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**CITY OF HOLLYWOOD FIREFIGHTERS
PENSION FUND**

**Actuarial Valuation Report
as of
October 1, 2012**





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July 22, 2013

Board of Trustees
City of Hollywood Firefighters Pension Fund
310 South 62nd Avenue
Hollywood, FL 33023

Dear Members of the Board:

This report presents the results of the actuarial valuation of the City of Hollywood Firefighters Pension Fund for the plan year beginning October 1, 2012. The purpose of this report is to provide a summary of the funded status of the plan as of October 1, 2012 and to determine the minimum required contribution amount for the 2013/2014 fiscal year. In addition, this report provides a record of any plan amendments or other plan changes affecting the financial status of the fund. Our calculations were prepared based on member data and financial information provided by the Pension Fund, including an increase this year to the assets reported in last year's financial statements as of October 1, 2011 of \$1,523,000. Historical data before the October 1, 2008 valuation was provided by the prior actuary.

Summary of Valuation Results

Since the previous valuation, the benefit accrual rates was increased to 3% for service after October 1, 2011, the Planned Retirement Benefit was adopted, the assumed rate of return was reduced from 7.8% to 7.7%, the salary scale has been adjusted and the rates of retirement have been adjusted to reflect the addition of the Planned Retirement Option. No other substantive changes have been made.

Currently, the Pension Fund receives contributions from the City of Hollywood and from active members. The total required annual contribution for the 2013/2014 fiscal year from all sources is \$13,130,630. The amount of the city contributions varies from year to year, while the member contributions are equal to 7.93% of payroll. After taking into account expected member contributions of \$846,618 and expected State contributions of \$1,562,180, the total required contribution from the City is \$10,708,559, for the 2013/2014 fiscal year. The City contribution of \$10,708,559 will have to be adjusted depending on the actual State distribution during the 2014 fiscal year. In comparison, the required City contribution for the 2012/2013 fiscal year was \$11,442,584.

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The plan's unfunded liability was projected to be \$124,700,763 as of October 1, 2012, taking into account City/State contributions \$10,273,663. The actual unfunded liability is \$128,769,518. The increase of \$4,068,755 in the unfunded liability is primarily due to changes in actuarial assumptions, and an actuarial asset return of 6.82% compared to the expected 7.80%. The less than expected actuarial asset return accounted for \$852,114 of the increase in the unfunded liability, while the change in assumptions accounted for \$3,634,831. There was a decrease of \$217,088 due to better than expected overall demographic experience. In addition, there was a decrease of \$201,102 due to the passage of Ordinance PO-2013-15. The total increase in City contribution to amortize the unfunded liability is \$442,683 per year. A summary of the amortization payments is presented in Table Va.

Due to the passage of Ordinance No. O-2011-26, the benefit structure in effect on September 30, 2011 was frozen. Since the frozen accrued benefit amounts for active participants were not provided in the valuation data, we have estimated the accrued benefit as of September 30, 2011 for each active participant.

Ordinance No. PO-2013-15 increased the post September 30, 2011 accrual rate 1.0% from 2.0% to 3.0%. It also introduced the Planned Retirement Benefit option.

The valuation is based on a series of actuarial assumptions, including an interest (actuarial asset return) rate of 7.70% per year. Actuarial gains and losses result when the actual experience of the plan (such as asset return, pay increases, turnover, deaths, etc.) is different from that expected by the actuarial assumptions. Based on the experience study for the three year period ending 2010, the following assumption changes were recommended to the Board:

- a) Increase salary scale from 5% for all ages to service based table
- b) Reduced assumed investment rate of return from 8.00% to 7.50% per year
- c) Updated rates of retirement to reflect the Planned Retirement Benefit Option

The Board has chosen to phase in the assumed rate of return and the updated salary scale over a five year period. This valuation represents the third year of that phase in.

The estimated future cost of the Planned Retirement Benefit is very sensitivity to the assumed rates of retirement. The actual cost of the Planned Retirement Benefit will be different from the costs we have estimated and will not be known for many years. The actual cost will depend on many factors, including when members actually terminate from service, how long members will work and how many years of Planned Retirement Benefit members will elect. Generally, assuming members will work longer before retiring will reduce the annual cost of the benefit because the full cost will be spread over a longer period. If in the future, members do not work as long as anticipated by the assumptions the cost to the City of the adopted changes will be higher than estimated. We will monitor the future actual experience under the Planned Retirement Benefit and recommend changes in the retirement rates if necessary.



A summary of the results of the valuation and the contribution requirements is presented in Table I. Disclosure information required by GASB statements 25 and 27 can be found in Tables III and IV. The disclosure information required by Chapter 112, Florida Statutes, is presented in Table V. Tables VII and X provide information about the fund's assets and historical contributions. Table VI provides an asset reconciliation between October 1, 2011 and October 1, 2012. Table VI provides a breakdown of the fund assets by investment type and the calculation of the actuarial value of assets. Tables VII, VIIa, and VIII provide a historical record of the growth, expenses, revenues, annual returns and contributions of the fund. Tables IX and IXa through IXd provide a variety of useful information concerning the participant population. The assumptions used in the valuation are outlined in Table XI. Provisions of the plan are set forth in Table XII.

Certification

This actuarial valuation was prepared and completed by myself 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.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Jose I. Fernandez', with a long horizontal flourish extending to the right.

Jose I. Fernandez, ASA, EA, FCA, MAAA
Principal and Consulting Actuary
Enrolled Actuary No. 11-4461

A handwritten signature in blue ink, appearing to read 'Todd B. Green', with a long horizontal flourish extending to the right.

Todd B. Green ASA, FCA, MAAA
Principal and Consulting Actuary

JIF/tbg

**SUMMARY OF VALUATION RESULTS****TABLE I**

	<u>As of October 1, 2012</u>	<u>As of October 1, 2011</u>
1. Number of Members		
a. Active Members	157	153
b. Deferred Vested Members	4	2
c. Retired Members:		
i. Members in DROP	57	66
ii. Non-disabled	136	130
iii. Disabled	22	21
iv. Beneficiaries	38	35
v. Sub-total	<u>253</u>	<u>252</u>
d. Total Members	<u>414</u>	<u>407</u>
2. Total Annual Compensation		
a. Tier 1 Firefighter	\$8,824,209	\$10,807,726
b. Tier 2 Firefighter	<u>\$1,546,962</u>	<u>\$1,171,355</u>
c. Total	<u>\$10,371,171</u>	<u>\$11,979,081</u>
3. Total Projected Payroll	\$10,682,306	\$12,338,453
4. Total Retired Member Benefits	\$14,882,971	\$14,656,076
5. Derivation of Normal Cost		
a. Present Value of Future Benefits	\$252,962,008	\$237,317,452
b. Present Value of Future Normal Cost	(\$33,803,325)	(\$24,779,700)
City Portion	(\$22,470,596)	(\$14,210,847)
Member Portion	(\$11,332,729)	(\$10,568,853)
c. Actuarial Accrued Liability (AAL)	\$219,158,683	\$212,537,752
d. Actuarial Value of Assets	<u>(\$90,389,165)</u>	<u>(\$88,720,994)</u>
e. Unfunded Accrued Liability (c. + d.)	\$128,769,518	\$123,816,758
f. Normal Cost	\$2,579,314	\$2,373,170
g. Payment to Amortize Unfunded Liability	\$8,888,098	\$8,445,415
h. Administrative Expenses	\$300,000	\$300,000
i. Interest Adjustment	<u>\$1,363,218</u>	<u>\$1,305,043</u>
j. Total (f. + g. + h. + i.)	\$13,130,630	\$12,423,628
6. Expected Contributions Fiscal Year	2013/2014	2012/2013
k. Expected Member Contributions	\$846,618	\$981,044
l. Expected Chapter 175 Monies	\$1,562,180	\$0
m. Expected City Contribution	<u>\$10,721,832</u>	<u>\$11,442,584</u>
n. Total (k. + l. + m.)	\$13,130,630	\$12,423,628

The expected City contribution with respect to fiscal year 2012/2013 was determined in the October 1, 2011 actuarial valuation at a time when the understanding was that no further contributions from the State after October 1, 2011 could be used by the City to offset its contribution. However, based on the State's Division of Retirement interpretation in 2012, it appears the City can use State premium tax moneys to offset its contribution to the Retirement System. On this basis, the City may be able to use all or a portion of the State regular and supplemental distributions in 2013 to offset its contribution for fiscal year 2013. In addition, there is a pre-paid State contribution of \$1,562,180 as of October 1, 2012 which the City can use to reduce its remaining cash contribution for fiscal year 2013.

**GAIN AND LOSS ANALYSIS****TABLE II**

1. Actual Unfunded Accrued Liability as of October 1, 2011	\$123,816,758
2. Plan Sponsor Normal Cost for this Plan Year (including expenses)	\$1,763,111
3. Interest on 1. and 2.	\$9,795,230
4. Plan Sponsor Contribution for this Plan Year (including amounts expected to be paid)	(\$10,273,663)
5. Interest on 4.	(\$400,673)
6. Changes due to a. + b. + c. + d.	
a. Assumption Changes	\$3,634,831
b. Plan Amendments	(\$201,102)
c. Funding Method	\$0
d. Actuarial (Gain)/Loss	\$635,026
7. Total Current Unfunded Actuarial Accrued Liability 1. + 2. + 3. + 4. + 5. + 6.	\$128,769,518
8. Items Affecting Calculation of Accrued Liability:	
a. Changes in actuarial assumptions and methods reflected in item 6.a. above (see Table XIa)	
b. Changes in Plan Benefits reflected in item 6.b. above (see Table XIIa)	

**GAIN AND LOSS ANALYSIS****TABLE II**

9. Actual Unfunded Accrued Liability Payment as of October 1, 2011:		\$8,445,415
10. Net Actuarial (Gains)/Losses During the 2011/2012 Plan Year:		
a. Due to Salary/Service	(\$154,703)	
b. Due to Investment Performance	\$50,402	
c. Due to Turnover/Mortality	\$41,780	
d. Due to New Retirements	\$42,464	
e. Expected Payroll Growth	\$253,362	
f. Actual vs. Expected Benefit Payments	\$6,276	
g. Total		\$239,581
11. Change in Unfunded Accrued Liability Payment During the 2011/2012 Plan Year:		
a. Assumption changes	\$214,997	
b. Method changes	\$0	
c. Plan changes	(\$11,895)	
d. Total change		\$203,102
12. Unfunded Accrued Liability Contribution Payment as of October 1, 2012:		\$8,888,098

13. Comments on Change in Unfunded Accrued Liability Contribution Payment:

Salary/Service: Salary decreases of 11.4% compared to expected increases of 6.54%.

Investment Performance: 6.8% actual vs. 7.8% expected return on the actuarial value of assets.

Turnover: Net effect on the valuation liabilities of actual deaths, terminations of employment and disabilities different from what was anticipated in the aggregate by the assumptions related to those events.

New retirements: Net effect of differences in expected vs. actual numbers of, and benefits for, new retirements and refund of employee contributions.

Assumption Changes: Revised rates of individual salary increases and rates of retirement, and a decrease in the assumed rate of investment return from 7.8% to 7.7%.

Method Changes: None

Plan Changes: 3% benefit accrual rate and Planned Retirement Option.

**ACCOUNTING DISCLOSURES (GASB 25/27)****TABLE III**

	<u>For the Plan Year 2011/2012</u>	<u>For the Plan Year 2012/2013</u>
1 Number of Plan Members as of October 1:		
a. Retirees and beneficiaries receiving benefits	252	253
b. Terminated plan participants entitled to but not yet receiving benefits	2	4
c. Active plan participants	<u>153</u>	<u>157</u>
d. Total	407	414
2 Development of Annual Required Contribution (ARC):		
Valuation Date October 1:	<u>2010</u>	<u>2011</u>
a. Employer normal cost:		
i. Normal cost plus Admin. Expenses	\$2,761,385	\$2,673,170
ii. Interest Adjustment	\$1,028,346	\$1,008,756
iii. Expected employee contribution	(\$978,867)	(\$981,044)
iv. Employer normal cost	\$2,810,864	\$2,700,882
b. Amortization of UAAL:		
i. PV of future benefits	\$228,089,090	\$237,317,452
ii. PV of future employer normal costs	(\$13,665,827)	(\$14,210,847)
iii. PV of future employee contributions	(\$10,232,415)	(\$10,568,853)
iv. Actuarial accrued liability (AAL)	\$204,190,848	\$212,537,752
v. Actuarial value of assets	(\$92,610,068)	(\$88,720,994)
vi. Unfunded AAL (UAAL)	\$111,580,780	\$123,816,758
vii. Amortization of UAAL	\$7,588,353	\$8,445,415
c. ARC	\$10,399,217	\$11,146,297
(Item B.a.iv. Plus item B.b.vii.)		
3 Annual Pension Cost and Net Pension Obligation (NPO):		
a. ARC	\$10,399,217	\$11,146,297
b. Interest on NPO	\$15,735	\$15,706
c. Adjustment to ARC	\$13,545	\$13,735
d. Annual Pension Cost	\$10,401,407	\$11,148,268
e. City and State Contributions made	\$10,399,217	
f. Increase(decrease) in NPO	\$2,190	
g. NPO (beginning of year)	\$199,174	
h. NPO (end of year)	\$201,364	



ACCOUNTING DISCLOSURES (GASB 25/27)

TABLE III

4. Schedule of Employer Contributions

Year Ended September 30	Annual Required Contribution	Contribution Made	Percentage Contributed
2008	\$9,189,375	\$9,189,375	100.0%
2009	\$9,295,528	\$9,025,338	97.1%
2010	\$10,372,647	\$10,372,647	100.0%
2011	\$12,877,607	\$12,958,981	100.6%
2012	\$10,399,217	\$10,399,217	100.0%

5. Schedule of Funding Progress (In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (1)	Actuarial Accrued Liability (AAL) (2)	Unfunded AAL (UAAL) (2) - (1)	Funded Ratio (1)/(2)	Covered Payroll (3)	UAAL as % of Covered Payroll [(2) - (1)]/(3)
10/1/2006	\$98,588	\$193,140	\$94,552	51.0%	\$10,998	859.7%
10/1/2007	\$106,615	\$197,866	\$91,251	53.9%	\$11,229	812.6%
10/1/2008	\$100,538	\$208,478	\$107,941	48.2%	\$12,207	884.2%
10/1/2009	\$91,578	\$217,788	\$126,210	42.0%	\$13,327	947.0%
10/1/2010	\$92,610	\$204,191	\$111,581	45.4%	\$13,034	856.1%
10/1/2011	\$88,721	\$212,538	\$123,817	41.7%	\$12,338	1003.5%
10/1/2012	\$90,389	\$219,159	\$128,770	41.2%	\$10,371	1241.6%

6. Additional Information

Valuation date :	<u>October 1, 2012</u>	<u>October 1, 2011</u>
Actuarial cost method:	Entry Age Normal	Entry Age Normal
Amortization method:	Level Percent Closed	Level Percent Closed
Remaining amortization period:	20 to 30 years	21 to 30 years
Asset valuation method:	Market Related Value	Market Related Value
Actuarial assumptions:		
Investment rate of return	7.70%	7.80%
Projected salary increases	6.20% - 34.20%	5.80% - 33.80%
Includes inflation at	3.00%	3.00%
Cost of living adjustments	0%, 1%, 2%	0%, 1%, 2%



PRESENT VALUE OF ACCRUED BENEFITS

TABLE IVa

Shown below is the development of the Total Present Value of Accrued Benefit for the Plan. The calculations were performed in accordance with Chapter 2011-216 Laws of Florida (SB 1128) which requires the calculation of the present value of accrued benefits be calculated using the Florida Retirement System’s assumed rate of return of 7.75% in order to promote comparability of actuarial data between local plans.

1. Actuarial Present Value of Accrued Benefits

	<u>As of October 1, 2012</u>	<u>As of October 1, 2011</u>
a. Vested Accrued Benefits:		
i. Inactive members and beneficiaries	\$178,577,078	\$176,146,103
ii. Active members	\$27,144,678	\$34,990,799
iii. Sub-total	<u>\$205,721,756</u>	<u>\$211,136,902</u>
b. Non-vested Accrued Benefits	<u>\$8,587,715</u>	<u>\$3,115,569</u>
c. Total Benefits	\$214,309,471	\$214,252,471
d. Market Value of Assets	\$101,139,676	\$84,073,922
e. Percentage Funded	47.2%	39.2%

2. Statement of Changes in Total Actuarial Present Value of All Accrued Benefits

a. Actuarial Present Value as of October 1, 2011:	\$214,252,471
b. Increase (Decrease) During 2011/2012 Plan Year Attributable to:	
i. Interest	\$16,032,935
ii. Benefits accumulated/experience	\$4,776,582
iii. Benefits paid	(\$14,751,791)
iv. Plan amendments	(\$6,000,726)
v. Changes in actuarial assumptions or methods	<u>\$0</u>
vi. Net increase (decrease)	\$57,000
c. Actuarial Present Value as of October 1, 2012:	\$214,309,471

3. Items Affecting Calculation of Actuarial Present Value of Accrued Benefits

- a. Plan provisions reflected in the accrued benefits (see Table XII)
- b. Plan amendments reflected in item 2.b.iv. above (see Table XIIIa)
- c. Actuarial assumptions and methods used to determine present values (see Table XI)
- d. Changes in actuarial assumptions and methods reflected in item 2.b.v. above (see Table XIa)



PRESENT VALUE OF ACCRUED BENEFITS

TABLE IVb

Shown below is the development of the Total Present Value for the Plan. The calculations were performed using the Plan’s discount rate of 7.7%.

1. Actuarial Present Value of Accrued Benefits

	<u>As of October 1, 2012</u>	<u>As of October 1, 2011</u>
a. Vested Accrued Benefits:		
i. Inactive members and beneficiaries	\$179,418,967	\$175,319,729
ii. Active members	<u>\$27,401,070</u>	<u>\$34,697,657</u>
iii. Sub-total	\$206,820,037	\$210,017,386
b. Non-vested Accrued Benefits	<u>\$8,702,347</u>	<u>\$3,073,189</u>
c. Total Benefits	<u>\$215,522,384</u>	<u>\$213,090,575</u>
d. Market Value of Assets	\$101,139,676	\$84,073,922
e. Percentage Funded	46.9%	39.5%

2. Statement of Changes in Total Actuarial Present Value of All Accrued Benefits

a. Actuarial Present Value as of October 1, 2011:	\$213,090,575
b. Increase (Decrease) During 2011/2012 Plan Year Attributable to:	
i. Interest	\$16,045,745
ii. Benefits accumulated/experience	\$2,996,005
iii. Benefits paid	(\$14,751,791)
iv. Plan amendments	(\$5,975,311)
v. Changes in actuarial assumptions or methods	<u>\$4,117,161</u>
vi. Net increase (decrease)	<u>\$2,431,809</u>
c. Actuarial Present Value as of October 1, 2012:	<u>\$215,522,384</u>

3. Items Affecting Calculation of Actuarial Present Value of Accrued Benefits

- a. Plan provisions reflected in the accrued benefits (see Table XII)
- b. Plan amendments reflected in item 2.b.iv. above (see Table XIIa)
- c. Actuarial assumptions and methods used to determine present values (see Table XI)
- d. Changes in actuarial assumptions and methods reflected in item 2.b.v. above (see Table XIa)
- e. Changes in Plan Benefits reflected in item 2.b.iv. above



	After Assumption and Benefit Changes <u>October 1, 2012</u>	After Assumption Changes <u>October 1, 2012</u>	Prior to Assumption Changes <u>October 1, 2012</u>	<u>October 1, 2011</u>
1. Participant Data:				
a. Active members:				
i. Number	157	157	157	153
ii. Total annual payroll	\$10,371,171	\$10,371,171	\$10,371,171	\$11,979,081
iii. Projected annual payroll	\$10,682,306	\$10,682,306	\$10,682,306	\$12,338,453
b. Retirees, members in DROP, and beneficiaries:				
i. Number	231	231	231	231
ii. Total annualized benefit	\$13,935,086	\$13,935,086	\$13,935,086	\$13,790,322
c. Disabled members receiving benefits:				
i. Number	22	22	22	21
ii. Total annualized benefit	\$947,885	\$947,885	\$947,885	\$865,754
d. Terminated vested members:				
i. Number	4	4	4	2
ii. Total annualized benefit	\$208,544	\$208,544	\$208,544	\$95,665
2. Assets:				
a. Actuarial value of assets	\$90,389,165	\$90,389,165	\$90,389,165	\$88,720,994
b. Market value of assets	\$100,432,406	\$100,432,406	\$100,432,406	\$83,366,652



	After Assumption and Benefit Changes <u>October 1, 2012</u>	After Assumption Changes <u>October 1, 2012</u>	Prior to Assumption Changes <u>October 1, 2012</u>	<u>October 1, 2011</u>
3. Liabilities:				
a. Present value of all future expected benefit payments:				
i. Active members:				
Retirement benefits	\$69,221,180	\$60,559,575	\$56,954,114	\$57,328,902
Vesting benefits	\$932,887	\$833,309	\$808,727	\$957,236
Disability benefits	\$2,636,248	\$2,636,248	\$2,531,511	\$2,945,283
Death benefits	<u>\$539,643</u>	<u>\$482,533</u>	<u>\$468,879</u>	<u>\$534,976</u>
Sub-total	\$73,329,958	\$64,511,665	\$60,763,231	\$61,766,397
ii. Terminated vested members	\$2,171,029	\$2,171,029	\$2,139,579	\$1,249,210
iii. Retired members and beneficiaries:				
Retirees, members in DROP, and beneficiaries	\$165,332,682	\$165,332,682	\$163,804,124	\$163,319,090
Disabled members	<u>\$11,915,257</u>	<u>\$11,915,257</u>	<u>\$11,798,723</u>	<u>\$10,751,429</u>
Sub-total	\$177,247,939	\$177,247,939	\$175,602,847	\$174,070,519
iv. Member contributions (annuities & refunds)	<u>\$213,083</u>	<u>\$213,083</u>	<u>\$212,129</u>	<u>\$231,326</u>
v. Total present value of all future expected ben. pmts.	\$252,962,009	\$244,143,716	\$238,717,786	\$237,317,452
b. Liabilities due and unpaid	\$0	\$0	\$0	\$0
c. Actuarial accrued liability	\$219,158,683	\$219,359,785	\$215,724,954	\$212,537,752
d. Unfunded actuarial accrued liability	\$128,769,518	\$128,970,620	\$125,335,789	\$123,816,758
(please reference Table Va for details concerning the unfunded liability bases and amortization periods)				



	After Assumption and Benefit Changes <u>October 1, 2012</u>	After Assumption Changes <u>October 1, 2012</u>	Prior to Assumption Changes <u>October 1, 2012</u>	<u>October 1, 2011</u>
4. Actuarial Present Value of Accrued Benefits: (please reference Table IV for details concerning the present value of accrued benefits)	\$214,309,471	\$220,310,197	\$220,310,197	\$214,252,471
5. Pension Cost (as a % of projected payroll):				
a. Normal cost plus projected administrative expenses	26.95%	25.99%	24.32%	21.67%
Dollar amount	\$2,879,314	\$2,775,806	\$2,597,615	\$2,673,170
b. Payment to amortize unfunded liability	83.20%	83.32%	81.30%	68.45%
Dollar amount	\$8,888,098	\$8,899,993	\$8,684,996	\$8,445,415
c. Interest Adjustment	12.76%	12.66%	12.24%	10.58%
Dollar amount	\$1,363,218	\$1,352,605	\$1,307,055	\$1,305,043
d. Amount to be contributed by members	7.93%	7.93%	7.93%	7.95%
Dollar amount	\$846,618	\$846,618	\$846,618	\$981,044
e. Expected Chapter 175 monies	14.62%	14.62%	14.62%	0.00%
Dollar amount	\$1,562,180	\$1,562,180	\$1,562,180	\$0
f. Expected City Contributions	100.37%	99.41%	95.31%	92.75%
Dollar amount	\$10,721,832	\$10,619,606	\$10,180,868	\$11,442,584



	After Assumption and Benefit Changes <u>October 1, 2012</u>	After Assumption Changes <u>October 1, 2012</u>	Prior to Assumption Changes <u>October 1, 2012</u>	<u>October 1, 2011</u>
6. Past Contributions:				
a. Required City & State contribution	\$10,399,217	\$10,399,217	\$10,399,217	\$12,877,607
b. Actual contribution made by:				
i. City	\$10,273,663	\$10,273,663	\$10,273,663	\$11,398,596
ii. State	\$125,554	\$125,554	\$125,554	\$1,560,385
iii. Members	\$882,490	\$882,490	\$882,490	\$1,098,794
7. Net actuarial (gain) / loss:	635,026	635,026	635,026	\$9,960,873
8. Other disclosures:				
a. Present value of active members':				
i. Future salaries:				
at attained age	\$143,444,522	\$116,998,303	\$114,910,709	\$133,264,351
at entry age	N/A	N/A	N/A	N/A
ii. Future contributions:				
at attained age	\$11,332,729	\$9,225,990	\$9,065,367	\$10,568,853
at entry age	N/A	N/A	N/A	N/A
b. Present value of future normal contributions from City	\$22,470,596	\$15,557,939	\$13,927,466	\$14,210,847
c. Present value of future expected benefit payments for active members at entry age	N/A	N/A	N/A	N/A
d. Amount of active members' accumulated contributions	\$8,448,953	\$8,448,953	\$8,448,953	\$7,982,196



UNFUNDED LIABILITY BASES

TABLE Va

<u>Description</u>	<u>Original</u>	<u>Outstanding</u>	<u>2011/2012</u>	<u>Outstanding</u>	<u>2012/2013</u>	<u>Years</u>
	<u>Amount</u>	<u>Balance as of</u>	<u>Amortization</u>	<u>Balance as of</u>	<u>Amortization</u>	<u>Remaining</u>
		<u>October 1, 2011</u>	<u>Payment</u>	<u>October 1, 2012</u>	<u>Payment</u>	<u>October 1, 2012</u>
2002 Method Change	\$41,555,057	\$45,034,917	\$3,256,500	\$45,037,134	\$3,329,319	20 years
2003 Experience Loss	(\$2,345,967)	(\$2,535,373)	(\$178,378)	(\$2,540,841)	(\$182,308)	21 years
2003 Assumption Change	\$3,634,481	\$3,927,918	\$276,352	\$3,936,388	\$282,440	21 years
2004 Experience Loss	\$15,031,408	\$16,169,370	\$1,108,966	\$16,235,116	\$1,133,034	22 years
2004 Plan Amendment	\$10,239,499	\$11,014,689	\$755,435	\$11,059,476	\$771,831	22 years
2005 Experience Loss	\$19,718,115	\$21,075,951	\$1,411,523	\$21,198,253	\$1,441,707	23 years
2006 Experience Loss	\$3,587,068	\$3,803,745	\$249,156	\$3,831,847	\$254,406	24 years
2007 Experience Loss	(\$4,348,867)	(\$4,568,549)	(\$293,105)	(\$4,608,929)	(\$299,191)	25 years
2008 Experience Loss	\$15,814,449	\$16,436,874	\$1,034,240	\$16,604,039	\$1,055,406	26 years
2009 Experience Loss	\$18,538,471	\$19,040,612	\$1,176,432	\$19,257,586	\$1,200,163	27 years
2009 Plan Ammendment	(\$1,244,607)	(\$1,278,319)	(\$78,981)	(\$1,292,886)	(\$80,575)	27 years
2010 Assumption Change:	\$5,684,942	\$5,763,618	\$350,066	\$5,835,809	\$357,027	28 years
2010 Plan Amendment	(\$28,857,257)	(\$29,256,623)	(\$1,776,964)	(\$29,623,072)	(\$1,812,299)	28 years
2010 Experience Loss	\$7,475,543	\$7,579,000	\$460,327	\$7,673,929	\$469,481	28 years
2011 Assumption Change:	\$5,093,746	\$5,093,746	\$304,445	\$5,162,866	\$310,413	29 years
2011 Experience Loss	\$6,515,182	\$6,515,182	\$389,401	\$6,603,592	\$397,035	29 years
2012 Assumption Change	\$3,634,831			\$3,634,831	\$214,997	30 years
2012 Plan Amendment	(\$201,102)			(\$201,102)	(\$11,895)	30 years
2012 Experience Loss *	\$965,482			\$965,482	\$57,107	30 years
Total	\$120,490,474	\$123,816,758	\$8,445,415	\$128,769,518	\$8,888,098	

<u>Date</u>	<u>Projected Unfunded Liability</u>
October 1, 2012	\$128,769,518
October 1, 2013	\$129,112,289
October 1, 2014	\$129,194,279
October 1, 2015	\$128,986,793
October 1, 2042	\$0

* The total experience loss/(gain) for the 2011/2012 plan year of \$635,026 is adjusted for timing differences and interest equal to \$330,456



ASSETS

TABLE VI

	<u>As of October 1, 2012</u>	<u>As of October 1, 2011</u>
1. Market Value of Assets		
a. Cash and Cash Equivalents (1.9%)	\$1,925,554	\$3,123,848
b. U.S. Government Obligations (20.33%)	\$20,559,153	\$16,270,934
c. International Equity Fund (23.3%)	\$23,568,223	\$19,552,668
d. Domestic Corporate bonds (12.62%)	\$12,761,384	\$21,650,278
e. Domestic Stocks (62.52%)	\$63,233,989	\$52,823,468
f. Fixed Income Funds (19.46%)	\$19,681,048	\$7,282,656
g. Alternative Investments (7.11%)	\$7,186,408	\$8,109,708
h. Real Estate Equity Fund (23.02%)	\$23,280,634	\$20,432,926
i. Accrued Income Receivable (1.01%)	\$1,020,242	\$733,399
j. Contributions Receivable (1.54%)	\$1,562,180	\$2,059,185
k. Prepaid State Contributions (-1.54%)	(\$1,562,180)	\$0
l. Benefits Payable (0%)	\$0	\$0
m. Other Payables (-71.26%)	(\$72,076,959)	(\$67,965,148)
n. Prior Year Adjustment	\$0	\$0
o. Market value of assets (100%)	\$101,139,676	\$84,073,922
2. Actuarial Value of Assets		
a. Market Value of Assets	\$101,139,676	\$84,073,922
b. State contribution reserve *	(\$707,270)	(\$707,270)
c. Supplemental benefit payable	\$0	\$0
d. Market value of assets available for funding	\$100,432,406	\$83,366,652
e. 5-year phase-in of gains/(losses) on Actuarial Value of Assets:		
i. 2007/2008	(\$21,950,953)	x 20% = (\$4,390,191)
ii. 2008/2009	(\$8,414,923)	x 20% = (\$1,682,985) x 40% = (\$3,365,969)
iii. 2009/2010	\$5,489,987	x 40% = \$2,195,995 x 60% = \$3,293,992
iv. 2010/2011	(\$1,115,217)	x 60% = (\$669,130) x 80% = (\$892,174)
v. 2011/2012	\$14,016,384	x 80% = <u>\$11,213,107</u>
vi. Total unrecognized (losses)/gains	\$11,056,987	\$5,354,342
f. Actuarial Value of Assets	\$90,389,165	\$88,720,994
(Item d. minus item e.vi., but within a 90-110% corridor of item d.)		

**MARKET ASSET GAIN/LOSS****TABLE VIa**

1. Market Value as of October 1, 2011	
i. Beginning of Year Market Value	\$84,073,922
ii. Prior Year Adjustment	\$1,523,000
iii. Total Beginning of Year Market Value	<u>\$85,596,922</u>
2. Increases Due to:	
a. Contributions:	
i. City	\$10,273,663
ii. State	\$0
iii. Members	\$882,490
iv. Total	<u>\$11,156,153</u>
3. Decreases Due to:	
a. Benefit payments	\$14,751,791
b. Refund of member contributions	\$30,379
c. Administrative expenses	\$608,778
d. Investment Expenses	\$722,077
e. Total decreases	<u>\$16,113,025</u>
4. Expected Investment Income	\$6,483,242
5. Actual Investment Income	\$20,499,626
6. (Gain) / Loss	(\$14,016,384)

**ASSET RECONCILIATION****TABLE VIb**

	<u>As of October 1, 2012</u>	<u>As of October 1, 2011</u>
1. Beginning of Year Market Value:		
i. Beginning of Year Market Value	\$84,073,922	\$86,849,783
ii. Prior Year Adjustment *	\$1,523,000	\$0
iii. Total Beginning of Year Market Value	\$85,596,922	\$86,849,783
2. Increases Due to:		
a. Contributions: **		
i. City	\$10,273,663	\$11,398,596
ii. State ***	\$0	\$1,560,385
iii. Members	\$882,490	\$1,098,794
iv. Total	\$11,156,153	\$14,057,775
b. Investment income		
i. Realized and Unrealized Gains/(Losses)	\$15,366,495	(\$1,115,217)
ii. Interest and Dividends	\$5,133,131	(\$55,012)
iii. Total	\$20,499,626	(\$1,170,229)
c. Total increases	\$31,655,779	\$12,887,546
3. Decreases Due to:		
a. Benefit payments	\$14,751,791	\$14,281,808
b. Refund of member contributions	\$30,379	\$0
c. Administrative expenses	\$608,778	\$380,491
d. Investment Expenses	\$722,077	\$1,001,108
e. Total decreases	\$16,113,025	\$15,663,407
4. End of Year Market Value:	\$101,139,676	\$84,073,922

*Adjustment to October 1, 2011 market value of assets reported by auditor on June 13, 2013.

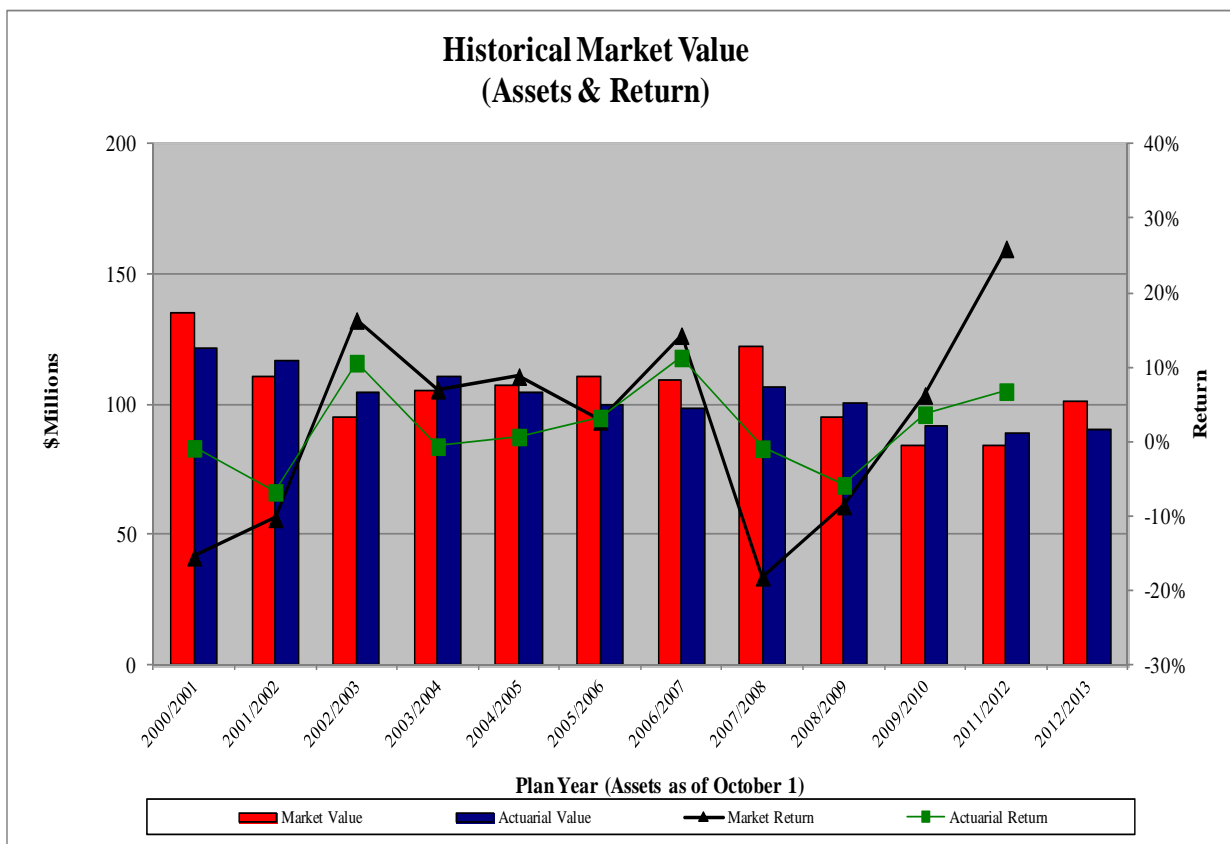
**Required City/State contributions for year ending October 1, 2012 consists of \$10,273,663 City contribution paid during the year plus a State contribution of \$125,554 received in October 2011, but included in October 1, 2011 market assets, for a total contribution of \$10,399,217.

***Excluding state distributions of \$1,562,180 as of October 1, 2012 as prepaid contributions for fiscal year ending September 30, 2013.



HISTORICAL ASSET INFORMATION

TABLE VII



Plan Year	Market Value as of October 1	Actuarial Value as of October 1	Benefit Payments	Administrative Expenses	City, State, and Member Contributions	Market Value Return	Actuarial Value Return
2000/2001	\$135,130,299	\$121,617,000	\$7,071,121	\$685,493	\$3,691,122	(15.44)%	(0.80)%
2001/2002	\$110,518,661	\$116,592,633	\$7,075,577	\$667,479	\$3,556,598	(10.27)%	(6.72)%
2002/2003	\$95,196,578	\$104,716,236	\$8,061,225	\$680,392	\$3,698,337	16.37%	10.64%
2003/2004	\$105,327,758	\$110,551,533	\$11,051,905	\$235,884	\$5,896,245	7.01%	(0.58)%
2004/2005	\$107,132,753	\$104,532,074	\$11,040,320	\$191,531	\$5,758,396	8.83%	0.72%
2005/2006	\$110,882,165	\$99,793,949	\$12,367,209	\$185,629	\$8,147,693	2.82%	3.28%
2006/2007	\$109,542,098	\$98,587,888	\$12,330,642	\$243,206	\$9,586,089	14.33%	11.34%
2007/2008	\$122,040,614	\$106,614,766	\$15,379,298	\$287,912	\$10,488,989	(18.13)%	(0.86)%
2008/2009	\$95,210,650	\$100,537,723	\$12,963,104	\$353,672	\$10,079,526	(8.56)%	(5.78)%
2009/2010	\$83,960,142	\$91,578,159	\$13,496,043	\$325,888	\$11,493,476	6.30%	3.72%
2010/2011	\$86,849,783	\$92,610,068	\$14,281,808	\$380,491	\$14,057,775	(2.51)%	(3.56)%
2011/2012	\$84,073,922	\$88,720,994	\$14,782,170	\$608,778	\$11,156,153	25.99%	6.82%
2012/2013	\$101,139,676	\$90,389,165					

**REVENUES BY SOURCE AND EXPENSES BY TYPE****TABLE V IIa**

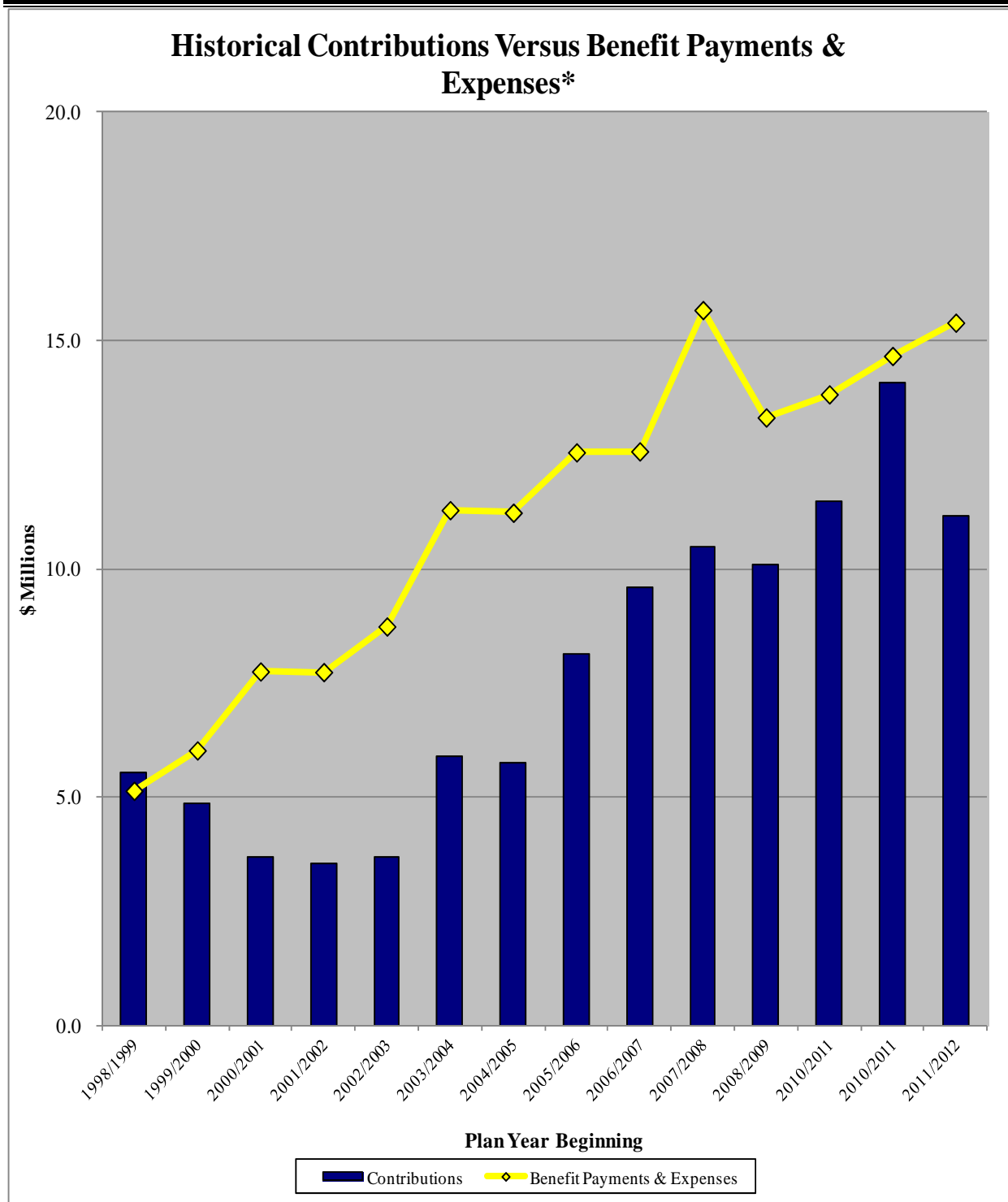
REVENUES						
Fiscal Year	City Contributions	State Contributions	Member Contributions	Sub-Total	Net Investment Income	Total
1998/1999	\$3,896,439	\$685,232	\$951,374	\$5,533,045	\$16,401,314	\$21,934,359
1999/2000	\$3,079,847	\$867,041	\$903,237	\$4,850,125	\$16,165,007	\$21,015,132
2000/2001	\$1,993,448	\$802,256	\$895,518	\$3,691,222	(\$21,561,140)	(\$17,869,918)
2001/2002	\$1,794,808	\$814,028	\$947,762	\$3,556,598	(\$12,127,037)	(\$8,570,439)
2002/2003	\$1,765,759	\$1,095,145	\$837,433	\$3,698,337	\$15,174,460	\$18,872,797
2003/2004	\$3,991,224	\$1,101,952	\$803,069	\$5,896,245	\$2,361,550	\$8,257,795
2004/2005	\$3,550,663	\$1,266,992	\$940,741	\$5,758,396	\$9,222,867	\$14,981,263
2005/2006	\$5,778,741	\$1,452,546	\$916,406	\$8,147,693	\$3,065,078	\$11,212,771
2006/2007	\$6,935,570	\$1,744,169	\$906,350	\$9,586,089	\$15,486,275	\$25,072,364
2007/2008	\$7,754,576	\$1,712,612	\$1,021,801	\$10,488,989	(\$21,651,743)	(\$11,162,754)
2008/2009	\$7,562,412	\$1,462,926	\$1,054,188	\$10,079,526	(\$7,988,596)	\$2,090,930
2009/2010	\$8,796,455	\$1,576,192	\$1,120,829	\$11,493,476	\$5,023,934	\$16,517,410
2010/2011	\$11,398,596	\$1,560,385	\$1,098,794	\$14,057,775	(\$2,171,337)	\$11,886,438
2011/2012	\$10,273,663	\$0	\$882,490	\$11,156,153	\$19,777,549	\$30,933,702

EXPENSES				
Fiscal Year	Benefits Paid	Member Refunds	Administrative Expenses	Total
1998/1999	\$4,468,262	\$27,513	\$649,608	\$5,145,383
1999/2000	\$5,341,557	\$0	\$687,540	\$6,029,097
2000/2001	\$7,038,767	\$32,354	\$685,493	\$7,756,614
2001/2002	\$7,027,576	\$48,001	\$667,479	\$7,743,056
2002/2003	\$8,061,225	\$0	\$680,392	\$8,741,617
2003/2004	\$10,994,712	\$57,193	\$235,884	\$11,287,789
2004/2005	\$11,034,894	\$5,426	\$191,531	\$11,231,851
2005/2006	\$12,323,310	\$43,899	\$185,629	\$12,552,838
2006/2007	\$12,329,315	\$1,327	\$243,206	\$12,573,848
2007/2008	\$15,379,298	\$0	\$287,912	\$15,667,210
2008/2009	\$12,963,104	\$0	\$353,672	\$13,316,776
2009/2010	\$13,496,043	\$0	\$325,888	\$13,821,931
2010/2011	\$14,281,808	\$0	\$380,491	\$14,662,299
2011/2012	\$14,751,791	\$30,379	\$608,778	\$15,390,948



CONTRIBUTIONS VS. FUND PAYOUTS

TABLE VIII



* Please reference Table VIIa on page 16 for the historical benefit payments, expenses, and contributions.

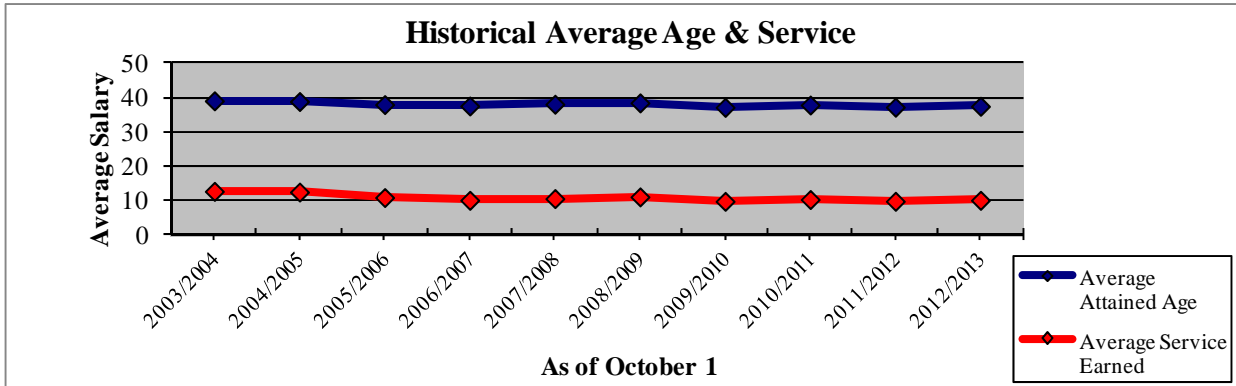
**SUMMARY OF MEMBER DATA****TABLE IX**

	<u>As of October 1, 2012</u>	<u>As of October 1, 2011</u>
1. Active Members		
a. Vested	70	61
b. Non-vested	87	92
c. Sub-total	<u>157</u>	<u>153</u>
2. Non-active, Non-retired Members		
a. Fully or partially vested	4	2
3. Retired Members		
a. Members in DROP	57	66
b. Retirees	136	130
c. Disabled	22	21
d. Beneficiaries	38	35
e. Sub-total	<u>253</u>	<u>252</u>
4. Total Members	<u>414</u>	<u>407</u>

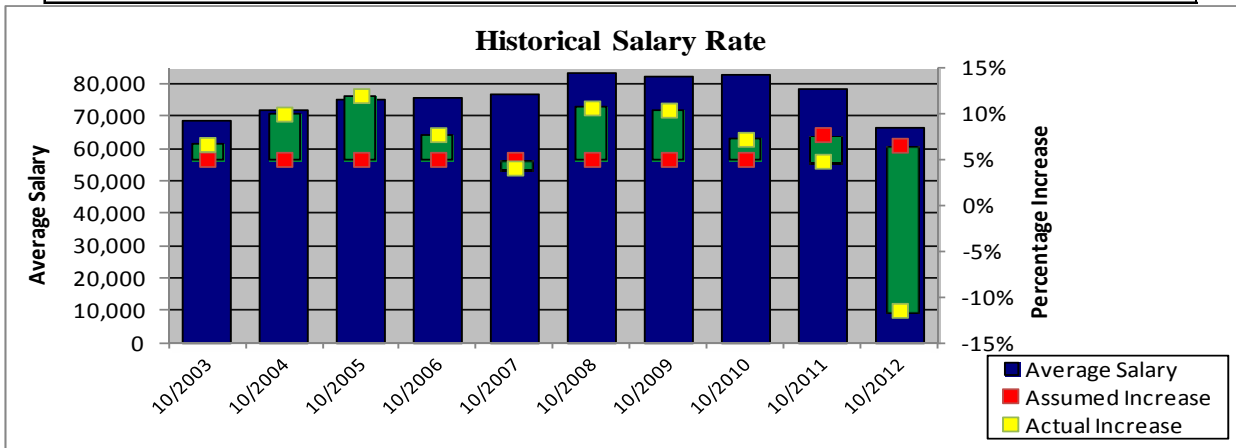


ACTIVE DATA

TABLE IXa



Date	Average Service Earned	Average Attained Age	Date	Average Service Earned	Average Attained Age
2003/2004	12.8	39.1	2008/2009	11.2	38.5
2004/2005	12.6	38.9	2009/2010	9.9	37.2
2005/2006	11.0	38.0	2010/2011	10.4	37.9
2006/2007	10.2	37.6	2011/2012	9.9	37.3
2007/2008	10.7	38.1	2012/2013	10.2	37.5

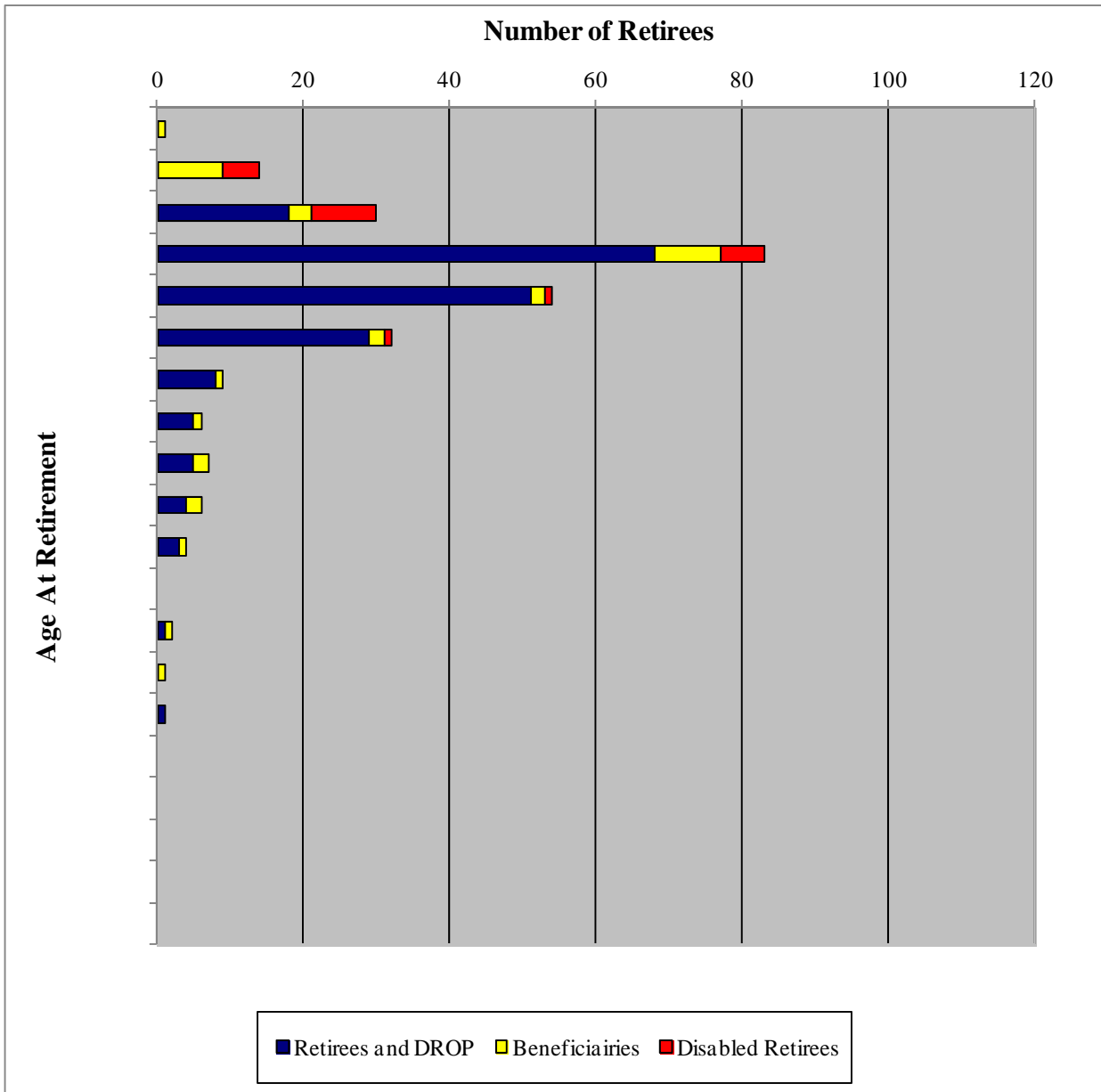


Date	Average Salary	Actual Salary Increase	Date	Average Salary	Actual Salary Increase
10/2003	\$68,486	6.63%	10/2008	\$83,042	10.60%
10/2004	\$71,490	9.93%	10/2009	\$82,263	10.36%
10/2005	\$74,922	11.94%	10/2010	\$82,709	7.18%
10/2006	\$75,327	7.69%	10/2011	\$78,295	4.80%
10/2007	\$76,389	4.06%	10/2012	\$66,058	-11.43%



RETIREE DATA

TABLE IXb



Average benefit being paid to non-disabled retirees is \$5,696 per month.

Average benefit being paid to disabled retirees is \$3,590 per month.

Average benefit being paid to beneficiaries is \$1,630 per month.



DATA RECONCILIATION

TABLE IXc

	<u>Active</u>	<u>Non-Active, Non-Retired</u>	<u>Retired</u>	<u>Total</u>
1. Number of members as of October 1, 2011	153	2	252	407
2. Change in Status during the plan year:				
a. Actives who became inactive	(7)	1		(6)
b. Actives who retired	(2)		2	
c. Actives who retired disabled	(1)		1	
d. Inactives who became active				
e. Inactives who retired				
f. Retirees who became active				
g. Retirees who became inactive		1	(1)	
3. No longer members due to:				
a. Death			(4)	(4)
b. Permanent break-in-service				
c. Forfeiture of benefits				
d. Expiration of certain period				
e. Included in error last year				
4. New members due to:				
a. Initial membership	14			14
b. Death of another member			3	3
c. Omitted in error last year				
d. Correction				0
5. Number of members as of October 1, 2012	157	4	253	414



AGE-SERVICE-SALARY

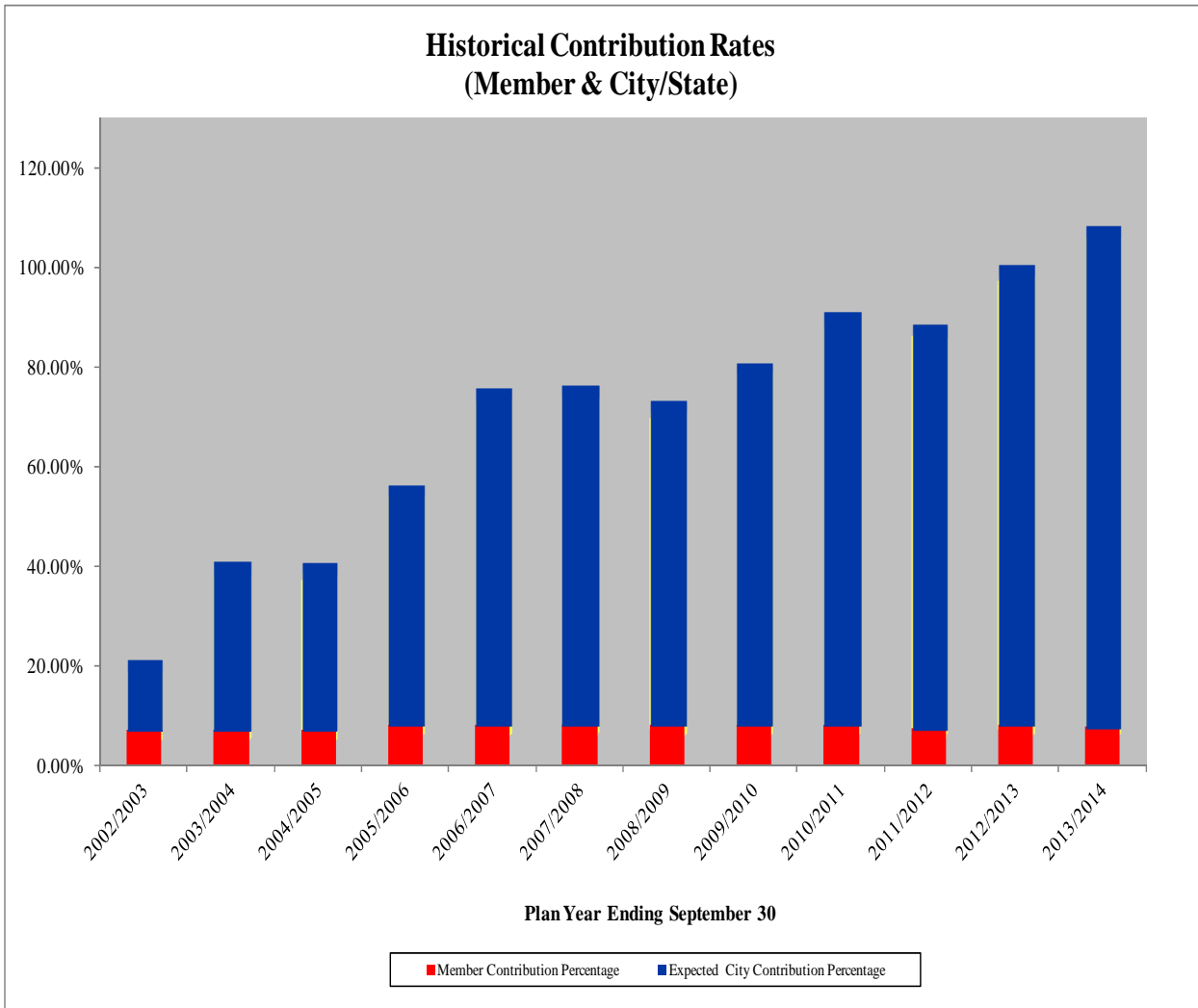
TABLE IXd

Attained Age	Completed Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	6	1	0	0	0	0	0	0	0	0	7
Avg. Pay	24,704	37,691	0	0	0	0	0	0	0	0	26,559
25 to 29	3	17	8	0	0	0	0	0	0	0	28
Avg. Pay	26,343	42,669	57,284	0	0	0	0	0	0	0	45,095
30 to 34	4	7	9	5	0	0	0	0	0	0	25
Avg. Pay	24,756	45,357	63,006	71,503	0	0	0	0	0	0	53,644
35 to 39	1	5	12	8	2	0	0	0	0	0	28
Avg. Pay	24,104	40,915	68,420	73,002	87,098	0	0	0	0	0	64,569
40 to 44	0	1	9	7	16	6	0	0	0	0	39
Avg. Pay	0	37,879	70,600	74,804	87,915	89,641	0	0	0	0	80,549
45 to 49	0	2	1	3	7	12	0	0	0	0	25
Avg. Pay	0	45,370	64,313	80,787	85,481	98,346	0	0	0	0	87,037
50 to 54	0	0	1	1	0	3	0	0	0	0	5
Avg. Pay	0	0	123,875	63,072	0	89,765	0	0	0	0	91,248
55 to 59	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
60 to 64	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
65 to 79	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
70 & Up	0	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0	0
Total	14	33	40	24	25	21	0	0	0	0	157
Avg. Pay	25,027	42,841	66,749	73,775	87,168	94,633	0	0	0	0	66,058



HISTORICAL CONTRIBUTIONS

TABLE X



Fiscal Year	Member Contribution Percentage	Expected City Contribution Percentage	Fiscal Year	Member Contribution Percentage	Expected City Contribution Percentage
2002/2003	7.00%	14.33%	2008/2009	8.00%	65.38%
2003/2004	7.00%	34.02%	2009/2010	8.00%	72.85%
2004/2005	7.00%	33.73%	2010/2011	7.96%	83.16%
2005/2006	8.00%	48.49%	2011/2012	7.51%	81.34%
2006/2007	8.00%	67.78%	2012/2013	7.95%	92.75%
2007/2008	8.00%	68.46%	2013/2014	7.93%	100.37%



ACTUARIAL ASSUMPTIONS

TABLE XI

1. Actuarial Cost Method

- Entry Age Normal Cost Method

2. Decrements

- **Pre-Retirement Mortality**

Representative values of the assumed annual rates of pre-retirement mortality among members in active service are as follows:

Age	Ordinary Mortality Rate	Service Mortality Rate	Age	Ordinary Mortality Rate	Service Mortality Rate
20	.00032	.00006	40	.00105	.00019
25	.00039	.00007	45	.00186	.00033
30	.00052	.00009	50	.00332	.00059
35	.00073	.00013	54	.00521	.00092

- **Post-Retirement Healthy Mortality**

1983 Group Annuity Mortality Table for males and females

- **Post-Retirement Disabled Mortality**

1951 Group Annuity Mortality Table projected to 1970 by Scale C and set back five years for females with modifications.

- **Disability**

Representative values of the assumed annual rates of disability among members in active service are as follows:

Age	Ordinary Disability Rate	Service Disability Rate	Age	Ordinary Disability Rate	Service Disability Rate
20	.0004	.0003	40	.0018	.0014
25	.0006	.0005	45	.0032	.0026
30	.0009	.0007	50	.0055	.0044
35	.0012	.0010	55	.0079	.0063



ACTUARIAL ASSUMPTIONS

TABLE XI

- **Retirement**

- For a member with 10 or more years of creditable service as of September 30, 2011:

Representative values of the assumed annual rates of retirement among Members in active service are as follows:

Age	Years of Service						
	10	11 – 22	23	24 – 30	31	32	33
45	0.000	0.000	0.050	0.025	0.025	0.025	1.000
46	0.000	0.000	0.050	0.025	0.025	0.025	1.000
47	0.000	0.000	0.050	0.025	0.025	0.025	1.000
48	0.000	0.000	0.050	0.025	0.025	0.025	1.000
49	0.000	0.000	0.050	0.025	0.025	0.025	1.000
50	0.050	0.050	0.050	0.025	0.025	0.025	1.000
51	0.050	0.025	0.025	0.025	0.025	0.025	1.000
52	0.050	0.025	0.025	0.025	0.025	0.025	1.000
53	0.050	0.025	0.025	0.025	0.025	0.025	1.000
54	0.050	0.025	0.025	0.025	0.025	0.025	1.000
55	0.100	0.025	0.025	0.025	0.150	0.300	1.000
56	0.100	0.025	0.025	0.025	0.150	0.300	1.000
57	0.100	0.025	0.025	0.025	0.150	0.300	1.000
58	0.150	0.150	0.150	0.150	0.150	0.300	1.000
59	0.150	0.150	0.150	0.150	0.150	0.300	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000

- For a member with less than 10 years of creditable service as of September 30, 2011:

Age	Years of Service							
	10	11 – 19	20 - 24	25	26 - 30	31	32	33
52	0.000	0.000	0.000	0.010	0.025	0.025	.025	1.000
53	0.000	0.000	0.000	0.010	0.025	0.025	0.025	1.000
54	0.000	0.000	0.000	0.010	0.025	0.025	0.025	1.000
55	0.100	0.100	0.100	0.010	0.025	0.150	0.300	1.000
56	0.100	0.025	0.030	0.030	0.025	0.150	0.300	1.000
57	0.100	0.025	0.030	0.030	0.025	0.150	0.300	1.000
58	0.100	0.025	0.030	0.030	0.025	0.150	0.300	1.000
59	0.150	0.150	0.150	0.150	0.150	0.150	0.300	1.000
60	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

**ACTUARIAL ASSUMPTIONS****TABLE XI**

- **Withdrawal from Active Status**

Representative values of the assumed annual rates of withdrawal among Members in active service are as follows:

Age	Rate	Age	Rate
20	.1030	35	.0182
25	.0730	40	.0099
30	.0415	45	.0048

3. Interest Rates

- Used for Calculating All Liabilities (including GASB 25/27 liabilities)
 - 7.70% per annum
 - 7.75% per annum in calculation of Present Value of Accrued Benefits in accordance with Florida Statutes, Chapter 2011-216

4. Salary Increases

- **Individual Compensation**

Service	Rate	Service	Rate
0	34.20%	7	6.45%
1	11.20%	8	6.45%
2	9.20%	9	6.20%
3	8.20%	10	6.20%
4	7.70%	11	6.20%
5	7.20%	12 or more	6.20%
6	6.70%		

- **Aggregate Compensation**

The aggregate compensation used to compute the accrued liability contribution rate was assumed to increase at a rate of 3% per year.

5. Marriage Assumptions

- **Percent Married:** 75% of members are assumed married.
- **Age Difference between Spouses:** Male spouses are assumed to be three years older than female spouses.

**6. Expenses**

The normal contribution rate is increased by anticipated non-investment expenses. The anticipated administrative expenses are assumed to be \$300,000.

7. Assets

Actuarial value of assets is equal to the market value of assets available for funding adjusted to reflect a five-year phase-in of the net realized and unrealized appreciation or depreciation. However, the actuarial value of assets may not be less than 90% of market value of assets available for funding or more than 110% of market value of assets available for funding. The market value of assets available for funding is the market value adjusted by the state contribution reserve and supplemental benefits payable, if any.

8. Pensionable Earnings

The pensionable earnings under the new salary definition effective October 1, 2011 were provided in the valuation data.



ASSUMPTION CHANGES

TABLE XIa

The following assumptions have been changed during the last few plan years. Assumption changes that have first been reflected in this valuation are shown in bold print:

2. Effective October 1, 2000:
 - a) Assumed expenses were increased from \$650,000 to \$700,000.
 - b) The load used to recognize the inclusion of overtime and compensatory time in the calculation of service retirement and terminated vested benefits for Supplemental Plan Participants was increased from 1.00% to 3.00%.
3. Effective October 1, 2002:
 - a) The actuarial cost method was changed from frozen entry age to entry age normal.
4. Effective October 1, 2003:
 - a) The marriage assumption was reduced from 95% to 75%.
 - b) Assumed expenses were updated to just include administrative expenses of \$200,000 per year and to no longer include investment fees and commissions.
 - c) The load used to recognize the inclusion of other pays in pension pay for Supplemental Plan Participants was increased from 3.00% to 9.50%.
5. Effective October 1, 2004:
 - a) 20% of members are assumed to retire when first eligible to retire and enter the DROP at 23 years of service, regardless of age. The last retirement age is assumed to occur at the earlier of age 60 or at the age of attaining the 86% maximum benefit at approximately 26 years of service.
6. Effective October 1, 2007:
 - a) Assumed administrative expenses were increased from \$200,000 to \$300,000 per year.
7. Effective October 1, 2010
 - a) Updated salary scale from 5% for all ages to service based table
 - b) Reduced interest rate from 8.00% to 7.90%
 - c) Updated rates of retirement to reflect 100% at 23 years versus 26 years of service and increased rates of retirement at ages 50 and 51.
 - d) Changed rates of retirement for members with less than ten years of service as of September 30, 2011
8. Effective October 1, 2011
 - a) Updated salary scale service based table
 - b) Updated rates of retirement
 - c) Reduced interest rate from 7.90% to 7.80%
9. **Effective October 1, 2012**
 - a) **Reduced interest rate from 7.80% to 7.70%**
 - b) **Updated service salary scale based table**
 - c) **Changed retirement rates to reflect the passage of ordinance**



1. Monthly Accrued Benefit

For members who are eligible to retire as of September 30, 2011

Hired prior to July 16, 2009:

3.3% of average monthly earnings multiplied by service up to a maximum of 86%.

Hired on or after July 16, 2009:

3.2% of average monthly earnings multiplied by service up to a maximum of 82.5%.

(Average monthly earnings are based upon the highest three years of compensation prior to retirement or termination. However, for members previously covered by the Prior Plan, average final compensation includes accrued sick leave compensation for up to a maximum of 2200 hours.)

For members who are not eligible to retire as of September 30, 2011

Frozen Accrued benefit as of October 1, 2011 based on benefit structure in place as of September 30, 2011.

3% of average monthly earnings multiplied by service earned on or after October 1, 2011, up to a maximum benefit equal to the net result of subtracting from 86% the product of 3.3% times the number of years of credited service earned up to September 30, 2011 for Tier 1 members and 73.6% for Tier 2 members.

For members who are hired on or after October 1, 2011

3% of Average Final Compensation for each year of credited service up to a maximum benefit of 80%.

2. Average monthly earnings

For benefits accrued prior to October 1, 2011:

The average of the highest three consecutive years of compensation prior to retirement or termination. Earnings are based on the definition of earnings prior to the changes effective October 1, 2011.

For benefits accrued on or after October 1, 2011:

The average of the highest five consecutive years of compensation prior to retirement or termination. Earnings shall mean, fixed monthly remuneration for services rendered to the City as a Firefighter, including only wages and educational incentive payment from the insurance Commissioner's Trust Fund and excluding overtime, workers compensation/supplemental compensation, expense allowances, cash conversion for holiday benefits, accrued leave payouts and cash conversion of blood time and compensatory time.)



3. Normal Retirement Age and Benefit

- **Age**

- 1. For a member with ten or more years of service as of September 30, 2011:**

Hired prior to July 16, 2009:

Age 50 with 10 years of service or any age with 23 years of service

Hired on or after July 16, 2009:

Age 55 with 10 years of service or any age with 25 years of service

- 2. For a member with less than 10 years of creditable service as of September 30, 2011:**

Age 55 with 10 years of service, or

Age 52 with 25 years of service

- **Amount**

Monthly Accrued Benefit

- **Form of Payment**

For unmarried members, life annuity with 10 years certain

For married members, 50% joint and survivor annuity with the survivor annuity payable to the member's spouse until death or remarriage



4. Disability Retirement Age and Benefit

- **Condition**

For a service connected disability benefit, the member must become totally and permanently disabled in the line of duty

For a non-service connected disability benefit, the member must become totally and permanently disabled and must have at least five years of service

- **Amount**

For a service connected disability benefit:

75% of compensation at the time of determination of disability. The benefit will be offset by any worker's compensation, pension, or similar benefit payable to the member or to his dependents.

For a non-service connected disability benefit:

25% of earnings at the time of determination of disability. The benefit will be offset by any worker's compensation, pension or similar benefit payable to the member or to his dependents. Upon attainment of normal retirement age, the benefit will be recomputed as a normal retirement benefit with service included for the period of time that the member was receiving a disability retirement benefit.

- **Form of Payment**

10 year certain and life annuity, with a 100% survivor annuity payable to the spouse until death or remarriage (in the case of a member who dies prior to age 50 while receiving a non-service connected disability) or with a 50% survivor annuity payable to the spouse until death or remarriage (for all other members)

5. Withdrawal Retirement Age and Benefit

- **Age**

Any age with at least ten years of service

- **Amount**

Monthly Accrued Benefit, if participant has at least ten years of service prior to October 1, 2011, benefit is payable at age 50. Otherwise, the benefit is payable at age 55.

- **Form of Payment**

For unmarried members, life annuity with 10 years certain

For married members, 10 years certain with 50% joint and survivor annuity with the survivor annuity payable to the member's spouse until death or remarriage.



6. Death Benefits

- **Service connected death benefit**
50% of compensation at the date of death payable as a monthly life and 10 years certain benefit to the spouse until death or remarriage.
- **Non-service connected death benefit**
For Members with five years of service, greater of accrued benefit or 25% of compensation at the date of death payable as a monthly life and 10 years certain benefit to the spouse until death or remarriage.

7. Employee Contributions

Hired prior to July 16, 2009:

8.0% of compensation per year until the age when the member attains the maximum benefit of 86%, and 0.50% of compensation thereafter.

Hired on or after July 16, 2009:

7.5% of compensation per year until the age when the member attains the maximum benefit of 82.5%, and 0.50% of compensation thereafter.

Effective October 1, 2011 all members hired on or after October 1, 2011 will contribute 7.50% of compensation.

8. Refund of Employee Contributions

If a member's service is terminated prior to his becoming eligible for a withdrawal retirement benefit, then his contributions are returned to him, or if a member dies prior to retirement and no survivor pension is payable, then his contributions (without interest) are paid to his designated beneficiary or estate.

9. Firefighters' Deferred Retirement Option Plan (DROP)

A member may enter in the DROP upon reaching normal retirement conditions; however, service may not exceed 30 years. When a member enters the DROP, his monthly accrued benefit is frozen based on his average final compensation and service at that time and his monthly accrued benefit is paid into his DROP account. Upon termination of employment, but not more than eight years after entry into the DROP, the balance in the member's DROP account, including interest, is payable to him and he also begins to receive his frozen monthly accrued benefit. Pre-DROP service plus DROP service cannot exceed 33.

The DROP balance interest rate is 6% for employees hired prior to July 16, 2009. The DROP balance interest rate is 4% for employees hired on or after July 16, 2009.



Effective October 1, 2011, a member can no longer elect to enter the DROP if they have not done so by that date, unless the member was eligible to retire as of September 30, 2011.

10. Planned Retirement Benefit

In order to participate in the Planned Retirement Benefit a member must submit in writing declaring their intent to participate in the Planned Retirement Benefit at any time on or after reaching the member's normal retirement date.

Members who elect to participate in the Planned Retirement Benefit shall not exceed 33 years of service, including service while participating in the Planned Retirement Benefit.

A member who elects to participate in the Planned Retirement Benefit will receive the normal retirement benefit they would have been eligible to receive during the Planned Retirement Period had the member actually retired at a point during the look-back period that begins on the entry date into the Planned Retirement Benefit and ends on the date of termination. The maximum look-back period is 8 years from the date of termination. If the member chooses a normal retirement benefit based on age and service during the look back period, they will receive a lump sum with interest based on the normal retirement benefit payable during the look-back period.

The crediting rate applicable to any lump sum payment shall be calculated in arrears equal to 100% of the first 4% of plan earnings plus 100% of plan earnings in excess of 6%. If the System is 80% to 90% funded, the crediting rate will be based on the 100% of the first 4% of plan earning plus 100% of plan earning in excess of 5%. If the System is at least 90% funded, the crediting rate will be based on 100% of actual plan earnings. The member will share in asset losses in those years where plan returns are negative.

11. Cost-of-Living Adjustment

Any retiree previously covered by the Supplemental Plan or hired after October 1, 1989 will receive a 2% annual increase in benefit payments commencing three years after the retiree's benefit payments have begun.

Retirees receiving benefit payments as of October 1, 1988 will receive a 1% annual increase in benefit payments commencing the later of October 1989 or three years after the retiree's benefit payments began.

All current beneficiaries will receive a 2% annual increase in benefit payments regardless of the magnitude of the COLA the retired member was receiving.

Retirees hired on or after July 16, 2009 and their associated beneficiaries will not receive a COLA.

All benefits accrued after October 1, 2011 will not be subject to any cost-of-living adjustments.



12. Supplemental Pension Check

If the actual asset return of the trust exceeds the assumed actuarial return for any fiscal year, the excess return (up to 2%) will be allocated equally to eligible participants. For members who retire or were eligible to retire on or after July 16, 2009 and before October 1, 2011 the Supplemental pension check cannot exceed \$12,000 per year and shall only be paid if there are no aggregate actuarial experience losses beginning with the actuarial experience on or after October 1, 2008.

Members not eligible to retire as of September 30, 2011 are not eligible for Supplemental Pension distributions.



PLAN AMENDMENTS

TABLE XIIa

The following plan amendments have been adopted within the past few years. Amendments that have first been reflected in this valuation are shown in bold print:

1. Effective October 1, 2004:

- a) For members actively employed on October 1, 2002 (including DROP members) the benefit multiplier is increased to 3.3% for every year of service, subject to an 86% maximum.
- b) For all participants separated from service prior to October 1, 2002, their retirement benefits are recalculated with an additional .15% (50% of the .30% increase in multiplier for other members) of benefit accrual for all service. Benefits for these members will be effective from October 1, 2004 with no retroactive payments.
- c) Eligibility for normal retirement and entrance into the DROP has been changed to 23 years of service, regardless of age.
- d) Member contributions have been increased from 7% to 8% of compensation.

2. Effective July 16, 2009:

- a) For members hired on or after July 16, 2009, cash conversion of blood time and compensatory time is not included.
- b) For members hired on or after July 16, 2009, member contribution rate is 7.5% of compensation.
- c) For members hired on or after July 16, 2009, the benefit multiplier is 3.2% for every year of service, subject to an 82.5% maximum.
- d) For members hired prior to July 16, 2009, DROP balance interest rate decreases from 8% to 6%. For members hired on or after July 16, 2009, the interest rate credited to the DROP balance is 4%.
- e) Pre-DROP service plus DROP service cannot exceed 33.
- f) For members hired on or after July 16, 2009, there is no cost of living adjustment to benefits.

3. Effective October 1, 2011

- a) The benefit structure in effect on September 30, 2011 is frozen at midnight. All members will be vested in benefits accrued to date and payable under the terms and conditions of plan provisions then in effect. Except for members eligible to retire on September 30, 2011, effective October 1, 2011, all members are subject to a new benefit structure applicable to future service. None of the benefit changes will apply to members eligible to retire on September 30, 2011.
- b) Under the benefit structure effective October 1, 2011 Average Final Compensation means the arithmetic average of earnings for the 60 highest consecutive months of the last 120 months of credited service prior to retirement, termination or death.



- c) Under the benefit structure effective October 1, 2011 earnings shall mean fixed monthly remuneration for services rendered to the City as a Firefighter, including only wages and education incentive payment from the insurance Commissioner's Trust Fund and excluding overtime, workers compensation/supplemental compensation, expense allowances, cash conversion of holiday benefits, accrued leave payouts and cash conversion of blood time and compensatory time.
- d) A member hired prior to October 1, 2011 with less than ten years of credited service as of September 30, 2011 and a member hired on or after October 1, 2011 may retire on the day he or she attains age 55 and completes ten years of creditable service or on the day he or she attains age 52 and completes 25 years of creditable service. A member with 10 or more years of creditable service as of September 30, 2011 shall retain his or her current normal retirement date.
- e) The monthly retirement benefit shall equal 2.0% of average monthly earnings times years of service earned on or after October 1, 2011. If the member retires before attaining age 62, an additional benefit equal to 0.5% of average monthly earnings times continuous service on and after October 1, 2011 shall be paid to age 62.
- f) A member who does not enter the DROP prior to October 1, 2011 shall not be eligible to enter the DROP, unless the member was eligible to retire as of September 30, 2011.
- g) Members hired on or after October 1, 2011 shall contribute 7.50% of their earnings.
- h) There shall be no annual increase (COLA) in retirement benefits under the benefit structure effective October 1, 2011.
- i) The supplemental pension distribution shall be payable only to retirees (and surviving spouses and other beneficiaries thereof) who reach their normal retirement or enter the DROP on or before September 30, 2011.

4. Effective October 1, 2012

- a) **The post September 30, 2011 accrual rate has been increased from 2.0% to 3.0%.**
- b) **The temporary benefit payable to members who retire prior to age 62 has been repealed.**
- c) **The Planned Retirement Benefit has been added.**