

CITY OF FORT LAUDERDALE
POLICE AND FIREFIGHTERS' RETIREMENT SYSTEM

ACTUARIAL IMPACT STATEMENT

Attached hereto is a comparison of the impact on the Total Required Contribution (per Chapter 112, Florida Statutes), and the Required City Contributions, resulting from implementation of the following changes:

- 1) Providing provisional language for Firefighters to purchase prior firefighter or military service at an amount equal to the full actuarial cost, as determined by the actuary for the retirement system.
- 2) Increasing the member contribution rate for all active members to 10% of pensionable earnings. This increase will be effective October 1, 2018 for Firefighters and October 1, 2017 for Police Officers.
- 3) Providing for a permissible DROP extension for members who are currently participating in the DROP with a DROP period of less than ninety-six (96) months. The applicable extension would be for an additional twelve (12) or twenty-four (24) months of DROP participation, such that the total DROP participation does not exceed ninety-six (96) months.

Please note that the actuarial impact of this permissible extension cannot be determined at this time as it is dependent upon the actual Plan investment return during the applicable extension periods for the affected members. Any returns above or below the assumed investment return in those years will result in actuarial gains or losses on the affected members' DROP account balances and will be recognized in future actuarial valuations.

- 4) Tier 1 members participating in DROP shall contribute 1.75% of salary. This requirement will be effective October 1, 2018 for Firefighters and October 1, 2017 for Police Officers. It is our understanding that no DROP participants will receive a refund of contributions made while in DROP, regardless of length of participation.
- 5) Tier 2 members participating in DROP shall contribute 10% of salary for the first five (5) years of DROP participation, and 1.50% of salary for each year thereafter. It is our understanding that no DROP participants will receive a refund of contributions made while in DROP, regardless of length of participation.

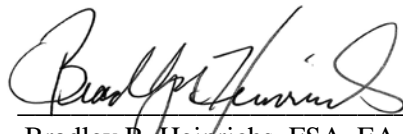
The cost impact, determined as of October 1, 2017, as applicable to the plan and fiscal year ending September 30, 2019, is as follows:

	Current	Proposed
Valuation Date	10/1/2017	10/1/2017
Applicable Pension Fund Plan Year Ended	9/30/2019	9/30/2019
Applicable City Fiscal Year Ended	<u>9/30/2019</u>	<u>9/30/2019</u>
Assumed City Contribution Date	October 1, 2018	October 1, 2018
Total Required Contribution	\$30,320,177	\$30,326,510
Less Expected Member Contributions	6,332,830	7,790,533
Equals Expected City and State Required Contribution	23,987,347	22,535,977
Less Expected State Contribution ¹	4,427,449	4,427,449
Equals Expected Balance from City ²	\$19,559,898	\$18,108,528

¹ Reflects updated per capita amounts based on recent premium tax distributions.

² It is important to keep in mind that a slight adjustment to the City's bottom line funding requirement may be necessary, based on the actual allowable State Monies received.

The changes presented herein are in compliance with Part VII, Chapter 112, Florida Statutes and Section 14, Article X of the State Constitution. Additionally, the undersigned is familiar with the immediate and long-term aspects of pension valuations and meets the Qualification Standards of the American Academy of Actuaries necessary to render the opinions contained herein.



Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #17-6901

STATEMENT OF PLAN ADMINISTRATOR

The prepared information presented herein reflects the estimated cost of the proposed improvement.

Chairman, Board of Trustees

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESU

	Proposed <u>10/1/2017</u>	Current <u>10/1/2017</u>
A. Participant Data		
Actives	786	786
Service Retirees	768	768
DROP Retirees	113	113
Beneficiaries	156	156
Disability Retirees	26	26
Terminated Vested	<u>25</u>	<u>25</u>
Total	1,874	1,874
Total Annual Payroll	\$73,231,488	\$73,231,488
Payroll Under Assumed Ret. Age	73,080,224	73,080,224
Annual Rate of Payments to:		
Service Retirees	36,872,495	36,872,495
DROP Retirees	8,556,708	8,556,708
Beneficiaries	3,729,295	3,729,295
Disability Retirees	1,111,063	1,111,063
Terminated Vested	558,342	558,342
B. Assets		
Actuarial Value (AVA)	824,951,911	824,951,911
Market Value (MVA)	857,734,650	857,734,650
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	439,964,410	439,964,410
Disability Benefits	8,624,008	8,624,008
Death Benefits	6,055,061	6,055,061
Vested Benefits	12,328,964	12,328,964
Refund of Contributions	755,035	708,551
Service Retirees	403,313,303	403,313,303
DROP Retirees	141,131,382	141,131,382
Beneficiaries	32,522,931	32,522,931
Disability Retirees	12,583,157	12,583,157
Terminated Vested	<u>5,263,011</u>	<u>5,263,011</u>
Total	1,062,541,262	1,062,494,778

C. Liabilities - (Continued)	Proposed <u>10/1/2017</u>	Current <u>10/1/2017</u>
Present Value of Future Salaries	617,867,139	617,867,139
Normal Cost (Retirement)	17,902,523	17,902,523
Normal Cost (Disability)	929,240	929,240
Normal Cost (Death)	513,820	513,820
Normal Cost (Vesting)	830,592	830,592
Normal Cost (Refunds)	<u>146,764</u>	<u>141,581</u>
Total Normal Cost	20,322,939	20,317,756
Present Value of Future Normal Costs	165,669,349	165,634,238
Accrued Liability (Retirement)	291,328,468	291,328,468
Accrued Liability (Disability)	2,276,459	2,276,459
Accrued Liability (Death)	1,763,461	1,763,461
Accrued Liability (Vesting)	6,575,659	6,575,659
Accrued Liability (Refunds)	114,082	102,709
Accrued Liability (Inactives)	<u>594,813,784</u>	<u>594,813,784</u>
Total Actuarial Accrued Liability (EAN AL)	896,871,913	896,860,540
Unfunded Actuarial Accrued Liability (UAAL)	71,920,002	71,908,629
Funded Ratio (AVA / EAN AL)	92.0%	92.0%

D. Actuarial Present Value of Accrued Benefits	Proposed <u>10/1/2017</u>	Current <u>10/1/2017</u>
Vested Accrued Benefits		
Inactives	594,813,784	594,813,784
Actives	149,047,885	149,047,885
Member Contributions	<u>53,266,545</u>	<u>53,266,545</u>
Total	797,128,214	797,128,214
Non-vested Accrued Benefits	<u>41,756,476</u>	<u>41,756,476</u>
Total Present Value		
Accrued Benefits (PVAB)	838,884,690	838,884,690
Funded Ratio (MVA / PVAB)	102.2%	102.2%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
New Accrued Benefits	0	
Benefits Paid	0	
Interest	0	
Other	<u>0</u>	
Total	0	

	Proposed	Current
Valuation Date	10/1/2017	10/1/2017
Applicable Pension Fund Plan Year Ending	9/30/2019	9/30/2019
Applicable to Fiscal Year Ending	<u>9/30/2019</u>	<u>9/30/2019</u>
Assumed City Contribution Date	October 1, 2018	October 1, 2018
E. Pension Cost		
Normal Cost ¹	\$21,196,825	\$21,191,420
Administrative Expenses ¹	603,897	603,897
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 20 years ¹	8,525,788	8,524,860
Applicable Interest ¹	0	0
Total Required Contribution	30,326,510	30,320,177
Expected Member Contributions ¹	7,790,533	6,332,830
Expected City and State Contribution	22,535,977	23,987,347
Less Expected State Contributions ²	4,427,449	4,427,449
Equals Expected City Required Contribution	\$18,108,528	\$19,559,898

¹ Contribution requirements developed above have been adjusted to account for an applicable assumed salary increase component. Additionally, the above stated requirements reflect no interest as a result of the assumed beginning of year City contribution date. If the required contributions are deposited at a later date, additional interest at the assumed 7.4% annual rate must be added.

² Reflects updated per capita amounts based on recent premium tax distributions.

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rates

Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy (previously Annuitant) White Collar, Scale BB

Male: RP2000 Generational, 10% Combined Healthy (previously Annuitant) White Collar / 90% Combined Healthy (previously Annuitant) Blue Collar, Scale BB

Healthy Inactive Lives:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale

The assumed rates of mortality were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in the July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.40% (previously 7.50%) per year compounded annually, net of investment related expenses. We believe this is reasonable based on the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

Service	Annual % Increase*
1 – 6	3.0%
7 – 10	2.5
11 – 25	1.0
26+	0.5

Expected increase in annual salary in addition to 2.75% inflationary component. The assumed rates of salary received approval from the Division of Retirement based on historical data and long-term expectations.

Retirement Rates

Service	Probability of Retirement (Police)	Probability of Retirement (Fire)
10 – 19	5%	5%
20	30	25
21	30	35
22	30	45
23	50	50
24	80	50
25 – 34	10	20
35+	100	100

No Members are expected to take reduced Early Retirement. The assumed rates of retirement were approved in conjunction with an actuarial experience study dated July 10, 2015.

Cost of Living Adjustments

None.

Funding Method

Entry Age Normal Actuarial Cost Method. Beginning with the pension fund's plan year ended September 30, 2015, a full year salary load based on the current 4.3% assumption is utilized under the projection funding method, as mandated by the Division of Retirement.

Payroll Increases

2.0% per year. We feel this is reasonable based on long-term expectations and historical increases in inflation.

Administrative Expenses

Equal to prior year's expense amount.

Termination Rates

Age	Years of Service	% Separating from Employment Within the Next Year	
		<u>Police</u>	<u>Fire</u>
All Ages	0	15.0%	15.0%
	1	5.0	5.0
	2	3.0	1.0
	3	3.0	1.0
	4	3.0	1.0
<50	5+	1.5	1.0
50+	5+	0.0	0.0

The assumed rates of termination were approved in conjunction with an actuarial experience study dated July 10, 2015.

Disability Rates

Age	% Become Disabled within Next Year	
	<u>Police</u>	<u>Fire</u>
20	0.07%	0.14%
25	0.08	0.15
30	0.09	0.18
35	0.12	0.23
40	0.15	0.30
45	0.26	0.51
50	0.50	1.00
55	0.78	1.55

It is assumed that 75% of disablements and active Member deaths are service related. The assumed rates of disablement were approved in conjunction with an actuarial experience study dated July 10, 2015.

Marital Status

All employed Members and all retired Members are assumed to be married. Females are assumed to be 3 years younger than males. This assumption was approved in conjunction with an actuarial experience study dated July 10, 2015.

Actuarial Value of Assets

All assets are valued at market value with an adjustment to uniformly spread investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

SUMMARY OF PLAN PROVISIONS

<u>Membership</u>	Police officers and firefighters.
<u>Credited Service</u>	Total years and fractional parts of years of years of service of any Member, from the date he first entered employment as a Police Officer or Firefighter until either the date of his DROP Retirement or the date his employment shall be terminated by death, retirement, or discharge.
<u>Compensation</u>	Base pay, assignment pay, and longevity bonuses, including pick-up contributions, and up to forty (40) hours of overtime for police officers.
<u>Average Final Compensation</u>	<p><i>Firefighters hired prior October 1, 2014: Average Compensation during the highest 2 years of Credited Service.</i></p> <p><i>Firefighters hired after September 30, 2014: Average Compensation during the highest 5 years of Credited Service.</i></p> <p><i>Police Officers hired prior to April 1, 2014: Average Compensation during the highest 2 years of Credited Service.</i></p> <p><i>Police Officers hired after March 31, 2014: Average Compensation during the highest 5 years of Credited Service.</i></p>
<u>Member Contributions</u>	8.25% of Compensation. 8.50% for Members hired after April 18, 2010.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII, Chapter 112, F.S.
<u>Normal Retirement</u>	
Date	Earlier of: 1) Age 55 with 10 years of Credited Service, or 2) attainment of 20 years of Credited Service, regardless of Age.
Plan 1 Benefit	
Firefighters	<i>Hired prior to October 1, 2014: 3.38% of Average Final Compensation times Credited Service, with a maximum of 81% of Average Final Compensation. Firefighters with 25 or more years of Credited Service on October 1,</i>

2002 are subject to a maximum of 91.26% of Average Final Compensation. Firefighters employed before December 11, 1993 receive an additional 2.0% of Average Final Compensation (excluded from the 81% maximum percentage).

Hired after September 30, 2014: 3.00% of Average Final Compensation times Credited Service, with a maximum of 75% of Average Final Compensation.

Police Officers

Hired prior to April 1, 2014: 3.38% of Average Final Compensation times Credited Service, with a maximum of 81% of Average Final Compensation. Police Officers with 25 or more years of Credited Service on January 1, 2002 are subject to a maximum of 91.26%.

Hired after March 31, 2014: 3.00% of Average Final Compensation times Credited Service, with a maximum of 75% of Average Final Compensation.

Plan 2 Benefit

3.0% of Average Final Compensation for the first 20 years of Credited Service, plus 2.0% of Average Final Compensation for each year in excess of 20. Firefighters employed before December 11, 1993 receive an additional 2.0% of Average Final Compensation.

Form of Benefit

Firefighters hired prior to October 1, 2014: 60% Joint and Survivor, with an additional 40% death benefit during the first year of retirement (Optional forms available).

Firefighters hired after September 30, 2014: 10-Year Certain and Life (Optional forms available).

Police Officers hired prior to April 1, 2014: 60% Joint and Survivor, with an additional 40% death benefit during the first year of retirement (Optional forms available).

Police Officers hired after March 31, 2014: 10-Year Certain and Life (Optional forms available).

Early Retirement (Firefighters Only)

Eligibility

Age 50 with 10 years of Credited Service.

Benefit

Accrued benefit, reduced 3.0% per year that the benefit commencement date precedes the Normal Retirement date.

Vesting

Less than 10 Years of
Credited Service

Refund of Member contributions. For Police Officers who separate employment with the City on or after December 3, 2013 and Firefighters who separate employment with the City on or after October 1, 2014, no interest will be credited when determining the refund amount.

10 years of Credited Service

Accrued benefit deferred to Normal Retirement date.

Disability

Eligibility

Covered from Date of Employment.

Exclusions

Disability resulting from use of drugs, illegal participation in riots, service in military, etc.

Benefit

Non-Service Connected

50% of Average Final Compensation offset by 100% of Social Security Disability benefits, Workers' Compensation benefits, and earned income.

Service Connected

65% of Average Final Compensation.

Duration

Payable for life or until recovery.

Death Benefits

Eligibility

Covered from Date of Employment.

Benefit

Non-Service Connected

50% of the Member's monthly Compensation for eight (8) years. For a Member with at least 10 years of Credited Service, not less than the benefits otherwise payable at early or normal retirement age. The minimum benefit payable is four (4) times the rate of the Member's annual compensation.

Service Connected

50% of Member's monthly Compensation to spouse until death or remarriage. Children's benefits of 10% of Member's monthly benefits per child (50% maximum) until age 18, and a maximum of 80% to spouse and children. For Members who are not married and have no children, a 10-year benefit will be paid to the designated beneficiary. The minimum benefit payable is four (4) times the rate of the Member's annual compensation.

COLA

Adjustment Date

July 1st

Eligibility

Receipt of retirement benefits for one year.
Additionally, must have entered Retirement status prior to July 1, 2008.

Amount

Lesser of 1) percentage not greater than CPI (all Urban Consumers) for preceding calendar year, or 2) percentage increase limited to present value of which can be funded by excess gains for preceding calendar year. Maximum cost-of-living adjustment is 5.0%.

The COLA increase may be granted only if the System remains in a net positive experience position, determined on a cumulative basis from January 1, 1987 (in State Statute – not in Ordinance)

DROP

Members eligible for Normal Retirement may elect either a Deferred Retirement Option Plan for up to 96 months or a Benefit Actuarially Calculated Deferred Retirement Option Program for up to 36 months, but not both. For Police Officers hired after March 31, 2014 and Firefighters hired after September 30, 2014, each month a Member delays entry into DROP following completion of 25 years of Credited Service, the 96 month maximum DROP participation period shall be correspondingly reduced by one month.