

City of Jacksonville General Employees Retirement Plan

**Actuarial Valuation and Review as of
October 1, 2015**





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March 22, 2016

*Board of Trustees
City of Jacksonville General Employees 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.

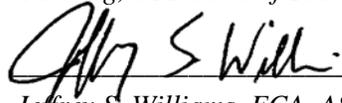
The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

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

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SECTION 1: Valuation Summary for the City of Jacksonville General Employees Retirement Plan

Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Jacksonville General Employees 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 \$89,058,931 for the fiscal year beginning October 1, 2015 to \$94,526,754 for the year beginning October 1, 2016. As a percentage of projected pay, the contribution has increased from 33.20% of projected pay to 36.79% 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. As a result, for amortization purposes only, the payroll growth assumption was lowered from 2.24% to 1.14% in this valuation.

SECTION 1: Valuation Summary for the City of Jacksonville General Employees Retirement Plan

3. The recommended contribution for the fiscal years beginning October 1, 2015 and October 1, 2016 are shown below
 - October 1, 2015 recommended contribution **\$89,058,931**, or **33.20%** of projected pay
 - October 1, 2016 recommended contribution, prior to any assumption changes **\$90,301,180** or **34.77%** of projected pay
 - October 1, 2016 recommended contribution, after payroll growth assumption change **\$96,043,212**, or **37.38%** of projected pay
 - October 1, 2016 recommended contribution, after mortality improvement assumption change and statutory limit updates **\$94,526,754** or **36.79%** of projected pay
4. The investment rate of return on an actuarial basis for the year ended September 30, 2015 was 7.46%. 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 \$736,337. The return on a market value basis was -2.18%.
5. As of the valuation date, the smoothed actuarial value of assets was equal to 104.1% 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 \$94,526,754 (36.79% of projected pay) would be \$99,809,218 (38.85% of projected pay).
6. On an actuarial value basis, the funded ratio has increased from 65.81% as of October 1, 2014 to 66.80% as of October 1, 2015. On a market value basis, the funded ratio has decreased from 69.42% as of October 1, 2014 to 64.17% 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) 17 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.

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Summary of Key Valuation Results

	2016	2015	2014
Contributions for fiscal year beginning October 1:			
Recommended	\$94,526,754	\$89,058,931	\$86,069,361
As a percentage of projected payroll	36.79%	33.20%	31.60%
Actual	--	--	\$81,751,000*
Actual percentage of payroll contributed	--	--	31.60%*
Funding elements for plan year beginning October 1:			
Total normal cost, including administrative expenses		\$38,439,794	\$40,107,261
Market value of assets		1,739,891,000	1,848,189,000
Actuarial value of assets		1,811,172,111	1,751,888,510
Actuarial accrued liability		2,711,408,803	2,662,187,817
Unfunded actuarial accrued liability		900,236,692	910,299,307
Funded ratio – actuarial value of assets		66.80%	65.81%
Funded ratio – market value of assets		64.17%	69.42%
Demographic data for plan year beginning October 1:			
Number of retired participants and beneficiaries		4,976	4,907
Number of vested former participants		65	76
Number of active participants		4,817	5,026
Covered payroll		\$254,034,479	\$262,368,813
Average payroll		52,737	52,202
Projected payroll for next fiscal year		256,930,472	268,245,874

* Per City of Jacksonville Ordinance 2014-466-E, the City contributed 31.60% of covered payroll to the General Employees Retirement Plan for the fiscal year beginning October 1, 2014. Actual dollar contributions were less than recommended dollar contributions due to actual payroll being less than projected payroll.

SECTION 1: Valuation Summary for the City of Jacksonville General Employees Retirement Plan

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.

SECTION 1: Valuation Summary for the City of Jacksonville General Employees Retirement Plan

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.

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement 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	5,096	79	4,381	0.88
2007	5,104	72	4,397	0.88
2008	5,151	78	4,456	0.88
2009	5,113	82	4,465	0.89
2010	6,280	97	4,504	0.73
2011	6,109	90	4,603	0.77
2012	5,485	81	4,783	0.89
2013	5,139	78	4,896	0.97
2014	5,026	76	4,907	0.99
2015	4,817	65	4,976	1.05

*Excludes terminated participants due a refund of employee contributions.

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 4,817 active participants with an average age of 48.5, average years of service of 12.1 years and average payroll of \$52,737. The 5,026 active participants in the prior valuation had an average age of 48.3, average service of 11.8 years and average payroll of \$52,202.

Inactive Participants

In this year's valuation, there were 65 participants 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

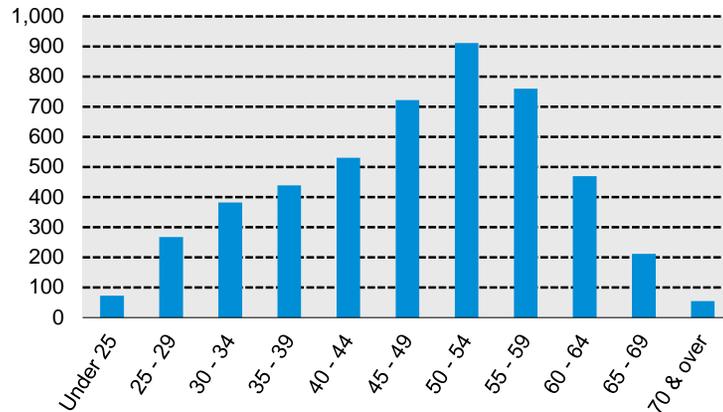
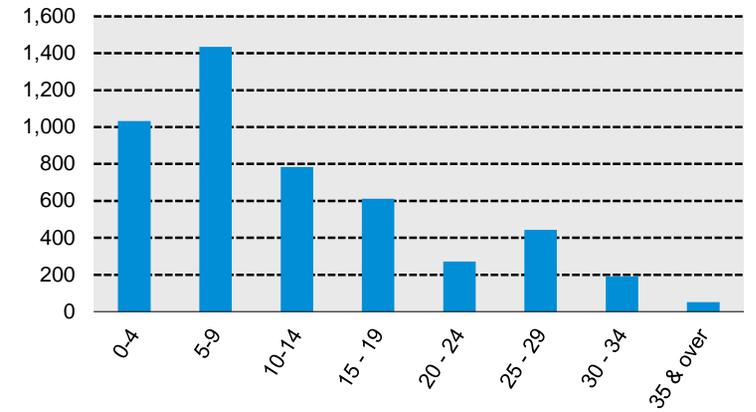


CHART 3
Distribution of Active Participants by Years of Service as of September 30, 2015



SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

Retired Participants and Beneficiaries

As of September 30, 2015, 3,777 retired participants and 1,199 beneficiaries were receiving total monthly benefits of \$13,310,130. For comparison, in the previous valuation, there were 3,711 retired participants and 1,196 beneficiaries receiving monthly benefits of \$12,789,660.

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

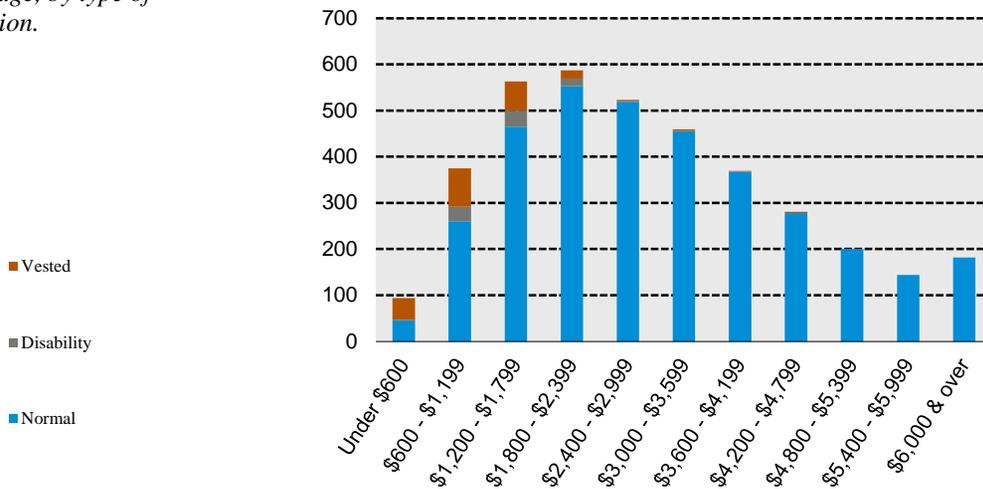
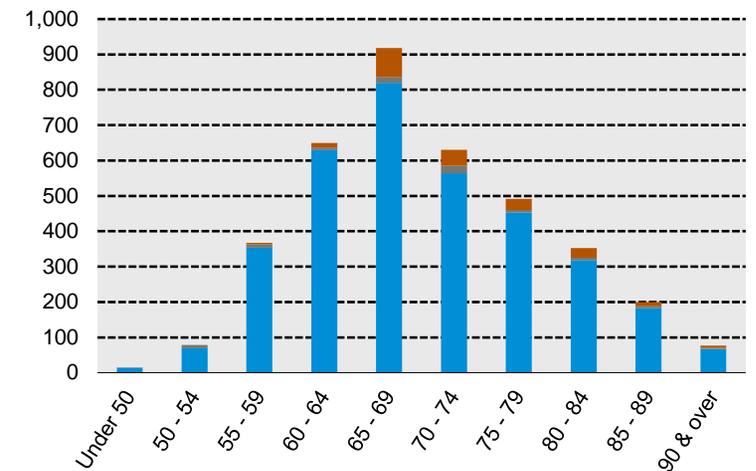


CHART 5

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



SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

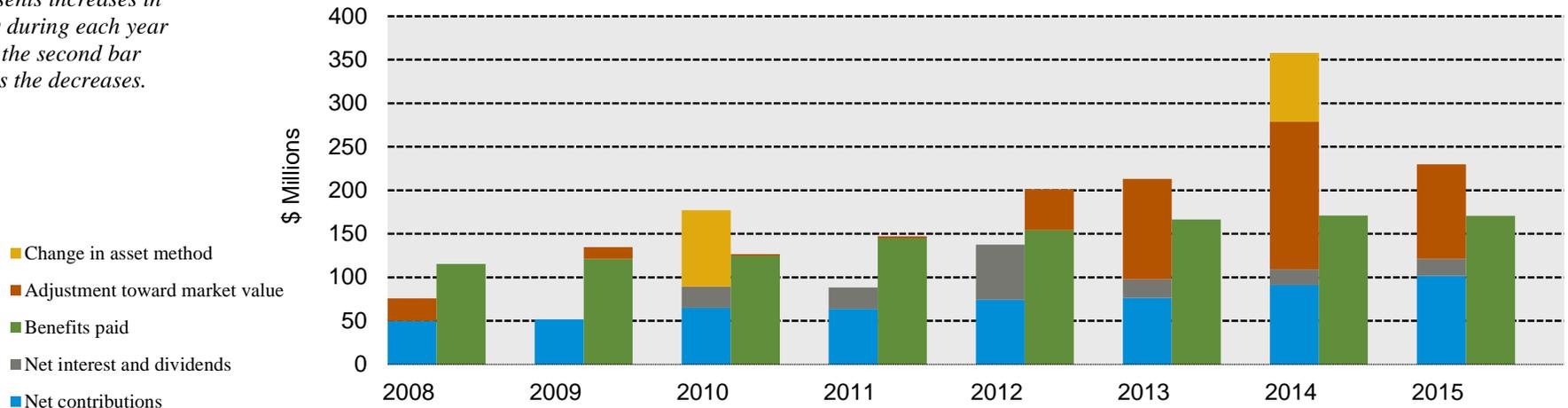
B. FINANCIAL INFORMATION

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



SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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

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.

Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative.

CHART 7

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

1. Market value of assets, September 30, 2015			\$1,739,891,000
	Original	Unrecognized	
2. Calculation of unrecognized return	Amount *	Return**	
(a) Year ended September 30, 2015	-\$175,540,475	-\$140,432,380	
(b) Year ended September 30, 2014	63,631,545	20,991,807	
(c) Year ended September 30, 2013	147,228,359	32,380,054	
(d) Year ended September 30, 2012	143,494,282	15,779,408	
(e) Year ended September 30, 2011	-107,465,461	<u>0</u>	
(f) Total unrecognized return			-71,281,111
3. Preliminary actuarial value: (1) - (2f)			1,811,172,111
4. Adjustment to be within 20% corridor			0
5. Final actuarial value of assets as of September 30, 2015: (3) + (4)			<u>\$1,811,172,111</u>
6. Actuarial value as a percentage of market value: (5) ÷ (1)			104.1%
7. Amount deferred for future recognition: (1) - (5)			-\$71,281,111***

*Total return minus expected return on a market value basis

**Recognition at 20% per year over five year; effective October 1, 2014 the Plan accelerated the recognition of prior asset gain/loss bases by reflecting 45% of the outstanding asset gains/losses immediately.

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

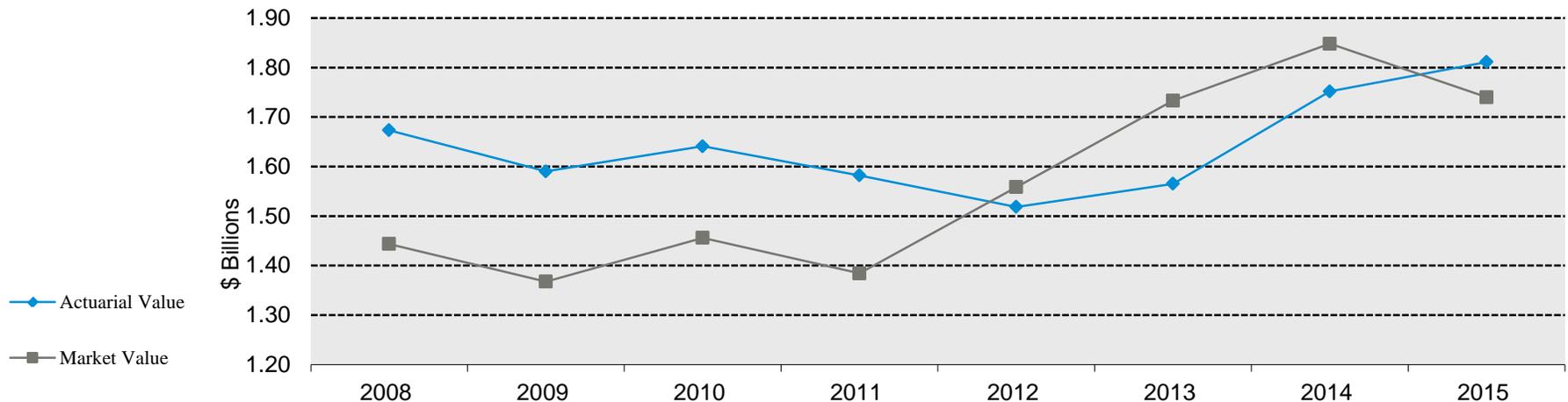
(a) Amount recognized on September 30, 2016	\$3,858,609	(c) Amount recognized on September 30, 2018	-28,110,826
(b) Amount recognized on September 30, 2017	-11,920,799	(d) Amount recognized on September 30, 2019	-35,108,095

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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 eight years.

CHART 8
Actuarial Value of Assets vs. Market Value of Assets as of September 30, 2008 – 2015



SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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 \$2,783,827, consisting of \$736,337 from investment losses and \$2,047,490 in net losses from all other sources. The net experience variation from individual sources other than investments was 0.1% 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*	-\$736,337
2. Net gain from administrative expenses	102,248
3. Net loss from other experience	<u>-2,149,738</u>
4. Net experience loss: (1) + (2) + (3)	<u>-\$2,783,827</u>

* Details in Chart 10

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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 7.46%.

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	\$128,075,601
2. Average value of assets	1,717,492,510
3. Actual rate of return: (1) ÷ (2)	7.46%
4. Assumed rate of return	7.50%
5. Expected return: (2) x (4)	\$128,811,938
6. Actuarial gain/(loss): (1) – (5)	<u>-\$736,337</u>

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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: 2008 - 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	--	--	--	--	--	--	--	9.38%	--	8.33%
2007	--	--	--	--	--	--	--	11.43	--	14.04
2008	--	--	--	--	--	--	--	1.59	--	-15.65
2009	--	--	--	--	--	--	--	-0.70	--	-0.31
2010	\$24,497,000	1.57%	-\$1,829,100	-0.12%	\$87,612,723	5.61%	\$110,280,623	7.07	\$148,054,000	11.07
2011	24,639,000	1.54	-2,325,094	-0.15	--	--	22,313,906	1.39	9,313,000	0.66
2012	63,315,000	4.11	-46,802,747	-3.04	--	--	16,512,253	1.07	254,394,000	18.92
2013	21,180,000	1.44	115,400,384	7.83	--	--	136,580,384	9.27	264,541,000	17.48
2014	18,106,000	1.19	169,638,818	11.12	78,846,382	5.17	266,591,200	17.48	194,864,000	11.51
2015	<u>19,212,000</u>	1.12	<u>108,863,601</u>	6.34	--	--	<u>128,075,601</u>	7.46	<u>-39,506,000</u>	-2.18
Total	\$170,949,000		\$342,945,862		\$166,459,105		\$680,353,967		\$831,660,000	
							Five-year average return	7.25%		8.79%
							Six-year average return	7.22%		9.12%

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

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

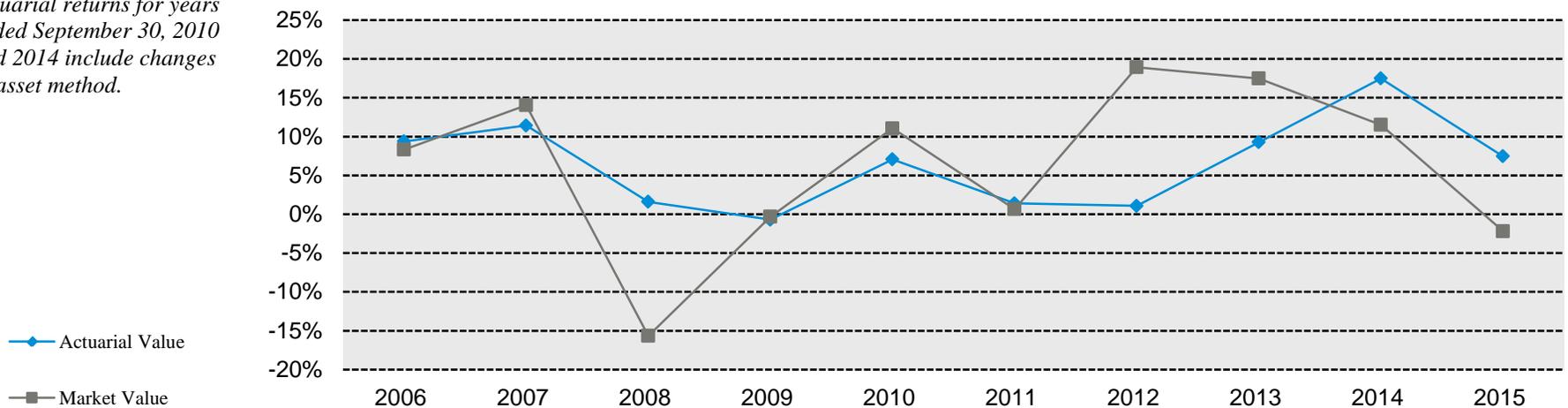
Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

Administrative Expenses

Administrative expenses for the year ended September 30, 2015 totaled \$762,000 compared to the assumption of \$828,000. This resulted in a gain of \$102,248 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



SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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 \$2,149,738, which is 0.1% of the actuarial accrued liability.

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

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 36.79% 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.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 13 Recommended Contribution

	Year Beginning October 1			
	2015		2014	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$37,677,794	14.83%	\$39,279,261	14.97%
2. Administrative expenses	762,000	0.30%	828,000	0.32%
3. Expected employee contributions	<u>-19,560,655</u>	<u>-7.70%</u>	<u>-20,202,399</u>	<u>-7.70%</u>
4. Employer normal cost: (1) + (2) + (3)	\$18,879,139	7.43%	\$19,904,862	7.59%
5. Actuarial accrued liability	2,711,408,803		2,662,187,817	
6. Actuarial value of assets	<u>1,811,172,111</u>		<u>1,751,888,510</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$900,236,692		\$910,299,307	
8. Payment on unfunded actuarial accrued liability	71,011,167	27.95%	63,874,626	24.35%
9. Total contribution: (4) + (8) adjusted for timing*	93,461,295	36.79%	87,107,718	33.20%
10. Total payroll	254,034,479		262,368,813	
11. Total recommended contribution, projected to next fiscal year	<u>\$94,526,754</u>	<u>36.79%</u>	<u>\$89,058,931</u>	<u>33.20%</u>
12. Projected payroll	\$256,930,472		\$268,245,874	

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

SECTION 2: Valuation Results for the City of Jacksonville General Employees Retirement Plan

Reconciliation of Recommended Contribution

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

CHART 14

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

Recommended Contribution as of October 1, 2015	\$89,058,931
Effect of change in actuarial assumptions	-1,518,449
Effect of lowering payroll growth assumption for amortization purposes due to Florida Statutes	5,742,032
Effect of expected change in amortization payment due to payroll change	1,520,954
Effect of contribution deferral to budget year	370,280
Effect of investment loss	49,229
Effect of statutory limits	1,991
Effect of other gains and losses on accrued liability	136,888
Net effect of other changes	<u>-833,111</u>
Total change	<u>\$5,467,823</u>
Recommended Contribution as of October 1, 2016	<u>\$94,526,754</u>

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

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

EXHIBIT A

Table of Plan Coverage

Category	Year Ended September 30		Change From Prior Year
	2015	2014	
Active participants in valuation:			
Number	4,817	5,026	-4.2%
Average age	48.5	48.3	N/A
Average years of service	12.1	11.8	N/A
Projected total payroll	\$254,034,479	\$262,368,813	-3.2%
Projected average payroll	52,737	52,202	1.0%
Account balances	\$188,753,098	\$185,561,961	1.7%
Total active vested participants	3,785	3,204	18.1%
Vested terminated participants			
	65	76	-14.5%
Retired participants:			
Number in pay status	3,689	3,617	2.0%
Average age	69.9	69.6	N/A
Average monthly benefit	\$3,023	\$2,962	2.1%
Disabled participants:			
Number in pay status	88	94	-6.4%
Average age	68.7	68.7	N/A
Average monthly benefit	\$1,442	\$1,382	4.3%
Beneficiaries in pay status:			
Number in pay status	1,199	1,196	0.3%
Average age	75.5	75.3	N/A
Average monthly benefit	\$1,695	\$1,626	4.2%

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

EXHIBIT B

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

Age	Years of Service									
	Total	0-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	72	70	2	--	--	--	--	--	--	--
	\$31,648	\$31,884	\$23,422	--	--	--	--	--	--	--
25 - 29	267	183	82	2	--	--	--	--	--	--
	41,532	37,756	50,256	\$29,374	--	--	--	--	--	--
30 - 34	382	151	168	61	2	--	--	--	--	--
	46,368	42,660	48,513	48,789	\$72,395	--	--	--	--	--
35 - 39	439	126	186	85	40	2	--	--	--	--
	52,565	47,854	53,496	54,392	57,966	\$77,220	--	--	--	--
40 - 44	530	127	192	106	88	15	2	--	--	--
	52,095	46,269	51,236	56,212	56,400	57,127	\$59,137	--	--	--
45 - 49	722	125	202	134	126	65	67	3	--	--
	55,413	48,437	49,536	58,031	57,761	67,036	64,551	\$70,410	--	--
50 - 54	911	122	194	143	130	73	179	66	4	--
	55,851	53,037	46,229	55,538	56,369	62,776	60,087	68,877	\$71,696	--
55 - 59	760	81	191	128	100	56	112	78	14	--
	56,514	51,312	46,033	57,250	58,568	58,593	60,381	72,845	77,995	--
60 - 64	469	34	138	75	84	33	56	32	12	5
	53,115	55,143	42,034	59,890	52,914	58,771	57,027	60,564	66,761	\$85,364
65 - 69	211	9	63	43	33	24	22	9	5	3
	50,983	49,702	37,253	54,804	58,348	56,773	58,592	54,140	75,430	55,058
70 & over	54	4	16	6	9	4	5	2	5	3
	54,424	74,140	54,204	41,009	47,149	65,472	41,598	80,447	60,834	56,581
Total	4,817	1,032	1,434	783	612	272	443	190	40	11
	\$52,774	\$45,338	\$48,039	\$55,884	\$56,673	\$61,751	\$60,162	\$68,554	\$71,529	\$69,249

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

EXHIBIT C

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of October 1, 2014	5,026	76	94	3,617	1,196	10,009
New participants	251	N/A	N/A	N/A	N/A	251
Terminations – with vested rights	-2	2	N/A	N/A	N/A	0
Terminations – without vested rights	-246	N/A	N/A	N/A	N/A	-246
Retirements	-175	-12	N/A	187	N/A	0
New disabilities	-6	0	N/A	N/A	N/A	-6
New beneficiaries	N/A	N/A	N/A	N/A	70	70
Deceased	-4	0	-6	-118	-68	-196
Rehire	1	-1	N/A	0	N/A	0
Certain period expired	N/A	N/A	0	0	0	0
Data adjustments	0	0	0	3	1	4
Net transfers (to)/from DC Plan or Corrections	<u>-28</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-28</u>
Number as of October 1, 2015	4,817	65	88	3,689	1,199	9,858

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	\$1,751,888,510	\$1,565,291,310
Contribution income:		
Employer contributions	\$81,751,000	\$71,000,000
Employee contributions	20,893,000	20,961,000
Less administrative expenses	<u>-762,000</u>	<u>-828,000</u>
Net contribution income	101,882,000	91,133,000
Investment income:		
Interest, dividends and other income	\$28,284,000	\$27,278,000
Recognition of capital appreciation	108,863,601	169,638,818
Less investment fees	<u>-9,072,000</u>	<u>-9,172,000</u>
Net investment income	<u>128,075,601</u>	<u>187,744,818</u>
Total income available for benefits	\$229,957,601	\$278,877,818
Less benefit payments:		
Benefit payments	-\$157,104,000	-\$151,192,000
Refunds	<u>-13,570,000</u>	<u>-19,935,000</u>
Net benefit payments	-\$170,674,000	-\$171,127,000
Change in actuarial asset method	\$0	\$78,846,382
Change in reserve for actuarial value of assets	\$59,283,601	\$186,597,200
Net assets at actuarial value at the end of the year	\$1,811,172,111	\$1,751,888,510

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	\$1,848,189,000	\$1,733,319,000
Contribution income:		
Employer contributions	\$81,751,000	\$71,000,000
Employee contributions	20,893,000	20,961,000
Less administrative expenses	<u>-762,000</u>	<u>-828,000</u>
Net contribution income	101,882,000	91,133,000
Investment income:		
Interest, dividends and other income	\$28,284,000	\$27,278,000
Asset appreciation	-58,718,000	176,758,000
Less investment fees	<u>-9,072,000</u>	<u>-9,172,000</u>
Net investment income	<u>-39,506,000</u>	<u>194,864,000</u>
Total income available for benefits	\$62,376,000	\$285,997,000
Less benefit payments:		
Benefit payments	-\$157,104,000	-\$151,192,000
Refunds	<u>-13,570,000</u>	<u>-19,935,000</u>
Net benefit payments	-\$170,674,000	-\$171,127,000
Change in market value of assets	-\$108,298,000	\$114,870,000
Net assets at market value at the end of the year	\$1,739,891,000	\$1,848,189,000

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

EXHIBIT F

Summary Statement of Plan Assets

	Year Ended September 30, 2015	Year Ended September 30, 2014
Cash equivalents	\$41,652,000	\$22,373,000
Accounts receivable:		
Interest and dividends	\$2,866,000	\$2,912,000
Other	<u>1,343,000</u>	<u>2,762,000</u>
Total accounts receivable	4,209,000	5,674,000
Investments:		
Equities	\$1,084,364,000	\$0
Fixed income	375,868,000	0
Real estate	284,299,000	0
Other assets	114,077,000	9,000
Equity in pooled investments	<u>-161,576,000</u>	<u>1,822,059,000*</u>
Total investments at market value	<u>1,697,032,000</u>	<u>1,822,068,000</u>
Total assets	\$1,742,893,000	\$1,850,115,000
Less accounts payable:		
Obligations under securities lending agreement (less collateral)	-\$644,000	-\$3,000
Accounts payable and accrued liabilities	-2,301,000	-1,867,000
Accrued compensated absences	-15,000	-21,000
Other post employment benefits	<u>-42,000</u>	<u>-35,000</u>
Total accounts payable	-\$3,002,000	-\$1,926,000
Net assets at market value	<u>\$1,739,891,000</u>	<u>\$1,848,189,000</u>
Net assets at actuarial value	<u>\$1,811,172,111</u>	<u>\$1,751,888,510</u>

**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.*

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

EXHIBIT G

Development of the Fund Through September 30, 2015

Year Ended September 30	Employer Contributions	Employee Contributions	Other Contributions and Miscellaneous Items¹	Net Investment Return²	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2008	\$28,296,188	\$22,291,455	\$21,139	\$26,755,181	\$888,327	\$115,501,933	\$1,673,434,615
2009	28,337,121	22,738,683	1,042,282	-13,510,521	560,801	121,183,180	1,590,298,199
2010	40,551,000	25,196,000	-2,000	110,280,623 ³	775,000	124,656,000	1,640,892,767
2011	39,378,000	25,051,000	-6,000	22,313,906	701,000	144,899,000	1,582,041,673
2012	49,899,000	24,098,000	1,040,000	16,512,253	705,000	154,308,000	1,518,577,926
2013	55,386,000	21,878,000	0	136,580,384	671,000	166,460,000	1,565,291,310
2014	71,000,000	20,961,000	0	266,591,200 ⁴	828,000	171,127,000	1,751,888,510
2015	81,751,000	20,893,000	0	128,075,601	762,000	170,674,000	1,811,172,111

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 \$87,612,723

⁴ Includes a change in asset method of \$78,846,382

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

EXHIBIT H

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

1. Unfunded actuarial accrued liability at beginning of year		\$910,299,307
2. Employer normal cost at beginning of year		19,904,862
3. Employer contributions		-81,751,000
4. Interest		
(a) For whole year on (1) + (2)	\$69,765,313	
(b) For monthly payments on (3)	<u>-2,773,499</u>	
(c) Total interest		<u>66,991,814</u>
5. Expected unfunded actuarial accrued liability		\$915,444,983
6. Changes due to:		
(a) Net experience loss (excluding impact of contribution deferral to budget year)	\$2,783,827	
(b) Assumptions	-17,999,856	
(c) Updated statutory limits	<u>7,738</u>	
(d) Total changes		<u>-15,208,291</u>
7. Unfunded actuarial accrued liability at end of year		<u>\$900,236,692</u>

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	--	\$29,270,502	18	\$329,684,970
Liability decrease	10/01/2004	30	--	-7,608,746	19	-88,238,725
Liability decrease	10/01/2005	30	--	-319,054	20	-3,800,216
Liability decrease	10/01/2006	30	--	-865,490	21	-10,564,361
Liability decrease	10/01/2007	30	--	-2,626,379	22	-32,787,881
Experience loss	10/01/2008	30	--	11,499,221	23	146,563,011
Experience loss	10/01/2010	30	248,759,927	19,908,702	25	263,248,924
Change in assumptions	10/01/2010	30	33,728,927	2,699,387	25	35,693,466
Change in asset method	10/01/2010	30	-87,612,723	-7,011,803	25	-92,715,719
Change in plan	10/01/2010	30	-9,782,006	-782,872	25	-10,351,759
Experience loss	10/01/2011	30	106,203,285	8,249,905	26	110,882,913
Experience loss	10/01/2012	30	116,662,267	8,795,065	27	120,011,575
Change in assumptions	10/01/2012	30	155,495,783	11,722,690	27	159,959,979
Experience loss	10/01/2013	30	23,737,082	1,744,859	28	24,145,426
Updated statutory limits	10/01/2013	30	24,992	1,837	28	25,423
Experience loss	10/01/2014	30	-62,474,647	-4,489,251	29	-62,936,330
Change in assumptions	10/01/2014	30	99,777,540	7,169,731	29	100,514,889
Change in asset method	10/01/2014	30	-78,846,382	-5,665,678	29	-79,429,052
Experience gain	10/01/2015	30	8,322,277	586,492	30	8,322,277
Change in assumptions	10/01/2015	30	-17,999,856	-1,268,496	30	-17,999,856
Updated statutory limits	10/01/2015	30	7,738	<u>545</u>	30	<u>7,738</u>
Total				\$71,011,167		\$900,236,692

* Level percentage of payroll; per Part VII, Chapter 112.64(5)(a) of Florida Statutes, outstanding balances were amortized using a 1.14% 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.

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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 age at retirement, 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.

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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.

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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.

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	\$226,819,000	7.90%	--	--
2006	237,108,000	4.54%	4.81%	5.55%
2007	248,887,000	4.97%	6.03%	5.71%
2008	262,345,000	5.41%	5.08%	5.72%
2009	276,257,000	5.30%	3.16%	5.42%
2010*	275,173,962	-0.39%	0.61%	5.36%
2010	322,530,502	17.21%	N/A	N/A
2011	314,054,361	-2.63%	0.94%	5.62%
2012	283,020,575	-9.88%	2.31%	5.83%
2013	265,404,735	-6.22%	1.60%	2.84%
2014	262,368,813	-1.14%	0.04%	2.84%
2015	254,034,479	-3.18%	3.85%	2.48%

Note: The average total payroll growth for the most recent ten years was 1.14% 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.*

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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*	13.50%	\$289,807,191	\$39,123,971	\$39,378,000
2012	2010	17.22%	333,819,070	57,497,706	49,899,000
2013	2011	20.51%	325,046,264	66,659,915	55,386,000
2014	2012	27.91%	291,511,192	81,351,295	71,000,000
2015	2013	31.60%	272,358,339	86,069,361	81,751,000
2016	2014	33.20%	268,245,874	89,058,931	--
2017	2015	36.79%	256,930,472	94,526,754	--

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.*

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	4,817	4,817	5,026
Total annual payroll	\$254,034,479	\$254,024,479	\$262,368,813
Retired members and beneficiaries	4,976	4,976	4,907
Total annualized benefit	\$159,721,556	\$152,752,752	\$153,475,932
Terminated vested members	65	65	76
Total annualized benefit	\$1,093,293	\$1,093,293	\$1,314,568
Actuarial value of assets	\$1,811,172,111	\$1,811,172,111	\$1,751,888,510
Present value of all future expected benefit payments:			
Active members:			
Retirement benefits	\$908,969,383	\$914,376,809	\$933,654,759
Vesting benefits	26,749,733	26,760,607	27,638,638
Disability benefits	--	--	--
Death benefits	22,502,862	22,578,165	22,978,497
Return of contributions	<u>204,091,839</u>	<u>204,091,839</u>	<u>185,561,961</u>
Total	\$1,162,313,817	\$1,167,807,420	\$1,169,833,855
Terminated vested members	7,977,766	8,028,996	9,778,043
Retired members and beneficiaries	1,841,431,230	1,855,209,603	1,793,420,066
Total	\$3,011,722,813	\$3,031,046,019	\$2,973,031,964

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	
Unfunded actuarial accrued liability	\$900,236,692	\$918,228,810	\$910,299,307
Actuarial present value of accrued benefits			
Vested accrued benefits			
Active members	\$675,813,136	\$679,097,848	\$664,441,960
Inactive members	7,977,766	8,028,996	9,778,043
Pensioners and beneficiaries	1,841,431,230	1,855,209,603	1,793,420,066
Nonvested active members	6,646,362	<u>6,655,867</u>	<u>13,047,589</u>
Total	\$2,531,868,494	\$2,548,992,314	\$2,480,687,658
Pension cost			
Normal cost, including administrative expenses	\$38,439,794	\$38,613,150	\$40,107,261
Expected employee contributions	-19,560,655	-19,559,885	-20,202,399
Level % of payroll payment to amortize unfunded actuarial accrued liability	71,011,167	65,828,831	63,874,626
Total minimum annual cost payable monthly at valuation date	93,461,295	88,322,750	87,107,718
Total employer cost projected to budget year	94,526,754	90,301,180	89,058,931
As % of payroll	36.79%	34.77%	33.20%
Present value of active members' future salaries at attained age	\$2,014,393,999	\$2,014,288,691	\$2,081,648,329

SECTION 3: Supplemental Information for the City of Jacksonville General Employees Retirement Plan

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	\$2,480,687,658
Benefits accumulated, net experience gain or loss, changes in data	\$59,860,713
Change in assumptions	-17,128,461
Change in statutory limits	4,641
Benefits paid	-170,674,000
Interest	<u>179,117,943</u>
Net increase	<u>\$51,180,836</u>
Actuarial present value of accumulated benefits as of October 1, 2015	\$2,531,868,494

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

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 1,199 beneficiaries in pay status)		4,976
2. Participants inactive during year ended September 30, 2015 with vested rights		65
3. Participants active during the year ended September 30, 2015		4,817
Fully vested	3,785	
Not vested	1,032	

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

1. Normal cost, including administrative expenses		\$38,439,794
2. Actuarial accrued liability		2,711,408,803
Retired participants and beneficiaries	\$1,841,431,230	
Inactive participants with vested rights	7,977,766	
Active participants	861,999,807	
3. Actuarial value of assets (\$1,739,891,000 at market value as reported by the City)		1,811,172,111
4. Unfunded actuarial accrued liability		\$900,236,692

The determination of the recommended contribution is as follows:

1. Total normal cost		\$37,677,794
2. Administrative expenses		762,000
3. Expected employee contributions		<u>-19,560,655</u>
4. Employer normal cost: (1) + (2) + (3)		\$18,879,139
5. Payment on projected unfunded actuarial accrued liability		71,011,167
6. Total recommended contribution: (4) + (5), adjusted for timing and projected to October 1, 2016		<u>\$94,526,754</u>
7. Payroll projected to October 1, 2016		\$256,930,472
8. Total recommended contribution as a percentage of projected payroll: (6) ÷ (7)		36.79%

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

EXHIBIT II

History of Employer Contributions

Plan Year Ended September 30	Actuarially Determined Employer Contributions (ADEC)*	Actual Contributions	Percentage Contributed
2008	\$29,371,000	\$29,488,000	100.4%
2009	29,491,000	29,530,000	100.1%
2010	38,611,842	40,551,000	105.0%
2011	39,123,971	39,378,000	100.6%
2012	57,497,706	49,899,000	86.8%**
2013	66,659,915	55,386,000	83.1%**
2014	81,351,295	71,000,000	87.3%**
2015	86,069,361	81,751,000	95.0%**
2016	89,058,931	--	--
2017	94,526,754	--	--

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.*

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

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	\$1,593,296,000	\$1,812,972,000	\$219,676,000	87.88%	\$237,108,000	92.65%
10/01/2007	1,712,461,000	1,904,929,000	192,468,000	89.90%	248,887,000	77.33%
10/01/2008	1,673,435,000	2,004,279,000	330,844,000	83.49%	262,345,000	126.11%
10/01/2009*	1,591,345,000	2,065,464,000	474,119,000	77.05%	276,257,000	171.62%
10/01/2010	1,640,892,767	2,163,079,984	522,187,217	75.86%	322,530,502	161.90%
10/01/2011	1,582,041,673	2,217,380,856	635,339,183	71.35%	314,054,361	202.30%
10/01/2012	1,518,577,926	2,434,274,957	915,697,031	62.38%	283,020,575	323.54%
10/01/2013	1,565,291,310	2,512,635,436	947,344,126	62.30%	265,404,735	356.94%
10/01/2014	1,751,888,510	2,662,187,817	910,299,307	65.81%	262,368,813	346.95%
10/01/2015	1,811,172,111	2,711,408,803	900,236,692	66.80%	254,034,479	354.38%

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

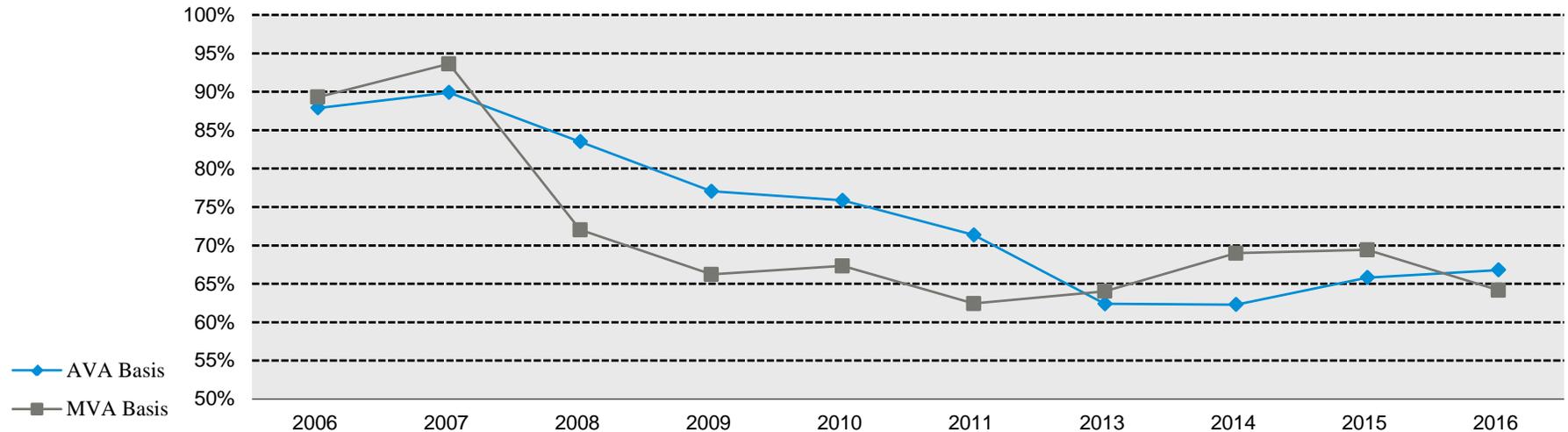
**An actuarial valuation was not performed for the plan year beginning October 1, 2009.*

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

**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 a market value (MVA) basis.



SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

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 Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP2015

Healthy annuitants:

RP-2014 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 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 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 General Employees 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.

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

Termination Rates before Retirement:

Age	Rate (%)			
	Mortality*		Disability**	
	Male	Female	Male	Female
20	0.05	0.02	0.01	0.01
25	0.04	0.02	0.02	0.01
30	0.05	0.03	0.02	0.02
35	0.06	0.03	0.03	0.03
40	0.09	0.05	0.04	0.04
45	0.16	0.09	0.06	0.06
50	0.25	0.14	0.11	0.10
55	0.42	0.21	0.17	0.15
60	0.74	0.31	0.29	0.20
65	1.25	0.51	0.00	0.00

*Mortality rates shown for base table.

**100% of disabilities are assumed to be non-service incurred.

Withdrawal**

Service	COJ Male Withdrawal***	COJ Female Withdrawal***	JEA Male Withdrawal	JEA Female Withdrawal
0-1	12.00	15.00	6.50	7.00
1-2	10.00	9.00	5.00	5.00
2-3	8.00	9.00	3.50	5.00
3-4	7.00	9.00	3.50	5.00
4-5	7.00	7.00	3.50	5.00
5-6	7.00	7.00	3.50	4.00
6-7	6.00	7.00	3.00	4.00
7-8	6.00	7.00	2.50	3.50
8-9	5.00	5.00	2.50	3.50
9-10	4.00	5.00	2.50	3.50
10+	1.50	2.00	1.50	2.00

**All withdrawal rates are set to 0% after eligibility for retirement.

***COJ withdrawal rates above are increased by 5.00% for ages under 30.

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

Retirement Rates:

COJ		JEA	
Age	Rate (%)*	Service	Rate (%)**
Under 50	2.50	20	10
50-52	5.00	21-29	8
53-54	10.00	30	15
55-59	15.00	31	10
60-64	20.00	32-34	20
65-69	30.00	35	25
70 & Over	100.00	36	15
		37-39	50
		40 & Over	100

**Above rates are increased by 20% for the year in which a participant attains 30 years of service (if age < 55) and by 15 % for the year in which a participant attains 32 years of service. The rate is set to 50% for years of service 37 through 39 and to 100% after 40 years of service, regardless of age.*

***The rate is set to 100% for ages 65-69 with less than 20 years of service and age 70 or older, regardless of service*

BackDROP Election:	90% of eligible participants are assumed to elect a BackDROP at retirement
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:	65% of males and 50% of females
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.

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

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: 1.14% 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%.

Interest in BackDROP Account: 4.00%

Administrative Expenses: Previous year’s actual expenses; \$762,000 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.

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

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.

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

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

Service Retirement:

<i>Age Requirement</i>	Age 65 with five years of Credited Service, age 55 with 20 years of Credited Service or any age with 30 years of Credited Service.
<i>Regular Benefit Amount</i>	2.5% of Final Monthly Compensation times years of Credited Service, not more than 80% of Final Monthly Compensation.
<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
<i>Minimum Benefit Amount</i>	\$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

Early Retirement:

<i>Age Requirement</i>	Age 50 with 20 years of Credited Service
<i>Regular Benefit Amount</i>	Accrued Service Retirement Regular Benefit Amount reduced by 0.5 percent for each month the benefit commencement precedes age 55.
<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
<i>Minimum Benefit Amount</i>	\$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

<i>Age Requirement</i>	Any age with 25 years of Credited Service
<i>Regular Benefit Amount</i>	2.0% of Final Monthly Compensation times years of Credited Service
<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.
<i>Minimum Benefit Amount</i>	\$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

Vesting:

<i>Age Requirement</i>	None
<i>Service Requirement</i>	5 years of Credited Service
<i>Regular Benefit Amount</i>	Accrued Service Retirement Regular Benefit payable at age 65.
<i>Supplemental Benefit Amount</i>	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.
<i>Minimum Benefit Amount</i>	\$56.97 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

Spouse's Pre-Retirement Death Benefit:

<i>Age Requirement</i>	None
<i>Service Requirement</i>	None
<i>Regular Benefit Amount</i>	If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the member's accrued regular 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 a Service Retirement at current salary with the benefit based on a 2% accrual rate.
<i>Supplemental Benefit Amount</i>	Monthly benefit of \$5 times years of Member's Credited Service, not less than \$25 per month or more than \$150 per month.
<i>Minimum Benefit Amount</i>	75% of \$56.97 per whole year of Member's Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

SECTION 4: GASB Information for City of Jacksonville General Employees Retirement Plan

Spouse's Post-Retirement Death Benefit:

<i>Regular Benefit Amount</i>	Surviving spouse is entitled to 75% of the Member's regular benefit.
<i>Supplemental Benefit Amount</i>	Surviving spouse is entitled to 100% of the Member's supplemental benefit.
<i>Minimum Benefit Amount</i>	75% of \$56.97 per whole year of Member's Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 st .

Member:	All full-time JEA, JHA, NFTPO, and City General Employees are eligible for membership in the Plan upon date of hire.
Member Contributions:	7.7% of Earnable Compensation.
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 April 1 st nearest the fifth anniversary of the initial benefit commencement date, and on each April 1 st thereafter, the regular benefit is increased by 3%.
BackDROP:	Members with 30 or more years of service may elect to have their retirement benefits calculated as if the member had retired up to 5 years earlier on or after October 1, 2005. Benefits that would have been payable are accumulated with interest to date of termination and paid or rolled over in a single sum, and payments are made directly to the Member thereafter. The 5-year wait to receive COLA increases starts at termination of employment rather than at the start of BackDROP.
Partial Lump-sum Option (PLOP):	Members who are eligible for retirement may elect to receive a lump-sum benefit of up to 15% of the benefit value and a reduced life annuity actuarially equivalent to the benefit that would otherwise be payable.

Changes in Plan Provisions:	There have been no changes in plan provisions since the last valuation.
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APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

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.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Plan membership. Consistent with the provisions of Chapter 16 of the City Charter, full-time civil service employees not eligible for membership in another City-sponsored pension plan shall become members of the Plan. Appointed and elected officials and permanent employees not in the civil service system may opt to become members of the Plan, consistent with Section 16.04 of the City Charter. Elected officials eligible to receive benefits under this System or any prior Plan shall be permitted to continue to receive those benefits. Notwithstanding the foregoing or anything to the contrary in Chapter 120 of the City Charter, appointed employees hired on or after July 1, 2013 within the City of Jacksonville's Office of Ethics, Compliance and Oversight, pursuant to Section 602.612(a), Ordinance Code, who choose to join a City-sponsored retirement program, shall only be eligible to join the General Employees Defined Contribution Plan.

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

Inactive employees or beneficiaries currently receiving benefits	4,976
Inactive employees entitled to but not yet receiving benefits	65
Active employees	<u>4,817</u>
Total	9,858

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

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.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

EXHIBIT 3

Net Pension Liability

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

Total pension liability	\$2,717,211,544
Plan fiduciary net position	1,739,891,000
Net pension liability	977,320,544
Plan fiduciary net position as a percentage of the total pension liability	64.03%

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 assumption
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Pre-retirement mortality rates	RP-2014 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 Healthy Annuitant Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2015
Disabled annuitant mortality rates	RP-2014 Disabled Retiree Mortality Table, set forward four years, projected generationally with Scale MP-2015

* The Plan's payroll inflation assumption is 2.75%. However, based on Part VII, Chapter 112.64(5)(a) of Florida Statutes, an assumption of 1.14% was used for amortization purposes in the October 1, 2015 valuation.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

RP-2014 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, 2015 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, 2014 and an update of the mortality projection scale in 2015.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

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	<u>1%</u>	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 General Employees Retirement Plan, calculated using the discount rate of 7.50%, as well as what the Jacksonville General Employees Retirement Plan’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 General Employees Retirement Plan’s net pension liability	\$1,290,887,449	\$977,320,544	\$714,915,338

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

EXHIBIT 4

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

	2015	2014	2013
Total pension liability			
Service cost	\$40,238,707	\$36,949,678	\$39,626,946
Interest	194,312,040	189,064,662	183,151,171
Change of benefit term	0	0	0
Differences between expected and actual experience	-4,784,947	-5,356,346	22,318,483
Changes of assumptions	-18,044,461	101,525,690	0
Benefit payments, including refunds of employee contributions	<u>-170,674,000</u>	<u>-171,127,000</u>	<u>-166,460,000</u>
Net change in total pension liability	<u>\$41,047,339</u>	<u>\$151,056,684</u>	<u>\$78,636,600</u>
Total pension liability – beginning	<u>2,676,164,205</u>	<u>2,525,107,521</u>	<u>2,446,470,921</u>
Total pension liability – ending (a)	<u>\$2,717,211,544</u>	<u>\$2,676,164,205</u>	<u>\$2,525,107,521</u>
Plan fiduciary net position			
Contributions – employer	\$81,751,000	\$71,000,000	\$55,386,000
Contributions – employee	20,893,000	20,961,000	21,878,000
Net investment income	-39,506,000	194,864,000	264,541,000
Benefit payments, including refunds of employee contributions	-170,674,000	-171,127,000	-166,460,000
Administrative expense	-762,000	-828,000	-671,000
Other	<u>0</u>	<u>0</u>	<u>0</u>
Net change in plan fiduciary net position	<u>-\$108,298,000</u>	<u>\$114,870,000</u>	<u>\$174,674,000</u>
Plan fiduciary net position – beginning	<u>1,848,189,000</u>	<u>1,733,319,000</u>	<u>1,558,645,000</u>
Plan fiduciary net position – ending (b)	<u>\$1,739,891,000</u>	<u>\$1,848,189,000</u>	<u>\$1,733,319,000</u>
Net pension liability – ending (a) – (b)	<u>\$977,320,544</u>	<u>\$827,975,205</u>	<u>\$791,788,521</u>
Plan fiduciary net position as a percentage of the total pension liability	64.03%	69.06%	68.64%
Covered employee payroll	\$254,034,479	\$262,368,813	\$265,404,735
Net pension liability as percentage of covered employee payroll	384.72%	315.58%	298.33%

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Notes to Schedule:

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

Change of Assumptions: 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.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

EXHIBIT 5

Schedule of Jacksonville GERP'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	\$28,670,000	\$28,670,000	\$0	\$237,108,000	12.09%	--
2007	29,297,000	29,581,000	(284,000)	248,887,000	11.89%	11.41%
2008	29,371,000	29,488,000	(117,000)	262,345,000	11.24%	10.96%
2009	29,374,000	29,530,000	(156,000)	276,257,000	10.69%	10.43%
2010	38,611,842	40,551,000	(1,939,158)	322,530,502	12.57%	13.50%
2011	39,123,971	39,378,000	(254,029)	314,054,361	12.54%	13.50%
2012	57,497,706	49,899,000	7,598,706	283,020,575	17.63%	17.22%
2013	66,659,915	55,386,000	11,273,915	265,404,735	20.87%	20.51%
2014	81,351,295	71,000,000	10,351,295	262,368,813	27.06%	27.91%
2015	86,069,361	81,751,000	4,318,361	254,034,479	32.18%	31.60%

* Pensionable payroll as of the valuation measurement date.

** For the year ended September 30, 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.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

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 1.14% annual increases *
Remaining amortization period	All new bases are amortized over 30 years. Effective period of 24 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 1.14% was used for amortization purposes in the October 1, 2015 valuation.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Retirement rates

COJ		JEA	
Age	Rate (%)*	Service	Rate (%)**
Under 50	2.50	20	10
50-52	5.00	21-29	8
53-54	10.00	30	15
55-59	15.00	31	10
60-64	20.00	32-34	20
65-69	30.00	35	25
70 & Over	100.00	36	15
		37-39	50
		40 & Over	100

**Above rates are increased by 20% for the year in which a participant attains 30 years of service (if age < 55) and by 15% for the year in which a participant attains 32 years of service. The rate is set to 50% for years of service 37 through 39 and to 100% after 40 years of service, regardless of age.*

***The rate is set to 100% for ages 65-69 with less than 20 years of service and age 70 or older, regardless of service.*

Mortality:

Pre-retirement

RP-2014 Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2015

Healthy annuitants

RP-2014 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.

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

EXHIBIT 7

Collective Pension Expense

Components of collective pension expense

Service cost	\$40,238,707
Interest on the total pension liability	194,312,040
Projected earnings on plan investments	-136,034,475
Employee contributions	-20,893,000
Administrative expense	762,000
Current year recognition of:	
Changes of assumptions	-3,608,893
Difference between expected and actual experience	-956,991
Difference between projected and actual earnings on pension plan investments	35,108,095
Change of benefit terms	0
Deferred inflows and outflows established in prior years	<u>6,507,560</u>
Total collective pension expense	\$115,435,043

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Summary of Net Pension Liability and Pension Expense Allocations

	2015			
	Employer Contributions in Fiscal 2015	Proportion of net pension liability	Proportionate share of net pension liability	Share of pension expense*, including recognition of change in proportion
City of Jacksonville	\$39,874,000	48.78%	\$476,736,962	\$54,801,555
Jacksonville Electric Authority	40,179,000	49.15%	480,353,047	57,217,491
Jacksonville Housing Authority	1,555,000	1.90%	18,569,090	3,091,446
North Florida Transportation Planning Organization	<u>143,000</u>	<u>0.17%</u>	<u>1,661,445</u>	<u>324,551</u>
Total	\$81,571,000	100.00%	\$977,320,544	\$115,435,043

* Excludes recognition of differences between employer contributions and proportionate share of contributions

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

GASB 68 information drafted for inclusion in a September 30, 2016 CAFR for City of Jacksonville

Net pension liability. The City of Jacksonville is allocated a proportional share of 48.78% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the actual contributions paid during the year ended September 30, 2015. The City of Jacksonville’s allocated share of the net pension liability is \$476,736,962.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the City of Jacksonville’s proportional share of the net pension liability of the Jacksonville General Employees Retirement Plan, calculated using the discount rate of 7.50%, as well as what the proportional share of the 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%)
City of Jacksonville’s proportional share of net pension liability	\$624,694,897	\$476,736,962	\$348,735,702

For the year ended September 30, 2016 the City of Jacksonville’s recognized pension expense is \$54,801,555². 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	--	\$3,434,972
Changes of assumptions	\$29,714,539	7,041,670
Changes in proportion*	--	6,030,624
Net difference between projected and actual earnings on pension plan investments	<u>49,879,234</u>	--
Total	\$79,593,773	\$16,507,266

² Excludes recognition of differences between employer contributions and proportionate share of contributions

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

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	\$16,565,223
September 30, 2018	16,565,223
September 30, 2019	16,565,223
September 30, 2020	13,390,838
September 30, 2021	--
Thereafter	--

Schedules of Changes in City of Jacksonville’s proportional share of Net Pension Liability – Last Ten Fiscal Years*

	2015	2014	2013	2012	2011
Proportional share percentage	48.78%	49.72%	49.72%		
Net pension liability	476,736,962	\$411,669,271	\$393,677,252		
Covered employee payroll	121,601,265	128,869,371	129,951,180		
Net pension liability as percentage of covered employee payroll	392.05%	319.45%	302.94%		
Plan fiduciary net position as a percentage of the total pension liability	64.03%	69.06%	68.64%		

**All information is on a measurement year basis.*

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

GASB 68 information drafted for inclusion in a September 30, 2016 CAFR for Jacksonville Electric Authority

Net pension liability. The Jacksonville Electric Authority is allocated a proportional share of 49.15% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the actual contributions paid during the year ended September 30, 2015. The Jacksonville Electric Authority’s allocated share of the net pension liability is \$480,353,047.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the Jacksonville Electric Authority’s proportional share of the net pension liability of the Jacksonville General Employees Retirement Plan, calculated using the discount rate of 7.50%, as well as what the proportional share of the 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 Electric Authority’s proportional share of net pension liability	\$634,471,181	\$480,353,047	\$351,380,889

For the year ended September 30, 2016 the Jacksonville Electric Authority’s recognized pension expense is \$57,217,491³. At September 30, 2016, the Jacksonville Electric Authority 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	--	\$3,461,027
Changes of assumptions	\$29,939,926	7,095,082
Changes in proportion [*]	1,924,668	--
Net difference between projected and actual earnings on pension plan investments	<u>50,257,572</u>	<u>--</u>
Total	<u>\$82,122,166</u>	<u>\$10,556,109</u>

³ Excludes recognition of differences between employer contributions and proportionate share of contributions

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Contributions of \$X were reported as deferred outflows of resources related to pensions resulting from Jacksonville Electric Authority 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	\$18,691,131
September 30, 2018	18,691,131
September 30, 2019	18,691,131
September 30, 2020	15,492,664
September 30, 2021	--
Thereafter	--

Schedules of Changes in Jacksonville Electric Authority's proportional share of Net Pension Liability – Last Ten Fiscal Years*

	2015	2014	2013	2012	2011
Proportional share percentage	49.15%	48.85%	48.85%		
Net pension liability	480,353,047	\$404,465,888	\$386,788,693		
Covered employee payroll	127,440,243	128,083,647	129,922,363		
Net pension liability as percentage of covered employee payroll	376.92%	315.78%	297.71%		
Plan fiduciary net position as a percentage of the total pension liability	64.03%	69.06%	68.64%		

**All information is on a measurement year basis.*

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

GASB 68 information drafted for inclusion in a September 30, 2016 CAFR for Jacksonville Housing Authority

Net pension liability. The Jacksonville Housing Authority is allocated a proportional share of 1.90% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the actual contributions paid during the year ended September 30, 2015. The Jacksonville Housing Authority’s allocated share of the net pension liability is \$18,569,090.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the Jacksonville Housing Authority’s proportional share of the net pension liability of the Jacksonville General Employees Retirement Plan, calculated using the discount rate of 7.50%, as well as what the proportional share of the 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 Housing Authority’s proportional share of net pension liability	\$24,526,862	\$18,569,090	\$13,583,391

For the year ended September 30, 2016 the Jacksonville Housing Authority’s recognized pension expense is \$3,091,446⁴. At September 30, 2016, the Jacksonville Housing Authority 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	--	\$133,794
Changes of assumptions	\$1,157,393	274,276
Changes in proportion*	3,592,712	--
Net difference between projected and actual earnings on pension plan investments	<u>1,942,816</u>	<u>--</u>
Total	<u>\$6,692,921</u>	<u>\$408,070</u>

⁴ Excludes recognition of differences between employer contributions and proportionate share of contributions

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Contributions of \$X were reported as deferred outflows of resources related to pensions resulting from Jacksonville Housing Authority 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	\$1,602,124
September 30, 2018	1,602,124
September 30, 2019	1,602,124
September 30, 2020	1,478,479
September 30, 2021	--
Thereafter	--

Schedules of Changes in Jacksonville Housing Authority's proportional share of Net Pension Liability – Last Ten Fiscal Years*

	2015	2014	2013	2012	2011
Proportional share percentage	1.90%	1.34%	1.34%		
Net pension liability	\$18,569,090	\$11,094,868	\$10,609,966		
Covered employee payroll	4,535,512	4,961,709	5,090,332		
Net pension liability as percentage of covered employee payroll	409.42%	223.61%	208.43%		
Plan fiduciary net position as a percentage of the total pension liability	64.03%	69.06%	68.64%		

**All information is on a measurement year basis.*

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

GASB 68 information drafted for inclusion in a September 30, 2016 CAFR for North Florida Transportation Planning Organization

Net pension liability. The North Florida Transportation Planning Organization is allocated a proportional share of 0.17% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the actual contributions paid during the year ended September 30, 2015. The North Florida Transportation Planning Organization’s allocated share of the net pension liability is \$1,661,445.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the North Florida Transportation Planning Organization’s proportional share of the net pension liability of the Jacksonville General Employees Retirement Plan, calculated using the discount rate of 7.50%, as well as what the proportional share of the 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%)
North Florida Transportation Planning Organization’s proportional share of net pension liability	\$2,194,509	\$1,661,445	\$1,215,356

For the year ended September 30, 2016 the North Florida Transportation Planning Organization’s recognized pension expense is \$324,551⁵. At September 30, 2016, the North Florida Transportation Planning Organization 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	--	\$11,971
Changes of assumptions	\$103,556	24,540
Changes in proportion*	513,244	--
Net difference between projected and actual earnings on pension plan investments	<u>173,831</u>	<u>--</u>
Total	\$790,631	\$36,511

⁵ Excludes recognition of differences between employer contributions and proportionate share of contributions

APPENDIX: GASB Information for City of Jacksonville General Employees Retirement Plan

Contributions of \$X were reported as deferred outflows of resources related to pensions resulting from North Florida Transportation Planning Organization 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	\$191,296
September 30, 2018	191,296
September 30, 2019	191,296
September 30, 2020	180,232
September 30, 2021	--
Thereafter	--

Schedules of Changes in North Florida Transportation Planning Organization’s proportional share of Net Pension Liability – Last Ten Fiscal Years*

	2015	2014	2013	2012	2011
Proportional share percentage	0.17%	0.09%	0.09%		
Net pension liability	\$1,661,445	\$745,178	\$712,610		
Covered employee payroll	457,459	454,086	440,860		
Net pension liability as percentage of covered employee payroll	363.19%	164.11%	161.64%		
Plan fiduciary net position as a percentage of the total pension liability	64.03%	69.06%	68.64%		

**All information is on a measurement year basis.*