JACKSONVILLE POLICE AND FIRE PENSION FUND

Actuarial Valuation Report as of October 1, 2015

(Determining costs for the Plan Year beginning October 1, 2016)

Prepared by:

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December 24, 2015

Board of Trustees
Jacksonville Police and Fire Pension Fund
One West Adams Street, Suite 100
Jacksonville, Florida 32202-3616

Actuarial Valuation as of October 1, 2015

Gentlemen:

We are pleased to forward our report on the 2015 Actuarial Valuation of the Jacksonville Police and Fire Pension Fund. The minimum required contribution is for the Plan Year beginning October 1, 2016.

The valuation results were based on participant data as of July 1, 2015, provided by the City. Fund assets and the Plan as of September 30, 2015, were reported by the Plan Administrator. Valuation Pay is the annualized sum of reported rate of pay, upgrade pay and shift pay as of July 1st. All of this data has been reviewed for consistency with prior data and for general reasonableness.

Ordinance 2015-304-E cutback several provisions of the Plan as shown on page 6. Effective June 19, 2015, reduced benefits were adopted for new hires as shown on page 7. The actuarial assumptions were updated after a four year review ending September 30, 2015.

Statement by 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 that may require material increases in Plan costs or required contribution rates have been taken into account in the valuation.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Jarmon Welch, A.S.A. PENSION BOARD CONSULTANTS, INC.	Date	14 - 1108 Enrollment Number

JACKSONVILLE POLICE AND FIRE PENSION FUND

Actuarial Report for the Plan Year Beginning October 1, 2015

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Derivation of City Minimum Required Contribution as of October 1, 2015

	10/1/2014 Actuarial Report	10/1/2014 with Ordinance 2015-304-E	10/1/2015 with 3 Offsetting Assumption Changes
Covered October 1 Payroll	$134,521,216	$134,521,216	$132,735,243
1. Actuarial Accrued Liabilities			
a. Active Participants	$755,671,330	$726,986,370	$732,810,115
b. Inactive Participants	$2,256,919,238	$2,256,919,238	$2,409,418,097
c. Total (a. + b.)	$3,012,590,568	$2,983,905,608	$3,142,228,212
2. Market Value of Assets			
a. Gross Market Value	$1,473,097,052	$1,473,097,052	$1,437,907,379
b. Reserve Accounts	$79,092,361	$79,092,361	$92,811,038
c. Sr. Staff Plan Assets	$4,257,077	$4,257,077	$4,002,294
d. Net Market Value (a. - b. - c.)	$1,389,747,614	$1,389,747,614	$1,341,094,047
3. Unfunded Actuarial Accrued Liability (1.c. - 2.d.)	$1,622,842,954	$1,594,157,994	$1,801,134,165
4. Costs			
a. UAAL Amortization Payment	$111,578,279	$110,106,109	$123,070,241
b. Normal Cost (Individual EA)	$47,615,082	$46,662,780	$44,087,089
c. Annual Expense	$9,864,686	$9,864,686	$9,926,208
d. Total Cost BOY (a. + b. + c.)	$169,058,047	$166,633,575	$177,083,538
5. Contributions			
a. Members (including DROPs)	$10,196,708	$11,510,468	$11,410,245
b. Chapter Funds Allocation	$5,380,849	$5,288,927	$5,288,927
c. Court Fines	$887,840	$920,774	$920,774
d. City Minimum (4.d. - (5.a. + 5.b. + 5.c.))			
1. Dollars on October 1	$152,592,650	$148,913,406	$159,463,592
2. % Covered Payroll on October 1	113.43%	110.70%	120.14%
3. Dollars on December 1 (one year hence) $= d.1. \times 1.0325 \times 1.07^{2/12}$	$159,338,591	$155,496,692	$166,513,289

Reconciliation

The City minimum contribution increased $11,016,597 due to:

1. Actual earnings (-3.95%) were $159,377,493 lower than expected. This increased costs $8,500,686.
2. Assumptions update decreased costs $330,969.
3. Experience losses increased liabilities $24,831,339. This increased costs $1,324,424.
4. The UAAL amortization method increases its payments 3.25% annually. The increase was $3,578,449.
5. The initial base established in 1976 is fully amortized. This decreased cost by $2,055,993.

JACKSONVILLE POLICE AND FIRE PENSION FUND

Unfunded Actuarial Accrued Liability Amortization as of October 1, 2015

1.	UAAL on October 1, 2014	$1,622,842,954
2.	Normal Cost at Beginning of Year	$56,527,466
3.	Decrease due to Ordinance 2015-304E	$28,684,960
4.	7.0% Annual Interest on (1) plus (2) minus (3) plus DROP 1.4% additional interest	$120,716,642
5.	Contributions for PYE2014 (one year lag)	$169,694,135
6.	Interest on Contributions	$9,296,988
7.	Increase due to Investment Loss	$159,377,493
8.	Increase due to Reallocation	$24,514,349
9.	Increase due to Experience Losses	$24,831,339
10.	UAAL on September 30, 2015 (1) + (2) - (3) + (4) - (5) - (6) + (7) + (8) + (9)	$1,801,134,161
11.	Expected Amortization Payment on October 1, 2015	$125,055,890
12.	Item 11. less $1,985,649	$123,070,241

Expected UAAL = [10/1 Expected UAAL - Expected Amortization Payment (3.25% annual increase)] * 1.07 (annual interest)

Costs are adjusted when a base is fully amortized.

JACKSONVILLE POLICE AND FIRE PENSION FUND

Development of UAAL by Components as of October 1, 2015

Date Established	Initial Amount	UAAL as of 10/1/2015	Remaining Period 10/1/2015	Required Amortization 10/1/2015	UAAL as of 10/1/2016
1-Oct-76	$16,087,880	$1,985,649	1.00	$1,985,649	$0
1-Oct-87	$3,868,562	$941,045	2.00	$478,915	$494,479
1-Oct-88	$17,910,698	$8,180,985	3.00	$2,824,840	$5,731,075
1-Oct-89	$19,019,326	$11,681,195	4.00	$3,078,382	$9,205,010
1-Oct-90	$508,620	$373,895	5.00	$80,206	$314,247
1-Oct-92	($4,444,031)	($3,080,585)	7.00	($488,553)	($2,773,474)
1-Oct-96	$126,129,419	$146,043,365	11.00	$15,768,761	$139,393,826
1-Oct-97	$44,127,813	$52,462,512	12.00	$5,279,525	$50,485,796
1-Oct-98	($5,280,099)	($6,412,249)	13.00	($605,574)	($6,213,142)
1-Oct-01	$6,296,677	$7,828,900	16.00	$630,851	$7,701,912
1-Oct-03	$158,527,905	$194,650,315	18.00	$14,396,788	$192,871,274
1-Oct-06	$111,179,581	$131,063,212	21.00	$8,711,884	$130,915,921
1-Oct-08	$230,168,269	$261,064,488	23.00	$16,343,988	$261,850,935
1-Oct-11	$550,672,339	$581,693,823	26.00	$33,725,366	$586,326,249
1-Oct-12	$280,879,031	$290,938,141	27.00	$16,489,841	$293,659,681
1-Oct-13	($37,626,922)	($38,564,191)	28.00	($2,139,468)	($38,974,454)
1-Oct-14	($52,239,546)	($52,914,984)	29.00	($2,876,845)	($53,540,809)
1-Oct-15	$213,198,649	$213,198,649	30.00	$11,371,334	$215,955,227
	$1,678,984,171	**$1,801,134,165**		**$125,055,890**	**$1,793,403,753**

JACKSONVILLE POLICE AND FIRE PENSION FUND

Reconciliation of Accounts October 1, 2014 through September 30, 2015

Unfunded Actuarial Liability Payment Account (UALPA)

Account Value, 10/01/14	$0
Additions	
Transfer from CBSA 10/1	$45,908,495
Transfer from EBA 10/1	$33,183,866
Chapter deposit in August, 2015	$10,577,853
Interest	$5,195,858
Total Additions	$94,866,073
Subtractions	
Annual Retiree Bonus paid in December, 2014	$2,173,260
Transfer to CBSA 9/30	$5,085,293
Transfer to EBA 9/30	$5,118,623
Interest	($118,224)
Total Subtractions	$12,258,951
Account Value, 09/30/15	$82,607,122

NOTES:

1. Interest above is at 7.0%, except actual earnings on EBA funds including Chapter.
2. The balance in the CBSA on September 30, 2015 was $5,085,2293.
3. The balance in the EBA on September 30, 2015 was $5,118,623.

Ordinance 2015-304E Supplemental Payments

Fiscal Year	CITY	UALPA
2016	$5,000,000	$5,000,000
2017	$10,000,000	$10,000,000
2018	$15,000,000	$15,000,000
2019-2028	$32,000,000	$8,000,000
TOTAL	$350,000,000	$110,000,000

JACKSONVILLE POLICE AND FIRE PENSION FUND

Actuarial Assumptions and Methods

The actuarial assumptions were updated after an experience study for the four years ending September 30, 2015.

Economic Assumptions

Investment Yield:	7% annually
Salary Increases:	3.5% annually (prior 3% for 2 years, 4% thereafter)
Annual COLA:	3% annually reduced to 2.5% for future service for actives with less than 20 years of service on June 19, 2015
DROP Load:	2% on active and DROP liabilities for interest greater than 7%
Payroll Increase:	3.25% annually

Demographic Assumptions

Mortality: RP-2014 Blue Collar, age set forward 2 years for males and 1 year for females, with MP-2014 Improvement Scale, generational, sex distinct (Prior RP-2000, Projection AA to valuation date, sex distinct, combined healthy or disabled)

Turnover: No vested refunds or disability recoveries
(Prior withdrawal rates were increased 50%)

Age	Withdrawal Rate	Disability Rate per 1,000
25	.036	0.36
35	.009	0.48
45	.000	1.20

Married: 75% actives, 50% retirees (tax status), wives 3 years younger

Retirement: 40% at 20 years, 30% thereafter to 30 years (or age 61).

Actuarial Methods

Cost: Individual Entry Age
Assets: Market Value

JACKSONVILLE POLICE AND FIRE PENSION FUND

Plan Outline

GROUP I active on June 19, 2015

Credited Service	full time from date of employment including buybacks
Benefit Percentage	3% for first 20 YOS plus 2% for additional 10 YOS (max 80%)
Final Average Earnings	final 2 years (<5 YOS on June 19, 2015, final 4 years)
Normal Retirement Date	20 YOS
Vesting	5 years
Employee Contributions	8% (10% when certain pay raises occur)
Early Retirement	N/A
Normal Form Of Payment	Joint and 75%
Retiree COLA	3% annually January after retirement if >=20 YOS on June 19, 2015 If not, 3% annually for service accrued as of June 19, 2015 and SS COLA (min 0%, max 6%) on service accrued after June 19, 2015
Disability	Permanent & Total: 60% of FAE, Temporary: available
DROP	up to 5 YOS Interest: >= 20 YOS on June 19, 2015, 8.4% interest for 5 years and thereafter; < 20 YOS on June 19, 2015, actual return (min 2%, max 14.4%) 2% employee contributions
Pre Retirement Death	< 20 YOS 75% of (60% of FAE) >20 YOS 75% of normal benefit In addition: $200/month per child, (total 75% of normal benefit if orphan)
Health Supplement	$5.00 / month for each YOS (maximum 30 YOS)
Chapter Funds	50% credited as a City contribution for 15 years, balance to a share plan and holiday bonus

JACKSONVILLE POLICE AND FIRE PENSION FUND

Plan Outline

GROUP II
Impact on New Hires

1. Credited Service for retirement increased from 20 to 30 years (steep reductions for early retirement after 25 years).
2. Earnings Base computed as average of last 5 years.
3. Three year delay in annual Cost of Living increases (reduced from 3% to 1.5% maximum Social Security).
4. Disability benefit reduced to 50% of Earnings Base from 60%.
5. Vesting changed from NRA&5 to age 62&10 (2% accrual rate).
6. Benefit percentage reduced from 3.0% to 2.5%.
7. Back-Drop implemented, no DROP.

Changes Since the October 1, 2014 Valuation:

Effective June 19, 2015, Ordinance 2015-304-E.

Changes to *Group I:*

1. From 2 year to 4 year final average earnings for <5 YOS on June 19, 2015.
2. Employee contributions increase from 7% to 8% immediately and an additional 2% increase when certain pay raises occur.
3. Retiree COLA from 3% to 0%-6% (max SS COLA) if < 20 YOS on June 19, 2015.
4. City contributions above minimum requirements totaling $350 million over the next 13 years plus $110 million transfer from UALPA.
5. City contribution reduction for a portion of Chapter deposit changed from 4% of valuation pay to 50% of Chapter deposit.

JACKSONVILLE POLICE AND FIRE PENSION FUND

Historical Key Statistics

	Valuation Date				
Class of Participant	10/01/11	10/01/12	10/01/13	10/01/14	10/1/2015
Continuing Actives (excluding DROP)	2,428	2,203	2,082	2,034	2,072
Pay Increase %	2.5%	0.4%	2.9%	3.0%	3.8%
Active					
Number	2,451	2,213	2,150	2,237	2,202
Average Age	39.3	39.9	40.2	40.0	39.9
Average Annual Pay	$60,862	$60,523	$61,082	$60,276	$60,511
Average Service	10.8	11.2	11.5	11.2	11.1
Retired					
Number	1,529	1,556	1,618	1,710	1,785
Average Age	65.5	65.7	65.5	65.3	65.3
Average Annual Benefit	$51,395	$53,042	$54,461	$55,940	$57,674
Disabled					
Number	57	57	56	55	54
Average Age	61.3	61.4	61.4	61.5	62.1
Average Annual Benefit	$31,003	$32,403	$33,958	$35,600	$37,029
Surviving Spouses					
Number	390	401	418	431	425
Average Age	72.6	72.6	72.8	73.3	73.5
Average Annual Benefit	$26,347	$28,075	$29,677	$31,227	$32,843
Children					
Number	28	31	31	32	29
Average Age	12.8	13.1	13.5	13.5	13.9
Average Annual Benefit	$3,284	$3,254	$3,267	$3,261	$3,252
Terminated Vested					
Number	38	52	60	62	72
Average Age	43.3	44.0	43.8	43.2	43.2
Average Annual Benefit	$14,512	$18,072	$19,128	$18,015	$18,540
DROP					
Number	439	550	542	511	541
Average Age	50.4	50.1	50.3	50.5	50.5
Average Annual Benefit	$48,572	$49,221	$50,581	$51,240	$50,478

JACKSONVILLE POLICE AND FIRE PENSION FUND

Reconciliation of Number of Participants by Status

	Actives	Retirees	Vested Terminations	Disabilities	Surviving Spouses	Children	DROP
Number on 07/01/14 Used for 10/01/14 Reporting	2,237	1,710	62	55	431	32	511
New Entrants/Rehire	132						
Transfers from GEPP/Corrections	6						
Non-Vested/Refunded Terminations	(26)						
Vested Terminations	(15)		14				
Retirees	(1)	104	(5)				(98)
Disabilities							
Deaths with no Survivors	(1)	(9)			(26)		
Payments Stopped (Age 18 or Remarried)						(6)	
Deaths with Survivors	(1)	(19)		(1)			(1)
New Beneficiaries					21	3	
New DROP Retirees	(129)						129
Data Corrections					(1)		
Number on 07/01/15 Used for 10/01/15 Valuation	2,202	1,786	71	54	425	29	541

JACKSONVILLE POLICE AND FIRE PENSION FUND

Active Age and Service Distribution as of October 1, 2015

Cell Format: Number In Each Group, Average Age, Average Service, And Average Salary

Both Sexes Included

Age \ Service	<1	>=1 <2	>=2 <3	>=3 <4	>=4 <5	>=5 <10	>=10 <15	>=15 <20	>=20 <25	>=25 <30	>=30 <35	>=35 <40	>=40	ALL
	23	23	2	0	1	0	0	0	0	0	0	0	0	49
<25	23.48	23.97	24.20	0.00	24.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.77
	0.68	1.52	2.35	0.00	4.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22
	36563	40459.4	43972.4	0	36837.3	0	0	0	0	0	0	0	0	38700
	30	83	25	4	3	67	0	0	0	0	0	0	0	212
>=25	27.27	27.51	27.60	27.41	26.97	28.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.84
<30	0.73	1.48	2.41	3.40	4.40	6.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16
	37270	41460.7	47000.9	44223	41667.1	54749.8	0	0	0	0	0	0	0	45776
	17	43	26	6	1	215	83	0	0	0	0	0	0	391
>=30	32.31	32.21	32.10	32.60	32.69	32.61	33.31	0.00	0.00	0.00	0.00	0.00	0.00	32.67
<35	0.73	1.57	2.41	3.26	4.48	7.53	11.25	0.00	0.00	0.00	0.00	0.00	0.00	6.96
	37812	42008	43813	40960	41589	57066	63846	0	0	0	0	0	0	54844
	7	26	10	2	0	144	214	31	0	0	0	0	0	434
>=35	37.21	36.98	37.23	36.29	0.00	37.30	37.58	38.46	0.00	0.00	0.00	0.00	0.00	37.50
<40	0.76	1.55	2.40	3.41	0.00	7.81	12.21	16.34	0.00	0.00	0.00	0.00	0.00	9.95
	38012	41759	42379	44010	0	57094	64363	68948	0	0	0	0	0	59899
	7	8	4	1	0	84	203	174	29	0	0	0	0	510
>=40	41.55	42.23	42.97	41.49	0.00	42.20	42.47	42.89	43.19	0.00	0.00	0.00	0.00	42.59
<45	0.78	1.50	2.64	3.50	0.00	7.86	12.75	17.80	20.88	0.00	0.00	0.00	0.00	13.69
	37367	40243	42979	46092	0	55851	64276	69857	75555	0	0	0	0	64485
	1	3	2	0	0	42	93	176	55	10	0	0	0	382
>=45	45.53	45.77	46.50	0.00	0.00	47.22	47.20	47.29	47.17	48.03	0.00	0.00	0.00	47.24
<50	0.91	1.74	2.19	0.00	0.00	7.48	12.34	18.30	21.86	26.44	0.00	0.00	0.00	16.12
	38566	38145	41668	0	0	56321	62893	72608	83620	89605	0	0	0	69961
	0	0	0	0	0	31	48	78	16	3	0	0	0	176
>=50	0.00	0.00	0.00	0.00	0.00	52.12	51.80	52.20	51.94	52.26	0.00	0.00	0.00	52.05
<55	0.00	0.00	0.00	0.00	0.00	7.87	12.46	18.01	21.35	28.01	0.00	0.00	0.00	15.19
	0	0	0	0	0	55715	59873	67520	74511	91715	0	0	0	64403
	0	0	0	0	0	2	10	17	7	3	0	0	0	39
>=55	0.00	0.00	0.00	0.00	0.00	55.15	56.95	56.95	56.82	57.55	0.00	0.00	0.00	56.88
<60	0.00	0.00	0.00	0.00	0.00	7.69	12.18	17.50	20.76	26.85	0.00	0.00	0.00	16.93
	0	0	0	0	0	58344	60661	69242	72780	90641	0	0	0	68764
	0	0	0	0	0	2	1	4	2	0	0	0	0	9
>=60	0.00	0.00	0.00	0.00	0.00	61.50	60.77	61.21	62.73	0.00	0.00	0.00	0.00	61.56
<65	0.00	0.00	0.00	0.00	0.00	7.55	13.26	18.91	20.16	0.00	0.00	0.00	0.00	16.03
	0	0	0	0	0	52872	60574	63560	77235	0	0	0	0	63892
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>=65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	85	186	69	13	5	587	652	480	109	16	0	0	0	2202
ALL	29.46	30.41	32.03	32.26	27.68	36.93	41.31	46.38	47.72	50.61	0.00	0.00	0.00	39.88
	0.73	1.52	2.41	3.34	4.43	7.55	12.29	17.92	21.42	26.81	0.00	0.00	0.00	11.08
	37271	41399	44654	42828	40685	56500	63667	70353	79324	90195	0	0	0	60511

JACKSONVILLE POLICE AND FIRE PENSION FUND

Accounting for Pension Costs and Liabilities

GASB Statements 67 and 68

In June 2012, the Governmental Accounting Standards Board (GASB) approved two new statements, Statement No. 67, *Financial Reporting for Pension Plans*, and Statement No. 68, *Accounting and Financial Reporting for Pensions.* These statements replaced Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans,* and Statement No. 27, *Accounting for Pensions by State and Local Governmental Employers.* These new statements require the addition of plan unfunded liabilities to the employer's balance sheet and also change how the System has to calculate its expense for financial disclosures, but does not change how the System has to calculate its liabilities for its contribution requirements.

GASB No. 67 is effective for Jacksonville Police and Fire Pension Fund ("JPFPF") fiscal years beginning October 1, 2013, and GASB No. 68 is effective for Jacksonville fiscal years beginning October 1, 2014.

Notes to the Financial Statements for the Year Ended September 30, 2015

Plan Description

Plan administration. The Board of Trustees administers the JPFPF – a single-employer defined benefit pension plan that provides pensions for all permanent full-time public safety employees of the City. Applicable State laws and statues as well as local ordinances and Charter provisions grant the authority to establish and amend the benefit terms to the City Council and the State Legislature.

Management of the JPFPF is vested in the Board of Trustees, which consists of five members – two appointed by the City Council, and one an active Police Officer elected by active Police members, and one an active Firefighter elected by active Fire members, and, lastly, a fifth selected by the aforementioned four Board members.

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

Inactive plan members or beneficiaries currently receiving benefits	2,294
Inactive plan members entitled to but not yet receiving benefits	71
DROP members	541
Active plan members	2,202
Total	5,108

Benefits provided. JPFPF provides retirement, disability, and death benefits. Retirement benefits are calculated as 3 percent of the employee's final 2-year average salary times the employee's years of service up to 20 years and 2 percent thereafter (80 percent maximum). Employees with 5 or more years of continuous service are eligible to retire at 20 years from date of employment.

Employees are eligible for non-duty related death and disability benefits after 10 years of service and for duty-related death and disability benefits upon hire. Terminated vested employees may withdraw their contributions. Terminated non-vested employees must withdraw their contributions.

Benefits are increased 3 percent annually after retirement.

Contributions. The JPFPF Board establishes contributions based on an actuarially determined rate recommended by an independent actuary. This rate is the estimated costs of benefits earned by employees during the year, with an additional amount to finance the unfunded accrued liability. The City is required to contribute the difference between the actuarially determined rate, the contribution rate of employees, Chapter 175/185 funds applied, court fines and miscellaneous revenue. For the year ended September 30, 2015, the contributions paid were City $153,014,791, employees $10,469,643, Chapter $5,288,926 and court fines $920,774.

Investments

Investment policy. The pension plan's policy for the allocation of invested assets is established by a majority vote of the Board. The Board pursues an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The selection of asset classes is limited by statute and each asset class is further diversified by style, and the use of both active and passive management. The policy discourages the use of cash equivalents, except for liquidity purposes, and refrains from dramatically shifting asset class allocations over short time spans. The following is the Board's asset allocation policy:

Asset Class	Target Allocation	Guidelines
Domestic equity	35.0%	30.0-40.0%
International equity	20.0	15.0-25.0
Fixed income	22.5	17.5-27.5
Real estate	15.0	10.0-20.0
Cash	0.0	0.0-20.0
MLPs/Energy	7.5	2.5- 9.5
Total	100.0%	100.0%

Method used to value investments. Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. The real estate portfolio is valued at fair value independent appraisal of every property in the portfolio at least annually. In addition, each month, the money managers calculate an internal appraisal using a combination of discounted cash flow and comparison to similar properties. Investments in local real estate are valued each year on September 30 by an independent appraiser to determine the investment fair value.

Rate of return. For the year ended September 30, 2015, the annual money-weighted rate of return on pension plan investments was -3.95%. This reflects the changing amounts actually invested.

Reserve Accounts

Ordinance 2015-304E maintains certain reserve accounts. These are, as of September 30, 2015, City Budget Stabilization Account of $5,085,293, Enhanced Benefit Account of $5,118,623 and Unfunded Actuarial Liability Payment Account of $82,607,122.. The City Budget Stabilization Account and the Unfunded Actuarial Liability Payment Account provide additional City contributions. The Enhanced Benefit Account is used by the Board to pay a retiree holiday bonus and for other future enhancements, including a share plan.

Deferred Retirement Option Program (DROP)

DROP after 20 Years of Service. Maximum period 5 years. 8.4% annual interest credited. The DROP balance as of September 30, 2015 is $290,493,870.

Actuarial assumptions. The actuarial assumptions used in the October 1, 2015 valuation were based on the results of an actuarial experience study for the period October 1, 2011 – September 30, 2015.

Inflation	2.5 percent
Salary increases	3.5 percent, including inflation
Investment (discount rate)	7.0 percent, including inflation
COLA	3.0 percent, compounded annually

Mortality rates were based on the RP-2014 Blue Collar, age set forward 2 years for males and 1 year for females, with MP-2014 Improvement Scale, generational, sex distinct.

The expected arithmetic real rate of return was determined for each major asset class. These are combined to produce the 7.0 percent expected rate of return, or discount rate, by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation (diversification and volatility also impact this).

Asset Class	Long-Term Expected Real Rate of Return (gross less 2.5% inflation)
Domestic equity	5.4%
International equity	5.5
Fixed income	1.3
Real estate	4.5
Cash	1.4
MLPs/Energy	5.5

Net Pension Liability of the City of Jacksonville as of September 30, 2014

Total pension liability	$3,142,228,212
Plan fiduciary net position	$1,341,094,047
City's net pension liability	$1,801,134,165
Plan fiduciary net position as a percentage of the total pension liability	42.68%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City of Jacksonville, calculated using the discount rate of 7.0%, as well as what the City of Jacksonville's net pension liability would be if it were calculated using a discount rate that is 1% lower (6%) or 1% higher (8%) than the current rate:

	1% Decrease (6%)	Current Discount (7%)	1% Increase (8%)
City of Jacksonville's net pension liability	$2,205,005,851	$1,801,134,165	$1,537,813,679

Changes

1. Ordinance 2015-304E made several small cutbacks in the current Plan provisions (Group I), increased employee contributions, added supplemental employer contributions above the ARC and added a more moderate Pension Plan for new hires after June 19, 2015. None of these new hires (Group II) were reported for this valuation. The provisions of Groups I and II are shown on pages 6 and 7 of this report.

2. A four year experience study was performed for the period ending September 30, 2015. Mortality improvements are now projected and relatively small changes were made in salary and termination assumptions. These changes are described on page 5.

JACKSONVILLE POLICE AND FIRE PENSION FUND

Statement of Changes in Fiduciary Plan Net Position as of September 30, 2014 and 2015

	2014	2015
Additions		
Contributions		
Employer	$150,520,270	$154,664,523 [1]
Plan Members	11,583,565	12,061,321 [2]
	162,103,835	166,725,844
Other Additions		
Chapter 175/185	10,110,492	10,577,853
Court fines and penalties	881,291	920,774
Grant - Dept of Energy	12,960	0
Miscellaneous	141,856	327,418
	11,146,599	11,826,045
Investment income		
Parking and rental revenue	529,056	636,085
Investment income & realized gains	172,478,679	69,740,178
Unrealized Gains (Losses)	(18,158,544)	(125,978,848)
	154,849,191	(55,602,585)
Less investment expense	7,640,438	7,697,756
Less parking and rental expense	257,977	230,952
Net investment income	146,950,776	(63,531,293)
Securities Lending		
Revenues	483,340	862,008
Expenses	(101,318)	(215,349)
	382,022	646,659
Total additions	320,583,232	115,667,255
Deductions		
Pension benefit payments	111,424,048	119,548,310
DROP payments and RLA interest [3]	26,386,788	28,675,706
Refund of contributions	368,347	404,460
Lighting change out - DOE Grant	12,960	0
Administrative expense	2,224,248	2,228,452
Total deductions	140,416,391	150,856,928
Net increase	180,166,841	(35,189,673)
Net assets held in trust for pension benefits	$1,473,097,052 [4]	$1,437,907,379 [5]

[1] Includes $1,649,732 for employer pension transfers in FY15.

[2] Includes $1,493,802 in buybacks, $97,876 in GEEP transfers and $824,096 in 2% DROP contributions.

[3] Includes payments to DROP accounts, 8.4% interest on DROP account balances and on RLA balances.

[4] Includes individual DROP account and RLA balances of $269,054,863 as of September 30.

[5] Includes individual DROP account and RLA balances of $290,493,870 as of September 30.

JACKSONVILLE POLICE AND FIRE PENSION FUND

Statement of Fiduciary Plan Net Position
as of September 30, 2014 and 2015

	2014	2015
Assets		
Cash and short-term investments	$17,287,791	$6,960,201
Due from City of Jacksonville	4,426,500	4,746,215
Recoverable taxes	102,062	91
Prepaid items	64,025	113,770
Investments, at fair value		
Fixed Income Securities	310,860,878	314,236,566
Equities	987,833,492	936,723,452
Accrued Interest	1,049,040	1,186,646
Dividends receivable	541,974	1,046,428
Real Estate	154,659,253	172,947,380
Property, Plant and Equipment		
Furniture and equipment	311,510	295,130
Accumulated depreciation	(282,328)	(277,448)
Building		7,368,742
Accumulated depreciation		(3,248,742)
Securities Lending Collateral	125,067,205	150,693,674
Other receivables	107,876	155,038
Total assets	1,602,029,278	1,592,947,143
Liabilities		
Accounts payable	1,967,458	1,767,515
Accrued wages payable	1,514,432	2,249,618
Current portion long term liabilities	135,259	141,153
Other long term liabilities	31,869	35,324
OPEB GASB #45	42,189	50,965
Securities Lending Obligations	125,067,205	150,693,673
Other liabilities	173,814	101,516
Total liabilities	128,932,226	155,039,764
Net assets held in trust for pension benefits	$1,473,097,052	$1,437,907,379

Includes employee contributions of $88,343,034 on September 30, 2015.

JACKSONVILLE POLICE AND FIRE PENSION FUND

Schedule of Changes in Net Pension Liability and Related Ratios

	2015	2014	2013	2012	2011
Total pension liability					
Service Cost (BOY)	$46,662,780	$47,915,012	$46,109,290	$47,569,761	PRIOR
Interest on total pension liability	$210,942,612	$203,577,435	$195,519,742	$190,343,631	INFORMATION
Changes of benefit terms	($28,684,960)	$0	$0	$0	NOT AVAILABLE
Experience deviations including buybacks	$24,831,339	$22,671,112	($4,675,994)	($12,512,641)	
Changes due to reallocation	$24,514,349	$0	$5,332,605	$227,333,255	
Benefit payments, including refunds of member contributions	($148,628,476)	($138,179,183)	($128,655,957)	($116,955,126)	
Net change in total pension liability	$129,637,644	$135,984,376	$113,629,686	$335,778,880	
Total pension liability -- beginning	$3,012,590,568	$2,876,606,192	$2,762,976,506	$2,427,197,626	
Total pension liability -- ending(a)	$3,142,228,212	$3,012,590,568	$2,876,606,192	$2,762,976,506	
Plan fiduciary net position					
Contributions--employer	$153,014,791	$148,277,368	$121,822,333	$69,828,557	
Contributions--member	$10,469,643	$10,067,765	$9,682,998	$11,204,317	
Buybacks and transfers--employer	$1,649,732	$2,242,902	$0	$2,814,296	
Buybacks and transfers--member	$1,591,678	$1,515,800	$1,070,503	$406,553	
Net investment income	($63,531,293)	$146,950,776	$169,202,439	$181,653,432	
Securities Lending	$646,659	$382,022			
Benefit payments, including refunds of member contributions	($148,628,476)	($138,179,183)	($128,655,957)	($116,955,126)	
Administrative expense	($2,228,452)	($2,224,248)	($2,505,985)	($2,351,598)	
Chapter 175/185	$10,577,853	$10,110,493	$9,667,185	$9,275,728	
Court Fines	$920,774	$881,291	$757,984	$770,125	
Other	$327,418	$141,855	$1,187,289	$55,383	
Net change in plan fiduciary net position	($35,189,673)	$180,166,841	$182,228,789	$156,701,667	
Plan fiduciary net position -- beginning	$1,473,097,052	$1,292,930,211	$1,110,737,208	$954,035,541	
Plan fiduciary net position -- ending	$1,437,907,379	$1,473,097,052	$1,292,965,997	$1,110,737,208	
less Reserve Accounts and Sr. Staff Assets	($96,813,332)	($83,349,437)	($64,834,813)	($31,830,621)	
Total Plan fiduciary net position -- ending(b)	$1,341,094,047	$1,389,747,615	$1,228,131,184	$1,078,906,587	
City's net pension liability--ending(a)-(b)	$1,801,134,165	$1,622,842,953	$1,648,475,008	$1,684,069,919	
Plan fiduciary net position as a percentage of the total pension liability	42.68%	46.13%	42.69%	39.05%	
Covered-employee payroll	$132,735,243	$134,521,216	$130,972,174	$133,611,459	
City's net pension liability as a percentage of covered-employee payroll	1356.94%	1206.38%	1258.65%	1260.42%	

JACKSONVILLE POLICE AND FIRE PENSION FUND

Schedule of City Contributions

FYE		Actuarially required City contribution		Contribution in relation to the actuarially determined contribution		Contribution deficiciency (excess) *		Covered employee payroll	Contribution as a percentage of covered employee payroll
2015	$	153,603,996	$	153,935,565	$	(331,569)	$	132,735,243	115.97%
2014	$	142,432,577	$	149,158,659	$	(6,726,082)	$	134,521,216	110.88%
2013	$	99,996,835	$	122,580,317	$	(22,583,482)	$	130,972,174	93.59%
2012	$	73,729,000	$	70,598,682	$	3,130,318	$	133,611,459	52.84%
2011	$	77,065,314	$	75,902,934	$	1,162,380	$	148,967,906	50.95%
2010	$	77,182,058	$	82,196,878	$	(5,014,820)	$	158,046,680	52.01%
2009	$	50,564,207	$	50,234,759	$	329,448	$	155,557,729	32.29%
2008	$	48,806,879	$	48,364,103	$	442,776	$	148,276,743	32.62%
2007	$	39,849,713	$	44,207,970	$	(4,358,257)	$	143,006,154	30.91%
2006	$	38,230,061	$	36,124,465	$	2,105,596	$	134,694,392	26.82%
2005	$	35,929,120	$	27,175,819	$	8,753,301	$	130,392,284	20.84%

* Contribution deficiency (excess) is assigned to the City Budget Stabilization Account

Notes to Schedule

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

Methods used to determine contributions rates:

Actuarial cost method:	Individual entry age
Amortization method:	Constant percentage of payroll increasing 3.25% annually; Closed
Remaining amortization period:	averaging 21 years
Asset valuation method:	Market Value
Inflation:	2.5%
Salary increases:	3.5%, including inflation
Investment rate of return:	7.0%, including inflation
Cost of living adjustments:	3.0%, compounded annually
Mortality Table in use	RP-2014, Blue Collar, age set forward 2 years for males and 1 year for females, with MP-2014 Improvement Scale, generational, separate by sex
Age differences for spouses:	Females are assumed to be 3 years younger than males
Percent married	Assume 75% of active employees are married, use tax reported status for inactives

JACKSONVILLE POLICE AND FIRE PENSION FUND

Schedule of Investment Returns
Annual Money-Weighted Rate of Return, Net of Investment Expenses

FYE	%
2015	-3.95%
2014	10.73%
2013	14.29%
2012	18.25%
2011	0.64%
2010	8.45%
2009	1.70%
2008	-13.07%
2007	15.05%
2006	8.18%
2005	10.77%

JACKSONVILLE POLICE AND FIRE PENSION FUND

GASB 68 Pension Expense

	FYE2015
Service Cost (BOY)	$54,360,536
Employee Contributions	($10,469,643)
7% Interest on Accrued Liabilities plus Normal Cost	$214,050,718
Expected 7% Interest on Net Assets	($95,579,458)
Non Investment Expense	$2,228,452
Current period recognition of deferred outlflow/(inflows)	
Change of benefit terms	($28,684,960)
Non-investment actuarial experience	$5,761,332
Actual investment experience	$31,875,499
Assumption changes reallocation	$5,687,784
TOTAL	$179,230,260

Future fiscal years outflows(inflows) to be recognized

	Non-investment Actuarial Experience	Actual Investment Experience	Assumption Changes	TOTAL
2016	$5,761,332	$31,875,499	$5,687,784	$43,324,615
2017	$5,761,332	$31,875,499	$5,687,784	$43,324,615
2018	$5,761,332	$31,875,499	$5,687,784	$43,324,615
2019	$1,786,011	$31,875,499	$1,763,213	$35,424,723
	$19,070,007	$127,501,996	$18,826,565	$165,398,568

JACKSONVILLE POLICE AND FIRE PENSION FUND

State of Florida Information

A. Participant Data See pages 9 and 10

B. Assets See page 16.

C. Liabilities

	10/01/2014 Actuarial Report	10/01/2014 with Ordinance 304E	10/01/2015 before 3 Assumption Changes	10/01/2015 after 3 Assumption Changes
Present Value of Future Benefits for:				
Retirement Benefits	$1,124,661,272	$1,087,609,090	$1,085,262,377	$1,048,845,058
Death Benefits	$10,217,144	$10,100,000	$9,981,951	$11,791,645
Disability Benefits	$20,765,600	$20,765,600	$20,587,602	$21,051,900
Withdrawal Benefits	$15,053,979	$14,752,899	$14,977,340	$21,628,941
Return of Contributions	$444,967	$453,866	$468,925	$594,094
Total Active	$1,171,142,962	$1,133,681,455	$1,131,278,195	$1,103,911,638
Terminated Vested	$15,998,385	$15,998,385	$18,999,448	$19,207,665
Retirees and Beneficiaries	$1,448,819,684	$1,448,819,684	$1,547,953,327	$1,568,585,051
Disabled	$25,657,666	$25,657,666	$25,601,768	$27,520,962
DROPs	$766,443,503	$766,443,503	$793,128,450	$794,104,419
Total Inactive	$2,256,919,238	$2,256,919,238	$2,385,682,993	$2,409,418,097
Total Present Value of Future Benefits	$3,428,062,200	$3,390,600,693	$3,516,961,188	$3,513,329,735

JACKSONVILLE POLICE AND FIRE PENSION FUND

State of Florida Information

D. Actuarial Present Value of Accumulated Plan Benefits

	10/01/2014 Actuarial Report	10/01/2014 with Ordinance 304E	10/01/2015 before 3 Assumption Changes	10/01/2015 after 3 Assumption Changes
Active				
Vested	$572,265,943	$552,236,638	$549,058,677	$550,539,923
Nonvested	$14,111,489	$13,123,685	$14,822,835	$14,843,924
Inactive	$2,256,919,238	$2,256,919,238	$2,385,682,993	$2,409,418,097
Total	$2,843,296,670	$2,822,279,561	$2,949,564,505	$2,974,801,944

Change in Actuarial Present Value of Accumulated Plan Benefits

1.	Actuarial Present Value of Accumulated Plan Benefits as of October 1, 2014.	$2,843,296,670
2.	Less Ordinanace 2015-304E reduction	$21,017,109
3.	Less benefit payments and refunds for the period 10/1/2014-9/30/2015	$148,628,476
4.	Increase due to 7.0% yield assumption.	$192,445,554
5.	Plus additional benefit accruals for the period 10/1/2014-9/30/2015, including experience deviations	$108,705,305
6.	Actuarial Present Value of Accumulated Plan Benefits as of October 1, 2015.	$2,974,801,944

JACKSONVILLE POLICE AND FIRE PENSION FUND

State of Florida Information

E. Entry Age Normal Actuarial Accrued Liability

	10/01/2014 Actuarial Report	10/01/2014 with Ordinance 304E	10/01/2015 before 3 Assumption Changes	10/01/2015 after 3 Assumption Changes
Actives				
Retirement Benefits	$741,353,482	$713,212,021	$711,824,999	$715,438,203
Death Benefits	$3,174,099	$3,053,612	$3,075,138	$4,065,258
Disability Benefits	$8,655,379	$8,326,825	$8,563,420	$9,145,244
Withdrawal Benefits	$3,011,239	$2,896,934	$2,976,076	$4,965,203
Return of Contributions	-$522,869	-$503,020	-$492,151	-$803,793
Total Actives	$755,671,330	$726,986,370	$725,947,482	$732,810,115
Total Inactives	$2,256,919,238	$2,256,919,238	$2,385,682,993	$2,409,418,097
Total Entry Age Normal Actuarial Accrued Liability	$3,012,590,568	$2,983,905,608	$3,111,630,475	$3,142,228,212

F. Entry Age Normal Cost

	10/01/2014 Actuarial Report	10/01/2014 with Ordinance 304E	10/01/2015 before 3 Assumption Changes	10/01/2015 after 3 Assumption Changes
Actives Only				
Retirement Benefits	$43,926,766	$43,048,230	$42,535,636	$39,586,664
Death Benefits	$803,023	$786,963	$785,731	$930,836
Disability Benefits	$1,378,427	$1,350,858	$1,369,715	$1,406,975
Withdrawal Benefits	$1,395,456	$1,367,547	$1,373,630	$1,994,893
Return of Contributions	$111,410	$109,182	$109,476	$167,721
Total	$47,615,082	$46,662,780	$46,174,188	$44,087,089

JACKSONVILLE POLICE AND FIRE PENSION FUND

State of Florida Information

G. Pension Cost

	10/01/2014 Actuarial Report	10/01/2014 with Ordinance 304E	10/01/2015 before 3 Assumption Changes	10/01/2015 after 3 Assumption Changes
Normal Actuarial Cost	$57,479,768	$56,527,466	$56,100,396	$54,013,297
Minimum Payment to Amortize UAAL	$111,578,279	$110,106,109	$121,319,760	$123,070,241
Expected Contributions From Active Employees				
Dollar Amount	$9,416,485	$10,761,697	$10,618,819	$10,618,819
% of Covered Payroll	7.00%	8.00%	8.00%	8.00%
Expected Contributions From City (includes interest adjustment)				
Dollar Amount	$159,338,591	$155,496,692	$166,952,572	$166,513,289
% of Covered Payroll	118.45%	113.66%	125.78%	125.45%
Expected DROP Contributions				
Dollar Amount	$780,223	$748,771	$791,426	$791,426
% of Covered Payroll	0.58%	0.55%	0.59%	0.59%
Expected Contributions From Other Sources*				
Dollar Amount	$6,268,689	$6,209,701	$6,209,701	$6,209,701
% of Covered Payroll	4.66%	4.62%	4.68%	4.68%

*The sources include 50% Chapter 175/185 monies in last 3 columns, court fines and penalties.

H. Past Contributions

Expected contributions for Plan Year ending September 30, 2015. See G. above. Actual contributions for Plan Year ending September 30, 2014 - See page 15.

JACKSONVILLE POLICE AND FIRE PENSION FUND

State of Florida Information

I. Net Actuarial Gain (Loss)

For period ended 09/30/2015 – ($213,198,649)

J. Present Value of

	10/01/2014 Actuarial Report	10/01/2014 with Ordinance 304E	10/01/2015 before 3 Assumption Changes	10/01/2015 after 3 Assumption Changes
Future Salaries	$1,176,660,400	$1,176,660,400	$1,167,521,500	$1,115,730,900
Future City Contributions	$1,894,291,350	$1,860,971,465	$2,018,662,791	$2,024,127,934
Future Active Employee Contributions	$82,366,228	$94,132,832	$93,401,720	$89,258,472
Future DROP Contributions	$6,824,630	$6,549,518	$6,961,278	$6,652,479
Future Contributions from Other Sources	$54,832,378	$54,316,408	$54,619,702	$52,196,803

K. Derivation of Costs on Current Plan Basis

See page 1.

L. Statement by Enrolled Actuary

See Cover Letter.

M. Age/Service Distribution of Active Employees

See page 10.

JACKSONVILLE POLICE AND FIRE PENSION FUND

State of Florida Information

N. (i) Three-Year Comparison of Actual and Assumed Salary Increases

Year Ended	Actual	Assumed
09/30/15	3.8%	3.5%
09/30/14	3.0%	4.0%
09/30/13	2.9%	4.0%

(ii) Three-Year Comparison of Net Investment Returns

Year Ended	Market Value	Assumed
09/30/15	-3.95%	7.00%
09/30/14	10.73%	7.00%
09/30/13	14.29%	7.75%

(ii) Average Annual Growth in Payroll, last 10 Years

Valuation Date	Covered Valuation Payroll
10/01/2005	$130,392,283
10/01/2006	$134,694,392
10/01/2007	$143,006,154
10/01/2008	$148,276,743
10/01/2009	$155,557,729
10/01/2010	$158,046,680
10/01/2011	$148,967,906
10/01/2012	$133,611,459
10/01/2013	$130,972,174
10/01/2014	$134,521,216
10/01/2015	$132,735,243
Total % Increase	1.80%
Annual % Increase (10 year average)	0.18%

O. Benefits and Expenses of Plans not Explicitly or Implicitly Provided for in Valuation

None.

P. Trends Not Taken Into Account But Which Are Likely to Result in Future Cost Increases

None.