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Oklahoma Police Pension and Retirement System

Actuarial Valuation Report as of July 1, 2014

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Table of Contents

Highlights: Purpose

This report has been prepared by Buck Consultants at Xerox for the Oklahoma Police Pension and Retirement System to:

- Present the results of a valuation of the Oklahoma Police Pension and Retirement System as of July 1, 2014;
- Review experience under the System for the year ended June 30, 2014; 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 System increased since the prior valuation as indicated by the table below.

GASB No. 25 Funded Status ($000,000)	July 1, 2014	July 1, 2013
Accrued Liability	$ 2,204.8	$ 2,131.2
Actuarial Value of Assets	$ 2,086.3	$ 1,902.6
Unfunded Accrued Liability	$ 118.5	$ 228.6
Funded Ratio	94.6%	89.3%

- The funded ratio on an ASC 960[1] basis, measuring the market value of System assets versus the present value of benefits accrued as of the valuation date, increased from 100.5% to 109.9%.
- The required state contribution for the System decreased from $54.1 million to $26.4 million.

Contribution Summary ($000,000)	July 1, 2014	July 1, 2013
Total Required Contribution	$ 86.9	$ 112.4
Expected Employee Contributions	23.0	22.2
Expected Municipality Contributions	37.5	36.1
Required State Contribution	$ 26.4	$ 54.1
--As a Percentage of Total Payroll	9.1%	19.4%

[1] The applicable accounting standards for governmental pension plans are those promulgated by the GASB. Information developed under ASC 960 is presented to facilitate comparison with results from prior years only.

Highlights: Summary of Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or system provisions between the two valuations are described herein.

	Actuarial Valuation as of	
	July 1, 2014	July 1, 2013
Summary of Costs		
Required State Contribution for Current Year	$ 26,428,620	$ 54,147,769
Actual State Contribution Received in Prior Year [(1)]	$ 31,329,000	$ 31,412,000
Funded Status		
Actuarial Accrued Liability	$ 2,204,797,154	$ 2,131,172,172
Actuarial Value of Assets	$ 2,086,297,000	$ 1,902,581,000
Unfunded Actuarial Accrued Liability	$ 118,500,154	$ 228,591,172
Funded Ratio	94.6%	89.3%
Market Value of Assets and Additional Liabilities		
Market Value of Assets	$ 2,238,466,000	$ 1,976,839,000
Actuarial Present Value of Accumulated System Benefits (ASC 960) [(2)]	$ 2,036,159,918	$ 1,966,888,546
Present Value of Projected Plan Benefits	$ 2,743,241,413	$ 2,653,474,241
Summary of Data		
Number of Members in Valuation		
Active Paid Members	4,557	4,467
Deferred Option Plan Members	30	27
Terminated Members with Refunds Due	763	729
Terminated Members with Deferred Benefits	132	118
Retired Members	2,480	2,441
Beneficiaries	699	659
Disabled Members	141	139
Total	**8,802**	**8,580**
Active Member Statistics		
Total Annual Compensation [(3)]	$ 287,105,267	$ 276,920,177
Average Compensation [(3)]	63,003	$ 61,992
Average Age	39.9	39.8
Average Service	12.1	12.1

(1) For the fiscal years beginning July 1, 2009, the system receives 14% of the State's revenue from insurance premium taxes. For fiscal years beginning July 1, 2010, the amount of insurance premium tax apportioned to the System will be applied prior to the calculation of the Home Office Credit.

(2) The applicable accounting standards for governmental pension plans are those promulgated by the GASB. Information developed under ASC 960 is presented to facilitate comparison with results from prior years only

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

Highlights: Effects of Changes

Legislative Changes

There were no legislative changes with an actuarial impact since the prior valuation was completed and prior to July 1, 2014.

Changes in Assumptions and Methods

There have been no changes to actuarial assumptions since the prior valuation. A change to the amortization method used to develop contribution toward retirement of the Unfunded Accrued Liability was approved by the Board since the prior valuation. Effective with this valuation, the Unfunded Accrued Liability is to be amortized over a five-year period.

See Section 4.2 for a description of the assumptions and methods used for the July 1, 2014 valuation.

Changes in Plan Provisions

There were no changes in plan provisions or system benefits with an actuarial impact since the last valuation and prior to July 1, 2014. See Section 4.3 for a description of the plan provisions used for the July 1, 2014 valuation.

Actuarial experience during the plan year

The System experienced the following gains/(losses) during the year ending June 30, 2014. These amounts are developed in Section 1.4 of this report:

	Millions
Liability Gain/(Loss)	$ 19.6
Asset Gain/(Loss)	$ 74.3
Total Gain/(Loss)	$ 93.9

Oklahoma Police Deferred Option Plan (DOP)

The Oklahoma Police Deferred Option Plan (DOP) allows employees eligible for a Normal Retirement Benefit to defer the receipt of retirement benefits while continuing employment. Participation in the DOP 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 Police Pension and Retirement System and the other half to the members' account in the DOP. In addition, the monthly retirement benefits are paid into the members' account in the DOP. The DOP also allows members to retroactively elect to enter the DOP as of an earlier date upon termination. The monthly retirement benefits and employer contributions that would have been payable had the member elected to enter the DOP are credited to the member's account in the DOP.

The DOP accounts are credited with interest at a rate of 2% less than the total fund net earnings, with a guaranteed minimum interest rate equal to the valuation interest rate of 7.5%. The interest rate credited for the fiscal year ended June 30, 2014, was 12.99%.

Highlights: Effects of Changes (continued)

Effective July 1, 2006, a retired member who has completed participation in the DOP is allowed to transfer their account balance into a Deferred Option Payout Account and no further contributions will be accepted. The accounts are credited with interest at a rate of 2% less than the total fund net earnings if the fund returns more than 2%.

If the fund realizes negative returns, the accounts are reduced at a rate equal to the fund net earnings. Alternatively, if the fund realizes a positive return of less than 2%, the accounts are credited with a rate of zero. The interest rate for the payout accounts for the fiscal year ended June 30, 2014 was 12.99%.

The assets and liabilities reflected in these results as of July 1, 2014, include the account balances for the Deferred Option Plan, as in prior valuations. Statistics regarding the number of Deferred Option Plan members and total account balances are shown in the table below:

DOP Statistics	July 1, 2014	July 1, 2013
Number of Active DOP Members	30	27
Account Balances of Active Members	$ 4.2M	$ 4.7M
Deferred Option Payout Account Balances	$ 3.8M	$ 3.0M
Total	$ 8.0M	$ 7.7M

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 this year and next year.

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 Police 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 valuation.

Use of this report for any other purposes or by anyone other than the Oklahoma Police 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. The attached pages should not be provided without a copy of this cover letter. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants' prior written consent.

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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Director, Retirement Actuary

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Principal, Retirement Actuary

Section 1: Funding Results

1.1 Summary of Contribution Requirement

	Actuarial Valuation as of			
	July 1, 2014		July 1, 2013	
	Amount	% of Active Covered Comp.	Amount	% of Active Covered Comp.
1. Annual Covered Compensation for Members Included in Valuation				
a. Active Members	$ 287,105,267		$ 276,920,177	
b. Deferred Option Plan Members	2,397,060		2,093,345	
c. Total	$ 289,502,327		$ 279,013,522	
2. Total Normal Cost Mid-year	$ 56,602,797	19.7%	$ 54,994,819	19.9%
3. Unfunded Actuarial Accrued Liability	$ 118,500,154		$ 228,591,172	
4. Amortization of Unfunded Actuarial Accrued Liability over five years [6]	$ 28,267,346	9.8 %	$ 54,528,754	19.7%
5. Budgeted Expenses	$ 2,006,392	0.7%	$ 2,913,500	1.1%
6. Total Required Contribution (2 + 4 + 5)	$ 86,876,535	30.3%	$ 112,437,073	40.6%
7. Estimated Employee Contribution (8% x 1a)	$ 22,968,421	8.0%	$ 22,153,614	8.0%
8. Estimated Municipality Contributions				
a. Active Members	$ 37,323,685	13.0%	$ 35,999,623	13.0%
b. Deferred Option Plan Members	155,809	6.5%[1]	136,067	6.5%[1]
c. Total	$ 37,479,494	12.9%[2]	$ 36,135,690	13.0%[2]
9. Required State Contribution to amortize Unfunded Actuarial Accrued Liability over five years. (6 - 7 - 8c)	$ 26,428,620	9.1%[2]	$ 54,147,769	19.4%[2]
10. Previous year's actual State Contribution[3]	$ 31,329,000	11.2%[4]	$ 31,412,000	11.8%[4]
11. Approximate period over which previous year's State Contribution will amortize current Unfunded Actuarial Accrued Liability (UAAL)	$ 4[5]		$ 9[5]	

(1) Percentage of Deferred Option Plan Members' covered compensation.

(2) Percent of total covered compensation.

(3) For the fiscal years beginning July 1, 2009, the system receives 14% of the State's revenue from insurance premium taxes. For fiscal years beginning July 1, 2010, the amount of insurance premium tax apportioned to the System will be applied prior to the calculation of the Home Office Credit.

(4) Shown as a percent of previous year's total covered compensation ($279,013,522 for 2013 and $268,038,359 for 2012).

(5) Amortization period assumes that the State contribution will increase at 3% per year and covered compensation for Deferred Option Plan members remains a constant percentage of total covered compensation

(6) Funding Policy for July 1, 2013 is 30 years from July 1, 1988, and for July 1, 2014 is five years, which will be reset to five each year in the future.

1.2 Liability Detail

		July 1, 2014
Present Value of Benefits	$	2,743,241,413
Present Value of Future Normal Costs	$	538,444,259
Accrued Liability	$	2,204,797,154
Normal Cost Mid-Year	$	56,602,797

Active Accrued Liability		
a. Retirement	$	1,094,713,942
b. Disability	$	(236,015)
c. Withdrawal	$	344,469
d. Death	$	5,947,073
e. Total	$	1,100,769,469
Inactive Accrued Liability		
1. Members Eligible for Automatic COLA		
a. Retired Members	$	67,199,129
b. Disabled Members	$	10,683,087
c. Beneficiaries	$	67,608,910
d. Total	$	145,491,126
2. Members Not Eligible for Automatic COLA		
a. Retired Members	$	808,100,898
b. Disabled Members	$	15,083,719
c. Terminated Members	$	22,574,099
d. Deferred Option Plan Members	$	23,600,041
e. Beneficiaries	$	89,177,802
f. Total	$	958,536,559
3. Total Inactive *(1d + 2f)*	$	1,104,027,685
Accrued Liability (Active + Inactive)	**$**	**2,204,797,154**

1.3 Unfunded Actuarial Accrued Liability

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

	Total System	
	July 1, 2014	July 1, 2013
1. Actuarial Present Value of Benefits		
a. Active Members	$ 1,639,213,728	$ 1,574,694,450
b. Terminated Members	22,574,099	20,039,858
c. Members Receiving Benefits who are not eligible for Automatic COLA	912,362,419	881,157,070
d. Members Receiving Benefits who are eligible for Automatic COLA	145,491,126	156,299,457
e. Deferred Option Plan Members	23,600,041	21,283,406
f. Total	$ 2,743,241,413	$ 2,653,474,241
2. Actuarial Present Value of Future Normal Costs	538,444,259	522,302,069
3. Total Actuarial Accrued Liability (1f - 2)	2,204,797,154	2,131,172,172
4. Actuarial Value of Assets	2,086,297,000	1,902,581,000
5. Unfunded Actuarial Accrued Liability (3 - 4, not less than $0)	**$ 118,500,154**	**$ 228,591,172**

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, 2014.

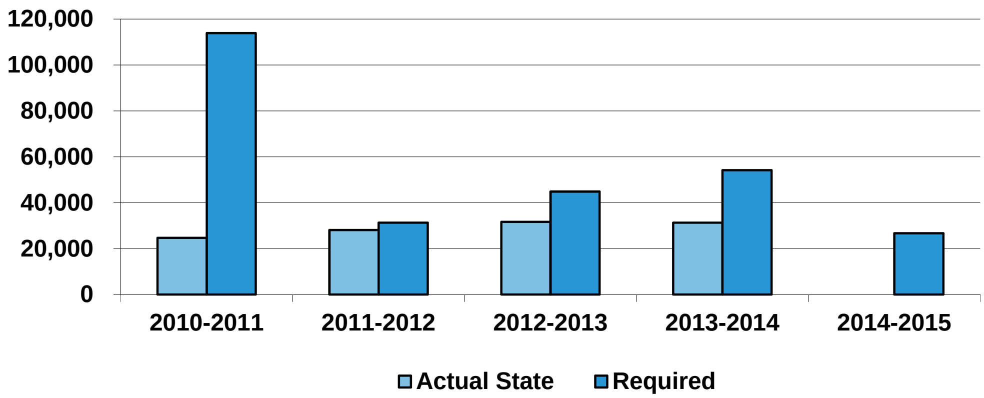
1. Expected Actuarial Accrued Liability	
a. Actuarial Accrued Liability at July 1, 2013	$ 2,131,172,172
b. Normal Cost for Plan Year Ending June 30, 2014	54,994,819
c. Benefit Payments for Plan Year Ending June 30, 2014	119,241,000
d. Interest on a + b - c to End of Year	157,428,681
e. Expected Actuarial Accrued Liability Before Changes (a + b - c + d)	2,224,354,672
f. Change in Actuarial Accrued Liability at July 1, 2014 due to changes in Actuarial Assumptions	0
g. Change in Actuarial Accrued Liability at July 1, 2014 due to changes in System Provisions	0
h. Expected Actuarial Accrued Liability at July 1, 2014 (e + f + g)	**$2,224,354,672**
2. Actuarial Accrued Liability at July 1, 2014	**$2,204,797,154**
3. Actuarial Liability Gain/(Loss) (1h – 2)	**$ 19,557,518**
4. Expected Actuarial Value of Assets	
a. Actuarial Value of Assets at July 1, 2013	$1,902,581,000
b. Contributions Made for Plan Year Ending June 30, 2014	89,007,000
c. Benefit Payments and Expenses for Plan Year Ending June 30, 2014	121,103,000
d. Interest on a + b - c to End of Year	141,489,975
e. Expected Actuarial Value of Assets at July 1, 2014 (a + b - c + d)	**$2,011,974,975**
5. Actuarial Value of Assets as of July 1, 2014	**$2,086,297,000**
6. Actuarial Asset Gain/(Loss) (5 - 4e)	**$ 74,322,025**
7. Actuarial Gain/(Loss) (3 + 6)	**$ 93,879,543**

1.5 Contributions

Contributions to the Retirement System are made by the Members, municipalities, and the State of Oklahoma. Member contributions equal 8% of base salary. Municipalities contribute 13% of base salary per year for plan years after June 30, 1996.

The active Deferred Option Plan Members do not make employee contributions to the System. However, municipalities continue contributing for them, with 50% of the contribution going into the System fund and 50% going into the Deferred Option Account. Contributions for members who retroactively elect to enter the Deferred Option Plan as of an earlier date are also deposited into the Deferred Option Account.

Beginning July 1, 2004 and ending June 30, 2009, the fund received 17% of the insurance premium tax. In subsequent fiscal years, the fund has received 14% of this tax. Additionally, as of July 1, 2006, the system began receiving 26% of a special allocation established to refund the System for reduced allocations of insurance premium taxes resulting from increases in insurance premium tax credits. Beginning in fiscal year that commenced July 1, 2010, the amount of tax apportioned is applied prior to the calculation of the Home Office Credit.



As of July 1, 2014, the amortization period was changed to an open 5-year period.

1.6 Ten-Year Projected Cash Flow

(Retirement Benefit Payments)

Plan Year Ending	Actives	Retirees [1]	Total
6/30/2015	$ 90,905,602	$ 110,115,619	$ 201,021,221
6/30/2016	$ 50,075,526	$ 98,651,026	$ 148,726,552
6/30/2017	$ 48,318,731	$ 98,055,994	$ 146,374,725
6/30/2018	$ 59,281,859	$ 97,290,362	$ 156,572,220
6/30/2019	$ 64,930,708	$ 96,460,591	$ 161,391,299
6/30/2020	$ 78,900,859	$ 95,437,719	$ 174,338,578
6/30/2021	$ 85,474,689	$ 94,400,046	$ 179,874,734
6/30/2022	$ 86,061,654	$ 93,275,730	$ 179,337,384
6/30/2023	$ 96,731,280	$ 92,000,874	$ 188,732,154
6/30/2024	$ 96,213,401	$ 90,534,550	$ 186,747,951

(1) Includes DOP Members, Disabled Members, Beneficiaries and Terminated Members.

Section 2: Accounting Results

Section 2.1 ASC 960 Information

2.1 ASC 960 Information

A. Actuarial Present Value of Accumulated System Benefits

The actuarial present value of vested and non-vested accumulated system benefits was computed on an ongoing system basis in order to provide required information under FASB Accounting Standards Codification (ASC) 960. In this calculation, a determination is made of all benefits earned by current Members as of the valuation date; the actuarial present value is then computed using demographic assumptions and an assumed interest rate. Assumptions regarding future salary and accrual of future benefit service are not necessary for this purpose.

Please note that ASC 960 is no longer applicable for public plans; however, we have provided results on that basis in order to facilitate comparison with earlier years.

Accumulated System Benefits	July 1, 2014	July 1, 2013
Vested Benefits		
a. Active Members	$ 814,329,649	$ 775,160,336
b. Deferred Option Plan Members	$ 23,600,041	21,283,406
c. Terminated Members	$ 22,574,099	20,039,858
d. Members Receiving Benefits	$ 1,057,853,545	1,037,456,527
e. Total Vested Benefits	$ 1,918,357,334	$ 1,853,940,127
Non-vested Benefits	$ 117,802,584	112,948,419
Total Accumulated System Benefits	**$ 2,036,159,918**	**$ 1,966,888,546**
Assumed Rate of Interest	7.5%	7.5%
Market Value of Assets Available for Benefits	$ 2,238,466,000	$ 1,976,839,000
Funded Ratio	109.9%	100.5%

Number of Members	July 1, 2014	July 1, 2013
Vested Members		
a. Active Members	2,213	2,354
b. Deferred Option Plan Members	30	27
c. Members with Deferred Benefits	132	118
d. Members Receiving Benefits	3,320	3,239
e. Total Vested Members	5,695	5,738
Non-vested Members	3,107	2,842
Total Members	8,802	8,580

Section 3: System Assets

This section presents information regarding System assets as reported by the auditor. The System assets represent the portion of total System liabilities that has been funded as of the valuation date.

3.1 Summary of Assets

Asset Category		Market Value as of June 30, 2014	Market Value as of June 30, 2013
1.	**Cash and Short-term Investments**	$ 30,240,000	$ 66,068,000
2.	**Receivables**		
	a. Interest and Dividends	$ 3,489,000	$ 3,348,000
	b. Member Contributions	683,000	1,058,000
	c. Employer Contributions	1,116,000	1,734,000
	d. Insurance Premium Tax	6,563,000	6,616,000
	e. Investments Sold	346,000	147,000
	f. Other Receivables	0	0
	g. Total	$ 12,197,000	$ 12,903,000
3.	**Investments at Fair Value**		
	a. Domestic Government Bonds	$ 33,398,000	$ 12,994,000
	b. International Government Bonds	0	0
	c. Corporate Bonds (1)	367,593,000	360,353,000
	d. Domestic Stock	659,596,000	543,003,000
	e. International Stock	300,499,000	257,200,000
	f. Other	837,645,000	725,525,000
	g. Securities Lending Short-Term Pool	9,315,000	20,003,000
	h. Total	$ 2,208,046,000	$ 1,919,078,000
4.	**Assets used in System Operations**		
	a. Furniture, Fixtures and Equipment	$ 304,000	$ 507,000
5.	**Total Assets**	$ 2,250,787,000	$ 1,998,556,000
6.	**Liabilities**		
	a. Payable for Investments Purchased	$ 922,000	$ 694,000
	b. Accounts Payable and Accrued Expenses	962,000	1,020,000
	c. DOP Benefits Due and Currently Payable	1,122,000	0
	c. Securities Lending Collateral Payable	9,315,000	20,003,000
	d. Total Liabilities	$ 12,321,000	$ 21,717,000
7.	**Net Assets for Pension Benefits**	$ 2,238,466,000	$ 1,976,839,000

(1) Includes Domestic and International Bonds

3.2 Reconciliation of Assets

Transactions	June 30, 2014	June 30, 2013
Additions		
1. Contributions		
a. Contributions from Employers	$ 35,547,000	$ 34,645,000
b. Contributions from System Members	22,131,000	21,518,000
c. Insurance Premium Tax	31,329,000	31,412,000
d. Total	89,007,000	$ 87,575,000
2. Net Investment Income		
a. Interest	$ 8,155,000	$ 7,840,000
b. Dividends	11,876,000	12,614,000
c. Realized Gain and Unrealized Appreciation	286,638,000	212,083,000
d. Income from Securities Lending	99,000	59,000
e. Other	513,000	551,000
f. Total	$ 307,281,000	$ 233,147,000
g. Investment Expense	(12,384,000)	(11,973,000)
h. Net Investment Income	$ 294,897,000	$ 221,174,000
3. Total Additions	$ 383,904,000	$ 308,749,000
Deductions		
4. Retirement Benefits	$ (117,482,000)	$ (112,787,000)
5. Refund of Contributions	(1,759,000)	(1,830,000)
6. Administrative Expenses	(1,862,000)	(2,053,000)
7. Total Deductions	(121,103,000)	(116,670,000)
8. Net Increase	262,801,000	192,079,000
9. Net Assets Held in Trust for Pension Benefits		
a. Beginning of Year [1]	$ 1,975,665,000	$ 1,784,760,000
b. End of Year	$ 2,238,466,000	$ 1,976,839,000
Reconciliation of Actuarial Asset Value and Market Value		
Actuarial Asset Value	$ 2,086,297,000	$ 1,902,581,000
Deferred Gain/(Loss)	$ 152,169,000	$ 74,258,000
Impact of Market Value Corridor	$ 0	$ 0
Market Value	$ 2,238,466,000	$ 1,976,839,000

(1) June 30, 2013 assets were reclassified to exclude certain payables. This reclassification has not been reflected for July 1, 2013 results in this report.

3.3 Actuarial Value of Assets

Schedule of Assets Gains/(Losses)				
Year	Original Amount	Recognized in Prior Years	Recognized This Year	Recognized in Future Years
2009/2010	109,851,050	87,880,840	21,970,210	0
2010/2011	151,836,917	91,102,149	30,367,383	30,367,385
2011/2012	(127,013,357)	(50,805,392)	(25,402,671)	(50,805,344)
2012/2013	84,701,826	16,940,365	16,940,365	50,821,096
2013/2014	152,232,601	0	30,446,520	121,786,081
Total	371,609,037	145,118,012	74,321,807	152,169,218

Development of Actuarial Value of Assets			
1.		Actuarial Value as of July 1, 2013	$ 1,902,581,000
2.		Contributions	
	a.	Member	22,131,000
	b.	Employer	35,547,000
	c.	Insurance tax	31,329,000
	d.	Total (a + b + c)	$ 89,007,000
3.		Decreases During the Year	
	a.	Benefit Payments	$ 117,482,000
	b.	Return of Member Contributions	1,759,000
	c.	Non-investment Expenses	1,862,000
	d.	Total (a + b + c)	$ 121,103,000
4.		Expected Return at 7.5% on:	
	a.	Item 1	$ 142,693,575
	b.	Item 2 (one-half year)	3,337,763
	c.	Item 3 (one-half year)	4,541,363
	d.	Total (a + b - c)	$ 141,489,975
5.		Expected Actuarial Value of Assets June 30, 2014 (1 + 2 - 3 + 4)	$ 2,011,974,975
6.		Unrecognized Asset Gain/(Loss) as of June 30, 2013	$ 74,258,424
7.		Expected Actuarial Value June 30, 2014 plus previous year's Unrecognized Asset Gain (5 + 6)	$ 2,086,233,399
8.		Market Value as of June 30, 2014	$ 2,238,466,000
9.		2013/2014 Asset Gain/(Loss) (8 - 7)	$ 152,232,601
10.		Asset Gain/(Loss) to be Recognized as of June 30, 2014	$ 74,321,807
11.		Initial Actuarial Value July 1, 2014 (5 + 10) (Rounded to $1,000's)	$ 2,086,297,000
12.		Constraining Values:	
	a.	80% of Market Value (8 x 0.8)	$ 1,790,773,000
	b.	120% of Market Value (8 x 1.2)	$ 2,686,159,000
13.		**Actuarial Value July 1, 2014 (11), but no less than (12a), nor greater than (12b)**	$ 2,086,297,000

3.4 Average Annual Rates of Investment Return

Year Ending June 30	Actuarial Value		Market Value	
	Annual	Cumulative	Annual	Cumulative
1990	8.6%	8.6%	9.2%	9.2%
1991	7.9%	8.2%	8.1%	8.6%
1992	8.7%	8.4%	13.8%	10.3%
1993	10.3%	8.9%	15.1%	11.5%
1994	9.3%	9.0%	0.0%	9.1%
1995	11.0%	9.3%	17.7%	10.5%
1996	11.9%	9.7%	13.5%	10.9%
1997	12.8%	10.1%	17.3%	11.7%
1998	13.5%	10.4%	16.9%	12.3%
1999	14.3%	10.8%	9.7%	12.0%
2000	12.8%	11.0%	8.7%	11.7%
2001	8.8%	10.8%	(5.3%)	10.2%
2002	4.9%	10.3%	(5.6%)	8.9%
2003	2.7%	9.8%	3.5%	8.5%
2004	3.3%	9.3%	15.0%	8.9%
2005	3.0%	8.9%	8.7%	8.9%
2006	6.1%	8.8%	11.0%	9.0%
2007	10.6%	8.9%	17.3%	9.5%
2008	8.9%	8.9%	(2.4%)	8.8%
2009	(0.9%)	8.3%	(16.4%)	7.4%
2010	4.4%	8.2%	11.7%	7.6%
2011	5.6%	8.0%	18.3%	8.0%
2012	2.6%	7.8%	0.5%	7.7%
2013	5.4%	7.7%	12.5%	7.9%
2014	11.4%	7.8%	15.0%	8.2%

Annual Returns before 1998 exclude DOP assets.

Section 4: Basis of Valuation

This section presents and describes the basis of the valuation. The census of Members, the actuarial basis and the benefit provisions of the System are the foundation of the valuation, since these determine the projections of benefit payments and the values thereof. The valuation is based on the premise that the System will continue in existence, although no assumption is made as to future new members.

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

4.1 System Members

A. Member Data Reconciliation

	Active Members		Inactive Members					Total
	Regular	Deferred Option Plan	Refund Due to Member	Deferred Vested Members	Retired Members	Disabled Members	Bene-ficiaries	
As of July 1, 2013	**4,467**	**27**	**729**	**118**	**2,441**	**139**	**659**	**8,580**
Deferred Option Plan Retirees	(7)	7	0	0	0	0	0	0
Age Retirements	(84)	(4)	0	(10)	98	0	0	0
Disability Retirements	(1)	0	0	0	0	1	0	0
Deaths Without Beneficiaries	0	0	0	0	(23)	(1)	(19)	(43)
Deaths With Beneficiaries	(2)	0	0	0	(37)	0	39	0
Vested Terminations	(25)	0	0	25	0	0	0	0
Rehires	14	0	(13)	(1)	0	0	0	0
Expiration of Benefits	0	0	0	0	0	0	0	0
Termination Without Refund	(79)	0	79	0	0	0	0	0
Terminations Electing a Refund	(101)	0	(71)	(2)	0	0	0	(174)
Alternate Payee of a Qualified Domestic Relations Order	0	0	0	0	0	0	14	14
Data Corrections	4	0	2	2	1	2	6	17
Transfers Out	0	0	0	0	0	0	0	0
Transfers In	0	0	0	0	0	0	0	0
Net Change	(281)	3	(3)	14	39	2	40	(186)
New Entrants During the Year	371	0	37	0	0	0	0	408
As of July 1, 2014	**4,557**	**30**	**763**	**132**	**2,480**	**141**	**699**	**8,802**

4.1 System Members (continued)

B. Count of Active Members

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
Under 20										0
20-24	130									130
25-29	491	88								579
30-34	316	381	49							746
35-39	161	245	277	69						752
40-44	99	156	241	328	49					873
45-49	44	66	74	195	268	50				697
50-54	1	31	35	73	160	164	52			516
55-59	1	1	7	34	35	40	76	6		200
60-64	1			9	10	12	12	10		54
65-69		1	2	1	2		2		1	9
70-74							1			1
75+										0
Total	**1,244**	**969**	**685**	**709**	**524**	**266**	**143**	**16**	**1**	**4,557**

C. Average Compensation

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
Under 20										0
20-24	40,395									40,395
25-29	44,788	53,733								46,148
30-34	44,757	58,340	65,113							53,031
35-39	42,404	57,892	69,657	77,563						60,715
40-44	41,438	53,485	66,765	76,238	81,035					65,880
45-49	40,216	50,340	65,337	72,560	84,527	84,159				73,051
50-54		54.206	66,333	68,832	79,772	85,225	91, 298			78,586
55-59				66,334	70,041	81,768	89,838			79,626
60-64										78,677
65-69										70,610
70-74										105,963
75+										0
Total	**43,569**	**54,684**	**67,569**	**73,926**	**81,406**	**84,316**	**90,327**	**95,910**	**90,001**	**63,003**

Average compensation not shown for groupings of less than twenty members

4.1 System Members (continued)

D. Members in Pay Status - Annual Benefits

Attained Age	Retired Members		Beneficiaries		Disabled Members		Current Payment Total	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
Under 50	109	3,679,422	52	831,422	26	332,192	187	4,843,036
50-54	283	8,273,443	44	697,610	18	218,920	345	9,189,973
55-59	404	12,119,099	70	1,354,478	17	197,769	491	13,671,346
60-64	542	16,926,234	98	2,149,992	24	311,239	664	19,387,465
65-69	531	16,622,389	89	2,373,301	16	254,994	636	19,250,684
70-74	299	8,925,595	88	2,700,373	16	365,544	403	11,991,512
75-79	184	5,822,157	91	2,950,467	14	375,334	289	9,147,958
80-84	78	2,762,503	74	2,491,845	5	145,487	157	5,399,835
85-89	37	1,310,143	58	1,975,666	5	174,935	100	3,460,744
90+	13	394,838	35	1,109,881	0	0	48	1,504,719
Total	**2,480**	**76,835,823**	**699**	**18,635,035**	**141**	**2,376,414**	**3,320**	**97,847,272**

4.1 System Members (continued)

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

Attained Age	Terminated Vested Members		Deferred Option Plan Members	
	No.	Benefit	No.	Benefit
Under 40	25	$ 377,012	0	$ 0
40-44	40	689,521	0	0
45-49	37	648,215	4	164,882
50-54	13	178,421	10	445,996
55-59	11	229,478	10	463,392
60-64	6	117,553	4	121,733
65+	0	0	2	51,300
Total	132	**$ 2,240,200**	30	**$ 1,247,303**

4.1 System Members (continued)

F. Member Statistics

Inactive Members as of July 1, 2013	Number	Amount of Annual Benefit
Members Receiving Benefits		
a. Retired	2,480	$ 76,835,823
b. Beneficiaries	699	18,635,035
c. Disabled	141	2,376,414
Total	3,320	$ 97,847,272
Terminated Vested	132	$ 2,240,200
Deferred Option Plan Members	30	$ 1,247,303
Terminated Members with Refunds Due	763	N/A

Statistics for Active Members	Number	Average		
		Age	Service	Earnings
As of July 1, 2013				
a. Continuing	4,131	40.7	13.0	$ 63,755
b. New	336	29.5	0.8	40,322
Total	4,467	**39.8**	12.1	$ 61,992
As of July 1, 2014				
a. Continuing	4,168	40.9	13.2	$ 65,185
b. New	389	30.0	0.6	39,621
Total	4,557	**39.9**	12.1	$ 63,003

4.2 Actuarial Basis

A. Entry Age Actuarial Cost Method

The actuarial cost method is selected by the Board with the recommendation of the actuary. Liabilities and contributions shown in this report are computed using the Individual Entry Age method of funding. The System has used this cost method since at least 1990.

Sometimes called “funding methods”, actuarial cost methods are techniques used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the system 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 system 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 system.

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 system assets 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.

B. Asset Valuation Method

The asset valuation method is selected by the Board with the recommendation of the actuary. 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.

4.2 Actuarial Basis

B. Asset Valuation Method (continued)

- Deferred Option Plan assets are included in the actuarial value. For all periods following July 1, 2007, the Deferred Option Plan assets are subject to the same smoothing method stated above. Prior to July 1, 2007, they were included at market value but were not subject to the smoothing described above.

Besides the changes to the smoothing of Deferred Option Plan assets, the System has used this method since at least 1998.

C. Valuation Procedures

No actuarial accrued liability is held for non-vested, inactive Members who have a break in service, or for non-vested Members who have quit or been terminated, even if a break in service had not occurred as of the valuation date. The actuarial accrued liability does include a liability for non-vested terminations that have not taken a refund of their accumulated contribution balance.

The wages used in the projection of benefits and liabilities are based upon the prior year's actual earnings increased by the salary scale.

In computing accrued benefits, average earnings were determined using actual pay history.

No benefits are projected to be greater than the compensation limitation and dollar limitation required by the Internal Revenue Code Section 401 and 415 for governmental plans.

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.

The contribution requirements are based on total annual compensation rather than total covered compensation of employees under assumed retirement age. This is a better reflection of the overall expectations for the System.

The Entry Age Normal Funding Method has been adjusted for those members granted prior service. The prior service is treated as occurring immediately before the membership date. Level pay is assumed during this period before actual membership. Entry Age costs are determined as if the member entered the System on the date the prior service is assumed to have begun. This treatment reflects the extra cost of prior service immediately in the accrued liability and preserves the relationship of normal cost to a year of service accrual.

D. Actuarial Assumptions

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.

4.2 Actuarial Basis

D. Actuarial Assumptions (continued)

Economic Assumptions

1. Investment Return — 7.5%, net of investment expenses, per annum, compound annually. The System has used this assumption since at least 1984.

2. Earnings Progression — Sample rates below:

Years of Service	Inflation %	Merit %	Increase %
0	3.0	14.00	17.00
1	3.0	10.00	13.00
2	3.0	6.30	9.30
3	3.0	5.90	8.90
4	3.0	5.50	8.50
5	3.0	5.10	8.10
6	3.0	4.70	7.70
7	3.0	4.30	7.30
8	3.0	3.90	6.90
9	3.0	3.50	6.50
10	3.0	3.15	6.15
15	3.0	1.70	4.70
20	3.0	1.50	4.50

Demographic Assumptions

1. Retirement Rates — See table below:

Years of Service	Annual Rates of Retirement Per 100 Eligible Members
20	20
21	6
22	6
23	6
24	10
25	20
26	10
27	10
28	10
29	15
30	100

4.2 Actuarial Basis

D. Actuarial Assumptions (continued)

2. Mortality Rates

(a) Active employees (pre-retirement) — RP-2000 Blue Collar Healthy Combined (Fully generational using Scale AA) with age set back four years

(b) Active employees (post-retirement and nondisabled pensioners) — RP-2000 Blue Collar Healthy Combined (Fully generational using Scale AA)

(c) Disabled pensioners — RP-2000 Blue Collar Healthy Combined with age set forward 4 years

3. Disability Rates — Graduated rates. See table below:

Age Range	Annual Rate
20-24	.0002
25-29	.0002
30-34	.0004
35-39	.0006
40-44	.0008
45-49	.0010
50-54	.0012
55-59	.0014

4. Withdrawal Rates — Graduated rates by years of service. See table below:

Service Range	Annual Rate
0	.200
1	.130
2	.080
3	.060
4	.060
5-10	.040
11-15	.015
16-20	.010
Over 20	.000

5. Marital Status

(a) Percentage married: — 85% of participants are assumed to be married.

(b) Age difference: — Males are assumed to be three (3) years older than females.

4.2 Actuarial Basis

D. Actuarial Assumptions (continued)

Other Assumptions

1. Assumed Age of Commencement for Deferred Benefits:	Age 50, or the date at which the participant would have achieved twenty years of service, if later.
2. Provision for Expenses:	Administrative Expenses, as budgeted by the Oklahoma Police Pension and Retirement System.
3. Percentage of Disability:	Members becoming disabled have a 25%-49% impairment.
4. Duty-Related Death:	All active pre-retirement deaths are duty-related.
5. Cost-of-Living Allowance:	Police officers eligible to receive increased benefits according to repealed Section 50-120 of Title 11 of the Oklahoma Statutes pursuant to a court order receive an adjustment of 1/3 to 1/2 of the increase or decrease of any adjustment to the base salary of a regular police officer, based on an increase in base salary of 3%.
6. Deferred Option Plan:	Members currently participating in the Deferred Option Plan (DOP) are assumed to remain in the DOP for the maximum of five years. Active members leaving active service are assumed to retroactively elect to join the DOP for the maximum allowable period. DOP account balances are assumed to accumulate at 7.75% (to reflect the interest rate guarantee prior to retirement) and members are assumed to elect a lump sum at retirement. All balances held in Deferred Option Payout Accounts are assumed to be paid immediately.

4.3 Summary of System Provisions

Effective Date and Plan Year:	The System became effective January 1, 1981 and has been amended each year since then. The plan year is July 1 to June 30.
Administration:	The System is administered by the Oklahoma Police Pension and Retirement Board consisting of thirteen Members. The Board shall be responsible for the policies and rules for the general administration of the System.
Type of Plan:	A defined benefit plan.
Employers Included:	An eligible employer may join the System on the first day of any month. An application of affiliation must be filed in the form of a resolution before the eligible municipality can become a participating municipality.
Eligibility:	All persons employed full-time as officers working more than 25 hours per week or any person undergoing police training to become a permanent police officer with a police department of a participating municipality, with ages not less than twenty-one (21) nor more than forty-five (45) when accepted for membership.
Service Considered:	Credited service consists of the period during which the Member participated in the System or predecessor municipal plan as an active employee, plus any service prior to the establishment of the municipal plan which was credited under the predecessor municipal systems or credited service granted by the State Board, plus any applicable military service.
Salary Considered:	Base salary used in the determination of benefits does not include payment for accumulated sick and annual leave upon termination of employment or any uniform allowances. Final average salary means the average paid base salary for normally scheduled hours of an officer over the highest 30 consecutive months of the last 60 months of credited service.

4.3 Summary of System Provisions (continued)

State Contributions: Insurance premium tax allocation. Historically, the System has received 14% of these collected taxes. For the fiscal years beginning July 1, 2004 and ending June 30, 2009, the System received 17% of these collected taxes. For the fiscal year beginning July 1, 2009 and each fiscal year thereafter, the System received 14% of these collected taxes. Beginning in fiscal year July 1, 2006, the System began receiving 26% of a special allocation established to refund the System for reduced allocations of insurance premium taxes resulting from increases in insurance premium tax credits. Beginning in fiscal year July 1, 2010, the amount of insurance premium tax apportioned to the System will be applied prior to the calculation of the Home Office Credit.

Municipality Contributions: Contribution is thirteen (13%) percent as of July 1, 1996.

Member Contributions: Eight (8%) percent of base salary. These contributions shall be "picked up" after December 31, 1988 pursuant to Section 414(h)(2) of the Internal Revenue Code.

Normal Retirement Benefit:

Eligibility: 20 years of credited service.

Benefit: 2 1/2% of the final average salary multiplied by the years of credited service, with a maximum of 30 years of credited service considered.

Form of Benefit: The normal form of benefit is a Joint and 100% Survivor Annuity if the Member has been married 30 months prior to death.

Cost-of-Living Adjustments: Police officers eligible to receive increased benefits according to repealed Section 50-120 of Title 11 of the Oklahoma Statutes pursuant to a court order shall receive an adjustment of 1/3 to 1/2 of the increase or decrease of any adjustment to the base salary of a regular police officer.

4.3 Summary of System Provisions (continued)

Termination:

Less Than 10 Years of Service:	A refund of contributions without interest.
More than 10 Years of Service:	If greater than 10 years of service, but not eligible for the Normal Retirement Benefit, the benefit is payable at the later of the date the Member would have had 20 years of service or attained age 50 in an amount equal to 2 1/2% of the final average salary multiplied by the years of credited service. The Member may elect a refund of contributions instead of the retirement benefit.

Disability Benefit (Duty):

Total Disability

Upon determination of total disability incurred as a result of the performance of duty, the normal disability benefit is 50% of final average salary.

Partial Disability

Upon determination of partial disability incurred as a result of the performance of duty, the normal disability is reduced according to the percentage of impairment, as outlined in the “American Medical Association’s Guide to the Evaluation of Permanent Impairment.” The following shows the percent of normal disability benefit payable as related to the percent of impairment.

% Impairment	% of Benefit
1% to 49%	50%
50% to 74%	75%
75% to 100%	100%

Disability Benefit (Non-Duty):

Upon determination of disability after 10 years of service due to causes other than duty, the benefit equals the accrued benefit of 2 1/2% of final average salary times years of credited service (maximum of 30 years) times:

- 100%, if permanent and total, or
- the following percentages, if partial disability.

1% to 24%	25%
25% to 49%	50%
50% to 74%	75%
75% to 99%	90%

4.3 Summary of System Provisions (continued)

Death Benefits Payable to Beneficiaries:

Prior to Retirement (Duty):	The greater of: 1) 2 1/2% of final average salary times years of credited service (maximum of 30 years), or 2) 50% of final average salary.
Prior to Retirement (Non-Duty):	After 10 years of service, a benefit equal to 2 1/2% of final average salary times years of credited service (maximum of 30 years). Prior to 10 years of service, a refund of the accumulated contributions made by the Member will be paid to the estate.
After Retirement:	100% of the Member's retirement or deferred vested benefit, payable when the Member would have been eligible to receive it, payable to the beneficiary.
Death Benefit:	The beneficiary shall receive a death benefit amount of $5,000.
Beneficiary:	Surviving spouses must be married to the member for 30 continuous months prior to the date of death (waived in the case of duty related death). If the beneficiary is a child, the benefits are payable to age 18, or 22 if a full-time student.

4.3 Summary of System Provisions (continued)

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 (DOP). Participation in the DOP shall not exceed five years. The employees' contributions cease upon entering the Plan, but the employer contributions are divided equally between the System and the DOP. The monthly retirement benefits that the employee is eligible to receive are paid into the DOP account.

A member is also allowed to retroactively elect to join the DOP 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 DOP are credited to the member's DOP account with interest.

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

When the Member actually retires from active service, the DOP account balance may be paid in a lump sum, to an annuity provider, or transferred to a Deferred Option Payout Account. Monthly retirement benefits are then paid directly to the retired Member.

The original Plan became effective during the July 1, 1990 to June 30, 1991 Plan Year with the back-drop and Payout Account provisions added subsequently. The DOP account of an active member is guaranteed a minimum of the valuation interest rate for investment return, or 2% less than the fund rate of return, if greater. If the balance is transferred to a Payout Account upon retirement, the account is credited with interest at a rate of 2% below the total fund net earnings if the fund returns more than 2%. If the fund realizes negative returns, the account is reduced at a rate equal to the fund net earnings. Alternatively, if the fund realizes a positive return of less than 2%, the account is credited with a rate of zero.