

# Oklahoma Firefighters Pension and Retirement System

Actuarial Valuation Report  
as of July 1, 2016



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Document Version: 1.0 (July 2014).

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# Purpose

This report has been prepared by Buck Consultants,LLC, 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, 2016;
- Review experience under the Plan for the year ended June 30, 2016; 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 has increased since the prior valuation as indicated by the table below:

Funded Status (\$000,000)	July 1, 2016	July 1, 2015
Accrued Liability	\$ 3,477.5	\$ 3,345.0
Actuarial Value of Assets	\$ 2,292.7	\$ 2,175.7
Unfunded Accrued Liability	\$ 1,184.8	\$ 1,169.3
Funded Ratio	65.9%	65.0%

- The funded ratio presented is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e. purchase annuities) for a portion or all of its liabilities. Additionally, the measurement of a Funded Ratio using the Market Value of Assets would be 64.9%
- The total required contribution for the System increased by 1.5% and the required State contribution increased by 1.8%.

Contribution Summary (\$000,000)	July 1, 2016	July 1, 2015
Total Required Contribution	\$ 165.6	\$ 163.1
Expected Employee Contributions	(24.1)	(23.8)
Expected Municipality Contributions	(38.4)	(38.0)
Required State Contribution	\$ 103.1	\$ 101.3
--As a Percentage of Total Active Payroll	38.6%	38.2%

# Summary of Principal Valuation Results

A summary of principal 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, 2016	July 1, 2015
<b>Summary of Costs</b>		
Total Contribution Requirement <sup>(1)</sup>	\$ 165,586,069	\$ 163,071,693
Total Contributions Received in Prior Year <sup>(2)</sup>	\$ 156,035,902	\$ 154,422,230

<b>Funded Status</b>		
Actuarial Accrued Liability	\$ 3,477,473,104	\$ 3,344,974,631
Actuarial Value of Assets	\$ 2,292,698,277	\$ 2,175,729,593
Unfunded Actuarial Accrued Liability	\$ 1,184,774,827	\$ 1,169,245,038

<b>Market Value of Assets and Additional Liabilities</b>		
Market Value of Assets	\$ 2,255,758,597	\$ 2,283,566,382
Present Value of Projected Plan Benefits	\$ 4,151,759,464	\$ 4,001,723,005

<b>Summary of Data</b>		
<b>Number of Vested Members in Valuation</b>		
Active Paid Members	2,229	2,303
Active Volunteer Members	2,831	2,729
Deferred Option Plan Members	89	75
Members with Deferred Benefits	1,467	1,413
Members Receiving Benefits	6,605	6,285
Beneficiaries	2,175	2,078
Disabled Members	<u>1,984</u>	<u>1,878</u>
Total Vested Members	17,380	16,761
<b>Number of Non-Vested Members in Valuation</b>		
Active Paid Members	1,883	1,878
Active Volunteer Members	<u>5,422</u>	<u>5,450</u>
Total Non-Vested Members	7,305	7,328
<b>Total Members</b>	<b>24,685</b>	<b>24,089</b>

<b>Active Member Statistics</b>		
Total Annual Compensation (Paid Members) <sup>(3)</sup>	\$ 267,512,159	\$ 264,948,283
Average Compensation (Paid Members) <sup>(3)</sup>	\$ 65,056	\$ 63,370
Average Age	38.5	38.7
Average Service	9.3	9.6

<sup>(1)</sup> Excluding Deferred Option Plan Contributions.

<sup>(2)</sup> For the fiscal year beginning November 1, 2013, the System is scheduled to receive 36% of collected state-wide insurance premium taxes.

<sup>(3)</sup> Compensation is projected one year based on the salary increase assumptions

# Effects of Changes

## Changes in Actuarial Assumptions

There were no changes in actuarial assumptions since the prior valuation. The economic assumptions with respect to investment yield, salary increase and inflation have been based upon a review of the existing portfolio structure as well as recent and anticipated experience. The demographic assumptions are developed through periodic experience studies. The actuarial assumptions are selected by the Board with the recommendation of the actuary. The most recent experience study considered actual System experience for the period July 1, 2007 through June 30, 2012. See Section 3.2 for a comprehensive description of the assumptions and methods used for the July 1, 2016 valuation.

## Changes in Actuarial Funding Methods

There were no changes in actuarial funding methods from the previous valuation.

## Changes in System Benefits

There have been no changes in plan provisions or system benefits with an actuarial impact from those reflected in the previous valuation. See Section 3.3 for a description of the plan provisions used for the July 1, 2016 valuation.

## Actuarial experience during the plan year

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

	Total (000s)
Liability Gain/(Loss)	\$ (19,681)
Asset Gain/(Loss)	(2,588)
<b>Net Actuarial Gain/(Loss)</b>	<b>\$ (22,269)</b>

## 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.

For members hired before November 1, 2013, 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%. For members hired on

or after November 1, 2013, the Deferred Option Plan accounts are credited with the same rate as above while in active DROP and 1.0% less than the total fund growth after they leave active DROP. The actual rate credited for the fiscal year ended June 30, 2016 was 7.50%.

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

<b>DROP Statistics</b>	<b>July 1, 2016</b>	<b>July 1, 2015</b>
Number of Members		
Active	89	75
Inactive	2,296	2,229
<b>Total</b>	2,385	2,304
Account Balances	\$ 670,212,319	\$ 622,154,847
Annual Retirement Benefits of Active Members	\$ 3,046,404	\$ 3,094,560

### **GASB 67**

Information calculated in accordance with GASB Statement 67 will be provided separately for this plan in a supplement to this report.

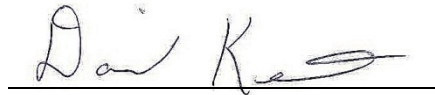
# Actuarial Certification

This 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. An analysis of the potential range of such future differences is beyond the scope of this report.

Use of this report for any other purposes or by anyone other than the Oklahoma Firefighters Pension and Retirement System and its auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. This report should not be provided except in its entirety. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without review by Buck.

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.



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# Section 1 Funding Results

<b>Section 1.1</b>	Calculation of Contribution Requirement
<b>Section 1.2</b>	Liability Detail
<b>Section 1.3</b>	Unfunded Actuarial Accrued Liability
<b>Section 1.4</b>	Actuarial Gain/(Loss)
<b>Section 1.5</b>	Contributions
<b>Section 1.6</b>	Ten-Year Projected Cash Flow

## 1.1 Calculation of Contribution Requirement

Summary of Contribution Requirements	Actuarial Valuation as of			
	July 1, 2016		July 1, 2015	
	Amount	% of Active Covered Comp.	Amount	% of Active Covered Comp.
1. Annual Compensation				
a. Members included in Valuation (Covered Compensation)	\$ 267,512,159		\$ 264,948,283	
b. Deferred Option Plan Members	6,108,967		5,587,683	
c. Total Compensation	273,621,126		270,535,966	
2. Total Normal Cost Mid-year	\$ 63,753,357	23.8%	\$ 63,063,209	23.8%
3. Unfunded Actuarial Accrued Liability	\$ 1,184,774,827		\$ 1,169,245,038	
4. Amortization of Unfunded Actuarial Accrued Liability over 30 years from July 1, 2014 Mid-year <sup>(1)</sup>	\$ 98,735,075	36.9%	\$ 96,417,931	36.4%
5. Budgeted Expenses	\$ 3,097,637	1.2%	\$ 3,590,553	1.4%
6. Total Required Contribution (2 + 4 + 5)	\$ 165,586,069	61.9%	\$ 163,071,693	61.5%
7. Estimated Member Contribution	\$ 24,076,094	9.0%	\$ 23,845,345	9.0%
8. Estimated Employer Contribution				
a. Active Members – Paid	\$ 37,451,702	14.0%	\$ 37,092,760	14.0%
b. Deferred Option Plan Members – Paid	427,628	7.0% <sup>(2)</sup>	391,138	7.0% <sup>(2)</sup>
c. Active Members - Volunteer	495,180		490,740	
d. Deferred Option Plan Members – Volunteer	540		180	
e. Total	\$ 38,375,050	14.0% <sup>(3)</sup>	\$ 37,974,818	14.0% <sup>(3)</sup>
9. Required State Contribution to amortize Unfunded Actuarial Accrued Liability over 30 years from July 1, 2014 at Mid-year. (4 - 7 - 8e)	\$ 103,134,925	38.6%	\$ 101,251,530	38.2%
10. Previous year's actual State Contribution <sup>(4)</sup>	\$ 92,330,270	34.5%	\$ 91,235,807	34.4%

<sup>(1)</sup> Funding Policy adopted by Board. The policy is to amortize the Unfunded Actuarial Accrued Liability over 30 years from July 1, 2014.

<sup>(2)</sup> Percentage of Deferred Option Plan Compensation.

<sup>(3)</sup> Percent of Total Compensation.

<sup>(4)</sup> The System is scheduled to receive 36% of collected state-wide insurance premium taxes.

## 1.1 Calculation of Contribution Requirement (continued)

Allocation of contribution requirements	July 1, 2016		
	Paid	Volunteer	Total
1. Total normal cost mid-year	\$ 61,419,908	\$ 2,333,449	\$ 63,753,357
2. Unfunded actuarial accrued liability <sup>(1)</sup>	\$ 1,121,403,801	\$ 63,371,026	\$ 1,184,774,827
3. Amortization of unfunded actuarial accrued liability over 30 years from July 1, 2014 mid-year <sup>(2)</sup>	\$ 93,453,951	\$ 5,281,124	\$ 98,735,075
4. Budgeted expenses <sup>(3)</sup>	\$ 2,931,951	\$ 165,686	\$ 3,097,637
5. Total required contribution (1 + 3 + 4)	\$ 157,805,810	\$ 7,780,259	\$ 165,586,069
6. Estimated member contribution	\$ 24,076,094	\$ 0	\$ 24,076,094
7. Estimated employer contribution	\$ 37,879,330	\$ 495,720	\$ 38,375,050
8. Required state contribution to amortize unfunded actuarial accrued liability over 30 years from July 1, 2014 at mid-year (5 – 6 - 7)	\$ 95,850,386	\$ 7,284,539	\$ 103,134,925

<sup>(1)</sup> See Section 1.3 for allocation.

<sup>(2)</sup> Funding Policy Adopted by Board.

<sup>(3)</sup> Allocation based on total Actuarial Accrued Liability.

## 1.2 Liability Detail

Total	
<b>Present Value of Benefits</b>	\$ 4,151,759,464
<b>Present Value of Future Normal Costs</b>	\$ 674,286,360
<b>Accrued Liability</b>	\$ 3,477,473,104
<b>Normal Cost Mid-Year</b>	\$ 63,753,357

Active Accrued Liability	
a. Retirement	\$ 1,013,898,721
b. Withdrawal	6,329,937
c. Disability	728,610
d. Death	11,834,112
e. Total	\$ 1,032,791,380
Inactive Accrued Liability	
1. Members eligible for automatic COLA	
A. Disabled members	\$ 41,660,553
B. Beneficiaries	89,802,771
C. Retired members	72,471,481
D. Total	\$ 203,934,805
2. Members not eligible for automatic COLA	
A. Terminated vested members	39,162,579
B. Disabled members	539,822,765
C. Beneficiaries	135,287,526
D. Retired members	728,536,919
E. Deferred option plan members - annuity	38,604,244
F. Deferred option plan members - account balances	759,332,886
G. Total	\$ 2,240,746,919
3. Total inactive (1d + 2g)	\$ 2,444,681,724
<b>Accrued Liability (Active + Inactive)</b>	<b>\$ 3,477,473,104</b>

## 1.3 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, 2016	July 1, 2015
1. Actuarial Present Value Of Benefits		
a. Active Members	\$ 1,707,077,740	\$ 1,713,552,338
b. Members With Deferred Benefits	39,162,579	31,087,985
c. Members Receiving Benefits Who Are Eligible For Automatic Cola	203,934,805	213,770,613
d. Members Receiving Benefits Who Are Not Eligible For Automatic Cola	1,403,647,210	1,299,090,570
e. Deferred Option Plan Members <sup>(1)</sup>	797,937,130	744,221,499
f. Total	4,151,759,464	4,001,723,005
2. Actuarial Present Value Of Future Normal Costs	\$ 674,286,360	\$ 656,748,374
3. Total Actuarial Accrued Liability (1f - 2)	\$ 3,477,473,104	\$ 3,344,974,631
4. Actuarial Value of Assets	\$ 2,292,698,277	\$ 2,175,729,593
5. Unfunded Actuarial Accrued Liability (3 - 4, Not Less Than \$0)	\$ 1,184,774,827	\$ 1,169,245,038

### Allocation of current year between paid and volunteer:

	Total Plan		
	Paid	Volunteer	Total
1. Actuarial present value of benefits			
a. Active members	\$ 1,642,314,841	\$ 64,762,899	\$ 1,707,077,740
b. Members with deferred benefits	16,379,678	22,782,901	39,162,579
c. Members receiving benefits who are eligible for automatic cola	203,934,805	0	203,934,805
d. Members receiving benefits who are not eligible for automatic cola	1,291,741,885	111,905,325	1,403,647,210
e. Deferred option plan members <sup>(1)</sup>	797,513,447	423,683	797,937,130
f. Total	\$ 3,951,884,656	\$ 199,874,808	\$ 4,151,759,464
2. Actuarial present value of future normal costs	\$ 660,414,017	\$ 13,872,343	\$ 674,286,360
3. Total actuarial accrued liability (1f - 2)	\$ 3,291,470,639	\$ 186,002,465	\$ 3,477,473,104
4. Actuarial value of assets <sup>(2)</sup>	\$ 2,170,066,838	\$ 122,631,439	\$ 2,292,698,277
5. Unfunded actuarial accrued liability (3 - 4, not less than \$0)	\$ 1,121,403,801	\$ 63,371,026	\$ 1,184,774,827

<sup>(1)</sup> 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, 2016, is \$ 670,212,319 and the balance used on July 1, 2015, is \$622,154,847.

<sup>(2)</sup> Allocated based on total actuarial accrued liability (item 3)

## 1.4 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, 2016.

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at July 1, 2015	\$ 3,344,974,631
b. Normal cost at July 1, 2015	60,823,560
c. Reserve for drop interest rate guarantee and drop contribution at mid-year	0
d. Benefit payments for plan year ending June 30, 2016	196,088,281
e. Interest on a + b + c - d to end of year	248,081,554
f. Impact of assumption change	0
g. Plan changes	0
h. Expected actuarial accrued liability at July 1, 2016 (a + b + c - d + e + f + g)	3,457,791,464
2. Actuarial accrued liability at July 1, 2016	3,477,473,104
3. Actuarial liability gain/(loss) (1h - 2)	(19,681,640)
4. Expected actuarial value of assets	
a. Actuarial value of assets at July 1, 2015	2,175,729,593
b. Contributions made for plan year ending June 30, 2016	156,035,902
c. Benefit payments and expenses for plan year ending June 30, 2016	198,082,582
d. Interest on a + b - c to end of year	161,602,969
e. Expected actuarial value of assets at July 1, 2016 (a + b - c + d)	2,295,285,882
5. Actuarial value of assets as of July 1, 2016	\$ 2,292,698,277
6. Actuarial asset gain/(loss) (5-4e)	\$ (2,587,605)
7. Actuarial gain/(loss) (3+6)	\$ (22,269,245)

## 1.5 Contributions

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

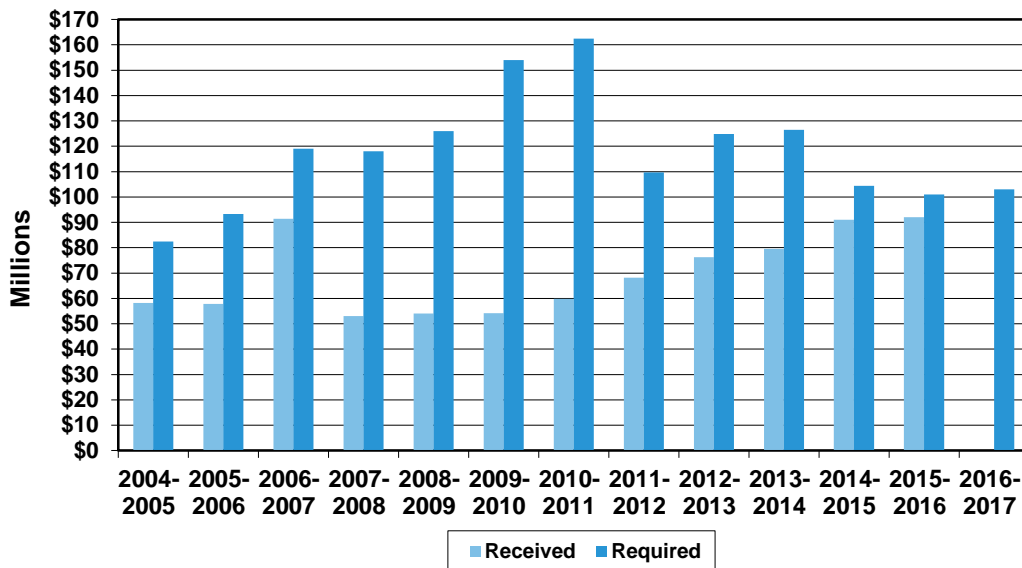
Historically, paid firefighters have contributed 8% of gross salary. Beginning November 1, 2013, the contribution rate for paid firefighters increased to 9%. Historically, municipalities and fire districts have contributed 13% of gross salary. Beginning November 1, 2013, the contribution rate for municipalities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

For the fiscal year ending June 30, 2016, the fund received a contribution of \$92,330,270 from the State. The Retirement System received 34% of collected statewide insurance premium taxes until November 1, 2013. Beginning November 1, 2013, the System began receiving 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 <sup>(1)</sup>**



<sup>(1)</sup> 30-year amortization period was reset for plan year ending June 30, 2015 (SB 2024) to start at July 1, 2014. Prior to that time, the amortization period was 30 years from July 1, 2003.

## 1.6 Ten-Year Projected Cash Flow

### (Retirement Benefit Payments)

Plan Year Ending	Actives	Retirees <sup>(1)</sup>	Total
6/30/2017	4,618,081	228,678,738	233,296,819
6/30/2018	11,338,058	234,419,349	245,757,407
6/30/2019	18,246,528	240,813,139	259,059,667
6/30/2020	25,862,275	247,963,420	273,825,695
6/30/2021	34,147,234	255,818,581	289,965,815
6/30/2022	42,697,339	264,496,853	307,194,192
6/30/2023	51,315,734	274,120,828	325,436,562
6/30/2024	60,563,159	284,785,363	345,348,522
6/30/2025	70,857,113	296,652,433	367,509,546
6/30/2026	81,630,919	309,836,027	391,466,946

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



## Section 2 Plan Assets

<b>Section 2.1</b>	Summary of Assets
<b>Section 2.2</b>	Reconciliation of Assets
<b>Section 2.3</b>	Actuarial Value of Assets
<b>Section 2.4</b>	Average Annual Rates of Investment Return

## 2.1 Summary of Assets <sup>(1)</sup>

Asset Category	Market Value as of June 30, 2016	Market Value as of June 30, 2015 <sup>(2)</sup>
	Amount	Amount
1. Cash and short-term investments	\$ 50,922,383	\$ 45,724,568
2. Receivables	\$ 59,758,484	\$ 29,730,394
3. Investments at fair value		
a. U.S. government securities	26,881,777	31,650,172
b. Domestic bonds	184,998,307	172,964,468
c. International corporate bonds	99,923,747	102,504,663
d. Domestic equities	999,313,973	1,087,281,266
e. International equities	272,986,701	278,237,147
f. Private equity	167,989,459	142,042,560
g. Low volatility hedge funds	36,693,223	74,436,919
h. Long/short hedge funds	70,927,782	75,000,000
i. Real estate	287,298,794	247,071,212
j. Securities lending	81,195,350	166,426,829
k. Total	\$ 2,228,209,113	\$ 2,377,615,236
4. Assets used in plan operations	\$ 956,581	\$ 24,151
5. Total assets	\$ 2,339,846,561	\$ 2,453,094,349
6. Liabilities	\$ (84,087,964)	\$ (169,527,967)
7. Net assets for pension benefits	\$ 2,255,758,597	\$ 2,283,566,382

- (1) Deferred option plan assets are included in the valuation assets. The value of these assets on July 1, 2015, was \$622,154,847 and the value on July 1, 2016, was \$670,212,319.
- (2) June 30, 2015 assets were reclassified into different categories. This reclassification has been reflected for July 1, 2015 results in this report.

## 2.2 Reconciliation of Assets

Transactions	June 30, 2016	June 30, 2015
<b>Additions</b>		
1. Contributions		
a. Contributions from employers	\$ 39,173,661	\$ 38,875,835
b. Contributions from plan members	24,531,971	24,310,588
c. Insurance premium tax	92,330,270	91,235,807
d. Legislative appropriation	0	0
e. Total	\$ 156,035,902	\$ 154,422,230
2. Net investment income	\$ 14,238,895	\$ 116,617,766
3. Total additions	\$ 170,274,797	\$ 271,039,996
<b>Deductions</b>		
4. Benefit payments	\$ (196,088,281)	\$ (182,549,070)
5. Administrative expenses	(1,994,301)	(2,029,087)
6. Adjustment	0	0
7. Total deductions	\$ (198,082,582)	\$ (184,578,157)
8. Net increase / (decrease)	\$ (27,807,785)	\$ 86,461,839
9. Net assets held in trust for pension benefits		
a. Beginning of year	\$ 2,283,566,382	\$ 2,197,104,543
b. End of year	\$ 2,255,758,597	\$ 2,283,566,382
10. Drop assets (included in 9 above)		
a. Beginning of year	\$ 622,154,847	\$ 548,217,780
b. End of year	\$ 670,212,319	\$ 622,154,847

## 2.3 Actuarial Value of Assets

Schedule of Assets Gains/(Losses)				
Year	Original Amount	Recognized in Prior Years	Recognized This Year	Recognized in Future Years
2011/2012	\$ (133,963,350)	\$ (107,170,680)	\$ (26,792,670)	\$ 0
2012/2013	99,636,055	59,781,633	19,927,211	19,927,211
2013/2014	201,138,206	80,455,282	40,227,641	80,455,283
2014/2015	(32,384,859)	(6,476,972)	(6,476,972)	(19,430,915)
2015/2016	(147,364,074)	0	(29,472,815)	(117,891,259)
<b>Total</b>	<b>\$ (12,938,022)</b>	<b>\$ 26,589,263</b>	<b>\$ (2,587,605)</b>	<b>\$ (36,939,680)</b>

Development of Actuarial Value of Assets	
<b>Development of actuarial value of assets</b>	
1. Actuarial value as of July 1, 2015 (pre-corridor)	\$ 2,175,729,593
2. Contributions	
a. Employer	\$ 39,173,661
b. Member	24,531,971
c. Insurance tax	92,330,270
d. Legislative appropriation	0
e. Total	\$ 156,035,902
3. Decreases during the year	
a. Benefit payments	\$ 196,088,281
b. Noninvestment expenses	1,994,301
c. Total	\$ 198,082,582
4. Expected return at 7.50% on:	
a. Item 1	\$ 163,179,720
b. Item 2	5,851,346
c. Item 3	7,428,097
d. Total (a + b - c)	\$ 161,602,969
5. Expected actuarial value of assets June 30, 2016 (1 +2 - 3 +4)	\$ 2,295,285,882
6. Unrecognized asset gain/(loss) as of June 30, 2015	\$ 107,836,789
7. Expected actuarial value June 30, 2016 plus previous year's unrecognized asset gain/(loss) (5 + 6)	\$ 2,403,122,671
8. Market value June 30, 2016	\$ 2,255,758,597
9. 2015/2016 asset gain/(loss) (8 -7)	\$ (147,364,074)
10. Asset gain/(loss) to be recognized as of June 30, 2016	\$ (2,587,605)
11. Initial actuarial value July 1, 2016 (5 + 11)	\$ 2,292,698,277
12. Constraining values:	
a. 80% of market value (8 x 0.8)	\$ 1,804,606,878
b. 120% of market value (8 x 1.2)	2,706,910,316
<b>13. Actuarial value July 1, 2016 (11), but no less than (12a), nor greater than (12b)</b>	<b>\$ 2,292,698,277</b>

## 2.4 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%
2014	12.70%	7.28%	17.85%	7.87%
2015	10.27%	7.39%	5.34%	7.77%
2016	7.38%	7.39%	0.63%	7.49%

Annual Returns include Deferred Option Plan Assets.

## Section 3 Basis of Valuation

This section presents and describes the basis of the valuation. 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

<b>Section 3.1</b>	Plan Members
<b>Section 3.2</b>	Actuarial Basis
<b>Section 3.3</b>	Summary of Plan Provisions

## 3.1 Plan Members

### A. 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	207	2	0	0	0	0	0	0	0	209
25-29	410	98	3	0	0	0	0	0	0	511
30-34	268	309	107	5	0	0	0	0	0	689
35-39	123	209	226	122	7	0	0	0	0	687
40-44	59	105	184	247	124	3	0	0	0	722
45-49	26	44	83	141	234	81	2	0	0	611
50-54	5	14	21	73	133	132	53	0	0	431
55-59	1	3	6	27	58	61	43	11	0	210
60-64	0	0	0	5	7	11	14	3	0	40
65-69	0	0	0	0	0	0	1	0	0	1
70-74	0	0	0	0	1	0	0	0	0	1
75+	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,099</b>	<b>784</b>	<b>630</b>	<b>620</b>	<b>564</b>	<b>288</b>	<b>113</b>	<b>14</b>	<b>0</b>	<b>4,112</b>

### B. 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										
20-24	38,855									38,949
25-29	44,476	53,684								46,379
30-34	44,820	61,707	70,102							56,493
35-39	43,130	62,771	71,321	74,716						64,297
40-44	43,103	58,418	70,772	80,202	84,089					72,243
45-49	41,177	61,130	68,282	77,222	84,480	86,072				77,301
50-54			67,139	74,463	81,666	78,304	95,477			79,020
55-59				70,760	79,459	73,978	87,073			78,582
60-64										63,320
65-69										
70-74										
75+										
<b>Total</b>	<b>43,190</b>	<b>60,292</b>	<b>70,496</b>	<b>76,848</b>	<b>82,794</b>	<b>79,083</b>	<b>87,942</b>			<b>65,056</b>

Average compensation not shown for groupings of less than twenty members

## C. 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	904	63	0	0	0	0	0	0	0	967
25-29	694	324	33	0	0	0	0	0	0	1051
30-34	654	403	222	19	0	0	0	0	0	1298
35-39	557	428	291	127	12	0	0	0	0	1415
40-44	377	304	233	155	83	3	0	0	0	1155
45-49	218	267	247	178	97	24	0	0	0	1031
50-54	40	150	180	166	99	38	10	2	0	685
55-59	10	21	92	147	82	37	24	3	1	417
60-64	2	3	8	68	61	24	8	5	0	179
65-69	0	2	1	2	12	10	1	1	5	34
70-74	0	1	1	0	8	4	0	0	0	14
75+	0	0	0	0	5	1	0	1	0	7
<b>Total</b>	<b>3,456</b>	<b>1,966</b>	<b>1,308</b>	<b>862</b>	<b>459</b>	<b>141</b>	<b>43</b>	<b>12</b>	<b>6</b>	<b>8,253</b>



## D. Inactive Members Statistics

Paid		
Inactive members as of July 1, 2016	Number	Amount of Annual benefit
<b>Members receiving benefits</b>		
a. Retired	2,163	\$ 64,870,716
b. Beneficiaries	906	26,254,476
c. Disabled	1,619	51,504,624
d. Deferred option	71	3,013,164
<b>Total</b>	<b>4,759</b>	<b>\$ 145,642,980</b>
<b>Members with deferred benefits</b>		
a. Terminated vested	49	\$ 1,481,748
<b>Total</b>	<b>49</b>	<b>\$ 1,481,748</b>

Volunteer		
Inactive members as of July 1, 2016	Number	Amount of Annual benefit
<b>Members receiving benefits</b>		
a. Retired	4,442	\$ 7,832,304
b. Beneficiaries	1,269	2,172,336
c. Disabled	365	528,624
d. Deferred option	18	33,240
<b>Total</b>	<b>6,094</b>	<b>\$ 10,566,504</b>
<b>Members with deferred benefits</b>		
a. Terminated vested	1,418	\$ 2,257,920
<b>Total</b>	<b>1,418</b>	<b>\$ 2,257,920</b>

## E. Member 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	53	1,627,932	32	778,092	127	3,296,220	212	5,702,244
50-54	184	6,152,364	32	888,000	163	5,608,824	379	12,649,188
55-59	377	11,858,784	40	1,090,860	276	9,525,528	693	22,475,172
60-64	404	12,723,420	79	2,015,820	311	10,446,516	794	25,185,756
65-69	362	10,429,296	106	2,887,008	277	8,586,816	745	21,903,120
70-74	289	7,531,032	146	3,775,008	233	6,850,860	668	18,156,900
75-79	237	6,547,968	144	4,190,124	145	4,365,240	526	15,103,332
80-84	140	4,348,176	134	4,293,540	54	1,764,564	328	10,406,280
85-89	74	2,546,880	111	3,704,520	21	802,584	206	7,053,984
90 and over	43	1,104,864	82	2,631,504	12	257,472	137	3,993,840
<b>Total</b>	<b>2,163</b>	<b>64,870,716</b>	<b>906</b>	<b>26,254,476</b>	<b>1,619</b>	<b>51,504,624</b>	<b>4,688</b>	<b>142,629,816</b>

Volunteer								
Attained age	Retired members		Beneficiaries		Disabled Members		Current payment total	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
Under 50	190	353,448	52	59,376	31	35,064	273	447,888
50-54	425	739,788	35	42,408	44	64,176	504	846,372
55-59	744	1,254,168	57	85,332	43	61,284	844	1,400,784
60-64	790	1,356,300	94	149,160	53	75,516	937	1,580,976
65-69	712	1,248,132	147	251,472	51	68,760	910	1,568,364
70-74	591	1,066,968	170	296,268	61	88,236	822	1,451,472
75-79	412	746,256	195	347,064	34	53,340	641	1,146,660
80-84	242	445,032	195	356,664	27	44,112	464	845,808
85-89	163	305,988	172	310,656	4	7,332	339	623,976
90 and over	173	316,224	152	273,936	17	30,804	342	620,964
<b>Total</b>	<b>4,442</b>	<b>7,832,304</b>	<b>1,269</b>	<b>2,172,336</b>	<b>365</b>	<b>528,624</b>	<b>6,076</b>	<b>10,533,264</b>

## F. 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	\$ 82,128	0	\$ 0
40-44	9	182,628	4	172,164
45-49	10	98,316	11	442,464
50-54	11	503,592	28	1,232,748
55-59	8	387,144	23	966,696
60-64	4	196,332	4	168,312
65-69	1	31,608	0	0
70 and over	0	0	1	30,780
<b>Total</b>	<b>49</b>	<b>\$1,481,748</b>	<b>71</b>	<b>\$3,013,164</b>

Volunteer				
Attained age	Terminated vested members		Deferred option plan members	
	No.	Benefit	No.	Benefit
Under 40	118	\$ 127,764	0	\$ 0
40-44	156	187,692	2	3,624
45-49	256	331,644	5	9,060
50-54	256	358,392	5	9,060
55-59	193	303,048	1	1,812
60-64	176	331,968	3	6,060
65-69	80	175,116	1	1,812
70 and over	183	442,296	1	1,812
<b>Total</b>	<b>1,418</b>	<b>\$2,257,920</b>	<b>18</b>	<b>\$33,240</b>

## G. Member Data Reconciliation

	Paid members						
	Active members		Inactive members				
	Regular	Deferred option plan	Deferred vested members	Retired members	Disabled members	Beneficiaries	Total
As of July 1, 2015	4,181	69	61	2,088	1,547	853	8,799
Deferred option plan retirees	(24)	24					
Service retirements	(106)	(9)	(2)	117			
Disability retirements	(83)	(14)	(2)		99		
Deaths without beneficiaries				(7)	(7)	(9)	(23)
Deaths with beneficiaries	(4)			(22)	(29)	55	
Nonvested terminations	(68)						(68)
Vested terminations	(24)		24				
Rehires	3		(1)	(1)	(1)		
Cashouts of member contributions							
Expiration of benefits							
Data corrections		1	(31)	(12)	10	7	(25)
Transfers to volunteer	(4)						(4)
Transfers from volunteer	60						60
Net change	(250)	2	(12)	75	72	53	(60)
New entrants during the year	181						181
Net change	(69)	2	(12)	75	72	53	121
As of July 1, 2016	<b>4,112</b>	<b>71</b>	<b>49</b>	<b>2,163</b>	<b>1,619</b>	<b>906</b>	<b>8,920</b>

## G. Member Data Reconciliation (continued)

	Volunteer members						
	Active members		Inactive members				Total
	Regular	Deferred option plan	Deferred vested members	Retired members	Disabled members	Beneficiaries	
As of July 1, 2015	8,179	6	1,352	4,197	331	1,225	15,290
Deferred option plan retirees	(10)	10					
Service retirements	(150)	(1)	(42)	193			
Disability retirements	(6)		(2)		8		
Deaths without beneficiaries				(18)	(4)	(42)	(64)
Deaths with beneficiaries	(5)		(1)	(74)	(3)	83	
Nonvested terminations	(785)						(785)
Vested terminations	(129)		129				
Rehires	11		(9)		(2)		
Cashouts of member contributions							
Expiration of benefits							
Data corrections		3	(9)	144	35	3	176
Transfers to paid	(60)						(60)
Transfers from paid	4						4
Net change	(1,130)	12	66	245	34	44	(729)
New entrants during the year	1,204						1,204
Net change	74	12	66	245	34	44	475
As of July 1, 2016	<b>8,253</b>	<b>18</b>	<b>1,418</b>	<b>4,442</b>	<b>365</b>	<b>1,269</b>	<b>15,765</b>

## 3.2 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”, an actuarial cost method 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.

### 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 System 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, 2016, 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.

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 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.

For members hired before November 1, 2013, 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.

For members hired on or after November 1, 2013, Deferred Option Plan account balances are assumed to be paid as a lump sum upon termination.

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.

## D. Actuarial Assumptions

### Paid Firefighters

#### Economic Assumptions

1. Investment Return 7.5%, net of investment expenses, per annum, compound annually.
2. Earnings Progression Sample rates below:

Years of Service	Inflation %	Merit %	Increase %
0	3.0	6.00	9.00
1	3.0	5.50	8.50
2	3.0	5.00	8.00
3	3.0	4.90	7.90
4	3.0	4.75	7.75
5	3.0	4.50	7.50
10	3.0	3.55	6.55
15	3.0	1.65	4.65
20	3.0	1.20	4.20
25	3.0	1.00	4.00
30+	3.0	0.50	3.50

3. Reserve for Guaranteed Interest Rate for DROP Account Balances

For members hired before November 1, 2013, 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.

For members hired on or after November 1, 2013, DROP account balances are assumed to be paid as a lump sum upon termination.



## Demographic Assumptions

### 1. Retirement Rates

See table 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

\* Not applicable for members hired on or after November 1, 2013

### 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

### 3. Disability Rates

Graduated rates. See table below:

Age Range	Annual 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

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.

**Other Assumptions**

1. Assumed Age of Commencement for Deferred Benefits:

Later of Age 50 and 20 Years of Service for members hired before November 1, 2013 and Age 50 with 22 Years of Service for members hired on or after November 1, 2013.

2. Provision for Expenses

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

3. Cost-of-Living Allowance Assumption for retirees with 20 years of service as of May 26, 1983

Half of the dollar amount of a 3% assumed increase in base pay.

4. Cost-of-Living Increase Assumption

Members are assumed to receive no annual increase in benefits during retirement, except for those in Item 3 above.

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.

## 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

\* Not applicable for members hired on or after November 1, 2013

### 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

3. Disability Rates

Graduated rates. See table below:

Age Range	Annual 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.

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.

**Other Assumptions**

2. Assumed Age of Commencement for Deferred Benefits:

Later of Age 50 and 20 Years of Service for members hired before November 1, 2013 and Age 50 with 22 Years of Service for members hired on or after November 1, 2013.

2. Provision for Expenses

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

3. Cost-of-Living Allowance Assumption for retirees with 20 years of service as of May 26, 1983

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.

### 3.3 Summary of System Provisions

<b>Effective Date and Plan Year:</b>	The plan became effective May 14, 1908 and is regularly amended during legislative session. The plan year is July 1 to June 30.
<b>Administration:</b>	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.
<b>Members Included:</b>	All paid and volunteer firefighters of participating municipalities and fire protection districts.
<b>Member Contributions:</b>	Paid firefighters contributed 8% of gross salary prior to November 1, 2013. Effective November 1, 2013, paid firefighters contribute 9% of gross salary. No employee contributions are required of volunteer firefighters.
<b>Employer Contributions:</b>	Participating municipalities and fire protection districts contributed 13% of gross salary for each paid firefighter and \$60.00 per year for each volunteer firefighter prior to November 1, 2013. 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.
<b>State Contributions:</b>	Insurance Premium Tax allocation. The fund received 34% of these collected taxes prior to November 1, 2013. Effective November 1, 2013, the fund is scheduled to receive 36% of these collected taxes.
<b>Service Considered:</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>

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:**

For member hired before November 1, 2013, the first day following the day the member completes twenty (20) years of service, regardless of age. For member hired on or after November 1, 2013, the first day following the day the member completes twenty (20) years of service and is 50 years old.

**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.

**Late Retirement Benefit:**

Benefits continue to accrue for service up to thirty (30) years at the following rates:

Paid firefighters

2.5% of final average compensation per year of service.

Volunteer firefighters

\$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.

Paid firefighters

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.

Volunteer firefighters

\$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.

**Vested Severance Benefit:**

For members hired before November 1, 2013:

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.

For members hired on or after November 1, 2013:

A member who terminates after 11 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 and 22 years of service provided the member's contribution accumulation is not withdrawn.

Members terminating with less than 11 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 is eligible to receive a Normal Retirement Benefit 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.

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.

For members hired before November 1, 2013, 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.

For members hired on or after November 1, 2013, 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, while in active DROP. The DROP account is credited with 1% less than the fund rate of return once the member leaves active DROP.