Segal Consulting

City of Jacksonville Corrections Officers Retirement Plan

Actuarial Valuation and Review as of October 1, 2015

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March 22, 2016

Board of Trustees
City of Jacksonville Corrections Officers Retirement Plan
117 West Duval Street, Suite 330
Jacksonville, FL 32202

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of October 1, 2015. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for the fiscal year beginning October 1, 2016.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Plan. The census information on which our calculations were based was prepared by the Retirement System Administrative Office and the financial information was provided by the City's Finance Department. That assistance is gratefully acknowledged.

Statement by Enrolled Actuary: 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, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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); and changes in plan provisions or applicable law.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

I look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: ____________________________

Jeffrey S. Williams, FCA, ASA, MAAA, EA
Vice President and Consulting Actuary
Enrolled Actuary No. 14-7009

SECTION 1

VALUATION SUMMARY

SECTION 2

VALUATION RESULTS

SECTION 3

SUPPLEMENTAL INFORMATION

SECTION 4

REPORTING INFORMATION

Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Jacksonville Corrections Officers Retirement Plan as of October 1, 2015. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement Plan, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of September 30, 2015, provided by the Retirement System Administrative Office;
- The assets of the Plan as of September 30, 2015, provided by the City's Finance Department;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

The assumptions in this valuation are based on a five-year review of plan experience for the period October 1, 2007 - September 30, 2012 and an interim review of plan experience for the two-year period ended September 30, 2014.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

1. This valuation determines the recommended contribution for the fiscal year beginning October 1, 2016. The recommended contribution has increased from $18,863,935 for the fiscal year beginning October 1, 2015 to $19,155,820 for the year beginning October 1, 2016. As a percentage of projected pay, the contribution has decreased from 68.64% of projected pay to 67.73% of projected pay.
2. Per Part VII, Chapter 112.64(5)(a) of Florida Statutes, the payroll growth assumption used for amortization of the unfunded liability is not allowed to exceed the average annual payroll growth for the preceding ten years. For amortization purposes only, the payroll growth assumption was raised from 0.39% to 0.68% in this valuation.

3. The recommended contribution for the fiscal years beginning October 1, 2015 and October 1, 2016 are shown below

   - October 1, 2015 recommended contribution — **$18,863,935**, or **68.64%** of projected pay
   - October 1, 2016 recommended contribution, prior to any assumption changes — **$19,536,226** or **69.28%** of projected pay
   - October 1, 2016 recommended contribution, after payroll growth assumption change — **$19,270,384** or **68.14%** of projected pay
   - October 1, 2016 recommended contribution, after mortality improvement assumption change — **$19,155,820** or **67.73%** of projected pay

4. The investment rate of return on an actuarial basis for the year ended September 30, 2015 was 6.28%. Since the rate of return was less than the assumed rate of return of 7.50% for the year ending September 30, 2015, there was an actuarial investment loss amounting to $1,809,807. The return on a market value basis was -2.54%.

5. As of the valuation date, the smoothed actuarial value of assets was equal to 106.5% of market value. To illustrate the effect of the remaining unrecognized investment losses, if the current year's actuarial value of assets were equal to the current market value of assets, the recommended contributions of $19,155,820 (67.73% of projected pay) would be $19,904,171 (70.38% of projected pay).

6. On an actuarial value basis, the funded ratio has increased from 48.09% as of October 1, 2014 to 50.03% as of October 1, 2015. On a market value basis, the funded ratio has decreased from 49.23% as of October 1, 2014 to 47.00% as of October 1, 2015. The last ten years of funding progress are shown in Exhibit III of Section 4.

7. The following assumption was changed in this valuation:

   - Based on the Society of Actuaries' most recently published analysis and guidance on projected national mortality improvements, the mortality improvement scale was changed from MP2014 to MP2015.

8. There were no plan changes since the prior valuation.

9. The IRS Section 415(b) annual benefit limit for 2015 is $210,000, the same as the limit for 2014. The IRS Section 401(a) covered pay limit increased from $260,000 for 2014 to $265,000 for 2015.

10. The financial information received states all results rounded to the nearest thousand. The results in this valuation are shown to the nearest dollar. Therefore, occasionally rounded numbers are combined with unrounded ones.

Summary of Key Valuation Results

	2016	2015	2014
Contributions for fiscal year beginning October 1:			
Recommended	$19,155,820	$18,863,935	$17,618,896
As a percentage of projected payroll	67.73%	68.64%	62.81%
Actual	--	--	$17,832,000*
Actual percentage of payroll contributed	--	--	62.81%*
Funding elements for plan year beginning October 1:			
Total normal cost, including administrative expenses		$7,608,973	$7,435,060
Market value of assets		150,223,000	148,721,000
Actuarial value of assets		159,914,247	145,276,644
Actuarial accrued liability		319,655,728	302,122,370
Unfunded actuarial accrued liability		159,741,481	156,845,726
Funded ratio – actuarial value of assets		50.03%	48.09%
Funded ratio – market value of assets		47.00%	49.23%
Demographic data for plan year beginning October 1:			
Number of retired participants and beneficiaries		328	306
Number of vested former participants		1	1
Number of active participants		651	616
Covered payroll		$28,091,083	$27,373,702
Average payroll		43,151	44,438
Projected payroll for next fiscal year		28,282,102	27,480,459

**Per City of Jacksonville Ordinance 2014-466-E, the City contributed 62.81% of covered payroll to the Corrections Officers Retirement Plan for the fiscal year beginning October 1, 2014. Actual dollar contributions were greater than recommended dollar contributions due to actual payroll being greater than projected payroll.*

Important Information About Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.

- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the Retirement System Administrative Office. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.

- **Assets** The valuation is based on the market value of assets as of the valuation date, as provided by the City's Finance Department. The Plan uses an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.

- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Retirement Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If the City is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Retirement Board should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, vested terminated participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the participant population has changed over the past ten valuations can be seen in this chart.

CHART 1

Participant Population: 2006 – 2015

Year Ended September 30	Active Participants	Vested Terminated Participants*	Retired Participants and Beneficiaries**	Ratio of Non-Actives to Actives
2006	596	3	15	0.03
2007	581	1	52	0.09
2008	553	1	87	0.16
2009	545	1	136	0.25
2010	688	1	164	0.24
2011	675	1	199	0.30
2012	629	1	241	0.38
2013	631	1	274	0.44
2014	616	1	306	0.50
2015	651	1	328	0.51

**Excludes terminated participants due a refund of employee contributions*
***Includes DROP participants*

Active Participants
Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 651 active participants with an average age of 37.0, average years of service of 8.1 years and average payroll of $43,151. The 616 active participants in the prior valuation had an average age of 37.4, average service of 8.3 years and average payroll of $44,438.

Inactive Participants
In this year's valuation, there was one participant with a vested right to a deferred or immediate vested benefit.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of September 30, 2015

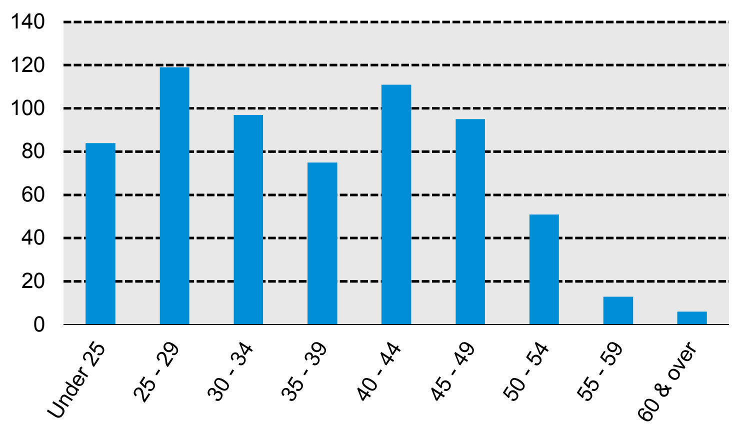
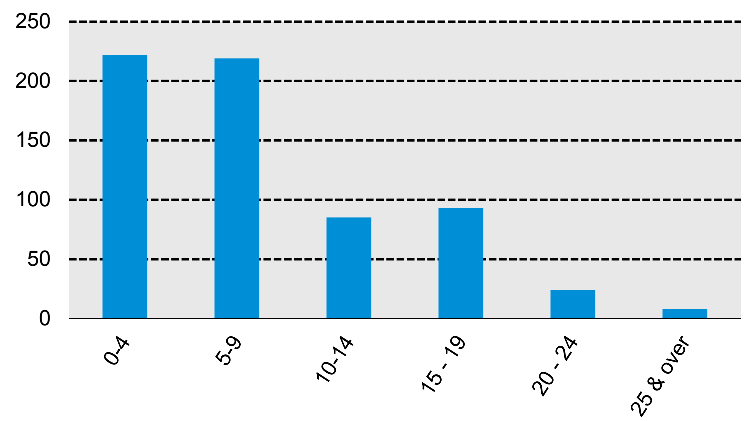


CHART 3

Distribution of Active Participants by Years of Service as of September 30, 2015



Retired Participants and Beneficiaries
As of September 30, 2015, 309 retired participants and 19 beneficiaries were receiving, or reserving for future receipt in the case of DROP retirees, total monthly benefits of $1,168,158. For comparison, in the previous valuation, there were 290 retired participants and 16 beneficiaries receiving monthly benefits of $1,080,965.

These graphs show a distribution of the current retired participants based on their monthly amount and age, by type of pension.

CHART 4

Distribution of Retired Participants by Type and by Monthly Amount as of September 30, 2015

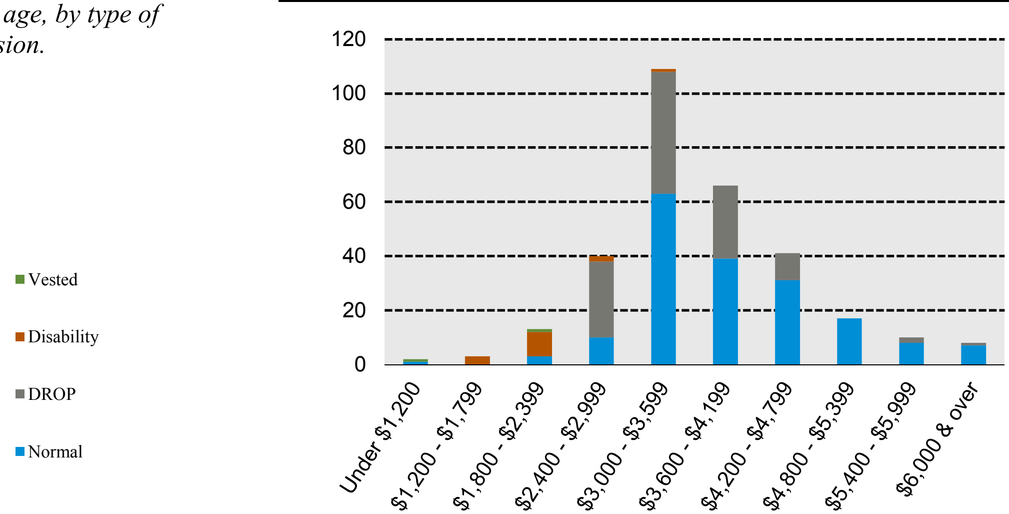
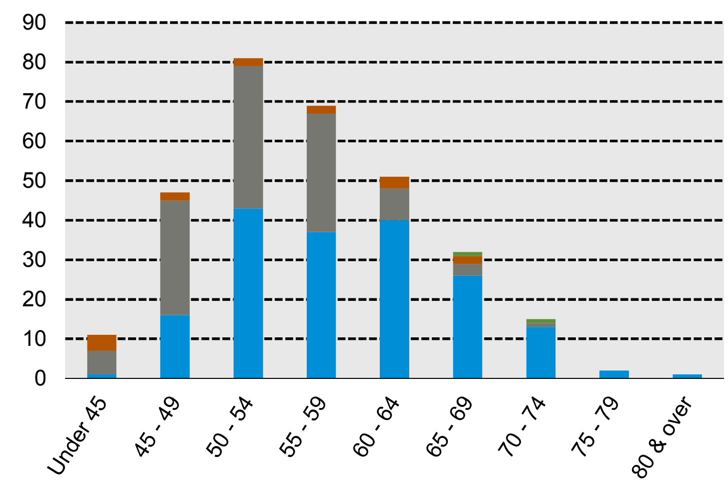


CHART 5

Distribution of Retired Participants by Type and by Age as of September 30, 2015



B. FINANCIAL INFORMATION

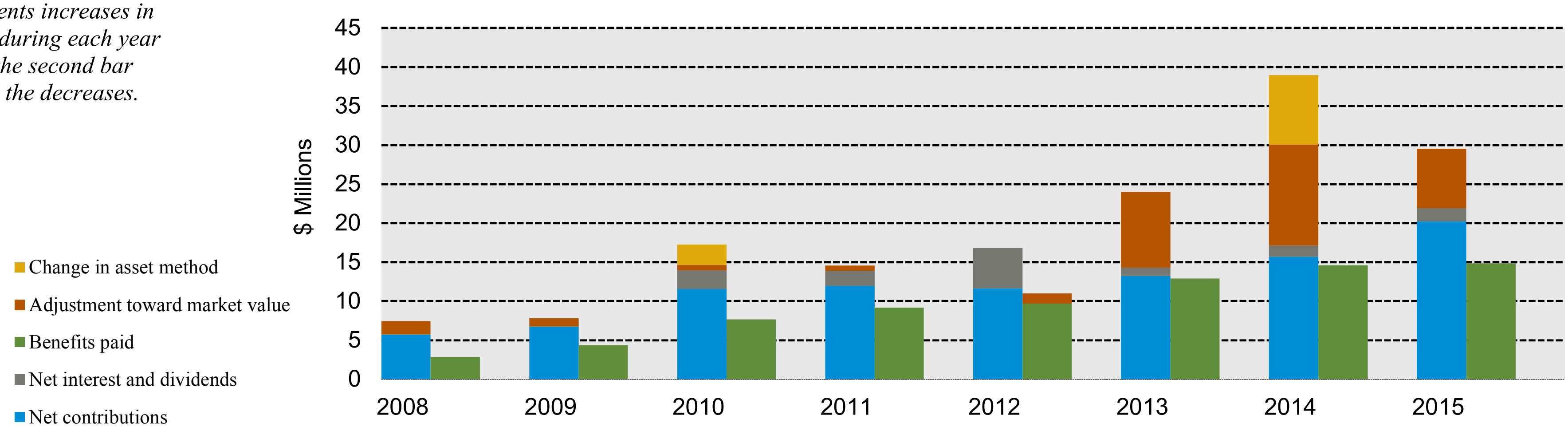
Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last eight years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended September 30, 2008 – 2015



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7
Determination of Actuarial Value of Assets for Year Ended September 30, 2015

1. Market value of assets, September 30, 2015			$150,223,000
	Original	Unrecognized	
2. Calculation of unrecognized return	Amount *	Return**	
(a) Year ended September 30, 2015	-$15,203,738	-$12,162,990	
(b) Year ended September 30, 2014	5,183,479	868,167	
(c) Year ended September 30, 2013	9,681,685	1,081,040	
(d) Year ended September 30, 2012	9,359,561	522,536	
(e) Year ended September 30, 2011	-6,803,453	0	0
(f) Total unrecognized return			-9,691,247
3. Preliminary actuarial value: (1) - (2f)			159,914,247
4. Adjustment to be within 20% corridor			0
5. Final actuarial value of assets as of September 30, 2015: (3) + (4)			$159,914,247
6. Actuarial value as a percentage of market value: (5) ÷ (1)			106.5%
7. Amount deferred for future recognition: (1) - (5)			-$9,691,247

**Total return minus expected return on a market value basis*

***Recognition at 20% per year over five years; effective October 1, 2014, the Plan accelerated the recognition of prior asset gain/loss bases by reflecting 72% of the outstanding asset gains/losses immediately.*

****Deferred return as of September 30, 2015 recognized in each of the next four years:*

(a) Amount recognized on September 30, 2016 -$1,688,303 | *(c) Amount recognized on September 30, 2018 -2,751,359*

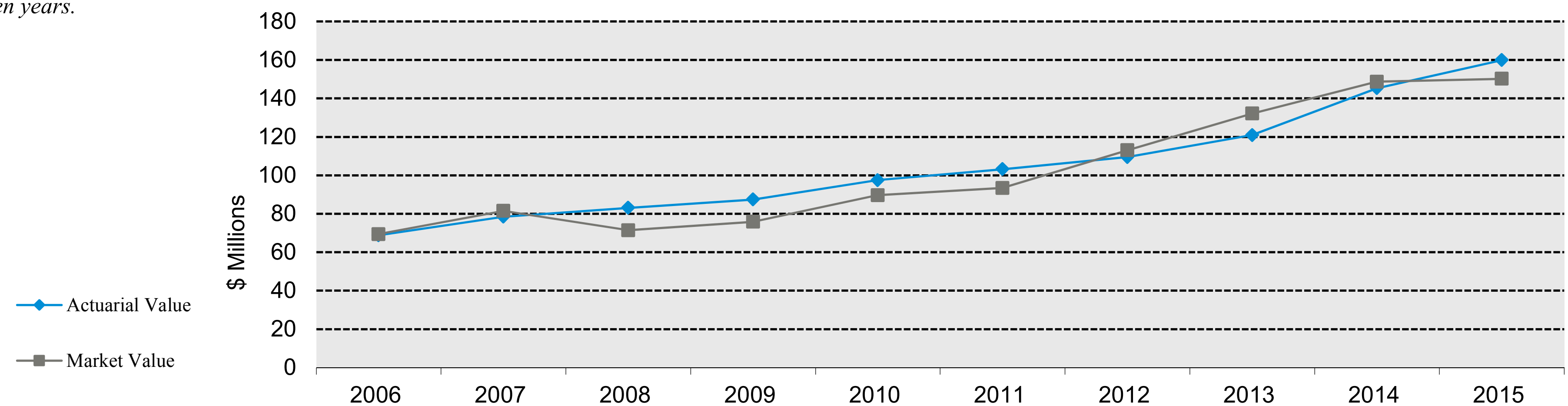
(b) Amount recognized on September 30, 2017 -2,210,839 | *(d) Amount recognized on September 30, 2019 -3,040,748*

Both the actuarial value and market value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of September 30, 2006 – 2015



C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is $5,172,247, consisting of $1,809,807 from investment losses and $3,362,440 in net losses from all other sources. The net experience variation from individual sources other than investments was 1.0% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

CHART 9

Actuarial Experience for Year Ended September 30, 2015

1.	Net loss from investments*	-$1,809,807
2.	Net loss from administrative expenses	-5,602
3.	Net loss from other experience	-3,356,838
4.	Net experience loss: (1) + (2) + (3)	-$5,172,247

** Details in Chart 10*

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 7.50%. The actual rate of return on an actuarial basis for the 2015 plan year was 6.28%.

Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss during the year ended September 30, 2015 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 10

Actuarial Value Investment Experience for Year Ended September 30, 2015

1.	Actual return	$9,286,603
2.	Average value of assets	147,952,144
3.	Actual rate of return: (1) ÷ (2)	6.28%
4.	Assumed rate of return	7.50%
5.	Expected return: (2) x (4)	$11,096,410
6.	Actuarial loss: (1) – (5)	-$1,809,807

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year averages.

Based upon this experience and future expectations, the Board has maintained the assumed rate of return of 7.50%.

CHART 11

Investment Return – Actuarial Value vs. Market Value: 2006 - 2015

Year Ended September 30	Net Interest and Dividend Income		Recognition of Capital Appreciation		Change in Asset Method		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2006	- -	- -	- -	- -	- -	- -	- -	8.96%	- -	7.68%
2007	- -	- -	- -	- -	- -	- -	- -	10.03	- -	14.71
2008	- -	- -	- -	- -	- -	- -	- -	2.14	- -	-15.61
2009	- -	- -	- -	- -	- -	- -	- -	1.23	- -	1.49
2010	$2,378,000	2.65%	$707,747	0.79%	$2,590,106	2.89%	$5,675,853	6.33	$9,391,000	12.03
2011	1,935,000	1.95	685,301	0.69	- -	- -	2,620,301	2.65	717,000	0.79
2012	5,193,000	4.98	-1,302,337	-1.25	- -	- -	3,890,663	3.73	17,166,000	18.14
2013	1,078,000	0.98	9,711,123	8.84	- -	- -	10,789,123	9.82	18,466,000	16.29
2014	1,401,000	1.15	12,935,031	10.65	8,894,571	7.32	23,230,602	19.12	15,468,000	11.66
2015	1,703,000	1.15	7,583,603	5.13	- -	- -	9,286,603	6.28	-3,849,000	-2.54
Total	$13,688,000		$30,320,468		$11,484,677		$55,493,145		$57,359,000	
							Five-year average return	8.55%		8.22%
							Six-year average return	8.25%		8.67%

Note: Each year's yield is weighted by the average asset value in that year.

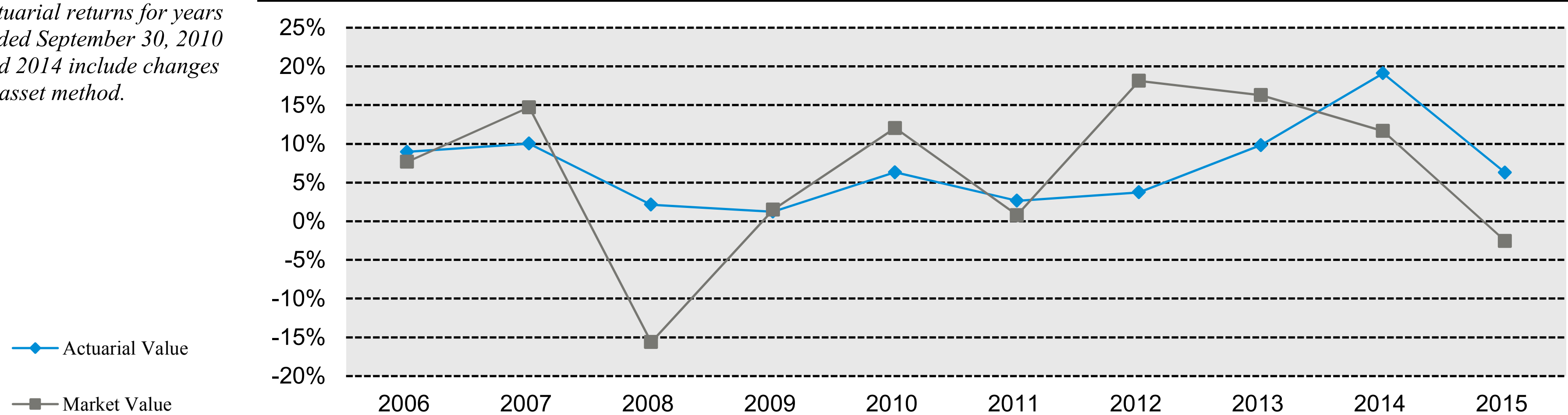
Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

Administrative Expenses
Administrative expenses for the year ended September 30, 2015 totaled $73,000 compared to the assumption of $65,000. This resulted in a loss of $5,602 for the year.

This chart illustrates how this leveling effect has actually worked over the years 2006 - 2015. The actuarial returns for years ended September 30, 2010 and 2014 include changes in asset method.

CHART 12

Market and Actuarial Rates of Return for Years Ended September 30, 2006 - 2015



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net loss from this other experience for the year ended September 30, 2015 amounted to $3,356,838, which is 1.0% of the actuarial accrued liability.

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 67.73% of payroll.

The City and the Retirement Board have adopted financing periods of 30 years for experience gains and losses and for benefit, assumption and method changes. Required contribution amounts have been determined using those periods.

The contribution requirements as of October 1, 2015 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

CHART 14

Recommended Contribution

	Year Beginning October 1			
	2015		2014	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	$7,535,973	26.83%	$7,370,060	26.92%
2. Administrative expenses	73,000	0.26%	65,000	0.24%
3. Expected employee contributions	-2,247,287	-8.00%	-2,189,896	-8.00%
4. Employer normal cost: (1) + (2) + (3)	$5,361,686	19.09%	$5,245,164	19.16%
5. Actuarial accrued liability	319,655,728		302,122,370	
6. Actuarial value of assets	159,914,247		145,276,644	
7. Unfunded actuarial accrued liability: (5) - (6)	$159,741,481		$156,845,726	
8. Payment on unfunded actuarial accrued liability	12,937,787	46.06%	12,827,530	46.86%
9. Total contribution: (4) + (8) adjusted for timing*	19,026,440	67.73%	18,790,651	68.64%
10. Total payroll	28,091,083		27,373,702	
11. Total recommended contribution, projected to next fiscal year	$19,155,820	67.73%	$18,863,935	68.64%
12. Projected payroll	$28,282,102		$27,480,459	

**Recommended contributions are assumed to be paid at the end of every month.*

Reconciliation of Recommended Contribution
The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution from the prior valuation to the amount determined in this valuation.

CHART 15

Reconciliation of Recommended Contribution from October 1, 2015 to October 1, 2016

Recommended Contribution as of October 1, 2015	$18,863,935
Effect of change in actuarial assumptions	-114,564
Effect of raising payroll growth assumption for amortization purposes due to Florida Statutes	-265,842
Effect of expected change in amortization payment due to payroll growth	52,218
Effect of contribution deferral to budget year	78,503
Effect of investment loss	143,341
Effect of other gains and losses on accrued liability	266,313
Effect of net other changes	131,916
Total change	$291,885
Recommended Contribution as of October 1, 2016	$19,155,820

EXHIBIT A
Table of Plan Coverage

	Year Ended September 30		
Category	**2015**	**2014**	**Change From Prior Year**
Active participants in valuation:			
Number	651	616	5.7%
Average age	37.0	37.4	N/A
Average years of service	8.1	8.3	N/A
Projected total payroll	$28,091,083	$27,373,702	2.6%
Projected average payroll	43,151	44,438	-2.9%
Account balances	16,594,172	15,902,761	4.3%
Total active vested participants	429	324	32.4%
Vested terminated participants	1	1	0.0%
Retired participants in pay status:			
Number in pay status	181	158	14.6%
Average age	59.0	58.7	N/A
Average monthly benefit	$3,952	$3,919	0.8%
DROP participants not yet in pay status:			
Number in pay status	113	120	-5.8%
Average age	52.7	52.2	N/A
Average monthly benefit	$3,459	$3,417	1.2%
Disabled participants:			
Number in pay status	15	12	25.0%
Average age	52.6	52.4	N/A
Average monthly benefit	$2,105	$2,077	1.3%
Beneficiaries in pay status:			
Number in pay status	19	16	18.8%
Average age (excluding minors)	63.1	63.6	N/A
Average monthly benefit (excluding minors)	$1,635	$1,671	-2.1%

EXHIBIT B

Participants in Active Service as of September 30, 2015
By Age, Years of Service, and Average Payroll

		Years of Service					
Age	Total	0-4	5-9	10-14	15 - 19	20 - 24	25 & over
Under 25	84	83	1	- -	- -	- -	- -
	$32,753	$32,683	$38,640	$0	$0	$0	$0
25 - 29	119	78	41	- -	- -	- -	- -
	35,900	33,603	40,269	- -	- -	- -	- -
30 - 34	97	25	55	17	- -	- -	- -
	41,194	34,379	41,801	$49,254	- -	- -	- -
35 - 39	75	9	32	19	15	- -	- -
	45,606	32,257	41,664	51,238	$54,891	- -	- -
40 - 44	111	13	35	25	31	7	- -
	49,082	33,919	44,074	48,735	57,534	$66,090	- -
45 - 49	95	8	28	16	26	13	4
	50,463	33,141	43,119	50,074	55,577	63,108	$63,735
50 - 54	51	4	18	6	15	4	4
	49,535	34,455	43,984	48,320	54,247	59,475	63,810
55 - 59	13	1	6	2	4	- -	- -
	47,250	38,340	43,658	51,606	52,689	- -	- -
–60 & over	6	1	3	- -	2	- -	- -
	44,802	34,812	44,336	- -	50,496	- -	- -
Total	651	222	219	85	93	24	8
	$43,151	$33,336	$42,276	$49,689	$55,671	$63,373	$63,773

EXHIBIT C

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Disableds	DROP Participants	Retired Participants	Beneficiaries	Total
Number as of October 1, 2014	616	1	12	120	158	16	923
New participants	93	N/A	N/A	N/A	N/A	N/A	93
Terminations – with vested rights	-1	1	N/A	N/A	N/A	N/A	0
Terminations – without vested rights	-41	N/A	N/A	N/A	N/A	N/A	-41
New DROP participants	-16	N/A	N/A	16	N/A	N/A	0
Retirements	0	-1	N/A	-23	24	N/A	0
New disabilities	0	0	0	0	N/A	N/A	0
New beneficiaries	N/A	N/A	N/A	N/A	N/A	3	3
Deceased	-1	0	0	0	-1	0	-2
Rehire	0	0	0	N/A	0	N/A	0
Certain period expired	N/A	N/A	0	0	0	0	0
Data adjustments	0	0	3	0	0	0	3
Net transfers (to)/from General	1	0	0	0	0	0	1
Number as of October 1, 2015	651	1	15	113	181	19	980

EXHIBIT D

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended September 30, 2015		Year Ended September 30, 2014	
Net assets at actuarial value at the beginning of the year		$145,276,644		$120,947,042
Contribution income:				
Employer contributions	$17,832,000		$13,522,000	
Employee contributions	2,466,000		2,253,000	
Less administrative expenses	-73,000		-65,000	
Net contribution income		20,225,000		15,710,000
Investment income:				
Interest, dividends and other income	$2,528,000		$2,166,000	
Recognition of capital appreciation	7,583,603		12,935,031	
Less investment fees	-825,000		-765,000	
Net investment income		9,286,603		14,336,031
Total income available for benefits		$29,511,603		$30,046,031
Less benefit payments and net DROP reserve accumulation		-$14,874,000		-$14,611,000
Change in actuarial asset method		$0		$8,894,571
Change in actuarial value of assets		$14,637,603		$24,329,602
Net assets at actuarial value at the end of the year		$159,914,247		$145,276,644

EXHIBIT E

Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended September 30, 2015		Year Ended September 30, 2014	
Net assets at market value at the beginning of the year		$148,721,000		$132,154,000
Contribution income:				
Employer contributions	$17,832,000		$13,522,000	
Employee contributions	2,466,000		2,253,000	
Less administrative expenses	-73,000		-65,000	
Net contribution income		20,225,000		15,710,000
Investment income:				
Interest, dividends and other income	$2,528,000		$2,166,000	
Asset appreciation	-5,552,000		14,067,000	
Less investment fees	-825,000		-765,000	
Net investment income		-3,849,000		15,468,000
Total income available for benefits		$16,376,000		$31,178,000
Less benefit payments and net DROP reserve accumulation		-$14,874,000		-$14,611,000
Change in market value of assets		$1,502,000		$16,567,000
Net assets at market value at the end of the year		$150,223,000		$148,721,000

EXHIBIT F

Summary Statement of Plan Assets

	Year Ended September 30, 2015		Year Ended September 30, 2014	
Cash equivalents		$4,836,000		$234,000
Accounts receivable		636,000		413,000
Investments:				
Equity in pooled investments*	$161,576,000		$163,009,000	
Total investments at market value		161,576,000		163,009,000
Total assets		$167,048,000		$163,656,000
Less accounts payable:				
Obligations under securities lending agreement (less collateral)	-$60,000		$0	
Other accounts payable and accrued liabilities	-122,000		-85,000	
DROP reserve	-16,643,000		-14,850,000	
Total accounts payable		-$16,825,000		-$14,935,000
Net assets at market value		$150,223,000		$148,721,000
Net assets at actuarial value		$159,914,247		$145,276,644

**The plan's assets are pooled with other City of Jacksonville retirement plans. The investment allocation for the pooled fund as of September 30, 2015 consists of 57% equities, 20% fixed income, 21% in real estate and alternative investments, and 2% in cash and short-term investments.*

EXHIBIT G

Development of the Fund Through September 30, 2015

Year Ended September 30	Employer Contributions	Employee Contributions	Other Contributions and Miscellaneous Items[1]	Net Investment Return[2]	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2008	$4,170,687	$2,162,565	-$21,139	$1,707,996	$560,000	$2,861,628	$83,056,043
2009	4,899,676	2,278,788	1,042,671	1,043,474	560,000	4,364,550	87,391,102
2010	9,491,000	2,632,000	485,000	5,675,853[3]	560,000	7,651,000	97,463,955
2011	9,711,000	2,807,000	309,000	2,620,301	560,000	9,197,000	103,154,256
2012	9,066,000	2,621,000	472,000	3,890,663	55,000	9,675,000	109,473,919
2013	10,742,000	2,525,000	392,000	10,789,123	50,000	12,925,000	120,947,042
2014	13,522,000	2,253,000	0	23,230,602[4]	65,000	14,611,000	145,276,644
2015	17,832,000	2,466,000	0	9,286,603	73,000	14,874,000	159,914,247

[1] *Includes miscellaneous income and adjustments to the market value of assets*

[2] *Net of investment fees*

[3] *Includes a change in asset method of $2,590,106*

[4] *Includes a change in asset method of $8,894,571*

EXHIBIT H

Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2015

1. Unfunded actuarial accrued liability at beginning of year		$156,845,726
2. Employer normal cost at beginning of year		5,245,164
3. Employer contributions		-17,832,000
4. Interest		
(a) For whole year on (1) + (2)	$12,156,817	
(b) For monthly payments on (3)	-604,972	
(c) Total interest		11,551,845
5. Expected unfunded actuarial accrued liability		$155,810,735
6. Changes due to:		
(a) Net experience loss (excluding impact of contribution deferral to budget year)	$5,172,247	
(b) Assumptions	-1,241,501	
(c) Total changes		3,930,746
7. Unfunded actuarial accrued liability at end of year		$159,741,481

EXHIBIT I

Table of Amortization Bases

Type*	Date Established	Initial Years	Initial Amount	Annual Payment**	Years Remaining	Outstanding Balance
Fresh start	10/01/2004	29	- -	$1,761,567	18.00	$19,232,711
Liability decrease	10/01/2004	30	- -	-222,336	19.00	-2,495,791
Liability decrease	10/01/2005	30	- -	-83,000	20.00	-955,586
Liability increase	10/01/2006	30	- -	1,591,548	21.00	18,752,782
Liability increase	10/01/2006	30	- -	448,438	21.00	5,283,825
Liability increase	10/01/2007	30	- -	537,481	22.00	6,468,703
Liability increase	10/01/2007	30	- -	46,241	22.00	556,521
Liability increase	10/01/2008	30	$8,945,587	761,596	23.00	9,346,063
Plan amendment	10/01/2008	30	29,032,009	2,459,801	23.00	30,185,883
Experience loss	10/01/2010	30	19,146,644	1,551,613	25.00	19,706,343
Change in assumptions	10/01/2010	30	3,963,142	321,167	25.00	4,078,993
Change in asset method	10/01/2010	30	-2,590,106	-209,898	25.00	-2,665,819
Plan amendment	10/01/2010	30	343,771	27,859	25.00	353,822
Experience loss	10/01/2011	30	11,931,785	939,330	26.00	12,112,481
Experience loss	10/01/2012	30	8,306,777	635,189	27.00	8,306,200
Change in assumptions	10/01/2012	30	11,171,194	854,221	27.00	11,170,419
Experience loss	10/01/2013	30	7,381,814	550,814	28.00	7,296,696
Experience loss	10/01/2014	30	6,606,525	489,540	29.00	6,563,112
Change in assumptions	10/01/2014	30	10,426,843	772,623	29.00	10,358,326
Change in asset method	10/01/2014	30	-8,894,571	-659,083	29.00	-8,836,123
Experience loss	10/01/2015	30	6,163,421	454,658	30.00	6,163,421
Change in assumptions	10/01/2015	30	-1,241,501	-91,582	30.00	-1,241,501
Total				$12,937,787		$159,741,481

**Level percentage of payroll; per Part VII, Chapter 112.64(5)(a) of Florida Statutes, outstanding balances were amortized using a 0.68% payroll growth rate for the October 1, 2015 actuarial valuation.*

***Experience gain/loss bases include impact of contributions deferred to budget years on outstanding balance of prior year bases.*

EXHIBIT J
Section 415 Limitations

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $210,000 for 2015. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as form of benefits chosen and after tax contributions.

Benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

EXHIBIT K
Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Withdrawal rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives: The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

Actuarial Accrued Liability For Pensioners: The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded Actuarial Accrued Liability: The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the Unfunded Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return: The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

EXHIBIT L

Supplementary State of Florida Information - Summary of Salary Changes

Year Ended September 30	Total Salary	Percent Change in Total Salary	Percent Change in Salary of Employees Remaining Active	Expected Percent Change in Salary of Employees Remaining Active
2005	$26,256,000	-0.26%	- -	- -
2006	27,702,000	5.51%	4.19%	5.49%
2007	27,083,000	-2.23%	3.99%	5.59%
2008	26,334,000	-2.77%	3.58%	5.58%
2009	27,661,000	5.04%	3.93%	5.18%
2010*	27,869,052	0.75%	N/A	N/A
2010	32,329,400	16.88%	2.45%	5.28%
2011	31,832,037	-1.54%	3.09%	5.80%
2012	28,944,158	-9.07%	0.78%	6.15%
2013	27,871,010	-3.71%	3.03%	1.72%
2014	27,373,702	-1.78%	3.89%	1.70%
2015	28,091,083	2.62%	3.08%	1.66%

Note: The average total payroll growth for the most recent ten years was 0.68% per year.

Salary history prior to October 1, 2010 was taken from the City's Comprehensive Annual Financial Reports.

Prior to the inclusion of new participants with greater than one year of employment.

EXHIBIT L (continued)

Supplementary State of Florida Information – Recent History of Recommended and Actual Contributions

Fiscal Year Ended September 30	Valuation Date September 30	Contribution Rate as Percent of Valuation Payroll	Valuation Payroll	Recommended Contribution	Actual Contribution
2011	2008*	31.78%	$27,957,188	$8,884,794	$9,711,000
2012	2010	35.45%	33,460,929	11,860,912	9,066,000
2013	2011	39.11%	32,946,158	12,884,770	10,742,000
2014	2012	49.93%	29,812,483	14,884,963	13,522,000
2015	2013	62.81%	28,049,384	17,618,896	17,832,000
2016	2014	68.64%	27,480,459	18,863,935	- -
2017	2015	67.73%	28,282,102	19,155,820	- -

All amounts prior to the 2010 valuation date were prepared by the prior actuary.

**An actuarial valuation was not performed for the plan year beginning October 1, 2009. The recommended contribution is based on the 2008 valuation's contribution rate.*

EXHIBIT L (continued)

Supplementary State of Florida Information - Comparative Summary of Principal Valuation Results

	Year Ended September 30, 2015		Year Ended September 30, 2014
	New Assumptions	Old Assumptions	
Participant data			
Active members	651	651	616
Total annual payroll	$28,091,083	$28,091,083	$27,373,702
Retired members and beneficiaries	215	215	186
Total annualized benefit	$9,327,954	$9,327,954	$8,050,633
Terminated vested members	1	1	1
Total annualized benefit	$12,048	$12,048	$21,756
DROP participants	113	113	120
Total current balance	$4,689,936	$4,689,936	$4,920,951
Actuarial value of assets	$159,914,247	$159,914,247	$145,276,644
Present value of all future expected benefit payments:			
Active members:			
Retirement benefits	$140,573,392	$140,952,992	$132,624,603
Vesting benefits	2,369,874	2,370,353	2,276,771
Disability benefits	3,537,670	3,546,149	3,407,756
Death benefits	1,345,204	1,370,060	1,338,540
Return of contributions	16,594,172	16,594,172	15,902,761
Total	$164,420,312	$164,833,726	$155,550,431
Terminated vested members	130,383	131,365	284,559
Retired members and beneficiaries	140,797,777	141,498,712	124,577,116
DROP participants	78,861,609	79,128,486	83,156,595
Total	$384,210,081	$385,592,289	$363,568,701

EXHIBIT L (continued)

Supplementary State of Florida Information – Comparative Summary of Principal Valuation Results

	Year Ended September 30, 2015		
	New Assumptions	Old Assumptions	Year Ended September 30, 2014
Unfunded actuarial accrued liability	$159,741,481	$160,982,982	$156,845,726
Actuarial present value of accrued benefits			
Vested accrued benefits			
Active members	$78,538,219	$78,747,718	$74,357,645
Inactive members	130,383	131,365	284,559
Pensioners and beneficiaries	140,797,777	141,498,712	124,577,116
DROP participants	78,861,609	79,128,486	83,156,595
Nonvested active members	937,475	945,613	2,417,311
Total	$299,265,463	$300,451,894	$284,793,226
Pension cost			
Normal cost, including administrative expenses	$7,608,973	$7,618,834	$7,435,060
Expected employee contributions	-2,247,287	-2,247,287	-2,189,896
Level % of payroll payment to amortize unfunded actuarial accrued liability	12,937,787	13,345,239	12,827,530
Total minimum annual cost payable monthly at valuation date	19,026,440	19,460,331	18,790,651
Total employer cost projected to budget year	19,155,820	19,536,226	18,863,935
As % of payroll	67.73%	69.28%	68.64%
Present value of active members' future salaries at attained age	$239,608,380	$239,571,589	$228,409,070

EXHIBIT L (continued)

Supplementary State of Florida Information - Actuarial Present Value of Accumulated Plan Benefits

The factors that affected the change in the actuarial present value of accumulated plan benefits from the preceding to the current benefit information date are as follows:

Factors	Change in Actuarial Present Value of Accumulated Plan Benefits	
Actuarial present value of accumulated benefits as of October 1, 2014		$284,793,226
Benefits accumulated, net experience gain or loss, changes in data	$9,777,432	
Change in assumptions	-1,186,431	
Benefits paid	-14,874,000	
Interest	20,755,236	
Net increase		$14,472,237
Actuarial present value of accumulated benefits as of October 1, 2015		$299,265,463

EXHIBIT L (continued)

Supplementary State of Florida Information - Reconciliation of DROP Accounts

Attained Age	Total Actives*	Eligible for Normal**	Number Retiring	Number Entering DROP
Under 40	332	0	0	0
40	17	1	0	0
41	24	1	0	0
42	26	3	0	0
43	24	3	0	1
44	26	2	0	1
45	28	5	0	1
46	23	4	0	2
47	19	9	0	3
48	17	3	0	2
49	16	3	0	2
50	13	3	0	0
51	7	0	0	0
52	7	1	0	0
53	9	1	0	0
54	5	3	0	1
55	4	1	0	1
56	5	1	0	1
57	3	0	0	0
58	3	0	0	0
59	1	0	0	0
60	1	0	0	0
61	2	0	0	0
62	1	0	0	0
63	2	0	0	1
64	1	0	0	0
65	0	0	0	0
Total	616	44	0	16

**Number of active participants from prior valuation.*

***Number of active participants either eligible to retire as of October 1, 2014 or who became eligible during plan year ended September 30, 2015.*

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Retired participants as of the valuation date (including 19 beneficiaries in pay status)		328
2.	Participants inactive during year ended September 30, 2015 with vested rights		1
3.	Participants active during the year ended September 30, 2015		651
	Fully vested	429	
	Not vested	222	

The actuarial factors as of the valuation date are as follows:

1.	Normal cost, including administrative expenses		$7,608,973
2.	Actuarial accrued liability		319,655,728
	Retired participants and beneficiaries	$219,659,386	
	Inactive participants with vested rights	130,383	
	Active participants	99,865,959	
3.	Actuarial value of assets ($150,223,000 at market value as reported by the City)		159,914,247
4.	Unfunded actuarial accrued liability		$159,741,481

EXHIBIT I (continued)

Summary of Actuarial Valuation Results

The determination of the recommended contribution is as follows:

1.	Total normal cost	$7,535,973
2.	Administrative expenses	73,000
3.	Expected employee contributions	-2,247,287
4.	Employer normal cost: (1) + (2) + (3)	$5,361,686
5.	Payment on unfunded actuarial accrued liability	12,937,787
6.	Total recommended contribution: (4) + (5), adjusted for timing and projected to October 1, 2016	$19,155,820
7.	Payroll projected to October 1, 2016	$28,282,102
8.	Total recommended contribution as a percentage of projected payroll: (6) ÷ (7)	67.73%

EXHIBIT II

History of Employer Contributions

Plan Year Ended September 30	Actuarially Determined Employer Contributions (ADEC)	Actual Contributions	Percentage Contributed
2008	$4,329,000	$4,350,000	100.5%
2009	5,268,000	5,247,000	99.6%
2010	9,096,850	9,491,000	104.3%
2011*	8,884,794	9,711,000	109.3%
2012	11,860,912	9,066,000	76.4%**
2013	12,884,770	10,742,000	83.4%**
2014	14,884,963	13,522,000	90.8%**
2015	17,618,896	17,832,000	101.2%
2016	18,863,935	- -	--
2017	19,155,820	--	--

Note: The Actuarially Determined Employer Contribution was previously referred to as the Annual Required Contribution.

* *An actuarial valuation was not performed for the plan year beginning October 1, 2009. The recommended contribution is based on the 2008 valuation's contribution rate.*

** *The City contributes based on the contribution rate percentage. Actual dollar contributions were less than recommended dollar contributions due to actual payroll being less than projected payroll.*

EXHIBIT III

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
10/01/2006	$68,791,000	$104,126,000	$35,335,000	66.07%	$27,702,000	127.55%
10/01/2007	78,458,000	116,945,000	38,487,000	67.09%	27,083,000	142.11%
10/01/2008	83,056,000	137,830,000	54,774,000	60.26%	26,334,000	208.00%
10/01/2009*	86,358,000	181,031,000	94,673,000	47.70%	27,661,000	342.26%
10/01/2010	97,463,955	204,384,334	106,920,379	47.69%	32,329,400	330.72%
10/01/2011	103,154,256	223,575,233	120,420,977	46.14%	31,832,037	378.30%
10/01/2012	109,473,919	251,035,516	141,561,597	43.61%	28,944,158	489.09%
10/01/2013	120,947,042	271,073,724	150,126,682	44.62%	27,871,010	538.65%
10/01/2014	145,276,644	302,122,370	156,845,726	48.09%	27,373,702	572.98%
10/01/2015	159,914,247	319,655,728	159,741,481	50.03%	28,091,083	568.66%

All results prior to October 1, 2010 were taken from the City's September 30, 2009 Comprehensive Annual Financial Report.

**An actuarial valuation was not performed for the plan year beginning October 1, 2009.*

EXHIBIT IV

Funded Ratio

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The chart below depicts a history of the funded ratios for this plan on both an actuarial value (AVA) basis and market value (MVA) basis.

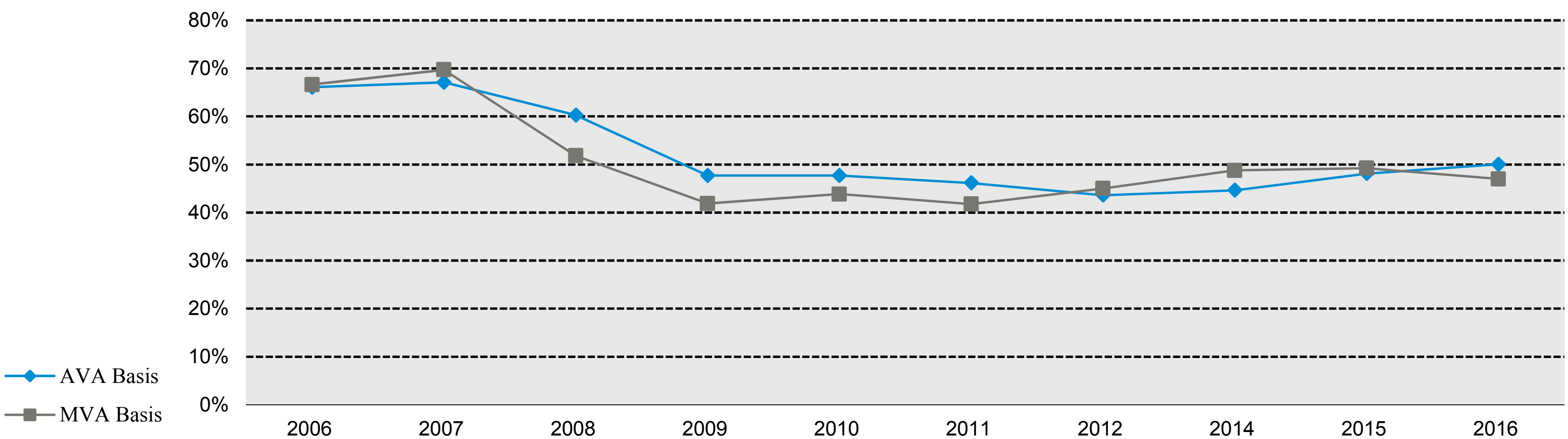


EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Rationale for Demographic and Noneconomic Assumptions:	The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Experience Study Report for the five-year period ended September 30, 2012. Experience data is reviewed in conjunction with each annual valuation, and updates to the mortality improvement scale have been made this year. Based on professional judgment, no additional assumption changes are warranted at this time.
Mortality Rates:	
Pre-retirement:	RP-2014 Blue Collar Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP2015
Healthy annuitants:	RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP2015
Disabled annuitants:	RP-2014 Disabled Retiree Mortality Table, set forward four years, projected generationally with Scale MP2015
	RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward four years for males and three years for females, reasonably reflects the healthy annuitant mortality experience of the Corrections Officers Retirement Plan as of the measurement date. The mortality table was then adjusted to future years using generational projection under Scale MP2015 to reflect future mortality improvement.
	RP-2000 Disabled Retiree Mortality table, set forward four years, reasonably reflects the disabled annuitant mortality experience of the Corrections Officers Retirement Plan as of the measurement date. The mortality table was then adjusted to future years using generational projection under Scale MP2015 to reflect future mortality improvement.

Termination Rates before Retirement:

	Rate (%)			
	Mortality*		Disability**	
Age	Male	Female	Male	Female
20	0.07	0.02	0.04	0.02
25	0.06	0.02	0.04	0.03
30	0.07	0.03	0.06	0.05
35	0.08	0.04	0.08	0.08
40	0.11	0.06	0.12	0.11
45	0.20	0.10	0.18	0.17
50	0.33	0.16	0.31	0.27
55	0.54	0.24	0.49	0.43
60	0.95	0.35	0.82	0.56
65	1.57	0.57	0.00	0.00

** Mortality rates shown for base table*
***100% of disabilities are assumed to be non-service incurred.*

Service	Withdrawal**
0-1	7.00
1-2	7.00
2-3	5.00
3-4	5.00
4-5	5.00
5-6	5.00
6-7	4.00
7-8	4.00
8-9	4.00
9-10	4.00
10+	1.00

***Rate set to 1.00% after age 45. All withdrawal rates are set to 0% after eligibility for retirement.*

Retirement Rates: 100% retirement assumed at age 65 with 5 years of service; for ages less than 65, retirement rate assumptions are based on service as follows:

Service	Rate (%)*
Under 20	0%
20	50
21-23	30
24	40
25-29	50
30 & Over	100

**Above rates are adjusted by a factor of 75% for ages under 45.*

Refund of Contributions: 95% of participants that are vested and terminate are assumed to take a refund of their employee contributions in lieu of their accrued benefit deferred to age 65.

Retirement Age for Inactive Vested Participants: 65

Percent Married: 50%

Age of Spouse: Females three years younger than males

Unknown Data for Participants: Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Net Investment Return: 7.50%

The net investment return assumption was chosen by the Retirement System's Board of Trustees, with input from the actuary. This assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation.

Salary Increases (including inflation):

Service	Rate (%)
0-4	6.0
5-9	5.0
10-14	4.0
15+	3.0

Inflation Rate: 2.75%

Payroll Growth Rate: 0.68% used for amortization of unfunded liability amounts, based on the requirement in the Florida Statutes that the assumption for this purpose may not exceed the average annual growth for the preceding ten years. The Fund's long-term payroll growth assumption is equal to the inflation assumption of 2.75%.

Administrative Expenses: Previous year's actual expenses; $73,000 for October 1, 2015.

Actuarial Value of Assets: Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and the expected market return, and is recognized over a five - year period, further adjusted, if necessary, to be within 20% of the market value.

Actuarial Cost Method: Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by compensation, with Normal Cost determined as if the current benefit accrual rate had always been in effect.

Normal Cost is not included for participants who are assumed to retire with 100% certainty in the upcoming plan year based on the retirement assumptions.

Changes in Assumptions:	The following assumption change was reflected in this valuation: ➤ Based on the Society of Actuaries' most recently published analysis and guidance on projected national mortality improvements, the mortality improvement scale was changed from MP2014 to MP2015.

EXHIBIT VI
Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	October 1 through September 30
Normal Retirement:	
Age Requirement	Age 65 with five years of Credited Service or any age with 20 years of Credited Service.
Regular Benefit Amount	3.0% of Final Monthly Compensation times years of Credited Service for the first 20 years plus 2.0% of Final Monthly Compensation times years of Credited Service for years in excess of 20. However, the benefit may not exceed 80% of Final Monthly Compensation.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.
Early Retirement:	None
Service-Incurred Disability:	
Age Requirement	None
Service Requirement	None
Regular Benefit Amount	50% of the average salary earned in the last three years immediately preceding disability retirement.

Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.
Non-service Incurred Disability:	
Age Requirement	None
Service Requirement	5 years of Credited Service
Regular Benefit Amount	25% percent of the average salary earned in the last three years immediately preceding disability retirement. For each year of service in excess of 5 years, the benefit shall be increased 2.5%, to a maximum of 50%.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.
Vesting:	
Age Requirement	None
Service Requirement	5 years of Credited Service
Regular Benefit Amount	Accrued Normal Retirement Benefit payable at age 65.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Credited Service, not less than $25 per month or more than $150 per month. Payable at Age 65.
Minimum Benefit Amount	$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.

Spouse's Pre-Retirement Death Benefit:	
Age Requirement	None
Service Requirement	None
Regular Benefit Amount	If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the member's accrued retirement benefit. If the Member is not eligible for retirement, the surviving spouse is entitled to 75% of the pension the Member would have received if the Member had worked to eligibility for Normal Retirement at current salary, using a 2% annual accrual rate.
Supplemental Benefit Amount	Monthly benefit of $5 times years of Member's Credited Service, not less than $25 per month or more than $150 per month.
Minimum Benefit Amount	75% of $56.97 per whole year of Member's Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1st.
Spouse's Post-Retirement Death Benefit:	
Regular Benefit Amount	Surviving spouse is entitled to 75% of the Member's regular benefit.
Supplemental Benefit Amount	Surviving spouse is entitled to 100% of the Member's supplemental benefit.
Minimum Benefit Amount	75% of the Member's Minimum Benefit Amount at retirement.
Member:	All City corrections officers are eligible for membership in the Plan upon date of hire.
Member Contributions:	8% of Earnable Compensation; 2% of Earnable Compensation during DROP participation.
Credited Service:	The number of full years and months worked from date of participation to date of termination or retirement, plus any prior service purchased.
Final Monthly Compensation:	Average monthly rate of Earnable Compensation during the highest 36 consecutive months (78 pay periods) out of the last ten years of employment.
Earnable Compensation:	Base pay for regular hours worked as an employee, plus service raises and excluding bonuses, adjusted compensation, overtime or any extra compensation over and above regularly budgeted salaries.
Cost of Living Adjustment:	On the December 1st after the initial benefit commencement date, and on each December 1st thereafter, the regular benefit is increased by 3%.

DROP:	Members with 20 or more years of service may elect to defer receipt of their retirement benefits while continuing employment with the City for up to 5 years. Upon the effective date of participating in the DROP, a member's years of service and Final Monthly Compensation become frozen for purposes of determining pension benefits. Additional service beyond the date of DROP participation no longer accrues any additional benefits under the Retirement System. Benefits that would have been payable are accumulated at interest to date of termination and paid or rolled over in a single sum, and payments are made directly to the Member thereafter based on the accrued retirement benefit at the DROP start date. COLA increases start at termination of employment rather than at the start of the DROP.
Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.

EXHIBIT 1

General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Single Employer Pension Plan

Plan Description

Plan administration. The sole and exclusive administration of and the responsibility for the proper, effective operation of the Retirement System and for implementing the provisions of Chapter 120 of the City Charter is vested in a Board of Trustees.

The Board of Trustees shall consist of nine persons who shall be elected as follows:

(1) The Mayor's Chief Administrative Officer or designee.

(2) The City's Chief Financial Officer or designee.

(3) The City's Chief Human Resources Officer, by whatever title known.

(4) Chairperson of the General Employees' Pension Advisory Committee.

(5) A General Employees' Pension Plan retiree elected by the General Employees' Retired Employees' Association.

(6) Chairperson of the Corrections Officers' Advisory Committee.

(7) The Vice-Chairperson of the Corrections Officers' Advisory Committee until October 1, 2012; effective October 1, 2012 and continuing until October 1, 2014, a Corrections Officers' Plan retiree chosen by the Corrections Officers' Advisory Committee; and effective on and after October 1, 2014, a retired Corrections Officer elected by the Corrections Officers' Retired Employees' Association.

(8) Two citizens shall be appointed by the City Council. Each citizen shall have professional experience in at least one of the following disciplines: finance, investments, economics, pension management, pension administration and/or accounting.

Plan membership. All Corrections Officers, as certified under Florida Statutes, Chapter 943, employed by the City of Jacksonville.

At September 30, 2015, pension plan membership consisted of the following:

Inactive employees or beneficiaries currently receiving benefits	328
Inactive employees entitled to but not yet receiving benefits	1
Active employees	651
Total	980

EXHIBIT 2
Summary of Plan Provisions

Please see Section 4, Exhibit VI, of the October 1, 2015 actuarial valuation for a summary of plan provisions.

EXHIBIT 3

Net Pension Liability

The components of the net pension liability of the Jacksonville Corrections Officers Retirement Plan at September 30, 2015 were as follows:

Total pension liability	$340,193,852
Plan fiduciary net position	166,866,000
Net pension liability	173,327,852
Plan fiduciary net position as a percentage of the total pension liability	49.05%

Actuarial assumptions. The total pension liability was determined based on an actuarial valuation as of September 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%*
Salary increases assumption	3.00% - 6.00%, of which 2.75% is the Plan's long-term payroll inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Pre-retirement mortality rates	RP-2014 Blue Collar Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2015
Healthy annuitant mortality rates	RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2015

* *The Fund's payroll inflation assumption is 2.75%. However, based on Part VII, Chapter 112.64(5)(a) of Florida Statutes, an assumption of 0.68% was used for amortization purposes in the October 1, 2015 valuation.*

Disabled annuitant mortality rates	RP-2014 Disabled Retiree Mortality Table, set forward four years, projected generationally with Scale MP-2015 RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward four years for males and three years for females, reasonably reflects the healthy annuitant mortality experience of the General Employees Retirement Plan as of the measurement date. The mortality table was then adjusted to future years using generational projection under Scale MP-2015 to reflect future mortality improvement. RP-2000 Disabled Retiree Mortality table, set forward four years, reasonably reflects the disabled annuitant mortality experience of the General Employees Retirement Plan as of the measurement date. The mortality table was then adjusted to future years using generational projection under Scale MP-2015 to reflect future mortality improvement. The actuarial assumptions used in the October 1, 2014 valuation were based on the results of an experience study for the period October 1, 2007 to September 30, 2012, with additional changes based on an interim study of mortality experience through September 30, 2015.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2015 are summarized in the following table. The long-term expected real rates of return are based on 20-year projections of capital market assumptions provided by Segal Rogerscasey.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	35%	6.34%
International equity	20%	7.04%
Fixed income	19%	1.34%
Real estate	25%	4.14%
Cash	1%	0.74%
Total	100%	

Discount rate: The discount rate used to measure the total pension liability is 7.50%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at their applicable contribution rates and that City contributions will be made at rates equal to the actuarially determined contribution rates. Based on these assumptions, the 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 the Plan's investments was applied to all periods of projected benefit payments to determine the total pension liability. Cash flow projections were run for a 120-year period.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the Jacksonville Corrections Officers Retirement Plan, calculated using the discount rate of 7.50%, as well as what the Jacksonville's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
Jacksonville Corrections Officers Retirement Plan's net pension liability	$220,560,297	$173,327,852	$133,150,861

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions **(GASB 68 Only; information drafted for inclusion in a September 30, 2016 CAFR)**

For the year ended September 30, 2016 the City's recognized pension expense is $20,910,208. At September 30, 2016, the City reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$5,716,026	- -
Changes of assumptions	7,689,225	($1,065,432)
Net difference between projected and actual earnings on pension plan investments	10,689,753	- -
Total	$24,095,004	($1,065,432)

Contributions of $X were reported as deferred outflows of resources related to pensions resulting from City of Jacksonville contributions subsequent to the September 30, 2015 measurement date and will be recognized as a reduction of the net pension liability in the year ended September 30, 2016. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended	Recognition of deferred outflows/(inflows)
September 30, 2017	$4,925,867
September 30, 2018	4,925,867
September 30, 2019	4,925,867
September 30, 2020	5,731,876
September 30, 2021	2,454,931
Thereafter	65,164

Development of Pension Expense

	Fiscal Year Ending September 30, 2016
Components of pension expense	
Service cost	$7,260,679
Interest on the total pension liability	23,652,385
Projected earnings on plan investments	(12,535,725)
Employee contributions	(2,466,000)
Administrative expense	73,000
Current year recognition of:	
Changes of assumptions	(177,573)
Difference between expected and actual experience	242,739
Difference between projected and actual earnings on pension plan investments	3,276,945
Change of benefit terms	0
Deferred inflows and outflows established in prior years	1,583,758
Total pension expense	$20,910,208

EXHIBIT 4

Schedules of Changes in Jacksonville CORP Net Pension Liability – Last Ten Fiscal Years

	2015	2014	2013
Total pension liability			
Service cost	$7,260,679	$6,680,120	$6,904,010
Interest	23,652,385	21,997,460	20,475,861
Change of benefit term	0	0	0
Differences between expected and actual experience	1,699,155	5,963,454	5,776,658
Changes of assumptions	(1,243,005)	10,764,915	0
Benefit payments, including refunds of employee contributions	(13,081,000)	-14,677,000	-12,369,000
Net change in total pension liability	$18,288,214	$30,728,949	$20,787,529
Total pension liability – beginning	321,905,638	291,176,689	270,389,160
Total pension liability – ending (a)	$340,193,852	$321,905,638	$291,176,689
Plan fiduciary net position			
Contributions – employer	$17,832,000	$13,522,000	$10,742,000
Contributions – employee	2,466,000	2,253,000	2,525,000
Net investment income	(3,849,000)	15,468,000	18,466,000
Benefit payments, including refunds of employee contributions	(13,081,000)	-14,677,000	-12,369,000
Administrative expense	(73,000)	-65,000	-50,000
Other	0	0	392,000
Net change in plan fiduciary net position	3,295,000	$16,501,000	$19,706,000
Plan fiduciary net position – beginning	163,571,000	147,070,000	127,364,000
Plan fiduciary net position – ending (b)	166,866,000	163,571,000	147,070,000
Net pension liability – ending (a) – (b)	$173,327,852	$158,334,638	$144,106,689
Plan fiduciary net position as a percentage of the total pension liability	49.05%	50.81%	50.51%
Covered employee payroll	$28,091,083	$27,373,702	$27,871,010
Net pension liability as percentage of covered employee payroll	617.02%	578.42%	517.05%

Notes to Schedule:

Benefit changes: There have been no changes in benefit provisions since GASB 67 implementation.

Change of Assumptions: In 2014, the assumed investment return was lowered from 7.75% to 7.50% and the mortality assumptions were changed to reflect recent experience and to include generational projection of mortality improvements.

In 2015, the assumed mortality improvement scale was changed from MP-2014 to MP-2015.

EXHIBIT 5

Schedule of Jacksonville CORP's Contributions – Last Ten Fiscal Years

Year Ended September 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered-Employee Payroll*	Contributions as a Percentage of Covered Employee Payroll	Percentage of Payroll Actually Contributed Throughout the Year**
2006	$1,917,000	$1,917,000	$0	$27,702,000	6.92%	--
2007	1,830,000	2,482,000	(652,000)	27,083,000	9.16%	6.17%
2008	4,329,000	4,350,000	(21,000)	26,334,000	16.52%	13.86%
2009	5,268,000	5,247,000	21,000	27,661,000	18.97%	17.16%
2010	9,096,850	9,491,000	(394,150)	32,329,400	29.36%	31.78%
2011	8,884,794	9,711,000	(826,206)	31,832,037	30.51%	31.78%
2012	11,860,912	9,066,000	2,794,912	28,944,158	31.32%	35.45%
2013	12,884,770	10,742,000	2,142,770	27,871,010	38.54%	39.11%
2014	14,884,963	13,522,000	1,362,963	27,373,702	49.40%	49.93%
2015	17,618,896	17,832,000	(213,104)	28,091,083	63.48%	62.81%

*Pensionable payroll as of the valuation measurement date.

**For years ended September 30, 2005 and 2006, the City contributed the dollar amount of the actuarially determined contributions. For the years ended September 30, 2007 and after, the City contributed the percentage of payroll represented by the actuarially determined contribution in the corresponding actuarial valuation. Actual dollar contributions may be more or less than the actuarially determined contributions due to actual payroll being different than projected payroll.

EXHIBIT 6

Notes to Required Supplementary Information

Valuation date	October 1, 2015
Methods and used assumptions to determine contribution rates:	
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level percent of payroll, using 0.68% annual increases*
Remaining amortization period	All new bases are amortized over 30 years.
	Effective period of 23 years remaining as of October 1, 2015
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Actuarial assumptions:	
Investment rate of return	7.50%, including inflation, net of pension plan investment expense
Inflation rate	2.75%*
Projected salary increases	3.00% - 6.00%, of which 2.75% is the Plan's long-term payroll inflation assumption
Cost-of-living adjustments	The Plan provisions contain a 3.00% COLA.

* *The Fund's payroll inflation assumption is 2.75%. However, based on Part VII, Chapter 112.64(5)(a) of Florida Statutes, an assumption of 0.68% was used for amortization purposes in the October 1, 2015 valuation.*

Retirement rates	100% retirement assumed at age 65 with 20 years of service; for ages less than 65, retirement rate assumptions are based on service as follows:

Service	Rate (%)*
Under 20	0%
20	50
21-23	30
24	40
25-29	50
30 & Over	100

**Above rates are adjusted by a factor of 75% for ages under 45.*

Mortality:	
Pre-retirement	RP-2014 Blue Collar Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2015
Healthy annuitants	RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2015
Disabled annuitants	RP-2014 Disabled Retiree Mortality Table, set forward four years, projected generationally with Scale MP-2015
Other information:	See Exhibit 4 for the history of changes to plan provisions and assumptions, if any.