

April 19, 2017

Mr. Timothy Johnson  
Executive Director  
Jacksonville Police and Fire Pension Fund  
One West Adams Street, Suite 100  
Jacksonville, FL 32202

**Re: Jacksonville Police and Fire Pension Fund – Additional Projections**

Dear Tim:

As requested, we have prepared additional projections for the Jacksonville Police and Fire Pension Fund (Fund) showing the projected assets, liabilities and contribution requirements. This report complements our report dated April 8, 2017, and the scenario numbering picks up where that report left off. The enclosed exhibits include deterministic projection results for the Fund under the following six scenarios:

- **Scenario 4** – 30-year projection reflecting the changes proposed by Ordinance Nos. 2017-257 and 2017-259, including plan changes for both Group I and Group II employees, the plan closure, and the pension liability surtax, as described in our final Actuarial Impact Statement dated April 10, 2017. The annual proceeds from the pension liability surtax are projected to increase 4.25% per year from calendar year 2016 (the same annual growth rate used by the City of Jacksonville for their modeling purposes). A payroll growth rate assumption of 1.25% is used for amortizing the UAAL (as approved by the Board).
- **Scenario 5** – Same as Scenario 4, but projected through October 1, 2060. This scenario does not include a minimum city contribution or a minimum liquidity ratio.
- **Scenario 6** – Same as Scenario 5 (projected through October 1, 2060), but reflecting a minimum annual city contribution of \$110 million until the Fund is 100% funded, and a minimum liquidity ratio of 5.0.
- **Scenario 7** – Same as Scenario 5 (projected through October 1, 2060), but reflecting a minimum annual city contribution of \$125 million until the Fund is 100% funded and a minimum liquidity ratio of 7.0.

**Disclosures**

Please refer to the Actuarial Valuation report dated January 18, 2017, as prepared by Pension Board Consultants, Inc.; the Experience Study on the Payroll Growth Assumption dated April 4, 2017; the Replication of the October 1, 2016 Actuarial Valuation Results letter dated April 4, 2017; and the Actuarial Impact Statement for Ordinance Nos. 2017-257 and 2017-259, dated April 19, 2017, for a full description of the plan provisions, actuarial assumptions and methods, and relevant disclosures concerning the assumptions and methods and the treatment of the pension liability surtax.

This report was prepared at the request of the Executive Director and is intended for use by the Jacksonville Police and Fire Pension Fund and those designated or approved by the Fund. This report may be provided to parties other than the Fund only in its entirety and only with the permission of the Board of Trustees.

The purpose of this report is to describe the projected long-term financial effects of proposed changes. No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them. This report should not be relied on for any purpose other than the purpose described above.

In the first year of the projections (through the October 1, 2017 plan closure date), new members are assumed to be hired at a rate sufficient to maintain a constant active headcount. New employees are assumed to have the same demographic characteristics at their dates of employment as those of members hired during the three-year period ending June 30, 2016. The initial (first year) salaries for new employees are assumed to increase by the negotiated across-the-board salary increases in 2017-2019 (6.5%, 6.5% and 7.0%, respectively), and by the Fund's inflation assumption (2.5%) in 2020 and thereafter. Existing and future employees are assumed to decrement each year based on the current valuation assumptions. Annual expenses and contributions from Court Fines are projected to increase 2.5% annually. DROP accounts are projected forward assuming 10% of the beginning-of-year balances will be distributed each year.

Projections are deterministic, meaning that throughout the projection period, Plan experience is expected to match the actuarial assumptions. In the stress test scenarios, the investment return on the market value of assets each year is assumed to be 7.0% in years 2017-2018, -15% for year 2019, and 7.0% for years 2020 and thereafter throughout the remainder of the projection period.

The results in this report are based on the census data as of July 1, 2016 and asset data as of October 1, 2016, as provided by Pension Board Consultants and as used for the October 1, 2016 Actuarial Valuation. We reviewed this information for reasonability, but did not audit the data. We are not responsible for the accuracy or completeness of this information.

As with any actuarial valuation, the calculation results shown herein are based upon assumptions regarding future events, which may or may not materialize. They are also based on the assumptions, methods, and plan provisions outlined in this report, in the Actuarial Valuation report dated January 18, 2017, and in the Actuarial Impact Statement for Ordinance Nos. 2017-257 and 2017-259, dated April 7, 2017. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the author of the report prior to relying on information in the report.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and

Mr. Timothy Johnson

April 19, 2017

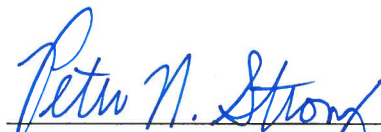
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fairly presents the actuarial position of the Jacksonville Police and Fire Pension Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

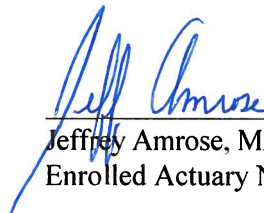
Peter N. Strong and Jeffrey Amrose are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted,



Peter N. Strong, FSA, MAAA, FCA  
Enrolled Actuary No. 17-06975



Jeffrey Amrose, MAAA, FCA  
Enrolled Actuary No. 17-06599

**Jacksonville Police and Fire Pension Fund**  
**Scenario 4: 30-Year Projection of Required City Contribution**  
**(7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)**

**Board Approved Scenario: Reflecting Plan and Method Changes as a result of Ord. 2017-257 and Ord. 2017-259**  
**with Pension Liability Surtax Growth Rate of 4.25% and Payroll Growth Rate of 1.25%**

Fiscal Year Ending	Valuation Date	Covered October 1 Payroll	Actuarial Accrued Liability	Net Market Value of Assets	Net Present Value of Future Pension Liability Surtax Proceeds	Unfunded Actuarial Accrued Liability	Funded Ratio on Valuation Date	Liquidity Ratio	Required City Contribution <sup>1</sup>	
									% of Pay	\$ Amount
2018	10/1/2016	135,684,787	3,518,251,848	1,513,398,466	761,265,474	2,004,853,382	43.02%	7.84 : 1	97.63%	135,648,057
2019	10/1/2017	144,303,214	3,626,011,048	1,604,804,878	814,554,057	2,021,206,170	44.26%	7.71 : 1	92.78%	137,089,269
2020	10/1/2018	149,372,475	3,738,070,177	1,664,166,537	871,572,841	2,073,903,640	44.52%	7.78 : 1	91.51%	139,973,751
2021	10/1/2019	155,975,584	3,853,716,001	1,722,901,898	932,582,940	2,130,814,103	44.71%	7.85 : 1	89.80%	143,422,853
2022	10/1/2020	152,425,187	3,974,071,147	1,782,911,897	997,863,746	2,191,159,251	44.86%	7.87 : 1	92.15%	143,823,788
2023	10/1/2021	147,539,843	4,093,707,741	1,842,369,394	1,067,714,208	2,251,338,347	45.00%	7.86 : 1	95.07%	143,629,111
2024	10/1/2022	142,292,659	4,211,391,364	1,897,175,275	1,142,454,203	2,314,216,089	45.05%	7.79 : 1	98.28%	143,193,527
2025	10/1/2023	134,964,361	4,325,585,334	1,945,175,141	1,222,425,997	2,380,410,193	44.97%	7.66 : 1	102.64%	141,853,687
2026	10/1/2024	125,244,391	4,434,018,529	1,984,537,340	1,307,995,816	2,449,481,189	44.76%	7.44 : 1	108.91%	139,672,503
2027	10/1/2025	114,565,867	4,533,374,605	2,011,582,330	1,399,555,524	2,521,792,275	44.37%	7.28 : 1	116.85%	137,082,220
2028	10/1/2026	106,423,249	4,625,484,701	2,027,370,222	1,497,524,410	2,598,114,479	43.83%	7.03 : 1	124.27%	135,421,791
2029	10/1/2027	97,102,141	4,708,867,408	2,028,692,857	1,602,351,119	2,680,174,551	43.08%	6.80 : 1	134.19%	133,424,027
2030	10/1/2028	88,611,010	4,784,514,039	2,017,571,612	1,714,515,697	2,766,942,428	42.17%	6.49 : 1	145.22%	131,769,170
2031	10/1/2029	78,000,450	4,850,496,446	1,990,995,783	1,834,531,796	2,859,500,663	41.05%	6.13 : 1	162.18%	129,535,257
2032	10/1/2030	66,655,621	4,903,951,001	1,946,698,349	1,962,949,022	2,957,252,652	39.70%	5.82 : 1	186.11%	127,030,390
2033	10/1/2031	60,699,458	4,948,040,792	1,962,395,357	2,025,038,144	2,985,645,435	39.66%	5.76 : 1	203.00%	126,175,072
2034	10/1/2032	56,328,281	4,985,906,269	1,997,884,106	2,062,302,908	2,988,022,163	40.07%	5.76 : 1	218.58%	126,076,124
2035	10/1/2033	51,718,469	5,017,908,254	2,031,762,267	2,097,735,470	2,986,145,987	40.49%	5.74 : 1	237.87%	125,972,604
2036	10/1/2034	45,116,687	5,042,300,202	2,063,662,544	2,131,018,844	2,978,637,658	40.93%	5.68 : 1	271.23%	125,303,176
2037	10/1/2035	36,420,290	5,056,281,813	2,091,951,736	2,161,805,834	2,964,330,077	41.37%	5.64 : 1	332.38%	123,955,965
2038	10/1/2036	28,560,001	5,059,613,437	2,117,085,442	2,189,716,580	2,942,527,996	41.84%	5.60 : 1	419.53%	122,692,485
2039	10/1/2037	21,440,332	5,052,144,843	2,138,719,609	2,214,335,912	2,913,425,234	42.33%	5.55 : 1	553.97%	121,622,088
2040	10/1/2038	14,211,285	5,033,812,770	2,157,387,293	2,235,210,512	2,876,425,477	42.86%	5.53 : 1	828.25%	120,527,224
2041	10/1/2039	9,638,565	5,006,133,228	2,175,604,402	2,251,845,856	2,830,528,826	43.46%	5.53 : 1	1218.33%	120,246,059
2042	10/1/2040	6,766,012	4,970,566,368	2,194,750,669	2,263,702,924	2,775,815,698	44.15%	5.55 : 1	1740.49%	120,585,787
2043	10/1/2041	4,511,937	4,928,396,978	2,217,285,309	2,270,194,671	2,711,111,669	44.99%	5.58 : 1	2622.59%	121,167,314
2044	10/1/2042	3,057,575	4,880,000,366	2,245,007,889	2,270,682,224	2,634,992,476	46.00%	5.63 : 1	3894.40%	121,929,860
2045	10/1/2043	1,923,828	4,825,945,536	2,279,572,086	2,264,470,797	2,546,373,451	47.24%	5.72 : 1	6226.23%	122,654,657
2046	10/1/2044	1,044,173	4,766,420,485	2,322,424,784	2,250,805,305	2,443,995,701	48.72%	5.82 : 1	11508.01%	123,045,296
2047	10/1/2045	586,333	4,701,567,150	2,374,863,937	2,228,865,644	2,326,703,213	50.51%	5.97 : 1	20322.26%	122,013,719

**Total:** **3,906,536,831**  
**Total Present Value at 7%:** **1,784,399,611**

<sup>1</sup>Future contributions are assumed to be equal to the dollar amount of the calculated contribution, payable in December of the fiscal year beginning one year after the valuation date.

**Assumptions**

Mortality Assumption: FRS Special Risk Mortality

Healthy Lives: RP-2000 Combined Healthy Participant Mortality Table (for pre-retirement mortality) and the RP-2000 Mortality Table for Annuitants (for post-retirement mortality), with mortality improvements projected to all future years using Scale BB; 90% blue collar / 10% white collar adjustment for males; 100% white collar adjustment for females.

Disabled Lives: 60% of RP-2000 Mortality Table for disabled annuitants with 4-year setback for males and 2-year set-forward for females, and 40% of RP-2000 Mortality Table for healthy annuitants with 100% white collar adjustment. No mortality improvements projected.

Investment Return Assumption: 7.0% per year

Actual Return on Plan Assets: 7.0% per year

Salary Increase Assumption: 10.0% for years 2017-2018, 10.5% for year 2019, and 3.5% for years 2020 and thereafter

Payroll Growth Rate Assumption: 1.25% per year

Pension Liability Surtax: Projected to increase 4.25% annually

Annual Expenses and Contributions from Court Fines: Projected to increase 2.5% annually

DROP Accounts: Projected forward assuming 10% payout per projection year

No future actuarial experience gains or losses are assumed. Extra UAAL payments = \$0.

*Prepared by Gabriel, Roeder, Smith and Company*

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## Jacksonville Police and Fire Pension Fund

### Scenario 5: 44-Year Projection of Required City Contribution (7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)

**Board Approved Scenario: Reflecting Plan and Method Changes as a result of Ord. 2017-257 and Ord. 2017-259  
with Pension Liability Surtax Growth Rate of 4.25% and Payroll Growth Rate of 1.25%**

Fiscal Year Ending	Valuation Date	Covered October 1 Payroll	Actuarial Accrued Liability	Net Market Value of Assets	Net Present Value of Future Pension Liability Surtax Proceeds	Unfunded Actuarial Accrued Liability	Funded Ratio on Valuation Date	Liquidity Ratio	Required City Contribution <sup>1</sup>	
									% of Pay	\$ Amount
2018	10/1/2016	135,684,787	3,518,251,848	1,513,398,466	761,265,474	2,004,853,382	43.02%	7.84 : 1	97.63%	135,648,057
2019	10/1/2017	144,303,214	3,626,011,048	1,604,804,878	814,554,057	2,021,206,170	44.26%	7.71 : 1	92.78%	137,089,269
2020	10/1/2018	149,372,475	3,738,070,177	1,664,166,537	871,572,841	2,073,903,640	44.52%	7.78 : 1	91.51%	139,973,751
2021	10/1/2019	155,975,584	3,853,716,001	1,722,901,898	932,582,940	2,130,814,103	44.71%	7.85 : 1	89.80%	143,422,853
2022	10/1/2020	152,425,187	3,974,071,147	1,782,911,897	997,863,746	2,191,159,251	44.86%	7.87 : 1	92.15%	143,823,788
2023	10/1/2021	147,539,843	4,093,707,741	1,842,369,394	1,067,714,208	2,251,338,347	45.00%	7.86 : 1	95.07%	143,629,111
2024	10/1/2022	142,292,659	4,211,391,364	1,897,175,275	1,142,454,203	2,314,216,089	45.05%	7.79 : 1	98.28%	143,193,527
2025	10/1/2023	134,964,361	4,325,585,334	1,945,175,141	1,222,425,997	2,380,410,193	44.97%	7.66 : 1	102.64%	141,853,687
2026	10/1/2024	125,244,391	4,434,018,529	1,984,537,340	1,307,995,816	2,449,481,189	44.76%	7.44 : 1	108.91%	139,672,503
2027	10/1/2025	114,565,867	4,533,374,605	2,011,582,330	1,399,555,524	2,521,792,275	44.37%	7.28 : 1	116.85%	137,082,220
2028	10/1/2026	106,423,249	4,625,484,701	2,027,370,222	1,497,524,410	2,598,114,479	43.83%	7.03 : 1	124.27%	135,421,791
2029	10/1/2027	97,102,141	4,708,867,408	2,028,692,857	1,602,351,119	2,680,174,551	43.08%	6.80 : 1	134.19%	133,424,027
2030	10/1/2028	88,611,010	4,784,514,039	2,017,571,612	1,714,515,697	2,766,942,428	42.17%	6.49 : 1	145.22%	131,769,170
2031	10/1/2029	78,000,450	4,850,496,446	1,990,995,783	1,834,531,796	2,859,500,663	41.05%	6.13 : 1	162.18%	129,535,257
2032	10/1/2030	66,655,621	4,903,951,001	1,946,698,349	1,962,949,022	2,957,252,652	39.70%	5.82 : 1	186.11%	127,030,390
2033	10/1/2031	60,699,458	4,948,040,792	1,962,395,357	2,025,038,144	2,985,645,435	39.66%	5.76 : 1	203.00%	126,175,072
2034	10/1/2032	56,328,281	4,985,906,269	1,997,884,106	2,062,302,908	2,988,022,163	40.07%	5.76 : 1	218.58%	126,076,124
2035	10/1/2033	51,718,469	5,017,908,254	2,031,762,267	2,097,735,470	2,986,145,987	40.49%	5.74 : 1	237.87%	125,972,604
2036	10/1/2034	45,116,687	5,042,300,202	2,063,662,544	2,131,018,844	2,978,637,658	40.93%	5.68 : 1	271.23%	125,303,176
2037	10/1/2035	36,420,290	5,056,281,813	2,091,951,736	2,161,805,834	2,964,330,077	41.37%	5.64 : 1	332.38%	123,955,965
2038	10/1/2036	28,560,001	5,059,613,437	2,117,085,442	2,189,716,580	2,942,527,996	41.84%	5.60 : 1	419.53%	122,692,485
2039	10/1/2037	21,440,332	5,052,144,843	2,138,719,609	2,214,335,912	2,913,425,234	42.33%	5.55 : 1	553.97%	121,622,088
2040	10/1/2038	14,211,285	5,033,812,770	2,157,387,293	2,235,210,512	2,876,425,477	42.86%	5.53 : 1	828.25%	120,527,224
2041	10/1/2039	9,638,565	5,006,133,228	2,175,604,402	2,251,845,856	2,830,528,826	43.46%	5.53 : 1	1218.33%	120,246,059
2042	10/1/2040	6,766,012	4,970,566,368	2,194,750,669	2,263,702,924	2,775,815,698	44.15%	5.55 : 1	1740.49%	120,585,787
2043	10/1/2041	4,511,937	4,928,396,978	2,217,285,309	2,270,194,671	2,711,111,669	44.99%	5.58 : 1	2622.59%	121,167,314
2044	10/1/2042	3,057,575	4,880,000,366	2,245,007,889	2,270,682,224	2,634,992,476	46.00%	5.63 : 1	3894.40%	121,929,860
2045	10/1/2043	1,923,828	4,825,945,536	2,279,572,086	2,264,470,797	2,546,373,451	47.24%	5.72 : 1	6226.23%	122,654,657
2046	10/1/2044	1,044,173	4,766,420,485	2,322,424,784	2,250,805,305	2,443,995,701	48.72%	5.82 : 1	11508.01%	123,045,296
2047	10/1/2045	586,333	4,701,567,150	2,374,863,937	2,228,865,644	2,326,703,213	50.51%	5.97 : 1	20322.26%	122,013,719
2048	10/1/2046	196,738	4,631,704,030	2,438,103,827	2,197,761,626	2,193,600,203	52.64%	6.14 : 1	11059.19%	22,279,426
2049	10/1/2047	0	4,556,830,168	2,512,029,372	2,156,527,531	2,044,800,797	55.13%	6.35 : 1	N/A	22,780,945
2050	10/1/2048	0	4,477,060,659	2,492,526,266	2,104,116,258	1,984,534,393	55.67%	6.32 : 1	N/A	23,350,468
2051	10/1/2049	0	4,392,528,670	2,481,063,984	2,039,393,049	1,911,464,686	56.48%	6.31 : 1	N/A	23,934,229
2052	10/1/2050	0	4,303,198,736	2,478,928,513	1,961,128,732	1,824,270,222	57.61%	6.33 : 1	N/A	24,532,585
2053	10/1/2051	0	4,209,051,760	2,487,472,420	1,867,992,486	1,721,579,339	59.10%	6.39 : 1	N/A	25,145,899
2054	10/1/2052	0	4,110,094,308	2,508,186,225	1,758,544,054	1,601,908,083	61.03%	6.49 : 1	N/A	25,774,547
2055	10/1/2053	0	4,006,370,043	2,542,718,387	1,631,225,395	1,463,651,655	63.47%	6.63 : 1	N/A	26,418,910
2056	10/1/2054	0	3,897,970,262	2,592,895,028	1,484,351,719	1,305,075,235	66.52%	6.83 : 1	N/A	27,079,383
2057	10/1/2055	0	3,785,042,078	2,660,737,955	1,316,101,859	1,124,304,123	70.30%	7.09 : 1	N/A	27,756,368
2058	10/1/2056	0	3,667,793,697	2,748,480,525	1,124,507,943	919,313,171	74.94%	7.42 : 1	N/A	28,450,277
2059	10/1/2057	0	3,546,495,591	2,858,580,162	907,444,308	687,915,428	80.60%	7.84 : 1	N/A	29,161,534
2060	10/1/2058	0	3,421,479,695	2,993,729,729	662,615,604	427,749,965	87.50%	8.36 : 1	N/A	29,890,571
2061	10/1/2059	0	3,293,141,378	3,156,872,568	387,544,024	136,268,810	95.86%	8.99 : 1	N/A	30,637,836
2062	10/1/2060	0	3,161,930,559	3,351,207,633	79,555,609	(189,277,074)	105.99%	9.76 : 1	N/A	31,403,782
<b>Total:</b>										<b>4,305,133,590</b>
<b>Total Present Value at 7%:</b>										<b>1,817,387,694</b>

<sup>1</sup>Future contributions are assumed to be equal to the dollar amount of the calculated contribution, payable in December of the fiscal year beginning one year after the valuation date.

## Jacksonville Police and Fire Pension Fund

### Scenario 6: 44-Year Projection of Required City Contribution (7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)

**Plan and Method Changes as a result of Ord. 2017-257 and Ord. 2017-259 with Pension Liability Surtax Growth Rate of 4.25% and Payroll Growth Rate of 1.25%; Minimum Liquidity Ratio = 5.0; Minimum City Contribution = \$110,000,000**

Fiscal Year Ending	Valuation Date	Covered October 1 Payroll	Actuarial Accrued Liability	Net Market Value of Assets	Net Present Value of Future Pension Liability	Unfunded Actuarial Accrued Liability	Funded Ratio on Valuation Date	Liquidity Ratio	Required City Contribution <sup>1</sup>	
					Surtax Proceeds				% of Pay	\$ Amount
2018	10/1/2016	135,684,787	3,518,251,848	1,513,398,466	761,265,474	2,004,853,382	43.02%	7.84 : 1	97.63%	135,648,057
2019	10/1/2017	144,303,214	3,626,011,048	1,604,804,878	814,554,057	2,021,206,170	44.26%	7.71 : 1	92.78%	137,089,269
2020	10/1/2018	149,372,475	3,738,070,177	1,664,166,537	871,572,841	2,073,903,640	44.52%	7.78 : 1	91.51%	139,973,751
2021	10/1/2019	155,975,584	3,853,716,001	1,722,901,898	932,582,940	2,130,814,103	44.71%	7.85 : 1	89.80%	143,422,853
2022	10/1/2020	152,425,187	3,974,071,147	1,782,911,897	997,863,746	2,191,159,251	44.86%	7.87 : 1	92.15%	143,823,788
2023	10/1/2021	147,539,843	4,093,707,741	1,842,369,394	1,067,714,208	2,251,338,347	45.00%	7.86 : 1	95.07%	143,629,111
2024	10/1/2022	142,292,659	4,211,391,364	1,897,175,275	1,142,454,203	2,314,216,089	45.05%	7.79 : 1	98.28%	143,193,527
2025	10/1/2023	134,964,361	4,325,585,334	1,945,175,141	1,222,425,997	2,380,410,193	44.97%	7.66 : 1	102.64%	141,853,687
2026	10/1/2024	125,244,391	4,434,018,529	1,984,537,340	1,307,995,816	2,449,481,189	44.76%	7.44 : 1	108.91%	139,672,503
2027	10/1/2025	114,565,867	4,533,374,605	2,011,582,330	1,399,555,524	2,521,792,275	44.37%	7.28 : 1	116.85%	137,082,220
2028	10/1/2026	106,423,249	4,625,484,701	2,027,370,222	1,497,524,410	2,598,114,479	43.83%	7.03 : 1	124.27%	135,421,791
2029	10/1/2027	97,102,141	4,708,867,408	2,028,692,857	1,602,351,119	2,680,174,551	43.08%	6.80 : 1	134.19%	133,424,027
2030	10/1/2028	88,611,010	4,784,514,039	2,017,571,612	1,714,515,697	2,766,942,428	42.17%	6.49 : 1	145.22%	131,769,170
2031	10/1/2029	78,000,450	4,850,496,446	1,990,995,783	1,834,531,796	2,859,500,663	41.05%	6.13 : 1	162.18%	129,535,257
2032	10/1/2030	66,655,621	4,903,951,001	1,946,698,349	1,962,949,022	2,957,252,652	39.70%	5.82 : 1	186.11%	127,030,390
2033	10/1/2031	60,699,458	4,948,040,792	1,962,395,357	2,025,038,144	2,985,645,435	39.66%	5.76 : 1	203.00%	126,175,072
2034	10/1/2032	56,328,281	4,985,906,269	1,997,884,106	2,062,302,908	2,988,022,163	40.07%	5.76 : 1	218.58%	126,076,124
2035	10/1/2033	51,718,469	5,017,908,254	2,031,762,267	2,097,735,470	2,986,145,987	40.49%	5.74 : 1	237.87%	125,972,604
2036	10/1/2034	45,116,687	5,042,300,202	2,063,662,544	2,131,018,844	2,978,637,658	40.93%	5.68 : 1	271.23%	125,303,176
2037	10/1/2035	36,420,290	5,056,281,813	2,091,951,736	2,161,805,834	2,964,330,077	41.37%	5.64 : 1	332.38%	123,955,965
2038	10/1/2036	28,560,001	5,059,613,437	2,117,085,442	2,189,716,580	2,942,527,996	41.84%	5.60 : 1	419.53%	122,692,485
2039	10/1/2037	21,440,332	5,052,144,843	2,138,719,609	2,214,335,912	2,913,425,234	42.33%	5.55 : 1	553.97%	121,622,088
2040	10/1/2038	14,211,285	5,033,812,770	2,157,387,293	2,235,210,512	2,876,425,477	42.86%	5.53 : 1	828.25%	120,527,224
2041	10/1/2039	9,638,565	5,006,133,228	2,175,604,402	2,251,845,856	2,830,528,826	43.46%	5.53 : 1	1218.33%	120,246,059
2042	10/1/2040	6,766,012	4,970,566,368	2,194,750,669	2,263,702,924	2,775,815,698	44.15%	5.55 : 1	1740.49%	120,585,787
2043	10/1/2041	4,511,937	4,928,396,978	2,217,285,309	2,270,194,671	2,711,111,669	44.99%	5.58 : 1	2622.59%	121,167,314
2044	10/1/2042	3,057,575	4,880,000,366	2,245,007,889	2,270,682,224	2,634,992,476	46.00%	5.63 : 1	3894.40%	121,929,860
2045	10/1/2043	1,923,828	4,825,945,536	2,279,572,086	2,264,470,797	2,546,373,451	47.24%	5.72 : 1	6226.23%	122,654,657
2046	10/1/2044	1,044,173	4,766,420,485	2,322,424,784	2,250,805,305	2,443,995,701	48.72%	5.82 : 1	11508.01%	123,045,296
2047	10/1/2045	586,333	4,701,567,150	2,374,863,937	2,228,865,644	2,326,703,213	50.51%	5.97 : 1	20322.26%	122,013,719
2048	10/1/2046	196,738	4,631,704,030	2,438,103,827	2,197,761,626	2,193,600,203	52.64%	6.14 : 1	11059.19%	110,000,000
2049	10/1/2047	0	4,556,830,168	2,512,029,372	2,156,527,531	2,044,800,797	55.13%	6.35 : 1	N/A	110,000,000
2050	10/1/2048	0	4,477,060,659	2,586,387,280	2,104,116,258	1,890,673,379	57.77%	6.57 : 1	N/A	110,000,000
2051	10/1/2049	0	4,392,528,670	2,674,819,659	2,039,393,049	1,717,709,011	60.89%	6.84 : 1	N/A	110,000,000
2052	10/1/2050	0	4,303,198,736	2,778,962,085	1,961,128,732	1,524,236,651	64.58%	7.15 : 1	N/A	110,000,000
2053	10/1/2051	0	4,209,051,760	2,900,598,716	1,867,992,486	1,308,453,043	68.91%	7.52 : 1	N/A	110,000,000
2054	10/1/2052	0	4,110,094,308	3,041,681,497	1,758,544,054	1,068,412,812	74.01%	7.95 : 1	N/A	110,000,000
2055	10/1/2053	0	4,006,370,043	3,204,352,216	1,631,225,395	802,017,827	79.98%	8.46 : 1	N/A	110,000,000
2056	10/1/2054	0	3,897,970,262	3,390,964,459	1,484,351,719	507,005,803	86.99%	9.05 : 1	N/A	110,000,000
2057	10/1/2055	0	3,785,042,078	3,604,104,013	1,316,101,859	180,938,065	95.22%	9.74 : 1	N/A	27,756,368
2058	10/1/2056	0	3,667,793,697	3,846,607,267	0	(178,813,571)	104.88%	10.54 : 1	N/A	28,450,277
2059	10/1/2057	0	3,546,495,591	3,737,796,586	0	(191,300,995)	105.39%	10.37 : 1	N/A	29,161,534
2060	10/1/2058	0	3,421,479,695	3,626,141,496	0	(204,661,802)	105.98%	10.20 : 1	N/A	29,890,571
2061	10/1/2059	0	3,293,141,378	3,512,098,486	0	(218,957,108)	106.65%	10.04 : 1	N/A	30,637,836
2062	10/1/2060	0	3,161,930,559	3,396,182,869	0	(234,252,309)	107.41%	9.89 : 1	N/A	31,403,782

**Total: 5,073,837,199**  
**Total Present Value at 7%: 1,895,854,349**

<sup>1</sup>Future contributions are assumed to be equal to the dollar amount of the calculated contribution, payable in December of the fiscal year beginning one year after the valuation date.

## Jacksonville Police and Fire Pension Fund

### Scenario 7: 44-Year Projection of Required City Contribution (7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)

Plan and Method Changes as a result of Ord. 2017-257 and Ord. 2017-259 with Pension Liability Surtax Growth Rate of 4.25% and Payroll Growth Rate of 1.25%; Minimum Liquidity Ratio = 7.0; Minimum City Contribution = \$125,000,000

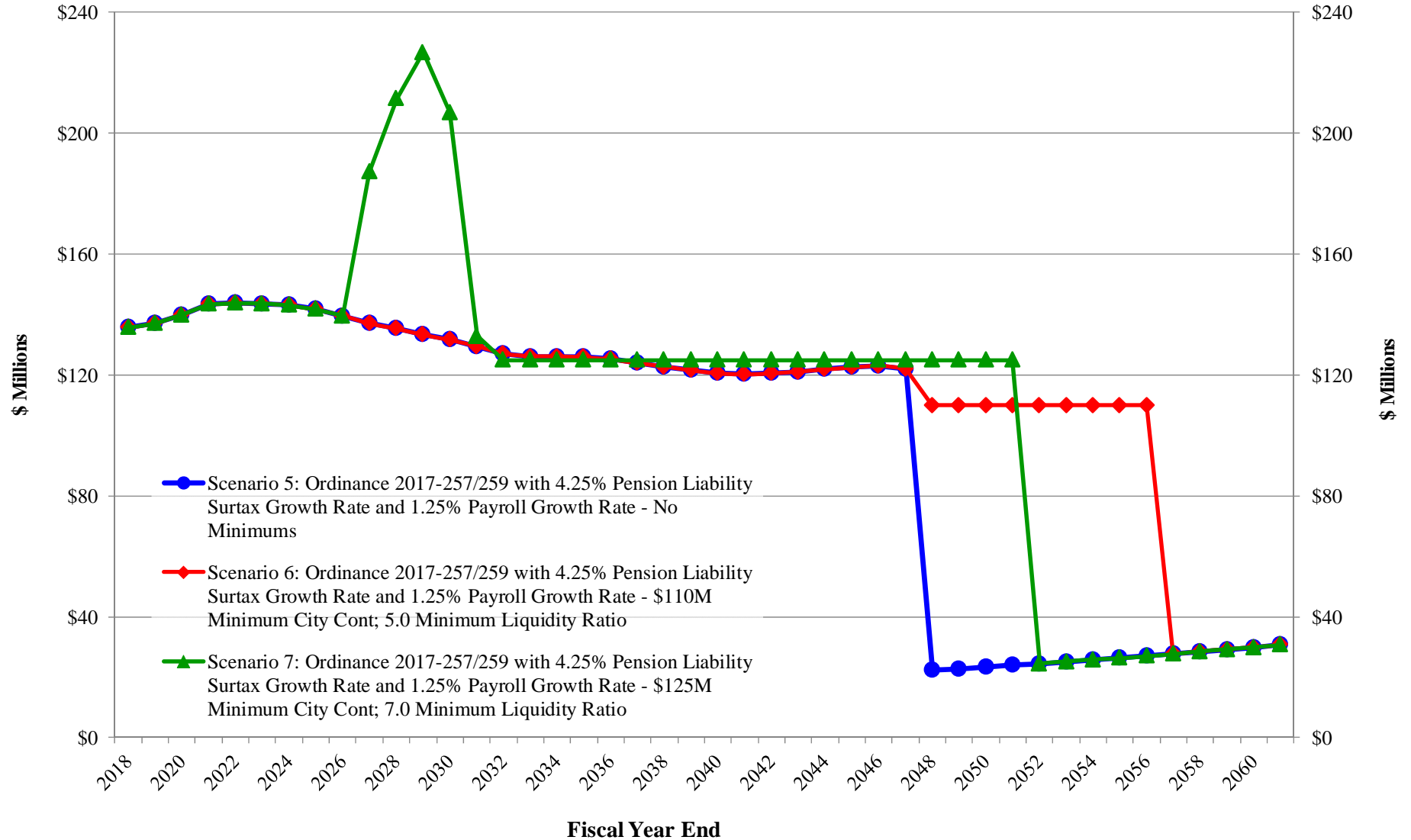
Fiscal Year Ending	Valuation Date	Covered October 1 Payroll	Actuarial Accrued Liability	Net Market Value of Assets	Net Present Value of Future Pension Liability	Unfunded Actuarial Accrued Liability	Funded Ratio on Valuation	Liquidity Ratio	Required City Contribution <sup>1</sup>	
					Surtax Proceeds				% of Pay	\$ Amount
2018	10/1/2016	135,684,787	3,518,251,848	1,513,398,466	761,265,474	2,004,853,382	43.02%	7.84 : 1	97.63%	135,648,057
2019	10/1/2017	144,303,214	3,626,011,048	1,604,804,878	814,554,057	2,021,206,170	44.26%	7.71 : 1	92.78%	137,089,269
2020	10/1/2018	149,372,475	3,738,070,177	1,664,166,537	871,572,841	2,073,903,640	44.52%	7.78 : 1	91.51%	139,973,751
2021	10/1/2019	155,975,584	3,853,716,001	1,722,901,898	932,582,940	2,130,814,103	44.71%	7.85 : 1	89.80%	143,422,853
2022	10/1/2020	152,425,187	3,974,071,147	1,782,911,897	997,863,746	2,191,159,251	44.86%	7.87 : 1	92.15%	143,823,788
2023	10/1/2021	147,539,843	4,093,707,741	1,842,369,394	1,067,714,208	2,251,338,347	45.00%	7.86 : 1	95.07%	143,629,111
2024	10/1/2022	142,292,659	4,211,391,364	1,897,175,275	1,142,454,203	2,314,216,089	45.05%	7.79 : 1	98.28%	143,193,527
2025	10/1/2023	134,964,361	4,325,585,334	1,945,175,141	1,222,425,997	2,380,410,193	44.97%	7.66 : 1	102.64%	141,853,687
2026	10/1/2024	125,244,391	4,434,018,529	1,984,537,340	1,307,995,816	2,449,481,189	44.76%	7.44 : 1	108.91%	139,672,503
2027	10/1/2025	114,565,867	4,533,374,605	2,011,582,330	1,399,555,524	2,521,792,275	44.37%	7.28 : 1	116.85%	187,193,007
2028	10/1/2026	106,423,249	4,625,484,701	2,027,370,222	1,497,524,410	2,598,114,479	43.83%	7.03 : 1	173.72%	211,419,153
2029	10/1/2027	97,102,141	4,708,867,408	2,082,311,399	1,602,351,119	2,626,556,009	44.22%	7.00 : 1	215.04%	226,703,233
2030	10/1/2028	88,611,010	4,784,514,039	2,156,260,629	1,714,515,697	2,628,253,410	45.07%	7.00 : 1	252.68%	206,977,981
2031	10/1/2029	78,000,450	4,850,496,446	2,239,201,781	1,834,531,796	2,611,294,665	46.16%	7.00 : 1	262.08%	132,891,001
2032	10/1/2030	66,655,621	4,903,951,001	2,292,752,196	1,962,949,022	2,611,198,805	46.75%	7.00 : 1	196.91%	125,000,000
2033	10/1/2031	60,699,458	4,948,040,792	2,336,263,618	2,025,038,144	2,611,777,174	47.22%	7.00 : 1	203.39%	125,000,000
2034	10/1/2032	56,328,281	4,985,906,269	2,395,750,628	2,062,302,908	2,590,155,641	48.05%	7.05 : 1	219.17%	125,000,000
2035	10/1/2033	51,718,469	5,017,908,254	2,456,222,118	2,097,735,470	2,561,686,136	48.95%	7.08 : 1	238.71%	125,000,000
2036	10/1/2034	45,116,687	5,042,300,202	2,516,683,133	2,131,018,844	2,525,617,069	49.91%	7.08 : 1	273.64%	125,000,000
2037	10/1/2035	36,420,290	5,056,281,813	2,575,643,080	2,161,805,834	2,480,638,734	50.94%	7.09 : 1	338.98%	125,000,000
2038	10/1/2036	28,560,001	5,059,613,437	2,634,310,780	2,189,716,580	2,425,302,657	52.07%	7.12 : 1	432.27%	125,000,000
2039	10/1/2037	21,440,332	5,052,144,843	2,693,267,838	2,214,335,912	2,358,877,004	53.31%	7.14 : 1	575.82%	125,000,000
2040	10/1/2038	14,211,285	5,033,812,770	2,753,222,939	2,235,210,512	2,280,589,831	54.69%	7.22 : 1	868.72%	125,000,000
2041	10/1/2039	9,638,565	5,006,133,228	2,816,762,910	2,251,845,856	2,189,370,318	56.27%	7.32 : 1	1280.86%	125,000,000
2042	10/1/2040	6,766,012	4,970,566,368	2,885,576,143	2,263,702,924	2,084,990,224	58.05%	7.46 : 1	1824.66%	125,000,000
2043	10/1/2041	4,511,937	4,928,396,978	2,961,555,283	2,270,194,671	1,966,841,695	60.09%	7.62 : 1	2736.23%	125,000,000
2044	10/1/2042	3,057,575	4,880,000,366	3,046,099,970	2,270,682,224	1,833,900,396	62.42%	7.82 : 1	4037.74%	125,000,000
2045	10/1/2043	1,923,828	4,825,945,536	3,140,841,586	2,264,470,797	1,685,103,950	65.08%	8.06 : 1	6417.25%	125,000,000
2046	10/1/2044	1,044,173	4,766,420,485	3,247,268,199	2,250,805,305	1,519,152,286	68.13%	8.33 : 1	11823.40%	125,000,000
2047	10/1/2045	586,333	4,701,567,150	3,366,955,908	2,228,865,644	1,334,611,242	71.61%	8.65 : 1	21055.75%	125,000,000
2048	10/1/2046	196,738	4,631,704,030	3,501,733,769	2,197,761,626	1,129,970,261	75.60%	9.02 : 1	62751.88%	125,000,000
2049	10/1/2047	0	4,556,830,168	3,653,308,731	2,156,527,531	903,521,438	80.17%	9.44 : 1	N/A	125,000,000
2050	10/1/2048	0	4,477,060,659	3,823,606,194	2,104,116,258	653,454,465	85.40%	9.93 : 1	N/A	125,000,000
2051	10/1/2049	0	4,392,528,670	4,014,693,897	2,039,393,049	377,834,773	91.40%	10.48 : 1	N/A	125,000,000
2052	10/1/2050	0	4,303,198,736	4,228,677,520	1,961,128,732	74,521,216	98.27%	11.10 : 1	N/A	24,532,585
2053	10/1/2051	0	4,209,051,760	4,294,696,793	0	(85,645,033)	102.03%	11.33 : 1	N/A	25,145,899
2054	10/1/2052	0	4,110,094,308	4,201,708,398	0	(91,614,090)	102.23%	11.14 : 1	N/A	25,774,547
2055	10/1/2053	0	4,006,370,043	4,104,370,370	0	(98,000,327)	102.45%	10.95 : 1	N/A	26,418,910
2056	10/1/2054	0	3,897,970,262	4,002,803,195	0	(104,832,932)	102.69%	10.76 : 1	N/A	27,079,383
2057	10/1/2055	0	3,785,042,078	3,897,185,214	0	(112,143,135)	102.96%	10.57 : 1	N/A	27,756,368
2058	10/1/2056	0	3,667,793,697	3,787,758,046	0	(119,964,349)	103.27%	10.38 : 1	N/A	28,450,277
2059	10/1/2057	0	3,546,495,591	3,674,827,919	0	(128,332,328)	103.62%	10.19 : 1	N/A	29,161,534
2060	10/1/2058	0	3,421,479,695	3,558,765,023	0	(137,285,328)	104.01%	10.01 : 1	N/A	29,890,571
2061	10/1/2059	0	3,293,141,378	3,440,005,659	0	(146,864,281)	104.46%	9.83 : 1	N/A	30,637,836
2062	10/1/2060	0	3,161,930,559	3,319,043,544	0	(157,112,985)	104.97%	9.66 : 1	N/A	31,403,782

**Total:** **5,039,742,612**  
**Total Present Value at 7%:** **2,015,859,259**

<sup>1</sup>Future contributions are assumed to be equal to the dollar amount of the calculated contribution, payable in December of the fiscal year beginning one year after the valuation date.

# Jacksonville Police and Fire Pension Fund

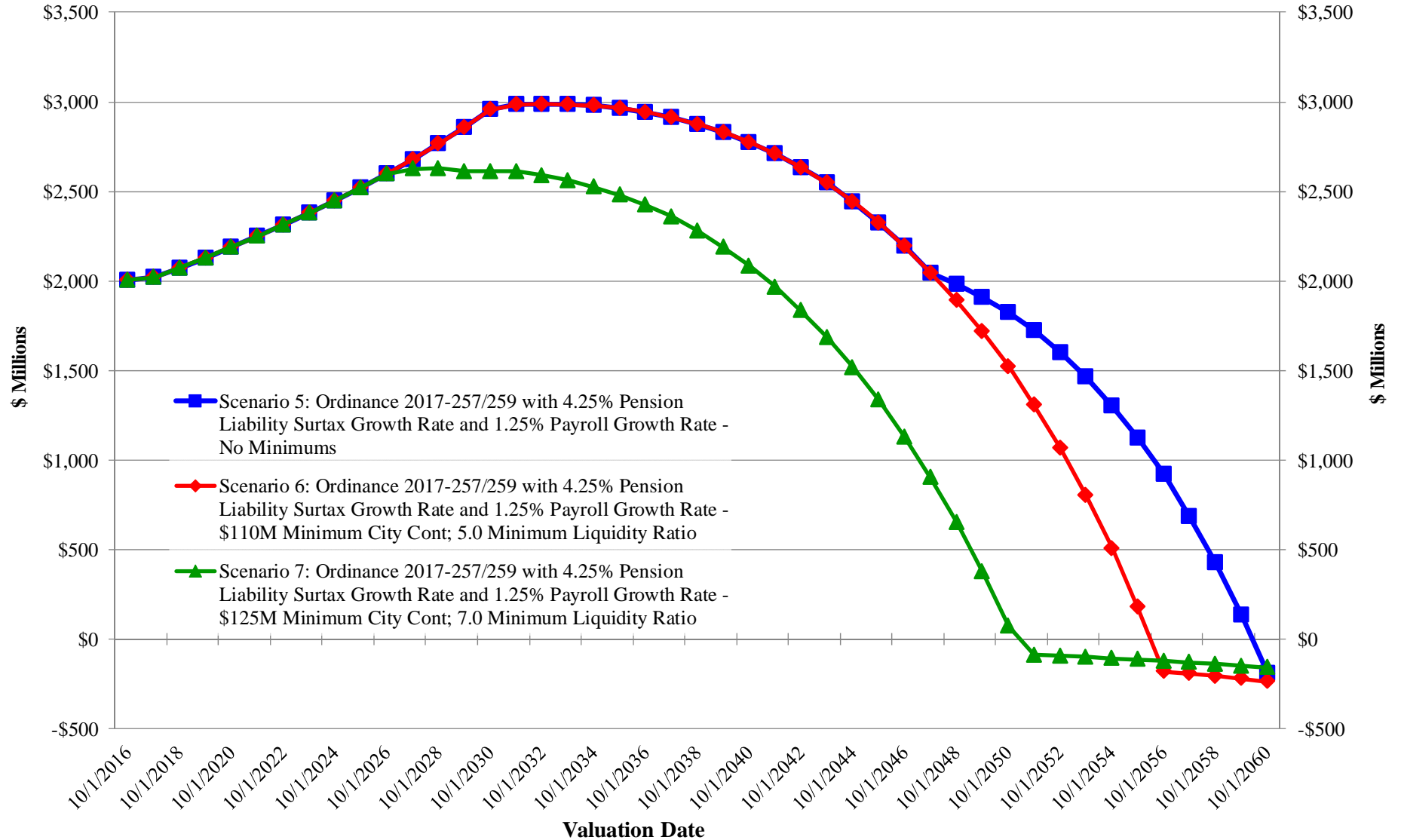
## 44-Year Projection of Required City Contribution (7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)





# Jacksonville Police and Fire Pension Fund

## 44-Year Projection of Unfunded Actuarial Accrued Liability (7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)



# Jacksonville Police and Fire Pension Fund

## 44-Year Projection of Funded Ratio

(7.0% Actual Rate of Return on Fund Assets Assumed to be Earned Each Year)

