

**OKLAHOMA FIREFIGHTERS
PENSION AND RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT
AS OF JULY 1, 2013**

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This report has been prepared by Buck Consultants for the Oklahoma Firefighters Retirement Board to:

- Present the results of a valuation of the Oklahoma Firefighters Pension and Retirement System as of July 1, 2013;
- Review experience under the Plan for the year ended June 30, 2013; and
- Provide reporting and disclosure information for auditors' reports, governmental agencies and other interested parties.

The main financial highlights are:

- The funded status of the Plan, on a GASB No. 25 basis, has decreased since the prior valuation as indicated by the table below:

GASB No. 25 Funded Status (\$000,000)	July 1, 2013	July 1, 2012
Accrued Liability	\$ 3,081.9	\$ 2,886.4
Actuarial Value of Assets	\$ 1,811.7	\$ 1,759.1
Unfunded Accrued Liability	\$ 1,270.2	\$ 1,127.3
Funded Ratio	58.8%	60.9%

- The total required contribution for the System increased by 2.5% and the required State contribution increased by 1.3%.

Contribution Summary (\$000,000)	July 1, 2013	July 1, 2012
Total Required Contribution	\$ 184.1	\$ 179.6
Expected Employee Contributions	(22.0)	(20.5)
Expected Municipality Contributions	(35.6)	(34.3)
Required State Contribution	\$ 126.5	\$ 124.8
--As a Percentage of Active Payroll	49.8%	48.7%

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or Plan provisions between the two valuations are described in the section titled “Effects of Changes.”

	Actuarial Valuation as of	
	July 1, 2013	July 1, 2012
Summary of Costs		
Total Contribution Requirement ⁽¹⁾	\$ 184,112,744	\$ 179,596,631
Total Contributions Received in Prior Year ⁽²⁾	\$ 130,788,115	\$ 120,488,902

GASB No. 25 Funded Status		
Actuarial Accrued Liability	\$ 3,081,898,361	\$ 2,886,447,731
Actuarial Value of Assets	\$ 1,811,650,751	\$ 1,759,145,750
Unfunded Actuarial Accrued Liability	\$ 1,270,247,610	\$ 1,127,301,981

Market Value of Assets and Additional Liabilities		
Market Value of Assets	\$ 1,899,098,749	\$ 1,709,234,969
Present Value of Projected Plan Benefits	\$ 3,706,924,813	\$ 3,420,183,168

Summary of Data		
Number of Vested Members in Valuation		
Active Paid Members	2,270	2,327
Active Volunteer Members	2,658	2,632
Deferred Option Plan Members	84	107
Members with Deferred Benefits	1,356	1,310
Members Receiving Benefits	6,064	5,960
Beneficiaries	1,989	1,947
Disabled Members	1,815	1,791
Total Vested Members	16,236	16,074
Number of Non-Vested Members in Valuation		
Active Paid Members	1,866	1,723
Active Volunteer Members	5,598	5,661
Total Non-Vested Members	7,464	7,384
Total Members	23,700	23,458

Active Member Statistics		
Total Annual Compensation (Paid Members) ⁽³⁾	\$ 253,955,389	\$ 256,250,268
Average Compensation (Paid Members) ⁽³⁾	\$ 61,401	\$ 63,272
Average Age	38.5	38.5
Average Service	9.3	9.3

⁽¹⁾ Excluding Deferred Option Plan Contributions.

⁽²⁾ For the fiscal year beginning July 1, 2006, the System is scheduled to receive 34% of collected state-wide insurance premium taxes; beginning November 1, 2013, the System is scheduled to receive 36% of collected state-wide insurance premium taxes.

⁽³⁾ Compensation is projected one year based on the salary increase assumptions

Changes in Actuarial Assumptions

Changes to the following actuarial assumptions were approved by the Board since the prior valuation:

- Rates of retirement
- Rates of disability
- Rates of withdrawal
- Salary increase assumption
- Rates of mortality

In addition, the procedure for valuing the interest rate guarantee for DROP balances was changed from adding a load to the Normal Cost, to valuing it explicitly in the liability. These changes were made as a result of an experience study. The changes in assumptions resulted in an increase in Actuarial Accrued Liability of about \$115.3 million. See Section 4.2 for a description of the assumptions and methods used for the July 1, 2013 valuation.

Changes in Actuarial Funding Methods

HB 2078 increased the amount of gross salary contributed by paid firefighters from 8% to 9%, effective November 1, 2013. In addition, the bill increased the amount of gross salary contributed by municipalities and fire districts from 13% to 14%, effective November 1, 2013. These increases were reflected in the calculation of the Required State Contribution for the period July 1, 2013 to June 30, 2014.

The bill also increased the portion of statewide insurance premium tax allocated to the System from 34% to 36%, effective November 1, 2013.

Changes in System Benefits

HB 2078 and SB 1101 made certain changes to the benefits of members hired on or after November 1, 2013, including the following:

- Increased the eligibility to retire to age 50 with 22 years of service
- Increased the eligibility for a vested benefit to 11 years
- Changed the interest earned on DROP accounts to be the rate earned by System assets, less one percentage point, once the member has left active DROP

Since this valuation only includes members hired as of July 1, 2013, these changes have no impact on this valuation, but will be reflected in subsequent valuations.

Actuarial Experience During the Plan Year

The actuarial gain/(loss) is shown in the table below:

	Total (000s)
Liability Gain/(Loss)	\$ 37,194
Asset Gain/(Loss)	(37,750)
Net Actuarial Gain/(Loss)	\$ (556)

Deferred Option Plan

The Oklahoma Firefighters Deferred Option Plan (DROP) allows members eligible for a Normal Retirement Benefit to defer the receipt of retirement benefits while continuing employment. Participation in the Deferred Option Plan is limited to five years. During this time, the members' contributions stop, but the employer contributes half of the regular contribution on base salary to the Firefighters Pension and Retirement System and the other half to the members' accounts in the Deferred Option Plan equal to the retirement benefit accrued under the Plan. After the period of active participation, members must separate from active service as a firefighter and retire. After retirement, however, members may remain as inactive members in this plan and defer receipt of the account balance until payments are required under the minimum distribution rules. The DROP was modified effective July 1, 2003 to allow eligible members to retroactively elect to enter DROP as of a back-drop-date upon termination. The monthly retirement benefits and member contributions that would have been payable had the member elected to enter DROP are credited to the employee's account in the DROP.

The Deferred Option Plan accounts are credited with interest at a rate of 2.0% less than the total fund growth, with a guaranteed minimum interest rate equal to the valuation interest rate of 7.5%. The actual rate credited for the fiscal year ended June 30, 2013 was 12.28%.

Statistics regarding the number of Deferred Option Plan members and total account balances are shown in the table below:

DROP Statistics	July 1, 2013	July 1, 2012
Number of Members		
Active	84	107
Inactive	1,852	1,737
Total	1,936	1,844
Account Balances	\$ 472,994,792	\$ 420,412,628
Annual Retirement Benefits of Active Members	\$ 3,030,612	\$ 3,504,300

GASB 67 AND 68

Plan sponsors will be transitioning to new financial statement disclosure requirements which are set forth in GASB Statement 67 (for plans' financial statements) and GASB Statement 68 (for plan sponsors' financial statements) over the next two years. Some key requirements and implications are:

- A Net Pension Liability (NPL, equal to plan liability minus plan assets as defined by the new standards as described below) will be added to the balance sheet for all employers
- Assets will be reported at Fair Value (not Actuarial value)
- Liabilities will be based on the following methods and assumptions:
 - Individual Entry Age Normal cost method
 - A discount rate (used to discount expected future benefits) equal to the expected investment rate of return except for benefit payments not expected to be funded by assets on hand, which are to be discounted at a high quality 20-year tax-exempt municipal bond index rate
 - “run-out date” cash projections must be used to determine the cross-over point between benefits expected to be covered by assets and those that must be discounted using the municipal bond index rates.

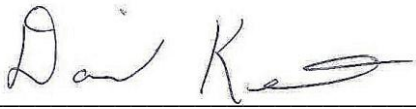
A key element of this change is that the NPL will reflect the Market Value funded position of the plan and will likely differ materially from the previously disclosed Net Pension Obligation, which represented the difference between the amounts contributed and the Actuarially Required Contribution (ARC) which represented the anticipated contribution. Moreover, plans which are less well funded may be subject to a discount rate modified by the Municipal Bond Rate Index, which would generally have the effect of increasing the NPL.

Actuarial certification

The valuation is based on employee and financial data which were provided by the Oklahoma Firefighters Pension and Retirement System and the independent auditor, respectively, and which are summarized in this report.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

We are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.



David Kent, F.S.A., E.A., M.A.A.A.
Director, Consulting Actuary



Douglas J. Fiddler, A.S.A., E.A., M.A.A.A.
Director, Consulting Actuary

Dated: October 3, 2013

Section 1.1 Calculation of Contribution Requirement

Section 1.2 Liability Detail

Section 1.3 Unfunded Actuarial Accrued Liability

Section 1.4 Actuarial Gain/(Loss)

Section 1.5 Contributions

Section 1.6 Ten-Year Projected Cash Flow

CALCULATION OF CONTRIBUTION REQUIREMENT

C. Summary of Contribution Requirements	Actuarial Valuation as of			
	July 1, 2013		July 1, 2012	
	Amount	% of Covered Comp.	Amount	% of Covered Comp.
1. Annual Compensation				
a. Members included in Valuation (Covered Compensation)	\$ 253,955,389		\$ 256,250,268	
b. Deferred Option Plan Members	5,882,776		6,930,876	
c. Total Compensation	259,838,165		263,181,144	
2. Total Normal Cost Mid-year	\$ 60,948,200	24.0%	\$ 73,394,893	28.6%
3. Unfunded Actuarial Accrued Liability	\$ 1,270,247,610		\$ 1,127,301,981	
4. Amortization of Unfunded Actuarial Accrued Liability over 30 years from July 1, 2003 Mid-year ⁽¹⁾	\$ 120,176,235	47.3%	\$ 104,409,529	40.7%
5. Budgeted Expenses	\$ 2,988,309	1.2%	\$ 1,792,209	0.7%
6. Total Required Contribution (2 + 4 + 5)	\$ 184,112,744	72.5%	\$ 179,596,631	70.1%
7. Estimated Member Contribution	\$ 22,009,467	8.7%	\$ 20,500,021	8.0%
8. Estimated Employer Contribution				
a. Active Members – Paid	\$ 34,707,236	13.7%	\$ 33,312,535	13.0%
b. Deferred Option Plan Members – Paid	401,990	6.8% ⁽²⁾	450,507	6.5% ⁽²⁾
c. Active Members - Volunteer	495,360		497,580	
d. Deferred Option Plan Members – Volunteer	450		720	
e. Total	\$ 35,605,036	13.7% ⁽³⁾	\$ 34,261,342	13.0% ⁽³⁾
9. Required State Contribution to amortize Unfunded Actuarial Accrued Liability over 30 years from July 1, 2003 at Mid-year. (6 - 7 - 8e)	\$ 126,498,241	49.8%	\$ 124,835,268	48.7%
10. Previous year's actual State Contribution ⁽⁴⁾	\$ 76,310,725	30.0%	\$ 68,245,816	26.6%

⁽¹⁾ Funding Policy adopted by Board.

⁽²⁾ Percentage of Deferred Option Plan Compensation.

⁽³⁾ Percent of Total Compensation.

⁽⁴⁾ The System is scheduled to receive 34% of collected state-wide insurance premium taxes. Beginning November 1, 2013, the System is scheduled to receive 36% of collected state-wide insurance premium taxes.

CALCULATION OF CONTRIBUTION REQUIREMENT (CONTINUED)

D. Allocation of Contribution Requirements	July 1, 2013		
	Paid	Volunteer	Total
1. Total Normal Cost Mid-year	\$ 58,521,932	\$ 2,426,268	\$ 60,948,200
2. Unfunded Actuarial Accrued Liability ⁽¹⁾	\$ 1,198,093,877	\$ 72,153,733	\$ 1,270,247,610
3. Amortization of Unfunded Actuarial Accrued Liability over 30 years from July 1, 2003 Mid-year ⁽²⁾	\$ 113,349,878	\$ 6,826,357	\$ 120,176,235
4. Budgeted Expenses ⁽³⁾	\$ 2,818,564	\$ 169,745	\$ 2,988,309
5. Total Required Contribution (1 + 3 + 4)	\$ 174,690,374	\$ 9,422,370	\$ 184,112,744
6. Estimated Member Contribution	\$ 22,009,467	\$ 0	\$ 22,009,467
7. Estimated Employer Contribution			
a. Active Members	\$ 34,707,236	\$ 495,360	\$ 35,202,596
b. Deferred Option Plan Members	401,990	450	402,440
c. Total	\$ 35,109,226	\$ 495,810	\$ 35,605,036
8. Required State Contribution to amortize Unfunded Actuarial Accrued Liability over 30 years from July 1, 2003 at Mid-year (5 - 6 - 7c)	\$ 117,571,681	\$ 8,926,560	\$ 126,498,241

⁽¹⁾ See Section 1.3 for allocation.

⁽²⁾ Funding Policy Adopted by Board.

⁽³⁾ Allocation based on total Actuarial Accrued Liability.

LIABILITY DETAIL

Total	
Present Value of Benefits	\$ 3,706,924,813
Present Value of Future Normal Cost	\$ 625,026,452
Accrued Liability	\$ 3,081,898,361
Normal Cost Mid-year	\$ 60,948,200

Active Accrued Liability	
a. Retirement	\$ 1,012,848,163
b. Withdrawal	5,614,958
c. Disability	406,472
d. Death	11,765,582
e. Total	\$ 1,030,635,175
Inactive Accrued Liability	
1. Members Eligible for Automatic COLA	
a. Disabled Members	\$ 56,783,533
b. Beneficiaries	90,057,137
c. Retired Members	94,840,836
d. Total	\$ 241,681,506
2. Members Not Eligible for Automatic COLA	
a. Terminated Vested Members	28,831,800
b. Disabled Members	450,047,399
c. Beneficiaries	116,688,598
d. Retired Members	639,486,161
e. Deferred Option Plan Members - Annuity	38,637,094
f. Deferred Option Plan Members - Account Balances	535,890,628
g. Total	\$ 1,809,581,680
3. Total Inactive (1d + 2g)	\$ 2,051,263,186
Accrued Liability (Active + Inactive)	\$ 3,081,898,361

UNFUNDED ACTUARIAL ACCRUED LIABILITY

The actuarial accrued liability is the present value of projected Plan Benefits allocated to past service by the actuarial funding method being used.

	Total Plan	
	July 1, 2013	July 1, 2012
1. Actuarial Present Value of Benefits		
a. Active Members	\$ 1,655,661,627	\$ 1,487,724,463
b. Members with Deferred Benefits	28,831,800	29,323,523
c. Members Receiving Benefits who are eligible for Automatic COLA	241,681,506	271,163,090
d. Members Receiving Benefits who are not eligible for Automatic COLA	1,206,222,128	1,167,330,816
e. Deferred Option Plan Members ⁽¹⁾	574,527,722	464,641,276
f. Total	3,706,924,813	3,420,183,168
2. Actuarial Present Value of Future Normal Costs	\$ 625,026,452	\$ 533,735,437
3. Total Actuarial Accrued Liability (If - 2)	\$ 3,081,898,361	\$ 2,886,447,731
4. Actuarial Value of Assets	\$ 1,811,650,751	\$ 1,759,145,750
5. Unfunded Actuarial Accrued Liability (3 - 4, not less than \$0)	\$ 1,270,247,610	\$ 1,127,301,981

Allocation of Current Year Between Paid and Volunteer:

	Total Plan		
	Paid	Volunteer	Total
1. Actuarial Present Value of Benefits			
a. Active Members	\$ 1,591,971,071	\$ 63,690,556	\$ 1,655,661,627
b. Members with Deferred Benefits	7,418,558	21,413,242	28,831,800
c. Members Receiving Benefits who are eligible for Automatic COLA	241,681,506	0	241,681,506
d. Members Receiving Benefits who are not eligible for Automatic COLA	1,102,219,260	104,002,898	1,206,222,158
e. Deferred Option Plan Members ⁽¹⁾	574,165,278	362,444	574,527,722
f. Total	\$ 3,517,455,673	\$ 189,469,140	\$ 3,706,924,813
2. Actuarial Present Value of Future Normal Costs	\$ 610,618,041	\$ 14,408,411	\$ 625,026,452
3. Total Actuarial Accrued Liability (If - 2)	\$ 2,906,837,632	\$ 175,060,729	\$ 3,081,898,361
4. Actuarial Value of Assets ⁽²⁾	\$ 1,708,743,755	\$ 102,906,996	\$ 1,811,650,751
5. Unfunded Actuarial Accrued Liability (3 - 4, not less than \$0)	\$ 1,198,093,877	\$ 72,153,733	\$ 1,270,247,610

⁽¹⁾ Effective July 1, 1997, Deferred Option Account balances are included as liability and assets and effective July 1, 2013, the guarantee for the interest rate credited to the account balances is included in the liability. The total Account Balance on July 1, 2013, is \$472,994,792 and the balance used on July 1, 2012, is \$420,412,628.

⁽²⁾ Allocated based on total actuarial accrued liability (item 3).

ACTUARIAL GAIN/(LOSS)

The actuarial gain/(loss) is comprised of both the liability gain/(loss) and the actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of July 1, 2013.

1. Expected Actuarial Accrued Liability	
a. Actuarial Accrued Liability at July 1, 2012	\$ 2,886,447,731
b. Normal Cost at July 1, 2012	57,488,513
c. Reserve for DROP Interest Rate Guarantee and DROP Contribution at Mid-Year	13,789,534
d. Benefit Payments for Plan Year Ending June 30, 2013	168,983,642
e. Interest on a + b + c - d to End of Year	215,080,650
f. Impact of Assumption Change	115,269,271
g. Plan Changes	0
h. Expected Actuarial Accrued Liability at July 1, 2013 $(a + b + c - d + e + f + g)$	3,119,092,057
2. Actuarial Accrued Liability at July 1, 2013	\$ 3,081,898,361
3. Actuarial Liability Gain/(Loss) $(1h - 2)$	\$ 37,193,696
4. Expected Actuarial Value of Assets	
a. Actuarial Value of Assets at July 1, 2012	\$ 1,759,145,750
b. Contributions Made for Plan Year Ending June 30, 2013	130,788,115
c. Benefit Payments and Expenses for Plan Year Ending June 30, 2013	170,988,795
d. Interest on a + b - c to End of Year	130,455,659
e. Expected Actuarial Value of Assets at July 1, 2013 $(a + b - c + d)$	1,849,400,729
5. Actuarial Value of Assets as of July 1, 2013	\$ 1,811,650,751
6. Actuarial Asset Gain/(Loss) $(5-4e)$	\$ (37,749,978)
7. Actuarial Gain/(Loss) $(3+6)$	\$ (556,282)

CONTRIBUTIONS

Contributions to the Retirement System are made by the Members, municipalities, fire districts, and the State of Oklahoma.

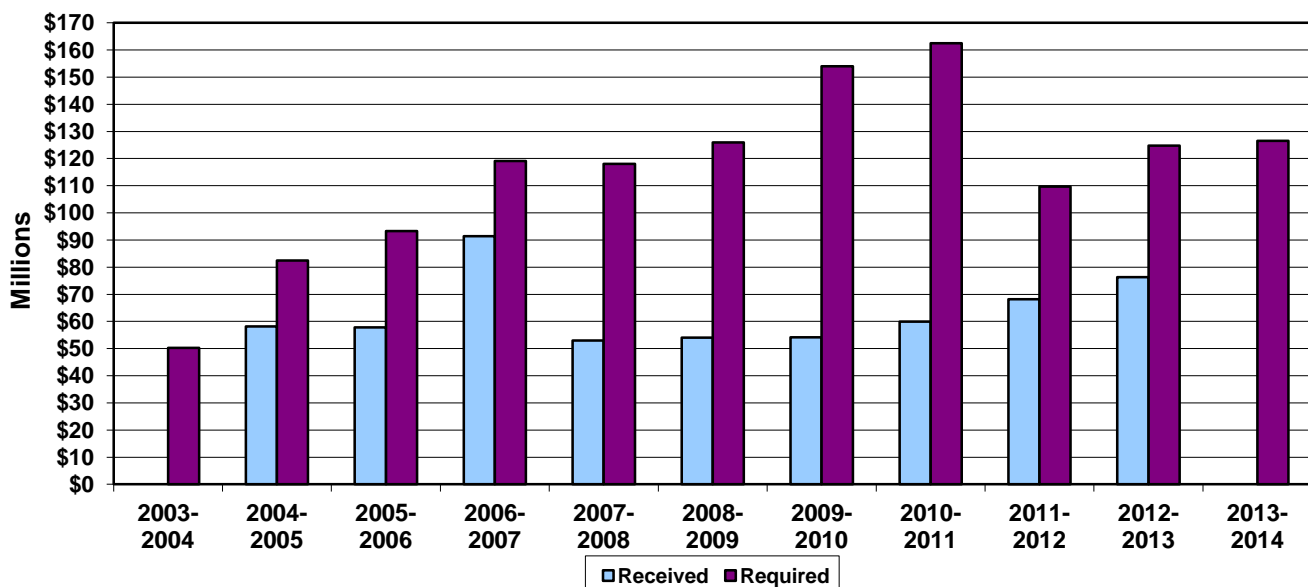
Historically, paid firefighters have contributed 8% of gross salary. Beginning November 1, 2013, the contribution rate for paid firefighters will increase to 9%. Historically, municipalities and fire districts have contributed 13% of gross salary. Beginning November 1, 2013, the contribution rate for municipalities and fire districts will increase to 14%.

For the fiscal year ending June 30, 2013, the fund received a contribution of \$76,310,725 from the State. The Retirement System is scheduled to receive 34% of collected statewide insurance premium taxes until November 1, 2013. Beginning November 1, 2013, the System is scheduled to receive 36% of collected statewide insurance premium taxes

Volunteer firefighters do not contribute to the fund. Municipalities and fire districts that are not exempt contribute \$60 per year per active volunteer.

The Deferred Option Plan Members do not make employee contributions to the Fund. However, municipalities continue contributing for them, with 50% of the contribution going to the Retirement System fund and 50% going into the Deferred Option account. Contributions for members who retroactively elect to enter the Deferred Option Plan as of a back-drop-date are also deposited into the Deferred Option account.

**State Contributions Received versus
Contributions Required by 30-Year
Funding Policy⁽¹⁾**



⁽¹⁾ 30-year amortization period was reset for plan year ending June 30, 2004 (SB 286) to start at July 1, 2003. Prior to that time, the amortization period was 30 years from July 1, 1988.

**TEN-YEAR PROJECTED CASH FLOW
(RETIREMENT BENEFIT PAYMENTS)**

Plan Year Ending	Actives	Retirees ⁽¹⁾	Total
6/30/2014	4,425,881	189,864,307	194,290,188
6/30/2015	11,728,934	194,193,076	205,922,010
6/30/2016	19,442,641	198,890,668	218,333,309
6/30/2017	27,476,268	204,031,591	231,507,859
6/30/2018	35,825,700	209,535,380	245,361,080
6/30/2019	44,299,978	215,609,081	259,909,059
6/30/2020	53,701,080	222,229,985	275,931,065
6/30/2021	63,719,884	229,506,199	293,226,083
6/30/2022	74,024,880	237,577,446	311,602,326
6/30/2023	84,210,174	246,541,326	330,751,500

⁽¹⁾ Includes Deferred Option Plan Members, Disabled Members, Beneficiaries and Terminated Vested Members and current Deferred Option Plan Accounts.

Section 2.1 GASB No. 25 Information

GASB No. 25 Information

Supplementary Schedules

The GASB has issued a statement; Financial Reporting for Defined Benefit and Note Disclosures for Defined Contribution Plans (GASB Statement No. 25). This standard became effective for periods beginning after June 15, 1996, and requires funding status to be measured based upon the actuarial funding method adopted by the Board, i.e., for the Oklahoma Firefighters Pension and Retirement System, the Entry Age Normal Cost Method. The target value of assets is equal to the Actuarial Accrued Liability (AAL). The actual value of assets is the Actuarial Value developed later in this report.

A. Schedule of Funding Progress

The GASB Statement No. 25 liabilities and assets resulting from the last six actuarial valuations are as follows:

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
07/01/2008	\$1,817,177,365	\$ 2,941,207,332	\$ 1,124,029,967	61.8%	\$ 235,371,501	477.6%
07/01/2009	\$1,667,981,545	\$ 3,075,087,927	\$ 1,407,106,382	54.2%	\$ 246,816,498	570.1%
07/01/2010	\$1,681,531,081	\$ 3,149,411,893	\$ 1,467,880,812	53.4%	\$ 248,520,483	590.6%
07/01/2011	\$1,757,838,480	\$ 2,760,356,036	\$ 1,002,517,556	63.7%	\$ 243,684,122	411.4%
07/01/2012	\$1,759,145,750	\$ 2,886,447,731	\$ 1,127,301,981	60.9%	\$ 256,250,268	439.9%
07/01/2013	\$1,811,650,751	\$ 3,081,898,361	\$ 1,270,247,610	58.8%	\$ 253,955,389	500.2%

B. Schedule of Employer Contributions

The GASB Statement No. 25 required contribution and actual percentage for the last six fiscal years are as follows:

Year Ended June 30	Annual Required Contribution	Percentage Contributed
2008	\$147,273,273	56.4%
2009	\$157,823,945	52.7%
2010	\$187,157,125	43.9%
2011	\$195,669,404	44.9%
2012	\$142,357,604	66.3%
2013	\$159,096,610	66.6%

Section 3.1 Summary of Assets

Section 3.2 Reconciliation of Assets

Section 3.3 Actuarial Value of Assets

Section 3.4 Average Annual Rates of Investment Return

SUMMARY OF ASSETS ⁽¹⁾

Asset Category	Market Value as of June 30, 2013	Market Value as of June 30, 2012
	Amount	Amount
1. Cash and Short-term Investments	\$ 49,485,679	\$ 42,074,327
2. Receivables	\$ 22,603,035	\$ 18,734,922
3. Investments at fair value		
a. Government Bonds	\$ 176,811,724	\$ 177,350,819
b. Foreign Government Bonds	37,322,459	50,669,507
c. U.S. Treasury	17,205,604	25,034,890
d. International Securities	73,795,193	38,410,264
e. Corporate Bonds	10,603,954	27,018,172
f. International Corporate Bonds	0	0
g. Common Stock	1,128,264,962	805,989,538
h. Foreign Stock	114,688,191	160,907,827
i. Mortgage-backed Securities	18,177,034	2,856,540
j. Municipal Bonds	1,518,931	3,550,556
k. Limited Partnerships	250,912,788	358,709,724
l. Securities Lending	137,834,828	178,692,610
m. Total	\$ 1,967,135,668	\$ 1,829,190,447
4. Assets used in plan operations	\$ 35,994	\$ 42,010
5. Total Assets	\$ 2,039,260,376	\$ 1,890,041,706
6. Liabilities	\$ (140,161,627)	\$ (180,806,737)
7. Net Assets for Pension Benefits	\$ 1,899,098,749	\$ 1,709,234,969

⁽¹⁾ Deferred option plan assets are included in the valuation assets. The value of these assets on July 1, 2012, is \$420,412,628 and the value on July 1, 2013, is \$472,994,792.

RECONCILIATION OF ASSETS

Transactions	June 30, 2013	June 30, 2012
Additions		
1. Contributions		
a. Contributions from Employers	\$ 34,286,563	\$ 32,816,159
b. Contributions from Plan Members	20,190,827	19,426,927
c. Insurance Premium Tax	76,310,725	68,245,816
d. Legislative Appropriation	0	0
e. Total	\$ 130,788,115	\$ 120,488,902
2. Net Investment Income	\$ 230,064,460	\$ 5,734,519
3. Total Additions	\$ 360,852,575	\$ 126,223,421
Deductions		
4. Benefit Payments	\$ (168,983,642)	\$ (159,361,349)
5. Administrative Expenses	(2,005,153)	(1,724,781)
6. Adjustment	0	0
7. Total Deductions	\$ (170,988,795)	\$ (161,086,130)
8. Net Increase	\$ 189,863,780	\$ (34,862,709)
9. Net Assets Held in Trust for Pension Benefits ⁽¹⁾		
a. Beginning of Year	\$ 1,709,234,969	\$ 1,744,097,678
b. End of Year	\$ 1,899,098,749	\$ 1,709,234,969
10. DROP Assets (included above)		
a. Beginning of Year	\$ 420,412,678	\$ 376,705,525
b. End of Year	\$ 472,994,792	\$ 420,412,628

⁽¹⁾ Includes Deferred Option Plan Assets.

ACTUARIAL VALUE OF ASSETS

Schedule of Assets Gains/(Losses)				
Year	Original Amount	Recognized in Prior Years	Recognized This Year	Recognized in Future Years
2008/2009	\$ (453,781,818)	\$ (363,025,456)	\$ (90,756,364)	\$ 0
2009/2010	158,405,157	95,043,093	31,681,031	31,681,033
2010/2011	141,090,329	56,436,132	28,218,066	56,436,131
2011/2012	(133,963,350)	(26,792,670)	(26,792,670)	(80,378,010)
2012/2013	99,636,055	0	19,927,211	79,708,844
Total	\$ (188,613,627)	\$ (238,338,901)	\$ (37,722,724)	\$ 87,447,998

Development of Actuarial Value of Assets	
1. Actuarial Value as of July 1, 2012 (pre-corridor)	\$ 1,759,145,750
2. Contributions	
a. Employer	\$ 34,286,563
b. Member	20,190,827
c. Insurance Tax	76,310,725
d. Legislative Appropriation	0
e. Total	\$ 130,788,115
3. Decreases During the Year	
a. Benefit Payments	\$ 168,983,642
b. Noninvestment Expenses	2,005,153
c. Total	\$ 170,988,795
4. Expected Return at 7.50% on:	
a. Item 1	\$ 131,935,931
b. Item 2	4,904,554
c. Item 3	6,412,080
d. Total (a + b - c)	\$ 130,428,405
5. Expected Actuarial Value of Assets June 30, 2013 (1 + 2 - 3 + 4)	\$ 1,849,373,475
6. Unrecognized Asset Gain/(Loss) as of June 30, 2012	\$ (49,910,781)
7. Expected Actuarial Value June 30, 2013 plus previous year's Unrecognized Asset Gain/(Loss) (5 + 6)	\$ 1,799,462,694
8. Market Value June 30, 2013	\$ 1,899,098,749
9. 2012/2013 Asset Gain/(Loss) (8 - 7)	\$ 99,636,055
10. Asset Gain/(Loss) to be Recognized as of June 30, 2013	\$ (37,722,724)
11. Initial Actuarial Value July 1, 2013 (5 + 11)	\$ 1,811,650,751
12. Constraining Values:	
a. 80% of Market Value (8 x 0.8)	\$ 1,519,278,999
b. 120% of Market Value (8 x 1.2)	2,278,918,499
13. Actuarial Value July 1, 2013 (11), but no less than (12a), nor greater than (12b)	\$ 1,811,650,751

AVERAGE ANNUAL RATES OF INVESTMENT RETURN

Year Ending June 30	Actuarial Value		Market Value	
	Annual	Cumulative	Annual	Cumulative
1991	7.46%	7.46%	7.77%	7.77%
1992	8.35%	7.90%	13.74%	10.71%
1993	9.42%	8.41%	13.70%	11.70%
1994	8.34%	8.39%	1.75%	9.13%
1995	9.56%	8.62%	15.06%	10.29%
1996	11.30%	9.06%	15.22%	11.09%
1997	25.01%	11.21%	18.24%	12.09%
1998	11.34%	11.23%	18.77%	12.90%
1999	10.32%	11.13%	6.59%	12.18%
2000	10.98%	11.11%	11.08%	12.07%
2001	7.14%	10.74%	(7.88%)	10.09%
2002	1.94%	9.98%	(7.20%)	8.54%
2003	3.56%	9.47%	3.73%	8.16%
2004	2.75%	8.98%	13.32%	8.52%
2005	1.75%	8.48%	9.29%	8.57%
2006	5.39%	8.29%	10.23%	8.67%
2007	10.42%	8.41%	15.93%	9.09%
2008	7.85%	8.38%	(3.80%)	8.33%
2009	(5.87%)	7.58%	(18.07%)	6.75%
2010	3.32%	7.36%	9.58%	6.89%
2011	7.21%	7.35%	21.10%	7.52%
2012	2.41%	7.12%	0.33%	7.19%
2013	5.33%	7.05%	13.62%	7.46%

Annual Returns include Deferred Option Plan Assets.

This section presents and describes the basis of the valuation. The census of Members, actuarial basis and provisions of the Plan are the foundation of the valuation, since these are the present facts on which the projection of benefit payments will depend. The valuation is based on the premise that the Plan will continue in existence.

Section 4.1 Plan Members**Section 4.2** Actuarial Basis**Section 4.3** Summary of Plan Provisions

PLAN MEMBERS

A. Active Member Statistics

Statistics for Active Members	Number	Average		
		Age	Service	Earnings
As of July 1, 2012				
Paid				
a. Continuing	3,815	40.4	13.5	\$ 64,961
b. New	235	27.4	0.5	35,859
c. Total	4,050	39.6	12.7	\$ 63,272
Volunteer				
a. Continuing	7,285	39.0	8.5	N/A
b. New	1,008	29.7	0.8	N/A
c. Total	8,293	37.9	7.6	N/A
Total	12,343	38.5	9.3	N/A
As of July 1, 2013				
Paid				
a. Continuing	3,860	40.4	13.5	\$ 63,496
b. New	276	28.2	0.8	\$ 32,098
c. Total	4,136	39.6	12.6	\$ 61,401
Volunteer				
a. Continuing	7,102	39.3	8.9	N/A
b. New	1,154	29.8	0.7	N/A
c. Total	8,256	38.0	7.7	N/A
Total	12,392	38.5	9.3	N/A

PLAN MEMBERS (CONTINUED)

B. Count of Paid Active Members

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 20	0	0	0	0	0	0	0	0	0	0
20-24	181	3	0	0	0	0	0	0	0	184
25-29	344	149	1	0	0	0	0	0	0	494
30-34	213	373	80	8	0	0	0	0	0	674
35-39	95	243	243	153	1	0	0	0	0	735
40-44	45	141	140	291	105	0	0	0	0	722
45-49	14	50	61	169	191	101	3	0	0	589
50-54	3	10	23	96	141	174	68	0	0	515
55-59	1	1	3	24	48	60	54	10	0	201
60-64	0	0	0	1	5	10	2	2	0	20
65-69	0	0	0	0	1	1	0	0	0	2
70-74	0	0	0	0	0	0	0	0	0	0
75+	0	0	0	0	0	0	0	0	0	0
Total	896	970	551	742	492	346	127	12	0	4,136

C. Average Compensation of Paid Active Members

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 20										0
20-24	35,787									35,688
25-29	40,522	50,796								43,656
30-34	42,083	54,326	59,466							51,189
35-39	40,575	55,865	66,761	71,258						60,727
40-44	41,029	53,730	66,898	71,744	81,515					66,793
45-49		57,190	69,641	68,646	79,088	82,186				72,591
50-54			60,174	67,738	75,657	82,614	85,821			76,913
55-59				56,882	70,593	73,669	79,695			72,721
60-64										67,663
65-69										62,736
70-74										0
75+										0
Total	39,910	54,246	65,756	69,804	77,624	80,553	82,748	81,632	0	61,401

AVERAGE COMPENSATION NOT SHOWN FOR GROUPINGS OF LESS THAN TWENTY MEMBERS

PLAN MEMBERS (CONTINUED)

D. Count of Volunteer Active Members

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
Under 20	0	0	0	0	0	0	0	0	0	0
20-24	858	55	0	0	0	0	0	0	0	913
25-29	712	377	36	0	0	0	0	0	0	1,125
30-34	671	458	195	15	0	0	0	0	0	1,339
35-39	502	433	209	127	11	0	0	0	0	1,282
40-44	413	365	221	220	56	4	0	0	0	1,279
45-49	242	284	199	186	78	15	1	0	0	1,005
50-54	39	150	187	220	71	39	9	2	0	717
55-59	8	15	85	162	92	26	12	1	0	401
60-64	7	7	6	58	40	21	7	4	1	151
65-69	1	1	0	7	10	3	1	1	1	25
70-74	0	0	0	4	2	1	2	0	0	9
75+	0	0	1	5	3	0	0	1	0	10
Total	3,453	2,145	1,139	1,004	363	109	32	9	2	8,256

PLAN MEMBERS (CONTINUED)

E. Inactive Member Statistics

Paid		
Inactive Members as of July 1, 2013	Number	Amount of Annual Benefit
Members Receiving Benefits		
a. Retired	2,038	\$ 59,040,396
b. Beneficiaries	808	22,933,116
c. Disabled	1,479	44,560,020
d. Deferred Option	69	3,002,160
Total	4,394	\$ 129,535,692
Members with Deferred Benefits		
a. Terminated Vested	59	\$ 807,396
Total	59	\$ 807,396

Volunteer		
Inactive Members as of July 1, 2013	Number	Amount of Annual Benefit
Members Receiving Benefits		
a. Retired	4,026	\$ 7,093,968
b. Beneficiaries	1,181	2,017,752
c. Disabled	336	477,552
d. Deferred Option	15	28,452
Total	5,558	\$ 9,617,724
Members with Deferred Benefits		
a. Terminated Vested	1,297	\$ 2,113,584
Total	1,297	\$ 2,113,584

PLAN MEMBERS (CONTINUED)**F. Members in Pay Status - Annual Benefits**

Paid								
Attained Age	Retired Members		Beneficiaries		Disabled Members		Current Payment Total	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
Under 50	49	1,289,160	33	847,368	120	2,736,444	202	4,872,972
50-54	226	6,665,052	27	664,716	150	4,577,544	403	11,907,312
55-59	359	10,701,792	54	1,536,876	261	7,993,308	674	20,231,976
60-64	391	11,626,944	74	1,913,088	305	9,627,588	770	23,167,620
65-69	296	7,931,748	102	2,649,360	256	7,552,776	654	18,133,884
70-74	310	8,205,216	131	3,432,852	226	6,708,312	667	18,346,380
75-79	190	5,580,132	138	3,968,952	97	2,941,680	425	12,490,764
80-84	129	4,026,168	104	3,249,072	41	1,544,748	274	8,819,988
85-89	65	2,251,284	86	2,768,676	17	619,020	168	5,638,980
90 and over	23	762,900	59	1,902,156	6	258,600	88	2,923,656
Total	2,038	59,040,396	808	22,933,116	1,479	44,560,020	4,325	126,533,532

Volunteer								
Attained Age	Retired Members		Beneficiaries		Disabled Members		Current Payment Total	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
Under 50	199	363,264	71	82,236	35	43,188	305	488,688
50-54	512	868,740	33	48,600	39	52,236	584	969,576
55-59	678	1,141,008	68	101,808	47	66,744	793	1,309,560
60-64	671	1,159,020	108	180,324	52	70,152	831	1,409,496
65-69	659	1,185,156	125	216,012	70	99,864	854	1,501,032
70-74	517	923,340	141	245,460	41	61,896	699	1,230,696
75-79	361	650,592	179	320,424	32	49,812	572	1,020,828
80-84	240	454,428	170	310,500	14	22,668	424	787,596
85-89	136	249,372	170	303,288	1	1,896	307	554,556
90 and over	53	99,048	116	209,100	5	9,096	174	317,244
Total	4,026	7,093,968	1,181	2,017,752	336	477,552	5,543	9,589,272

PLAN MEMBERS (CONTINUED)

G. Terminated Vested and Deferred Option Plan Members - Annual Benefits

Paid				
Attained Age	Terminated Vested Members		Deferred Option Plan Members	
	No.	Benefit	No.	Benefit
Under 40	6	\$ 92,688	1	\$ 38,856
40-44	21	254,496	4	176,544
45-49	12	182,472	18	826,920
50-54	14	126,888	29	1,253,172
55-59	5	123,648	13	571,188
60-64	1	27,204	4	135,480
65-69	0	0	0	0
70 and over	0	0	0	0
Total	59	\$ 807,396	69	\$ 3,002,160

Volunteer				
Attained Age	Terminated Vested Members		Deferred Option Plan Members	
	No.	Benefit	No.	Benefit
Under 40	115	\$ 128,184	0	\$ 0
40-44	167	203,724	1	1,800
45-49	245	331,764	0	0
50-54	220	330,852	6	10,896
55-59	217	372,984	4	7,200
60-64	119	241,380	2	3,696
65-69	65	144,924	2	4,860
70 and over	149	359,772	0	0
Total	1,297	\$ 2,113,584	15	\$ 28,452

PLAN MEMBERS

H. Member Data Reconciliation

	Paid Members						Total
	Active Members		Inactive Members				
	Regular	Deferred Option Plan	Deferred Vested Members	Retired Members	Disabled Members	Bene-ficiaries	
As of July 1, 2012	4,050	83	61	2,002	1,449	789	8,434
Deferred Option Plan Retirees	(8)	8					
Service Retirements	(71)	(18)	(5)	94			
Disability Retirements	(40)	(4)			44		
Deaths Without Beneficiaries				(15)	(8)	(34)	(57)
Deaths With Beneficiaries	(2)			(29)	(17)	48	-
Nonvested Terminations	(49)						(49)
Vested Terminations	(6)		6				
Rehires	1		(1)				
Cashouts of Member Contributions							
Expiration of Benefits							
Data Corrections	(7)		(1)	(14)	11	5	(6)
Transfers to Volunteer	(7)		(1)				(8)
Transfers from Volunteer	85						85
Net Change	(104)	(14)	(2)	36	30	19	(35)
New Entrants During the Year	190						190
Net Change	86	(14)	(2)	36	30	19	155
As of July 1, 2013	4,136	69	59	2,038	1,479	808	8,589

PLAN MEMBERS (CONTINUED)

H. Member Data Reconciliation (continued)

	Volunteer Members						Total
	Active Members		Inactive Members				
	Regular	Deferred Option Plan	Deferred Vested Members	Retired Members	Disabled Members	Beneficiaries	
As of July 1, 2012	8,293	24	1,249	3,958	342	1,158	15,024
Deferred Option Plan Retirees	(2)	2					
Service Retirements	(97)	(11)	(58)	166			
Disability Retirements	(7)				7		
Deaths Without Beneficiaries				(27)	(6)	(63)	(96)
Deaths With Beneficiaries	(11)			(55)	(7)	73	-
Nonvested Terminations	(870)						(870)
Vested Terminations	(120)		120				
Rehires	14		(13)	(1)			
Cashouts of Member Contributions							
Expiration of Benefits							
Data Corrections				(15)		13	(2)
Transfers to Paid	(84)		(1)				(85)
Transfers from Paid	8						8
Net Change	(1,169)	(9)	48	68	(6)	23	(1,045)
New Entrants During the Year	1,132						1,132
Net Change	(37)	(9)	48	68	(6)	23	87
As of July 1, 2013	8,256	15	1,297	4,026	336	1,181	15,111

ACTUARIAL BASIS

A. Entry Age Actuarial Cost Method

Liabilities and contributions shown in this report are computed using the Individual Entry Age method of funding.

Sometimes called “funding method”, this is a particular technique used by actuaries for establishing the amount and incidence of the annual actuarial cost of Plan Benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the plan is comprised of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability.

Under the Entry Age Actuarial Cost Method, the **Normal Cost** is computed as the level percentage of pay which, if paid from the earliest time each Member would have been eligible to join the plan if it then existed (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the plan.

The **Actuarial Accrued Liability** under this method at any point in time is the theoretical amount of the fund that would have accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date.) The **Unfunded Actuarial Accrued Liability** is the excess of the actuarial accrued liability over the actuarial value of plan assets actually on hand on the valuation date.

Under this method experience gains or losses, i.e. decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

Actuarial Present Value

The current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. The actuarial present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

ACTUARIAL BASIS (CONTINUED)

B. Asset Valuation Method

The actuarial value of assets is based on a five-year moving average of expected and market values determined as follows:

- at the beginning of each plan year, a preliminary expected actuarial asset value is calculated as the sum of the previous year's actuarial value increased with a year's interest at the Plan valuation rate plus net cash flow adjusted for interest (at the same rate) to the end of the previous plan year;
- the expected actuarial asset value is set equal to the preliminary expected actuarial value plus the unrecognized investment gains and losses as of the beginning of the previous plan year;
- the difference between the expected actuarial asset value and the market value is the investment gain or loss for the previous plan year;
- the (final) actuarial asset value is the preliminary value plus 20% of the investment gains and losses for each of the five previous plan years, but in no case more than 120% of the market value or less than 80% of the market value.

C. Valuation Procedures

No actuarial accrued liability is held for nonvested, inactive Members who have a break in service, or for nonvested Members who have quit or been terminated, even if a break in service had not occurred as of the valuation date.

The wages used in the projection of benefits and liabilities were considered earnings for the year ending June 30, 2013, increased by the salary scale to develop expected earnings for the current valuation year. Earnings were annualized for Members with less than twelve months of reported earnings.

In computing accrued benefits, average earnings were determined using actual pay history provided for valuation purposes.

ACTUARIAL BASIS (CONTINUED)**C. Valuation Procedures (continued)**

The impact from the dollar limitation required by the Internal Revenue Code Section 415 for governmental plans was not considered in this valuation and was determined not to be significant on a projected basis.

The compensation limitation under IRC Section 401(a)(17) was not considered in this valuation. On a projected basis, the impact of this limitation is insignificant.

The census data provided by the Retirement System was screened for completeness and validity, and discrepancies were resolved. No significant assumptions for incomplete data were necessary.

The estimated employee, employer and state contributions have been determined based on total compensation.

When the data is edited, members reported as non-vested terminations are verified to have less than ten years of service at date of termination. Members with more than ten years of service are included in the valuation (with estimated benefits if necessary).

The Deferred Option Plan members are valued in a manner similar to retired Members. The main difference is the continuation of 50% of the employer contributions to the Firefighters Pension and Retirement System based on the compensation rate of the Deferred Option Plan members.

Deferred Option Plan account balances are assumed to grow at 10.45% and be paid out over ten years, for the account balances of current DROP members; and over twenty years, for future DROP members. Discounting the expected DROP benefit payments at the assumed rate of return will result in a larger valuation liability than the actual DROP account balances. This difference represents the liability associated with the interest rate guarantee on the DROP accounts.

The contribution requirements are based on total annual compensation rather than total covered compensation. This is a better reflection of the overall expectations for the Plan.

The calculations for the required state contribution are determined as of mid-year. This is a reasonable assumption since the employer contributions, employee contributions and State insurance premium tax allocations are made on a monthly basis throughout the year, and mid-year represents an average weighting of the contributions.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions****Paid Firefighters****Economic Assumptions**

1. Investment Return 7.50%, net of investment expenses, per annum, compound annually.
2. Earnings Progression Sample rates below:

Years of Service	Inflation %	Merit %	Increase %
0	3.00	6.00	9.00
1	3.00	5.50	8.50
2	3.00	5.00	8.00
3	3.00	4.90	7.90
4	3.00	4.75	7.75
5	3.00	4.50	7.50
10	3.00	3.55	6.55
15	3.00	1.65	4.65
20	3.00	1.20	4.20
25	3.00	1.00	4.00
30+	3.00	0.50	3.50

3. Reserve for Guaranteed Interest Rate for DROP Account Balances

DROP account balances are assumed to earn 2.95% more than the assumed investment return. The accounts are assumed to grow at 10.45%, and be paid out over ten years, for the account balances of current DROP members; and over twenty years, for future DROP members.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Paid Firefighters (continued)****Demographic Assumptions**

1. Retirement Rates

Sample rates below:

Attained Service	Annual Rates of Retirement Per 100 Eligible Members
20	10
21	5
22	5
23	5
24	10
25-29	15
30-33	20
34	25
35+	100

2. Mortality Rates

- (a) Active employees
-
- (pre-retirement)

RP-2000 Blue Collar Healthy Combined with generational mortality improvement using Scale AA.

- (b) Active employees
-
- (post-retirement) and
-
- non-disabled pensioners

RP-2000 Blue Collar Healthy Combined with generational mortality improvement using Scale AA.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Paid Firefighters (continued)****Demographic Assumptions (continued)**

(c) Disabled pensioners RP-2000 Blue Collar Healthy Combined

3. Disability Rates -

Graduated rates. See table below:

Age Range	Rate
20-24	.0005
25-29	.0010
30-34	.0035
35-39	.0035
40-44	.0045
45-49	.0070
50-54	.0200
55-59	.0400
60-64	.0900

20% of disabilities are assumed to be Non-Duty related and 80% are assumed to be Duty related.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Paid Firefighters (continued)****Demographic Assumptions (continued)**

4. Withdrawal Rates

Graduated rates. See table below:

Attained Service	Rate
0	.0300
1	.0350
2	.0300
3	.0200
4	.0200
5-9	.0100
10-14	.0080
15+	.0040

5. Marital Status

(a) Percentage married

Males: 85%; Females: 85%

(b) Age difference

Males are assumed to be three years older than females.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Paid Firefighters (continued)****Other Assumptions**

1. Assumed Age of Commencement
for Deferred Benefits Later of Age 50 and 20 Years of Service.

2. Provision for Expenses Administrative Expenses, as budgeted by the Oklahoma
Firefighters Pension and Retirement System.

3. Cost-of-Living Allowance Half of the dollar amount of a 3% assumed increase in
Assumption for Retirees with base pay.
20 years of service as of
May 26, 1983

4. Cost-of-Living Increase Members are assumed to receive no annual increase in
Assumption benefits during retirement, except for those in Item 3
above.

ACTUARIAL BASIS (CONTINUED)

5. Deferred Option Plan The retirement rates reflect both regular retirement and entry into the DROP. 100% of member retirements with at least 25 years of service are assumed to retroactively elect to enter DROP.

D. Actuarial Assumptions (continued)**Volunteer Firefighters****Economic Assumptions**

1. Investment Return 7.50%, net of investment expenses, per annum, compound annually.
2. Benefit level increases No increases.

Demographic Assumptions

1. Retirement Rates Sample rates below:

Attained Service	Annual Rates of Retirement Per 100 Eligible Members
20	30
21	15
22	15
23	15
24	25
25	25
26-28	15
29-34	20
35+	100

ACTUARIAL BASIS (CONTINUED)

2. Mortality Rates

- | | |
|---|--|
| (a) Active employees
(pre-retirement) | RP-2000 Blue Collar Healthy Combined with generational mortality improvement using Scale AA. |
| (b) Active employees
(post-retirement) and
nondisabled pensioners | RP-2000 Blue Collar Healthy Combined with generational mortality improvement using Scale AA. |
| (c) Disabled pensioners | RP-2000 Blue Collar Healthy Combined |

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Volunteer Firefighters (continued)****Demographic Assumptions (continued)**

3. Disability Rates –

Graduated rates. See table below:

Age Range	Rate
20-24	.0005
25-29	.0005
30-34	.0005
35-39	.0005
40-44	.0010
45-49	.0030
50-54	.0030
55-59	.0060
60-64	.0200

33% of disabilities are assumed to be Non-Duty related and 67% are assumed to be Duty related.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Volunteer Firefighters (continued)****Demographic Assumptions (continued)**

4. Withdrawal Rates Graduated rates. See table below:

Attained Service	Rate
0	.1500
1	.1600
2	.1400
3	.1300
4	.1100
5-9	.0080
10-14	.0550
15+	.0350

5. Marital Status

- (a) Percentage married Males: 85%; Females: 85%
- (b) Age difference Males are assumed to be three years older than females.

ACTUARIAL BASIS (CONTINUED)**D. Actuarial Assumptions (continued)****Volunteer Firefighters (continued)****Other Assumptions**

1. Assumed Age of Commencement
for Deferred Benefits Later of Age 50 and 20 Years of Service.

2. Provision for Expenses Administrative Expenses, as budgeted by the Oklahoma
Firefighters Pension and Retirement System.

3. Cost-of-Living Increase
Assumption Members are assumed to receive no annual increase in
benefits during retirement.

4. Deferred Option Plan The retirement rates reflect both regular retirement and
entry into the DROP.

SUMMARY OF PLAN PROVISIONS

- Effective Date and Plan Year:** The plan became effective May 14, 1908 and is regularly amended during legislative session. The plan year is July 1 to June 30.
- Administration:** The plan is administered the Oklahoma Firefighters Pension and Retirement System Board consisting of 13 members. The Board acts as the fiduciary for investment and administration of the Plan.
- Members Included:** All paid and volunteer firefighters of participating municipalities and fire protection districts.
- Member Contributions:** Paid firefighters contribute 8% of gross salary. Effective November 1, 2013, paid firefighters will contribute 9% of gross salary. No employee contributions are required of volunteer firefighters.
- Employer Contributions:** Participating municipalities and fire protection districts contribute 13% of gross salary for each paid firefighter and \$60.00 per year for each volunteer firefighter. Effective November 1, 2013, participating municipalities and fire protection districts will contribute 14% of gross salary for each paid firefighter. Municipalities with revenues under \$25,000 make no contribution for volunteers.
- State Contributions:** Insurance Premium Tax allocation. The fund is scheduled to receive 34% of these collected taxes. Effective November 1, 2013, the fund is scheduled to receive 36% of these collected taxes.
- Service Considered:** The period of membership in the Pension System or a predecessor municipal system. Service for members of a fire protection district does not accrue before July 1, 1982.
- Military service is credited for one term (unless the member is required by law to re-enlist) if the city continues to make contributions on the member's behalf as though he were in actual service, provided that he returns to actual service within the fire department within ninety (90) days of honorable discharge. War veterans shall receive up to five years of credit for active military service.

SUMMARY OF PLAN PROVISIONS (CONTINUED)

A member who has withdrawn his contributions and later returns to membership may repay the amount withdrawn plus interest as determined by the Board to reinstate participating service which was canceled by his withdrawal.

A member may receive credit for up to five years of credited service accumulated by the member while a member of the Oklahoma Police Pension and Retirement System, the Oklahoma Law Enforcement Retirement System, the Teachers' Retirement System of Oklahoma, or the Oklahoma Public Employees Retirement System, if the member is not receiving or eligible to receive retirement credit or benefits from said service in any other public retirement system. The cost of buy-back service is determined as the actuarial present value of the benefits attributable to this service, effective January 1, 1991.

Considered Compensation:

The member's gross salary excluding overtime, payment for accumulated sick or annual leave upon termination, any uniform allowances or reimbursement of out-of-pocket expenses, but excluding any salary reductions pursuant to Section 457 or Section 414(b) of the Internal Revenue Code. Only salary on which the required contributions have been made may be considered.

Final Average Compensation:

The monthly average of the highest thirty (30) consecutive months of the last sixty (60) months of participating service.

Normal Retirement Date:

The first day following the day the member completes twenty (20) years of service, regardless of age.

Normal Retirement Benefit:Paid firefighters

A monthly benefit equal to 50% of final average compensation.

Volunteer firefighters

\$150.60 per month, effective July 1, 2008.

SUMMARY OF PLAN PROVISIONS (CONTINUED)

Late Retirement Benefit:	Benefits continue to accrue for service up to thirty (30) years at the following rates:
<u>Paid firefighters</u>	2.5% of final average compensation per year of service.
<u>Volunteer firefighters</u>	\$7.53 per month per year of service, effective July 1, 2008.
Early Retirement Benefit:	None.
Disability or Death Benefit:	All firefighters are eligible for immediate disability or death benefits. Disabilities due to heart disease, injury to the respiratory system, or cancer are considered in the line of duty. If there is no eligible surviving spouse, the death benefit is divided between the children under age 18 or age 22 if children are enrolled as full-time students.
<u>Paid firefighters</u>	2.5% of final average monthly compensation per year of service, with a minimum service credit of 20 years and maximum of 30 years. For disabilities not in the line of duty, final average monthly compensation is based on 60 months instead of 30 months.
<u>Volunteer firefighters</u>	\$7.53 per month per year of service, with a maximum of 30 years. For disabilities or deaths in the line of duty, there is a minimum service credit of 20 years.

SUMMARY OF PLAN PROVISIONS (CONTINUED)

- Vested Severance Benefit:** A member who terminates after ten years of credited service is eligible for a vested severance benefit determined by the normal retirement formula, based on service and salary history to date of termination.
- The benefit is payable at age 50 or when the member would have completed twenty years of service, whichever is later, provided the member's contribution accumulation is not withdrawn.
- Members terminating with less than ten years of credited service receive a refund of their contribution accumulation without interest.
- Lump Sum Death Benefit:** Upon the death of an active or retired member on or after July 1, 1999, a \$5,000 lump sum death benefit will be paid to the member's beneficiary, or estate if no beneficiary. The \$5,000 death benefit does not apply to members electing the vested benefit.
- Form of Payments:** The normal form of benefit is a Joint and 100% Survivor Annuity if the firefighter was married 30 months prior to death.
- Post-Retirement Adjustments:** Firefighters with 20 years of service as of May 26, 1983, are entitled to post-retirement adjustments equal to one-half the increase or decrease for top step firefighters. Pensions will not be adjusted below the level at which the firefighter retired.
- Deferred Option Plan:** A Member who has 20 or more years of service and continues employment may elect to participate in the Deferred Option Plan (DROP). Participation in the DROP shall not exceed five years. The employees' contributions cease upon entering the Plan, but the employer contributions are divided equally between the Retirement System and DROP. The monthly retirement benefits that the employee is eligible to receive are paid into the DROP account.

SUMMARY OF PLAN PROVISIONS (CONTINUED)

A member is also allowed to retroactively elect to join the DROP as of a back-drop-date which is no earlier than the member's Normal Retirement Date or five years before his termination date. The monthly retirement benefits and employee contributions that would have been payable had the member elected to join the DROP are credited to the member's DROP account with interest.

The retirement benefits are not recalculated for service and salary past the election date to join the DROP. However, the benefits may be increased by any applicable cost-of-living increases.

When the Member actually terminates employment, the DROP account balance may be paid in a lump sum or to an annuity provider. Monthly retirement benefits are then paid directly to the retired Member.

The DROP account is guaranteed a minimum of the valuation interest rate for investment return, or 2% less than the fund rate of return, if greater.