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Deerfield Beach Municipal Firefighters' Pension Trust Fund

Actuarial Valuation as of October 1, 2014



February 13, 2015

REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS
FOR THE PLAN AND FISCAL YEAR
ENDING SEPTEMBER 30, 2015



February 13, 2015

Board of Trustees
Deerfield Beach Municipal Firefighters' Pension Trust Fund
Deerfield Beach, Florida

RE: Actuarial Valuation as of October 1, 2014

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2014 for the Deerfield Beach Municipal Firefighters' Pension Trust Fund (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, 2015 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.

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 Little', is positioned above the typed name of 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', is positioned above the typed name of Paula C. Freiman.

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

Table of Contents

Board Summary	1
Summary of Principal Valuation Results	1
Summary of Significant Events	2
Results Derivation	4
Financial Information	4
Present Value of Benefits	13
Accrued Liability	14
Normal Cost	15
Unfunded Accrued Liability	16
Cumulative Actuarial Experience (for Variable Benefit Determination)	19
Minimum Funding Requirements	20
Reconciliations	21
Accounting Information	22
Information Required by GASB 67	22
Information Required by GASB 27	22
Statement of Accumulated Plan Benefits (FASB 35)	23
Other Disclosures Required by the State of Florida	23
Required Disclosure Under F.S. 112.664(1)	24
Required Disclosure Under F.S. 112.664(2)(b)2.	25
Supplementary Information	26
Summary of Participant Data	26
Outline of Plan Provisions	31
Description of Assumptions and Methods	35
Glossary of Actuarial Terms	36

Section

1

Board Summary

This report presents the results of the October 1, 2014 actuarial valuation of the Deerfield Beach Municipal Firefighters' Pension Trust Fund (the Plan).

Summary of Principal Valuation Results

A summary of the key valuation findings as of October 1, 2014 are compared with the results of the prior valuation below.

Minimum Funding Requirements

Fiscal Year Ending	September 30, 2014	September 30, 2015
Expected State Funding	\$618,479	\$618,479
Expected City Contributions	<u>5,051,768</u>	<u>5,064,382</u>
Employer Minimum Funding Requirement	\$5,670,247	\$5,682,861

Funded Status

Valuation Date	October 1, 2013	October 1, 2014
Accrued Liability (AL)	\$125,150,438	\$132,952,717
Actuarial Value of Assets	\$92,608,974	\$99,807,840
Unfunded Accrued Liability (UAL)	\$32,541,464	\$33,144,877
Funded Percentage	74.0%	75.1%

Key Assumptions

Valuation Date	October 1, 2013	October 1, 2014
Assumed Rate of Investment Return	7.625%	7.625%
Salary Increase Assumption	5% to 11%	5% to 11%
Funding Method	Entry Age	Entry Age

Summary of Significant Events

Determination of the funded status of the Plan and minimum funding requirements are based on 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.

Participant Data

While the number of active Members decreased by 10, the covered payroll used in the valuation decreased by 5.2%. The following provides a summary of the actual to the expected pay increases for continuing active members, by individual, for the 12 month periods ending on the date specified.

Year Ending September 30,	Actual	Expected
2014	5%	7%
2013	3%	9%
2012	7%	9%
2011	6%	9%
2010	8%	9%
2009	8%	9%
2008	2%	9%
2007	10%	9%
2006	15%	9%
2005	17%	7%

Overall, there was a demographic loss primarily due to termination less than expected and the disability retirement of one active member. The demographic loss was offset by the effect of salary increases less than expected. We note that the number of terminations has been low or non-existent since the Plan was closed to new entrants. We recommend an experience review be performed after census data as of October 1, 2016 becomes available.

In general, should a pattern of consistent gains or losses develop, assumptions may require revision.

Assets

While the return on the Market Value of Assets was 9.4%, the return on the Actuarial Value of Assets was 8.7% in comparison to the 7.625% assumed rate of return. This produced an investment gain on an actuarial value of assets basis. The following provides a summary of the actual to the expected return on investments for the 12 month periods ending on the date specified.

Year Ending 9/30	Market Value	Actuarial Value	Assumed Return
2014	9.4%	8.7%	7.625%
2013	11.1%	6.5%	7.625%
2012	15.3%	0.8%	7.625%
2011	(1.1%)	0.1%	7.625%
2010	6.9%	1.5%	7.625%
2009	(1.2%)	2.5%	7.625%
2008	(12.8%)	5.7%	7.625%
2007	10.2%	11.8%	7.625%
2006	9.3%	9.5%	7.625%
2005	12.9%	5.0%	7.625%
Average	5.7%	5.1%	7.625%

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

Plan Provisions

There were no amendments made to Plan provisions during the year.

A transfer of fire services to the Broward County Sheriff's Office (BSO) was effective October 1, 2011. We recommend the ordinance be amended to reflect how the Plan currently operates.

Assumptions and Methods

Whereas the October 1, 2013 valuation was based on the RP-2000 Combined Mortality Table projected to 2013 using Scale AA, the valuation as of October 1, 2014 is based on the RP-2000 Combined Mortality Table fully generational using Scale AA.

As all of the amortization bases are currently being amortized over 17 years, we have implemented a "Fresh Start" combining all of the outstanding bases into a single base amortized over 17 years.

State Contributions

The Estimated Minimum Required City Contribution assumes that the premium tax money received from the State will be in the same amount received in the prior year. Should the amount received in the fiscal year ending September 30, 2015 be less than expected, the City will need to contribute any potential shortfall to the Plan.

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. Finally, analysis is performed to explain movement in results from the prior valuation.

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

	October 1, 2013		October 1, 2014	
Equity Securities	\$44,054,959	45 %	\$43,135,781	42 %
Fixed Income (Corp./Gov't. Bonds)	22,765,317	24 %	28,013,682	27 %
Hedge Funds	8,419,143	9 %	10,492,438	10 %
Real Estate (REITs)	7,508,304	8 %	10,437,711	10 %
MLPs	4,520,300	5 %	5,105,869	5 %
Cash & Cash Equivalents	3,429,934	4 %	2,364,157	2 %
Net Receivables/Payables	335,666	0 %	427,468	0 %
Self-Directed DROP	<u>4,764,732</u>	<u>5 %</u>	<u>3,917,478</u>	<u>4 %</u>
Fair Market Value of Assets	<u>\$95,798,355</u>	100 %	<u>\$103,894,584</u>	100 %

Reconciliation of Market Value of Assets

Year Ending September 30,	2013	2014
1. Market Value Beginning of Year	\$85,969,494	\$95,798,355
2. Contributions		
a. City	\$5,105,188	\$5,051,768
b. State	782,884	791,013
c. Member	<u>945,101</u>	<u>882,792</u>
d. Total Contributions	\$6,833,173	\$6,725,573
3. Investment earnings		
a. Unrealized Gains and Losses	\$5,007,420	\$3,509,259
b. Realized Gains and Losses	2,469,095	3,582,751
c. Interest and Dividends	2,398,861	2,429,083
d. Other Income	157,821	5,051
e. Investment Expenses	<u>(462,966)</u>	<u>(595,001)</u>
f. Net Investment Income	\$9,570,231	\$8,931,143
4. Deductions		
a. Retirement Benefits	\$(4,758,846)	\$(5,775,612)
b. Share Account Distribution	(125,535)	(203,047)
c. Refunds	(69,581)	0
d. DROP Account Distribution	(1,319,608)	(1,349,796)
e. Administrative Expenses	<u>(300,973)</u>	<u>(232,032)</u>
f. Total	\$(6,574,543)	\$(7,560,487)
5. Net Increase (Decrease)	\$9,828,861	\$8,096,229
6. Market Value End of Year	<u>\$95,798,355</u>	<u>\$103,894,584</u>

Reconciliation of DROP Account Balances

Year Ending September 30,	2013	2014
1. Beginning Balance	\$10,752,312.20	\$11,910,536.76
2. Additions	\$1,734,873.67	\$1,395,817.62
3. Interest	\$742,959.02	\$802,071.90
4. Distributions	\$1,319,608.13	\$1,349,795.90
5. Ending Balance	\$11,910,536.76	\$12,758,630.38

Note: DROP account balances are included in the reconciliation of the market value of Plan assets shown on the prior page.

Development of Historical Gain or Loss on Market Value of Assets

	2014	2013
1. Market Value of Assets - Beginning of Year	\$95,798,355	\$85,969,494
2. Contributions	6,725,573	6,833,173
3. Benefit Payments + Administrative Expenses	(7,560,487)	(6,574,543)
4. Interest	<u>7,360,640</u>	<u>6,543,964</u>
5. Expected Value of Assets at End of Year	\$102,324,081	\$92,772,088
6. Market Value of Assets - End of Year	\$103,894,584	\$95,798,355
7. Gain (Loss) for Plan Year = (6) - (5)	\$1,570,503	\$3,026,267
	2012	2011
1. Market Value of Assets - Beginning of Year	\$75,109,266	\$76,415,091
2. Contributions	5,944,679	4,450,606
3. Benefit Payments + Administrative Expenses	(6,551,244)	(4,920,887)
4. Interest	<u>5,631,214</u>	<u>5,763,243</u>
5. Expected Value of Assets at End of Year	\$80,133,915	\$81,708,053
6. Market Value of Assets - End of Year	\$85,969,494	\$75,109,266
7. Gain (Loss) for Plan Year = (6) - (5)	\$5,835,579	\$(6,598,787)

Development of Actuarial Value of Assets

1.	Market Value of Assets as of 9/30/2014			\$	103,894,584
2.	Phase-In Gains (Losses) Over Five Year Period				
		Original Gain (Loss)	Percent Unrecognized		Unrecognized Gain (Loss)
a.	Year Ending 9/30/2014	\$ 1,570,503	80%	\$	1,256,402
b.	Year Ending 9/30/2013	3,026,267	60%		1,815,760
c.	Year Ending 9/30/2012	5,835,579	40%		2,334,232
d.	Year Ending 9/30/2011	(6,598,787)	20%		<u>(1,319,757)</u>
e.	Total			\$	4,086,637
3.	Cumulative Balance of State Monies Available for Benefit Improvement			\$	107
4.	Preliminary Actuarial Value of Assets as of 9/30/2014 = 1. - 2.e. - 3.			\$	99,807,840
5.	Corridor Around Market Value				
a.	Minimum = 80% of Market Value of Assets			\$	83,115,667
b.	Maximum = 120% of Market Value of Assets			\$	124,673,501
c.	Corridor Adjustment to Preliminary Actuarial Value			\$	0
6.	Actuarial Value of Assets as of 9/30/2014 (4. + 5.c.)			\$	99,807,840

Historical Asset Values

Year Ending 9/30	Market Value	Actuarial Value
2014	\$103,894,584	\$99,807,840
2013	95,798,355	92,608,974
2012	85,969,494	86,701,434
2011	75,109,266	86,605,981
2010	76,415,091	86,997,197
2009	72,425,351	86,680,011
2008	72,652,519	83,960,958
2007	82,980,679	79,039,657
2006	74,138,460	69,710,124
2005	66,860,427	62,669,274

10-Year Average of Historical Rates of Investment Return

Year Ending 9/30	Market Value	Actuarial Value	Assumed Return
2014	9.4%	8.7%	7.625%
2013	11.1%	6.5%	7.625%
2012	15.3%	0.8%	7.625%
2011	(1.1%)	0.1%	7.625%
2010	6.9%	1.5%	7.625%
2009	(1.2%)	2.5%	7.625%
2008	(12.8%)	5.7%	7.625%
2007	10.2%	11.8%	7.625%
2006	9.3%	9.5%	7.625%
2005	12.9%	5.0%	7.625%
Average	5.7%	5.1%	7.625%

Historical Contribution Amounts (as a Dollar Amount)

Year Ending 9/30	Recognized State Funding	City Contributions	Actual City Plus State Contributions
2014	791,034	5,051,768	5,842,802
2013	803,172	5,105,188	5,908,360
2012	823,567	4,130,730	4,954,297
2011	820,216	2,501,215	3,321,431
2010	835,023	2,240,989	3,076,012
2009	890,684	1,860,792	2,751,476
2008	957,389	1,648,569	2,605,958
2007	618,479	1,837,841	2,456,320
2006	561,509	1,765,776	2,327,285
2005	482,526	1,777,709	2,260,235

Historical Contribution Amounts (as a Percent of Pay)

Year Ending 9/30	Recognized State Funding	City Contributions	City Plus State As a Percent of Expected Compensation
2014	7.9 %	50.7 %	58.6 %
2013	7.7 %	48.9 %	56.6 %
2012	8.0 %	40.2 %	48.2 %
2011	7.2 %	22.1 %	29.3 %
2010	7.3 %	19.7 %	27.0 %
2009	8.1 %	17.0 %	25.1 %
2008	9.1 %	15.7 %	24.8 %
2007	6.3 %	18.6 %	24.9 %
2006	5.8 %	18.4 %	24.2 %
2005	7.4 %	27.3 %	34.7 %

Note: With a closed plan, the payroll levels continue to decrease over time creating percent of payroll results which increase even if the dollar contributions remain the same.

Derivation of State Contribution Funding Reserves

Year Ending 9/30	State Contributions			Recurring Cost Benefit Improvements	Base Plus Recurring Cost Benefit Improvements	One-time Use Benefit Improvements (Share Account Allocations)	Recognized State Funding	Cumulative Balance Available Upon Benefit Improvement
	Regular	Supplemental	Total					
2014	\$ 600,473	\$ 190,540	\$ 791,013	\$ 0	\$ 618,479	\$ 172,555	\$ 791,034	\$ 107
2013	640,735	142,149	782,884	0	618,479	184,693	803,172	128
2012	823,518	20,326	843,844	0	618,479	205,088	823,567	20,416
2011	820,253	0	820,253	0	618,479	201,737	820,216	139
2010	835,016	0	835,016	0	618,479	216,544	835,023	102
2009	763,718	127,026	890,744	0	618,479	272,205	890,684	109
2008	802,571	6,122	808,693	0	618,479	338,910	957,389	49
2007	767,224	0	767,224	0	618,479	0	618,479	148,745
2006	561,509	0	561,509	0	618,479	0	561,509	0
2005	482,526	0	482,526	0	618,479	0	482,526	0
2004	456,783	0	456,783	0	618,479	0	456,783	0
2003	433,349	0	433,349	0	618,479	0	585,796	0
2002	346,039	0	346,039	355,978	618,479	0	346,039	0
2001	301,242	0	301,242	0	262,501	0	262,501	152,447
2000	319,774	0	319,774	13,964	262,501	0	262,501	113,706
1999	304,970	0	304,970	0	248,537	0	248,537	56,433
1998	<u>248,537</u>	<u>0</u>	<u>248,537</u>	<u>0</u>	248,537	<u>0</u>	<u>248,537</u>	0
	\$ <u>9,508,237</u>	\$ <u>486,163</u>	\$ <u>9,994,400</u>	\$ <u>369,942</u>		\$ <u>1,591,732</u>	\$ <u>9,994,293</u>	



Historical Payment Amounts

Year Ending 9/30	Retirement Benefits	Refunds	Administrative Expenses	Total
2014	\$7,328,455	\$0	\$232,032	\$7,560,487
2013	6,203,989	69,581	300,973	6,574,543
2012	6,282,382	0	268,862	6,551,244
2011	4,646,600	21,064	253,223	4,920,887
2010	4,817,243	4,343	284,552	5,106,138
2009	2,808,889	28,018	332,191	3,169,098
2008	2,869,511	92,294	156,342	3,118,147
2007	2,262,220		126,427	2,388,647
2006	1,960,217	85,105	183,683	2,229,005
2005	2,098,440	0	118,203	2,216,643

*Refunds were not separated from retirement benefits for the fiscal year ending September 30, 2007.

Historical Share Allocations

Year Ending 9/30	State Contribution Over 618,479	Available Funds	Eligible Members	Individual Share Allocation	Total Share Allocations	Forfeitures
2014	172,534	173,559	206	842	173,452	10,644
2013	184,731	185,807	207	897	185,679	897
2012	205,039	205,178	208	986	205,088	986
2011	201,774	202,948	201	1,009	202,809	
2010	216,537	216,646	202	1,072	216,544	1,072
2009	272,265	275,725	198	1,392	275,616	
2008	190,214	191,139	194	985	191,090	3,411
2007		148,745	191	778	148,598	778

Present Value of Benefits

Valuation Date October 1,	2013	2014
1. Active Members		
a. Service Retirement	\$49,456,311	\$47,947,452
b. Deferred Benefits	5,067,424	5,007,721
c. Survivor Benefits	173,680	161,321
d. Disability Benefits	<u>1,235,923</u>	<u>1,198,297</u>
e. Total for Active Members	\$55,933,338	\$54,314,791
2. Vested Terminated Members	\$0	\$0
3. Members in Payment Status		
a. Monthly Retirement Benefits	\$73,151,319	\$80,058,031
b. Current DROP Balance	11,910,537	12,758,630
c. Beneficiaries	911,153	876,790
d. Disability Retirement	<u>1,922,152</u>	<u>2,309,879</u>
e. Total in Payment Status	\$87,895,161	\$96,003,330
4. Share Account Balances		
a. Active Members	\$832,661	\$893,234
b. Members Currently in DROP	169,704	180,955
c. Members in Payment Status	<u>108,384</u>	<u>90,635</u>
d. Total Share Account Balances	\$1,110,749	\$1,164,824
5. All Members	<u>\$144,939,248</u>	<u>\$151,482,945</u>

Accrued Liability

Valuation Date October 1,	2013	2014
1. Active Members		
a. Service Retirement	\$33,350,910	\$32,842,929
b. Deferred Benefits	2,277,989	2,405,134
c. Survivor Benefits	90,478	89,019
d. Disability Benefits	<u>425,151</u>	<u>447,481</u>
e. Total for Active Members	\$36,144,528	\$35,784,563
2. Vested Terminated Members	\$0	\$0
3. Members in Payment Status		
a. Monthly Retirement Benefits	\$73,151,319	\$80,058,031
b. Current DROP Balance	11,910,537	12,758,630
c. Beneficiaries	911,153	876,790
d. Disability Retirement	<u>1,922,152</u>	<u>2,309,879</u>
e. Total for Members in Payment Status	\$87,895,161	\$96,003,330
4. Share Account Balances		
a. Active Members	\$832,661	\$893,234
b. Members Currently in DROP	169,704	180,955
c. Members in Payment Status	<u>108,384</u>	<u>90,635</u>
d. Total Share Account Balances	\$1,110,749	\$1,164,824
5. All Members	<u>\$125,150,438</u>	<u>\$132,952,717</u>

Normal Cost

Valuation Date October 1,	2013	2014
1. Preliminary Normal Cost		
a. Service Retirement	\$2,335,371	\$2,245,597
b. Deferred Benefits	393,714	377,148
c. Survivor Benefits	11,867	10,679
d. Disability Benefits	<u>118,277</u>	<u>112,113</u>
e. Preliminary Normal Cost	\$2,859,229	\$2,745,537
f. Preliminary Normal Cost as a % of Pay	28.7%	29.1%
2. Total Normal Cost		
a. Preliminary Normal Cost	\$2,859,229	\$2,745,537
b. Administrative Expense	<u>300,973</u>	<u>232,032</u>
c. Total Normal Cost	\$3,160,202	\$2,977,569
d. Total Normal Cost as a % of Pay	31.7%	31.5%
3. Estimated Employer Normal Cost		
a. Total Normal Cost	\$3,160,202	\$2,977,569
b. Estimated Employee Contributions	<u>(896,623)</u>	<u>(849,556)</u>
c. Employer Normal Cost	\$2,263,579	\$2,128,013
d. Employer Normal Cost as a % of Pay	22.7%	22.5%
4. Actual Employer Normal Cost		
a. Preliminary Normal Cost	\$2,859,229	
b. Actual Administrative Expense	232,032	
c. Actual Employee Contributions	<u>(882,792)</u>	
d. Employer Normal Cost	\$2,208,469	
5. Valuation Payroll	\$9,962,476	\$9,439,506

Unfunded Accrued Liability

Derivation of Unfunded Accrued Liability (UAL)

Unfunded Accrued Liability as of October 1,	2014
1. Actuarial Accrued Liability	\$132,952,717
2. Actuarial Value of Assets	<u>(99,807,840)</u>
3. Unfunded Accrued Liability	\$33,144,877

Determination of Expected Unfunded Accrued Liability

1. Unfunded Accrued Liability for Prior Year	\$32,541,464
2. Employer Normal Cost (Including Administrative Expenses)	2,208,469
3. Interest on UAL and NC	2,649,682
4. Contributions	
a. City	\$(5,051,768)
b. Recognized State of Florida Contributions	<u>(791,034)</u>
c. Total	\$(5,842,802)
5. Interest on Contributions for Time on Deposit	(310,602)
6. Change in Plan, Methods or Assumptions	<u>1,968,137</u>
7. Expected Unfunded Accrued Liability	\$33,214,348

Calculation of (Gain) or Loss

1. Actual Unfunded Accrued Liability	\$33,144,877
2. Expected Unfunded Accrued Liability	<u>33,214,348</u>
3. Total (Gain) or Loss	\$(69,471)
4. Breakdown of (Gain) or Loss	
a. Investment Experience	\$(916,310)
b. Demographic Experience	<u>846,839</u>
c. Total (Gain) or Loss	\$(69,471)

Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level dollar amount. Changes in the Unfunded Actuarial Accrued Liability due to plan changes, assumption changes, method changes, or gains and losses are all amortized over a period not to exceed the longest expected working lifetime of the active group.

Amortization Bases

Effective October 1,	Source	Remaining Balance	Years Remain	Amortization Payment
2014	Unfunded Accrued Liability	\$33,144,877	17	\$3,292,232

Projected Unfunded Accrued Liability and Amortization Payments

Plan Year Beginning October 1,	UAL Outstanding Bases	Amortization Payment
2014	\$33,144,877	\$3,292,232
2015	32,128,909	3,292,232
2016	31,035,474	3,292,232
2017	29,858,664	3,292,232
2018	28,592,122	3,292,232
2019	27,229,007	3,292,232
2020	25,761,954	3,292,232
2021	24,183,038	3,292,232
2022	22,483,730	3,292,232
2023	20,654,850	3,292,232
2024	18,686,518	3,292,232
2025	16,568,100	3,292,232
2026	14,288,153	3,292,232
2027	11,834,360	3,292,232
2028	9,193,465	3,292,232
2029	6,351,202	3,292,232
2030	3,292,216	3,292,216

The Governmental Accounting Standards Board requires the total of all amortization payments in a year to be at least equal to a 30-year amortization of the total Unfunded Accrued Liability. We have shown the projection carrying each base forward with the amortization payments expected in the future. Should the total of all amortization payments in a year fall below a 30-year amortization payment, the actual payment required would be adjusted.

Actions Taken to Reduce Unfunded Accrued Liability

The required contributions calculated each year include a payment for the amortization of the unfunded accrued liability. This payment is designed to reduce the unfunded accrued liability in an orderly fashion over the next 17 years.

Cumulative Actuarial Experience (for Variable Benefit Determination)

Valuation Date	Actuarial Gain (Loss) Total	Portion of Gain Used for Variable Benefit	Variable Benefit Granted	Cumulative Actuarial Experience
10/1/1979	92,476	5,517	4.0%	86,959
10/1/1980	10,007	8,536	4.0%	88,430
10/1/1981	(1,095)	0	0.0%	87,335
10/1/1982	(171,763)	0	0.0%	(84,428)
10/1/1983	436,967	8,088	4.0%	344,451
10/1/1984	(537,204)	0	0.0%	(192,753)
10/1/1985	1,330,535	54,254	4.0%	1,083,528
10/1/1986	1,346,574	55,436	4.0%	2,374,666
10/1/1987	256,745	61,295	4.0%	2,570,116
10/1/1988	(949,158)	0	0.0%	1,620,958
10/1/1989	1,648,108	77,266	4.0%	3,191,800
10/1/1990	(1,307,591)	0	0.0%	1,884,209
10/1/1991	1,498,270	114,106	4.0%	3,268,373
10/1/1992	(1,175,149)	0	0.0%	2,093,224
10/1/1993	1,054,865	0	0.0%	3,148,089
10/1/1994	61,555	0	0.0%	3,209,644
10/1/1995	1,256,280	196,663	4.0%	4,269,261
10/1/1996	1,646,817	242,272	4.0%	5,673,806
10/1/1997	2,253,047	286,389	4.0%	7,640,464
10/1/1998	865,890	314,208	4.0%	8,192,146
10/1/1999	(5,803)	0	0.0%	8,186,343
10/1/2000	739,211	336,087	4.0%	8,589,467
10/1/2001	(10,466,741)	0	0.0%	(1,877,274)
10/1/2002	(5,619,214)	0	0.0%	(7,496,488)
10/1/2003	(799,969)	0	0.0%	(8,296,457)
10/1/2004	(4,443,626)	0	0.0%	(12,740,083)
10/1/2005	(3,376,482)	0	0.0%	(16,116,565)
10/1/2006	267,777	0	0.0%	(15,848,788)
10/1/2007	3,252,734	0	0.0%	(12,596,054)
10/1/2008	907,703	0	0.0%	(11,688,351)
10/1/2009	(3,855,896)	0	0.0%	(15,544,247)
10/1/2010	(5,648,520)	0	0.0%	(21,192,767)
10/1/2011	(6,064,957)	0	0.0%	(27,257,724)
10/1/2012	(5,729,463)	0	0.0%	(32,987,187)
10/1/2013	(7,552)	0	0.0%	(32,994,739)
10/1/2014	69,471	0	0.0%	(32,925,268)

Note: Information in the above table prior to October 1, 2006 is as shown in the report of the prior actuary. Because a cumulative loss exists as of October 1, 2014 no Variable Benefit is payable.

Minimum Funding Requirements

Valuation as of October 1, Funding For Fiscal Year Ending September 30,	2013 2014	2014 2015
1. Total Normal Cost	\$3,160,202	\$2,977,569
2. Amortization of UAL	<u>3,142,787</u>	<u>3,292,232</u>
3. Minimum Required Contribution BOY	\$6,302,989	\$6,269,801
4. Interest Assuming Periodic Payment	<u>263,881</u>	<u>262,616</u>
5. Total Minimum Required Contribution	\$6,566,870	\$6,532,417

Contributions as a Dollar Amount

1. Expected Employee Contributions	\$896,623	\$849,556
2. Expected State Funding	618,479	618,479
3. Expected City Contributions	<u>5,051,768</u>	<u>5,064,382</u>
4. Total Minimum Required Contribution	\$6,566,870	\$6,532,417

Contributions as a Percent of Payroll*

1. Valuation Payroll	\$9,962,476	\$9,439,506
2. Expected Employee Contributions	9.0%	9.0%
3. Expected State Funding	6.2%	6.6%
4. Expected City Contributions	<u>50.7%</u>	<u>53.7%</u>
5. Total Minimum Required Contribution	65.9%	69.3%

*Contributions as a percent of payroll are provided for reporting purposes only. With a closed plan, the payroll levels continue to decrease over time creating percent of payroll results which increase even if the dollar contributions remain the same.

Reconciliations

Reconciliation of Funded Status

	Unfunded Accrued Liability	Funded Percentage	Change in Unfunded Accrued Liability	Change in Funded Percentage
As of Prior Valuation	\$32,541,464	74.0 %		
Changes in Contribution Rate due to:				
Normal Operation of Plan	31,418,766	75.9 %	\$(1,122,698)	1.9 %
Investment Experience	30,502,456	76.6 %	(916,310)	0.7 %
Demographic Experience	31,349,295	76.1 %	846,839	(0.5)%
Mortality Fully Generational	33,144,877	75.1 %	<u>1,795,582</u>	<u>(1.0)%</u>
Total Changes			\$603,413	1.1 %
As of Current Valuation	\$33,144,877	75.1 %		

Reconciliation of City Minimum Funding Requirement

	Dollar Amount
As of Prior Valuation	\$5,051,768
Changes in Contribution due to:	
Normal Operation of Plan	\$(88,518)
Change in Expenses	(71,569)
Investment Experience	(94,486)
Demographic Experience	34,287
Mortality Fully Generational	<u>232,900</u>
Total Changes	\$12,614
As of Current Valuation	\$5,064,382

Section 3 Accounting Information

Information Required by GASB 67

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

Information Required by GASB 27

Annual Pension Cost and Net Pension Obligation

Fiscal Year Ending September 30,	2014	2013	2012	2011
1. Beginning of year NPO	\$(338,839)	\$(347,551)	\$(355,645)	\$(347,376)
2. Contributions Made	5,842,802	5,908,360	4,954,297	3,321,431
3. Pension Cost	<u>5,852,188</u>	<u>5,917,072</u>	<u>4,962,391</u>	<u>3,313,162</u>
4. End of year NPO (1. - 2. + 3.)	\$(329,453)	\$(338,839)	\$(347,551)	\$(355,645)
1. ARC (City and State)	\$5,842,802	\$5,908,360	\$4,954,297	\$3,321,431
2. Interest on NPO	(25,836)	(26,501)	(27,118)	(26,487)
3. Amortization of NPO	<u>35,222</u>	<u>35,213</u>	<u>35,212</u>	<u>18,218</u>
4. Pension Cost	\$5,852,188	\$5,917,072	\$4,962,391	\$3,313,162

Note: Assumptions used can be found in the "Description of Assumptions and Methods" in Section 4 of this report.

Statement of Accumulated Plan Benefits (FASB 35)

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,	2013	2014
1. Actuarial present value of accumulated plan benefits		
a. Participants currently receiving benefits	\$88,173,249	\$96,274,919
b. Other participants	<u>20,810,086</u>	<u>20,252,511</u>
c. Total vested plan benefits	\$108,983,335	\$116,527,430
d. Total non-vested plan benefits	<u>6,050,458</u>	<u>5,727,803</u>
e. Total accumulated plan benefits	\$115,033,793	\$122,255,233
2. Change in accumulated plan benefits		
a. Accumulated plan benefits beginning of year		\$115,033,793
b. Increase (decrease) during year attributable to:		
i. Plan amendment		\$172,555
ii. Change in assumptions		1,586,931
iii. Benefits paid		(7,328,455)
iv. Increase for interest and probability of payment due to decrease in discount period and benefits accrued		<u>12,790,409</u>
v. Net increase (decrease)		\$7,221,440
c. Accumulated plan benefits end of year		\$122,255,233

Other Disclosures Required by the State of Florida

Valuation as of October 1,	2013	2014
Other Disclosures (where applicable)		
Present value of active member:		
Future salaries (attained age)	\$69,724,358	\$64,307,545
Future salaries (entry age)	N/A	N/A
Future contributions (attained age)	\$6,275,192	\$5,787,679
Future contributions (entry age)	N/A	N/A
Future contributions (other sources)	N/A	N/A
Future expected benefit payments (entry age)	N/A	N/A
Current contribution balance for active members*	\$7,082,545	\$6,730,784

*Note: Non-vested terminations receive a refund of contributions without interest.

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.

	2% Decrease (5.625%)	Actual Valuation Current Discount Rate (7.625%)	2% Increase (9.625%)
Total pension liability	\$164,626,959	\$132,952,717	\$111,227,035
Plan fiduciary net position	<u>(103,894,584)</u>	<u>(103,894,584)</u>	<u>(103,894,584)</u>
Net pension liability	<u>\$60,732,375</u>	<u>\$29,058,133</u>	<u>\$7,332,451</u>
 Plan fiduciary net position as a percentage of the total pension liability	 63.1%	 78.1%	 93.4%
 Years of benefit payments:			
Expected for current members:	98	98	98
Paid for with current assets:	12	15	19
 City Plus State Contribution Requirement			
Dollar Amount	\$9,614,800	\$5,682,861	\$2,700,484
Percent of Payroll	101.9%	60.3%	28.7%

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,	2014	2013	2012	2011	2010	2009
Assumed rate of return	7.625%	7.625%	7.625%	7.625%	7.625%	7.625%
Actual rate of return	9.4%	11.1%	15.3%	(1.1%)	6.9%	(1.2%)
Percentages of assets in:						
Cash	2%	4%	4%	4%	6%	7%
Equity	42%	45%	43%	45%	53%	47%
Bond	27%	24%	30%	25%	24%	25%
Alternative	29%	27%	23%	26%	17%	21%
Total	100%	100%	100%	100%	100%	100%

Section
4Supplementary
Information

Summary of Participant Data

Member Statistics

Fiscal Year Beginning	October 1, 2013	October 1, 2014
<u>Active Participants</u>		
Number	102	92
Average Age	35.9	36.1
Average Service	10.2	10.7
Percent Male	92.2%	91.3%
Average Annual Pay	\$ 102,500	\$ 106,896
Total Covered Payroll	\$10,454,989	\$ 9,834,451
Valuation Payroll	\$ 9,962,476	\$ 9,439,506
Annual Report	\$10,187,273	\$ 9,687,400
<u>Terminated Vested Participants</u>		
Number	0	0
Average Age	0.0	0.0
Percent Male	0%	0%
Average Monthly Benefit	\$ 0	\$ 0
<u>DROP Participants</u>		
Number	19	17
Average Age	50.3	51.0
Percent Male	89.5%	88.2%
Average Monthly Benefit	\$ 6,508	\$ 6,312

Member Statistics (Continued)

Fiscal Year Beginning	October 1, 2013	October 1, 2014
<u>Service Retirements</u>		
Number	74	84
Average Age	59.0	58.6
Percent Male	100.0%	100.0%
Average Monthly Benefit	\$ 5,705 ⁽¹⁾	\$ 5,747 ⁽²⁾
<u>Beneficiaries</u>		
Number	4	4
Average Age	73.9	74.9
Percent Male	0.0%	0.0%
Average Monthly Benefit	\$ 2,560	\$ 2,560
<u>Disabled</u>		
Number	7	8
Average Age	59.3	57.4
Percent Male	71.4%	75.0%
Average Monthly Benefit	\$ 1,984	\$ 2,031
<u>Total in Payment Status</u>		
Number	85	96
Average Age	59.8	59.2
Percent Male	92.9%	93.8%
Average Monthly Benefit	\$ 5,251	\$ 5,304

Notes:

- (1) As of October 1, 2013, an average monthly benefit of \$5,306 is payable to retirees after every Social Security level income option annuity is at the reduced level for 18 retirees with such option.
- (2) As of October 1, 2014, an average monthly benefit of \$5,412 is payable to retirees after every Social Security level income option annuity is at the reduced level for 18 retirees with such option.

Number of Active Members by Age and Service as of October 1, 2014

Age	Service						Total	
	<1	<5	<10	<15	<20	<25		<30
<25		2						2
<30		2	15	1				18
<35		2	18	8	2			30
<40		1	6	9	6			22
<45			1	7	6			14
<50				2	4			6
<55								0
<60								0
Total	0	7	40	27	18	0	0	92

Active Valuation Pay by Age and Service as of October 1, 2014

	Service						Total	
	<1	<5	<10	<15	<20	<25		<30
<25		77,584						77,584
<30		77,163	99,375	108,695				97,425
<35		81,293	99,554	108,038	143,836			103,551
<40		83,954	104,602	119,795	112,470			112,025
<45			102,986	111,388	127,550			117,715
<50				104,991	124,147			117,762
<55								
<60								
Total		79,433	100,330	112,624	123,577			106,896

Reconciliation of Plan Participants

	Active	Term. Vested	DROP	Retiree	Survivor	Disability Retiree	Totals
As of October 1, 2010	120	0	21	49	5	6	201
Active							
To DROP Participant	(3)		3				0
To Vested Termination	(1)	1					0
DROP Participant							
To Retiree			(2)	2			0
Service Retiree							
To Disability Retiree				(1)		1	0
New Hires	8						8
As of October 1, 2011	124	1	22	50	5	7	209
Active							
To DROP Participant	(7)		7				0
To Retiree	(5)			5			0
To Nonvested Term	(1)						(1)
DROP Participant							
To Retiree			(9)	9			0
As of October 1, 2012	111	1	20	64	5	7	208
Active							
To DROP Participant	(5)		5				0
To Retiree	(4)			4			0
DROP Participant							
To Retiree			(6)	6			0
Vested Term Paid Refund		(1)					(1)
Survivor Death					(1)		(1)
As of October 1, 2013	102	0	19	74	4	7	206
Active							
To DROP Participant	(1)		1				0
To Retiree	(7)			7			0
To Disability Retiree	(1)					1	0
To Nonvested Term	(1)						(1)
DROP Participant							
To Retiree			(3)	3			0
As of October 1, 2014	92	0	17	84	4	8	205

Number of Participants Eligible for Retirement or DROP as of October 1, 2014

Age	Eligible for Early Retirement	Eligible for Normal Retirement	Eligible for DROP
40			
41			
42			
43			
44			
45			
46			
47	1		1
48	1		1
49	1		1
50			
51			
52			
53			
54			
Total	3	0	3

Early Retirement Eligibility: Age 47 with 10 years Credited Service

Normal Retirement Eligibility: Earlier of (1) age 52 with 10 years of Credited Service, or (2) 20 years of Credited Service

DROP Eligibility: The earlier of age 47 and 20 years of Service.

Outline of Plan Provisions

Plan Type: Single-employer Defined Benefit Pension Plan

Legal Authority: The Plan was established and is amended by local ordinance.

Effective Date: March 22, 1977.

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 following September 30th.

Member: Full-time firefighters become Members immediately upon hire.

Actuarial Equivalence: Actuarial Equivalence is determined using the interest rate and mortality used in the actuarial funding valuation of the Plan. In the event of a change in valuation funding assumptions, the factors used to determine optional forms of benefit are changed effective the October 1 subsequent to the October 1 in which the valuation funding assumptions were changed.

Credited Service: Total number of years, and fractional parts of years, while Employee Contributions were made. Employee Contributions with interest may be repaid within 90 days of rehire to reinstate prior service. Accumulated leave time over 350 hours of annual leave and 520 hours of sick leave, is includable as part of Credited Service, if no payment is received for such time directly by the Member. Time spent in the military service while on leave of absence is included if the Member returns as a firefighter within 1 year of release from military service.

A Member with an honorable discharge from prior military service may purchase up to four years of such prior military service to be used in the determination of the amount of benefits payable, but not towards eligibility for such benefits. Prior military service may be purchased at any time, but may not be credited until a Member has attained 16 years of Credited Service without inclusion of the prior military service purchase. Members who separate from service prior to attaining 16 years are refunded the amount paid for purchase without interest. Additionally, prior firefighter service for which no current or future retirement benefit is payable may be purchased according to the same rules applicable to the purchase of prior military service. The total aggregate number of prior military service years and prior service as a firefighter that may be purchased is four.

Vesting: 100% upon earning ten years of Credited Service.

Salary: Total cash remuneration paid to a firefighter for services rendered.

Employee Contributions: 9.0% of Salary. A Member who terminates non-vested is entitled to refund of accumulated Employee Contributions without interest.

Vested Members who terminate employment prior to being eligible to receive an annuity may leave their accumulated contributions in the fund, and upon as early as age 47 begin commencement of the reduced Accrued Benefit, as defined under Early Retirement.

Average Final Compensation (AFC): Average of Salary for the three highest years of Credited Service. Effective December 2002, AFC is determined by inclusion of the three highest nonconsecutive and non-overlapping years of Salary consisting of 79 pay periods total.

All or a portion of accumulated leave, up to 350 hours of annual leave and 520 hours of sick leave, is includable as part of compensation during the highest three years of contributing service. Any firefighter who did not have 25 years of Credited Service as of December 31, 1994 may elect to receive actual payment for the annual leave or sick leave hours accumulated. If such an election is made, the annual leave or sick leave for which payment is received does not go toward the Credited Service or the Average Final Compensation determination, and no Employee Contributions are deducted for such payment.

Normal Retirement Date: First day of the month coincident with or next following the earlier of (1) completion of 20 years of Credited Service without regard to age, or (2) attainment of age 52 and completion of 10 years of Credited Service.

Normal Retirement Benefit: The Accrued Benefit.

Accrued Benefit: The Accrued Benefit is computed according to the following formula, limited to no more than 90% of Average Final Compensation:

3.0% x Average Final Compensation x Credited Service up to 10

Plus

3.25% x Average Final Compensation x Credited Service Over 10

This benefit is payable as a 10 year certain and continuous annuity.

Early Retirement Date: The first day of any month prior to the Normal Retirement Date after attainment of age 47 or the completion of 10 years of Credited Service.

Early Retirement Benefit: The Accrued Benefit reduced by 1% per year by which the commencement of benefits precedes the Normal Retirement Date.

Disability Benefit: The benefit payable to any Member who becomes totally and permanently disabled not in the line of duty after having earned 10 years of Credited Service prior to the Normal Retirement Date is the greater of (1) the Accrued Benefit and (2) 25% of Average Final Compensation as of the disability retirement date, payable as a 10 year certain and continuous annuity commencing the first day of the month after the board of trustees determines such entitlement. Any portion due for a partial month is paid together with the first payment.

Members are not required to meet the 10 years of Credited Service requirement for Disability Benefits payable in the event of total and permanent disability in the line of duty. The line of duty Disability Benefit is the greater of (1) the Accrued Benefit and (2) 42% of Average Final Compensation as of the disability retirement date, payable as a 10 year certain and continuous annuity commencing the first day of the month next following the date of disability.

Disability Benefit payments cease at the earlier of (1) the payment due preceding recovery prior to Normal Retirement Date, (2) the payment due preceding the date of death or the 120th monthly payment, whichever is later, for death without recovery, or (3) the payment due preceding the Normal Retirement Date while still disabled. The Credited Service of a Member who recovers from disability and reenters the service of the City as a firefighter will be deemed to have been continuous, but the period beginning with the first month for which Disability Benefits were payable and ending with the date of reentry to service is not counted as Credited Service.

Death Benefits: The beneficiary of a Member who dies after completion of 10 years Credited Service is paid the Accrued Benefit commencing on the first day of the month following the date of death. This benefit is payable as a 10 year certain annuity, or on an actuarially equivalent basis.

Members who terminate non-vested due to death are entitled to a return of Employee Contributions with interest.

Optional Forms of Benefit: The Accrued Benefit described above is payable in the form of a 10 year certain and continuous annuity. Members may optionally choose an actuarially equivalent (1) joint and survivor option (with 50%, 75% or 100% continuance), (2) a period certain and life option with 5, 10 or 15 years certain, (3) a single life annuity, (4) a joint and last survivor option with (50%, 66 2/3%, 75%, or 100% continuance), or (5) such other amount and form of payment will best meet the circumstances of the Member.

Deferred Retirement Option Plan (DROP): Members are eligible to enter the DROP at the earlier of age 47 with at least 10 years of service and their Normal Retirement Date. DROP participants are not eligible for death or disability benefits. The Accrued Benefit is frozen and no further Employee Contributions are payable at DROP entry. The Accrued Benefit is credited or debited according to the Member's self-directed investment options or using the net fund return (or a combination thereof).

The maximum DROP participation duration is determined based on Credited Service at DROP entry, as follows:

Credited Service	Maximum DROP Years
<28	5
<29	4
<30	3
30	2
>30	0

Election to participate in the DROP is forfeited if not exercised within the first 30 years of Credited Service.

Upon termination of employment, firefighters in the DROP receive the balance in the DROP account either as a lump sum, installment or annuity payments.

Variable Benefit: A uniform percentage increase no more than 4% in any one calendar year is granted to retirees and beneficiaries, where the cost of this benefit increase is financed solely from the investment return on fund assets greater than the investment return assumed for purposes of the actuarial valuation of the fund, limited by the total experience gained under the Plan as compared to all actuarial assumptions.

Share Account: Effective June 17, 2008, Ordinance No. 2008-017 was adopted establishing a Share Plan where revenues received from the State of Florida under Chapter 175 in excess of \$618,479 (the adjusted base amount) that are not specifically allocated to a different benefit enacted after that date are divided equally amongst Plan participants (excluding vested terminations) as of the first of the year for which the revenues were received.

Transfer of Fire Services to BSO: Effective October 1, 2011 the City transferred fire services to the Broward County Sheriff's Office (BSO) with the following effect on how the Plan operates:

- Members actively employed on October 1, 2011 chose whether to continue benefit accruals under this Plan or whether they instead chose to begin benefit accruals under the Florida Retirement System (FRS). All members of the fund opted to continue as members of this Plan. Active members continue to accrue benefits under the Plan in the way they would have had the transfer of services not occurred. Pensionable pay is that being paid by BSO effective October 1, 2011.
- Members in the Deferred Retirement Option Program (DROP) at the time of the transfer of services began to accrue services under FRS immediately. DROP members may choose to allow their monthly benefit to continue to be credited to their DROP account or to alternatively retire for purposes of the Plan and begin receipt of monthly benefits and their DROP balance.
- Members retired at the time of the transfer of services continue to be paid their monthly benefits and DROP balance, if any, in exactly the way benefits would have been paid had the transfer of services not occurred.

There are no future new entrants to the Plan effective October 1, 2011.

Description of Assumptions and Methods

Assumed Investment Return (Net of Expenses): 7.625% per year

Salary Increase – Individual: 11.0% per year up to 8 years, 5% each year thereafter. Salary in year of retirement is increased 30%.

Administrative Expenses: Prior year's actual administrative expense added to Normal Cost

Percentage Married at Retirement: 80% of active Members are assumed to be married at retirement.

Spouse Ages: Where spousal information was supplied, that information was used. Otherwise, wives are assumed to be three years younger than their husbands.

Mortality: Whereas the October 1, 2013 valuation was based on the RP-2000 Combined Mortality Table projected to 2013 using Scale AA, the valuation as of October 1, 2014 is based on the RP-2000 Combined Mortality Table fully generational using Scale AA.

Retirement: Members are assumed to retire at a rate of 100% upon retirement eligibility.

Termination: Unisex rates, as follows:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
<=19	0.000	31	0.044	38	0.037	45	0.030
20-25	0.050	32	0.043	39	0.036	46	0.029
26	0.049	33	0.042	40	0.035	47	0.028
27	0.048	34	0.041	41	0.034	>=48	0.000
28	0.047	35	0.040	42	0.033		
29	0.046	36	0.039	43	0.032		
30	0.045	37	0.038	44	0.031		

Disability: Unisex rates, as follows:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
<=15	0.0000	34	0.0022	43	0.0039	52	0.0120
16-21	0.0014	35	0.0023	44	0.0044	53	0.0131
22-25	0.0015	36	0.0024	45	0.0051	54	0.0143
26-27	0.0016	37	0.0025	46	0.0059	55	0.0155
28-29	0.0017	38	0.0026	47	0.0070	56	0.0168
30	0.0018	39	0.0028	48	0.0079	57	0.0181
31	0.0019	40	0.0030	49	0.0090	58	0.0195
32	0.0020	41	0.0032	50	0.0100	59	0.0209
33	0.0021	42	0.0035	51	0.0110	>=60	0.0000

On and Off Duty Disability and Death: 75% of disabilities are assumed to be in the line of duty.

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

Actuarial Value of Assets: The market value of assets is adjusted to recognize gains and losses over a five-year period. The Actuarial Value of Assets shall not be more than 120% or less than 80% of the market value of assets.

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.