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# Deerfield Beach Municipal Firefighters' Pension Trust Fund

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## Actuarial Valuation as of October 1, 2010



April 1, 2011

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REPORT TO DETERMINE MINIMUM FUNDING REQUIREMENTS  
FOR THE PLAN AND FISCAL YEAR  
ENDING SEPTEMBER 30, 2011





April 1, 2011

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

**RE: Actuarial Valuation as of October 1, 2010**

Dear Board Members:

We are pleased to present the actuarial valuation as of October 1, 2010 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, 2011 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 M. Little".

Chad M. Little, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 08-6619

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

Paula C. Freiman, ASA, EA  
Partner, Consulting Actuary  
Enrollment Number 08-5796



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## Section

## 1

## Board Summary

This report presents the results of the October 1, 2010 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, 2010 are compared with the results of the prior valuation below.

## Minimum Funding Requirements

Fiscal Year Ending	September 30, 2010		September 30, 2011	
	\$ Amount	% Pay	\$ Amount	% Pay
Expected Employee Contributions	\$1,023,848	9.0%	\$1,018,252	9.0%
Expected State Funding	618,479	5.4%	618,479	5.5%
Expected City Contributions	<u>2,240,989</u>	<u>19.7%</u>	<u>2,501,215</u>	<u>22.1%</u>
Total Minimum Funding Requirement	\$3,883,316	34.1%	\$4,137,946	36.6%

## Funded Status

Valuation Date	October 1, 2009	October 1, 2010
Accrued Liability (AL)	\$95,806,258	\$101,861,896
Actuarial Value of Assets	\$86,680,011	\$86,997,197
Unfunded Accrued Liability (UAL)	\$9,126,247	\$14,864,699
Funded Percentage	90.5%	85.4%

## Key Assumptions

Valuation Date	October 1, 2009	October 1, 2010
Assumed Rate of Investment Return	7.625%	7.625%
Salary Increase Assumption	5% to 11%	5% to 11%
Inflation	4.000%	4.000%
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 9, the covered payroll used in the valuation has decreased 0.5% from the prior year in comparison to the 4.0% payroll growth expected in the valuation. 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.

<b>Year Ended</b>	<b>Actual</b>	<b>Expected</b>
September 30, 2010	8%	9%
September 30, 2009	8%	9%
September 30, 2008	2%	9%
September 30, 2007	10%	9%
September 30, 2006	15%	9%
September 30, 2005	17%	7%
September 30, 2004	6%	7%

Overall, there was a \$421,078 demographic loss primarily due to DROP experience during the year along with pay increases more than expected for members close to retirement offset, in part, by DROP balances earning an average 3.5% return for fiscal 2010 in comparison to the 7.625% net investment return assumption.

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



## Assets

The returns on the Market Value of Assets and the Actuarial Value of Assets were both lower than the 7.625% assumed rate of return in the last year resulting in a \$5,227,442 investment loss 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.

<b>Year Ending September 30</b>	<b>Market Value</b>	<b>Actuarial Value</b>	<b>Assumed Return</b>
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%
2004	12.4%	3.7%	8.000%
2003	16.6%	6.6%	8.000%
2002	( 5.0%)	( 3.0%)	8.000%
2001	(13.5%)	4.2%	8.000%
Average	3.1%	4.7%	7.775%

## Plan Provisions

There have been no changes in Plan provisions since the prior actuarial valuation of the Plan.

## Methods

There have been no changes in methods since the prior actuarial valuation of the Plan.

## Assumptions

There have been no changes in assumptions since the prior actuarial valuation of the Plan.

## 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, 2011 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, 2009		October 1, 2010	
Equity Securities	\$ 33,620,392	47 %	\$ 40,676,221	53 %
Fixed Income (Corp./Gov't. Bonds)	18,163,880	25 %	18,653,186	24 %
Hedge Funds	7,335,648	10 %	8,373,579	11 %
Real Estate (REITs)	2,393,419	3 %	2,416,787	3 %
Cash & Cash Equivalents	4,913,620	7 %	4,390,091	6 %
Net Receivables/Payables	697,236	1 %	( 2,331,008)	( 3)%
Self-Directed DROP	<u>5,301,156</u>	<u>7 %</u>	<u>4,236,235</u>	<u>6 %</u>
Fair Market Value of Assets	<u>\$ 72,425,351</u>	100 %	<u>\$ 76,415,091</u>	100 %

## Reconciliation of Market Value of Assets

Year Ending September 30,	2009	2010
1. <b>Market Value Beginning of Year</b>	\$72,652,519	\$72,425,351
2. <b>Contributions</b>		
a. City	\$1,860,792	\$2,240,989
b. State	890,744	835,016
c. Member	<u>1,032,759</u>	<u>1,033,936</u>
d. Total Contributions	\$3,784,295	\$4,109,941
3. <b>Investment earnings</b>		
a. Unrealized Gains and Losses	\$(231,036)	\$3,698,826
b. Realized Gains and Losses	(1,781,636)	142,499
c. Interest and Dividends	1,376,549	1,447,214
d. Other Income	93,063	15,262
e. Investment Expenses	<u>(299,305)</u>	<u>(317,864)</u>
f. Net Investment Income	\$(842,365)	\$4,985,937
4. <b>Deductions</b>		
a. Retirement Benefits	\$(2,655,436)	\$(3,048,574)
b. Share Account Distribution	(85,609)	(103,239)
c. Refunds	(28,018)	(4,343)
d. DROP Account Distribution	(62,000)	(1,665,430)
e. Other (Per Audit)	(5,844)	
f. Administrative Expenses	<u>(332,191)</u>	<u>(284,552)</u>
g. Total	\$(3,169,098)	\$(5,106,138)
5. <b>Net Increase (Decrease)</b>	\$(227,168)	\$3,989,740
6. <b>Market Value End of Year</b>	<u>\$72,425,351</u>	<u>\$76,415,091</u>

Note: As of September 30, 2009 there were two differences between the asset information shown above and the asset information shown in the report of the auditor: \$622 in contributions deposited by the City are shown as contributions from the State in the report of the auditor and the report of the auditor showed the Market Value as of October 1, 2009 as \$72,396,384 to account for deferred revenue of \$28,967. As of September 30, 2010, the contributions shown above are as actually deposited during fiscal 2010 whereas the report of the auditor shows a \$28,967 difference to reflect backing out \$28,967 in deferred revenue.

## Reconciliation of DROP Account Balances

<b>Year Ending September 30,</b>	<b>2009</b>	<b>2010</b>
1. Beginning Balance	\$8,139,662.33	\$9,208,663.54
2. Additions	\$1,320,301.88	\$1,508,046.23
3. Interest	\$(189,300.67)	\$290,189.38
4. Distributions	\$62,000.00	\$1,665,430.20
5. Ending Balance	\$9,208,663.54	\$9,341,468.95

## Note:

- (1) Whereas 55% of total DROP balances as of September 30, 2010 are invested in the commingled fund, 45% of total DROP balances are part of the self-directed investment approved by the Board of Trustees.
- (2) 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

		<b>2010</b>		<b>2009</b>
1.	Market Value of Assets - Beginning of Year	\$ 72,425,351	\$	72,652,519
2.	Expected Interest on Assets	5,522,433		5,539,755
3.	Contributions	4,109,941		3,784,295
4.	Benefit Payments	(4,821,586)		(2,836,907)
5.	Administrative Expenses	(284,552)		(332,191)
6.	Interest on items (3), (4) and (5)	<u>(68,533)</u>		<u>(10,312)</u>
7.	Expected Value of Assets at End of Year	\$ 76,883,054	\$	78,797,159
8.	Market Value of Assets - End of Year	\$ 76,415,091	\$	72,425,351
9.	Gain (Loss) for Plan Year = (8) - (7)	\$ (467,963)	\$	(6,371,808)
		<b>2008</b>		<b>2007</b>
1.	Market Value of Assets - Beginning of Year	\$ 82,980,679	\$	74,138,460
2.	Expected Interest on Assets	6,327,277		5,653,058
3.	Contributions	3,394,001		3,573,980
4.	Benefit Payments	(2,961,805)		(2,262,220)
5.	Administrative Expenses	(156,342)		(126,427)
6.	Interest on items (3), (4) and (5)	<u>10,324</u>		<u>44,361</u>
7.	Expected Value of Assets at End of Year	\$ 89,594,134	\$	81,021,212
8.	Market Value of Assets - End of Year	\$ 72,652,519	\$	82,980,679
9.	Gain (Loss) for Plan Year = (8) - (7)	\$ (16,941,615)	\$	1,959,467

## Development of Actuarial Value of Assets

1. Market Value of Assets as of 9/30/2010				\$	76,415,091
2. Phase-In Gains (Losses) Over Five Year Period					
		<b>Original</b>	<b>Percent</b>		<b>Unrecognized</b>
		<b>Gain (Loss)</b>	<b>Unrecognized</b>		<b>Gain (Loss)</b>
a. Year Ending 9/30/2010	\$	(467,963)	80%	\$	(374,370)
b. Year Ending 9/30/2009		(6,371,808)	60%		(3,823,085)
c. Year Ending 9/30/2008		(16,941,615)	40%		(6,776,646)
d. Year Ending 9/30/2007		1,959,467	20%		<u>391,893</u>
e. Total				\$	(10,582,208)
3. Cumulative Balance of State Monies Available for Benefit Improvement	\$				102
4. Preliminary Actuarial Value of Assets as of 9/30/2010 = 1. - 2.e. - 3.	\$				86,997,197
5. Corridor Around Market Value					
a. Minimum = 80% of Market Value of Assets	\$				61,132,073
b. Maximum = 120% of Market Value of Assets	\$				91,698,110
c. Corridor Adjustment to Preliminary Actuarial Value	\$				0
6. Actuarial Value of Assets as of 9/30/2010 (4. + 5.c.)	\$				86,997,197

## Historical Asset Values

<b>Year Ending September 30</b>	<b>Market Value</b>	<b>Actuarial Value</b>
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
2004	58,347,127	58,806,662
2003	51,326,518	56,133,532
2002	43,136,915	51,611,851
2001	44,417,498	53,300,998
2000	50,708,282	50,566,155
1999	45,774,225	45,774,225
1998	40,890,140	40,890,140
1997	40,873,253	35,810,174
1996	32,339,555	29,988,083
1995	27,061,993	25,783,730

## 10-Year Average of Historical Rates of Investment Return

<b>Year Ending September 30</b>	<b>Market Value</b>	<b>Actuarial Value</b>	<b>Assumed Return</b>
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%
2004	12.4%	3.7%	8.000%
2003	16.6%	6.6%	8.000%
2002	( 5.0%)	( 3.0%)	8.000%
2001	(13.5%)	4.2%	8.000%
Average	3.1%	4.7%	7.775%

## Historical Contribution Amounts (as a Dollar Amount)

<b>Year Ending September 30</b>	<b>Expected Member Contributions</b>	<b>Recognized State Funding</b>	<b>City Contributions</b>	<b>Total</b>
2010	\$1,023,848	\$835,023	\$2,240,989	\$4,099,860
2009	985,587	890,684	1,860,792	3,373,063
2008	946,204	957,389	1,648,569	3,552,162
2007	887,636	618,479	1,837,841	3,343,956
2006	865,986	561,509	1,765,776	3,193,271
2005	586,188	482,526	1,777,709	2,846,423
2004	561,016	456,783	1,166,292	2,184,091
2003	541,429	585,796	924,595	2,051,820
2002	749,413	346,039	443,541	1,538,993
2001	698,010	262,501	326,020	1,286,531
2000	655,231	262,501	577,694	1,495,426
1999	509,705	248,537	276,606	1,034,848
1998	450,613	248,537	203,242	902,392
1997	417,923	231,182	381,771	1,030,876
1996	414,697	188,899	426,007	1,029,603
1995	378,958	150,340	545,094	1,074,392
1994	322,154	142,724	515,036	979,914
1993	341,584	143,161	569,800	1,054,545

## Historical Contribution Amounts (as a Percent of Pay)

<b>Year Ending September 30</b>	<b>Member Contributions</b>	<b>Recognized State Funding</b>	<b>City Contributions</b>	<b>Total</b>
2010	9.0 %	7.3 %	19.7 %	36.0 %
2009	9.0 %	8.1 %	17.0 %	34.1 %
2008	9.0 %	9.1 %	15.7 %	33.8 %
2007	9.0 %	6.3 %	18.6 %	33.9 %
2006	9.0 %	5.8 %	18.4 %	33.2 %
2005	9.0 %	7.4 %	27.3 %	43.7 %
2004	9.0 %	7.3 %	18.7 %	35.0 %
2003	9.0 %	9.7 %	15.4 %	34.1 %
2002	9.0 %	4.2 %	5.3 %	18.5 %
2001	9.0 %	3.4 %	4.2 %	16.6 %
2000	9.0 %	3.6 %	7.9 %	20.5 %
1999	9.0 %	4.4 %	4.9 %	18.3 %
1998	9.0 %	5.0 %	4.1 %	18.1 %
1997	9.0 %	5.0 %	8.2 %	22.2 %
1996	9.0 %	4.1 %	9.2 %	22.3 %
1995	9.0 %	3.6 %	12.9 %	25.5 %
1994	9.0 %	4.0 %	14.4 %	27.4 %
1993	9.0 %	3.8 %	15.0 %	27.8 %



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					
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>6,623,258</u>	\$ <u>133,148</u>	\$ <u>6,756,406</u>	\$ <u>369,942</u>		\$ <u>827,659</u>	\$ <u>6,756,304</u>	

## Historical Payment Amounts

<b>Year Ending September 30</b>	<b>Retirement Benefits</b>	<b>Refunds</b>	<b>Administrative Expenses</b>	<b>Total</b>
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
2004	1,535,530	115,779	124,068	1,775,377
2003	979,401	93,305	93,606	1,166,312
2002	888,470	18,117	98,083	1,004,670
2001	967,333	34,894	97,293	1,099,520
2000	934,999	0	83,027	1,018,026
1999	727,270	6,535	37,198	771,003

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

## Historical Share Allocations

<b>Year Ending 9/30</b>	<b>(1) Forfeitures</b>	<b>(2) State Contribution Over 618,479</b>	<b>(3) Available Funds</b>	<b>(4) Eligible Members</b>	<b>(5) Individual Share Allocation</b>	<b>(6) Total Share Allocations</b>
2010	0	216,537	216,646	202	1,072	216,544
2009	3,411	272,265	275,725	198	1,392	275,616
2008	778	190,214	191,139	194	985	191,090
2007			148,745	191	778	148,598

## Present Value of Benefits

Valuation Date October 1,	2009	2010
<b>1. Active Members</b>		
a. Service Retirement	\$57,251,242	\$54,923,216
b. Deferred Benefits	4,375,581	4,538,578
c. Survivor Benefits	632,938	643,644
d. Disability Benefits	2,977,403	3,011,896
e. Employee Contribution Refund	<u>480,274</u>	<u>442,506</u>
f. Total for Active Members	\$65,717,438	\$63,559,840
<b>2. Terminated Members Due Deferred Benefit</b>	\$0	\$0
<b>3. Members in Payment Status</b>		
a. Monthly Retirement Benefits	\$25,654,918	\$30,486,248
b. Current DROP Balance	5,636,069	6,380,687
c. Beneficiaries	504,150	1,119,396
d. Disability Retirement	<u>1,700,302</u>	<u>1,685,132</u>
e. Total for Members in Payment Status	\$33,495,439	\$39,671,463
<b>4. Liability for Members Currently in DROP</b>		
a. Current DROP Balance	\$3,572,594	\$2,960,781
b. Future Monthly Benefits	<u>19,933,784</u>	<u>22,184,049</u>
c. Total Liability for Members Currently in DROP	\$23,506,378	\$25,144,830
<b>5. Share Account Balances</b>		
a. Active Members	\$377,252	\$505,299
b. Members Currently in DROP	62,361	92,508
c. Members in Payment Status	<u>80,680</u>	<u>64,320</u>
d. Total Share Account Balances	\$520,293	\$662,127
<b>6. All Members</b>	<u>\$123,239,548</u>	<u>\$129,038,260</u>

## Accrued Liability

Valuation Date October 1,	2009	2010
<b>1. Active Members</b>		
a. Service Retirement	\$35,655,355	\$33,525,822
b. Deferred Benefits	1,230,567	1,388,772
c. Survivor Benefits	300,471	315,484
d. Disability Benefits	<u>1,097,755</u>	<u>1,153,398</u>
f. Total for Active Members	\$38,284,148	\$36,383,476
<b>2. Vested Terminated Members</b>	\$0	\$0
<b>3. Members in Payment Status</b>		
a. Monthly Retirement Benefits	\$25,654,918	\$30,486,248
b. Current DROP Balance	5,636,069	6,380,687
c. Beneficiaries	504,150	1,119,396
d. Disability Retirement	<u>1,700,302</u>	<u>1,685,132</u>
e. Total for Members in Payment Status	\$33,495,439	\$39,671,463
<b>4. Liability for Members Currently in DROP</b>		
a. Current DROP Balance	\$3,572,594	\$2,960,781
b. Future Monthly Benefits	<u>19,933,784</u>	<u>22,184,049</u>
c. Total Liability for Members Currently in DROP	\$23,506,378	\$25,144,830
<b>5. Share Account Balances</b>		
a. Active Members	\$377,252	\$505,299
b. Members Currently in DROP	62,361	92,508
c. Members in Payment Status	<u>80,680</u>	<u>64,320</u>
d. Total Share Account Balances	\$520,293	\$662,127
<b>6. All Members</b>	<u>\$95,806,258</u>	<u>\$101,861,896</u>

## Normal Cost

Valuation Date October 1,	2009	2010
<b>1. Preliminary Normal Cost</b>		
a. Service Retirement	\$2,264,667	\$2,260,212
b. Deferred Benefits	382,463	381,568
c. Survivor Benefits	35,051	34,862
d. Disability Benefits	<u>197,356</u>	<u>197,001</u>
e. Preliminary Normal Cost	\$2,879,537	\$2,873,643
f. Preliminary Normal Cost as a % of Pay	25.3%	25.4%
<b>2. Total Normal Cost</b>		
a. Preliminary Normal Cost	\$2,879,537	\$2,873,643
b. Administrative Expense	<u>332,191</u>	<u>284,552</u>
c. Total Normal Cost	\$3,211,728	\$3,158,195
d. Total Normal Cost as a % of Pay	28.2%	27.9%
<b>3. Normal Cost Net of Expected Employee Contributions</b>		
a. Total Normal Cost	\$3,211,728	\$3,158,195
b. Expected Employee Contributions	<u>(1,023,848)</u>	<u>(1,018,252)</u>
c. Employer Normal Cost	\$2,187,880	\$2,139,943
d. Employer Normal Cost as a % of Pay	19.2%	18.9%
<b>4. Valuation Payroll</b>	\$11,376,090	\$11,313,910

## Unfunded Accrued Liability

### Derivation of Unfunded Accrued Liability (UAL)

<b>Unfunded Accrued Liability as of October 1,</b>	<b>2010</b>
1. Actuarial Accrued Liability	\$101,861,896
2. Actuarial Value of Assets	<u>(86,997,197)</u>
3. Unfunded Accrued Liability	\$14,864,699

### Determination of Expected Unfunded Accrued Liability

1. Unfunded Accrued Liability for Prior Year	\$9,126,247
2. Employer Normal Cost (Including Administrative Expenses)	2,187,880
3. Interest on UAL and NC	862,702
4. Contributions	
a. City	\$(2,240,989)
b. Recognized State of Florida Contributions	<u>(835,023)</u>
c. Total	\$(3,076,012)
5. Interest on Contributions for Time on Deposit	(101,182)
6. Change in Plan, Methods or Assumptions	<u>216,544</u>
7. Expected Unfunded Accrued Liability	\$9,216,179

### Calculation of (Gain) or Loss

1. Actual Unfunded Accrued Liability	\$14,864,699
2. Expected Unfunded Accrued Liability	<u>9,216,179</u>
3. Total (Gain) or Loss	\$5,648,520
4. Breakdown of (Gain) or Loss	
a. Investment Experience	\$5,227,442
b. Demographic Experience	<u>421,078</u>
c. Total (Gain) or Loss	\$5,648,520

### Amortization of Unfunded Liability

The Unfunded Actuarial Accrued Liability is being amortized as a level percentage of payroll based on the interest and payroll growth assumptions. Changes in the Unfunded Actuarial Accrued Liability due to plan changes, assumption changes, method changes, or gains and losses are all amortized over a 30-year period. Any adjustment required due to timing of contributions is recognized in one year.

## Amortization Bases

	Effective	Source	Original Balance	October 1, 2010 at 7.625%		
				Remaining Balance	Years Remaining	Amortization Payment
1.	10/01/2002	Funding Method	\$3,434,613	\$ 3,807,055	22	\$ 242,210
2.	10/01/2003	(Gain) or Loss	799,969	882,956	23	54,542
3.	10/01/2004	(Gain) or Loss	4,443,626	4,875,417	24	292,936
4.	10/01/2004	Assumption Change	2,525,293	2,770,678	24	166,474
5.	10/01/2005	(Gain) or Loss	3,376,482	3,680,383	25	215,445
6.	10/01/2005	Assumption Change	(6,026,583)	(6,569,009)	25	(384,541)
7.	10/01/2006	(Gain) or Loss	(267,777)	(287,628)	26	(16,429)
8.	10/01/2006	Method Change	527,266	566,353	26	32,349
9.	10/01/2007	(Gain) or Loss	(3,252,734)	(3,438,229)	27	(191,890)
10.	10/01/2008	(Gain) or Loss	(907,703)	(942,979)	28	(51,489)
11.	10/01/2009	(Gain) or Loss	3,855,896	3,932,266	29	210,312
12.	10/01/2010	(Gain) or Loss	5,648,520	5,648,520	30	296,237
13.	10/01/2010	Balancing Adjustment	(61,084)	<u>(61,084)</u>	1	<u>(61,084)</u>
		Scheduled Amortization Payment				\$805,072
		Outstanding Bases		\$14,864,699		
		Unfunded Actuarial Accrued Liability		14,864,699		

## Projected Unfunded Accrued Liability and Amortization Payments

<b>Plan Year Beginning October 1,</b>	<b>UAL Outstanding Bases</b>	<b>Amortization Payment*</b>
2010	\$14,864,699	\$805,072
2011	15,131,674	900,802
2012	15,315,975	936,834
2013	15,475,550	974,308
2014	15,606,962	1,013,280
2015	15,706,451	1,053,811
2016	15,769,903	1,095,964
2017	15,792,828	1,139,802
2018	15,770,319	1,185,394
2019	15,697,025	1,232,810
2020	15,567,111	1,282,122
2021	15,374,219	1,333,407
2022	15,111,423	1,386,744
2023	14,771,187	1,442,213
2024	14,345,307	1,499,902
2025	13,824,868	1,559,898
2026	13,200,174	1,622,294
2027	12,460,693	1,687,186
2028	11,594,987	1,754,673
2029	10,590,638	1,824,860
2030	9,434,168	1,897,854
2031	8,110,958	1,973,769
2032	6,605,150	1,478,701
2033	5,517,340	1,403,419
2034	4,427,608	281,948
2035	4,461,766	744,008
2036	4,001,237	729,631
2037	3,521,066	1,312,106
2038	2,377,394	1,518,990
2039	923,857	923,857
2040	0	0

\*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 Actuarial 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 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 30 years. Any adjustment required due to timing of contributions is recognized in one year.





### 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)

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, 2010 no Variable Benefit is payable.

## Minimum Funding Requirements

### Development of Contribution Rate For Year Beginning October 1,

	2009	2010
1. Total Normal Cost	\$3,211,728	\$3,158,195
2. Amortization of UAL	<u>506,260</u>	<u>805,072</u>
3. Minimum Required Contribution BOY	\$3,717,988	\$3,963,267
4. Interest Assuming Periodic Payment	<u>165,328</u>	<u>174,679</u>
5. Minimum Required Contribution	\$3,883,316	\$4,137,946

### Contributions as a Dollar Amount

1. Expected Employee Contributions	\$1,023,848	\$1,018,252
2. Expected State Funding	618,479	618,479
3. Expected City Contributions	<u>2,240,989</u>	<u>2,501,215</u>
4. Minimum Required Contribution	\$3,883,316	\$4,137,946

### Contributions as a Percent of Payroll

1. Valuation Payroll	\$11,376,090	\$11,313,910
2. Expected Employee Contributions	9.0%	9.0%
3. Expected State Funding	5.4%	5.5%
4. Expected City Contributions	<u>19.7%</u>	<u>22.1%</u>
5. Minimum Required Contribution	34.1%	36.6%

## Reconciliations

### Reconciliation of Funded Status

	Unfunded Actuarial Accrued Liability	Funded Percentage	Change in Unfunded Actuarial Accrued Liability	Change in Funded Percentage
<b>As of Prior Valuation</b>	<b>\$9,126,247</b>	<b>90.5%</b>		
Changes in Contribution Rate due to:				
Normal Operation of Plan	\$9,216,179	90.9%	\$89,932	0.4%
Investment Loss	14,443,621	85.8%	5,227,442	( 5.1%)
Demographic Experience Loss	14,864,699	85.4%	<u>421,078</u>	<u>( 0.4%)</u>
Total Changes			\$5,738,452	( 5.1%)
<b>As of Current Valuation</b>	<b>\$14,864,699</b>	<b>85.4%</b>		

### Reconciliation of City Minimum Funding Requirement

	Dollar Amount	% of Pay
<b>As of Prior Valuation</b>	<b>\$2,240,989</b>	<b>19.7 %</b>
Changes in Contribution due to:		
Normal Operation of Plan	\$144,705	0.5 %
Change in Expenses	(49,455)	( 0.4)%
Investment Loss	284,606	2.4 %
Demographic Experience	<u>(119,630)</u>	<u>( 0.1)%</u>
Total Changes	\$260,226	2.4 %
<b>As of Current Valuation</b>	<b>\$2,501,215</b>	<b>22.1 %</b>

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Information

## Information Required by GASB 25

## REQUIRED SUPPLEMENTARY INFORMATION (GASB 25)

## SCHEDULES OF FUNDING PROGRESS (\$000'S)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Accrued Liability (AL) -Entry Age (b)	Unfunded Accrued Liability (UAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as % of Covered Payroll ((b - a) / (c))
10/1/10	\$86,997	\$101,862	\$14,865	85.4%	\$ 11,314	131.4 %
10/1/09	86,680	95,806	9,126	90.5%	11,376	80.2 %
10/1/08	83,961	89,281	5,320	94.0%	10,951	48.6 %
10/1/07	79,040	85,119	6,079	92.9%	10,513	57.8 %
10/1/06	69,710	78,919	9,209	88.3%	9,863	93.4 %
10/1/05	62,669	71,467	8,798	87.7%	9,622	91.4 %
10/1/04	58,807	70,107	11,300	83.9%	6,513	173.5 %
10/1/03	56,134	60,417	4,283	92.9%	6,234	68.7 %
10/1/02	51,612	55,046	3,434	93.8%	6,016	57.1 %
10/1/01	53,301	53,301	0	100.0%	8,327	0.0 %
10/1/00	50,566	43,039	( 7,527)	117.5%	7,756	( 97.0%)

Information prior to October 1, 2006 is as shown in the report of the prior actuary.

**REQUIRED SUPPLEMENTARY INFORMATION (GASB 25)****SCHEDULE OF EMPLOYER CONTRIBUTIONS**

<b>Year Ending September 30</b>	<b>Annual Required Contribution (ARC)</b>	<b>Actual City Plus State Contributions Made</b>	<b>Percentage Contributed</b>
2010	\$3,076,012	\$3,076,012	100.0%
2009	2,750,854	2,751,476	100.0%
2008	2,605,958	2,605,958	100.0%
2007	2,399,350	2,456,320	102.4%
2006	2,248,302	2,327,285	103.5%
2005	2,234,092	2,260,235	101.2%
2004	1,599,539	1,623,075	101.5%
2003	1,510,391	1,510,391	100.0%
2002	706,042	789,580	111.8%
2001	574,557	588,521	102.4%
2000	826,169	840,195	101.7%
1999	525,143	525,143	100.0%
1998	451,779	451,779	100.0%
1997	612,953	612,953	100.0%

Information prior to the year ended September 30, 2006 is as shown in the report of the prior actuary.

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation Date	October 1, 2010
Actuarial Cost Method	Entry Age
Amortization Method	Level Percent Closed
Remaining Amortization Period	30 Years
Asset Valuation Method	5-Year Smoothed Market
Actuarial Assumptions:	
Investment Rate of Return*	7.625%
Projected Salary Increases*	5% to 11%
*Includes Inflation at	4.000%
Cost-of-Living Adjustments	0.000%

## Information Required by GASB 27

### Annual Pension Cost and Net Pension Obligation

<b>Fiscal Year Ending September 30,</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
1. Beginning of year NPO	\$(339,299)	\$(330,802)	\$(323,111)	\$(261,547)
2. Contributions Made	3,076,012	2,751,476	2,605,958	2,456,320
3. Pension Cost	<u>3,067,935</u>	<u>2,742,979</u>	<u>2,598,267</u>	<u>2,394,756</u>
4. End of year NPO (1. - 2. + 3.)	\$(347,376)	\$(339,299)	\$(330,802)	\$(323,111)
1. ARC (City and State)	\$3,076,012	\$2,750,854	\$2,605,958	\$2,399,350
2. Interest on NPO	(25,872)	(25,224)	(24,637)	(19,943)
3. Amortization of NPO	<u>17,795</u>	<u>17,349</u>	<u>16,946</u>	<u>15,349</u>
4. Pension Cost	\$3,067,935	\$2,742,979	\$2,598,267	\$2,394,756

## 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.

	October 1, 2009	October 1, 2010
1. Actuarial present value of accumulated plan benefits		
a. Participants currently receiving benefits	\$57,144,858	\$64,973,121
b. Other Participants	<u>24,551,844</u>	<u>22,671,480</u>
c. Total vested plan benefits	\$81,696,702	\$87,644,601
d. Total non-vested plan benefits	<u>3,640,726</u>	<u>3,097,449</u>
e. Total accumulated plan benefits	\$85,337,428	\$90,742,050
2. Change in accumulated plan benefits		
a. Accumulated plan benefits beginning of year	\$79,500,434	\$85,337,428
b. Increase (decrease) during year attributable to:		
i. Plan amendment	\$272,205	\$216,544
ii. Change in assumptions	0	0
iii. Benefits paid	(2,836,907)	( 4,821,586)
iv. Increase for interest and probability of payment due to decrease in discount period and benefits accrued	<u>8,401,696</u>	<u>10,009,664</u>
v. Net increase (decrease)	\$5,836,994	\$5,404,622
c. Accumulated plan benefits end of year	\$85,337,428	\$90,742,050

## Other Disclosures Required by the State of Florida

Other Disclosures (where applicable)	October 1, 2009	October 1, 2010
Present value of active member:		
Future salaries (attained age)	\$108,501,904	\$107,358,685
Future salaries (entry age)	Not provided by software	Not provided by software
Future contributions (attained age)	\$9,765,171	\$9,662,282
Future contributions (entry age)	Not provided by software	Not provided by software
Future contributions (other sources)	N/A	N/A
Future expected benefit payments (entry age)	Not provided by software	Not provided by software
Current contribution balance for active members*	\$7,181,630	\$7,123,355

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

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## Summary of Participant Data

## Member Statistics

Fiscal Year Beginning	October 1, 2009	October 1, 2010
<u>Active Participants</u>		
Number	129	120
Average Age	35.4	35.8
Average Service	9.8	10.0
Percent Male	93.0%	92.5%
Average Annual Pay	\$89,834	\$95,090
Total Covered Payroll	\$11,588,599	\$11,410,857
Valuation Payroll	\$11,376,090	\$11,313,910
<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	20	21
Average Age	51.9	51.3
Percent Male	100.0%	100.0%
Average Monthly Benefit	\$6,942	\$7,269



## Member Statistics (Continued)

Fiscal Year Beginning	October 1, 2009	October 1, 2010
<u>Service Retirements</u>		
Number	43	49
Average Age	60.1	59.7
Percent Male	100.0%	100.0%
Average Monthly Benefit	\$4,920 <sup>(1)</sup>	\$5,072 <sup>(2)</sup>
<u>Beneficiaries</u>		
Number	4	5
Average Age	65.9	73.4
Percent Male	0.0%	0.0%
Average Monthly Benefit	\$1,510	\$2,267
<u>Disabled</u>		
Number	6	6
Average Age	55.2	56.2
Percent Male	66.7%	66.7%
Average Monthly Benefit	\$2,004	\$2,004
<u>Total in Payment Status</u>		
Number	53	60
Average Age	60.0	60.5
Percent Male	88.7%	88.3%
Average Monthly Benefit	\$4,332	\$4,532

## Notes:

- (1) As of October 1, 2009, an average monthly benefit of \$4,227 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, 2010, an average monthly benefit of \$4,464 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, 2010

Age	Service							Total
	<1	<5	<10	<15	<20	<25	<30	
<25		8						8
<30		12	13					25
<35		3	14	12				29
<40			6	10	4			20
<45			4	8	7	2		21
<50				5	4	4		13
<55						3	1	4
<60								0
Total	0	23	37	35	15	9	1	120

## Active Valuation Pay by Age and Service as of October 1, 2010

	Service							Total
	<1	<5	<10	<15	<20	<25	<30	
<25		72,704						72,704
<30		74,586	90,936					83,088
<35		78,571	90,667	100,075				93,309
<40			84,789	104,046	108,730			99,206
<45			93,721	96,141	120,749	129,161		107,028
<50				104,254	113,710	104,295		107,176
<55						108,047	96,948	105,272
<60								
Total		74,451	90,139	100,907	115,667	111,072	96,948	95,090

## Reconciliation of Plan Participants

	Active	Term. Vested	DROP	Retiree	Survivor	Disability Retiree	Totals
<b>As of October 1, 2007</b>	<b>128</b>	<b>0</b>	<b>18</b>	<b>38</b>	<b>4</b>	<b>6</b>	<b>194</b>
Active							
To DROP Participant	( 2)		2				0
To Refunded Termination	( 2)						( 2)
DROP Participant							
To Retiree			( 1)	1			0
New Hires	6						6
<b>As of October 1, 2008</b>	<b>130</b>	<b>0</b>	<b>19</b>	<b>39</b>	<b>4</b>	<b>6</b>	<b>198</b>
Active							
To DROP Participant	( 5)		5				0
DROP Participant							
To Retiree			( 4)	4			0
New Hires	4	0	0	0	0	0	4
<b>As of October 1, 2009</b>	<b>129</b>	<b>0</b>	<b>20</b>	<b>43</b>	<b>4</b>	<b>6</b>	<b>202</b>
Active							
To Retiree	( 1)			1			0
To DROP Participant	( 7)		7				0
To Refunded Termination	( 1)						( 1)
DROP Participant							
To Retiree			( 6)	6			0
Retiree							
To Survivor				( 1)	1		0
New Hires	0						0
<b>As of October 1, 2010</b>	<b>120</b>	<b>0</b>	<b>21</b>	<b>49</b>	<b>5</b>	<b>6</b>	<b>201</b>

## Number of Participants Eligible for Retirement or DROP as of October 1, 2010

Age	Eligible for Early Retirement	Eligible for Normal Retirement	Eligible for DROP	Electing Early Retirement	Electing Normal Retirement	Electing DROP
40						
41						
42						
43						
44	2	2	2			1
45						1
46	1	1	1			
47	2	1	2			1
48	1		1			
49	2	2	2			2
50	2	2	2			1
51	1	1	1			
52						
53	1	1	1			
54						1
Total	12	10	12	0	0	7

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.

## Average Annual Payroll Growth

<b>Valuation Date</b>	<b>No. of Years to 10/1/2010</b>	<b>Total Valuation Payroll</b>	<b>Average Annual Increase to 10/1/2010</b>
10/1/2010	0	\$11,313,910	
10/1/2009	1	\$11,376,090	( 1)%
10/1/2008	2	\$10,950,967	2 %
10/1/2007	3	\$10,513,383	2 %
10/1/2006	4	\$9,862,619	3 %
10/1/2005	5	\$9,622,066	3 %
10/1/2004	6	\$6,513,201	10 %
10/1/2003	7	\$6,233,508	9 %
10/1/2002	8	\$6,015,882	8 %
10/1/2001	9	\$8,326,813	3 %
10/1/2000	10	\$7,755,670	4 %
		10-Year Average:	4 %

## Outline of Plan Provisions

Effective Date: March 22, 1977.

Plan Year: The 12-month period from October 1<sup>st</sup> to the following September 30<sup>th</sup>.

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:

$3.0\% \times \text{Average Final Compensation} \times \text{Credited Service up to 10}$

Plus

$3.25\% \times \text{Average Final Compensation} \times \text{Credited Service Over 10}$

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 120<sup>th</sup> 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 (without regard to Credited 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 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.



## 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%.

Salary reported for the 12 month period prior to the valuation date is increased by the individual salary increase assumption to determine Salary in the next fiscal year. For Members who were not employed for the entire 12 month period prior to the valuation date, average monthly pay provided by the Plan administrator was increased by the individual salary increase assumption to determine Salary in the next fiscal year.

Beginning with the October 1, 2006 actuarial valuation, the Salary for Members who were not employed for the entire 12 month period prior to the valuation date, the average monthly pay provided by the Plan administrator was increased by the individual salary increase assumption and a factor of 1.03 to account for types of compensation other than the hourly rate of pay to determine Salary in the next fiscal year.

Salary Increase – Total Payroll: 4.0% per year

Inflation: 4.0% per year

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: 1983 Group Annuity Mortality Table

Retirement: Unisex rates of retirement from 20 to 25 years, but no earlier than age 45:

<u>Service</u>	<u>Rate</u>
20	0.20
21	0.25
22	0.30
23	0.40
24	0.50
25	1.00

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.