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City of Rockledge

Fire Employees Retirement Plan

Actuarial Valuation as of October 1, 2015



February 14, 2016

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
BEGINNING OCTOBER 1, 2015



February 14, 2016

Board of Trustees
City of Rockledge Fire Employees Retirement Plan
Rockledge, Florida

RE: Actuarial Valuation as of October 1, 2015

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2015 for the City of Rockledge Fire Employees Retirement Plan (the Plan). This report provides a review of the current funded status of the Plan, establishes the minimum funding requirements for the fiscal year ending September 30, 2016, and provides an analysis of experience since the last valuation. In addition to providing the summary and derivation of actuarial findings, this report describes the data, assumptions, and methods used to create these results.

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.

Statement by Enrolled Actuary:

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

We look forward to the presentation of these results to you in person and we are always available to answer any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Chad M. Little".

Chad M. Little, ASA, EA
Partner, Consulting Actuary
Enrollment Number 14-6619

A handwritten signature in black ink, appearing to read "Paula C. Freiman".

Paula C. Freiman, ASA, EA
Partner, Consulting Actuary
Enrollment Number 14-5796

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Section

1

Board Summary

This report presents the results of the October 1, 2015 actuarial valuation of the City of Rockledge Fire Employees Retirement Plan (the Plan). A summary of the key valuation findings are compared with the results of the prior valuation below.

Summary of Principal Valuation Results

Minimum Funding Requirements

Fiscal Year Ending September 30,	2015	2016
<u>As a Dollar Amount</u>		
Estimated Minimum Required City Contribution	\$351,298	\$371,170
Estimated State Contribution	<u>185,014</u>	<u>173,333</u>
Total Minimum Funding Requirement (City plus State)	\$536,312	\$544,503
<u>As a Percent of Valuation Payroll</u>		
Estimated Minimum Required City Contribution	24.81%	26.01%
Estimated State Contribution	<u>13.07%</u>	<u>12.14%</u>
Total Minimum Funding Requirement (City plus State)	37.88%	38.15%

Note: \$544,503 is the minimum funding requirement for fiscal 2016 including both contributions from the City and those from the State of Florida. We have estimated the City portion as \$371,170 which should be deposited during fiscal 2016 on at least a quarterly basis. The quarterly estimate is \$92,793. The annual contribution paid by the City should take into account the actual amount of premium tax revenues received from the State of Florida so that total minimum funding deposited to the Plan for fiscal 2016 is \$544,503.

Funded Status

Valuation as of October 1,	2014	2015
Accrued Liability (AL)	\$13,384,032	\$13,673,735
Actuarial Value of Assets	<u>(10,070,624)</u>	<u>(10,293,985)</u>
Unfunded Accrued Liability (UAL)	\$3,313,408	\$3,379,750
Funded Percentage	75.24%	75.28%

Key Assumptions

Valuation as of October 1,	2014	2015
Assumed Investment Return, Net of Expenses	8.00%	8.00%
Salary Increase Assumption	6.00%	6.00%

Summary of Significant Events

Determination of the funded status of the Plan and minimum funding requirements are based on funding policy, participant data, asset information, Plan provisions, actuarial methods and assumptions, as well as contributions made to the Plan by the State of Florida. Any significant events associated with these items are discussed in the following.

City Policy Contribution

The City policy had been to contribute 7.5% of total payroll including the pay of DROP members. However, a contribution on this basis does not result in funding the minimum required contribution.

Of the \$362,979 City minimum required contribution for fiscal 2015, only \$293,293 was actually deposited creating a contribution receivable for fiscal 2015 in the amount of \$69,686. Pension plan receivables should be short term and consist of contributions due as of the end of the reporting period. Contribution receivables should be deposited as soon as possible after the fiscal year end. When the minimum required contribution is not actually deposited to the fund, the contributions cannot be invested. Underfunding on this basis will cause the level of future minimum required contributions to rise.

The actual premium tax distribution for the fiscal ending September 30, 2016 is not yet known. \$544,503 is the minimum funding requirement for fiscal 2016 including both contributions from the City and those from the State of Florida. We have estimated the City portion as \$371,170 which should be deposited during fiscal 2016 on at least a quarterly basis. The quarterly estimate is \$92,793. The annual contribution paid by the City should take into account the actual amount of premium tax revenues received from the State of Florida so that total minimum funding deposited to the Plan for fiscal 2016 is \$544,503.

Participant Data

During the year active membership changed from 31 to 32 members due to 4 new hires, 2 non-vested terminations and 1 DROP entrant. The following provides a summary comparing the actual and expected pay increases for the 12 month periods ending on the date specified.

Year Ended September 30,	Individual		Total
	Actual	Expected	Payroll Increase
2015	6.4%	6.0%	0.8%
2014	4.7%	6.0%	8.9%
2013	3.4%	6.0%	(8.4%)
2012	(3.0%)	6.0%	(2.6%)
2011	3.0%	6.0%	(10.9%)
2010	1.6%	6.0%	(12.4%)
2009	5.3%	6.0%	0.7%
2008	4.2%	6.0%	2.6%
2007	9.7%	6.0%	6.4%
2006	3.4%	6.0%	3.3%
Average:	3.8%	6.0%	(1.4%)

Total payroll decreased 1.4% on average over the last 10 years. Level dollar amortization is already in place for the amortization of unfunded accrued liability.

Overall, there was a demographic gain. Should a pattern of consistent gains or losses develop, assumptions will be adjusted as needed. We recommend a review of actuarial experience be conducted.

Assets

The investment return on the Market Value of Assets was 0.23% and the return on the Actuarial Value of Assets was 4.67%, each in comparison to the 8.0% rate of return assumed in the valuation of the Plan. Because the return on the Actuarial Value of Assets was less than the assumed rate of net investment return, there was an actuarial investment loss for the year ending September 30, 2015.

The table below provides a comparison of the investment return on the Market Value of Assets and the Actuarial Value of Assets in comparison to the investment return assumed in the valuation of the Plan.

12-Month Period Ended September 30,	% Market Return	% Actuarial Return	% Assumed Return
2015	0.23 %	4.67 %	8.0 %
2014	8.75 %	7.19 %	8.0 %
2013	8.07 %	5.85 %	8.0 %
2012	11.41 %	1.26 %	8.0 %
2011	(2.67%)	0.92 %	8.0 %
2010	7.82 %	1.69 %	8.0 %
2009	1.44 %	1.17 %	8.0 %
2008	(13.93)%	(14.42)%	8.0 %
2007	9.61 %	9.89 %	8.0 %
2006	9.57 %	9.75 %	8.0 %
Average	3.75 %	2.57 %	8.0 %

Investment returns less than the assumed rate of return result in increased annual minimum required contributions in the future.

Plan Provisions

Ordinance 1672-2015 was adopted August 19, 2015 to clarify multiple beneficiaries may be selected when electing the 10-year certain and life form of benefit. Also, the Normal Form of Payment under the Fire Plan is a 10-year certain and life annuity. Language was stricken in the proposed ordinance to clarify this to be true for unmarried members. An impact statement dated April 29, 2015 indicated this ordinance is not anticipated to have a material impact on the liability of the Plans.

Methods

Effective October 1, 2015 all changes to the Unfunded Accrued Liability are amortized over a 25 year period.

Assumptions

The mortality table continues to be based on the RP-2000 Combined Mortality Table (where disabled tables are used for disabled lives). Scale AA has been applied to reflect mortality improvements to the valuation year.

State Premium Tax Dollars Used Toward Minimum Funding

Upon review of a study performed to demonstrate additional premium tax revenues for fiscal 2012 were not sufficient to fund the minimum benefit provisions under F.S. Section 185, the State of Florida approved the use of the full premium tax revenues toward minimum funding for fiscal 2012. Valuations to determine required funding for fiscal 2013 through 2016 have been performed assuming that the additional premium tax revenues are not sufficient to fund minimum benefit provisions as well.

State Contributions

The actual premium tax distribution for the fiscal ending September 30, 2016 is not yet known. \$544,503 is the minimum funding requirement for fiscal 2016 including both contributions from the City and those from the State of Florida. We have estimated the City portion as \$371,170 which should be deposited during fiscal 2016 on at least a quarterly basis. The quarterly estimate is \$92,793. The annual contribution paid by the City should take into account the actual amount of premium tax revenues received from the State of Florida so that total minimum funding deposited to the Plan for fiscal 2016 is \$544,503.

Section 2 Results Derivation

In this section, the assets and liabilities of the Plan are shown in detail. Assets and liabilities are then compared to determine the funded status and minimum funding requirements.

While asset information is based on the fair market value of assets, along with any techniques used to smooth out market fluctuations, liabilities are determined through a combination of the benefit provisions, participant census data which contains information for the members who will receive those benefits, and the methods and assumptions used with regard to how benefits will be paid to members. A summary of participant data, an outline of the benefit provisions, and a description of the methods and assumptions used in this valuation are described in Section 4.

Financial Information

Over the life of the Plan, the majority of assets are typically generated from investment return. In this section, we describe how the assets of the Plan are invested, show how the actuarial value of assets is derived, and review the investment results since the prior valuation.

Investment Allocation

Valuation Date	October 1, 2014		October 1, 2015	
Stocks	\$6,551,542	65%	\$6,503,927	67%
Fixed Income Securities	2,657,154	26%	2,785,857	28%
Cash and Cash Equivalents	369,344	4%	240,796	2%
Net Receivables	<u>509,017</u>	<u>5%</u>	<u>259,534</u>	<u>3%</u>
Fair Market Value of Assets	\$10,087,057	100%	\$9,790,114	100%

Reconciliation of Market Value of Assets

Year Ending September 30,	2014	2015
1. Market Value of Assets at Beginning of Year		
a. Prior Year Ending Balance	\$9,600,740	\$10,087,057
b. Adjustment to Beginning Value	<u>0</u>	<u>(79,000)</u>
c. Market Value of Assets Beginning of Year	\$9,600,740	\$10,008,057
2. Contributions		
a. Employer	\$381,796	\$362,979
b. State	185,014	173,333
c. Plan Members	<u>98,920</u>	<u>100,309</u>
d. Total Contributions	\$665,730	\$636,621
3. Investment Income		
a. Realized Appreciation (Depreciation)	\$35,493	\$(8,512)
b. Unrealized Appreciation (Depreciation)	577,780	(201,010)
c. Interest plus Dividends	244,000	254,634
d. Investment Expense	<u>(32,288)</u>	<u>(22,015)</u>
e. Net Investment Income	\$824,985	\$23,097
4. Deductions		
a. Benefits	\$(347,936)	\$(428,914)
b. Refund of Contributions	0	(84,308)
c. DROP Balance Disbursement	(588,387)	(293,161)
d. Administrative Expense	<u>(68,075)</u>	<u>(71,278)</u>
e. Total Deductions	\$(1,004,398)	\$(877,661)
5. Net Increase	<u>\$486,317</u>	<u>\$(217,943)</u>
6. Market Value of Assets at End of Year	\$10,087,057	\$9,790,114
7. Return on Market Value of Assets = 2I / (A + B - I)	8.75 %	0.23 %

Development of Actuarial Value of Assets

The Market Value of Assets is adjusted to recognize investment earnings greater than (or less than) the assumed net investment return over a five-year period. The Actuarial Value of Assets is no more than 120% and no less than 80% of the Market Value of Assets.

1.	Gross Market Value of Assets as of October 1, 2015			\$9,790,114
2.	Phase-In Gains (Losses) Over Five Year Period			
	<u>Year Ending</u>	<u>Original Gain (Loss)</u>	<u>Percent Unrecognized</u>	<u>Unrecognized Gain (Loss)</u>
a.	September 30, 2015	\$(760,973)	80%	\$(608,778)
b.	September 30, 2014	77,873	60%	46,724
c.	September 30, 2013	13,270	40%	5,308
d.	September 30, 2012	264,377	20%	<u>52,875</u>
e.	Total			\$(503,871)
3.	Preliminary Gross Actuarial Value of Assets			\$10,293,985
4.	Corridor Around Market Value			
a.	Minimum = 80% of Market Value of Assets			\$7,832,091
b.	Maximum = 120% of Market Value of Assets			\$11,748,137
c.	Corridor Adjustment to Preliminary Actuarial Value			\$0
5.	Gross Actuarial Value of Assets as of October 1, 2015			\$10,293,985
6.	State Contribution Reserve			\$0
7.	Actuarial Value of Assets as of October 1, 2015			\$10,293,985

Development of Historical Gain or Loss on Market Value of Assets

Fiscal Year End	2015	2014
1. Market Value of Assets - Beginning of Year	\$10,008,057	\$9,600,740
2. Expected Interest on Assets	800,645	768,059
3. Contributions	636,621	665,730
4. Benefit Payments + Administrative Expenses	(877,661)	(1,004,398)
5. Interest on items (3) and (4)	<u>(16,575)</u>	<u>(20,947)</u>
6. Expected Value of Assets at End of Year	\$10,551,087	\$10,009,184
7. Market Value of Assets - End of Year	\$9,790,114	\$10,087,057
8. Gain (Loss) for Plan Year = (7) - (6)	\$(760,973)	\$77,873
Fiscal Year End	2013	2012
1. Market Value of Assets - Beginning of Year	\$8,568,635	\$7,408,817
2. Expected Interest on Assets	685,491	592,705
3. Contributions	609,213	554,662
4. Benefit Payments + Administrative Expenses	(281,807)	(256,822)
5. Interest on items (3) and (4)	<u>5,938</u>	<u>4,896</u>
6. Expected Value of Assets at End of Year	\$9,587,470	\$8,304,258
7. Market Value of Assets - End of Year	\$9,600,740	\$8,568,635
8. Gain (Loss) for Plan Year = (7) - (6)	\$13,270	\$264,377

Historical Asset Values

Value as of <u>October 1,</u>	Actuarial Value of <u>Assets</u>	Market Value of <u>Assets</u>	% <u>Market</u> <u>Return</u>	% <u>Actuarial</u> <u>Return</u>	% <u>Assumed</u> <u>Return</u>
2015	\$10,293,985	\$9,790,114	0.23 %	4.67 %	8.00 %
2014	10,070,624	10,087,057	8.75 %	7.19 %	8.00 %
2013	9,298,953	9,600,740	8.07 %	5.85 %	8.00 %
2012	8,466,891	8,568,635	11.41 %	1.26 %	8.00 %
2011	8,065,659	7,408,817	(2.67%)	0.92 %	8.00 %
2010	7,819,188	7,354,559	7.82 %	1.69 %	8.00 %
2009	7,426,015	6,551,286	1.44 %	1.17 %	8.00 %
2008	7,042,077	6,117,865	(13.93)%	(14.42)%	8.00 %
2007	6,636,445	6,856,342	9.61 %	9.89 %	8.00 %
2006	5,826,779	5,949,223	9.57 %	9.75 %	8.00 %

Historical Contribution Amounts

Year Ending <u>September 30,</u>	<u>Employer</u>	<u>State</u>	<u>Members</u>	<u>Total</u>
2015	\$362,979	\$173,333	\$100,309	\$636,621
2014	381,796	185,014	98,920	665,730
2013	325,124	178,961	105,128	609,213
2012	269,266	175,451	109,945	554,662
2011	256,606	169,439	111,309	537,354
2010	119,320	162,886	119,320	401,526
2009	131,410	258,987	131,410	521,807
2008	130,288	123,083	130,288	383,659
2007	127,468	181,651	127,468	436,587
2006	124,177	137,104	120,667	381,948

Historical Deductions from Fund

Year Ending <u>September 30,</u>	<u>Benefits</u>	<u>Refunds</u>	Administrative <u>Expense</u>	<u>Total</u>
2015	\$722,075	\$84,308	\$71,278	\$877,661
2014	936,323	0	68,075	1,004,398
2013	193,660	21,167	66,980	281,807
2012	184,815	43,270	28,737	256,822
2011	231,470	0	52,247	283,717
2010	75,850	0	45,978	121,828
2009	141,441	6,605	31,198	179,244
2008	37,144	74,227	39,755	151,126
2007	37,144	37,073	42,621	116,838
2006	37,144	42,568	19,970	99,682

Derivation of State Contribution Funding Reserves

Year Ending September 30	State Contributions			Recognized State Funding	Cumulative Balance Available Upon Benefit Improvement
	Regular	Supplemental	Total		
2015	\$135,220	\$38,113	\$173,333	\$173,333	\$0
2014	133,388	51,626	185,014	185,014	454,044 *
2013	134,063	44,898	178,961	178,961	454,044
2012	133,555	41,896	175,451	175,451	454,044
2011	138,034	31,405	169,439	89,663	454,044
2010	129,388	33,498	162,886	89,663	374,268
2009	125,721	133,266	258,987	86,551	359,839
2008	123,083	0	123,083	84,198	258,782
2007	114,831	66,820	181,651	84,198	219,897
2006	110,777	26,327	137,104	84,198	122,444
2005	107,444	14,272	121,716	84,198	69,538
2004	96,823	9,247	106,070	84,198	32,020
2003	89,380	2,684	92,064	84,198	10,148
2002	86,480	0	86,480	84,198	2,282
2001	75,807	0	75,807	75,807	0
2000	74,000	0	74,000	83,152	0
1999	69,146	0	69,146	59,994	9,152
1998	59,994	0	59,994	59,994	0

Year Ending September 30	One-time Use Benefit Improvement	Recurring Cost Benefit Improvement	Base Plus Benefit Improvement	Recognized State Funding	Cumulative Balance Available Upon Benefit Improvement
	2015	\$0	\$0	\$89,663	\$173,333
2014	0	0	89,663	185,014	454,044 *
2013	0	0	89,663	178,961	454,044
2012	0	0	89,663	175,451	454,044
2011	0	0	89,663	89,663	454,044
2010	58,794	3,112	89,663	89,663	374,268
2009	71,379	2,353	86,551	86,551	359,839
2008	0	0	84,198	84,198	258,782
2007	0	0	84,198	84,198	219,897
2006	0	0	84,198	84,198	122,444
2005	0	0	84,198	84,198	69,538
2004	0	0	84,198	84,198	32,020
2003	0	0	84,198	84,198	10,148
2002	0	0	84,198	84,198	2,282
2001	0	0	84,198	75,807	0
2000	0	24,204	84,198	83,152	0
1999	0	0	59,994	59,994	9,152
1998	0	0	59,994	59,994	0

*As of September 30, 2014 the \$454,044 cumulative balance of State contributions available for benefit improvement has been released into the general assets of the Plan to pay for current benefits.

Present Value of Benefits

Valuation as of October 1,	2014	2015
1. Active Members		
a. Retirement Benefits	\$6,453,045	\$6,326,664
b. Deferred Benefits	283,724	285,166
c. Survivor Benefits	80,890	79,865
d. Disability Retirement	<u>151,063</u>	<u>154,633</u>
e. Total for Active Members	\$6,968,722	\$6,846,328
2. Inactive Members		
a. Retired Members	\$8,178,341	\$8,668,568
b. Terminated members	100,687	109,066
c. Beneficiaries	151,603	150,114
d. Disability Retirement	<u>75,279</u>	<u>74,608</u>
e. Total for Inactive Members	\$8,505,910	\$9,002,356
3. Present Value of Benefits	\$15,474,632	\$15,848,684

Accrued Liability

Valuation as of October 1,	2014	2015
1. Active Members		
a. Retirement Benefits	\$4,757,223	\$4,553,727
b. Deferred Benefits	7,354	6,702
c. Survivor Benefits	39,607	37,883
d. Disability Retirement	<u>73,938</u>	<u>73,067</u>
e. Total for Active Members	\$4,878,122	\$4,671,379
2. Inactive Members		
a. Retired Members	\$8,178,341	\$8,668,568
b. Terminated members	100,687	109,066
c. Beneficiaries	151,603	150,114
d. Disability Retirement	<u>75,279</u>	<u>74,608</u>
e. Total for Inactive Members	\$8,505,910	\$9,002,356
3. Accrued Liability	\$13,384,032	\$13,673,735

Normal Cost

Valuation as of October 1,	2014	2015
1. Preliminary Normal Cost		
a. Retirement Benefits	\$202,809	\$201,351
b. Deferred Benefits	32,944	31,003
c. Survivor Benefits	5,027	4,837
d. Disability Retirement	<u>9,537</u>	<u>9,534</u>
e. Total	\$250,317	\$246,725
2. Total Normal Cost		
a. Preliminary Normal Cost	\$250,317	\$246,725
b. Estimated Administrative Expense	<u>68,075</u>	<u>71,278</u>
c. Total Normal Cost	\$318,392	\$318,003
d. Total Normal Cost as a Percent of Pay	22.5%	22.3%
3. Employer Normal Cost		
a. Preliminary Normal Cost	\$250,317	
b. Actual Administrative Expense	71,278	
c. Actual Employee Contributions	<u>(100,309)</u>	
d. Employer Normal Cost	\$221,286	
4. Valuation Payroll	\$1,415,669	\$1,427,401

Unfunded Accrued Liability

Derivation of Unfunded Accrued Liability (UAL)

Unfunded Accrued Liability

1. Accrued Liability	\$13,673,735
2. Actuarial Value of Assets	<u>(10,293,985)</u>
3. Unfunded Accrued Liability	\$3,379,750

Determination of Expected Unfunded Accrued Liability

1. Unfunded Accrued Liability as of Prior Year	\$3,313,408
2. Interest for a full year on (1)	265,073
3. Employer Normal Cost (Including Administrative Expenses)	221,286
4. Interest for a full year on (3)	17,703
5. City Plus State Contribution	(536,312)
6. Interest on Contribution for Time on Deposit	(14,519)
7. Change in Plan, Methods or Assumptions	<u>12,388</u>
8. Expected Unfunded Accrued Liability	\$3,279,027

Calculation of (Gain) or Loss

1. Actual Unfunded Accrued Liability	\$3,379,750
2. Expected Unfunded Accrued Liability	<u>3,279,027</u>
3. Total (Gain) or Loss	\$100,723

Reconciliation of Unfunded Accrued Liability

1. Unfunded Accrued Liability as of Prior Year	\$3,313,408
2. Total Change in Unfunded Accrued Liability	
a. Expected Change in Unfunded Accrued Liability	\$(46,769)
b. Change in Plan, Methods or Assumptions	12,388
c. Change Due to (Gain) or Loss	
i. Portion of (Gain) / Loss Due to Investments	\$324,674
ii. Portion of (Gain) / Loss Due to Demographic Experience	<u>(223,951)</u>
iii. Total (Gain) or Loss	\$100,723
d. Total Change in Unfunded Accrued Liability	\$66,342
3. Unfunded Accrued Liability	\$3,379,750

Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level dollar amount based on the interest assumption. Changes in the Unfunded Actuarial Accrued Liability due to plan changes, assumption changes, method changes, or gains and losses are all amortized over a 25 year period (30 years in the prior valuation).

Amortization Bases

	Effective 10/1	Source	Original Balance	Remaining Balance	Adjusted Remaining Balance	Years Remain	Level \$ Amortization
1.	2005	Method Change	\$712,901	\$635,800	\$635,111	20	\$59,896
2.	2006	Actuarial Gain	(389,008)	(345,284)	(344,910)	21	(31,883)
3.	2007	Actuarial Loss	146,070	128,760	128,621	22	11,675
4.	2007	Assumption Change	109,095	96,170	96,066	22	8,720
5.	2008	Actuarial Loss	1,281,746	1,119,973	1,118,760	23	99,883
6.	2008	Method Change	(1,048)	(913)	(912)	23	(81)
7.	2008	Method Change	(1,111,615)	(971,313)	(970,261)	23	(86,625)
8.	2009	Actuarial Loss	332,686	287,650	287,339	24	25,269
9.	2010	Actuarial Loss	717,799	613,159	612,495	25	53,128
10.	2011	Actuarial Loss	668,509	571,486	570,867	26	48,897
11.	2011	Assumption Change	436,124	372,828	372,424	26	31,900
12.	2012	Actuarial Gain	(149,835)	(128,455)	(128,316)	27	(10,865)
13.	2012	Asmp/Method Chg	905,104	775,962	775,122	27	65,633
14.	2013	Actuarial Loss	173,126	149,234	149,072	28	12,490
15.	2013	Update Mortality	10,903	9,398	9,388	28	787
16.	2014	Actuarial Experience	(56,425)	(55,927)	(55,866)	29	(4,636)
17.	2014	Update Mortality	11,756	11,652	11,639	29	966
18.	2015	Actuarial Experience	100,723	100,723	100,723	25	8,737
19.	2015	Update Mortality	12,388	<u>12,388</u>	<u>12,388</u>	25	<u>1,075</u>
Scheduled Amortization Payment							\$294,966
Outstanding Bases				\$3,383,291	\$3,379,750		
Unfunded Accrued Liability				\$3,379,750	\$3,379,750		

Projected Unfunded Accrued Liability and Amortization Payments

Plan Year Beginning October 1	Total Outstanding Bases	Total Amortization Payment
2015	\$3,379,750	\$294,966
2016	3,331,567	294,967
2017	3,279,528	294,964
2018	3,223,329	294,966
2019	3,162,632	294,962
2020	3,097,083	294,967
2021	3,026,286	294,964
2022	2,949,827	294,966
2023	2,867,250	294,965
2024	2,778,068	294,965
2025	2,681,751	294,963
2026	2,577,732	294,964
2027	2,465,389	294,965
2028	2,344,058	294,965
2029	2,213,020	294,965
2030	2,071,500	294,964
2031	1,918,659	294,963
2032	1,753,591	294,963
2033	1,575,318	294,963
2034	1,382,784	294,965
2035	1,174,844	235,066
2036	1,014,961	266,950
2037	807,852	246,557
2038	606,198	233,378
2039	402,646	208,107
2040	210,102	145,174
2041	70,123	64,373
2042	6,209	9,608
2043	(3,670)	(3,670)
2044	0	0

Actions Taken to Reduce Unfunded Actuarial Accrued Liability

The required contributions calculated each year include a payment for the amortization of the unfunded actuarial accrued liability. This payment is designed to reduce the unfunded actuarial accrued liability in an orderly fashion over the next 25 years (30 years in the prior valuation).

Minimum Funding Requirements

Determination of Required Contribution

Valuation as of October 1, Funding for Year Ending September 30,	2014 2015	2015 2016
1. Determination of Minimum Required Contribution		
a. Total Normal Cost	\$318,392	\$318,003
b. Amortization of Unfunded Accrued Liability	<u>285,462</u>	<u>294,966</u>
c. Beginning of Year Contribution	\$603,854	\$612,969
d. Interest for Monthly Payments	<u>31,555</u>	<u>31,452</u>
e. Minimum Required Contribution Payable Monthly	\$635,409	\$644,421
f. Percent of Pay	44.88%	45.15 %
2. Computation of Expected Member Contributions		
a. Expected Member Contributions	\$99,097	\$99,918
b. Percent of Pay	7.00%	7.00%
3. Expected Contributions from State		
a. Expected State Contribution	\$185,014	\$173,333
b. Percent of Pay	13.07%	12.14 %
4. City Policy Contribution		
a. City Policy Contribution	\$351,298	\$371,170
b. Percent of Valuation Payroll	24.81%	26.01 %
5. Valuation Payroll	\$1,415,669	\$1,427,401

Note: The actual premium tax distribution for the fiscal ending September 30, 2016 is not yet known. \$544,503 is the minimum funding requirement for fiscal 2016 including both contributions from the City and those from the State of Florida. We have estimated the City portion as \$371,170 which should be deposited during fiscal 2016 on at least a quarterly basis. The quarterly estimate is \$92,793. The annual contribution paid by the City should take into account the actual amount of premium tax revenues received from the State of Florida so that total minimum funding deposited to the Plan for fiscal 2016 is \$544,503.

Reconciliations

Reconciliation of Funded Status

	Unfunded Accrued Liability	Funded Percentage	Change in Unfunded Accrued Liability	Change in Funded Percentage
As of Prior Valuation	\$3,313,408	75.24 %		
Changes in due to:				
Normal Operation of Plan	3,266,639	76.47 %	\$(46,769)	1.23 %
Investment Experience	3,591,313	74.14 %	324,674	(2.33)%
Demographic Experience	3,367,362	75.35 %	(223,951)	1.21 %
Mortality Improvement	3,379,750	75.28 %	<u>12,388</u>	<u>(0.07)%</u>
Total Changes			\$66,342	0.04 %
As of Current Valuation	\$3,379,750	75.28 %		

Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
As of Prior Valuation	\$351,298	24.81 %
Changes in Contribution due to:		
Normal Operation of Plan	\$(22,740)	0.92 %
Change in State \$	11,213	0.88 %
Change in Expenses	3,331	0.26 %
Investment Experience	29,289	2.30 %
Demographic Experience	(2,587)	(3.26)%
Mortality Improvement	<u>1,366</u>	<u>0.10 %</u>
Total Changes	\$19,872	1.20 %
As of Current Valuation	\$371,170	26.01 %

Section 3 Accounting Information

Information Required by GASB 67/68

A supplemental report provides information under the Governmental Accounting Standards Board No. 67/68.

Statement of Accumulated Plan Benefits

The following table is based on prior accounting standards and is required by the State. The present value of accrued benefits is an estimate of the liability for all benefits accrued to date.

Valuation as of October 1,	2014	2015
1. Actuarial present value of accumulated benefits		
a. Participants currently receiving benefits	\$8,405,223	\$8,893,290
b. Other participants	<u>3,313,408</u>	<u>3,035,293</u>
c. Vested participants	\$11,718,631	\$11,928,583
d. Nonvested participants	<u>365,825</u>	<u>439,908</u>
e. Total	\$12,084,456	\$12,368,491
2. Change in actuarial present value of accumulated benefits		
a. Actuarial present value of accumulated benefits beginning of year		\$12,084,456
b. Increase (decrease) during year attributable to:		
i. Plan amendment		\$0
ii. Change in assumptions or methods		10,719
iii. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		1,079,699
iv. Benefits paid		(806,383)
v. Other		<u>0</u>
vi. Net increase (decrease)		\$284,035
c. Actuarial present value of accumulated benefits end of year		\$12,368,491

Other Disclosures Required by the State of Florida

Valuation as of October 1,	2014	2015
Present value of active member:		
Future salaries (attained age)	\$11,941,777	\$12,629,201
Future contributions (attained age)	\$835,924	\$884,044
Balance of contributions with interest for actives	\$1,253,119	\$1,206,338

Required Disclosure Under F.S. 112.664(1)

As required under F.S. Section 112.664(1) we have produced the following information:

- (a) Total pension liability calculated assuming mortality under the RP-2000 Combined Mortality Table for healthy participants (by gender) with fully generational projection using Scale AA.
- (b) Total pension liability calculated using an assumed interest rate that is 200 basis points lower than that assumed in the valuation of the Plan.
- (c) Determination of the number of months or years for which the current market value of assets is adequate to sustain the payment of expected retirement benefits.
- (d) Recommended contribution to the Plan using the most recent valuation and the contributions necessary prepared pursuant to (a) and (b) stated as a dollar amount and % of payroll.

	RP 2000 Fully Generational Scale AA			Actual Valuation Results - 8.0% and RP- 2000 Projected to 2015 Using Scale AA
	2% Decrease	Current Discount Rate	2% Increase	
	(6.00%)	(8.00%)	(10.00%)	
Total pension liability	\$17,363,347	\$13,916,686	\$11,489,065	\$13,673,735
Plan fiduciary net position	<u>(9,790,114)</u>	<u>(9,790,114)</u>	<u>(9,790,114)</u>	<u>(9,790,114)</u>
Net pension liability	<u>\$7,573,233</u>	<u>\$4,126,572</u>	<u>\$1,698,951</u>	<u>\$3,883,621</u>
 Plan fiduciary net position as a percentage of the total pension liability	 56.38%	 70.35%	 85.21%	 71.60%
 Years of benefit payments:				
Expected for current members:	99	99	99	98
Paid for with current assets:	12.02	14.21	17.54	14.26
 City Plus State Contribution Requirement, Plus Expected Employee Contributions				
Dollar Amount	\$1,027,677	\$674,433	\$388,960	\$644,421
Percent of Payroll	72.00%	47.25%	27.25%	45.15%

Required Disclosure Under F.S. 112.664(2)(b)2.

F.S. Section 112.664(2)(b)2. - For the previous five years, beginning with 2013, a side-by-side comparison of the plan's assumed rate of return compared to the actual rate of return, as well as the percentages of cash, equity, bond and alternative investments in the plan portfolio.

Year Ending September 30,	2015	2014	2013	2012	2011	2010
Assumed rate of return	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Actual rate of return	0.2%	8.7%	8.1%	11.4%	(2.7%)	7.8%
Percentages of assets in:						
Cash	2%	4%	0%	5%	4%	5%
Equity	67%	65%	58%	60%	56%	57%
Bond	28%	26%	37%	30%	34%	34%
Alternative	3%	5%	5%	5%	6%	4%
Total	100%	100%	100%	100%	100%	100%

Section 4 Supplementary Information

Summary of Participant Data

Member Statistics

Valuation as of October 1,	2014	2015
<u>Active Participants</u>		
Number	31	32
Average Age	39.5	38.4
Average Credited Service	10.6	9.6
Percent Male	96.8	93.8
Average Valuation Salary	\$47,877	\$48,278
Total Valuation Salary	\$1,484,185	\$1,544,901
Payroll Covered in Valuation	\$1,415,669	\$1,427,401
<u>Terminated With Rights to Deferred Benefits</u>		
Number	1	1
Average Age	50.4	51.4
Percent Male	100.0	100.0
Average Monthly Benefit	\$1,126	\$1,126
<u>DROP Participants</u>		
Number	7	6
Average Age	55.3	55.6
Percent Male	100.0	100.0
Average Monthly Benefit	\$3,746	\$3,834
Total of DROP Account Balances September 30	\$751,241	\$696,434

Member Statistics (Continued)

Valuation as of October 1,	2014	2015
<u>Service Retirements</u>		
Number	9	11
Average Age	58.1	58.7
Percent Male	100.0	100.0
Average Monthly Benefit	\$3,063	\$3,184
Total of DROP Account Balances September 30	\$0	\$43,028
<u>Beneficiaries</u>		
Number	1	1
Average Age	54.4	55.4
Percent Male	0.0	0.0
Average Monthly Benefit	\$1,120	\$1,120
<u>Disability Retirements</u>		
Number	1	1
Average Age	53.7	54.7
Percent Male	100.0	100.0
Average Monthly Benefit	\$722	\$722
<u>Total In Payment Status</u>		
Number	11	13
Average Age	57.3	58.1
Percent Male	90.9	92.3
Average Monthly Benefit	\$2,674	\$2,836

Number of Active Members by Age and Service as of October 1, 2015

Age	Service							Total	
	< 1	< 5	< 10	< 15	< 20	< 25	< 30		< 35
< 25	2								2
< 30	1	4							5
< 35	1	1	3						5
< 40		1	2	1	1				5
< 45		2	1	2		1			6
< 50		1		1	2	1	1		6
< 55		1					2		3
< 60									
Total	4	10	6	4	3	2	3		32

Active Valuation Pay by Age and Service as of October 1, 2015

Age	Service							Total	
	<1	<5	<10	<15	<20	<25	<30		<35
< 25	34,130								34,130
< 30	39,000	37,600							37,880
< 35	34,260	40,220	44,262						41,453
< 40		43,058	53,732	60,700	48,770				51,998
< 45		39,020	46,845	52,878		75,000			50,940
< 50		38,577		62,000	64,600	69,103	60,300		59,863
< 55		37,660					58,750		51,720
< 60									
Total	35,380	38,795	47,850	57,114	59,323	72,051	59,267		48,278

Reconciliation of Plan Participants

	Active	Retired	DROP	Deferred Vested	Disabled	Survivor	Total
October 1, 2011	32	5	5	1	1	1	45
Active							
To Refund of Contribs	(4)						(4)
Additions	5						5
October 1, 2012	33	5	5	1	1	1	46
Active							
To DROP	(4)		4				0
To Refund of Contribs	(1)						(1)
DROP							
To Retired		2	(2)				0
Terminated Vested							
To Retired		1		(1)			0
Additions	2	0	0	0	0	0	2
October 1, 2013	30	8	7	0	1	1	47
Active							
To DROP	(1)		1				0
To Terminated Vested	(1)			1			0
DROP							
To Retired		1	(1)				0
Additions	3	0	0	0	0	0	3
October 1, 2014	31	9	7	1	1	1	50
Active							
To DROP	(1)		1				0
To Refund of Contribs	(2)						(2)
DROP							
To Retired		2	(2)				0
Additions	4	0	0	0	0	0	4
October 1, 2015	32	11	6	1	1	1	52

Outline of Plan Provisions

Plan Type: Single-employer Defined Benefit Pension Plan

Effective Date: November 1, 1969. Amended and restated effective October 1, 1999 and subsequently amended by Ordinance No. 1223-2000, 1336-2004, 1366-2005, 1475-2008, 1492-2008, 1509-2008, 1520-2009, 1545-2010, 1546-2010, 1565-2010, 1566-2010, 1568-2010, 1630-2013, 1643-2014, 1662-2014 and 1672-2015.

Plan Administrator: The Board of Trustees

Board Composition: Two members are elected from among the fire employees of the City, who are members of the plan, two city residents appointed by the Commission and one person is chosen by a majority of the previous four members.

Funding Requirements: Employer contributions are actuarially determined and subject to State statute. Employee contributions are as described below and may be amended by ordinance.

Plan Year: The 12-month period from October 1st to the next September 30th.

Member: Full-time firefighters participate in the Plan immediately upon hire.

Credited Service: Employee service computed in years and completed calendar months. Military service purchases are allowed.

Vesting: Members become 100% vested after earning 10 years of Credited Service.

Basic Compensation: Total compensation actually paid in a Plan Year by the City including tax deferred compensation and excluding overtime, commissions, bonuses, expense allowances and payment for accrued annual leave, accrued sick leave, and accrued compensatory leave.

Employee Contributions: 7.0% of Basic Compensation credited with 5% interest compounded annually. Members receive benefits under the Plan no less than the value of their accumulated Employee Contributions with interest.

Members who terminate non-vested are entitled to the return of Employee Contributions accumulated with interest at 5% to the first day of the month in which termination occurs.

Average Monthly Compensation: The sum of the highest five successive Plan Years of Basic Compensation in the last ten Plan Years of employment divided by 60.

Normal Retirement Date: The first day of the month coincident with or next following the earlier of attainment of age 52 and 25 years of Credited Service or age 55 and 10 years of Credited Service.

Accrued Benefit: The amount of monthly retirement income payable at the Normal Retirement Date is determined according to the following formulas, but no less than 2% x Average Monthly Compensation x Credited Service. For Members hired before October 1, 2012, the amount of monthly retirement income payable at the Normal Retirement Date is determined according to the following formula:

3% x Average Monthly Compensation x Credited Service up to 25 years



Plus

1.5% x Average Monthly Compensation x Credited Service between 25 and 30 years

For Members hired on or after October 1, 2012, the amount of monthly retirement income payable at the Normal Retirement Date is determined according to the following formula:

2.75% x Average Monthly Compensation x Credited Service up to 25 years

Plus

1.25% x Average Monthly Compensation x Credited Service between 25 and 30 years

The Accrued Benefit is payable in the form of a 10-year certain and continuous annuity. However, any member with a spouse shall receive an actuarially equivalent 50% joint and survivor annuity unless the member chooses another Optional Form of Retirement Income with spousal consent.

Members who terminate employment 100% vested prior the Normal Retirement Date are eligible to receive their Accrued Benefit once the age requirements for the Normal Retirement Date are met, provided Employee Contributions remain in the Plan.

Late Retirement Benefit: The amount of monthly retirement income payable to a Member who retires after the Normal Retirement Date is the greater of (i) the monthly retirement income which can be provided by the single-sum value of the Accrued Benefit payable if he had retired at the Normal Retirement Date, accumulated with interest from the Normal Retirement Date to the date the monthly retirement income payments are to commence, and (ii) the monthly retirement income computed as described for the Accrued Benefit using Credited Service and Average Monthly Compensation determined at the Member's actual retirement date.

Early Retirement Date: The first day of the month coincident with or next following the date an employee retires prior to the Normal Retirement Date after the earlier of attainment of age 45 and 25 years of Credited Service or age 50 and 10 years of Credited Service.

Early Retirement Benefit: The Accrued Benefit is reduced for commencement earlier than the Normal Retirement Date at a rate of 0.25% per month. However, the minimum monthly retirement income for a Member who retires before the Normal Retirement Date with 25 years Credited Service is 50% x Average Monthly Compensation.

Members who terminate employment 100% vested prior to reaching the Early Retirement Date age requirements may elect to receive an Early Retirement Benefit once the age requirements are met, provided Employee Contributions remain in the Plan.

Members who terminate employment 100% vested prior the Normal Retirement Date but on or after their Early Retirement Date but do not commence receipt of an Early Retirement Benefit at that time will receive a monthly retirement income not less than the monthly retirement income which can be provided by the single-sum value of the monthly early retirement income which would have been payable if he had retired immediately upon termination, accumulated with interest from termination to the date the monthly retirement income payments are to commence.

Members who recover from Disability Retirement and who were eligible for an Early Retirement Benefit at the date of disability may elect to receive this benefit upon recovery from disability.

Disability Retirement: This benefit is payable from the first day of the month coincident with or next following the date the Retirement Committee approves the Member's Disability Retirement. The

benefit is payable in the form of a 10 year certain and continuous annuity. The last payment is that due next preceding the earlier of (1) the date of recovery prior to the Normal Retirement Date and (2) the later of the date of death or the 120th payment. The amount of monthly retirement income is determined as follows:

(a) Non-Line of Duty: Members with less than 10 years of Credited Service upon disability receive a monthly retirement income which can be provided by the greater of (i) the single-sum value of the Accrued Benefit and (ii) 2 x Basic Compensation paid in the Plan Year immediately preceding disability. The monthly retirement income which can be provided by (ii) is limited to 60% x Anticipated Monthly Retirement Income at the Normal Retirement Date. Effective with this valuation, the benefit has been modified such that in no event shall the benefit payable be less than the benefit required under section 175.191 of the Florida Statutes.

(b) Non-Line of Duty: Members with 10 years of Credited Service or more upon disability receive a monthly retirement income which is the greater of (i) the monthly retirement income which can be provided by the single-sum value of the Accrued Benefit and (ii) 30% x Basic Compensation paid in the Plan Year immediately preceding disability where the single-sum value of this monthly amount does not exceed 100 x the Anticipated Monthly Retirement Income at the Normal Retirement Date. Effective with this valuation, the benefit has been modified such that in no event shall the benefit payable be less than the benefit required under section 175.191 of the Florida Statutes.

(c) Line of Duty: Members receive a monthly retirement income which is 50% x Basic Compensation paid in the Plan Year immediately preceding disability where the single-sum value of this monthly amount does not exceed 100 x the Anticipated Monthly Retirement Income at the Normal Retirement Date. Effective with this valuation, the benefit has been modified such that in no event shall the benefit payable be less than the benefit required under section 175.191 of the Florida Statutes.

Members who recover from disability and re-enter the service of the City within 30 days of recovery will be deemed to have continuous service except that the period beginning with the first month for which Disability Retirement income was received and ending with the date of service re-entry is not considered as Credited Service.

Anticipated Monthly Retirement Income at the Normal Retirement Date: Determined as described for the Accrued Benefit, but instead using Anticipated Credited Service and Anticipated Average Monthly Compensation. Anticipated Credited Service is employee service computed in years and completed calendar months as if the member remains employed to the Normal Retirement Date. Anticipated Average Monthly Compensation is computed assuming that the last complete Plan Year of Basic Compensation is paid in each Plan Year, without change, to the Normal Retirement Date.

Survivor Benefit at Death of Disabled Member Prior to Disability Retirement: The designated beneficiary of a disabled Member who dies prior to receipt of Disability Retirement benefits is eligible to receive a monthly retirement income payable in the form of a 10 year certain and continuous annuity payable commencing on the first of the month coincident with or next following the date of the disabled Member's death. The designated beneficiary will receive a monthly retirement income which can be provided by the greater of (i) the single-sum value of the Accrued Benefit and (ii) 2 x Basic Compensation paid in the Plan Year immediately preceding disability not more than 100 x Anticipated Monthly Retirement Income at the Normal Retirement Date.

Survivor Benefit at Death of Vested Terminated Members: The designated beneficiary of vested Member who dies prior to retirement is eligible to receive a monthly retirement income payable in the form of a 10 year certain and continuous annuity payable commencing on the first of the month coincident with or next following the Member's death, which can be provided by the single-sum value of the Member's Accrued Benefit or Early Retirement Benefit.

Survivor Benefit at Death of Active Employee Prior to Normal Retirement Date: The designated beneficiary of a Member who dies while in active service prior to the Normal Retirement Date is eligible to receive, commencing on the first of the month coincident with or next following the Member's death, a monthly retirement income (payable in the form of a 10 year certain and continuous annuity) which can be provided by the greater of (i) the single-sum value of the Accrued Benefit as of the date of death, not less than the single-sum value of the Early Retirement Benefit which would have been payable if the Member had retired early on the date of death, and (ii) 2 x Basic Compensation paid in the Plan Year immediately preceding death not more than 100 x Anticipated Monthly Retirement Income at the Normal Retirement Date.

Survivor Benefit at Death of Active Employee After Normal Retirement Date: The designated beneficiary of a Member who dies while in active service after the Normal Retirement Date is eligible to receive, commencing on the first of the month coincident with or next following the Member's death, a monthly retirement income (payable in the form of a 10 year certain and continuous annuity) which can be provided by the single-sum value of the Late Retirement Benefit.

Optional Forms of Retirement Income: In addition to the 10 year certain and continuous form of annuity, also available under the terms of the Plan are the life only annuity and the joint and 50%, 66 2/3%, 75%, or 100% survivor annuity. With the joint and survivor options, the member may also elect the pop-up feature. The Plan also allows for other amounts and forms of retirement income that will meet the circumstances of the Participant, in the opinion of the Retirement Committee, and will not substantially affect the actuarial soundness of the Plan.

Deferred Retirement Option Program (DROP): Members are eligible to enter the DROP at the Normal Retirement Date. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. The Accrued Benefit accumulates with interest in the DROP account and is payable as a single-lump sum (or as an actuarially equivalent annuity) upon DROP exit. The DROP account earns interest at a rate equal to the funds net rate of investment return minus 1% in administration fees, unless the DROP participant, as a one-time irrevocable option, elects a self-directed DROP as approved by the board of trustees. The maximum DROP participation duration is 5 years and participation will end if the employee resigns, dies or is terminated with cause prior to completion of the 5 years.

Description of Assumptions and Methods

Assumed Rate of Investment Return: 8.0% per year net of investment expenses

Salary Increase – Individual: 6.0% per year

Salary Increase – Total Payroll: Based on individual salary increase assumptions and other decrements assumed in the valuation of Plan liabilities.

Inflation: 2.5% per year

Mortality: RP-2000 Combined Mortality Table projected to the valuation year using Scale AA. Disabled tables are used for disabled lives.

Retirement: 100% at the earlier of age 55 with 10 years of service or age 52 with 25 years of service.

Termination: Unisex rates based on the experience of the Rockledge firefighters from 1999 through 2005, as follows:

Service	Rate	Service	Rate	Service	Rate	Service	Rate
0	0.2000	7	0.0500	14	0.0175	21	0.0100
1	0.2000	8	0.0250	15	0.0175	22	0.0100
2	0.2000	9	0.0250	16	0.0175	23	0.0100
3	0.2000	10	0.0250	17	0.0150	24	0.0100
4	0.1000	11	0.0200	18	0.0150	>=25	0.0000
5	0.0500	12	0.0200	19	0.0150		
6	0.0500	13	0.0200	20	0.0100		

Disability: Sex distinct rates as used for special risk employees in the Florida Retirement System actuarial valuation report as of July 1, 2005. Linear interpolation has been used between the rates shown in five year age increments, as follows:

Age	Line-of-Duty		Age	Not Line-of-Duty	
	Male	Female		Male	Female
20	0.012%	0.008%	20	0.037%	0.036%
25	0.012%	0.008%	25	0.037%	0.036%
30	0.017%	0.016%	30	0.043%	0.046%
35	0.029%	0.037%	35	0.055%	0.075%
40	0.051%	0.068%	40	0.087%	0.118%
45	0.087%	0.106%	45	0.140%	0.259%
50	0.138%	0.153%	50	0.292%	0.318%
55	0.215%	0.230%	55	0.446%	0.492%
60	0.301%	0.285%	60	0.628%	0.597%
65+	0.231%	0.143%	65+	0.698%	0.380%

Funding Method: Entry Age Normal (level percent of salary)

Glossary of Actuarial Terms

Present Value of Benefits (PVB): The present value, as of the valuation date, of all benefits that will become payable by the Plan for the current group of members in the census.

Normal Cost (NC): The value of the portion of the total benefit for active members which accrues in the year following the valuation date. Under the Entry Age Normal (Level Percent of Salary) funding method, the NC is a constant fraction of salary from the member's date of entry into the Plan to the member's assumed date of termination, retirement, disability or death.

Accrued Liability (AL): This is the portion of the PVB attributable to the past at the valuation date. For active members, AL is the annual NC accumulated from date of entry to the valuation date for each member. For retired and terminated members, the PVB and the AL are equal. The AL is the estimated liability owed by the pension fund at the valuation date.

Unfunded Accrued Liability (UAL): Any excess of the Accrued Liability over the fund assets. A negative UAL indicates fund assets are greater than the Accrued Liability, otherwise known as a surplus.

Actuarial Value of Assets: The value of assets used in the actuarial valuation of the Plan which is compared to the AL to determine the UAL and minimum funding requirements. A method may be used to smooth out short term volatility in the fair market value of assets.