,080,439)	-
Differences between Expected and Actual Experience	(482,293)	30,585	-
Changes of assumptions	-	7,780,467	-
Contributions - Buy Back	44,064	-	-
Benefit Payments, including Refunds of Employee Contributions	(8,929,344)	(6,788,324)	(8,163,106)
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Total Pension Liability - Ending (a)	<u>\$128,507,886</u>	<u>\$126,136,793</u>	<u>\$118,988,333</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,198,669	3,636,173	2,355,481
Contributions - State	628,071	698,091	742,106
Contributions - Employee	421,774	474,193	457,361
Contributions - Buy Back	44,064	-	-
Net Investment Income	9,928,990	(1,770,463)	10,938,657
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Plan Fiduciary Net Position - Ending (b)	<u>\$113,883,891</u>	<u>\$108,697,588</u>	<u>\$112,540,739</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 14,623,995</u>	<u>\$ 17,439,205</u>	<u>\$ 6,447,594</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	88.62%	86.17%	94.58%
Covered Employee Payroll <sup>1</sup>	\$ 3,834,292	\$ 7,494,388	\$ 4,157,835
Net Pension Liability as a percentage of Covered Employee Payroll	381.40%	232.70%	155.07%

### Notes to Schedule:

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

### Changes of assumptions:

For measurement date 09/30/2016, the inflation assumption rate was lowered from 3.00% to 2.70%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

For measurement date 09/30/2015, amounts reported as changes of assumptions were resulted from lowering the investment rate of return from 8.00% to 7.75%.

As approved at the October 21, 2015 Board Meeting, we have employed the special risk mortality tables reflected in the Florida Retirement System Actuarial Valuation as of July 1, 2014.

*Changes of benefit terms:*

For measurement date 09/30/2016, amounts reported as changes of benefit terms were resulted from the following plan changes:

1. The definition of Actuarial Equivalent was changed to be in line with the interest and mortality assumptions utilized in the most recent actuarial valuation.
2. The definitions of Compensation, Salary, and Earnings were changed to include additional regular pay, and to clarify that overtime pay maximums are per plan year.
3. The definition of Years of Service was changed to reflect only whole years of service. For vested members, service also includes major fractional parts of a year.
4. It was clarified that DROP members hired before July 1, 1999 receive COLAs during DROP participation.

For measurement date 09/30/2015, amounts reported as changes of benefit terms were resulted from the following plan changes:

1. COLA for those retiring after June 10, 2015:
  - a. Employees who retire or enter DROP after June 10, 2015 will receive a maximum COLA of 2.0%.
  - b. Employees hired after June 10, 2015 will receive a maximum COLA of 1.25%.
2. Employees hired after June 10, 2015 – spousal benefits shall be determined in conformity with those spousal benefits offered to Special Risk class members in the Florida Retirement System
3. Overtime
  - a. Vested employees on June 10, 2015 – maximum 300 hours of overtime pensionable
  - b. Non-vested employees on June 10, 2015 – maximum 200 hours of overtime pensionable
  - c. Employees hired after June 10, 2015 – no overtime pensionable
4. Average Final Compensation
  - a. Employees with 20 or more years of service on June 10, 2015 will remain the same (highest 2 of the last 5 years)
  - b. Employees with less than 20 years of service on June 10, 2015 will be an average of the last 5 years of credited service
5. DROP – participants entering DROP after June 10, 2015:
  - a. Interest rate will be 1.3%
  - b. No Cost-of-Living Adjustment (COLA) while in DROP

## SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014	09/30/2013	09/30/2012
Actuarially Determined Contribution	3,822,480	4,334,264	3,097,587	3,234,358	3,494,389
Contributions in relation to the					
Actuarially Determined Contributions	3,826,740	4,334,264	3,097,587	3,234,358	3,562,977
Contribution Deficiency (Excess)	\$ (4,260)	\$ -	\$ -	\$ -	\$ (68,588)
Covered Employee Payroll <sup>1</sup>	\$ 3,834,292	\$ 7,494,388	\$ 4,157,835	\$ 4,574,063	\$ 4,847,354
Contributions as a percentage of					
Covered Employee Payroll	99.80%	57.83%	74.50%	70.71%	73.50%
Actuarially Determined Contribution	3,286,284	3,441,454	3,691,271	3,704,687	3,605,366
Contributions in relation to the					
Actuarially Determined Contributions	3,321,453	3,441,454	3,699,133	3,741,734	3,785,634
Contribution Deficiency (Excess)	\$ (35,169)	\$ -	\$ (7,862)	\$ (37,047)	\$ (180,268)
Covered Employee Payroll <sup>1</sup>	\$ 4,695,857	\$ 5,009,434	\$ 5,175,498	\$ 5,512,891	\$ 5,041,086
Contributions as a percentage of					
Covered Employee Payroll	70.73%	68.70%	71.47%	67.87%	75.10%

<sup>1</sup> The Covered Employee Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

<sup>2</sup> October 1, 2008 valuation report and older were prepared by Gabriel Roeder Smith & Company.

Notes to Schedule

Valuation Date: 10/01/2014 (AIS 09/24/2015)

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

Methods and assumptions used to determine contribution rates:

Funding Method:	Entry Age Normal Actuarial Cost Method. A load
Amortization Method:	Level % of Payroll, Closed.
Remaining Amortization Period:	30 Years (as of 10/01/2014 valuation).
Mortality Rates:	RP-2000 Combined Healthy Projected to 2011 - Sex Distinct. Based on a study of over 650 public safety funds, the RP-2000 table (with no projection) reflects a 10% margin for future mortality improvements.
Disability Mortality Rates:	RP-2000 Disabled Mortality Projected to 2011 - Sex Distinct.
Termination Rates:	See Table 1 on following page.
Disability Rates:	See Table 2 on following page. 66.7% of disabilities are assumed to be In Line of Duty (ILOD).
Assumed Retirement Age:	See Table 3 on following page. In addition to this table, 75% of members with 25 or more years of service are assumed to retire.
Interest Rate:	8% per year, compounded annually, net of investment related expenses.

Salary Increases:	See below Table 4.
Cost-of-Living Adjustment:	1.25% for those hired on or after June 20, 2015. 2.00% for those retiring after June 10, 2015 and hired before that date. 2.875% per year for those retiring prior to June 10, 2015.
Payroll Growth:	0.60% per year (in 2014, capped at 0.00% per year as limited by historical 10 year payroll growth).
Actuarial Asset Method:	All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Table 1: Termination Table:

Years of Service	Termination Rates
1	3.25%
2	3.00%
3	2.75%
4	2.50%
5	2.25%
6	2.00%
7	1.75%
8	1.50%
9	1.25%
10	1.00%
11+	0.50%

Table 2: Disability Table:

Age	Disability Rates
20	0.15%
25	0.17%
30	0.19%
35	0.32%
40	0.45%
45	1.32%
50	2.20%
55	2.63%
60	3.05%

Table 3: Retirement Table:

Age	Retirement Rates
50	5%
51	10%
52 - 55	25%
56	100%

Table 4: Salary increase Table:

Age	Increase Rates
20	12.68%
25	11.09%
30	8.55%
35	6.73%
40	6.09%
45	5.64%
50	5.32%
55	5.00%

**FINAL COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2016**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 6,447,594	\$ 2,098,161	\$ 4,334,264	\$ -
Employer and State Contributions made after 09/30/2015	-	-	3,826,740	-
Total Pension Liability Factors:				
Service Cost	1,189,882	-	-	1,189,882
Interest	9,016,289	-	-	9,016,289
Changes in benefit terms	(4,080,439)	-	-	(4,080,439)
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	30,585	-	30,585	-
Current year amortization of experience difference	-	-	(7,647)	7,647
Change in assumptions about future economic or demographic factors or other inputs	7,780,467	-	7,780,467	-
Current year amortization of change in assumptions	-	-	(1,945,116)	1,945,116
Benefit Payments	(6,788,324)	-	-	(6,788,324)
Net change	<u>7,148,460</u>	<u>-</u>	<u>9,685,029</u>	<u>1,290,171</u>
Plan Fiduciary Net Position:				
Contributions - Employer	3,636,173	-	(3,636,173)	-
Contributions - State	698,091	-	(698,091)	-
Contributions - Employee	474,193	-	-	(474,193)
Net Investment Income	8,920,352	-	-	(8,920,352)
Difference between projected and actual earnings on Pension Plan investments	(10,690,815)	-	10,690,815	-
Current year amortization	-	(524,541)	(2,138,163)	1,613,622
Benefit Payments	(6,788,324)	-	-	6,788,324
Administrative Expenses	(92,821)	-	-	92,821
Net change	<u>(3,843,151)</u>	<u>(524,541)</u>	<u>4,218,388</u>	<u>(899,778)</u>
Ending Balance	<u>\$ 17,439,205</u>	<u>\$ 1,573,620</u>	<u>\$ 18,237,681</u>	<u>\$ 390,393</u>



**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2017**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 17,439,205	\$ 1,573,620	\$ 18,237,681	\$ -
Employer and State Contributions made after 09/30/2016	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	1,340,661	-	-	1,340,661
Interest	9,595,671	-	-	9,595,671
Changes in benefit terms	802,334	-	-	802,334
Contributions - Buy Back	44,064	-	-	44,064
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(482,293)	482,293	-	-
Current year amortization of experience difference	-	(120,574)	(7,646)	(112,928)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(1,945,117)	1,945,117
Benefit Payments	(8,929,344)	-	-	(8,929,344)
Net change	<u>2,371,093</u>	<u>361,719</u>	<u>(1,952,763)</u>	<u>4,685,575</u>
Plan Fiduciary Net Position:				
Contributions - Employer	3,198,669	-	(3,198,669)	-
Contributions - State	628,071	-	(628,071)	-
Contributions - Employee	421,774	-	-	(421,774)
Contributions - Buy Back	44,064	-	-	(44,064)
Net Investment Income	8,240,284	-	-	(8,240,284)
Difference between projected and actual earnings on Pension Plan investments	1,688,706	1,688,706	-	-
Current year amortization	-	(862,282)	(2,138,163)	1,275,881
Benefit Payments	(8,929,344)	-	-	8,929,344
Administrative Expenses	(105,921)	-	-	105,921
Net change	<u>5,186,303</u>	<u>826,424</u>	<u>(5,964,903)</u>	<u>1,605,024</u>
Ending Balance	<u>\$ 14,623,995</u>	<u>\$ 2,761,763</u>	<u>TBD</u>	<u>\$ 6,290,599</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2016 but made on or before September 30, 2017 need to be added.

## AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ (2,622,702)	5	\$ (524,541)	\$ (524,541)	\$ (524,540)	\$ (524,540)	\$ (524,540)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 10,690,815	5	\$ -	\$ 2,138,163	\$ 2,138,163	\$ 2,138,163	\$ 2,138,163	\$ 2,138,163	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (1,688,706)	5	\$ -	\$ -	\$ (337,742)	\$ (337,741)	\$ (337,741)	\$ (337,741)	\$ (337,741)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (524,541)	\$ 1,613,622	\$ 1,275,881	\$ 1,275,882	\$ 1,275,882	\$ 1,800,422	\$ (337,741)	\$ -	\$ -	\$ -	\$ -

## AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

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 Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions
 

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Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ -	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 7,780,467	4	\$ -	\$ 1,945,116	\$ 1,945,117	\$ 1,945,117	\$ 1,945,117	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ -	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ 1,945,116	\$ 1,945,117	\$ 1,945,117	\$ 1,945,117	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

## AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ -	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 30,585	4	\$ -	\$ 7,647	\$ 7,646	\$ 7,646	\$ 7,646	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (482,293)	4	\$ -	\$ -	\$ (120,574)	\$ (120,573)	\$ (120,573)	\$ (120,573)	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ 7,647	\$ (112,928)	\$ (112,927)	\$ (112,927)	\$ (120,573)	\$ -	\$ -	\$ -	\$ -	\$ -