



City of Daytona Beach Police Officers' and Firefighters' Retirement System

October 1, 2017

Actuarial Valuation Report

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At the request of the plan sponsor, this report summarizes the Police Officers' and Firefighters' Retirement System for the City of Daytona Beach as of October 1, 2017. The purpose of this report is to communicate the following results of the valuation:

- Determine Funded Status; and
- Determine Actuarial Contribution for the fiscal year October 1, 2018 through September 30, 2019;

This report has been prepared in accordance with the laws and accounting standards indicated above and their applicable regulations. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the employer. Asset information has been provided to us by the trustee. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

With respect to reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were 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, meet the requirements of Section 112.664 (1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

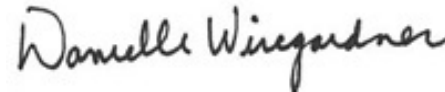
Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart



Tayt Odom, FSA, MBA



Danielle Winegardner, ASA, EA, MAAA
Enrolled Actuary No. 17-08260

June 18, 2018

Date

Copies of this Report are to be furnished to the Division of Retirement within 60 days of receipt from the actuary at the following addresses:

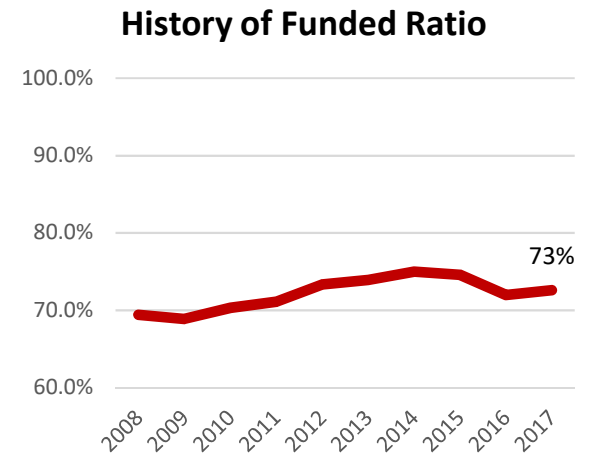
Ms. Sarah Carr
Benefits Administrator
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Mr. Keith Brinkman
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Division of Retirement
Department of Management Services
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Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

	October 1, 2016	October 1, 2017
Funded Status Measures		
Accrued Liability	\$238,156,346	\$245,395,180
Actuarial Value of Assets	171,618,877	178,150,964
Unfunded Accrued Liability	\$66,537,469	\$67,244,216
Funded Percentage (AVA)	72%	73%
Funded Percentage (MVA)	69%	71%
Cost Measures		
Recommended Contribution	\$7,794,395	\$8,055,644
Recommended Contribution (as a percentage of payroll)	46.1%	45.8%
Asset Information		
Market Value of Assets	165,031,589	\$175,194,639
Actuarial Value of Assets	171,618,877	178,150,964
Actuarial Value / Market Value	104.0%	101.7%
Member Information		
Active Members	295	300
Terminated Vested Members	8	28
Retirees, Beneficiaries, and Disabled Members	378	380
DROP Participants	20	18
Total	701	726
Expected Payroll	\$16,919,210	\$17,606,731



Changes since Prior Valuation and Key Notes

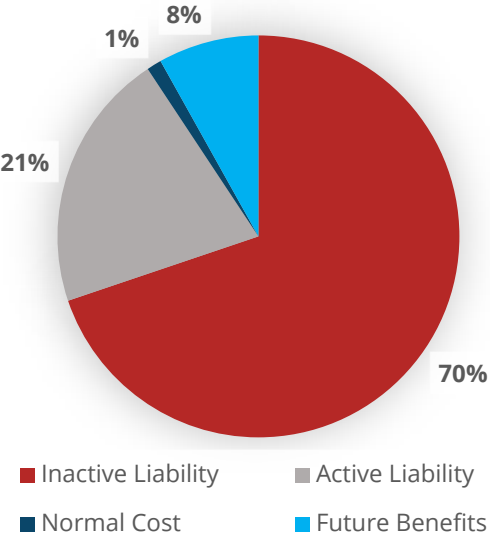
There have been no changes to the assumptions since the last valuation.

Present Value of Future Benefits

The Present Value of Future Benefits represents the discounted value of all future benefits expected to be payable to current members, considering future service and compensation not yet earned.

	October 1, 2017
Present Value of Future Benefits	
Active members	
Retirement	\$69,505,965
Disability	4,598,340
Death	2,081,343
Termination	4,416,696
Return of Contributions	1,060,089
Total Active	\$81,662,433
Inactive members	
Retired members	\$160,441,881
DROP members	1,983,497
Beneficiaries	6,883,167
Disableds	17,772,717
Terminated Vested members	1,835,893
Total Inactive	\$188,917,155
Total	\$270,579,588
Present Value of Future Salaries	\$135,885,354

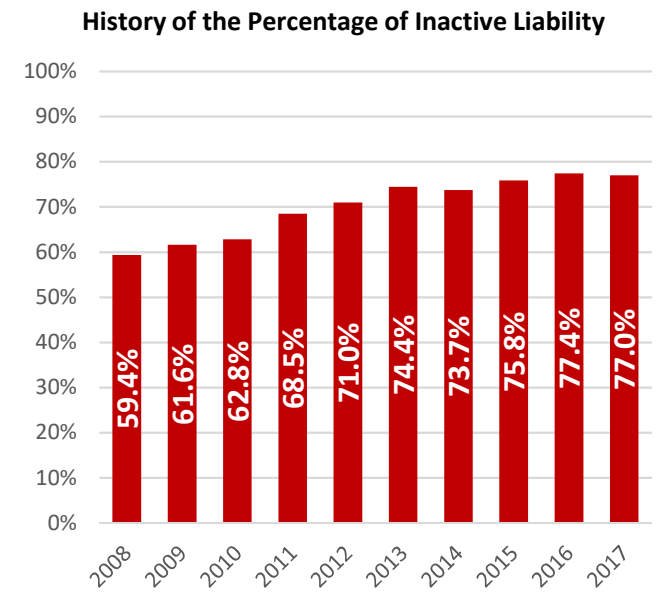
Breakdown of Present Value of Future Benefits



Accrued Liability

The Accrued Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions. It is not a long-term snapshot of the liabilities.

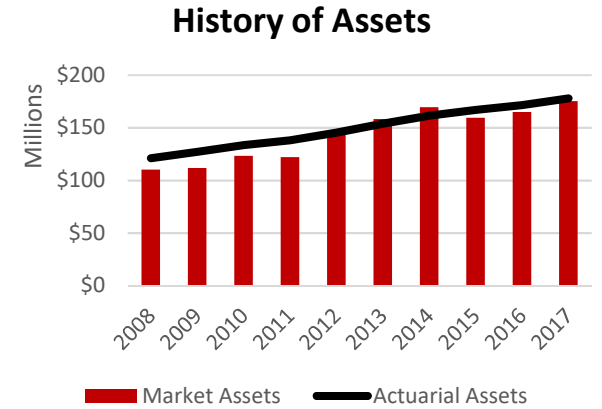
	October 1, 2017
Accrued Liability	
Active members	
Retirement	\$49,994,486
Disability	2,758,944
Death	817,855
Termination	2,516,259
Return of Contributions	390,481
Total Active	\$56,478,025
Inactive members	
Retired members	\$160,441,881
DROP members	1,983,497
Beneficiaries	6,883,167
Disableds	17,772,717
Terminated Vested members	1,835,893
Total Inactive	\$188,917,155
Total	\$245,395,180
 Normal Cost	 \$3,254,740



Asset Information

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

	October 1, 2017
Market Value Reconciliation	
Market value of assets - beginning of prior year	\$165,952,629
Contributions	
Employer	\$6,708,988
Employee	1,643,490
Non-Employer	813,174
Total	\$9,165,652
Investment income, net expenses	\$15,870,783
Benefit payments	(\$14,572,515)
Administrative expenses	(\$212,819)
Other Expenses	\$0
Market value of assets - beginning of current year	\$176,203,730
Return on Market Value	9.56%
Market Value of Assets available for Pension Benefits (net of Reserve Account and COLA Fund)	\$175,194,639
Actuarial Value of Plan Assets	
Value at beginning of current year	\$ 178,150,964



Asset Information (continued) – 20% Write up

Plan Assets are used to develop funded percentages and contribution requirements.

	October 1, 2017
1. Expected Actuarial Value of Assets	
(a) Actuarial Value of Assets – beginning of year	\$171,618,877
(b) Contributions	9,165,652
(c) Benefit Payments	(14,572,515)
(d) Expenses	(212,819)
(e) Expected Return	12,890,850
(f) Expected Actuarial Value of Assets - end of year	\$178,890,045
2. Market Value of Assets – beginning of current year	175,194,639
3. Amount subject to phase in	(\$3,695,406)
4. Phase in of Asset Gain/(Loss)	
20% x (\$3,695,406)	(\$739,081)
5. Preliminary Actuarial Value of Assets – beginning of current year (1(f)+4+5)	178,150,964
6. 80% Market Value of Assets	140,155,712
7. 120% Market Value of Assets	210,233,566
8. Adjusted Actuarial Value of Assets	\$178,150,964
9. Reserved Assets	\$0
10. Final Actuarial Value of Assets (8 + 9)	\$178,150,964
11. Return on Actuarial Value of Assets	7.08%

City of Daytona Beach Police Officers' and Firefighters' Retirement System
 Actuarial Valuation as of October 1, 2017
Assets and Liabilities

October 1, 2017

Liability (Gain)/Loss

Actuarial liability, beginning of prior year	\$238,156,346
Normal Cost	3,193,182
Benefit Payments	(14,572,515)
Interest	17,564,625
1-year Lag Adjustment	<u>(225,767)</u>
Expected actuarial liability beginning of current year	\$244,115,871
Actual actuarial liability	\$245,395,180
Liability (Gain)/Loss	\$1,279,309

Asset (Gain)/Loss

Actuarial value of assets beginning of prior year	\$171,618,877
Contributions	9,165,652
Benefit Payments and Expenses	(14,785,334)
Investment Return	<u>12,890,850</u>
Expected Actuarial Value of Assets, beginning of current year	\$178,890,045
Actual Actuarial Value of Assets, beginning of current year	\$178,150,964
Asset (Gain)/Loss	\$739,081

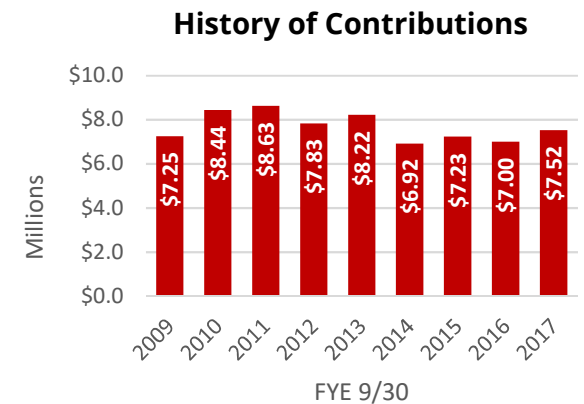
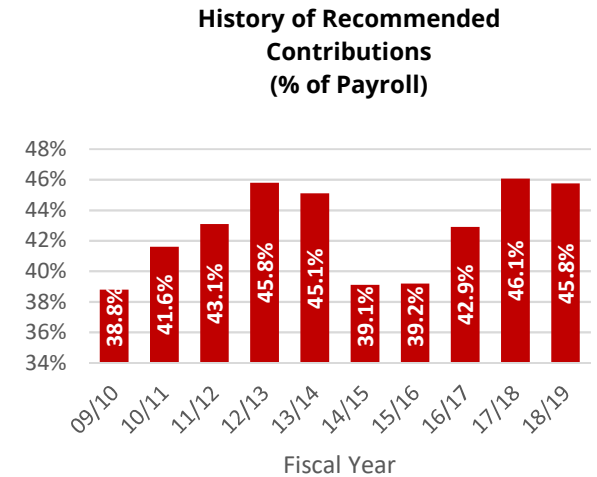
Total (Gain)/Loss

\$2,018,390

Development of Recommended Contribution - Entry Age

The minimum recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws. The recommended contribution is composed of the normal cost, administrative expenses, plus an amortization charge.

	October 1, 2017
Funded Position	
1. Entry Age Accrued Liability	\$245,395,180
2. Actuarial Value of Plan Assets	178,150,964
3. Unfunded Actuarial Accrued Liability (UAAL)	\$67,244,216
 Employer Contributions	
1. Normal Cost	
(a) Total Normal Cost	\$3,254,740
(b) Expected Member Contributions	1,647,017
(c) Net Normal Cost	\$1,607,723
2. Salary Increase	80,386
3. Administrative Expenses	200,000
4. Amortization of UAAL	6,965,709
5. Applicable Interest	15,000
6. Total Recommended Contribution	\$8,868,818
7. Expected Non-Employer Contributions	813,174
8. Total Recommended Contribution	\$8,055,644
9. As a percentage of expected payroll	45.75%



Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

October 1, 2017

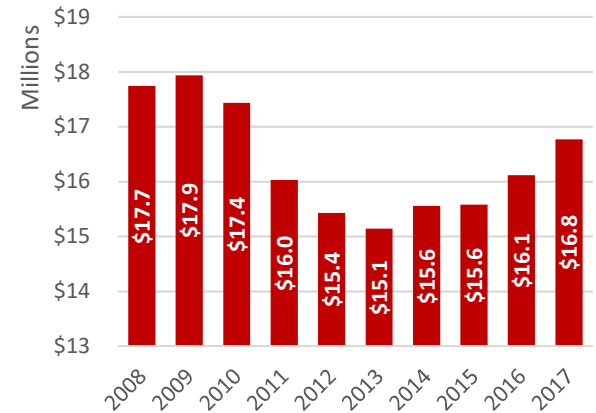
Participant Counts

Active Participants	300
Retired Participants	278
Beneficiaries	47
Disabled Participants	55
Terminated Vested Members, due a Monthly Benefit	7
Terminated Vested Members, due a Refund of Employee Contributions	21
DROP Members	18
Total	726

Active Participant Demographics

Average Age	37.44
Average Service	10.31
Average Compensation	\$55,894
Covered Payroll	\$16,768,315

History of Covered Payroll



Demographic Information (continued)

October 1, 2017

Retiree Statistics

Average Age	63.43
Average Monthly Benefit	\$3,534

Beneficiary Statistics

Average Age	73.35
Average Monthly Benefit	\$1,086

Disabled Participants Statistics

Average Age	57.95
Average Monthly Benefit	\$2,077

Terminated Participants Statistics

Average Age	33.79
Average Monthly Benefit	\$2,124
Average Remaining Employee Contributions	\$7,407

DROP Participants Statistics

Average Age	52.10
Average Monthly Benefit	\$4,416

Participant Reconciliation

	Active	Terminated		Retired	Beneficiaries	DROP	Totals
		Vested	Disabled				
Prior Year	295	8	56	278	44	20	701
Active							
To Terminated Vested	(5)	5					0
To Disabled							0
To Retired	(3)			3			0
To DROP	(3)					3	0
To Terminated Non-Vested	(10)						(10)
Terminated Vested							
To Retired							0
To Death		(1)			1		0
To Disabled		(2)	2				0
Disabled							
To Death			(3)		1		(2)
Retired							
To Death				(8)	3		(5)
Survivor							
To Death					(2)		(2)
DROP							
To Retired				5		(5)	0
Additions	26	181					207
Departures							
Current Year	300	28	55	278	47	18	726

¹Participants who are terminated non-vested and are due a refund of employee contributions.

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service										Total	Average Pay
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25		21									21	46,462
25 to 29	261	25	7								58	43,979
30 to 34		24	22	15							61	49,320
35 to 39		8	13	21	14						56	59,739
40 to 44		2	6	16	23	2					49	66,300
45 to 49			2	9	15	10					36	66,636
50 to 54		2	3	3	6	2		1			17	67,317
55 to 59			1								1	50,813
60 to 64				1							1	45,138
65 to 69											0	0
70 & up											0	0
Total	26	82	54	65	58	14	0	1	0	0	300	55,894

¹New active participants are assumed to have a December 17, 1988 date of birth and \$37,601.51 salary.

Plan Status:

Plan established in 1959 under the Code of Ordinances for the City of Daytona Beach, Florida, Subpart C Sections 1-35 & Subpart D Sections 1-28 and was most recently amended to change the maximum period of DROP to 60 months under Ordinance No. 14-228 and allow Firefighter Members not yet in DROP to participate under Ordinance No. 14-227, both passed and adopted on August 6, 2014. The Plan is also governed by certain provisions of Chapters 175 and 185, Florida Statutes, Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

Eligibility for Membership:

Police officers and firefighters.

Accrual of Benefits

Retirement

For Police Officer members not Eligible for Normal Retirement as of September 30, 2011:

3% of Average Final Compensation for each year of Credited Service after September 30, 2011 and 3.38% of Average Final Compensation for each year of Credited Service before September 30, 2011 maximum of 90% of Average Final Compensation (but not less than 2% of Average Final Compensation for each year of Credited Service).

For Police Officer members Eligible for Normal Retirement as of September 30, 2011:

3.38% of Average Final Compensation for each year of Credited Service

For Firefighter Members not eligible for Normal Retirement as of September 18, 2012:

3% of Average Final Compensation for each year of Credited Service on or after September 19, 2012 and 3.5% of Average Final Compensation for each year of Credited Service before September 19, 2012, maximum of 90% of Average Final Compensation, (but not less than 2% of Average Final Compensation for each year of Credited Service).

For Firefighter Members eligible for Normal Retirement as of September 18, 2012:

3.5% of Average Final Compensation for each year of Credited Service, maximum of 90% (but not less than 2% of Average Final Compensation for each year of Credited Service).

Disability

For Police Officer members

3.0% of Final Average Compensation for each year of Credited Service, maximum of 90% of Final Average Compensation

For Firefighter members

3.5% of Final Average Compensation for each year of Credited Service, maximum of 90% of Final Average Compensation

Benefits

Normal Retirement

Eligibility 20 Years of Credited Service, or age 55 with 10 Years of Credited Service. Police Officer members Eligible for Normal Retirement as of September 30, 2011 or Firefighter Members eligible for Normal Retirement as of September 18, 2012

Benefits Accrued Retirement Benefit

Eligibility 20 Years of Credited Service (25 for members hired on or after August 6, 2014), or age 55 with 10 Years of Credited Service. Police Officer members not Eligible for Normal Retirement as of September 30, 2011 or Firefighter Members not eligible for Normal Retirement as of September 18, 2012

Benefits Accrued Retirement Benefit, but in no event shall the monthly benefit payable at Normal retirement date be greater than \$5,500.

For active Police Officer Members as of September 30, 2011, whose Compensation for the fiscal year ending September 30, 2010 exceeds \$66,000 divided by 90%, the \$5,500 monthly maximum shall not apply.

For active Firefighter Members as of September 18, 2012, whose Compensation for the fiscal year ending September 30, 2012, exceeds \$66,000 divided by 90%, the \$5,500 monthly maximum shall not apply.

Termination

Eligibility	Less than 10 years of Credited Service (excluding Military Buyback)
Benefit	Refund of Member Contributions
Eligibility	10 or more years of Credited Service (excluding Military Buyback)
Benefit	Accrued Service Retirement benefit, deferred to age 52

Disability In Line of Duty

Eligibility	Disability incurred in accident in performance of duties. Total and permanent; completely incapacitated for service to City, or performing offered City employment.
Benefit	Accrued Disability Benefit so long as the benefit is not less than table below.

<u>Credited Service</u>	<u>% of Average Final Compensation</u>
0-9	50%
10-14	60%
15 and over	75%

Benefits are offset by Workers' Compensation benefits, but not below the greater of 42% of Average Final Compensation or three percent of Average Final Compensation times years of Credited Service.

Survivor's benefit is 50% of Retiree's benefit.

Disability Not In Line of Duty

Eligibility After 5 or more years of Credited Service, and disability incurred in accident not while in performance of duties. Total and permanent; completely incapacitated for service to City, or performing offered City employment.

Benefit Accrued Disability Benefit so long as the benefit is not less than table below.

<u>Credited Service</u>	<u>% of Average Final Compensation</u>
5-9	37.5%
10-19	50.0%

Survivor's benefit is 50% of Retiree's benefit.

Death In Line of Duty

Eligibility Incurred in accident in performance of duties.

Benefit Pension of 50% of Average Final Compensation to spouse until death. If there is no spouse, or if spouse dies before youngest child is 18, 25% payable until attainment of age 18. If so spouse or no children under 18, benefit is payable to dependent parents.

Death Not In Line of Duty

Eligibility After 5 or more years of Credited Service, and death not accidentally incurred in performance of duties.

Benefit Surviving spouse would receive 50% of the amount available for non-service connected disability. If there is no spouse the member's accrued Retirement benefit, reduced for early commencement, will be paid for 10 years.

Compensation

Compensation
 An employee's base pay plus up to 300 hours of overtime, including pick-up contributions.

Average Final Compensation
 Average Compensation during the highest 3 years of Credited Service.

Credited Service

Service credited under Retirement System, from most recent date of employment; for calculation of benefits, repurchased prior service with the City, purchased prior service with other Jurisdictions, and service due to Military Buyback and USERRA are also taken into account.

Member Contributions

10.0% of Compensation for Police Officers and 9.7% of compensation for Firefighters; 6% interest per annum is credited on Member Contributions.

City Contributions

Actuarially determined, reduced by Member contributions and State Premium Tax Revenues under Chapters 175 and 185.

Military Buyback

Members with at least three Years of Credited Service may buy up to four years of military service at the current contribution rate (effective 10/1/98).

Payment Forms

Normal Forms

Ten years certain and life annuity. (For original members 50% joint & survivor for retirees after July 1, 1965; 66 2/3 joint & survivor for retirees before July 1, 1965.)

Optional Forms

50%, 66 2/3%, and 75%, and Joint and contingent Survivor Annuity

50%, 66 2/3%, 75%, and 100% Joint and Last Survivor Annuity

Partial lump sums of 5%, 10%, 15%, 20%, or 25%

Social Security option

COLA

Eligibility	6 years after benefit payments begin. For Police Officer Members who, on September 30, 2011, are (a) eligible for Normal Retirement, (b) retired, (c) in DROP, or (d) inactive
Benefit	Cost of living increases of 2.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.
Eligibility	6 years after benefit payments begin. For Police Officer Members who, on September 30, 2011, are (a) not eligible for Normal Retirement
Benefit	Cost of living increases of 1.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.
Eligibility	6 years after benefit payments begin. For Firefighter Members who, on September 18, 2012, are (a) eligible for Normal Retirement, (b) retired, (c) in DROP, or (d) inactive
Benefit	Cost of living increases of 2.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.
Eligibility	6 years after benefit payments begin. For Firefighter Members who, on September 18, 2012, are (a) not eligible for Normal Retirement
Benefit	Cost of living increases of 1.0% per year; Cumulative COLA increases cannot exceed \$1,500 per month for members receiving full benefits. \$1,500 maximum is reduced for partial lump sums received, survivor reductions, and active death survivor percentages.

For Police Officers neither inactive nor eligible for Normal Retirement on September 30, 2011, a COLA Fund is established, to be funded by excess investment return subject to favorable cumulative experience.

Actuarial Equivalence

RP 2000 Group Annuity Table projected to 2010 with 6.5% interest.

DROP

Eligibility	Police Officers and Firefighter Members eligible to retire with an immediate service retirement allowance.
Duration	Up to 60 months.
Benefits	<p>Service retirement allowances are paid into the Member's DROP account, and credited with interest equal to the net investment return realized by the System (minimum of 1%, maximum of 6.5%). No further Member or employer contributions are payable, and no further benefits are accrued.</p> <p>Upon retirement and termination of DROP participation (or death) the Member (or beneficiary) may elect one of the following:</p> <ul style="list-style-type: none">(a) A lump sum of the DROP account balance;(b) A 10 years certain and life annuity based on the DROP balance;(c) Any other method of payment approved by the Board of Trustees. <p>Normal survival benefits payable to survivors of retirees are paid upon death of the Member while a DROP participant.</p>

Supplemental Benefit

Eligibility	Firefighter Members
Benefits	\$8.50 per month for each year of Credited Service (maximum \$215.00 per month), effective 12/1/2010.

Valuation Date	October 1, 2017																				
Participant and Asset Information Collected as of	October 1, 2017																				
Cost Method	Entry Age Normal Cost Method																				
Asset Valuation Method	20% Write-Up Method																				
Amortization Method	30-year closed period. Bases previously established after October 1, 2004 and prior to October 1, 2013 are re-amortized over the remainder of a 30-year period from establishment (as approved by the State)																				
Interest Rates	7.50%, net of investment expenses.																				
Annual Pay Increases	2.75%, compounded annually for inflation plus a seniority/merit scale using the following rates:																				
	<table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Rate (%)</u></th> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Rate (%)</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">20</td> <td style="text-align: center;">3.0</td> <td style="text-align: center;">40</td> <td style="text-align: center;">2.0</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">3.0</td> <td style="text-align: center;">45</td> <td style="text-align: center;">1.0</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">2.5</td> <td style="text-align: center;">50</td> <td style="text-align: center;">0.0</td> </tr> <tr> <td style="text-align: center;">35</td> <td style="text-align: center;">2.5</td> <td style="text-align: center;">55</td> <td style="text-align: center;">0.0</td> </tr> </tbody> </table>	<u>Age</u>	<u>Rate (%)</u>	<u>Age</u>	<u>Rate (%)</u>	20	3.0	40	2.0	25	3.0	45	1.0	30	2.5	50	0.0	35	2.5	55	0.0
<u>Age</u>	<u>Rate (%)</u>	<u>Age</u>	<u>Rate (%)</u>																		
20	3.0	40	2.0																		
25	3.0	45	1.0																		
30	2.5	50	0.0																		
35	2.5	55	0.0																		
Expense and/or Contingency Loading	Expected administrative expenses for the year of \$200,000.																				
Mortality Rates																					
Healthy	Florida Retirement System special risk mortality projected with Scale BB generationally																				
Disabled	Florida Retirement System disabled mortality projected with Scale BB generationally																				
	The mortality table is prescribed by state regulation.																				

Retirement Rates

Annual rates as follows:

<u>After First Eligibility For Normal Retirement</u>	<u>Police %</u>	<u>Fire %</u>
0	35	25
1	20	15
2	20	15
3	20	15
4	20	15
5	20	15
6	20	15
7	20	15
8	20	15
9	20	15
10	100	100

At age 60, Retirement Rate is 100%

The assumed retirement rates are based on a study of actual experience for the plan during 2009-2014. See the experience study report dated 07/22/2015.

Disability Rates

<u>Age</u>	<u>Disability %</u>
20	0.14
25	0.15
30	0.18
35	0.23
40	0.30
45	0.51
50	1.00
55	1.50

No disability assumed after 25 years of service.

As the plan is not large enough to have credible experience, disability rates are determined based on the results of broad population studies.

Withdrawal Rates

<u>Age</u>	<u>Police Turnover %</u>	<u>Fire Turnover %</u>
20	16.80	7.47
25	13.20	5.87
30	8.64	3.84
35	5.76	2.56
40	3.36	1.49
45	2.22	0.99
50	1.92	0.85
55	0.72	0.32

No turnover assumed after 25 years of service.

The assumed withdrawal rates are based on a study of actual experience for the plan during 2009-2014. See the experience study report dated 07/22/2015.

Marital Status and Ages

80% of employees are assumed to be married. Females are assumed to be 3 years younger than males.

Withdrawal of Employee Contributions

It is assumed that employees withdraw their contribution balances upon employment termination, if not vested. If vested, employees are assumed to not withdraw contributions, with monthly benefit deferred to age 52.

Type of Disability

75% of the disabilities are expected to be service-connected disabilities, and 25% are expected to be non-service connected.

Recovery

No probabilities of recovery are used.

Disability Offsets

Disability benefits for service-incurred disabilities of active members are assumed to be offset by the greater of 2/3rds Final Average Compensation or the Current Florida weekly wages projected with 2% inflation (based on Florida Statute §440.12 (a)); benefits valued for disability retirees are net of all current offsets.

Workers' Compensation

Current offsets are assumed to continue.

Type of Death

75% of the assumed deaths are expected to be service-connected deaths and 25% are assumed to be non-service-connected.

State Contributions

Premium tax refunds under Chapters 175 and 185 are assumed to be the same as in the prior year.

Military Buyback

None.

COLA

Police & Firefighters are assumed to accrue the following COLA% upon retirement:

Police	<u>Service At 9/30/2011</u>	<u>COLA %</u>
	Less than 5 years	1.0
	Greater than 5, less than 15	1.5
	Greater than 15	2.0
Firefighters	<u>Service At 9/18/2012</u>	<u>COLA %</u>
	Less than 5 years	1.0
	Greater than 5, less than 15	1.5
	Greater than 15	2.0

Changes Since Prior Valuation

None

The actuarial report also shows the necessary items required for plan reporting and the any state requirements.

- ✓ Reconciliation of unfunded actuarial liability
- ✓ Statement of changes on value of assets
- ✓ Distribution of Assets
- ✓ Schedule of amortizations
- ✓ Florida State requirements
 - Comparative Summary of Principal Valuation Results
 - Separation for Police & Fire
 - Comparison of Payroll Growth, salary increases and investment results
 - Requirements under Florida Statute 112.664 and F.A.C. 60T - 1.0035
 - Reserve account for benefit improvements under F.L. 99-1 and SB 172
- ✓ Calculation of COLA fund transfer
- ✓ Determination of COLA Fund Assets

Reconciliation of Unfunded Actuarial Liability

	October 1, 2017
1. Unfunded Actuarial Accrued Liability, beginning of prior year	\$66,537,469
2. Normal Cost	3,193,182
3. Expenses	212,819
4. Employer Contributions	(6,708,988)
5. Employee Contributions	(1,643,490)
6. Non-Employer Contributions	(813,174)
7. Interest	4,673,775
8. 1-Year Lag Adjustment	(225,767)
9. Expected Unfunded Actuarial Accrued Liability	\$65,225,826
10. Adjustments to Assets	\$0
11. Liability changes due to:	
(a) Amendments	0
(b) Assumptions	0
(c) Funding Methods	0
(d) (Gain)/Loss	2,018,390
(e) Total	\$2,018,390
12. Unfunded Actuarial Liability beginning of current year (9+11(f))	\$67,244,216

Other Measurements

Statement of Changes on Value of Assets

Additions

Contributions:

	September 30, 2016	September 30, 2017
Employer	\$6,101,427	\$6,708,988
Member	1,611,364	\$1,643,490
Nonemployer contributing entity	903,454	\$813,174
Total contributions	\$8,616,245	\$9,165,652

Investment income

Net increase in fair value of investments	\$9,351,279	\$14,305,593
Interest and dividends	3,363,597	\$2,344,677
Less investment expense, other than from securities lending	(\$821,806)	(\$782,233)
Net income other than from securities lending	\$11,893,070	\$15,868,037
Securities lending income	0	\$0
Less securities lending expense	0	\$0
Net income from securities lending	\$0	\$0
Net investment income	\$11,893,070	\$15,868,037

Other	19,941	\$2,746
Total additions	\$11,913,011	\$15,870,783

Deductions

Benefit payments, including refunds of member contributions	\$14,782,786	\$14,572,515
Administrative expense	228,801	\$212,819
Other	0	\$0
Total deductions	\$15,011,587	\$14,785,334

Net increase in market value

Market Value as of		
Beginning of year	\$160,434,960	\$165,952,629
End of year	\$165,952,629	\$176,203,730

City of Daytona Beach Police Officers' and Firefighters' Retirement System
Actuarial Valuation as of October 1, 2017

Other Measurements

Distribution of Assets

	September 30, 2016	September 30, 2017
Cash and deposits	\$3,242,518	\$0
Securities lending cash collateral	0	0
Total cash	\$3,242,518	\$0
Receivables:		
Contributions	\$0	\$0
Due from broker for investments sold	294,333	281,727
Investment income	93,947	48,349
Other	1,049,000	813,174
Total receivables	\$1,437,280	\$1,143,250
Investments:		
Domestic Equities	\$50,350,055	\$56,758,091
Fixed Income	33,897,966	40,805,907
Real Estate	6,685,930	6,471,881
Alternative Investments	28,195,521	22,908,485
International Equities	27,852,892	32,097,037
Multi-Strategy Investments	14,948,422	16,342,167
Total investments	\$161,930,786	\$175,383,568
Total assets	\$166,610,584	\$176,526,818
Liabilities		
Payables		
Investment management fees	\$348,565	\$200,642
Due to broker for investments purchased	301,327	122,446
Collateral payable for securities lending	0	0
Other	8,063	0
Total liabilities	\$657,955	\$323,088
Total	\$165,952,629	\$176,203,730
Reserved Assets		
State Reserve Account	0	0
COLA Fund	(\$921,040)	(\$1,009,091)
Assets available for benefits	\$165,031,589	\$175,194,639

Schedule of Amortizations

October 1, 2017

		Total		\$67,244,216	\$6,965,709
<u>Date Established</u>	<u>Description</u>	<u>Original Amount</u>	<u>Remaining Period Years</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
10/1/2004	Fresh Start Base	29,638,420	8	17,145,126	2,722,918
10/1/2005	(Gain)/Loss	(686,444)	19	(451,242)	(42,148)
10/1/2005	Plan Amendments	9,151,618	19	7,226,460	674,991
10/1/2006	(Gain)/Loss	(759,375)	20	(547,554)	(49,964)
10/1/2007	(Gain)/Loss	850,088	21	663,847	59,301
10/1/2007	Plan Amendments	11,399,602	21	9,912,463	885,477
10/1/2008	(Gain)/Loss	4,699,915	22	3,934,232	344,700
10/1/2009	(Gain)/Loss	5,083,012	23	4,522,625	389,305
10/1/2010	(Gain)/Loss	185,245	24	173,954	14,734
10/1/2011	Assumption Changes	1,016,357	25	1,017,210	84,888
10/1/2011	Actuarial (Gain)/Loss	4,550,131	25	4,483,112	374,124
10/1/2011	Plan Amendments	(2,636,510)	25	(2,596,990)	(216,723)
10/1/2011	Plan Amendments	(1,578,735)	25	(1,549,121)	(129,277)
10/1/2012	Actuarial (Gain)/Loss	1,567,422	26	1,612,052	132,713
10/1/2013	Software/Method Change	5,601,027	27	5,832,846	474,235
10/1/2013	Actuarial (Gain)/Loss	(1,288,204)	27	(1,341,520)	(109,071)
10/1/2013	Assumption Change	(683,987)	27	(712,295)	(57,913)
10/1/2013	Plan Amendments	245,703	27	255,873	20,804
10/1/2014	Actuarial (Gain)/Loss	(1,589,797)	28	(1,674,697)	(134,607)
10/1/2015	Actuarial (Gain)/Loss	5,005,217	29	5,328,571	423,798
10/1/2016	Assumption Change	6,268,106	30	6,738,214	530,728
10/1/2016	Actuarial (Gain)/Loss	4,886,195	30	5,252,660	413,720
10/1/2017	Actuarial (Gain)/Loss	2,018,390	30	2,018,390	158,976

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results

	10/1/2017 7.50%	10/1/2016 7.50%
Participant Data		
Active members	300	295
Total annual payroll	\$16,768,315	\$16,113,533
Members in DROP	18	20
Total annualized benefit	\$953,910	\$984,806
Retired members and beneficiaries	325	322
Total annualized benefit	\$12,531,068	\$12,132,041
Disabled members receiving benefits	55	56
Total annualized benefit	\$1,474,401	\$1,454,942
Terminated vested members	28	8
Total annualized benefit	\$178,382	\$217,422
Assets		
Actuarial value of assets	\$178,150,964	\$171,618,877
Market value of assets	\$175,194,639	\$165,031,589

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results (continued)

	10/1/2017 7.50%	10/1/2016 7.50%
Liabilities, present value of all future expected benefit payments		
Active members		
Retirement benefits	\$69,505,965	\$66,578,887
Vesting benefits	\$4,416,696	\$4,354,715
Disability benefits	\$4,598,340	\$4,516,497
Death benefits	\$2,081,343	\$2,052,119
Return of contribution	1,060,089	1,000,316
Total	\$81,662,433	\$78,502,534
Terminated vested members	\$1,835,893	\$1,870,895
Retired members and beneficiaries	\$169,308,545	\$165,388,344
Disabled members	\$17,772,717	\$17,150,947
Total	\$270,579,588	\$262,912,720
Liabilities due and unpaid	\$0	\$0
Actuarial accrued liability	\$245,395,180	\$238,156,346
Unfunded actuarial accrued liability	\$67,244,216	\$66,537,469

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results (continued)

	10/1/2017 7.50%	10/1/2016 7.50%
Actuarial present value of accrued benefits		
Statement of actuarial present value of all accrued benefits		
Vested accrued benefits		
Inactive members and beneficiaries	\$188,917,155	\$184,410,186
Active members	35,815,608	33,525,504
Total value of all vested accrued benefits	\$224,732,763	\$217,935,690
Non-vested accrued benefits	7,366,982	6,775,886
Total actuarial present value of all accrued benefits	\$232,099,745	\$224,711,576
Statement of changes in total actuarial present value of all accrued benefits (ASC 960)		
Actuarial present value of accrued benefits, beginning of year	\$224,711,576	\$210,774,284
Increase (decrease) during year		
Benefits accumulated	\$5,643,906	\$6,946,549
Plan amendment	0	0
Changes in actuarial assumptions	0	6,509,790
Interest	16,316,778	15,263,739
Benefits paid	(14,572,515)	(14,782,786)
Other changes	0	0
Net increase (decrease)	\$7,388,169	\$13,937,292
Actuarial present value of accrued benefits, end of year	\$232,099,745	\$224,711,576

Information to Comply with Florida 60T-1.003(4)(i)

Comparative Summary Of Principal Valuation Results (continued)

	10/1/2017 7.50%	10/1/2016 7.50%
Pension cost		
Normal Cost	\$3,254,740	\$3,193,182
Member contributions	\$1,647,017	\$1,596,881
Expected plan sponsor contribution	\$8,055,644	\$7,794,395
As % of payroll	45.75%	46.07%
Member Contributions as % of payroll	9.82%	9.91%
Past contributions	9/30/2017	9/30/2016
Required plan sponsor contribution	\$7,522,162	\$7,004,881
Required member contribution	\$1,643,490	\$1,611,364
Actual contributions made by:		
Plan's sponsor	\$7,522,162	\$7,004,881
Members	\$1,643,490	\$1,611,364
Other	\$0	\$0
Net actuarial gain (loss) (if applicable)	\$2,018,390	(\$4,886,195)
Other disclosures (where applicable)		
Present value of active member		
Future salaries at attained age	\$135,885,354	\$131,502,853
Future contributions at attained age	\$11,813,135	\$11,443,014
Accumulated Employee Contributions	\$17,619,506	\$17,387,391

Information to Comply with Florida 60T-1.003(4)(i)

Hypothetical City Contribution Requirement for 2016/2017 Fiscal Year

	Police	Fire	Total
Unfunded actuarial accrued liability	\$44,053,371	\$23,190,845	\$67,244,216
Liabilities, present value of all future expected benefit payments			
Active members			
Retirement benefits	\$45,602,889	\$23,903,076	\$69,505,965
Vesting benefits	3,606,522	810,174	4,416,696
Disability benefits	2,925,308	1,673,032	4,598,340
Death benefits	1,302,021	779,322	2,081,343
Return of contribution	153,526	906,563	1,060,089
Total	\$53,590,266	\$28,072,167	\$81,662,433
Terminated vested members	\$1,358,273	\$477,620	\$1,835,893
Retired members and beneficiaries	\$107,946,105	\$61,362,440	\$169,308,545
Disabled members	\$12,696,686	\$5,076,031	\$17,772,717
Total	\$175,591,330	\$94,988,258	\$270,579,588
Entry age reserve			
Active	\$38,763,467	\$17,714,558	\$56,478,025
Inactive	122,001,064	66,916,091	188,917,155
Total	\$160,764,531	\$84,630,649	\$245,395,180
Actuarial asset value ¹	\$116,711,160	\$61,439,804	\$178,150,964

¹Allocated based on Entry Age Reserve

Information to Comply with Florida 60T-1.003(4)(i)

Hypothetical City Contribution Requirement for 2016/2017 Fiscal Year

	Police	Fire	Total
Employer Contributions			
Normal Cost	\$2,121,418	\$1,133,322	\$3,254,740
Expected Member Contributions	(1,163,578)	(483,439)	(1,647,017)
Net Normal Cost	\$957,840	\$649,883	\$1,607,723
Salary Increase	47,892	32,494	80,386
Administrative expense ¹	131,025	68,975	200,000
Amortization of UAAL1	4,563,410	2,402,299	6,965,709
Applicable Interest	9,827	5,173	15,000
Total Recommended Contribution	\$5,709,994	\$3,158,824	\$8,868,818
Expected Non-Employer Contributions	(\$532,731)	(\$280,443)	(\$813,174)
Total Recommended Contribution	\$5,177,263	\$2,878,381	\$8,055,644
As a percentage of expected payroll	41.84%	55.00%	45.75%
Hypothetical Total			\$8,055,644

¹Allocated based on Entry Age Reserve

Information to Comply with Florida 60T-1.003(3)(f)

September 30, 2017

Historical Salary Increases and Asset Performance

Year Ending	Payroll Growth	Salary Growth	Expected Salary Growth	Asset Return (Market)	Asset Return (Actuarial)	Asset Return (Expected)
9/30/2017	4.06%	5.74%	4.95%	9.56%	7.08%	7.50%
9/30/2016	3.44%	7.06%	4.97%	7.46%	6.52%	7.50%
9/30/2015	0.16%	4.48%	4.95%	(2.59%)	6.33%	7.50%
9/30/2014	(0.70%)	2.20%	5.00%	9.50%	8.30%	7.50%
9/30/2013	(0.60%)	1.40%	6.30%	12.50%	8.40%	7.50%
9/30/2012	(3.80%)	3.40%	6.20%	20.30%	7.40%	7.50%
9/30/2011	(8.00%)	0.20%	6.20%	0.40%	4.70%	7.50%
9/30/2010	(2.80%)	(1.40%)	6.20%	11.20%	5.70%	7.50%
9/30/2009	1.10%	4.90%	6.20%	1.00%	4.50%	7.50%
9/30/2008	(0.80%)	5.90%	6.10%	(16.70%)	5.30%	7.50%
Averages						
3-year				4.67%	6.64%	
5-year				7.16%	7.32%	
10-year	(0.79%)			4.79%	6.41%	
20-year				6.20%	6.05%	

Amortization of Unfunded Actuarial Accrued Liability

	UAAL	Amortization
10/1/2017	\$67,244,216	\$6,806,734
10/1/2018	\$64,970,294	\$6,965,709
10/1/2019	\$62,354,929	\$6,965,709
10/1/2020	\$59,543,412	\$6,965,709
10/1/2047	\$158,975	\$158,975

City of Daytona Beach Police Officers' and Firefighters' Retirement System
Actuarial Valuation as of October 1, 2017
Other Measurements

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035¹

	Valuation	- 200 bp2	Funding Rate2	October 1, 2017 + 200 bp2
	7.50%	5.50%	7.50%	9.50%
Total pension liability				
Service Cost	\$3,104,761	\$3,104,761	\$3,104,761	\$3,104,761
Interest	16,816,363	16,816,363	16,816,363	16,816,363
Benefit changes	0	0	0	0
Difference between expected and actual experience	4,813,639	4,813,639	4,813,639	4,813,639
Changes in assumptions	6,833,267	70,865,767	6,833,267	(37,255,809)
Benefit payments	(14,111,773)	(14,111,773)	(14,111,773)	(14,111,773)
Contribution refunds	(460,742)	(460,742)	(460,742)	(460,742)
Net change in pension liability	\$16,995,515	\$81,028,015	\$16,995,515	(\$27,093,561)
Total pension liability, beginning of year	\$228,399,665	\$228,399,665	\$228,399,665	\$228,399,665
Total pension liability, end of year	\$245,395,180	\$309,427,680	\$245,395,180	\$201,306,104
Plan fiduciary net position				
Contributions - Employer	\$6,708,988	\$6,708,988	\$6,708,988	\$6,708,988
Contributions - State	813,174	813,174	813,174	813,174
Contributions - Member	1,643,490	1,643,490	1,643,490	1,643,490
Net investment income	15,868,037	15,868,037	15,868,037	15,868,037
Benefit payments	(14,111,773)	(14,111,773)	(14,111,773)	(14,111,773)
Contribution refunds	(460,742)	(460,742)	(460,742)	(460,742)
Administrative expense	(212,819)	(212,819)	(212,819)	(212,819)
Other	(85,305)	(85,305)	(85,305)	(85,305)
Net change in plan fiduciary net position	\$10,163,050	\$10,163,050	\$10,163,050	\$10,163,050
Plan fiduciary net position, beginning of year	\$165,031,589	\$165,031,589	\$165,031,589	\$165,031,589
Plan fiduciary net position, end of year	\$175,194,639	\$175,194,639	\$175,194,639	\$175,194,639
Net pension liability/(asset)	\$70,200,541	\$134,233,041	\$70,200,541	\$26,111,465
Funded ratio	71.39%	56.62%	71.39%	87.03%
Years that Assets support expected benefit payments	15	13	15	20
Estimated city contribution				
Annual dollar value	\$7,965,364	\$13,397,586	\$7,965,364	\$3,504,080
Percentage of payroll	45.24%	76.09%	45.24%	19.90%

¹Includes DROP assets and liabilities

²Based on valuation assumption with the following changes
 -interest rate (as noted)

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2017

Sustainment of Expected Benefit Payments

Mortality
 Interest

Valuation
 7.50%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$175,194,639	\$12,492,062	\$17,585,551 ¹
2	170,101,150	12,176,200	15,789,067
3	166,488,283	11,885,393	16,327,931
4	162,045,745	11,527,720	16,992,811
5	156,580,654	11,093,724	17,647,698
6	150,026,680	10,580,017	18,249,482
7	142,357,215	9,976,604	19,015,410
8	133,318,409	9,279,192	19,545,042
9	123,052,559	8,488,652	20,104,528
10	111,436,683	7,592,777	20,774,882
11	98,254,578	6,586,800	21,245,234
12	83,596,144	5,466,668	21,808,743
13	67,254,069	4,220,515	22,365,405
14	49,109,179	2,843,018	22,817,046
15	29,135,151	1,331,728	23,176,533
16	7,290,346		23,358,544

¹Benefit payments include the DROP balance at 9/30/2017

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2017

Sustainment of Expected Benefit Payments

Mortality FRS Mortality Scale BB Generational
 Interest 5.50%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$175,194,639	\$9,158,575	\$17,585,551 ¹
2	166,767,663	8,743,834	15,789,067
3	159,722,430	8,341,725	16,327,931
4	151,736,224	7,884,445	16,992,811
5	142,627,858	7,365,716	17,647,698
6	132,345,876	6,783,880	18,249,482
7	120,880,274	6,132,490	19,015,410
8	107,997,354	5,409,560	19,545,042
9	93,861,872	4,616,928	20,104,528
10	78,374,272	3,746,922	20,774,882
11	61,346,312	2,797,623	21,245,234
12	42,898,701	1,767,715	21,808,743
13	22,857,673	650,355	22,365,405
14	1,142,623		22,817,046

¹Benefit payments include the DROP balance at 9/30/2017

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2017

Sustainment of Expected Benefit Payments

Mortality FRS Mortality Scale BB Generational
Interest 7.50%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$175,194,639	\$12,492,062	\$17,585,551 ¹
2	170,101,150	12,176,200	15,789,067
3	166,488,283	11,885,393	16,327,931
4	162,045,745	11,527,720	16,992,811
5	156,580,654	11,093,724	17,647,698
6	150,026,680	10,580,017	18,249,482
7	142,357,215	9,976,604	19,015,410
8	133,318,409	9,279,192	19,545,042
9	123,052,559	8,488,652	20,104,528
10	111,436,683	7,592,777	20,774,882
11	98,254,578	6,586,800	21,245,234
12	83,596,144	5,466,668	21,808,743
13	67,254,069	4,220,515	22,365,405
14	49,109,179	2,843,018	22,817,046
15	29,135,151	1,331,728	23,176,533
16	7,290,346		23,358,544

¹Benefit payments include the DROP balance at 9/30/2017

Information to Comply with Florida Statute 112.664 and Florida Administrative Code 60T-1.0035

October 1, 2017

Sustainment of Expected Benefit Payments

Mortality FRS Mortality Scale BB Generational
Interest 9.50%

<u>Year</u>	<u>Market Value of Assets</u>	<u>Investment Return</u>	<u>Benefit Payments</u>
1	\$175,194,639	\$15,827,126	\$17,585,551 ¹
2	173,436,214	15,752,154	15,602,054
3	173,586,314	15,757,732	15,789,067
4	173,554,979	15,729,740	16,327,931
5	172,956,788	15,642,046	16,992,811
6	171,606,023	15,483,322	17,647,698
7	169,441,647	15,249,770	18,249,482
8	166,441,935	14,929,241	19,015,410
9	162,355,766	14,516,469	19,545,042
10	157,327,193	14,012,781	20,104,528
11	151,235,446	13,402,946	20,774,882
12	143,863,510	12,680,777	21,245,234
13	135,299,053	11,840,994	21,808,743
14	125,331,304	10,868,216	22,365,405
15	113,834,115	9,755,017	22,817,046
16	100,772,086	8,497,436	23,176,533
17	86,092,989	7,094,472	23,358,544
18	69,828,917	5,538,981	23,582,683
19	51,785,215	3,813,423	23,828,374
20	31,770,264	1,901,556	24,053,417
21	9,618,403		24,286,938

¹Benefit payments include the DROP balance at 9/30/2017

Reserve Account For Future Benefit Improvements Under F.L. 99-1

1. Adjusted Base Amount at 10/1/2017

Year		Ch. 185	Ch. 175	Suppl.	
<u>Established</u>	<u>Description</u>	<u>Police</u>	<u>Fire</u>	<u>Fire</u>	<u>Total</u>
		-\$-	-\$-	-\$-	-\$-
1998	Base Year Premium Tax Distribution	249,992	225,820	0	475,812
1999	Normal, Early Retirement Eligibility; J&S Option; Death, Disability Benefits	0	0	0	0
2001	Normal Form 10 C&L	41,696	20,731		62,427
2006	3.15% Multiplier		84,068		84,068
2006	300 Hours Overtime	103,827			103,827
2012	3.00% Multiplier		(17,000)	0	(17,000)
	Adjusted Base Amount	395,515	313,619	0	709,134

2. Reserve Account for 2016/2017

	Ch. 185	Ch. 175	Suppl.	
	<u>Police</u>	<u>Fire</u>	<u>Fire</u>	<u>Total</u>
	-\$-	-\$-	-\$-	-\$-
(a) Reserve Account at September 30, 2016	0	0	0	0
(b) Interest on (a) for full year	0	0	0	0
(c) Use of State Reserve	0	0	0	0
(d) Reserve Account at September 30, 2017 (1 + 2 + 3)	0	0	0	0
(e) City Contribution Receivable for State Premium Shortfall				
i. Premium Tax Distribution for 2016	463,523	349,651	0	813,174
ii. Adjusted Base Amount	395,515	313,619	0	709,134
iii. Shortfall of State Premium Tax Distribution	0	0	0	0

3. Allocation of Accumulated Reserve Account under SB 172

	Ch. 185	Ch. 175	Suppl.	
	<u>Police</u>	<u>Fire</u>	<u>Fire</u>	<u>Total</u>
	-\$-	-\$-	-\$-	-\$-
(a) Amount allocated to Unfunded Liability	0	0	0	0
(b) Amount allocated to Member Plan	0	0	0	0
(c) Total	0	0	0	0
(d) Final Reserve Account at September 30, 2017	0	0	0	0

Calculation of COLA Fund Transfer and Final Actuarial Value of Assets

1. Cumulative Actuarial Gain/(Loss) from October 1, 2011

Date	10/1/2017 Remaining Balance
10/1/2012	(1,612,052)
10/1/2013	1,341,520
10/1/2014	1,674,697
10/1/2015	(5,328,571)
10/1/2016	(5,252,660)
10/1/2017	(2,018,390)
Cumulative Gain/(Loss)	(11,195,456)

2. Calculation of COLA Transfer

(a) Preliminary Actual Actuarial Value of Assets Rate of Return	7.08%
(b) Excess Return over Expected 7.5%	0.00%
(c) Expected Return	12,890,850
(d) Actuarial Asset Dollar Return	12,151,769
(e) Excess Dollar Return over Expected (d) - (c)	0
Excess Dollar Return over Expected Limited to 3%	
(f) ((b)/Min((b),3%))	0
(g) Preliminary COLA Transfer (50% x (f))	0
(h) Cumulative Actuarial Gain /(Loss) From October 1, 2011	(11,195,456)
(i) Final COLA Transfer (lesser of (g) and (h), but not less than \$0)	0

3. Final Actuarial Value of Assets

(a) Preliminary Actuarial Value of Assets	178,150,964
(b) Present Value of 1/1/2016 COLA Transfer, discounted at 7.5%	0
(c) Final Actuarial Value of Assets ((a) - (b))	178,150,964
(d) Rate of Return on Final Actuarial Value of Assets	7.08%

Determination of COLA Fund Assets

	September 30, 2016
1. COLA Fund Assets, beginning of prior year	\$921,040
2. Distributions	-
3. Investment Return	88,051
4. Asset Transfers	-
	<hr/>
5. COLA Fund Assets, beginning of current year	\$1,009,091