

Actuarial Valuation and Review as of October 1, 2014





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April 21, 2015

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, 2014. 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, 2015.

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 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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#### **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, 2014. 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 Pension Plan, as administered by the Board;

The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of September 30, 2014, provided by the Retirement System Administrative Office;

The assets of the Plan as of September 30, 2014, 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 used 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

- 1. This valuation determines the recommended contribution for the fiscal year beginning October 1, 2015. The recommended contribution has increased from \$86,069,361 for the fiscal year beginning October 1, 2014 to \$89,058,931 for the year beginning October 1, 2015. As a percentage of pay, the contribution has increased from 31.60% of projected pay to 33.20% of projected pay.
- 2. As approved at the February 26, 2015 Board meeting, the discount rate was lowered from 7.75% to 7.50%, the payroll growth assumption was lowered from 3.00% to 2.75%, and the mortality assumption was updated to introduce generational projection of longevity improvements using a base table which reflects mortality experience through September 30, 2014. The Board also approved a one-time partial recognition of deferred asset gains in the actuarial value of assets, to offset half the impact of assumption changes. Unrecognized asset gains were originally \$175,146,872, and \$78,846,382 (45%) of this amount has been recognized immediately, leaving \$96,300,490 in asset gains to be smoothed in over the next five years.
- 3. 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 2.62% to 2.24% in this valuation.



4. The recommended contribution for the fiscal years beginning October 1, 2014 and October 1, 2015 are shown below

October 1, 2014 recommended contribution

**\$86,069,361**, or **31.60%** of projected pay

➤ October 1, 2015 recommended contribution, prior to any assumption changes

**\$83,787,548**, or **31.12%** of projected pay

➤ October 1, 2015 recommended contribution, after payroll growth assumption change

**\$85,735,102**, or **31.96%** of projected pay

➤ October 1, 2015 recommended contribution, after discount rate and mortality assumption changes

**\$94,330,313**, or **35.17%** of projected pay

➤ October 1, 2015 recommended contribution, after asset method change

**\$89,058,931**, or **33.20%** of projected pay

- 5. The investment rate of return on an actuarial basis for the year ended September 30, 2014 was 12.31%. Since the rate of return was more than the assumed rate of return of 7.75% for the year ending September 30, 2014, there was an actuarial investment gain amounting to \$69,534,509. The return on a market value basis was 11.51%.
- 6. As of the valuation date, the smoothed actuarial value of assets was equal to 90.5% of market value, prior to the partial recognition of deferred gains. After the accelerated recognition of some of the gains, the actuarial value is 94.8% of market value. To illustrate the effect of the remaining unrecognized investment gains, if the current year's actuarial value of assets were equal to the current market value of assets, the recommended contributions of \$89,058,931 (33.20% of projected pay) would be \$82,620,631 (30.80% of projected pay).
- 7. On an actuarial value basis, the funded ratio has increased from 62.30% as of October 1, 2013 to 65.81% as of October 1, 2014. On a market value basis, the funded ratio has increased from 68.98% as of October 1, 2013 to 69.42% as of October 1, 2014. The last ten years of funding progress are shown in Exhibit III of Section 4.
- 8. The following assumptions were changed in this valuation:
  - > Based on lower inflation expectations and continued expectations of lower real returns, the discount rate was lowered from 7.75% to 7.50%.
  - ➤ Based on lower inflation expectations, the payroll growth rate assumption was lowered from 3.00% to 2.75%.
  - ➤ As mandated by Part VII, Chapter 112.64(5)(a) of Florida Statutes, the payroll growth rate was lowered from 2.62% to 2.24%.



- ➤ Based on plan experience through September 30, 2014 and expectations of future increased life expectancy, the mortality assumption for active and inactive vested participants was changed from the RP-2000 Employee Mortality Table, set forward one year and projected to 2013 with Scale BB to the RP-2014 Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2014;
- ➤ Based on plan experience through September 30, 2014 and expectations of future increased life expectancy, the mortality assumption for healthy retirees and beneficiaries was changed from the RP-2000 Annuitant Mortality Table, set forward one year and projected to 2013 with Scale BB to the RP-2014 Healthy Annuitant Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2014;
- > Coordinating with the mortality assumption for healthy lives, the mortality assumption for disabled retirees was changed from the RP-2000 Disabled Retiree Mortality Table to the RP-2014 Disabled Retiree Mortality Table, set forward four years for both males and females, projected generationally with Scale MP-2014.
- > Normal Cost has been removed for participants who are assumed to retire with 100% certainty in the upcoming plan year, based on the retirement assumptions.
- 9. The asset method was changed in this valuation in the following manner:
  - > The Board accelerated the recognition of prior asset gain/loss bases by reflecting 45% of the outstanding asset gains/losses immediately.
- 10. There were no plan changes since the prior valuation.
- 11. IRS Section 415(b) limits increased from \$205,000 for 2013 to \$210,000 for 2014.
- 12. 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.
- 13. Governmental Accounting Standards Board (GASB) Statement No. 67 is effective for plan fiscal years beginning after June 15, 2013, and Statement No. 68 is effective for employer fiscal years beginning after June 15, 2014. Segal will work with the City and their auditor to provide the necessary disclosures, under separate cover. The disclosures for GASB Statement No. 27, however, are included in Section 4 of this report, and the exhibits that were previously required for GASB 25 are included as well, for informational purposes.



#### **Summary of Key Valuation Results**

	2015	2014	2013
Contributions for fiscal year beginning October 1:			
Recommended	\$89,058,931	\$86,069,361	\$81,351,295
As a percentage of projected payroll	33.20%	31.60%	27.91%
Actual			\$71,000,000*
Actual percentage of payroll contributed			27.91%*
Funding elements for plan year beginning October 1:			
Normal cost, including administrative expenses		\$40,107,261	\$37,039,850
Market value of assets		1,848,189,000	1,733,319,000
Actuarial value of assets		1,751,888,510	1,565,291,310
Actuarial accrued liability		2,662,187,817	2,512,635,436
Unfunded actuarial accrued liability		910,299,307	947,344,126
Funded ratio – actuarial value of assets		65.81%	62.30%
Funded ratio – market value of assets		69.42%	68.98%
Demographic data for plan year beginning October 1:			
Number of retired participants and beneficiaries		4,907	4,896
Number of vested former participants		76	78
Number of active participants		5,026	5,139
Covered payroll		\$262,368,813	\$265,404,735
Average payroll		52,202	51,645
Projected payroll for next fiscal year		268,245,874	272,358,339

<sup>\*</sup>Per City of Jacksonville Ordinance 2013-464-E, the City contributed 27.91% of covered payroll to the General Employees Retirement Plan for the fiscal year beginning October 1, 2013. Actual dollar contributions were less than recommended dollar contributions due to actual payroll being less than projected payroll.



#### 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: 2005 – 2014

Year Ended September 30	Active Participants	Vested Terminated Participants*	Retired Participants and Beneficiaries	Ratio of Non-Actives to Actives
2005	5,078	55	4,283	0.85
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

<sup>\*</sup>Excludes terminated participants due a refund of employee contributions



#### **Active Participants**

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 5,026 active participants with an average age of 48.3, average years of service of 11.8 years and average payroll of \$52,202. The 5,139 active participants in the prior valuation had an average age of 48.1, average service of 11.6 years and average payroll of \$51,645.

#### **Inactive Participants**

In this year's valuation, there were 76 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, 2014

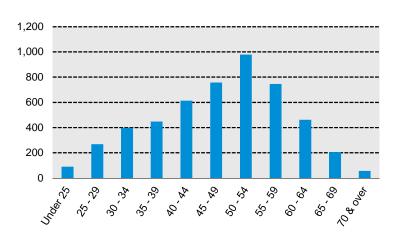
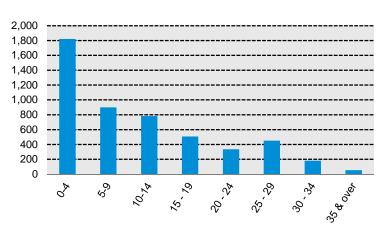


CHART 3
Distribution of Active Participants by Years of Service as of September 30, 2014





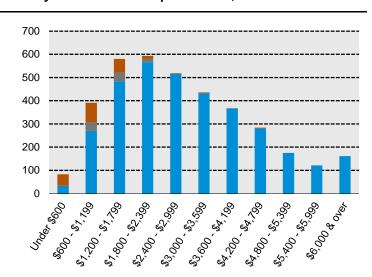
#### **Retired Participants and Beneficiaries**

As of September 30, 2014, 3,711 retired participants and 1,196 beneficiaries were receiving total monthly benefits of \$12,789,660. For comparison, in the previous valuation, there were 3,698 retired participants and 1,198 beneficiaries receiving monthly benefits of \$12,375,494.

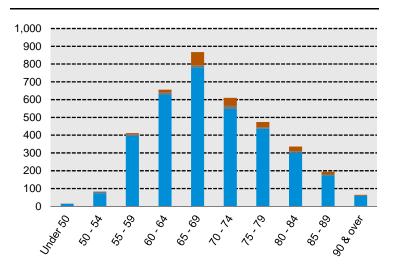
These graphs show a distribution of the current retired participants based on their monthly amount and age, by type of pension.



# CHART 4 Distribution of Retired Participants by Type and by Monthly Amount as of September 30, 2014



# CHART 5 Distribution of Retired Participants by Type and by Age as of September 30, 2014





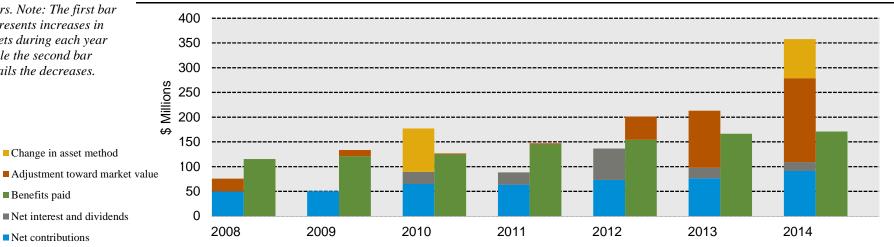
#### **B. FINANCIAL INFORMATION**

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 seven 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 - 2014





■ Benefits paid

■ Net contributions

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

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

CHART 7

Determination of Actuarial Value of Assets for Year Ended September 30, 2014

1.	Market value of assets, September 30, 2014					\$1,848,189,000
2.	Calculation of unrecognized return	Original <u>Amount</u> *	Unrecognized Return**	Additional One Time Recognition	Updated Unrecognized <u>Return</u>	
	(a) Year ended September 30, 2014	\$63,631,545	\$50,905,236	\$22,916,160	\$27,989,076	
	(b) Year ended September 30, 2013	147,228,359	88,337,015	39,766,934	48,570,081	
	(c) Year ended September 30, 2012	143,494,282	57,397,713	25,838,897	31,558,816	
	(d) Year ended September 30, 2011	-107,465,461	-21,493,092	-9,675,609	-11,817,483	
	(e) Year ended September 30, 2010	35,673,088	0	0	0	
			\$175,146,872	\$78,846,382	\$96,300,490	
	(f) Total unrecognized return					96,300,490
3.	Preliminary actuarial value: (1) - (2f)					1,751,888,510
4.	Adjustment to be within 20% corridor					0
5.	Final actuarial value of assets as of September 30, 2014:	(3) + (4)				<u>\$1,751,888,510</u>
6.	Actuarial value as a percentage of market value: $(5) \div (1)$	)				94.8%
7.	Amount deferred for future recognition: (1) - (5)					\$96,300,490***

<sup>\*</sup>Total return minus expected return on a market value basis

- (a) Amount recognized on September 30, 2015 \$27,149,221
- (c) Amount recognized on September 30, 2017 \$23,187,296

- (b) Amount recognized on September 30, 2016
- \$38.966.704
- (d) Amount recognized on September 30, 2018 \$6,997,269



<sup>\*\*</sup>Recognition at 20% per year over five years

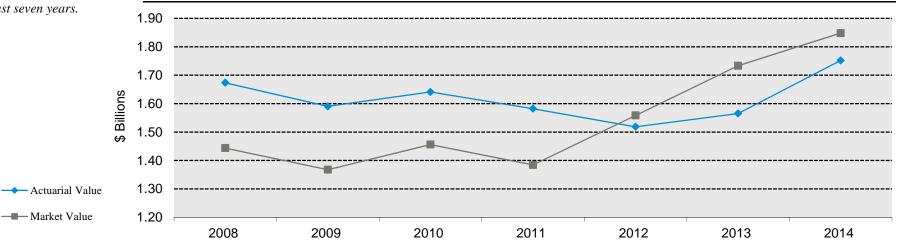
<sup>\*\*\*</sup>Deferred return as of September 30, 2014 recognized in each of the next four years:

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 seven years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of September 30, 2008 – 2014





#### 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 gain is \$75,797,624, consisting of \$69,534,509 from investment gains and \$6,263,115 in net gains from all other sources. The net experience variation from individual sources other than investments was 0.2% 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, 2014

1.	Net gain from investments*	\$69,534,509
2.	Net loss from administrative expenses	-137,082
3.	Net gain from other experience	<u>6,400,197</u>
4.	Net experience gain: $(1) + (2) + (3)$	\$75,797,624

<sup>\*</sup> Details in Chart 10



#### **Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets was 7.75% for the year ended September 30, 2014. The actual rate of return on an actuarial basis for the 2014 plan year was 12.31%.

Since the actual return for the year was greater than the assumed return, the Plan experienced an actuarial gain during the year ended September 30, 2014 with regard to its investments.

This chart shows the gain due to investment experience.

# CHART 10 Actuarial Value Investment Experience for Year Ended September 30, 2014

1. Actual return	\$187,744,818
2. Average value of assets	1,525,294,310
3. Actual rate of return: $(1) \div (2)$	12.31%
4. Assumed rate of return	7.75%
5. Expected return: (2) x (4)	\$118,210,309
6. Actuarial gain: (1) – (5)	<u>\$69,534,509</u>



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 the most recent five-year averages. The Retirement System Board has lowered the assumed rate of return from 7.75% to 7.50%, effective with this valuation.

CHART 11
Investment Return – Actuarial Value vs. Market Value: 2008 - 2014

	Net Interest and Dividend Income		Recognition of Capital Appreciation		Change in Asset Method		Actuarial Value Investment Return		Market Value Investment Return	
Year Ended September 30	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2005								8.21%		9.34%
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
Total	\$151,737,000		\$234,082,261		\$166,459,105		\$552,278,366		\$871,166,000	
						Five-yea	r average return	7.17%		11.93%

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

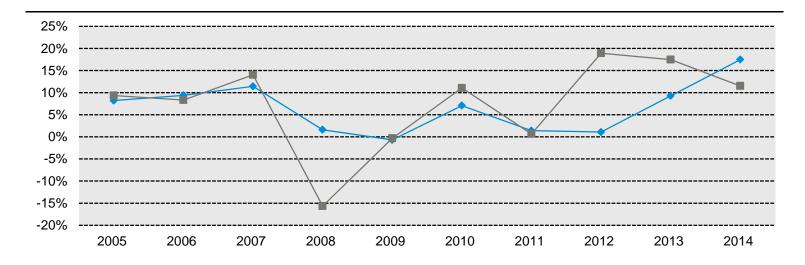


Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years ended 2005 - 2014. 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, 2005 - 2014



Actuarial Value

Market Value

#### **Administrative Expenses**

Administrative expenses for the year ended September 30, 2014 totaled \$828,000 compared to the assumption of \$671,000. This resulted in a loss of \$137,082 for the year.

#### **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 gain from this other experience for the year ended September 30, 2014 amounted to \$6,400,197, which is 0.2% of the actuarial accrued liability.

#### D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the funding rate of 33.20% of payroll.

The City and the Pension 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, 2014 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.

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

# CHART 13 Recommended Contribution

		Year Beginning October 1				
		2014 2013				
		Amount	% of Payroll	Amount	% of Payroll	
1.	Total normal cost	\$39,279,261	14.97%	\$36,368,850	13.70%	
2.	Administrative expenses	828,000	0.32%	671,000	0.25%	
3.	Expected employee contributions	<u>-20,202,399</u>	<u>-7.70%</u>	<u>-20,436,165</u>	<u>-7.70%</u>	
4.	Employer normal cost: $(1) + (2) + (3)$	\$19,904,862	7.59%	\$16,603,685	6.25%	
5.	Actuarial accrued liability	2,662,187,817		2,512,635,436		
6.	Actuarial value of assets	1,751,888,510		1,565,291,310		
7.	Unfunded actuarial accrued liability: (5) - (6)	\$910,299,307		\$947,344,126		
8.	Payment on unfunded actuarial accrued liability	63,874,626	24.35%	63,963,340	24.10%	
9.	Total contribution: (4) + (8) adjusted for timing*	87,107,718	33.20%	83,871,917	31.60%	
10.	Total payroll	262,368,813		265,404,735		
11.	Total recommended contribution, projected to next fiscal year	<u>\$89,058,931</u>	33.20%	\$86,069,361	31.60%	
12.	Projected payroll	\$268,245,874		\$272,358,339		



<sup>\*</sup>Recommended contributions are assumed to be paid at the end of every month.

#### **Reconciliation of Recommended Contribution**

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

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

# CHART 14 Reconciliation of Recommended Contribution from October 1, 2014 to October 1, 2015

Recommended Contribution as of October 1, 2014	\$86,069,361
Effect of changes in actuarial assumptions	8,595,211
Effect of lowering payroll growth assumption for amortization purposes due to Florida Statutes	1,947,554
Effect of change in asset method	-5,271,382
Effect of investment gain	-4,601,665
Effect of other gains and losses on accrued liability	-414,481
Effect of expected change in amortization payment due to payroll growth	1,790,291
Effect of contribution deferral to budget year	881,690
Net effect of other changes	62,352
Cotal change	<u>\$2,989,570</u>
Recommended Contribution as of October 1, 2015	\$89,058,931



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

EXHIBIT A

Table of Plan Coverage

	Year Ended	September 30		
Category	2014	2013	Change From Prior Year	
Active participants in valuation:				
Number	5,026	5,139	-2.2%	
Average age	48.3	48.1	N/A	
Average years of service	11.8	11.6	N/A	
Projected total payroll	\$262,368,813	\$265,404,735	-1.1%	
Projected average payroll	52,202	51,645	1.1%	
Account balances	185,561,961	182,114,945	1.9%	
Total active vested participants	3,204	3,339	-4.0%	
Vested terminated participants	76	78	-2.6%	
Retired participants:				
Number in pay status	3,617	3,599	0.5%	
Average age	69.6	69.3	N/A	
Average monthly benefit	\$2,962	\$2,889	2.5%	
Disabled participants:				
Number in pay status	94	99	-5.1%	
Average age	68.7	67.8	N/A	
Average monthly benefit	\$1,382	\$1,340	3.1%	
Beneficiaries in pay status:				
Number in pay status	1,196	1,198	-0.2%	
Average age (excluding minors)	75.3	75.2	N/A	
Average monthly benefit (excluding minors)	\$1,626	\$1,542	5.4%	

<sup>\*</sup>Count includes 10 minors in 2014 and 6 minors in 2013 receiving benefits until age 18.

EXHIBIT B
Participants in Active Service as of September 30, 2014
By Age, Years of Service, and Average Payroll

	Years of Service									
Age	Total	0-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	91	89	2							
	\$33,099	\$32,862	\$43,633							
25 - 29	269	200	67	2						
	41,811	40,235	46,652	\$37,266						
30 - 34	399	209	146	43	1					
	47,309	43,750	52,526	46,678	\$56,806					
35 - 39	448	220	112	80	35	1				
	51,120	47,758	53,450	55,195	54,982	\$68,771				
40 - 44	613	246	138	117	80	26	6			
	52,581	47,865	58,429	54,024	53,902	55,212	\$54,265			
45 - 49	758	229	128	140	103	67	86	5		
	55,444	46,961	53,752	59,448	57,005	68,974	62,438	\$41,455		
50 - 54	979	258	115	135	114	103	175	77	2	
	54,869	44,432	53,320	54,996	56,296	64,557	58,993	67,693	\$47,119	
55 - 59	746	184	101	137	69	75	97	65	17	1
	54,406	44,879	48,416	57,578	54,811	53,505	59,352	76,255	59,192	\$36,106
60 - 64	462	116	58	87	66	40	58	21	11	5
	53,488	41,823	52,071	59,524	56,395	58,605	53,870	62,347	65,003	89,288
65 - 69	205	54	25	35	28	18	22	11	8	4
	51,733	38,511	44,314	53,420	55,910	58,385	58,021	75,480	73,446	59,348
70 & over	56	17	7	6	10	4	6	1	4	1
	46,783	37,896	60,617	41,157	40,325	65,817	47,497	120,703	48,502	38,127
Total	5,026	1,822	899	782	506	334	450	180	42	11
	\$52,236	\$44,153	\$52,709	\$55,945	\$55,446	\$61,216	\$58,805	\$70,203	\$61,836	\$68,915



EXHIBIT C
Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of October 1, 2013	5,139	78	99	3,599	1,198	10,113
New participants	360	N/A	N/A	N/A	N/A	360
Terminations – with vested rights	-4	4	0	0	0	0
Terminations – without vested rights	-242	N/A	N/A	N/A	N/A	-242
Retirements	-152	-5	N/A	157	N/A	0
New disabilities	-9	0	0	N/A	N/A	-9
New beneficiaries	0	0	0	0	70	70
Deceased	-10	0	-5	-151	-72	-238
Lump sum payoffs	-34	0	0	0	0	-34
Certain period expired	N/A	N/A	0	0	0	0
Data adjustments	0	0	0	12	0	12
Net Transfers (to)/from DC Plan or Corrections	<u>-22</u>	<u>-1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-23</u>
Number as of October 1, 2014	5,026	76	94	3,617	1,196	10,009



EXHIBIT D
Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended Sep	tember 30, 2014	Year Ended Sep	tember 30, 2013
Net assets at actuarial value at the beginning of the year		\$1,565,291,310		\$1,518,577,926
Contribution income:				
Employer contributions	\$71,000,000		\$55,386,000	
Employee contributions	20,961,000		21,878,000	
Less administrative expenses	<u>-828,000</u>		<u>-671,000</u>	
Net contribution income		91,133,000		76,593,000
Investment income:				
Interest, dividends and other income	\$27,278,000		\$29,126,000	
Recognition of capital appreciation	169,638,818		115,400,384	
Less investment fees	<u>-9,172,000</u>		<u>-7,946,000</u>	
Net investment income		187,744,818		136,580,384
Total income available for benefits		\$278,877,818		\$213,173,384
Less benefit payments:				
Benefit payments	-\$151,192,000		-\$143,922,000	
Refunds	<u>-19,935,000</u>		<u>-22,538,000</u>	
Net benefit payments		-\$171,127,000		-\$166,460,000
Change in actuarial asset method		\$78,846,382		\$0
Change in reserve for future benefits		\$186,597,200		\$46,713,384
Net assets at actuarial value at the end of the year		\$1,751,888,510		\$1,565,291,310



**EXHIBIT E**Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended Sep	tember 30, 2014	Year Ended September 30, 201	
Net assets at market value at the beginning of the year		\$1,733,319,000		\$1,558,645,000
Contribution income:				
Employer contributions	\$71,000,000		\$55,386,000	
Employee contributions	20,961,000		21,878,000	
Less administrative expenses	<u>-828,000</u>		<u>-671,000</u>	
Net contribution income		91,133,000		76,593,000
Investment income:				
Interest, dividends and other income	\$27,278,000		\$29,126,000	
Asset appreciation	176,758,000		243,361,000	
Less investment fees	<u>-9,172,000</u>		<u>-7,946,000</u>	
Net investment income		194,864,000		264,541,000
Total income available for benefits		\$285,997,000		\$341,134,000
Less benefit payments:				
Benefit payments	-\$151,192,000		-\$143,922,000	
Refunds	-19,935,000		<u>-22,538,000</u>	
Net benefit payments		-\$171,127,000		-\$166,460,000
Change in reserve for future benefits		\$114,870,000		\$174,674,000
Net assets at market value at the end of the year		\$1,848,189,000		\$1,733,319,000



EXHIBIT F
Summary Statement of Plan Assets

	Year Ended Sep	otember 30, 2014	Year Ended Sep	tember 30, 2013
Cash equivalents		\$22,373,000		\$40,703,000
Accounts receivable:				
Interest and dividends	\$2,912,000		\$2,912,000	
Other	2,762,000		<u>2,344,000</u>	
Total accounts receivable		5,674,000		5,256,000
Investments:				
Equities	\$0		\$1,262,967,000	
Fixed income	0		369,613,000	
Real estate	0		136,873,000	
Other assets	9,000		44,416,000	
Equity in pooled investments*	1,822,059,000		<u>-125,023,000</u>	
Total investments at market value		1,822,068,000		1,688,846,000
Total assets		\$1,850,115,000		\$1,734,805,000
Less accounts payable:				
Obligations under securities lending agreement (less collateral)	-\$3,000		-\$2,000	
Accounts payable and accrued liabilities	-1,867,000		-1,438,000	
Accrued compensated absences	-21,000		-18,000	
Other post-employment benefits	<u>-35,000</u>		<u>-28,000</u>	
Total accounts payable		-\$1,926,000		-\$1,486,000
Net assets at market value		\$1,848,189,000		\$1,733,319,000
Net assets at actuarial value		\$1,751,888,510		\$1,565,291,310

<sup>\*</sup>The plan's assets are pooled with other City of Jacksonville retirement plans. The investment allocation for the pooled fund as of September 30, 2014 consists of 60.67% equities, 19.85% fixed income, 19.19% in real estate and master limited partnership, and 0.29% in cash.



EXHIBIT G

Development of the Fund Through September 30, 2014

Year Ended September 30	Employer Contributions	Employee Contributions	Other Contributions and Miscellaneous Items <sup>1</sup>	Net Investment Return <sup>2</sup>	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 <sup>4</sup>	828,000	171,127,000	1,751,888,510

<sup>&</sup>lt;sup>1</sup> Includes miscellaneous income and adjustments to the market value of assets

<sup>&</sup>lt;sup>2</sup> Net of investment fees

<sup>&</sup>lt;sup>3</sup> Includes a change in asset method of \$87,612,723

<sup>&</sup>lt;sup>4</sup> Includes a change in asset method of \$78,846,382

7. Unfunded actuarial accrued liability at end of year

#### **EXHIBIT H** Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2014 1. Unfunded actuarial accrued liability at beginning of year \$947,344,126 2. Employer normal cost at beginning of year 16,603,685 3. Employer contributions -71,000,000 4. Interest (a) For whole year on (1) + (2)\$74,705,955 (b) For monthly payments on (3) -2,487,993 (c) Total interest 72,217,962 5. Expected unfunded actuarial accrued liability \$965,165,773 6. Changes due to: (a) Net experience gain (excluding impact of contribution deferral to budget year) -\$75,797,624 99,777,540 (b) Assumptions (c) Asset method -78,846,382 (d) Total changes -54,866,466



\$910,299,307

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		\$26,533,169	19	\$333,216,862
Liability decrease	10/01/2004	30		-6,872,275	20	-88,954,810
Liability decrease	10/01/2005	30		-287,156	21	-3,822,241
Liability decrease	10/01/2006	30		-776,288	22	-10,603,601
Liability decrease	10/01/2007	30		-2,347,805	23	-32,848,159
Experience loss	10/01/2008	30		10,246,004	24	146,583,689
Experience loss	10/01/2010	30	\$248,759,927	17,627,970	26	262,510,690
Change in assumptions	10/01/2010	30	33,728,927	2,390,146	26	35,593,370
Change in asset method	10/01/2010	30	-87,612,723	-6,208,534	26	-92,455,714
Plan amendment	10/01/2010	30	-9,782,006	-693,186	26	-10,322,729
Experience loss	10/01/2011	30	106,203,285	7,282,812	27	110,429,708
Experience loss	10/01/2012	30	116,662,267	7,741,328	28	119,380,002
Change in assumptions	10/01/2012	30	155,495,783	10,318,194	28	159,118,174
Experience loss	10/01/2013	30	23,737,082	1,531,433	29	23,992,294
Updated statutory limits	10/01/2013	30	24,992	1,612	29	25,261
Experience gain	10/01/2014	30	-62,474,647	-3,929,223	30	-62,474,647
Change in assumptions	10/01/2014	30	99,777,540	6,275,317	30	99,777,540
Change in asset method	10/01/2014	30	-78,846,382	<u>-4,958,892</u>	30	<u>-78,846,382</u>
Total				\$63,874,626		\$910,299,307

<sup>\*</sup>Level percentage of payroll; per Part VII, Chapter 112.64(5)(a) of Florida Statutes, outstanding balances were amortized using a 2.24% payroll growth rate for the October 1, 2014 actuarial valuation.



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

#### **EXHIBIT J**

#### **Section 415 Limitations**

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

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for noncompliance 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 2014. 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.



#### **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) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates the death rates of employees and pensioners; life expectancy is based on these rates:
- (c) Retirement rates the rate or probability of retirement at a given age;
- (d) Withdrawal rates the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

#### **Normal Cost:**

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

### Actuarial Accrued Liability For Actives:

The value of all projected benefit payments for current members less the portion that will be paid by future normal costs.

### Actuarial Accrued Liability For Pensioners:

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

## **Unfunded Actuarial Accrued Liability:**

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



**Amortization of the Unfunded** 

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

accrued liability.

**Investment Return:** The rate of earnings of the Plan from its investments, including interest, dividends and

capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one

year to the next.

EXHIBIT L
Supplementary State of Florida Information - Summary of Salary Changes

Year Ended September 30	Total Salary	Percent Change in Total Salary	Percent Change in Salary of Employees Remaining Active	Expected Percent Change in Salary of Employees Remaining Active
2004	\$210,216,031			
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%

*Note: The average total payroll growth for the most recent ten years was 2.24% per year.* 

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



<sup>\*</sup>Prior to the inclusion of new participants with greater than one year of employment.

#### **EXHIBIT L (continued)**

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

Fiscal Year Ended September 30	Valuation Date September 30	Contribution Rate as Percent of Valuation Payroll	Valuation Payroll	Recommended Contribution	Actual Contribution
2010	2008	13.50%	\$285,925,650	\$38,611,842	\$40,551,000
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	
2016	2014	33.20%	268,245,874	89,058,931	

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



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

EXHIBIT L (continued)
Supplementary State of Florida Information - Comparative Summary of Principal Valuation Results

	Year Ended Se		
	New Assumptions and Asset Method	Old Assumptions and Asset Method	Year Ended September 30, 2013
Participant data			
Active members	5,026	5,026	5,139
Total annual payroll	\$262,368,813	\$262,358,813	\$265,404,735
Retired members and beneficiaries	4,907	4,907	4,896
Total annualized benefit	\$153,475,932	\$153,475,932	\$148,505,932
Terminated vested members	76	76	78
Total annualized benefit	\$1,314,568	\$1,314,568	\$1,337,731
Actuarial value of assets	\$1,751,888,510	\$1,673,042,128	\$1,565,291,310
Present value of all future expected benefit payments:			
Active members:			
Retirement benefits	\$933,654,759	\$855,490,204	\$859,536,442
Vesting benefits	27,638,638	28,175,850	28,552,338
Disability benefits			
Death benefits	22,978,497	18,785,387	18,907,752
Return of contributions	<u>185,561,961</u>	<u>185,561,961</u>	<u>182,114,945</u>
Total	\$1,169,833,855	\$1,088,013,402	\$1,089,111,477
Terminated vested members	9,778,043	9,299,924	8,773,926
Retired members and beneficiaries	1,793,420,066	<u>1,748,464,370</u>	1,700,679,124
Total	\$2,973,031,964	\$2,845,777,696	\$2,798,564,527



EXHIBIT L (continued)

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

	Year Ended Sep		
_	New Assumptions and Asset Method	Old Assumptions and Asset Method	Year Ended September 30, 2013
Unfunded actuarial accrued liability	\$910,299,307	\$889,368,149	\$947,344,126
Actuarial present value of accrued benefits			
Vested accrued benefits			
Active members	\$664,441,960	\$621,210,644	\$623,416,523
Inactive members	9,778,043	9,299,924	8,773,926
Pensioners and beneficiaries	1,793,420,066	1,748,464,370	1,700,679,124
Nonvested active members	13,047,589	<u>9,978,708</u>	<u>8,576,353</u>
Total	\$2,480,687,658	\$2,388,953,646	\$2,341,445,926
Pension cost			
Normal cost, including administrative expenses	\$40,107,261	\$36,863,680	\$37,039,850
Expected employee contributions	-20,202,399	-20,201,629	-20,436,165
Level % of payroll payment to amortize unfunded actuarial accrued liability	63,874,626	61,769,035	63,963,340
Total minimum annual cost payable monthly at valuation date	87,107,718	81,648,361	83,871,917
Total employer cost projected to budget year	89,058,931	83,787,548	86,069,361
As % of payroll	33.20%	31.12%	31.60%
Present value of active members' future salaries at attained age	\$2,081,648,329	\$2,114,539,869	\$2,136,591,270



# 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 benefit as of October 1, 2013	\$2,341,445,926
Benefits accumulated, net experience gain or loss, changes in data	\$44,356,430
Change in statutory limits	91,734,012
Benefits paid	-171,127,000
Interest	<u>174,278,290</u>
Net increase	<u>\$139,241,732</u>
Actuarial present value of accumulated benefit as of October 1, 2014	\$2,480,687,658



# SECTION 4: Reporting Information for the City of Jacksonville General Employees Retirement Plan

EX	HIBIT I		
Su	mmary of Actuarial Valuation Results		
The	e valuation was made with respect to the following data supplied to us:		
1.	Retired participants as of the valuation date (including 1,196 beneficiaries in pay status)		4,907
2.	Participants inactive during year ended September 30, 2014 with vested rights		76
3.	Participants active during the year ended September 30, 2014		5,026
	Fully vested	3,204	
	Not vested	1,822	
Γh	e actuarial factors as of the valuation date are as follows:		
l.	Normal cost, including administrative expenses		\$40,107,261
2.	Actuarial accrued liability		2,662,187,817
	Retired participants and beneficiaries	\$1,793,420,066	
	Inactive participants with vested rights	9,778,043	
	Active participants	858,989,708	
3.	Actuarial value of assets (\$1,848,189,000 at market value as reported by the City)		1,751,888,510
1.	Unfunded actuarial accrued liability		\$910,299,307
Γh	e determination of the recommended contribution is as follows:		
l.	Total normal cost		\$39,279,261
2.	Administrative expenses		828,000
3.	Expected employee contributions		-20,202,399
ŀ.	Employer normal cost: $(1) + (2) + (3)$		\$19,904,862
5.	Payment on unfunded actuarial accrued liability		63,874,626
ó.	Total recommended contribution: (4) + (5), adjusted for timing and projected to October 1, 2015		\$89,058,931
7.	Payroll projected to October 1, 2015		\$268,245,874
8.	Total recommended contribution as a percentage of projected payroll: (6) ÷ (7)		33.20%



# SECTION 4: Reporting Information for the 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
2007	\$29,297,000	\$29,581,000	101.0%
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		
2016	89,058,931		

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



<sup>\*</sup> 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.

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

EXHIBIT III
Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
10/01/2005	\$1,509,710,000	\$1,734,997,000	\$225,287,000	87.02%	\$226,819,000	99.32%
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%

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

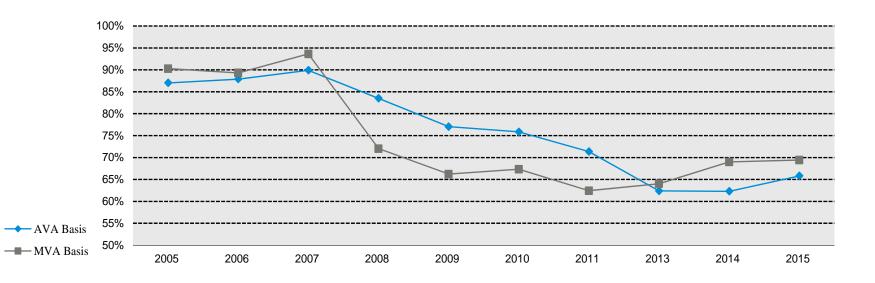
<sup>\*</sup>An actuarial valuation was not performed for the plan year beginning October 1, 2009.

# **EXHIBIT IV**

#### **Funded Ratio**

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

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





#### **EXHIBIT V**

## Supplementary Information Required by the GASB

Valuation date	October 1, 2014		
Actuarial cost method	Entry Age Normal Cost Method		
Amortization method	Level percent of payroll		
Remaining amortization period	All new bases are amortized over 30 years.		
	The net effective amortization period is 24 years as of October 1, 2014.		
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%		
Inflation rate	2.24%*		
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.		
Plan membership:			
Retired participants and beneficiaries receiving benefits	4,907		
Terminated participants entitled to, but not yet receiving benefits	76		
Active participants	<u>5,026</u>		
Total	10,009		

<sup>\*</sup>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 2.24% was used for amortization purposes in this valuation.



EXHIBIT VI

Development of the Net Pension Obligation (NPO) and the Annual Pension Cost Pursuant to GASB 27

Plan Year Ended September 30	Employer Annual Required Contribution (a)	Employer Amount Contributed (b)	Interest on NPO (h) x Rate* (c)	ARC Adjustment (h) / (e) (d)	Amortization Factor (e)	Pension Cost (a) + (c) – (d) (f)	Change in NPO (f) – (b) (g)	NPO Balance NPO + (g) (h)
2009								\$156,000
2010	\$38,611,842	\$40,551,000	-\$13,104	-\$11,139	14.0044	\$38,609,877	\$1,941,123	-2,097,123
2011	39,123,971**	39,378,000	-173,013	-149,747	14.0044	39,100,705	-277,295	-2,374,418
2012	57,497,706	49,899,000	-195,889	-163,934	14.4840	57,465,751	7,566,751	5,192,333
2013	66,659,915	55,386,000	428,367	360,564	14.4006	66,727,718	11,341,718	16,534,051
2014	81,351,295	71,000,000	1,281,389	1,133,463	14.5872	81,499,221	10,499,221	27,033,272

Amounts prior to the year ending September 30, 2011 were determined by the prior actuary.

<sup>\* 8.40%</sup> for years prior to 2011; 8.25% for 2011 and 2012; 7.75% for 2013 and 2014

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

#### **EXHIBIT VII**

#### **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 mortality and investment return 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 MP-2014

Healthy annuitants:

RP-2014 Healthy Annuitant Mortality Table, set forward four years for males and

three years for females, projected generationally with Scale MP-2014

Disabled annuitants:

RP-2014 Disabled Retiree Mortality Table, set forward four years, projected

generationally with Scale MP-2014

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-2014 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-2014 to reflect future mortality improvement.



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

**Termination Rates before Retirement:** 

Rate (	%)
--------	----

	Mor	tality	Disa	bility*
Age	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

<sup>\*100%</sup> 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

<sup>\*\*</sup>All withdrawal rates are set to 0% after eligibility for retirement.



<sup>\*\*\*</sup>COJ withdrawal rates above are increased by 5.00% for ages under 30.

# SECTION 4: Reporting Information for the City of Jacksonville General Employees Retirement Plan

Retirement Rates:	C	OJ	J	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	
		ed by 20% for the year in	37-39	50	
	which a participant attair age < 55) and by 15 % fo		40 & Over	100	
	participant attains 32 yea set to 50% for years of se 100% after 40 years of se	rvice 37 through 39 and to	**The rate is set to 100% than 20 years of service of regardless of service	o for ages 65-69 with less and age 70 or older,	
BackDROP Election:	90% of eligible partic	ipants are assumed to el	lect a BackDROP at ret	irement	
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				

65% of males and 50% of females

Females three years younger than males

specified, participants are assumed to be male.

Same as those exhibited by participants with similar known characteristics. If not,



**Retirement Age for Inactive** 

**Unknown Data for Participants:** 

65

**Vested Participants:** 

**Percent Married:** 

**Age of Spouse:** 

#### SECTION 4: Reporting Information for the 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

<sup>\*</sup>For purposes other than determining entry age normal cost, the above rates are reduced by 3% for three years beginning October 1, 2012 for COJ participants.

The salary scale assumption is based analysis completed in conjunction with an Experience Study Report for the five-year period ended September 30, 2012.

**Inflation Rate:** 2.75%

**Payroll Growth Rate:** 2.24% 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; \$828,000 for October 1, 2014.

**Actuarial Value of Assets:** Market value of assets less unrecognized returns in each of the last five years.

Unrecognized return is equal to the difference between the actual and the expected market return, and is recognized over a five-year period, further adjusted, if necessary,

to be within 20% of the market value.



#### **Actuarial Cost Method:**

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

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

### **Changes in Assumptions:**

The following assumption changes were reflected in this valuation:

- ➤ Based on lower inflation expectations and continued expectations of lower real returns, the discount rate was lowered from 7.75% to 7.50%;
- ➤ Based on lower inflation expectations, the payroll growth rate assumption was lowered from 3.00% to 2.75%;
- ➤ As mandated by Part VII, Chapter 112.64(5)(a) of Florida Statutes, the payroll growth rate was lowered from 2.62% to 2.24%;
- ➤ Based on plan experience through September 30, 2014 and expectations of future increased life expectancy, the mortality assumption for active and inactive vested participants was changed from the RP-2000 Employee Mortality Table, set forward one year and projected to 2013 with Scale BB to the RP-2014 Employee Mortality Table, set forward four years for males and three years, projected generationally with Scale MP-2014;
- ➤ Based on plan experience through September 30, 2014 and expectations of future increased life expectancy, the mortality assumption for healthy retirees and beneficiaries was changed from the RP-2000 Annuitant Mortality Table, set forward one year and projected to 2013 with Scale BB to the RP-2014 Healthy Annuitant Mortality Table, set forward four years for males and three years, projected generationally with Scale MP-2014;
- ➤ Coordinating with the mortality assumption for healthy lives, the mortality assumption for disabled retirees was changed from the RP-2000 Disabled Retiree Mortality Table to the RP-2014 Disabled Retiree Mortality Table, set forward four years, projected generationally with Scale MP-2014.



# SECTION 4: Reporting Information for the City of Jacksonville General Employees Retirement Plan

Normal Cost has been removed for participants who are assumed to retire with 100% certainty in the upcoming plan year based on the retirement assumptions.

# **Change in Asset Method:**

The Plan accelerated the recognition of prior asset gain/loss bases by reflecting 45% of the outstanding asset gains/losses immediately.

## **EXHIBIT VIII**

# **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:		
Age Requirement	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.	
Regular Benefit Amount	2.5% of Final Monthly Compensation times years of Credited Service, not more than 80% of Final Monthly Compensation.	
Supplemental Benefit Amount	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month of more than \$150 per month.	
Minimum Benefit Amount	\$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 <sup>st</sup> .	
Early Retirement:		
Age Requirement	Age 50 with 20 years of Credited Service	
Regular Benefit Amount	Accrued Service Retirement Regular Benefit Amount reduced by 0.5 percent for each month the benefit commencement precedes age 55.	
Supplemental Benefit Amount	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month o more than \$150 per month.	
Minimum Benefit Amount	\$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 <sup>st</sup> .	



#### SECTION 4: Reporting Information for the City of Jacksonville General Employees Retirement Plan

Age Requirement Any age with 25 years of Credited Service

Regular Benefit Amount 2.0% of Final Monthly Compensation times years of Credited Service

Supplemental Benefit Amount Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or

more than \$150 per month.

Minimum Benefit Amount \$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate

increases 4% each October 1st.

**Vesting:** 

Age Requirement None

Service Requirement 5 years of Credited Service

Regular Benefit Amount Accrued Service Retirement Regular Benefit payable at age 65.

Supplemental Benefit Amount Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or

more than \$150 per month. Payable at Age 65.

Minimum Benefit Amount \$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate

increases 4% each October 1st.

**Spouse's Pre-Retirement Death Benefit:** 

Age Requirement None
Service Requirement None

Regular Benefit Amount If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the

member's accrued 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 had worked to eligibility for a Service Retirement at current salary

with the benefit based on a 2% accrual rate.

Supplemental Benefit Amount Monthly benefit of \$5 times years of Member's Credited Service, not less than \$25

per month or more than \$150 per month.

Minimum Benefit Amount 75% of \$54.78 per whole year of Member's Credited Service, not to exceed 30.

Minimum accrual rate increases 4% each October 1st.



<b>Spouse's Post-Retirement Death Ben</b>	efit:		
Regular Benefit Amount	Surviving spouse is entitled to 75% of the Member's regular benefit.		
Supplemental Benefit Amount	Surviving spouse is entitled to 100% of the Member's supplemental benefit.		
Minimum Benefit Amount	75% of \$54.78 per whole year of Member's Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 <sup>st</sup> .		
Member:	All full-time JEA, JHA, NFTPO, and City General Employees are eligible for membership in the Plan upon date of hire.		
<b>Member Contributions:</b>	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.		
<b>Final Monthly Compensation:</b>	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 <sup>st</sup> nearest the fifth anniversary of the initial benefit commencement date, and on each April 1 <sup>st</sup> 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.		
<b>Changes in Plan Provisions:</b>	There have been no changes in plan provisions since the last valuation.		



#### **EXHIBIT 1**

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

#### **Plan Description**

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

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

- (1) The Mayor's Chief Administrative Officer or designee.
- (2) The City's Chief Financial Officer or designee.
- (3) The City's Chief Human Resources Officer, by whatever title known.
- (4) Chairperson of the General Employees' Pension Advisory Committee.
- (5) A General Employees' Pension Plan retiree elected by the General Employees' Retired Employees' Association.
- (6) Chairperson of the Corrections Officers' Advisory Committee.
- (7) The Vice-Chairperson of the Corrections Officers' Advisory Committee until October 1, 2012; effective October 1, 2012 and continuing until October 1, 2014, a Corrections Officers' Plan retiree chosen by the Corrections Officers' Advisory Committee; and effective on and after October 1, 2014, a retired Corrections Officer elected by the Corrections Officers' Retired Employees' Association.
- (8) Two citizens shall be appointed by the City Council. Each citizen shall have professional experience in at least one of the following disciplines: finance, investments, economics, pension management, pension administration and/or accounting.

*Plan membership.* 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, 2014, pension plan membership consisted of the following:

Inactive employees or beneficiaries currently receiving benefits	4,907
Inactive employees entitled to but not yet receiving benefits	76
Active employees	<u>5,026</u>
Total	10,009

## **EXHIBIT 2**

# **Summary of Plan Provisions**

*Benefits provided*. 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:			
Age Requirement	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.		
Regular Benefit Amount	2.5% of Final Monthly Compensation times years of Credited Service, not more than 80% of Final Monthly Compensation.		
Supplemental Benefit Amount	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.		
Minimum Benefit Amount	\$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 <sup>st</sup> .		
Early Retirement:			
Age Requirement	Age 50 with 20 years of Credited Service		
Regular Benefit Amount	Accrued Service Retirement Regular Benefit Amount reduced by 0.5 percent for each month the benefit commencement precedes age 55.		
Supplemental Benefit Amount	Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or more than \$150 per month.		
Minimum Benefit Amount	\$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 <sup>st</sup> .		

Age Requirement Any age with 25 years of Credited Service

Regular Benefit Amount 2.0% of Final Monthly Compensation times years of Credited Service

Supplemental Benefit Amount Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or

more than \$150 per month.

Minimum Benefit Amount \$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate

increases 4% each October 1st.

**Vesting:** 

Age Requirement None

Service Requirement 5 years of Credited Service

Regular Benefit Amount Accrued Service Retirement Regular Benefit payable at age 65.

Supplemental Benefit Amount Monthly benefit of \$5 times years of Credited Service, not less than \$25 per month or

more than \$150 per month. Payable at Age 65.

Minimum Benefit Amount \$54.78 per whole year of Credited Service, not to exceed 30. Minimum accrual rate

increases 4% each October 1st.

**Spouse's Pre-Retirement Death Benefit:** 

Age Requirement None
Service Requirement None

Regular Benefit Amount If the Member is eligible for retirement, the surviving spouse is entitled to 75% of the

member's accrued 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 had worked to eligibility for a Service Retirement at current salary

with the benefit based on a 2% accrual rate.

Supplemental Benefit Amount Monthly benefit of \$5 times years of Member's Credited Service, not less than \$25

per month or more than \$150 per month.

Minimum Benefit Amount 75% of \$54.78 per whole year of Member's Credited Service, not to exceed 30.

Minimum accrual rate increases 4% each October 1<sup>st</sup>.

Spouse's Post-Retirement Death Ben	efit:
Regular Benefit Amount	Surviving spouse is entitled to 75% of the Member's regular benefit.
Supplemental Benefit Amount	Surviving spouse is entitled to 100% of the Member's supplemental benefit.
Minimum Benefit Amount	75% of \$54.78 per whole year of Member's Credited Service, not to exceed 30. Minimum accrual rate increases 4% each October 1 <sup>st</sup> .
Member:	All full-time JEA, JHA, NFTPO, and City General Employees are eligible for membership in the Plan upon date of hire.
<b>Member Contributions:</b>	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.
<b>Final Monthly Compensation:</b>	Average monthly rate of Earnable Compensation during the highest 36 consecutive months (78 pay periods) out of the last ten years of employment.
<b>Earnable Compensation:</b>	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 <sup>st</sup> nearest the fifth anniversary of the initial benefit commencement date, and on each April 1 <sup>st</sup> 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.

#### **EXHIBIT 3**

## **Net Pension Liability**

The components of the net pension liability of the Jacksonville General Employees Retirement Plan at September 30, 2014 were as follows:

Total pension liability \$2,676,164,205
Plan fiduciary net position 1,848,189,000
Association's net pension liability 827,975,205
Plan fiduciary net position as a percentage of the total pension liability 69.06%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of September 30, 2014, using the following actuarial assumptions, applied to all periods included in the measurement:

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

\* 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 2.24% was used for amortization purposes in the October 1, 2014 valuation.

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-2014 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-2014 to reflect future mortality improvement.

The actuarial assumptions used in the October 1, 2014 valuation were based on the results of an experience study for the period October 1, 2007 to September 30, 2012, with additional changes based on an interim study of mortality experience through September 30, 2014.

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, 2014 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%	6.57%
International equity	20%	7.27%
Fixed income	19%	1.47%
Real estate	25%	4.37%
Cash	<u>1%</u>	0.87%
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	\$1,142,829,478	\$827,975,205	\$565,221,114

EXHIBIT 4
Schedules of Changes in Jacksonville GERP Net Pension Liability – Last Ten Fiscal Years

	2014	2013	2012	2011	2010
Total pension liability					
Service cost	\$36,949,678	\$39,626,946		tion prior to implement 7/68 is not required.)	ation of GASB
Interest	189,064,662	183,151,171		1 ,	
Change of benefit term	0	0			
Differences between expected and actual					
experience	-5,356,346	22,318,483			
Changes of assumptions	101,525,690	0			
Benefit payments, including refunds of					
employee contributions	-171,127,000	-166,460,000			
Net change in total pension liability	\$151,056,684	\$78,636,600			
Total pension liability – beginning	2,525,107,521	2,446,470,921			
Total pension liability – ending (a)	\$2,676,164,205	\$2,525,107,521			
Plan fiduciary net position					
Contributions – employer	\$71,000,000	\$55,386,000			
Contributions – employee	20,961,000	21,878,000			
Net investment income	194,864,000	264,541,000			
Benefit payments, including refunds of					
employee contributions	-171,127,000	-166,460,000			
Administrative expense	-828,000	-671,000			
Other	0	0			
Net change in plan fiduciary net position	\$114,870,000	\$174,674,000			
Plan fiduciary net position – beginning	1,733,319,000	1,558,645,000			
Plan fiduciary net position – ending (b)	\$1,848,189,000	\$1,733,319,000			
Net pension liability – ending (a) – (b)	<u>\$827,975,205</u>	\$791,788,521			
Plan fiduciary net position as a percentage	of				
the total pension liability	69.06%	68.64%			
Covered employee payroll	\$262,368,813	\$265,404,735			
Net pension liability as percentage of covere	. , ,	, - ,			
employee payroll	315.58%	298.33%			

# **Notes to Schedule:**

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

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

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
2005	\$27,724,000	\$27,724,000	\$0	\$226,819,000	12.22%
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%
2008	29,371,000	29,488,000	(117,000)	262,345,000	11.24%
2009	29,374,000	29,530,000	(156,000)	276,257,000	10.69%
2010	38,611,842	40,551,000	(1,939,158)	322,530,502	12.57%
2011	39,123,971	39,378,000	(254,029)	314,054,361	12.54%
2012	57,497,706	49,899,000	7,598,706	283,020,575	17.63%
2013	66,659,915	55,386,000	11,273,915	265,404,735	20.87%
2014	81,351,295	71,000,000*	10,351,295	262,368,813	27.06%

<sup>\*</sup>Per City of Jacksonville Ordinance 2013-464-E, the City contributed 27.91% of covered payroll to the General Employees Retirement Plan for the fiscal year ended September 30, 2014, consistent with the Actuarially Determined Contribution as a percentage of pay determined for the fiscal year. Actual dollar contributions were less than recommended dollar contributions due to actual payroll being less than projected payroll.

#### **EXHIBIT 6**

#### **Notes to Required Supplementary Information**

Valuation date October 1, 2014 Methods and used assumptions to determine contribution rates: Entry Age Normal Cost Method Actuarial cost method Level percent of payroll, using 2.24% annual increases\* **Amortization method** Remaining amortization period All new bases are amortized over 30 years. Effective period of 24 years remaining as of October 1, 2014 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 2.24% was used for amortization purposes in the October 1, 2014 valuation.

Retirement rates	Co	COJ			
	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	
		*Above rates are increased by 20% for the year		50	
		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.			
	participant attains 32 years to 50% for years of so				
Mortality:					
Pre-retirement	RP-2014 Employee Mortality Table, set forward four years for males and three years for females, projected generationally with Scale MP-2014				
Healthy annuitants	•	Annuitant Mortality Tabl nales, projected generatio	•		
Disabled annuitants	RP-2014 Disabled generationally wit	Retiree Mortality Table, h Scale MP-2014	set forward four year	ars, projected	
Other information:	See Exhibit 4 for t	he history of changes to	plan provisions and	assumptions, if any.	

# **Summary of Net Pension Liability and Pension Expense Allocations**

		2014			
	Present Value of Future Benefits	Proportion of net pension liability	Proportionate share of net pension liability	Proportionate share of pension expense	
City of Jacksonville	\$1,478,143,941	49.72%	\$411,669,271	\$40,350,985	
Jacksonville Electric Authority	1,452,390,441	48.85%	404,465,888	39,644,923	
Jacksonville Housing Authority	39,692,750	1.34%	11,094,868	1,087,496	
North Florida Transportation Planning Organization	<u>2,804,834</u>	0.09%	<u>745,178</u>	<u>73,041</u>	
Total	\$2,973,031,966	100.00%	\$827,975,205	\$81,156,445	

### GASB 68 information drafted for inclusion in a September 30, 2015 CAFR for City of Jacksonville

Net pension liability. The City of Jacksonville is allocated a proportional share of 49.72% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the present value of all future benefits calculated under the actuarial assumptions used to determine contribution requirements. This basis is intended to measure the proportion of each employer's long term funding requirements. The City of Jacksonville's allocated share of the net pension liability is \$411,669,271.

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	\$568,214,816	\$411,669,271	\$281,027,938

For the year ended September 30, 2015 the City of Jacksonville's recognized pension expense is \$40,350,985. At September 30, 2015, 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		(\$2,130,540)
Changes of assumptions	\$40,382,859	
Net difference between projected and actual earnings on pension plan investments		(25,310,083)
Total	\$40,382,859	(\$27,440,623)

Contributions of **\$X** were reported as deferred outflows of resources related to pensions resulting from City of Jacksonville contributions subsequent to the September 30, 2014 measurement date and will be recognized as a reduction of the net pension liability in the year ended September 30, 2015. 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, 2015	\$3,235,559
September 30, 2016	3,235,559
September 30, 2017	3,235,559
September 30, 2018	3,235,558
September 30, 2019	
Thereafter	

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

	2014	2013	2012	2011	2010
Proportional share percentage	49.72%				
Net pension liability	\$411,669,271				
Covered employee payroll	128,869,371				
Net pension liability as percentage of co	vered				
employee payroll	319.45%				

<sup>\*</sup>All information is on a measurement year basis.

## GASB 68 information drafted for inclusion in a September 30, 2015 CAFR for Jacksonville Electric Authority

*Net pension liability*. The Jacksonville Electric Authority is allocated a proportional share of 48.85% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the present value of all future benefits calculated under the actuarial assumptions used to determine contribution requirements. This basis is intended to measure the proportion of each employer's long term funding requirements. The Jacksonville Electric Authority's allocated share of the net pension liability is \$404,465,888.

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:

		Current	
	1% Decrease (6.50%)	Discount (7.50%)	1% Increase (8.50%)
Jacksonville Electric Authority's proportional share of net pension liability	\$558,272,200	\$404,465,888	\$276,110,514

For the year ended September 30, 2015 the Jacksonville Electric Authority's recognized pension expense is \$39,644,923. At September 30, 2015, 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		(\$2,093,260)
Changes of assumptions	\$39,676,240	
Net difference between projected and actual earnings on pension plan investments		(24,867,208)
Total	\$39,676,240	(\$26,960,468)

Contributions of **\$X** were reported as deferred outflows of resources related to pensions resulting from Jacksonville Electric Authority contributions subsequent to the September 30, 2014 measurement date and will be recognized as a reduction of the net pension liability in the year ended September 30, 2015. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

v	
Year Ended	Recognition of deferred outflows/(inflows)
September 30, 2015	\$3,178,943
September 30, 2016	3,178,943
September 30, 2017	3,178,943
September 30, 2018	3,178,943
September 30, 2019	
Thereafter	

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

	2014	2013	2012	2011	2010
Proportional share percentage	48.85%				
Net pension liability	\$404,465,888				
Covered employee payroll	128,083,647				
Net pension liability as percentage of co	vered				
employee payroll	315.78%				
Plan fiduciary net position as a percenta	ge of				
the total pension liability	69.06%				
•					

<sup>\*</sup>All information is on a measurement year basis.

## GASB 68 information drafted for inclusion in a September 30, 2015 CAFR for Jacksonville Housing Authority

Net pension liability. The Jacksonville Housing Authority is allocated a proportional share of 1.34% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the present value of all future benefits calculated under the actuarial assumptions used to determine contribution requirements. This basis is intended to measure the proportion of each employer's long term funding requirements. The Jacksonville Housing Authority's allocated share of the net pension liability is \$11,094,868.

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:

		Current	
	1% Decrease (6.50%)	Discount (7.50%)	1% Increase (8.50%)
Jacksonville Housing Authority's proportional share of net pension liability	\$15,313,915	\$11,094,868	\$7,573,963

For the year ended September 30, 2015 the Jacksonville Housing Authority's recognized pension expense is \$1,087,496. At September 30, 2015, 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		(\$57,420)
Changes of assumptions	\$1,088,355	
Net difference between projected and actual earnings on pension plan investments		(682,130)
Total	\$1,088,355	(\$739,550)

Contributions of **\$X** were reported as deferred outflows of resources related to pensions resulting from Jacksonville Housing Authority contributions subsequent to the September 30, 2014 measurement date and will be recognized as a reduction of the net pension liability in the year ended September 30, 2015. 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, 2015	\$87,201
September 30, 2016	87,201
September 30, 2017	87,201
September 30, 2018	87,201
September 30, 2019	
Thereafter	

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

	2014	2013	2012	2011	2010
Proportional share percentage	1.34%				
Net pension liability	\$11,094,868				
Covered employee payroll	4,961,709				
Net pension liability as percentage of covere	d				
employee payroll	223.61%				
Plan fiduciary net position as a percentage of	of				
the total pension liability	69.06%				
•					

<sup>\*</sup>All information is on a measurement year basis.

# GASB 68 information drafted for inclusion in a September 30, 2015 CAFR for North Florida Transportation Planning Organization

Net pension liability. The North Florida Transportation Planning Organization is allocated a proportional share of 0.09% of the net pension liability of the City of Jacksonville General Employees Retirement Plan based on an allocation proportional to the present value of all future benefits calculated under the actuarial assumptions used to determine contribution requirements. This basis is intended to measure the proportion of each employer's long term funding requirements. The North Florida Transportation Planning Organization's allocated share of the net pension liability is \$745,178.

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	\$1,028,547	\$745,178	\$508,699
pension liability			

For the year ended September 30, 2015 the North Florida Transportation Planning Organization's recognized pension expense is \$73,041. At September 30, 2015, 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		(\$3,857)
Changes of assumptions	\$73,098	
Net difference between projected and actual earnings on pension plan investments	<del>_ = =</del>	<u>(45,815)</u>
Total	\$73,098	(\$49,672)

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, 2014 measurement date and will be recognized as a reduction of the net pension liability in the year ended September 30, 2015. 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, 2015	\$5,857
September 30, 2016	5,857
September 30, 2017	5,857
September 30, 2018	5,857
September 30, 2019	
Thereafter	

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

	2014*	2013	2012	2011	2010
Proportional share percentage	0.09%				
Net pension liability	\$745,178				
Covered employee payroll	454,086				
Net pension liability as percentage of covered					
employee payroll	164.11%				
Plan fiduciary net position as a percentage of					
the total pension liability	69.06%				

<sup>\*</sup>All information is on a measurement year basis.