

**CITY OF FORT LAUDERDALE GENERAL EMPLOYEES RETIREMENT SYSTEM**  
ACTUARIAL VALUATION REPORT AS OF SEPTEMBER 30, 2015

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



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May 4, 2016

The Board of Trustees  
City of Fort Lauderdale General  
Employees Retirement System  
Fort Lauderdale, Florida

The results of the September 30, 2015 Annual Actuarial Valuation of the City of Fort Lauderdale General Employees Retirement System are presented in this report.

The computed contribution rate shown on page B-2 may be considered as a minimum contribution rate that complies with the Board's funding policy. Users of this report should be aware that contributions made at that rate do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the System in excess of those presented in this report be considered.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending September 30, 2017, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 67 for the fiscal year ending September 30, 2015. 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 above. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The findings in this report are based on data or other information through 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 measurements.

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

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

In addition, this report was prepared using certain assumptions approved by the Board as described in the Actuarial Cost Method, Assumptions and Definitions Section.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Melissa R. Moskovitz and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate. In my opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

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.

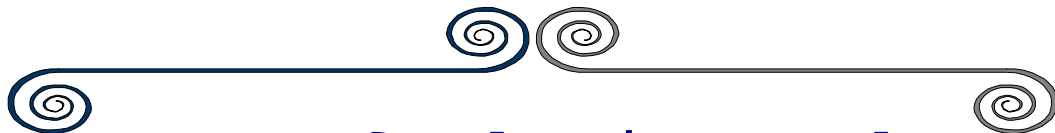
Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By Melissa R. Moskovitz  
Melissa R. Moskovitz, MAAA, FCA  
Enrolled Actuary No. 14-6467

By Jeff Amrose  
Jeffrey Amrose, MAAA  
Enrolled Actuary No. 14-6599

## Section A



Summary of Valuation Results

## VALUATION HIGHLIGHTS

### **CLOSED PLAN**

In reviewing this Report, it is important for the reader to keep in mind that this System has been closed to new members since 2007. City employees hired since 2007 become members of a separate defined contribution retirement program. One consequence of this closure is that the annual payment on the unfunded accrued liability will continue to increase as a percent of covered payroll, as such payroll decreases from year to year.

### **COVERED PAYROLL**

Throughout this Report, the payroll figures shown represent covered payroll for active members of the Retirement System only, excluding DROP members, and all costs shown as a percentage of payroll are determined on this basis.

### **PLAN AMENDMENTS**

There were no Plan amendments since the prior valuation.

### **OTHER CHANGES**

There have been revisions made to the actuarial assumptions and methods since the last actuarial valuation. The Board adopted a reduction in the investment return assumption from 7.75% to 7.5% over three years starting in the September 30, 2013 Valuation. This assumption was lowered from 7.55% to 7.50% for the September 30, 2015 Valuation. Additionally, the amortization period for new Unfunded Actuarial Accrued Liability (UAAL) bases was lowered from 28 years to 27 years and will continue to be lowered by one year for each year in the future.

It is important to note that under Florida Statutes, the Plan will be required to use the same mortality assumption used by the Florida Retirement System beginning with the September 30, 2016 Actuarial Valuation.

### **REQUIRED CITY CONTRIBUTIONS**

The required City contribution for the fiscal year beginning October 1, 2016 is 30.85% of payroll, an increase of 1.26% compared to 29.59% for the fiscal year beginning October 1, 2015. The dollar contribution is \$15.31 million next fiscal year compared to \$15.08 million this fiscal year. The required City contribution for the fiscal year beginning October 1, 2016 was 30.16% of payroll, or \$14.97 million, before the assumption change described above.

### **OBSERVED EXPERIENCE**

Year-to-year differences between assumed experience and observed experience are inevitable in the operation of the System. Examples of favorable experience are: higher than anticipated member termination rates; higher than projected investment returns; a low incidence of disability and delayed retirement. Examples of unfavorable experience are: earlier than anticipated retirement; higher than projected pay increases; increases in longevity after retirement and decreases in the number of active members. Each annual actuarial valuation takes observed experience differences into account. If on net balance the differences are favorable, the unfunded actuarial accrued liability is less than projected (an experience gain) otherwise it is more than projected (an experience loss). Specific activity information is located in Sections C and D.

Observed experience during the year was in the aggregate less favorable than expected, resulting in an actuarial experience loss of \$2,547,525 compared to last year's gain of \$14,431,936. The loss was mainly attributable to lower than expected investment earnings on the actuarial value of assets. The investment loss was partially offset by a small demographic experience gain due to higher than expected mortality and lower than expected salary increases during the year. The overall net loss loss increased the required contribution by 0.43% of payroll.

The investment return for the year was (3.8)% based on market value and 7.0% based on the actuarial value of assets. The assumed rate of return for the fiscal year ending September 30, 2015 was 7.55%. The average salary increase for continuing active members was 3.9% as compared to the average assumed rate of 4.2%.

### **FUNDED RATIO**

The funding progress indicators described on page B-4 and reported on page B-5 indicate that the accrued obligations of the System, as measured by the entry-age actuarial cost method, are 93.5% funded vs. 93.3% funded last year. The funded ratio was 93.9% before the assumption change described above.

### **REQUIRED CONTRIBUTION IN LATER YEARS**

It is important to keep in mind that under the asset smoothing method, investment gains and losses are recognized over five years. As of September 30, 2015 the actuarial value of assets exceeded the market value by \$20,409,054. If these unrecognized investment losses were immediately recognized in the actuarial asset value, the contribution rate would increase by roughly 3.5% of this year's payroll.

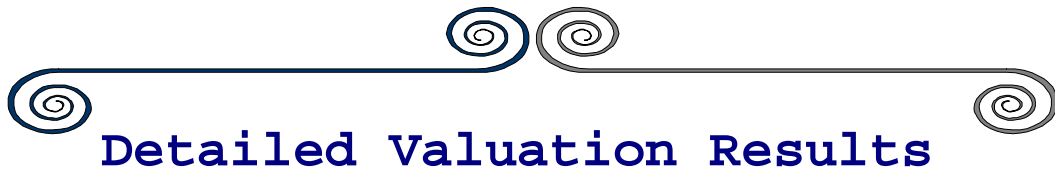
This year's report reflects the last payment on the increase in the UAAL that was established in 2011 associated with the Bonus Incentive Program (BIP). As a result, the required contribution in next year's report will decrease by approximately \$4.9 million.

### **RELATIONSHIP TO MARKET VALUE**

If Market Value had been the basis for the valuation, the City contribution rate would have been 34.31% and the funded ratio would have been 90.1%. In the absence of other gains and losses, the City contribution rate should increase to that level over the next several years.



## Section B



## Detailed Valuation Results

## **FUNDING OBJECTIVE**

The funding objective for the Retirement System is to establish and receive contributions which meet the requirements of Part VII, Chapter 112, Florida Statutes.

## **CONTRIBUTION RATES**

The Retirement System is supported by participant contributions, City contributions and investment income on Retirement System assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

- (1) cover the costs allocated to the current year (normal cost) by the actuarial cost methods described in Section D; and
- (2) finance over a period of future years the actuarial costs not covered by present assets and anticipated future normal costs (unfunded actuarial accrued liability).

The financing period used for the unfunded actuarial accrued liability at September 30, 2000 was combined into a single period of 23 years. Changes in the unfunded liability after September 30, 2000 are financed over 30 years, with the exception of the change in unfunded liability due to the Bonus Incentive Program, which is being financed over 5 years starting October 1, 2012. Starting October 1, 2013, the amortization period for new bases will be reduced by one year each valuation.

Contribution requirements for the next plan and fiscal year are shown on page B-2.

**CONTRIBUTIONS TO FINANCE BENEFITS OF THE RETIREMENT SYSTEM  
TO BE CONTRIBUTED DURING THE FISCAL YEAR  
BEGINNING OCTOBER 1, 2016**

Contributions Expressed as	After Changes		Before Changes		From 9/30/2014 Valuation	
	% of 10/1/16 Member Payroll <sup>(1)</sup>	\$ Contributions <sup>(2)</sup>	% of 10/1/16 Member Payroll <sup>(1)</sup>	\$ Contributions <sup>(2)</sup>	% of 10/1/15 Member Payroll <sup>(1)</sup>	\$ Contributions <sup>(2)</sup>
<i>Normal Cost</i>						
Service pensions	14.38 %	\$7,139,056	14.22 %	\$7,059,623	14.24 %	\$7,255,571
Deferred service pensions	2.59	1,285,824	2.56	1,270,931	2.54	1,294,182
Disability pensions	1.80	893,623	1.79	888,659	1.81	922,232
Death in service pensions	0.52	258,158	0.52	258,158	0.54	275,141
Refunds of member contributions	0.26	129,079	0.26	129,079	0.26	132,475
Total Normal Cost	19.55	9,705,740	19.35	9,606,450	19.39	9,879,601
<i>Unfunded Actuarial Accrued Liability</i>						
Retired members and beneficiaries	0.00	0	0.00	0	0.00	0
Active and vested terminated members	16.44	8,163,222	15.95	7,920,973	15.22	7,755,858
Total Unfunded Actuarial Accrued Liability	16.44	8,163,222	15.95	7,920,973	15.22	7,755,858
<i>Administrative Expenses</i>	0.84	413,209	0.84	413,309	0.96	487,599
<i>Total Unadjusted Computed Contribution</i>	36.83	18,282,171	36.14	17,940,732	35.57	18,123,058
<i>Adjustments to Computed Contribution</i>						
FS 112.64(5) Compliance	0.00	0	0.00	0	0.00	0
Full funding credit	0.00	0	0.00	0	0.00	0
Total Adjustments	0.00	0	0.00	0	0.00	0
Total Adjusted Contribution Requirement	36.83 %	\$18,282,171	36.14 %	\$17,940,732	35.57 %	\$18,123,058
Member portion	5.98	2,968,815	5.98	2,968,815	5.98	3,046,932
City portion	30.85	15,313,356 <sup>(3)</sup>	30.16	14,971,917	29.59	15,076,126
Estimated Contribution Year Covered Payroll <sup>(1)</sup>	N/A	49,645,728	N/A	49,645,728	N/A	50,952,045

<sup>(1)</sup>Estimated Covered Payroll (excluding DROP members) for the 2016-17 Fiscal Year is \$49,645,728, compared to \$50,952,045 for the 2015-16 year. These figures represent estimated payroll for active members of the Retirement System only. The System has been closed to new members since 2007. As a result, the required contribution will continue to increase as a percent of covered payroll, as such payroll decreases from year to year.

<sup>(2)</sup>Dollar contributions have been projected to allow for projected compensation increases, retirements, employment terminations and deaths. The required Employer contribution has been adjusted for interest on the basis that contributions are made in equal installments at the end of each pay period.

<sup>(3)</sup>The required City contribution is \$14,650,881 if paid in full on October 1, 2016.

FS 112.64 requires City contributions to be deposited not less frequently than quarterly. Member contributions, which are in addition to the City contributions, must be deposited not less frequently than monthly.

Comparative contribution amounts for prior fiscal years are shown on page B-3.

## CITY CONTRIBUTION REQUIREMENT: HISTORICAL COMPARISON

Valuation Date	Applicable Fiscal Year	Percent of Payroll Contribution					Dollar Contribution	
		Normal Cost	Expenses	UAAL*	Adjustments	Total	Projected	Actual
9/30/1990	90-91	4.51 %	1.50 %	6.26 %	0.00 %	12.27 %	\$ n.a.	\$ n.a.
9/30/1991	91-92	5.67	1.50	4.61	0.00	11.78	n.a.	n.a.
9/30/1992	92-93	6.18	1.52	5.78	0.00	13.48	5,658,572	5,658,572
9/30/1993	93-94	4.73	1.76	5.56	0.00	12.05	5,222,632	5,222,632
9/30/1994 (a)	94-95	7.26	1.77	4.43	1.20	14.66	6,271,026	6,253,916
9/30/1995 (a)	95-96	7.22	0.47	3.97	0.00	11.66	5,091,855	5,091,855
9/30/1996 (a)	96-97	7.62	0.62	5.28	0.13	13.65	6,022,556	6,022,556
9/30/1997 (a)	97-98	8.04	0.54	3.09	0.15	11.82	5,482,994	5,482,994
9/30/1998	98-99	7.89	0.56	2.82	0.09	11.36	5,693,583	5,693,583
9/30/1999 (a)	99-00	7.03	0.52	0.50	(0.01)	8.04	4,187,028	4,291,596
9/30/2000 (a)	00-01	8.22	0.56	0.41	0.00	9.19	5,002,774	5,002,774
9/30/2000 (a)	01-02	8.22	0.56	0.41	0.00	9.19	5,202,885	5,202,884
9/30/2001 (a)	02-03	10.59	0.53	3.33	0.28	14.73	9,012,598	9,012,598
9/30/2002	03-04	10.96	0.58	7.82	0.68	20.04	12,055,085	12,055,085
9/30/2003 (a)	04-05	11.71	0.56	9.73	0.00	21.99	14,036,569	14,036,569
9/30/2004 (a)	05-06	11.87	0.64	11.73	0.14	24.38	14,749,038	14,749,038
9/30/2005	06-07	12.14	0.57	10.91	0.00	23.62	15,221,841	15,221,841
9/30/2006	07-08	12.48	0.62	10.33	0.00	23.43	16,025,608	16,025,608
9/30/2007 (a)	08-09	12.73	0.59	12.44	0.00	25.76	18,363,351	18,363,351
9/30/2008	09-10	13.17	0.59	14.92	0.00	28.68	19,387,067	19,387,067
9/30/2009	10-11	13.21	0.54	17.20	0.00	30.95	21,534,043	21,534,043
9/30/2010	11-12	13.32	0.52	18.91	0.00	32.75	22,379,269	22,379,269
9/30/2011 (a)	12-13	13.91	0.67	8.02	0.00	22.60	12,912,679	13,569,411
9/30/2012 (a)	13-14	12.84	0.72	13.93	0.00	27.49	15,061,353	15,061,353
9/30/2013 (a)	14-15	13.17	0.82	15.16	0.00	29.15	15,501,180	15,501,180
9/30/2014 (a)	15-16	13.41	0.96	15.22	0.00	29.59	15,076,126	
9/30/2015 (b)	<b>16-17</b>	<b>13.37</b>	<b>0.84</b>	<b>15.95</b>	<b>0.00</b>	<b>30.16</b>	<b>14,971,917</b>	
9/30/2015 (a)	<b>16-17</b>	<b>13.57</b>	<b>0.84</b>	<b>16.44</b>	<b>0.00</b>	<b>30.85</b>	<b>15,313,356</b>	

These percent of payroll contribution figures represent percentages of covered payroll for active members of the Retirement System only, excluding DROP members. The System has been closed to new members since 2007. As a result, the required contribution will continue to increase as a percent of covered payroll, as such payroll decreases from year to year.

\* UAAL represents unfunded actuarial accrued liability.

(a) After changes in benefit provisions and/or actuarial assumptions/methods.

(b) Before changes in benefit provisions and/or actuarial assumptions/methods.

## FUNDING PROGRESS INDICATORS

There is no single all-encompassing measure of a pension plan's funding progress and current funded status. Understanding of short-term funding progress and status can be achieved using the following indicators:

***Indicator (1)*** - The actuarial present value of gains or losses realized in the operation of the Retirement System. Gains and losses are expected to cancel each other over a period of years but sizable year-to-year fluctuations are common.

***Indicator (2)*** - The ratio of the funding value of assets to the actuarial accrued liability. The ratio is expected to increase over time but the basic trend may be interrupted by benefit improvements.

***Indicator (3)*** - The ratio of the unfunded actuarial accrued liability to participant payroll. In a soundly financed pension fund, the amount of the unfunded actuarial accrued liability will be controlled and prevented from increasing in the absence of benefit improvements. However, in an inflationary environment it is seldom practical to impose this control on dollar amounts which are depreciating in value. The ratio is a relative index of condition where inflation is present in both items. The ratio is expected to decrease over time but the basic trend may be interrupted by benefit improvements.

## FUNDING PROGRESS INDICATORS - HISTORICAL COMPARISON

Valuation Date	Indicator (1)		Indicator (2)		Indicator (3)		
	Gain (Loss)	Funding Value of Assets	AAL	Percent Funded	Unfunded AAL	Valuation Payroll	Percent of Payroll
September 30, 1994	N/A	\$147,354,316	\$181,036,056	81.4 %	\$33,681,740	\$41,845,307	80.4 %
September 30, 1995	\$ 4,820,050	163,265,372	192,613,773	84.8	29,348,401	42,718,845	68.6
September 30, 1996 (a)*	3,832,181	175,906,574	215,921,863	81.5	40,015,289	43,160,872	92.8
September 30, 1997 (a)	18,712,125	204,885,033	225,854,296	90.7	20,969,263	45,377,683	46.2
September 30, 1998	1,000,984	228,067,116	247,477,415	92.2	19,410,299	49,012,771	39.6
September 30, 1999 (a)	15,840,796	254,682,660	250,814,531	101.5	(3,868,129)	51,090,800	-
September 30, 2000 (a)	4,955,323	274,896,024	278,433,377	98.7	3,537,353	53,388,461	6.6
September 30, 2001 (a)	(2,664,957)	287,006,880	323,655,373	88.7	36,648,493	57,544,997	63.7
September 30, 2002	(45,658,572)	270,315,139	354,556,913	76.2	84,241,774	56,553,965	149.0
September 30, 2003 (a)	(10,382,467)	268,977,550	369,718,095	72.8	100,740,545	60,095,925	167.6
September 30, 2004 (a)	(11,605,848)	266,240,318	379,814,542	70.1	113,574,224	57,013,914	199.2
September 30, 2005	6,287,063	282,961,210	392,571,293	72.1	109,610,083	60,524,820	181.1
September 30, 2006	3,111,903	301,241,568	408,743,565	73.7	107,501,997	64,239,370	167.3
September 30, 2007 (a)	6,224,383	327,741,369	430,025,194	76.2	102,283,825	69,102,372	148.0
September 30, 2008	(12,696,085)	338,743,156	454,291,730	74.6	115,548,574	69,499,308	166.3
September 30, 2009	(21,592,067)	345,239,176	482,099,968	71.6	136,860,792	71,547,932	191.3
September 30, 2010	(9,398,503)	353,481,376	499,854,210	70.7	146,372,834	71,416,368	205.0
September 30, 2011 (a)	(18,218,973)	491,526,223	536,701,842	91.6	45,175,619	60,621,037	74.5
September 30, 2012 (a)	(14,697,316)	500,032,464	551,357,605	90.7	51,325,141	58,373,182	87.9
September 30, 2013 (a)	2,991,103	519,997,283	572,516,334	90.8	52,519,051	57,216,597	91.8
September 30, 2014 (a)	14,431,936	551,038,675	590,876,829	93.3	39,838,154	53,024,872	75.1
<b>September 30, 2015 (b)</b>	<b>(2,547,525)</b>	<b>570,701,450</b>	<b>607,517,907</b>	<b>93.9</b>	<b>36,816,457</b>	<b>52,229,112</b>	<b>70.5</b>
<b>September 30, 2015 (a)</b>	<b>(2,547,525)</b>	<b>570,701,450</b>	<b>610,536,762</b>	<b>93.5</b>	<b>39,835,312</b>	<b>52,229,112</b>	<b>76.3</b>

\* State mandated mortality assumption change.

(a) After changes in benefit provisions and/or actuarial assumptions/methods.

(b) Before changes in benefit provisions and/or actuarial assumptions/methods.

The payroll figures represent covered payroll for active members of the Retirement System only, excluding DROP members, and the Unfunded AAL as a percent of payroll was calculated on this basis.

AAL represents the actuarial accrued liability using the Entry Age actuarial cost method.

## DERIVATION OF EXPERIENCE GAIN (LOSS)

Derivation	Year Ended 2015
(1) UAAL at start of year	\$ 39,838,154
(2) Employer normal cost for year	7,800,064
(3) Actual Employer contributions	15,501,180
(4) Interest accrued on (1), (2) and (3)	2,131,894
Interest Rate from previous year valuation:	7.55%
(5) Expected UAAL before changes and experience gain (loss)	34,268,932
(6) Effect of COLA during year	0
(7) Effect of benefit changes	0
(8) Effect of assumption or method changes	3,018,855
(9) Expected UAAL after changes (5) + (6) + (7) + (8)	37,287,787
(10) Actual UAAL at end of year	39,835,312
(11) Experience gain (loss) (9) - (10)	(2,547,525)
(12) Gain (loss) due to investments	(3,186,137)
(13) Gain (loss) from other sources	638,612

UAAL represents unfunded actuarial accrued liability.

## CUMULATIVE EXPERIENCE GAINS (LOSSES)

Year Ended Sept. 30	Balance at Beginning of Year	Interest	Gain (Loss) During Year	Value of Cost- of- Living Adjustment During Year	Amortization Credits or (Charges)	Balance at End of Year
1989						\$12,896,673
1990	\$12,896,673	\$ 967,250	\$(10,398,254)	\$3,824,160		(551,941)
1991	(551,941)	(33,116)	10,641,105	-		10,056,048
1992	10,056,048	754,204	4,255,737	2,759,768		12,306,221
1993	12,306,221	922,967	11,535,157	-		24,764,344
1994	24,764,344	1,857,326	-*	1,985,572		24,636,098
1995	24,636,098	1,847,707	4,820,050	-		31,303,856
1996	31,303,856	2,347,789	3,832,152	3,056,940		34,426,857
1997	34,426,857	2,582,014	18,712,125	2,345,000	\$151,209	53,527,205
1998	53,527,205	4,014,540	1,000,984	4,353,000	274,012	54,463,741
1999	54,463,741	4,084,781	15,840,796	1,727,051	501,660	73,163,927
2000	73,163,927	5,487,295	4,955,323	3,074,205	644,539	81,176,879
2001	81,176,879	6,088,266	(2,664,957)	4,222,465	N/A	80,377,723
2002	80,377,723	6,028,329	(45,658,572)	0	N/A	40,747,480
2003	40,747,480	3,056,061	(10,382,467)	0	N/A	33,421,074
2004	33,421,074	2,590,133	(11,605,848)	0	N/A	24,405,359
2005	24,405,359	1,891,415	6,287,063	0	N/A	32,583,837
2006	32,583,837	2,525,247	3,111,903	0	N/A	38,220,987
2007	38,220,987	2,962,126	6,224,383	0	N/A	47,407,496
2008	47,407,496	3,674,081	(12,696,085)	0	N/A	38,385,492
2009	38,385,492	2,974,876	(21,592,067)	0	N/A	19,768,301
2010	19,768,301	1,532,043	(9,398,503)	0	N/A	11,901,841
2011	11,901,841	922,393	(18,218,973)	0	N/A	(5,394,739)
2012	(5,394,739)	(418,092)	(14,697,316)	0	N/A	(20,510,147)
2013	(20,510,147)	(1,589,536)	2,991,103	0	N/A	(19,108,580)
2014	(19,108,580)	(1,461,806)	14,431,936	0	N/A	(6,138,450)
2015	(6,138,450)	(463,453)	(2,547,525)	0	N/A	(9,149,428)

\* Gain/loss could not be calculated due to the unavailability of necessary information from the prior actuary.



## UNFUNDED ACTUARIAL ACCRUED LIABILITY

	September 30, 2015		September 30, 2014
	After Changes	Before Changes	
A. Actuarial present value of future benefits	\$675,895,980	\$672,047,231	\$659,271,207
B. Actuarial present value of future normal costs	65,359,218	64,529,324	68,394,378
C. Actuarial accrued liability	610,536,762	607,517,907	590,876,829
D. Actuarial value of assets	570,701,450	570,701,450	551,038,675
E. Unfunded actuarial accrued liability	39,835,312	36,816,457	39,838,154

## SOURCES AND FINANCING OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

Year Established	Initial Years	Years Remaining	Initial Amount	Current Amount	After Changes		Before Changes		
					Payment	Percent of Payroll	Payment	Percent of Payroll	
Initial Unfunded									
2000	23	8	\$3,537,353	\$350,101	\$57,687	0.12 %	\$57,784	0.12 %	
COLA									
2001	30	16	4,222,465	518,375	54,727	0.11	54,894	0.11	
Experience (Gain)/Loss									
2001	30	16	2,664,957	327,167	34,540	0.07	34,645	0.07	
2002	30	17	45,658,572	5,635,120	576,486	1.16	578,317	1.16	
2003	30	18	10,382,467	1,249,398	124,233	0.25	124,646	0.25	
2004	30	19	11,605,848	1,386,544	134,368	0.27	134,831	0.27	
2005	30	20	(6,287,063)	(745,970)	(70,622)	(0.14)	(70,874)	(0.14)	
2006	30	21	(3,111,903)	(369,100)	(34,208)	(0.07)	(34,335)	(0.07)	
2007	30	22	(6,224,383)	(735,108)	(66,822)	(0.13)	(67,078)	(0.14)	
2008	30	23	12,696,085	1,497,715	133,757	0.27	134,285	0.27	
2009	30	24	21,592,067	2,557,936	224,775	0.45	225,688	0.45	
2010	30	25	9,398,503	1,113,134	96,376	0.19	96,777	0.19	
2011	30	26	18,218,973	2,169,373	185,291	0.37	186,082	0.37	
2012	30	27	14,697,316	15,373,635	1,296,814	2.60	1,302,480	2.62	
2013	29	27	(2,991,103)	(2,922,249)	(246,501)	(0.50)	(247,578)	(0.49)	
2014	28	27	(14,431,936)	(14,021,361)	(1,182,746)	(2.38)	(1,187,913)	(2.39)	
2015	27	27	2,547,525	2,547,525	214,892	0.43	215,830	0.43	
Benefit Changes									
2001	30	16	30,026,528	3,686,233	389,175	0.78	390,355	0.79	
2003	30	18	2,712,567	326,424	32,458	0.07	32,566	0.07	
2011	5	1	17,539,863	4,765,264	4,943,961	9.96	4,945,153	9.96	
Assumption/Cost Method Changes									
2001	30	16	(3,205,872)	(393,571)	(41,551)	(0.08)	(41,677)	(0.08)	
2003	30	18	(589,337)	(70,920)	(7,052)	(0.01)	(7,075)	(0.01)	
2004	30	19	(1,235,509)	(147,607)	(14,304)	(0.03)	(14,354)	(0.03)	
2012	30	27	1,378,571	1,442,009	121,638	0.25	122,169	0.25	
2013	29	27	5,715,854	5,584,280	471,052	0.95	473,109	0.95	
2014	28	27	5,858,787	5,692,110	480,148	0.97	482,246	0.97	
2015	27	27	<u>3,018,855</u>	<u>3,018,855</u>	<u>254,650</u>	<u>0.51</u>	<u>N/A</u>	<u>N/A</u>	
			185,396,050	39,835,312	8,163,222	16.44	7,920,973	15.95	

The annual payment is the level dollar amount needed to amortize the base over the remaining years. The percent of payroll figures represent percentages of covered payroll for active members of the Retirement System only, excluding DROP members. The System has been closed to new members since 2007. As a result, the annual payment on the unfunded accrued liability will continue to increase as a percent of covered payroll, as such payroll decreases from year to year.

The unfunded actuarial accrued liabilities were combined and offset in accordance with the procedure outlined in proposed I.R.S. regulation 1.412(b)-1(d) and was adopted by the Board of Trustees for use in the September 30, 2000 valuation.

## DERIVATION OF FUNDING VALUE OF ASSETS

	2011	2012	2013	2014	2015
<b>Beginning of Year</b>					
(1) Market Value	\$312,018,770	\$305,318,905	\$496,554,294	\$549,873,979	\$591,512,232
(2) Funding Value	353,481,376	355,673,852	500,032,464	519,997,283	551,038,675
<b>End of Year</b>					
(3) Market Value	305,318,905	350,173,364	549,873,979	591,512,232	550,292,396
(4) Net Addition to Assets, Excluding Investment Income and Expenses	(3,039,192)	(6,842,698)	(18,902,771)	(17,931,426)	(18,636,163)
(5) Total Net Investment Income# = (3) - (1) - (4)	(3,660,673)	51,697,157	72,222,456	59,569,679	(22,583,673)
(6) Projected Net Rate of Return#	7.75%	7.75%	7.75%	7.65%	7.55%
(7) Projected Investment Income##	27,277,038	27,299,569	38,020,034	39,093,915	41,485,075
(8) Investment Income in Excess of Projected = (5) - (7)	(30,937,711)	24,397,588	34,202,422	20,475,764	(64,068,748)
(9) Excess Investment Income Recognized					
(9a) From This Year	(6,187,542)	4,879,518	6,840,484	4,095,153	(12,813,750)
(9b) From One Year Ago	251,290	(6,187,542)	4,879,518	6,840,484	4,095,153
(9c) From Two Years Ago	(4,936,194)	251,290	(6,187,542)	4,879,518	6,840,484
(9d) From Three Years Ago	(16,486,261)	(4,936,194)	251,290	(6,187,542)	4,879,518
(9e) From Four Years Ago	5,313,337	(16,486,261)	(4,936,194)	251,290	(6,187,542)
(9f) Total	(22,045,370)	(22,479,189)	847,556	9,878,903	(3,186,137)
<b>End of Year</b>					
(10) Funding Value (2) + (4) + (7) + (9f)	355,673,852	353,651,534	519,997,283	551,038,675	570,701,450
(11) Final Funding Value Within 20% of Market Value	355,673,852	353,651,534	519,997,283	551,038,675	570,701,450
(12) Market Value	305,318,905	350,173,364	549,873,979	591,512,232	550,292,396
(13) Proceeds from Pension Obligation Bond	135,852,371	146,380,930	N/A	N/A	N/A
(14) Final Funding Value	491,526,223	500,032,464	519,997,283	551,038,675	570,701,450
(15) Final Market Value	441,171,276	496,554,294	549,873,979	591,512,232	550,292,396
<b>Rate of Return#</b>					
Funding Value	1.5%	1.4%	7.9%	9.6%	7.0%
Market Value	-1.2%	17.1%	14.8%	11.0%	-3.8%

# Net of investment expenses. In 2011 and 2012, before reflecting proceeds from Pension Obligation Bond.

## Reflecting October 1 employer contribution timing for the fiscal year ending September 30, 2015.

<b>Recent History of Investment Earnings</b>						
<b>Fiscal Year Ending (September 30)</b>	<b>Year End Market Value of Assets (\$000's)</b>	<b>Actual Net Investment Income (\$000's)</b>	<b>Return on Market Value</b>	<b>Return on Actuarial Value</b>	<b>Expected Investment Income (\$000's)</b>	<b>Actual Less Expected (\$000's)</b>
2000	\$ 301,796	\$ 39,130	14.7 %	10.8 %	\$ 18,839	\$ 20,291
2001	251,699	(43,739)	(14.7)	5.6	20,379	(64,118)
2002	225,263	(18,179)	(7.3)	(3.0)	21,216	(39,395)
2003	250,805	35,883	16.4	2.8	19,942	15,941
2004	266,240	22,923	9.3	1.3	20,556	2,367
2005	291,037	30,507	11.6	8.5	20,412	10,095
2006	309,959	25,020	8.7	8.7	21,693	3,327
2007	355,028	49,732	16.2	10.4	23,166	26,566
2008	292,088	(57,252)	(16.3)	5.1	25,180	(82,432)
2009	287,699	1,349	0.5	3.6	26,030	(24,681)
2010	312,019	27,902	9.8	3.4	26,646	1,256
2011	441,171	(3,661)	(1.2)	1.5	27,277	(30,938)
2012	496,554	51,697	17.1	1.4	27,300	24,397
2013	549,874	72,222	14.8	7.9	38,020	34,202
2014	591,512	59,570	11.0	9.6	39,094	20,476
2015	<u>550,292</u>	<u>(22,584)</u>	<u>(3.8)</u>	<u>7.0</u>	<u>41,485</u>	<u>(64,069)</u>
Total	N/A	\$ 270,520	4.8% (Avg.)	5.2% (Avg.)	\$ 417,235	\$ (146,715)

## ACTUARIAL BALANCE SHEET – SEPTEMBER 30, 2015

### *Present Resources and Expected Future Resources*

	<b>After Changes</b>	<b>Before Changes</b>
A. Net assets available for benefits		
1. Funding value	\$570,701,450	\$570,701,450
B. Actuarial present value of expected future City contributions		
1. For normal cost	43,995,276	43,212,777
2. For unfunded actuarial accrued liability	39,835,312	36,816,457
3. Total	83,830,588	80,029,234
C. Actuarial present value of expected future participant contributions	21,363,942	21,316,547
D. Total Present and Expected Future Resources	\$675,895,980	\$672,047,231


### *Actuarial Present Value of Expected Future Benefit Payments and Reserves*

	<b>After Changes</b>	<b>Before Changes</b>
A. To retired participants and beneficiaries	\$371,295,764	\$369,836,804
B. To vested terminated participants	20,081,439	19,942,646
C. To present active participants		
1. Allocated to service rendered prior to valuation date	219,159,559	217,738,457
2. Allocated to service likely to be rendered after valuation date	65,359,218	64,529,324
3. Total	284,518,777	282,267,781
D. Total Actuarial Present Value of Expected Future Benefit Payments	\$675,895,980	\$672,047,231

## ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS BY DECREMENT

	<u>9/30/2015</u>		<u>9/30/2014</u>
	After Changes	Before Changes	
(i) Actuarial present value of active member benefits:			
Service retirement	\$262,648,115	\$260,597,189	\$253,474,046
Vested termination benefits	14,396,244	14,239,087	15,248,094
Disability retirement	3,828,117	3,803,206	4,191,122
Survivor benefits (pre-retirement)	3,551,258	3,533,502	3,642,612
Termination benefits - refunds	95,043	94,797	95,880
Totals	<u>284,518,777</u>	<u>282,267,781</u>	<u>276,651,754</u>
(ii) Actuarial present value of terminated vested members	20,081,439	19,942,646	19,456,599
(iii) Actuarial present value of retired members & beneficiaries:			
Service retirement & survivors	358,375,983	356,971,391	351,001,487
Disability retirement	12,919,781	12,865,413	12,161,367
Totals	<u>371,295,764</u>	<u>369,836,804</u>	<u>363,162,854</u>
(iv) Total actuarial present value of future benefit payments	675,895,980	672,047,231	659,271,207
(v) Present value of active member future payroll	357,097,969	356,306,396	376,102,833
(vi) Present value of future active member contributions	21,363,942	21,316,547	22,501,526
(vii) Active member accumulated contributions	35,919,590	35,919,590	34,845,734

## Section C



### Summary of Benefit Provisions and Valuation Data

# SUMMARY OF PROVISIONS CONSIDERED FOR ACTUARIAL VALUATION (AS OF SEPTEMBER 30, 2015)

## A. Ordinances

The Plan was established under the Code of Ordinances for the City of Ft. Lauderdale, Florida, Chapter 20, Article IV, Division 2, and was most recently amended under Ordinance No. C-11-34 passed and adopted on December 6, 2011. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

## B. Effective Date

January 3, 1973

## 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

The plan is closed to new members hired on or after the following dates:

- (1) October 1, 2007 for employees represented by the Teamsters Union,
- (2) November 7, 2007 for employees represented by the Federation of Public Employees, and
- (3) March 5, 2008 for employees not covered by a Bargaining Unit and including new Police Cadets.

Prior to closure of the plan, all general employees were eligible to become members including those previously excluded due to age at hire (over age 55) or due to classification. Firefighters and Police Officers were excluded.

## F. Credited Service

Service is measured as the period of uninterrupted service from the date of employment until the date of entry into the DROP, termination, retirement, or voluntary withdrawal from the plan. No service is credited for any periods of employment for which the member received a refund of employee contributions.

## G. Earnings

Base wages, including assignment pay, regular longevity pay, and member contributions “picked-up” pursuant to section 20-112(a) of the Code. All irregular payments such as those for unused vacation time, sick leave, overtime and severance pay are excluded.

## H. Average Monthly Earnings (AME)

Group I Members: One twenty-fourth (1/24) of Earnings for the highest 2 years out of the last 5 years of Credited Service prior to termination or retirement.



Group II Members: One thirty-sixth (1/36) of Earnings for the highest 3 years of Credited Service prior to termination or retirement.

**I. Normal Retirement/Service Retirement**

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

Group I Members:

- (1) Age 55 regardless of Credited Service if hired prior to January 21, 2004; Age 55 with 5 years of Credited Service if hired on or after January 21, 2004, or
- (2) 30 years of Credited Service regardless of age.

Group II Members: Age 65 regardless of Credited Service.

Group II Members may also retire under Service Retirement on the first day of the month coincident with or next following 30 years of Credited Service regardless of age.

Benefit: Group I Members: 3% of AME multiplied by years of Credited Service up to 25 years, plus 2.5% of AME multiplied by years of Credited Service in excess of 25 years. Benefit is limited to 90% of AME and subject to the provisions of Section 415 of the Internal Revenue Code.

Group II Members: 1.5% of AME multiplied by years of Credited Service up to 30 years. Benefit is subject to the provisions of Section 415 of the Internal Revenue Code. If the member is retiring under Service Retirement with Credited Service less than 35 years, the benefit is reduced as shown below:

<u>Service at Retirement</u>	<u>Pension Reduction</u>
35 & up	None
34	2 %
33	5
32	9
31	14
30	19

Normal Form of Benefit:

Life annuity with the following survivor benefits for Group I Members only; other options are also available.

- (1) Surviving Spouse and children: If married at time of retirement, 100% of pension continues for 1 year; 60% continues thereafter until remarriage or death. In addition, each unmarried child under age 18 receives 20% of retired member's pension. Maximum payable to spouse and children is 100% of retired member's pension.

- (2) Children (no spouse receiving): Each unmarried child under age 18 receives 25% of retired member's pension. Maximum total of all pensions is 100% of retired member's pension.
- (3) No spouse or children (at time of retirement): If the retired member was hired prior to 1973, the designated beneficiary receives a lump sum equal to the difference, if any, between 60 times the retired member's monthly pension and the amount paid the retired member; otherwise, the designated beneficiary receives a lump sum equal to the difference, if any, between the amount contributed as a member and the amount received as a retired member.

COLA: There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

## J. Early Retirement

Eligibility: A member may elect to retire earlier than the Normal Retirement Eligibility upon attainment of age 50 with 15 years of Credited Service for Group I Members and age 55 with 15 years of Credited Service for Group II Members.

Benefit: Group I Members: The Normal Retirement Benefit is reduced by five-twelfths (5/12) percent for each month by which the Early Retirement date precedes the Normal Retirement date.

Group II Members: The Normal Retirement Benefit is reduced by one-third (1/3) percent for each of the first 60 months by which the Early Retirement date precedes the Normal Retirement date and one-half (1/2) percent for each month over 60 months.

Normal Form of Benefit: Life annuity with the following survivor benefits for Group I Members only; other options are also available.

- (1) Surviving Spouse and children: If married at time of retirement, 100% of pension continues for 1 year; 60% continues thereafter until remarriage or death. In addition, each unmarried child under age 18 receives 20% of retired member's pension. Maximum payable to spouse and children is 100% of retired member's pension.
- (2) Children (no spouse receiving): Each unmarried child under age 18 receives 25% of retired member's pension. Maximum total of all pensions is 100% of retired member's pension.
- (3) No spouse or children (at time of retirement): If the retired member was hired prior to 1973, the designated beneficiary receives a lump sum equal to the difference, if any, between 60 times the retired member's monthly pension and the amount paid the retired member; otherwise, the designated beneficiary receives a lump sum equal to the difference, if any, between the amount contributed as a member and the amount received as a retired member.

COLA: There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

## **K. Delayed Retirement**

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

## **L. Service Connected Disability**

**Eligibility:** Any member who becomes totally incapacitated and unable to perform regular and continuous duty as an employee as a result of a service-connected injury, disease or disability is eligible for a disability benefit commencing on the 91<sup>st</sup> day of disability.

**Benefit:** Sixty-five (65) percent of the member's monthly Earnings at time of disability less, to the extent permitted by law, Worker's Compensation benefits.

**Normal Form of Benefit:** Payable until the Normal Retirement date, death, or recovery from disability. In the event a disability benefit is being paid after the Normal Retirement date and is greater than the accrued Normal Retirement Benefit, the disability benefit shall be extended until 5 years after the Normal Retirement date or until total service credit (including service credit granted for disability period) provides a Normal Retirement Benefit greater than or equal to the disability benefit.

**COLA:** There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

## **M. Non-Service Connected Disability**

**Eligibility:** Any member who becomes totally incapacitated and unable to perform regular and continuous duty as an employee as a result of a non-service connected injury, disease or disability is eligible for a disability benefit commencing on the 91<sup>st</sup> day of disability.

**Benefit:** Group I Members: Fifty (50) percent of the member's monthly Earnings at time of disability less, to the extent permitted by law, primary Social Security benefits.

Group II Members: Five (5) percent of the member's monthly Earnings at time of disability multiplied by Credited Service up to 13 years less, to the extent permitted by law, primary Social Security benefits.

**Normal Form of Benefit:** Payable until the Normal Retirement date, death, or recovery from disability. In the event a disability benefit is being paid after the Normal Retirement date and is greater than the accrued Normal Retirement Benefit, the disability benefit shall be extended until 5 years after the Normal Retirement date or until total service credit (including service credit granted for disability period) provides a Normal Retirement Benefit greater than or equal to the disability benefit.

**COLA:** There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

## **N. Death in the Line of Duty**

**Eligibility:** Any member who dies while employed from causes directly related to employment with the City is eligible for the following survivor benefits.

**Benefit:** The survivor benefits are payable monthly as described below.

- (1) The spouse is paid 50% of the member's monthly Earnings at the time of death.
- (2) While the spouse is receiving, each eligible child is paid 10% of the member's monthly Earnings at the time of death with a maximum of 80% between both spouse and children. If there is no spouse receiving, 50% of the monthly Earnings at the time of death is equally distributed to the eligible children.
- (3) If there is no eligible spouse or children, 50% of the member's monthly Earnings at the time of death are paid to the member's beneficiary(s).

**Normal Form of Benefit:** Spouse's benefits are payable until remarriage or death; children's benefits are payable until age 18, marriage or death. For beneficiaries other than spouses or children, benefits are payable until the earlier of 96 months or the death of the last surviving beneficiary.

**COLA:** There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

## **O. Other Pre-Retirement Death**

**Eligibility:** Any member who dies while employed from causes not directly related to employment with the City is eligible for the following survivor benefits. Group II Members must be at least age 55 with 15 years of Credited Service to be eligible.

**Benefit:** Group I Members: 50% of the member's monthly Earnings at the time of death are paid to the member's beneficiary(s).

Group II Members: 50% of the member's monthly Early Retirement Benefit is paid to the member's spouse.

**Normal Form of Benefit:** Payable until the earlier of 96 months or the death of the last surviving beneficiary. In lieu of the Normal Form of Benefit, Group I members prior to January 3, 1973 may elect a death benefit equal to 4 times their annual compensation paid in a lump sum.

**COLA:** There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

Beneficiaries of Group II Members who die prior to age 55 will receive a refund of the member's accumulated contributions with interest.

## **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 the 10 Years Certain and Life Thereafter or the Joint and Last Survivor options.

## **R. Vested Termination**

**Eligibility:** A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service for Group I Members and 10 years of Credited Service for Group II Members.

**Benefit:** The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins at age 55 for Group I Members and age 65 for Group II Members.

Members with 15 or more years of Credited Service can elect to receive an Early Retirement benefit beginning at age 50 or later for Group I Members and age 55 or later for Group II Members. If so elected, the benefit will be reduced for Early Retirement.

**Normal Form of Benefit:** Single life annuity; other options are also available.

**COLA:** There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

Members terminating employment with less than 5 years of Credited Service for Group I Members and 10 years of Credited Service for Group II Members will receive a refund of their own accumulated contributions with interest.

## **S. Refunds**

**Eligibility:** All members terminating employment with less than 5 years of Credited Service for Group I Members and 10 years of Credited Service for Group II Members are eligible. Optionally, vested members may elect a refund in lieu of the vested benefits otherwise due.

**Benefit:** A refund of the member's contributions with interest. Interest is currently credited at a rate of 3% per annum.

## **T. Member Contributions**

Group I Members: 6% of Earnings.

Group II Members: 4% of Earnings.

## U. Employer Contributions

The amount determined by the actuary needed to fund the plan properly according to State laws.

## V. Cost of Living Increases

Pensions may be adjusted at the end of each fiscal year at the discretion of the Board of Trustees and with the approval of the City Commission if investment earnings have exceeded the funding assumption during the prior fiscal year. The amount of adjustment cannot exceed the percentage change in the Consumer Price Index during the preceding calendar year. If adjustments in the 3 previous plan years were less than the change in the CPI, an additional amount up to 4% may be given. Cumulative adjustments cannot have a value greater than net cumulative experience gains or losses from all sources.

## W. Deferred Retirement Option Plan (DROP)

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

Group I Members:

- (1) Age 55 regardless of Credited Service, or
- (2) 30 years of Credited Service regardless of age.

Group II Members: age 65 regardless of Credited Service.

Members who meet eligibility must submit a written election to participate in the DROP at least 3 months prior to the Normal Retirement date; otherwise the member will not be eligible to participate for the maximum period.

**Benefit:** The member's Credited Service and AME 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 AME.

**Maximum  
DROP Period:** 36 months

**Interest  
Credited:** The member's DROP account is credited with simple interest at a rate equal to the assumed rate of investment return of the fund (currently 7.75%).

**Normal Form  
of Benefit:** Lump Sum; member may also elect that the DROP distribution be rolled over to another qualified retirement plan or any combination of the two options.

**COLA:** There are currently no annual cost of living increases, but ad hoc increases may be provided at the discretion of the Board of Trustees along with the approval of the City Commission. Also see Section V, Cost of Living Increases.

**X. Other Ancillary Benefits**

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

**Y. Changes from Previous Valuation**

There were no changes from the previous valuation.

# ACCOUNTING INFORMATION SUBMITTED FOR VALUATION

## *Revenues and Expenditures*

	Year Ended	
	9/30/2015	9/30/2014
<b>REVENUES:</b>		
a. Member contributions	\$ 3,200,689	\$ 3,264,583
b. City contributions	15,501,180	15,061,353
c. County contributions	0	0
d. Proceeds from Pension Obligation Bond	0	0
e. Investment income		
Interest and dividends	12,639,748	11,823,294
Net appreciation (depreciation) in fair value of investments	(31,907,879)	51,410,862
Investment expenses	(3,315,542)	(3,664,477)
Total investment income	(22,583,673)	59,569,679
f. Other	22,217	22,162
g. Total revenues	(3,859,587)	77,917,777
<b>EXPENDITURES:</b>		
a. Refunds of member contributions	127,423	153,598
b. Benefits paid	36,967,771	36,087,008
c. Administrative expenses	398,274	469,862
d. Increase/(decrease) in DROP Accounts	(136,336)	(430,944)
e. Other - transfer to Police and Fire Fund	0	0
f. Total expenditures	37,357,132	36,279,524
<b>ADJUSTMENTS:</b>		
Amount to reconcile with prior year's value	(3,117)	0
<b>NET INCOME:</b>		
Total revenues minus total expenditures	(41,219,836)	41,638,253

## *Summary of Assets - Market Value*

	Year Ended	
	9/30/2015	9/30/2014
Cash	\$ 276,173	\$ 45,486
Money Market Fund	10,706,623	10,636,632
US Government Securities	62,202,073	57,841,031
Corporate Obligations	4,495,031	6,060,494
Common Stock & Mutual Funds	436,790,031	496,099,958
Real Estate	40,557,560	24,982,590
Payable/Accr. Exp.	(6,856,559)	(9,158,678)
DROP Accounts	(1,401,739)	(1,538,075)
Receivables	3,531,466	6,547,618
Other	(8,263)	(4,824)
Total Assets	\$550,292,396	\$591,512,232



**RETIRED MEMBER AND BENEFICIARY DATA  
HISTORICAL SCHEDULE**

Year Ended	Number Added	Number Removed	Net Increase		End of Year		Expected
			No.	Annual Pensions	No.	Annual Pensions	Removals No.
9/30/1992					798	\$ 8,337,926	
9/30/1993	61	28	33	\$ 683,103	831	9,021,029	*
9/30/1994	39	28	11	122,207 #	842	9,143,236	*
9/30/1995	62	39	23	670,491	865	9,813,727	31
9/30/1996	84	29	55	1,241,354 #	920	11,055,081	33
9/30/1997	51	42	9	479,123 #	929	11,534,204	29
9/30/1998	65	46	19	1,162,788 #	948	12,696,992	30
9/30/1999	63	48	15	502,643 #	963	13,199,635	30
9/30/2000	49	39	10	939,163 #	973	14,138,798	32
9/30/2001	31	38	(7)	912,634 #	966	15,051,432	32
9/30/2002	181	41	140	5,249,292 #	1,106	20,300,724	35
9/30/2003	43	33	10	664,524	1,116	20,965,248	35
9/30/2004	61	48	13	1,113,564	1,129	22,078,812	31
9/30/2005	62	20	42	1,196,352	1,171	23,275,164	32
9/30/2006	58	46	12	760,248	1,183	24,035,412	34
9/30/2007	63	31	32	1,054,572	1,215	25,089,984	35
9/30/2008	46	39	7	785,640	1,222	25,875,624	41
9/30/2009	35	46	(11)	523,008	1,211	26,398,632	41
9/30/2010	45	44	1	939,720	1,212	27,338,352	41
9/30/2011 (b)	53	44	9	1,394,052	1,221	28,732,404	42
9/30/2011 (a)	187	44	143	7,088,808	1,355	34,427,160	42
9/30/2012	32	43	(11)	333,283	1,344	34,760,443	44
9/30/2013	43	33	10	692,591	1,354	35,453,034	44
9/30/2014	55	39	16	991,082	1,370	36,444,116	47
9/30/2015	47	58	(11)	795,822	1,359	37,239,938	47

\* Not available.

# Includes post-retirement increases granted during the year.

(b) Before plan change.

(a) After plan change.

## RETIREE DATA

Sept. 30	Normal and Early Retirement Recipients*				New Retirements**		
	Number	Averages			Number	Averages	
		Attained Age	Retirement Age	Annual Pension		Age	Annual Pension
1994	661	67.6 yrs.	58.3 yrs.	\$12,213	26	60.3 yrs.	\$16,803
1995	686	68.7	59.2	12,688	58	60.8	16,747
1996	701	69.1	58.6	13,613	38	59.3	19,357
1997	694	70.7	59.9	14,067	24	59.2	15,156
1998	697	70.7	59.8	15,220	40	59.8	21,405
1999	707	70.9	59.8	15,464	35	60.6	17,704
2000	706	71.2	59.7	14,531	29	59.0	27,097
2001	769	68.8	58.5	15,581	33	56.0	25,739
2002	839	69.4	59.4	20,967	165	58.8	32,288
2003	834	69.5	59.2	21,845	30	55.9	37,480
2004	862	69.3	58.9	22,469	57	56.9	30,787
2005	882	69.3	58.8	23,024	46	57.8	27,986
2006	895	69.4	58.7	23,473	48	57.9	26,558
2007	912	69.6	58.6	23,891	47	58.2	27,368
2008	924	69.7	58.4	24,306	38	56.4	30,244
2009	923	69.9	58.3	24,846	32	58.1	33,443
2010	927	69.9	58.3	25,711	39	58.2	35,893
2011	(b) 942	70.0	58.2	26,689	46	57.8	37,948
2011	(a) 1,076	68.7	58.4	28,658	180	59.0	41,336
2012	1,066	69.0	58.3	29,085	28	58.4	33,208
2013	1,085	69.4	58.3	29,244	39	57.4	28,399
2014	1,105	69.5	58.2	29,587	51	58.7	29,589
<b>2015</b>	<b>1,110</b>	<b>69.8</b>	<b>58.1</b>	<b>30,138</b>	<b>39</b>	<b>58.8</b>	<b>37,558</b>

\* Excludes beneficiaries and disability retirements.

\*\* Normal and early retirees plus vested terminations whose benefit started during the year.

(b) Before plan change.

(a) After plan change.

**TOTAL RETIRED MEMBERS AND BENEFICIARIES**  
*Historical Comparison*

Valuation Date	% Incr. in		No. of Partic. Per Retired	Pensions as % of Partic. Payroll	Average Pensions*
	Annual Pensions				
9/30/1994	1.4	%	1.6	21.9 %	\$10,858
9/30/1995	7.3		1.5	23.0	11,345
9/30/1996	12.6		1.4	25.6	12,016
9/30/1997	4.3		1.4	25.4	12,415
9/30/1998	10.1		1.9	25.9	13,393
9/30/1999	4.0		1.4	25.8	13,707
9/30/2000	7.1		1.4	26.5	14,531
9/30/2001	14.0		1.5	26.2	15,581
9/30/2002	34.9		1.2	35.9	18,355
9/30/2003	3.3		1.2	34.9	18,786
9/30/2004	5.3		1.1	38.7	19,556
9/30/2005	5.4		1.2	38.5	19,876
9/30/2006	3.3		1.2	37.4	20,317
9/30/2007	4.4		1.2	36.3	20,650
9/30/2008	3.1		1.1	37.2	21,175
9/30/2009	2.0		1.1	36.9	21,799
9/30/2010	3.6		1.0	38.3	22,556
9/30/2011 (b)	5.1		1.0	41.5	23,532
9/30/2011 (a)	25.9		0.8	56.8	25,407
9/30/2012	1.0		0.7	59.5	25,863
9/30/2013	2.0		0.7	62.0	26,184
9/30/2014	2.8		0.6	68.7	26,602
9/30/2015	<b>2.2</b>		<b>0.6</b>	<b>71.3</b>	<b>27,402</b>

The System has been closed to new members since 2007. As a result, the pensions as a percentage of payroll will continue to increase, as such payroll decreases from year to year.

\* Includes disability retirees and survivor beneficiaries.

(b) Before plan change.

(a) After plan change.

## INACTIVE VESTED MEMBERS HISTORICAL SCHEDULE

<b>Valuation Date</b>	<b>No.</b>	<b>Estimated Annual Pensions</b>
9/30/1997	21	\$252,071
9/30/1998	26	336,714
9/30/1999	31	420,912
9/30/2000	33	451,152
9/30/2001	38	516,936
9/30/2002	43	597,276
9/30/2003	56	864,852
9/30/2004	73	1,288,488
9/30/2005	91	1,702,472
9/30/2006	118	2,037,048
9/30/2007	119	2,046,372
9/30/2008	122	2,010,696
9/30/2009	121	2,079,168
9/30/2010	117	2,039,700
9/30/2011	112	1,999,056
9/30/2012	117	2,186,164
9/30/2013	108	1,972,798
9/30/2014	115	2,421,954
9/30/2015	110	2,386,805

**ACTIVE AND VESTED TERMINATED MEMBERS  
INCLUDED IN VALUATION**

Val'n Date 9/30	Active Members			Vested Term. Members	Active Member Payroll	Average		
	Group I	Group II	Total			Age	Service	Pay
1988	*	*	1,327	*	\$33,151,794	*	*	\$24,983
1989	*	*	1,354	*	35,629,119	*	*	26,314
1990	*	*	1,403	*	37,886,863	*	*	27,004
1991	*	*	1,450	*	41,548,160	*	*	28,654
1992	*	*	1,412	*	41,989,161	*	*	29,737
1993	*	*	1,395	*	43,345,696	*	*	31,072
1994	1,282	61	1,343	13	41,845,307	43.0	10.1	31,158
1995	1,203	58	1,261	21	42,718,845	43.2	10.6	33,877
1996	1,218	54	1,272	18	43,160,872	43.3	10.5	33,932
1997	1,253	47	1,300	21	45,377,683	43.6	10.5	34,906
1998	1,325	18	1,343	26	49,012,771	43.5	10.5	36,495
1999	1,316	17	1,333	31	51,090,800	43.7	10.6	38,328
2000	1,347	16	1,363	33	53,388,461	44.0	10.7	39,170
2001	1,421	16	1,437	38	57,544,997	43.8	10.3	40,045
2002	1,340	14	1,354	43	56,553,965	42.4	9.0	41,768
2003	1,357	13	1,370	56	60,095,925	44.3	9.3	43,866
2004	1,239	12	1,251	73	57,013,914	45.1	9.9	45,575
2005	1,350	12	1,362	91	60,524,820	44.5	9.0	44,438
2006	1,376	10	1,386	118	64,239,370	44.8	9.0	46,349
2007	1,427	10	1,437	119	69,102,372	45.1	8.8	48,088
2008	1,328	10	1,338	122	69,499,308	46.2	9.9	51,943
2009	1,270	10	1,280	121	71,547,932	47.1	10.8	55,897
2010	1,218	9	1,227	117	71,416,368	47.9	11.6	58,204
2011 (b)	1,160	9	1,169	112	69,251,865	48.6	12.4	59,240
2011 (a)	1,026	9	1,035	112	60,621,037	47.2	11.5	58,571
2012	976	9	985	117	58,373,182	48.0	12.5	59,262
2013	938	9	947	108	57,216,597	48.9	13.5	60,419
2014	865	9	874	115	53,024,872	49.6	14.5	60,669
2015	821	9	830	110	52,229,112	50.4	15.4	62,927

The payroll figures represent covered payroll for active members of the Retirement System only, excluding DROP members.

\* Not available.

(b) Before plan change.

(a) After plan change.

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

Year Ended	Number Added During Year		Service & DROP Retirement		Disability Retirement		Death		Terminations				Active Members End of Year
	A	E	A	E	A	E	A	E	Vested	Other	Totals		
									A	A	A	E	
9/30/2004	46	157	55	44	0	2	2	1	22	78	100	64	<b>1,251</b>
9/30/2005	244	133	42	42	3	2	6	1	43	39	82	52	<b>1,362</b>
9/30/2006	196	172	38	38	1	2	1	1	46	86	132	74	<b>1,386</b>
9/30/2007	186	135	38	40	4	4	2	2	18	73	91	78	<b>1,437</b>
9/30/2008	5	104	30	42	3	4	3	3	19	49	68	82	<b>1,338</b>
9/30/2009	1	59	27	44	3	4	0	3	10	19	29	59	<b>1,280</b>
9/30/2010	0	53	32	52	3	4	1	3	10	7	17	47	<b>1,227</b>
9/30/2011	0	58	37 *	69	4	3	1	3	8	8	16	37	<b>1,169</b> *
9/30/2012	0	0	20	49	2	3	2	2	20	6	26	30	<b>985</b>
9/30/2013	1	0	21	47	1	2	0	2	17	0	17	26	<b>947</b>
9/30/2014	0	0	41	54	2	2	0	2	30	0	30	23	<b>874</b>
9/30/2015	3	0	32	60	4	2	2	2	9	0	9	20	<b>830</b>
9/30/2016		0		65		2		2				17	
12 Yr Totals **	682	871	413	581	30	34	20	25	252	365	617	592	

\* Before reflecting 134 members retiring under the Bonus Incentive Program.

\*\* Totals are through current Plan Year only.

City of Fort Lauderdale General Employees Retirement System  
Active Members as of September 30, 2015

City of Fort Lauderdale General Employees Retirement System

Age Group	Years of Service to Valuation Date											Totals
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30 +	
15-19 NO.	-	-	-	-	-	-	-	-	-	-	-	-
TOT PAY	-	-	-	-	-	-	-	-	-	-	-	-
AVG PAY	-	-	-	-	-	-	-	-	-	-	-	-
20-24 NO.	-	-	-	-	-	-	-	-	-	-	-	-
TOT PAY	-	-	-	-	-	-	-	-	-	-	-	-
AVG PAY	-	-	-	-	-	-	-	-	-	-	-	-
25-29 NO.	-	-	-	-	-	6	-	-	-	-	-	6
TOT PAY	-	-	-	-	-	258,653	-	-	-	-	-	258,653
AVG PAY	-	-	-	-	-	43,109	-	-	-	-	-	43,109
30-34 NO.	-	-	-	-	-	22	13	1	-	-	-	36
TOT PAY	-	-	-	-	-	1,088,508	694,425	57,593	-	-	-	1,840,526
AVG PAY	-	-	-	-	-	49,478	53,417	57,593	-	-	-	51,126
35-39 NO.	-	-	-	-	-	28	29	15	-	-	-	72
TOT PAY	-	-	-	-	-	1,527,268	1,810,869	891,308	-	-	-	4,229,445
AVG PAY	-	-	-	-	-	54,545	62,444	59,421	-	-	-	58,742
40-44 NO.	-	-	-	-	-	23	39	30	4	-	-	96
TOT PAY	-	-	-	-	-	1,380,370	2,462,425	1,864,320	241,975	-	-	5,949,090
AVG PAY	-	-	-	-	-	60,016	63,139	62,144	60,494	-	-	61,970
45-49 NO.	-	-	-	-	-	31	47	41	18	18	-	155
TOT PAY	-	-	-	-	-	1,953,941	2,983,958	2,487,029	1,222,652	1,107,113	-	9,754,693
AVG PAY	-	-	-	-	-	63,030	63,488	60,659	67,925	61,506	-	62,934
50-54 NO.	-	-	-	-	-	45	41	46	16	44	5	197
TOT PAY	-	-	-	-	-	2,838,638	2,956,419	2,913,143	1,083,592	2,945,783	313,436	13,051,011
AVG PAY	-	-	-	-	-	63,081	72,108	63,329	67,724	66,950	62,687	66,249
55-59 NO.	-	-	-	-	-	14	46	37	11	17	4	129
TOT PAY	-	-	-	-	-	855,795	3,104,601	2,533,067	696,436	1,013,141	232,207	8,435,247
AVG PAY	-	-	-	-	-	61,128	67,491	68,461	63,312	59,597	58,052	65,390
60-64 NO.	-	-	-	-	-	22	35	21	7	11	4	100
TOT PAY	-	-	-	-	-	1,239,840	2,209,884	1,411,171	431,198	666,678	279,260	6,238,031
AVG PAY	-	-	-	-	-	56,356	63,140	67,199	61,600	60,607	69,815	62,380
65 + NO.	-	-	-	-	-	9	19	5	1	4	1	39
TOT PAY	-	-	-	-	-	552,279	1,202,751	287,706	49,583	319,889	60,208	2,472,416
AVG PAY	-	-	-	-	-	61,364	63,303	57,541	49,583	79,972	60,208	63,395
TOT NO.	-	-	-	-	-	200	269	196	57	94	14	830
TOT AMT	-	-	-	-	-	11,695,292	17,425,332	12,445,337	3,725,436	6,052,604	885,111	52,229,112
AVG AMT	-	-	-	-	-	58,476	64,778	63,497	65,359	64,389	63,222	62,927

The payroll figures represent covered payroll for active members of the Retirement System only, excluding DROP members.

City of Fort Lauderdale General Employees Retirement System  
 Schedule of Inactive Participant Data as of September 30, 2015

Age	<b>Terminated Vested</b>		<b>Disabled</b>		<b>Retired</b>		<b>Beneficiaries</b>	
	Number	Benefits	Number	Benefits	Number	Benefits	Number	Benefits
Under 20	0	0	0	0	0	0	2	12,490
20 - 24	0	0	0	0	0	0	1	4,974
25 - 29	0	0	0	0	0	0	0	0
30 - 34	4	39,478	1	23,789	0	0	1	4,974
35 - 39	5	63,560	0	0	0	0	1	18,938
40 - 44	19	362,811	2	58,256	0	0	0	0
45 - 49	23	539,845	4	99,317	2	130,012	0	0
50 - 54	54	1,300,463	9	190,864	26	1,233,287	10	187,006
55 - 59	5	80,648	12	316,362	175	6,854,768	10	166,551
60 - 64	0	0	12	293,597	201	7,326,622	7	143,087
65 - 69	0	0	7	118,704	219	6,888,009	26	529,907
70 - 74	0	0	6	112,406	175	4,630,561	19	289,135
75 - 79	0	0	0	0	107	2,508,457	24	288,894
80 - 84	0	0	0	0	99	2,107,874	35	449,289
85 - 89	0	0	0	0	74	1,299,194	29	239,990
90 - 94	0	0	0	0	27	426,033	24	196,187
95 - 99	0	0	0	0	5	48,128	7	42,276
100 & Over	0	0	0	0	0	0	0	0
<b>Total</b>	<b>110</b>	<b>2,386,805</b>	<b>53</b>	<b>1,213,295</b>	<b>1,110</b>	<b>33,452,945</b>	<b>196</b>	<b>2,573,698</b>
<b>Average Age</b>		<b>48</b>		<b>59</b>		<b>69</b>		<b>76</b>
<b>Liability</b>		<b>20,081,439</b>		<b>12,919,781</b>		<b>340,132,998</b>		<b>18,242,985</b>



## RECONCILIATION OF MEMBERSHIP DATA

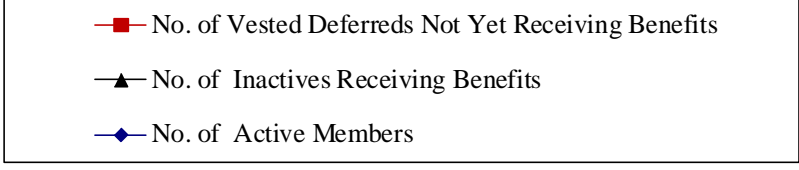
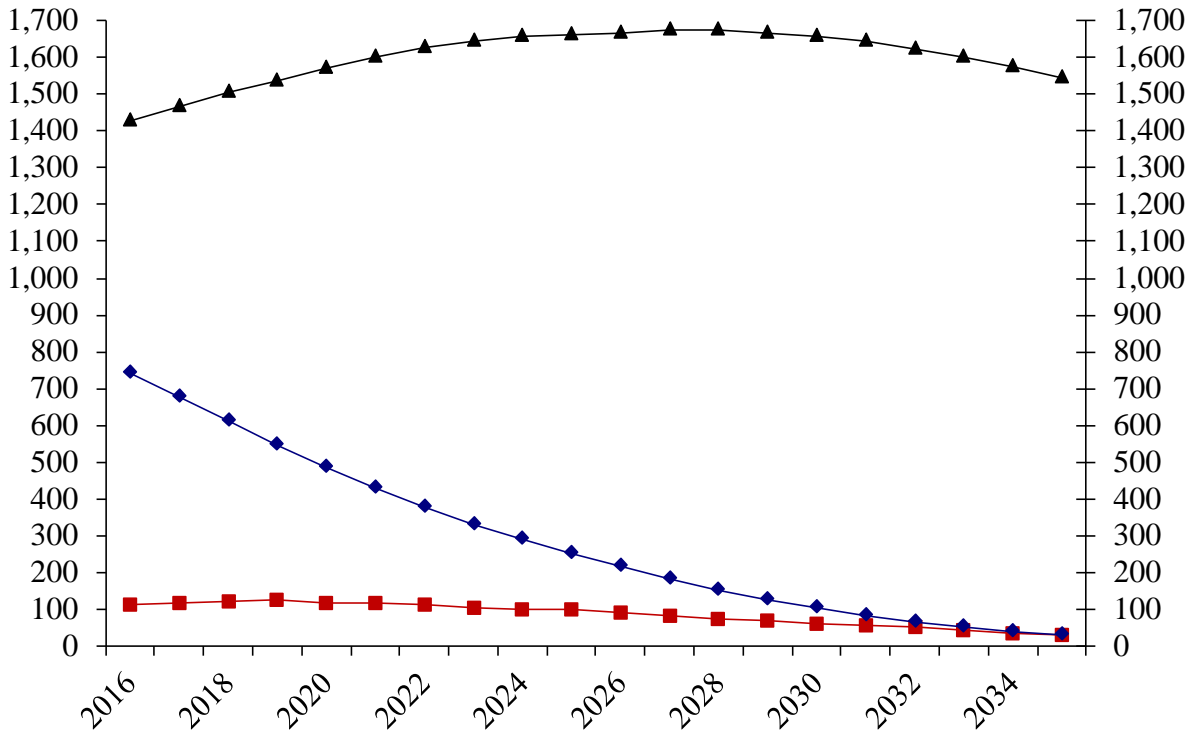
	From 10/1/14 To 9/30/15	From 10/1/13 To 9/30/14
<b>A. Active Members</b>		
1. Number Included in Last Valuation	874	947
2. New Members Included in Current Valuation	0	0
3. Non-Vested Employment Terminations	0	0
4. Vested Employment Terminations	(9)	(27)
5. Service, Normal and Early Retirements	(25)	(34)
6. DROP Retirements	(7)	(7)
7. Disability Retirements	(4)	(2)
8. Deaths	(2)	0
9. Transfers	0	(3)
10. Other - Reinstated Members	3	0
<b>11. Number Included in This Valuation</b>	<b>830</b>	<b>874</b>
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	115	108
2. Additions from Active Members	9	27
3. Lump Sum Payments/Refunds	(4)	(7)
4. Payments Commenced	(7)	(12)
5. Deaths	0	0
6. Other - Reinstated Members	(3)	(1)
<b>7. Number Included in This Valuation</b>	<b>110</b>	<b>115</b>
<b>C. DROP Participants</b>		
1. Number Included in Last Valuation	19	19
2. Additions from Active Members	7	7
3. Retirements	(11)	(7)
4. Deaths Resulting in No Further Payments	0	0
5. Other	0	0
<b>6. Number Included in This Valuation</b>	<b>15</b>	<b>19</b>
<b>D. Retirees and Beneficiaries</b>		
1. Number Included in Last Valuation	1,351	1,335
2. Additions from Active Members	29	36
3. Additions from DROP	11	7
4. Additions from Terminated Vested Members	7	12
5. Removals Resulting in No Further Payments	(58)	(39)
6. Deaths Resulting in New Survivor Benefits	4	0
7. Other - Data Adjustment	0	0
<b>8. Number Included in This Valuation</b>	<b>1,344</b>	<b>1,351</b>

## PROJECTED PAYROLL AND RETIREMENT BENEFITS

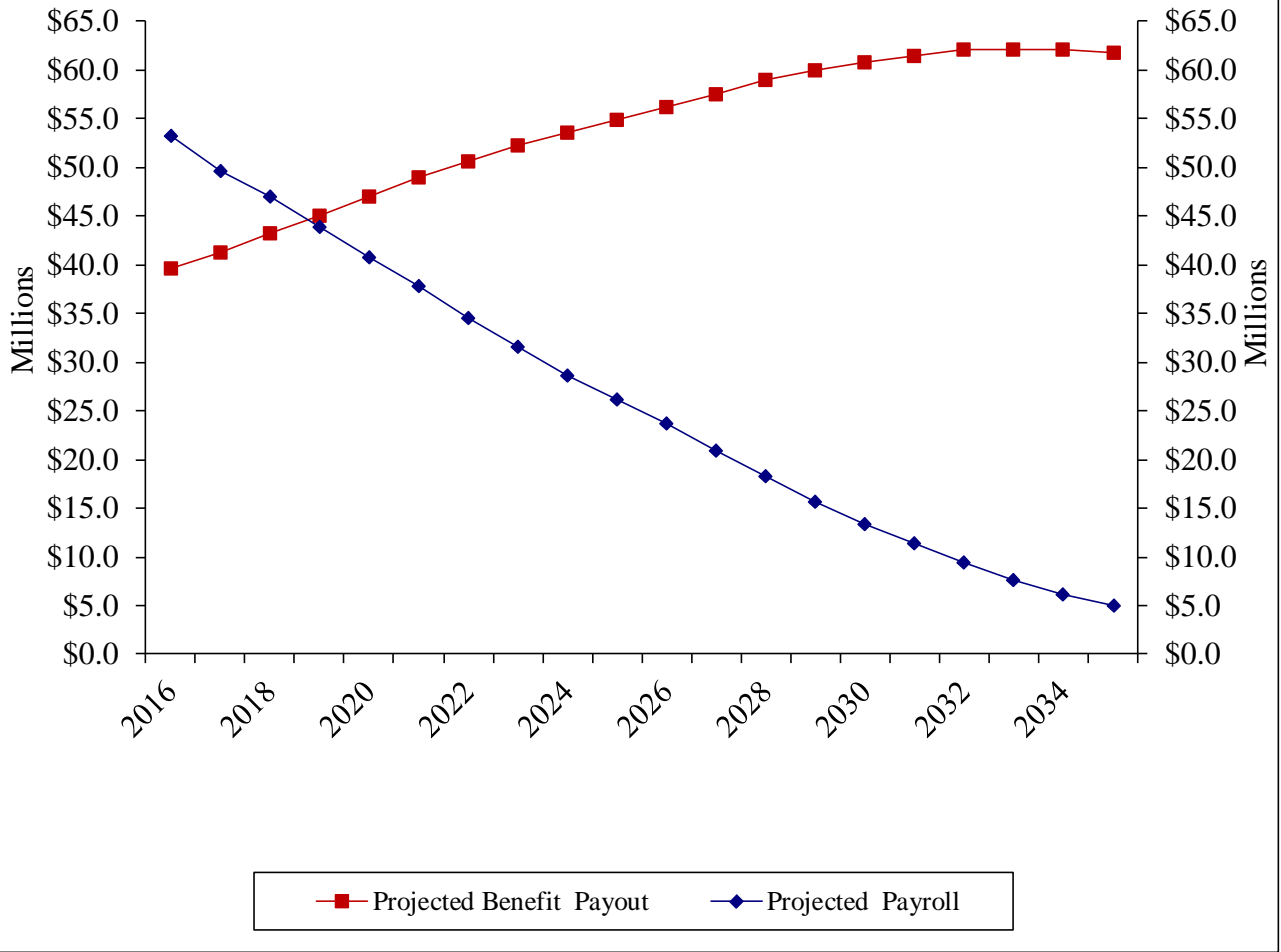
<u>Fiscal Year End</u>	<u>No. of Active Members</u>	<u>Projected Payroll</u>	<u>No. of Vested Deferreds Not Yet Receiving Benefits</u>	<u>No. of Inactives Receiving Benefits</u>	<u>Projected Benefit Payout</u>
2016	744	\$53,303,766	113	1,427	\$39,603,713
2017	678	49,645,728	120	1,465	41,219,389
2018	610	47,029,119	122	1,503	43,213,095
2019	547	43,836,359	125	1,535	45,102,232
2020	487	40,774,833	120	1,570	46,958,472
2021	430	37,735,150	117	1,600	48,908,833
2022	377	34,560,305	112	1,627	50,626,345
2023	331	31,538,267	107	1,645	52,222,646
2024	291	28,693,981	102	1,657	53,629,893
2025	254	26,120,020	99	1,660	54,821,316
2026	217	23,661,728	93	1,666	56,202,016
2027	184	20,945,445	84	1,672	57,559,795
2028	152	18,328,671	76	1,674	58,911,333
2029	126	15,662,143	71	1,665	59,900,562
2030	104	13,398,354	63	1,656	60,730,764
2031	84	11,402,978	56	1,642	61,409,778
2032	66	9,480,661	51	1,623	62,005,202
2033	52	7,611,271	44	1,601	62,147,433
2034	42	6,171,856	37	1,575	62,012,456
2035	32	5,018,231	30	1,546	61,795,374

These projections are based on assumptions involving all decrements. Actual payroll and benefit payouts may differ from the above estimates depending upon actual experience of the plan. However, since the projections are recomputed each valuation date, there is an automatic correction to the extent actual experience varies from expected experience.

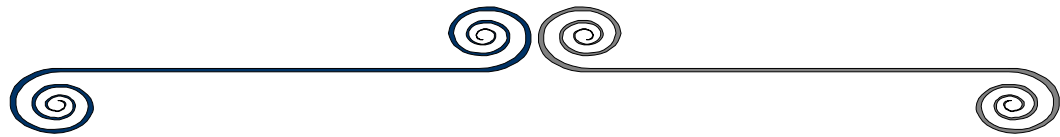
### Population Projection



### Cash Flow Projection



## Section D



**The Actuarial Valuation Process  
Summary of Actuarial Assumptions  
and Definition of Technical Terms**

## THE ACTUARIAL VALUATION PROCESS

An actuarial valuation is the mathematical process by which a pension fund contribution requirement is determined and its actuarial condition is measured.

The flow of activity constituting the valuation may be summarized as follows:

- A. ***Covered Person Data***, furnished by the fund administrator including:
  - Retired members and beneficiaries now receiving benefits
  - Former members with vested benefits not yet payable
  - Active members
- B. + ***Asset Data*** (cash & investments), furnished by the System Administrator
- C. + ***System Description Data***, furnished by the System Administrator
- D. + ***Assumptions about various future activities of the System*** (risk elements)
- E. + ***The Actuarial Cost Method*** for allocating costs to time periods and determining the long-term planned pattern for employer contributions
- F. + ***Mathematically combining the Data, the Estimates of Future Activities, and the Cost Method***
- G. = Determination of:
  - Employer Contribution Requirement and Actuarial Condition

---

Items A, B and C constitute the current “knowns” about the System. A good deal of System activity which will result in benefit payments has yet to occur. Accordingly, certain assumptions must be made about future System activity. These assumptions (Item D) may be classified as demographic or fiscal. Demographic assumptions include future mortality rates, disability rates, rates of pre-retirement withdrawal from employment, and retirement ages. Fiscal assumptions consist of future salary increases and rates of investment return.

Demographic assumptions are generally selected on the basis of the System's historical activity, modified for expected future differences. Past activity of funds which are similar in nature to the fund being valued may be utilized if fund data or activities are insufficient to be reliable.

Fiscal assumptions, on the other hand, do not lend themselves to prediction on the basis of historical activity -- the reason being that both salary increases and investment return are impacted by inflation. Inflation defies reliable prediction. Fiscal assumptions are generally selected on the basis of what would be expected to occur in an inflation-free environment and then both are increased by some provision for long-term inflation.

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Once items A, B, C and D are available, the actuarial valuation process begins. The first step is to determine the plan's *total actuarial present value* for individuals in each of the 3 covered person categories.

*Retired members* now receiving monthly payments;

*Vested terminated members* not yet at retirement age;

*Active members*.

The actuarial present value is the value today after taking into account the probabilities of payment and the effect of time, of System promises to pay benefits in the future on the basis of both service already completed and projected future service.

The total actuarial present value is allocated between projected future service and completed service by the actuarial cost method (Item E) -- the *individual entry-age* method is being utilized for this valuation. The portion of the total actuarial present value allocated to projected future service is the *actuarial present value of future normal costs* -- normal cost being the series of annual costs, from entry-age to retirement age, which will accumulate to the actuarial present value of the individual's benefit at the time of retirement or death. The remainder of the total actuarial present value is the actuarial accrued liability.

At this stage determination has been made of:

1. The total actuarial present value;
2. The actuarial present value of future normal cost; and
3. The actuarial accrued liability.

In the typical fund, the actuarial accrued liability may not be covered by the System's accrued assets -- leaving an *unfunded actuarial accrued liability*.

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The next step in the valuation process is a determination of the contribution rate (Item G) required to support System benefits in accordance with the funding objective.

The contribution rate is determined in two basic components:

1. The normal cost component; and
2. The component which will finance (pay off) the unfunded actuarial accrued liability over the period indicated on page B-9.

The unfunded actuarial accrued liability is being amortized as a level dollar amount.



The actuarial estimates regarding the INVESTMENT RETURN rate, INFLATION rate, REAL INVESTMENT RETURN rate, and SALARY INCREASE rates are used, in combination with the other estimates, to (i) determine the present value of amounts expected to be paid in the future and (ii) establish rates of contribution which are expected to remain relatively level as a percent of total valuation payroll.

**INVESTMENT RETURN.** 7.50% per annum, compounded annually; net rate after investment related expenses (previously, 7.55%).

**INFLATION.** 3.00% per annum, compounded annually. This is the rate at which growth in the supply of money and credit is estimated to exceed growth in the supply of goods and services. The recent inflation rate as measured by the Consumer Price Index has been:

	<b>Year Ended September 30</b>					<b>Average For Period 5 Years</b>
	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	
Actual	0.0%	1.7%	1.2%	2.0%	3.9%	1.8%
Assumed	3.25	3.25	3.25	3.25	3.25	3.25

**NET REAL INVESTMENT RETURN.** 4.50% per annum net of investment expenses, compounded annually based on the funding value of assets (previously, 4.3%). This is the rate of return estimated to be produced by investing a pool of assets in an inflation-free environment. Recent real rates of investment return on the funding value of assets have been:

	<b>Year Ended September 30</b>					<b>Average For Period 5 Years</b>
	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	
Net Total Rate	7.0%	9.6%	7.9%	1.4%	1.5%	5.4%
less inflation rate	0.0	1.7	1.2	2.0	3.9	1.8
Actual Real Rate	7.0	7.9	6.7	(0.6)	(2.4)	3.6
Projected Real Rate	4.3	4.4	4.5	4.5	4.5	4.4
Assumed Total Rate	7.55	7.65	7.75	7.75	7.75	7.69

*The total investment return rate was computed on the funding value of assets using the approximate formula  $i = I$  divided by  $1/2 (A + B - I)$ , where  $I$  is investment income net of investment expenses,  $A$  is the beginning of year asset funding value, and  $B$  is the end of year asset funding value.*

*The preceding investment return rates reflect the particular characteristics of this Retirement System and the method of determining the funding value of assets. They should not be used to measure an investment advisor's performance or for comparison with other retirement systems. Such use will usually mislead.*

**SALARY INCREASES.** Member salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel. A schedule of rates of increases in individual salaries for sample service years follows:

<b>Annual Rates of Salary Increase for Years of Service</b>				
<u>Attributable to:</u>	General Increase in Wage Level Due to:			
	<u>Merit &amp; Seniority:</u>	<u>Inflation:</u>	<u>Other Causes:</u>	<u>TOTAL:</u>
Yrs of Svc:				
1	6.50%	3.00%	0.00%	9.50%
2	5.80	3.00	0.00	8.80
3	4.70	3.00	0.00	7.70
4	4.30	3.00	0.00	7.30
5	3.70	3.00	0.00	6.70
6	2.80	3.00	0.00	5.80
7	2.10	3.00	0.00	5.10
8	2.00	3.00	0.00	5.00
9	1.90	3.00	0.00	4.90
10	1.60	3.00	0.00	4.60
11	1.00	3.00	0.00	4.00
12	1.00	3.00	0.00	4.00
13	1.00	3.00	0.00	4.00
14	1.00	3.00	0.00	4.00
15	1.00	3.00	0.00	4.00
16	1.00	3.00	0.00	4.00
17	1.00	3.00	0.00	4.00
18	1.00	3.00	0.00	4.00
19	1.00	3.00	0.00	4.00
20	1.00	3.00	0.00	4.00
21	1.00	3.00	0.00	4.00
22	1.00	3.00	0.00	4.00
23	1.00	3.00	0.00	4.00
24	1.00	3.00	0.00	4.00
25	1.00	3.00	0.00	4.00
26+	1.00	3.00	0.00	4.00

The valuation is based on the number of active members remaining constant, and the total payroll for the group increasing at the rate of 3.00% a year (the estimated general increase in wage levels due to inflation and other causes).

A schedule of recent salary change experience, as measured by average reported pay, follows:

	<b>Year Ended September 30</b>					<b>Average for Period</b>
	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>5 Years</b>
% Change: Actual Average *	3.9 %	1.8 %	2.5 %	2.2 %	2.2 %	2.5%
Projected	4.2	4.3	4.4	5.0	5.4	4.7
% Change in Total Payroll	(1.5)	(7.3)	(2.0)	(3.7)	(3.0) **	(3.5)

*The percent change in total payroll represents the change in covered payroll for active members of the Retirement System only, excluding DROP members.*

\* Based on members active at both the beginning and end of year.

\*\* Before the plan change. The % Change in Total Payroll was -15.1% after the plan change.

**MORTALITY TABLE.** The mortality table used for active and retired lives valuation is the RP-2000 Combined Healthy Participant Mortality Tables for males and females. Future mortality improvements are projected to all future years from the year 2000 using Scale AA (on a fully generational basis).

<b>Sample Attained Ages (in 2015)</b>	<b>Probability of Dying Next Year</b>		<b>Future Life Expectancy (years)</b>	
	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
	50	0.16 %	0.13 %	34.35
55	0.27	0.24	29.23	30.71
60	0.53	0.47	24.29	25.93
65	1.03	0.90	19.68	21.44
70	1.77	1.55	15.48	17.32
75	3.06	2.49	11.68	13.59
80	5.54	4.13	8.45	10.28

The mortality table is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. For disabled retirees, the regular mortality tables are set forward 10 years in ages to reflect impaired longevity.

**RATES OF SEPARATION FROM ACTIVE MEMBERSHIP.** The rates do not apply to members eligible to retire and do not include separation on account of death or disability. Separation rates are used to measure the probabilities of members remaining in employment.

<u>Sample Ages</u>	<u>Years of Service</u>	<u>Percent Separating within Next Year</u>
ALL	0	27.7 %
	1	14.3
	2	6.7
	3	6.3
	4	4.6
25	5 & Over	5.0
30		5.0
35		4.7
40		4.2
45		3.7
50		3.2
55		3.0
60		3.0

**VESTED MEMBERS** who terminate with a benefit worth less than 100 percent of their own accumulated contributions were presumed to elect a refund of accumulated contributions and forfeit the vested benefit.

**RATES OF DISABILITY.** Disability rates measure the probabilities of active members becoming disabled.

<u>Sample Ages</u>	<u>Percent Becoming Disabled within Next Year</u>
20	0.07 %
25	0.08
30	0.10
35	0.14
40	0.20
45	0.31
50	0.52
55	0.99

**RATES OF RETIREMENT.** Rates of retirement are used to measure the probabilities of an eligible member retiring during the next year.

<b>Years of Service</b>	<b>Age</b>	<b>% of Active Members Retiring* Within Next Year</b>
Under 5	55-59	10 %
	60-64	20
	65-69	40
	70+	100
5-9	55-59	8
	60-64	8
	65-69	13
	70+	100
10-14	55-59	8
	60-64	8
	65-69	30
	70+	100
15-19	Under 55	8
	55-59	11
	60-64	13
	65-69	13
	70+	100
20-24	Under 55	5
	55-59	20
	60-64	20
	65-69	20
	70+	100
25-29	Under 55	12
	55-59	14
	60-64	16
	65-69	25
	70+	100
30 and Over	Under 55	50
	55-59	50
	60-64	50
	65-69	100
	70+	100

*\* If eligible to retire.*

**ADMINISTRATIVE EXPENSES.** Administrative expenses are included as an additional employer contribution to provide for reimbursement of these expenses.

**ACTIVE MEMBER GROUP SIZE.** The valuation was based on a declining active member group size. This is unchanged from previous valuations.

**MARITAL STATUS.** Ninety percent of active members who meet the age and service requirements for pre-retirement survivor benefits are estimated to be married. Female spouses are assumed to be 3 years younger than the male member. Male spouses are assumed to be 3 years older than the female member.

**CHANGES IN ASSUMPTIONS.** The Board adopted a reduction in the investment return assumption from 7.75% to 7.5% over three years starting with the September 30, 2013 Valuation. This assumption was lowered from 7.55% to 7.50% for the September 30, 2015 Valuation.

## DEFINITIONS OF TECHNICAL TERMS

**ACCRUED SERVICE.** Service credited under the system which was rendered before the date of the actuarial valuation.

**ACTUARIAL ACCRUED LIABILITY.** The difference between the actuarial present value of future benefit payments and the actuarial present value of future normal costs. Also referred to as “accrued liability” or “past service liability.”

**ACTUARIAL COST METHOD.** A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future benefit payments” between future normal costs and actuarial accrued liability. Sometimes referred to as the “actuarial valuation cost method.”

**ACTUARIAL EQUIVALENT.** A single amount or series of amounts of equal actuarial present value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

**ACTUARIAL PRESENT VALUE.** The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment. Also referred to as “present value.”

**AMORTIZATION.** Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying it off with a lump sum payment.

**EXPERIENCE ESTIMATES (ASSUMPTIONS).** Estimates of expected future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement estimates (rates of mortality, disability, turn-over and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic estimates (salary increases and investment income) consist of the underlying rates in an inflation-free environment plus a provision for a long-term average rate of inflation.

**EXPERIENCE GAIN (LOSS).** The difference between actual actuarial costs and assumed actuarial costs -- during the period between two valuation dates.

**FUNDING VALUE OF ASSETS.** The value of assets derived by spreading the difference between actual investment return and expected investment return in equal dollar installments over five years. This treatment removes the timing of investment activities from the valuation process.

**NORMAL COST.** The actuarial cost allocated to the current year by the actuarial cost method. Sometimes referred to as “current service cost.”

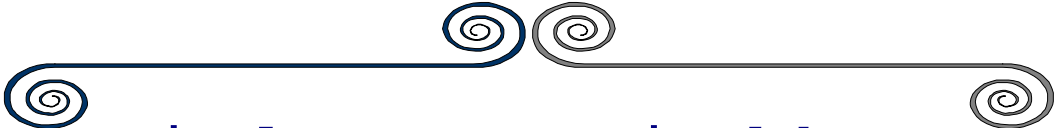
**UNFUNDED ACTUARIAL ACCRUED LIABILITY.** The difference between actuarial accrued liability and the actuarial value of system assets. Sometimes referred to as “unfunded past service liability”, “unfunded accrued liability” or “unfunded supplemental present value.”

Most retirement systems have unfunded actuarial accrued liability. It arises each time new benefits are added and each time an experience loss is realized.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to control the amount of unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).



## Section E



Disclosures Required by  
Statement No. 35 of the Financial  
Accounting Standards Board  
and Statement No. 67 of the  
Governmental Accounting  
Standards Board

**FASB NO. 35 INFORMATION**

A. Valuation Date	September 30, 2015	September 30, 2014
<b>B. Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Vested Benefits		
a. Members Currently Receiving Payments	\$ 371,295,764	\$ 363,162,854
b. Terminated Vested Members	20,081,439	19,456,599
c. Other Members	<u>174,399,625</u>	<u>166,005,763</u>
d. Total	565,776,828	548,625,216
2. Non-Vested Benefits	0	0
3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2	565,776,828	548,625,216
4. Accumulated Contributions of Active Members	35,919,590	34,845,734
<b>C. Changes in the Actuarial Present Value of Accumulated Plan Benefits</b>		
1. Total Value at Beginning of Year	548,625,216	527,819,067
2. Increase (Decrease) During the Period Attributable to:		
a. Plan Amendment	0	0
b. Change in Actuarial Assumptions	2,799,659	5,436,697
c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period	51,310,811	51,179,114
d. Benefits Paid	<u>(36,958,858)</u>	<u>(35,809,662)</u>
e. Net Increase	17,151,612	20,806,149
3. Total Value at End of Period	565,776,828	548,625,216
D. Market Value of Assets	550,292,396	591,512,232
E. Actuarial Assumptions - See Section D of Actuarial Valuation Report		

# GASB STATEMENT NO. 67

## SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

Fiscal year ending September 30,	<u>2016*</u>	<u>2015</u>	<u>2014</u>
<b>Total pension liability</b>			
Service Cost	\$ 9,940,115	\$ 9,917,828	\$ 10,774,138
Interest	45,274,613	44,655,792	43,346,733
Benefit Changes	-	-	-
Difference between actual & expected experience	(657,609)	(6,253,927)	-
Assumption Changes	3,055,285	5,940,974	-
Benefit Payments	(39,603,713)	(36,967,771)	(36,087,008)
Refunds	(11,208)	(127,423)	(153,598)
<b>Net Change in Total Pension Liability</b>	<u>17,997,483</u>	<u>17,165,473</u>	<u>17,880,265</u>
<b>Total Pension Liability - Beginning</b>	<u>609,531,091</u>	<u>592,365,618</u>	<u>574,485,353</u>
<b>Total Pension Liability - Ending (a)</b>	<u>\$ 627,528,574</u>	<u>\$ 609,531,091</u>	<u>\$ 592,365,618</u>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer	\$ 14,393,012	\$ 15,501,180	\$ 15,061,353
Contributions - Member	3,187,793	3,200,689	3,264,583
Net Investment Income	41,349,421	(22,561,456)	59,588,725
Benefit Payments	(39,603,713)	(36,967,771)	(36,087,008)
Refunds	(11,208)	(127,423)	(153,598)
Administrative Expense	(398,274)	(398,274)	(469,862)
Other	-	-	-
<b>Net Change in Plan Fiduciary Net Position</b>	<u>18,917,031</u>	<u>(41,353,055)</u>	<u>41,204,193</u>
<b>Plan Fiduciary Net Position - Beginning</b>	<u>551,694,135</u>	<u>593,047,190</u>	<u>551,842,997</u>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u>\$ 570,611,166</u>	<u>\$ 551,694,135</u>	<u>\$ 593,047,190</u>
<b>Net Pension Liability - Ending (a) - (b)</b>	<u>56,917,408</u>	<u>57,836,956</u>	<u>(681,572)</u>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	90.93 %	90.51 %	100.12 %
<b>Covered Employee Payroll</b>	\$ 53,303,766	\$ 57,804,651	\$ 59,303,500
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	106.78 %	100.06 %	(1.15)%

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

# GASB STATEMENT NO. 67

## SCHEDULE OF THE EMPLOYER'S NET PENSION LIABILITY

<u>FY Ending September 30,</u>	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a % of Total Pension Liability</u>	<u>Covered Employee Payroll</u>	<u>Net Pension Liability as a % of Covered Employee Payroll</u>
2014	\$ 592,365,618	\$ 593,047,190	\$ (681,572)	100.12%	\$ 59,303,500	(1.15)%
2015	609,531,091	551,694,135	57,836,956	90.51%	57,804,651	100.06%
2016*	627,528,574	570,611,166	56,917,408	90.93%	53,303,766	106.78%

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

# GASB STATEMENT NO. 67

## NOTES TO NET PENSION LIABILITY

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

### Methods and Assumptions Used to Determine Net Pension Liability:

Actuarial Cost Method	Entry Age Normal
Inflation	3.00%
Salary Increases	4.00% to 9.50% depending on age, including inflation
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvements projected to all future years after 2000 using Scale AA.

### Other Information:

Notes See Discussion of Valuation Results in the September 30, 2015 Actuarial Valuation Report. The investment return assumption change from 7.55% to 7.50% is reflected in the Preliminary 2016 Statement of Changes in Net Pension Liability.

# GASB STATEMENT NO. 67

## SCHEDULE OF CONTRIBUTIONS

<u>FY Ending September 30,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Employee Payroll</u>	<u>Actual Contribution as a % of Covered Employee Payroll</u>
2014	\$ 15,061,353	\$ 15,061,353	\$ -	\$ 59,303,500	25.40%
2015	15,501,180	15,501,180	-	57,804,651	26.82%
2016*	14,393,012	14,393,012	-	53,303,766	27.00%

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

# GASB STATEMENT NO. 67

## NOTES TO SCHEDULE OF CONTRIBUTIONS

**Valuation Date:** September 30, 2014  
**Notes** Actuarially determined contributions are calculated as of September 30, which is two years prior to the end of the fiscal year in which contributions are reported.

### Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar, Closed
Remaining Amortization Period	28 years
Asset Valuation Method	5-year smoothed market
Inflation	3.00%
Salary Increases	4.00% to 9.50% depending on age, including inflation
Investment Rate of Return	7.55%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2000 Combined Healthy Participant Mortality Table for males and females with mortality improvements projected to all future years after 2000 using Scale AA.

### Other Information:

**Notes** See Summary of Valuation Results from the September 30, 2014 Actuarial Valuation Report. Effective in the September 30, 2015 Actuarial Valuation Report, the investment return assumption was lowered from 7.55% to 7.50%.

# GASB STATEMENT NO. 67

## SINGLE DISCOUNT RATE

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\*

	<b>1% Decrease</b>	<b>Current Single Discount</b>	<b>1% Increase</b>
	<b>6.50%</b>	<b>Rate Assumption</b>	<b>8.50%</b>
	<b>7.50%</b>		
\$	123,677,136	\$ 56,917,408	\$ 252,277

\* These figures are estimates projected to September 30, 2016. Actual figures will be provided after the end of the fiscal year.