

***Oklahoma Police Pension  
and Retirement System  
Actuarial Valuation Report as of  
July 1, 2001***

**BUCK  
CONSULTANTS**

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## ***HIGHLIGHTS - PURPOSE***

This report is the first one prepared by Buck Consultants, Inc. 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, 2001;
- Review experience under the System for the year ended June 30, 2001; 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.

<b>GASB No. 25 Funded Status (\$000,000)</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Accrued Liability	\$ 1,443.4	\$ 1,354.5
Actuarial Value of Assets	\$ 1,319.0	\$ 1,222.1
Unfunded Accrued Liability	\$ 124.4	\$ 132.4
Funded Ratio	91.4%	90.2%

- The funded ratio on a SFAS No. 35 basis, measuring the market value of System assets versus the present value of benefits accrued as of the valuation date, decreased from 129.7% to 116.8%.
- The required state contribution for the System increased from \$32.5 million to \$33.7 million.

<b>Contribution Summary (\$000,000)</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Total Required Contribution	\$ 67.2	\$ 64.9
Expected Employee Contributions	12.3	11.9
Expected Municipality Contributions	21.2	20.5
Required State Contribution	\$ 33.7	\$ 32.5
--As a Percentage of Payroll	22.0%	21.9%

## ***HIGHLIGHTS - PURPOSE (CONTINUED)***

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The Retirement Board adopted the Actuarial Experience Study for July 1, 1995 to June 30, 2000 dated November 15, 2000 performed by William M. Mercer (the prior actuary). The following assumptions were changed as a result of the study. For details, see section 4.2 of this report.

The key changes in assumptions from last year's valuation are described below:

- **Pre-Retirement Mortality Rates.** The mortality table was changed from 1983 GAM to RP-2000 No Collar Healthy Employee Generational Table.
- **Post-Retirement Mortality Rates.** The mortality table was changed from 1983 GAM to RP-2000 Blue Collar Healthy Annuitant Generational Table.
- **Post Disability Mortality.** The mortality table was changed from 1983 GAM set forward 5 years to RP-2000 Blue Collar Healthy Annuitant set forward 7 years.
- **Retirement rates, disability rates and withdrawal rates** were modified to reflect more recent trends.
- **The total salary scale factors** were not changed, but the inflation assumption was reduced from 4% to 3%.

## 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 in the section titled "Effects of Changes."

	Actuarial Valuation as of		Change Between Years	
	July 1, 2001	July 1, 2000	Amount	Percent
<b>Summary of Costs</b>				
Required State Contribution for Current Year	\$ 33,735,540	\$ 32,500,777	\$ 1,234,763	3.8%
Actual State Contribution Received in Prior Year	\$ 18,638,000	\$ 17,342,000	\$ 1,296,000	7.5%

<b>GASB No. 25 Funded Status</b>				
Actuarial Accrued Liability	\$ 1,443,404,052	\$ 1,354,500,875	\$ 88,903,177	6.6%
Actuarial Value of Assets	\$ 1,319,041,000	\$ 1,222,123,000	\$ 96,918,000	7.9%
Unfunded Actuarial Accrued Liability	\$ 124,363,052	\$ 132,377,875	\$ (8,014,823)	(6.1%)

<b>Market Value of Assets and Additional Liabilities</b>				
Market Value of Assets	\$ 1,238,761,000	\$ 1,319,263,000	\$ (80,502,000)	(6.1%)
Actuarial Present Value of Accumulated System Benefits (SFAS No. 35)	\$ 1,060,529,473	\$ 1,017,204,159	\$ 43,325,314	4.3%
Present Value of Projected System Benefits	\$ 1,838,982,147	\$ 1,746,897,209	\$ 92,084,938	5.3%

<b>Summary of Data</b>				
Number of Members in Valuation				
Active Paid Members	3,816	3,778	38	1.0%
Members with Deferred Benefits	55	53	2	3.8%
Retired Members	1,556	1,490	66	4.4%
Beneficiaries	412	399	13	3.3%
Disabled Members	151	153	(2)	(1.3%)
Deferred Option Plan Members	366	357	9	2.5%
<b>Total</b>	<b>6,356</b>	<b>6,230</b>	<b>126</b>	<b>2.0%</b>

<b>Active Member Statistics</b>				
Total Annual Compensation <sup>(1)</sup>	\$ 153,350,395	\$ 148,543,158	\$ 4,807,237	3.2%
Average Compensation <sup>(1)</sup>	\$ 40,186	\$ 39,318	\$ 868	2.2%
Average Age	36.5	36.3	0.2	0.6%
Average Service	9.1	9.1	0.0	0.0%

<sup>(1)</sup> Compensation is projected one year based on the salary increase assumptions.

## ***HIGHLIGHTS - EFFECTS OF CHANGES***

### **Changes in Actuarial Assumptions and Methods**

As a result of the Experience Analysis for the five-year period ending June 30, 1999 that William M. Mercer, Inc., performed, the Retirement Board adopted new assumptions effective July 1, 2001. The change in actuarial assumptions resulted in the following impact. The results shown below are based upon Mercer's July 1, 2000 valuation results using the old assumptions and Mercer's revised July 1, 2000 valuation assumptions using the new assumptions.

Effect on Principal Values	Before Assumption Change	Effect of Changes		After Assumption Change
		Amount	Percent	
Normal Cost	\$ 41,378,086	(111,988)	(0.3%)	41,266,098
Actuarial Accrued Liability	\$1,354,500,875	(1,158,813)	(0.1%)	1,353,342,062
Actuarial Value of Assets	\$1,222,123,000	0	0.0%	1,222,123,000
Required State Contribution to Amortize Unfunded Actuarial Accrued Liability over 20 years from July 1, 1988	\$ 32,500,777	(302,928)	(0.9%)	32,197,849
Present Value of Projected System Benefits	\$1,746,897,209	5,979,845	0.3%	1,752,877,054

### **Change in Actuarial Funding Methods**

There were no changes in actuarial funding methods. However, this is the first valuation performed by Buck Consultants, Inc. Differences in results from the conversion, if any, are minor and do not affect the results significantly.

## ***HIGHLIGHTS - EFFECTS OF CHANGES (CONTINUED)***

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### **Changes in System Benefits**

The following Legislation affecting the Oklahoma Police Pension and Retirement System became effective July 1, 2001.

- |       |   |
|-------|---|
| SB411 | Allows a person to participate in the system over age 45 if such member was active as a police officer as of July 1, 2001 and the municipality was not participating in the System, in error.                                   |
| SB626 | Provides for municipalities to elect to participate in the System for their municipal police officers even if the city is participating in OPERS for its other employees. Expands eligibility for purchase of credited service. |
| SB669 | Allows persons employed in certain positions who would otherwise qualify for OLERS to remain in the System if they choose to.   |

There was no significant impact from these new provisions.

## ***HIGHLIGHTS - EFFECTS OF CHANGES (CONTINUED)***

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### **Actuarial Experience During the Plan Year**

The System experienced the following gains during the year ending June 30, 2001. These amounts are developed in Section 1.3 of this report:

	<b>Millions</b>
Liability Loss	\$ (7.5)
Asset Gain	\$ 16.1
Total Gain	\$ 8.6



## ***HIGHLIGHTS - DEFERRED OPTION PLAN***

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The Oklahoma Police Deferred Option Plan (DROP) allows employees 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 Police Pension and Retirement System and the other half to the members' account in the Deferred Option Plan. In addition, the monthly retirement benefits are paid into the employees' account in the Deferred Option Plan.

The Deferred Option Plan 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 accrual rate credited for the fiscal year ended June 30, 2001, was 7.5%. The assets and liabilities reflected in these results as of July 1, 2001, 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:

<b>DROP Statistics</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Number of DROP Members	366	357
DROP Account Balances	\$ 28.7M	\$ 27.4M
Annual Retirement Benefits of DROP Members	\$ 10.1M	\$ 9.7M

## ***HIGHLIGHTS - CERTIFICATION***

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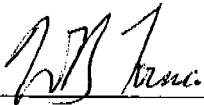
We have prepared an actuarial valuation of the Oklahoma Police Pension and Retirement System as of July 1, 2001, for the plan year ending June 30, 2002. The results of the valuation are set forth in this report, which reflects the provisions of the System as amended and effective on July 1, 2001.

The 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.

All costs, liabilities and other factors under the System were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current State Statutes and regulations issued thereunder, using an actuarial cost method which we believe is appropriate. In our opinion, the actuarial assumptions are reasonable and represent our best estimate of the anticipated experience under the System. This report fully and fairly discloses the actuarial position of the System on an ongoing basis.

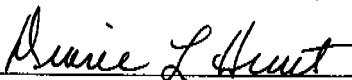
There have been no changes in actuarial methods and very minor changes in benefit provisions, but there have been changes in actuarial assumptions since the last valuation of the System as of July 1, 2000. A description of these changes and the financial effect is incorporated in this report.

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.



William B. Fornia, FSA, MAAA

September 14, 2001



Diane L. Hunt, FSA, MAAA

September 14, 2001

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## ***SECTION 1: FUNDING RESULTS***

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**Section 1.1** Comparative Summary of Principal Valuation Results

**Section 1.2** Unfunded Actuarial Accrued Liability

**Section 1.3** Actuarial Gain/(Loss)

**Section 1.4** Normal Cost

**Section 1.5** Contributions

**Section 1.6** Ten-Year Projected Cash Flow

**Section 1.7** Liability Detail

## SECTION 1.1

### COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

A. Summary of Data	Actuarial Valuation as of		Percent Change
	July 1, 2001	July 1, 2000	
<b>1. Active Members</b>			
a. Number	3,816	3,778	1.0%
b. Annual Compensation	\$ 153,350,395	\$ 148,543,158	3.2%
c. Average Annual Compensation	\$ 40,186	\$ 39,318	2.2%
d. Average Age	36.5	36.3	0.6%
e. Average Service	9.1	9.1	0.0%
<b>2. Vested Terminated Members</b>			
a. Number	55	53	3.8%
b. Annual Deferred Benefits	\$ 615,542	\$ 601,255	2.4%
c. Average Annual Deferred Benefit	\$ 11,192	\$ 11,344	(1.3%)
<b>3. Retired Members</b>			
a. Number	1,556	1,490	4.4%
b. Annual Retirement Benefits	\$ 37,515,586	\$ 35,568,114	5.5%
c. Average Annual Retirement Benefit	\$ 24,110	\$ 23,871	1.0%
<b>4. Beneficiaries</b>			
a. Number	412	399	3.3%
b. Annual Retirement Benefits	\$ 8,744,277	\$ 8,045,940	8.7%
c. Average Annual Retirement Benefit	\$ 21,224	\$ 20,165	5.3%
<b>5. Disabled Members</b>			
a. Number	151	153	(1.3%)
b. Annual Retirement Benefits	\$ 2,338,080	\$ 2,361,354	(1.0%)
c. Average Annual Retirement Benefit	\$ 15,484	\$ 15,434	0.3%
<b>6. Deferred Option Plan Members</b>			
a. Number	366	357	2.5%
b. Annual Retirement Benefits	\$ 10,104,367	\$ 9,678,922	4.4%
c. Average Annual Retirement Benefit	\$ 27,608	\$ 27,112	1.8%
d. Annual Compensation	\$ 19,184,615	\$ 18,958,128	1.2%
e. Total Account Balances	\$ 28,715,000	\$ 27,388,000	4.8%
<b>7. Total Members Included in Valuation</b>	<b>6,356</b>	<b>6,230</b>	<b>2.0%</b>

## SECTION 1.1

### COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS (CONTINUED)

B. Summary of Assets, Liabilities and Funded Status	Actuarial Valuation as of		Percent Change
	July 1, 2001	July 1, 2000	
1. System Assets on Valuation Date			
a. Actuarial Value	\$ 1,319,041,000	\$ 1,222,123,000	7.9%
b. Market Value	\$ 1,238,761,000	\$ 1,319,263,000	(6.1%)
2. Actuarial Accrued Liability <sup>(1)</sup>	\$ 1,443,404,052	\$ 1,354,500,875	6.6%
a. Funded Ratio – Actuarial Value <sup>(1)</sup>	91.4%	90.2%	1.3%
b. Funded Ratio - Market Value	85.8%	97.4%	(11.9%)
3. Unfunded Actuarial Accrued Liability (based on Actuarial Value of Assets)	\$ 124,363,052	\$ 132,377,875	(6.1%)
4. Present Value of Accrued Benefits (SFAS No. 35)	\$ 1,060,529,473	\$ 1,017,204,159	4.3%
a. Funded Ratio - Actuarial Value	124.4%	120.1%	3.6%
b. Funded Ratio – Market Value	116.8%	129.7%	(9.9%)
5. Present Value of Projected Benefits	\$ 1,838,982,147	\$ 1,746,897,209	5.3%

<sup>(1)</sup> GASB No. 25 Basis

## SECTION 1.1

### COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS (CONTINUED)

C. Summary of Contribution Requirements	Actuarial Valuation as of				Percent Change
	July 1, 2001		July 1, 2000		
	Amount	% of Active Covered Comp.	Amount	% of Active Covered Comp.	
1. Annual Covered Compensation for Members Included in Valuation					
a. Active Members	\$ 153,350,395	N/A	\$ 148,543,158	N/A	3.2%
b. Deferred Option Plan Members	19,184,615	N/A	18,958,128	N/A	1.2%
c. Total	\$ 172,535,010	N/A	\$ 167,501,286	N/A	3.0%
2. Total Normal Cost Mid-year	\$ 42,618,092	27.8%	\$ 41,378,086	27.9%	3.0%
3. Unfunded Actuarial Accrued Liability	\$ 124,363,052	N/A	\$ 132,377,875	N/A	(6.1%)
4. Amortization of Unfunded Actuarial Accrued Liability over 20 years From July 1, 1988 Mid-year <sup>(1)</sup>	\$ 22,660,721	14.8%	\$ 21,812,092	14.7%	3.9%
5. Budgeted Expenses	\$ 1,907,310	1.2%	\$ 1,736,941	1.2%	9.8%
6. Total Required Contribution (2 + 4 + 5)	\$ 67,186,123	43.8%	\$ 64,927,119	43.7%	3.5%
7. Estimated Employee Contribution (8% x 1a)	\$ 12,268,032	8.0%	\$ 11,883,453	8.0%	3.2%
8. Estimated Municipality Contributions					
a. Active Members	\$ 19,935,551	13.0%	\$ 19,310,611	13.0%	3.2%
b. Deferred Option Plan Members	1,247,000	6.5% <sup>(2)</sup>	1,232,278	6.5% <sup>(2)</sup>	1.2%
c. Total	\$ 21,182,551	13.8% <sup>(3)</sup>	\$ 20,542,889	12.3% <sup>(3)</sup>	3.1%
9. Required State Contribution to amortize Unfunded Actuarial Accrued Liability over 20 years from July 1, 1988 at Mid-year. (6 - 7 - 8c)	\$ 33,735,540	22.0%	\$ 32,500,777	21.9%	3.8%
10. Previous year's actual State Contribution	\$ 18,638,000	12.5% <sup>(4)</sup>	\$ 17,342,000	12.5% <sup>(4)</sup>	7.5%
11. Approximate period over which previous year's State Contribution will amortize Current Unfunded Actuarial Accrued Liability from July 1, 1988.	Not sufficient to amortize UAAL	N/A	Not sufficient to amortize UAAL	N/A	N/A

<sup>(1)</sup> Funding Policy adopted by Board.

<sup>(3)</sup> Percent of total compensation.

<sup>(2)</sup> Percentage of Deferred Option Plan Members' compensation.

<sup>(4)</sup> Percent of previous years' annual compensation for active members.

## SECTION 1.2

### 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, 2001	July 1, 2000
1. Actuarial Present Value of Benefits		
a. Active Members	\$ 959,375,607	\$ 923,697,112
b. Members with Deferred Benefits	6,556,965	6,371,266
c. Members Receiving Benefits who are not eligible for Automatic COLA	443,981,370	406,102,130
d. Members Receiving Benefits who are eligible for Automatic COLA	227,920,219	229,547,315
e. Deferred Option Plan Members <sup>(1)</sup>	190,715,316	181,179,386
f. COLA Reserve	10,432,670	0
g. Total	\$ 1,838,982,147	\$ 1,746,897,209
2. Actuarial Present Value of Future Normal Costs	\$ 395,578,095	\$ 392,396,334
3. Total Actuarial Accrued Liability (1g - 2)	\$ 1,443,404,052	\$ 1,354,500,875
4. Actuarial Value of Assets	\$ 1,319,041,000	\$ 1,222,123,000
5. Unfunded Actuarial Accrued Liability (3 - 4, not less than \$0)	\$ 124,363,052	\$ 132,377,875

- (1) As of July 1, 2000, one member is in the Deferred Option Plan and is also eligible for automatic cost of living increases. His account balance is included with the account balances of other DROP members, but the liability for his benefit is included with those that receive automatic cost of living increases. As of July 1, 2001, this member has retired from DROP.

## SECTION 1.3

### ACTUARIAL GAIN/(LOSS)

The actuarial gain/(loss) is comprised of both the liability gain/(loss) and the actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of July 1, 2001.

	Regular	Deferred Option	Total
1. Expected Actuarial Accrued Liability			
a. Actuarial Accrued Liability at July 1, 2000	\$ 1,327,112,875	\$ 27,388,000	\$ 1,354,500,875
b. Normal Cost and DROP contributions at July 1, 2000	39,882,493	1,247,000	41,129,493
c. Benefit Payments for Plan Year Ending June 30, 2001	58,966,000	1,925,000	60,891,000
d. Interest on a + b - c to End of Year (or actual interest)	100,313,428	2,005,000	102,318,428
e. Expected Actuarial Accrued Liability Before Changes (a + b - c + d)	\$ 1,408,342,796	\$ 28,715,000	\$ 1,437,057,796
f. Changes in actuarial Accrued Liability at July 1, 2001 due to changes in Actuarial Assumptions	(1,158,813)	0	(1,158,813)
g. Change in Actuarial Accrued Liability at July 1, 2001 due to changes in System Provisions	0	0	0
h. Expected Actuarial Accrued Liability at July 1, 2001 (e + f + g)	\$ 1,407,183,983	\$ 28,715,000	\$ 1,435,898,983
2. Actuarial Accrued Liability at July 1, 2001	\$ 1,414,689,052	\$ 28,715,000	\$ 1,443,404,052
3. Actuarial Liability Gain/(Loss) (1h - 2)	\$ (7,505,069)	\$ 0	\$ (7,505,069)
4. Expected Actuarial Value of Assets			
a. Actuarial Value of Assets at July 1, 2000	\$ 1,194,735,000	\$ 27,388,000	\$ 1,222,123,000
b. Contributions Made for Plan Year Ending June 30, 2001	50,593,000	1,247,000	51,840,000
c. Benefit Payments and Expenses for Plan Year Ending June 30, 2001	60,316,000	1,925,000	62,241,000
d. Interest on a + b - c to End of Year (or actual interest)	89,240,513	2,005,000	91,245,513
e. Expected Actuarial Value of Assets at July 1, 2001 (a + b - c + d)	\$ 1,274,252,513	\$ 28,715,000	\$ 1,302,967,513
5. Actuarial Value of Assets as of July 1, 2001	\$ 1,290,326,000	\$ 28,715,000	\$ 1,319,041,000
6. Actuarial Asset Gain/(Loss) (5 - 4e)	\$ 16,073,487	\$ 0	\$ 16,073,487
7. Actuarial Gain/(Loss) (3 + 6)	\$ 8,568,418	\$ 0	\$ 8,568,418



### **SECTION 1.3**

#### **ACTUARIAL GAIN/(LOSS) (CONTINUED)**

<b>COLA Reserve</b>	
1. Reserve as of July 1, 2000	\$ 0
2. Interest at 7.5%	0
3. Liability for Inactive Members Not Eligible for COLA (See Section 1.7, Item 1.(h))	521,633,497
4. Reserve Increment (2% x 3.)	10,432,670
5. Expected Reserve as of July 1, 2001	10,432,670
6. Ad Hoc cost of living increase	0
7. Actual Reserve (5 Less 6, not less than \$0)	10,432,670

## **SECTION 1.4**

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### **NORMAL COST**

The components of normal cost under the System's funding method are:

<b>Component</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Retirement Benefits	\$ 36,271,702	\$ 35,284,468
Withdrawal Benefits	3,087,591	2,760,499
Disability Benefits	552,159	607,585
Death Benefits	1,166,227	1,229,941
<b>Total Normal Cost at Beginning of Year</b>	<b>\$ 41,077,679</b>	<b>\$ 39,882,493</b>
<b>Total Normal Cost at Mid-year</b>	<b>\$ 42,618,092</b>	<b>\$ 41,378,086</b>
Annual Covered Payroll	\$ 153,350,395	\$ 148,543,158
Normal Cost Rate At Mid-year	27.79%	27.86%

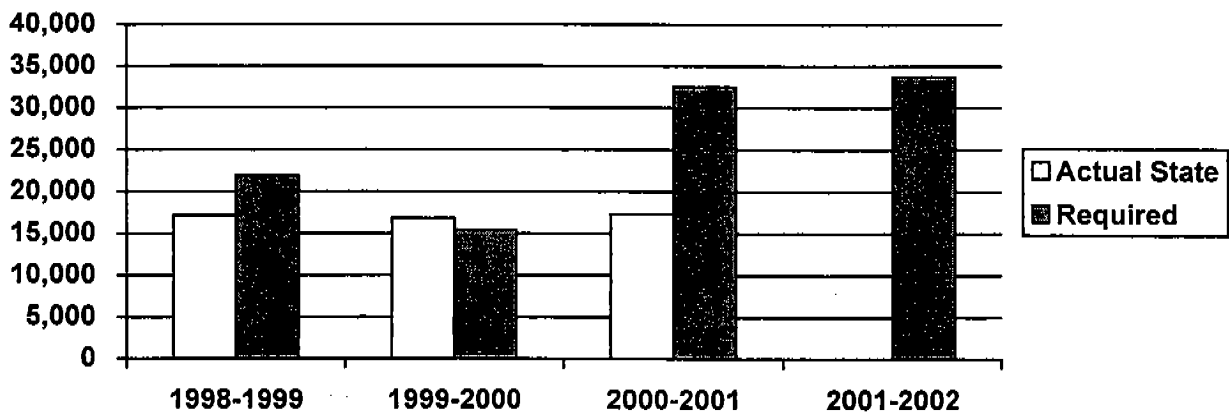
## SECTION 1.5

### 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 Deferred Option Plan Members do not make employee contributions to the plan. However, municipalities continue contributing for them, with 50% of the contribution going into the Retirement System fund and 50% going into the Deferred Option account.

**State Contributions Received versus  
Contributions Required by Funding Policy  
(000's)**



## SECTION 1.6

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

Plan Year Ending	Actives	Retirees <sup>(1)</sup>	Total
6/30/2002	\$ 3,223,329	\$ 59,705,343	\$ 62,928,577
6/30/2003	\$ 6,802,755	\$ 59,824,761	\$ 66,627,516
6/30/2004	\$ 10,277,531	\$ 59,862,585	\$ 70,140,116
6/30/2005	\$ 13,582,898	\$ 59,825,724	\$ 73,408,622
6/30/2006	\$ 17,154,645	\$ 59,798,832	\$ 76,953,477
6/30/2007	\$ 20,926,390	\$ 59,781,055	\$ 80,707,445
6/30/2008	\$ 24,677,967	\$ 59,716,422	\$ 84,394,389
6/30/2009	\$ 28,676,780	\$ 59,616,119	\$ 88,292,899
6/30/2010	\$ 33,424,355	\$ 59,407,778	\$ 92,832,133
6/30/2011	\$ 39,018,022	\$ 59,158,515	\$ 98,176,537

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

## SECTION 1.7

### LIABILITY DETAIL

Total	Without 2% COLA	With 2% Auto COLA
Present Value of Benefits	\$ 1,455,108,350	\$ 1,838,982,147
Accrued Liability	\$ 1,193,369,415	\$ 1,443,404,052
Normal Cost Mid-Year	\$ 33,899,091	\$ 42,618,092

<b>Active</b>		
a. Retirement	\$ 436,478,378	\$ 553,347,648
b. Disability	550,893	670,730
c. Withdrawal	7,604,726	9,440,917
d. Death	4,355,707	5,512,222
e. Refunds	(5,174,005)	(5,174,005)
f. Total	\$ 443,815,699	\$ 563,797,512
<b>Inactive</b>		
1. Members Eligible for Automatic COLA		
a. Retired Members	\$ 142,062,768	\$ 142,062,768
b. Disabled Members	21,411,810	21,411,810
c. Terminated Vested Members	0	0
d. Deferred Option Plan Members	0	0
e. Beneficiaries	64,445,641	64,445,641
f. Total	\$ 227,920,219	\$ 227,920,219
2. Members Not Eligible for Automatic COLA		
a. Retired Members	\$ 327,909,052	\$ 405,650,777
b. Disabled Members	8,569,591	10,738,591
c. Terminated Vested Members	5,198,636	6,556,965
d. Deferred Option Plan Members - Annuities	128,572,715	162,000,316
e. Deferred Option Plan Members - Account Balances	28,715,000	28,715,000
f. Beneficiaries	22,668,503	27,592,002
g. Reserve for COLA's in Future <sup>(1)</sup>	N/A	10,432,670
h. Total	\$ 521,633,497	\$ 651,686,321
3. Total Inactive (1f + 2h)	\$ 749,553,716	\$ 879,606,540
Accrued Liability (Active + Inactive)	\$ 1,193,369,415	\$ 1,443,404,052

(1) Ad Hoc cost of living adjustments (COLAs) are prefunded to the 2% per year level in this valuation. These COLAs are granted periodically, but generally not each year. Therefore, in years in which a COLA is not granted, this reserve is increased to fund future COLA's.

## ***SECTION 2: ACCOUNTING RESULTS***

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**Section 2.1**    SFAS No. 35 Information

**Section 2.2**    GASB No. 25 Information

## SECTION 2.1

### SFAS No. 35 INFORMATION

#### A. Actuarial Present Value of Accumulated System Benefits

The actuarial present value of vested and nonvested accumulated system benefits was computed on an ongoing system basis in order to provide required information under Financial Accounting Standards Board Statement No. 35. 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.

Accumulated System Benefits	July 1, 2001	July 1, 2000
Vested Benefits		
a. Active Members	\$ 246,391,112	\$ 246,049,521
b. Deferred Option Plan Members <sup>(1)</sup>	157,287,715	149,823,964
c. Members with Deferred Benefits	5,198,636	5,075,500
d. Members Receiving Benefits	587,067,365	558,235,125
e. Total Vested Benefits	\$ 995,944,828	\$ 959,184,110
Nonvested Benefits	64,584,645	58,020,049
<b>Total Accumulated System Benefits <sup>(2)</sup></b>	<b>\$ 1,060,529,473</b>	<b>\$ 1,017,204,159</b>
Assumed Rate of Interest	7.5%	7.5%
Market Value of Assets Available for Benefits	\$ 1,238,761,000	\$ 1,319,263,000
Funded Ratio	116.8%	129.7%
Change in Accumulated System Benefits due to:		
a. Assumption Changes	\$ (3,774,526)	\$ 0
b. System Provision Changes	\$ 0	\$ 14,407,615

Number of Members	July 1, 2001	July 1, 2000
Vested Members		
a. Active Members	1,730	1,720
b. Deferred Option Plan Members	366	357
c. Members with Deferred Benefits	55	53
d. Members Receiving Benefits	2,119	2,042
e. Total Vested Members	4,270	4,172
Nonvested Members	2,086	2,058
<b>Total Members</b>	<b>6,356</b>	<b>6,230</b>

<sup>(1)</sup> As of July 1, 2000, for one member who is in the Deferred Option Plan and is also eligible to receive automatic cost of living increases, the account balance for this member is included with the account balances of other DROP members. The liabilities for this member are included in the liabilities for those receiving benefits. As of July 1, 2001, this member has retired from DROP.

<sup>(2)</sup> Assumption of 2% future ad hoc cost-of-living increases is not reflected in this liability. Only System liabilities accrued (and in statute) as of the valuation date are included.

## SECTION 2.1

### SFAS NO. 35 INFORMATION (CONTINUED)

#### B. Statement of Changes in Accumulated System Benefits

A statement of changes in the actuarial present value of accumulated system benefits follows. This statement shows the effect of certain events on the actuarial present value shown on the previous page.

<b>Actuarial Present Value of Accumulated System Benefits as of July 1, 2000</b>	<b>\$ 1,017,204,159</b>
<b>Increase/(Decrease) During Year Attributable to:</b>	
a. Normal Cost	\$ 35,641,430
b. Increase for Interest Due to Decrease in Discount Period	76,718,257
c. Benefits Paid	(59,871,000)
d. System Amendment	0
e. Assumption Changes	(3,774,526)
f. (Gains)/Losses	(5,388,847)
<b>Net Increase/(Decrease)</b>	<b>\$ 43,325,314</b>
<b>Actuarial Present Value of Accumulated System Benefits as of July 1, 2001</b>	<b>\$ 1,060,529,473</b>

The benefits valued include all benefits--retirement, preretirement death and vested termination--payable from the System for employee service prior to the valuation date. Benefits are assumed to accrue/(accumulate) in accordance with the system provisions.



## SECTION 2.2

### GASB No. 25 INFORMATION

#### Supplementary Schedules

The GASB has issued a new statement; Financial Reporting for Defined Benefit and Note Disclosures for Defined Contribution Plans (GASB Statement No. 25). This standard became effective for periods beginning after June 15, 1996, and requires funding status to be measured based upon the actuarial funding method adopted by the Board, i.e., for the Oklahoma Police Retirement System, the Entry Age Normal Cost Method. The target value of assets is equal to the Actuarial Accrued Liability (AAL). The actual value of assets is the Actuarial Value developed later in this report. The new GASB standard supersedes GASB Statement No. 5 in its entirety.

#### A. Schedules of Funding Progress

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

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
07/01/1995	\$ 664,495,000	\$ 797,637,263	\$ 133,142,263	83.3%	\$ 112,995,471	117.8%
07/01/1996	\$ 738,547,000	\$ 830,586,623	\$ 92,039,623	88.9%	\$ 114,421,087	80.4%
07/01/1997	\$ 827,787,000	\$ 876,603,889	\$ 48,816,889	94.4%	\$ 122,715,886	39.8%
07/01/1998	\$ 966,907,000	\$ 1,092,443,208	\$ 125,536,208	88.5%	\$ 128,521,087	97.7%
07/01/1999	\$ 1,094,400,000	\$ 1,160,023,416	\$ 65,623,416	94.3%	\$ 139,242,527	47.1%
07/01/2000	\$ 1,222,123,000	\$ 1,354,500,875	\$ 132,377,875	90.2%	\$ 148,543,158	89.1%
07/01/2001	\$ 1,319,041,000	\$ 1,443,404,052	\$ 124,363,052	91.4%	\$ 153,350,395	81.1%

## **SECTION 2.2**

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### **GASB No. 25 INFORMATION**

#### **B. Schedule of Employer Contributions**

The GASB Statement No. 25 required and actual contributions for the last seven fiscal years are as follows:

<b>Year Ended June 30</b>	<b>Annual Required Contribution</b>	<b>Percentage Contributed</b>
1995	\$ 31,960,065	90.8%
1996	\$ 30,943,994	101.0%
1997	\$ 26,459,627	124.7%
1998	\$ 22,425,929	158.0%
1999	\$ 39,826,511	90.9%
2000	\$ 34,682,993	108.7%
2001	\$ 53,043,666	75.5%

### ***SECTION 3: SYSTEM ASSETS***

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

**Section 3.1**    Summary of Assets

**Section 3.2**    Reconciliation of Assets

**Section 3.3**    Actuarial Value of Assets

**Section 3.4**    Average Annual Rates of Investment Return

## SECTION 3.1

### SUMMARY OF ASSETS

Asset Category	Market Value as of June 30, 2001	Market Value as of June 30, 2000
<b>1. Cash and Short-term Investments</b>		
a. Cash	\$ 2,000	\$ 3,000
b. Short-term Investments	53,926,000	111,834,000
c. Total	\$ 53,928,000	\$ 111,837,000
<b>2. Receivables</b>		
a. Interest and Dividends	\$ 4,750,000	\$ 5,633,000
b. Member, Employer, and State Contributions	6,801,000	2,475,000
c. Investments Sold	0	0
d. Other Receivables	0	0
e. Total	\$ 11,551,000	\$ 8,108,000
<b>3. Investments at fair value</b>		
a. Government Bonds	\$ 121,335,000	\$ 118,117,000
b. International Government Bonds	27,311,000	32,109,000
c. Corporate Bonds <sup>(1)</sup>	227,758,000	233,082,000
d. Common Stock	485,354,000	546,734,000
e. International Stock	171,804,000	210,760,000
f. Other	158,699,000	68,743,000
g. Securities Lending Short-term Pool	46,975,000	55,586,000
h. Total	\$ 1,239,236,000	\$ 1,265,131,000
<b>4. Assets used in system operations</b>		
a. Furniture, Fixtures and Equipment	\$ 0	\$ 0
<b>5. Total Assets</b>	\$ 1,304,715,000	\$ 1,385,076,000
<b>6. Liabilities</b>		
a. Payable for Investments Purchased	\$ (17,976,000)	\$ (9,052,000)
b. Accounts Payable and Accrued Expenses	(1,003,000)	(1,175,000)
c. Securities Lending Collateral Payable	(46,975,000)	(55,586,000)
d. Total Liabilities	\$ (65,954,000)	\$ (65,813,000)
<b>7. Net Assets for Pension Benefits</b>	\$ 1,238,761,000	\$ 1,319,263,000

(1) Includes Domestic and International Bonds

## SECTION 3.2

### RECONCILIATION OF ASSETS

Transactions	June 30, 2001	June 30, 2000
<b>Additions</b>		
<b>1. Contributions</b>		
a. Contributions from Employers	\$ 21,414,000	\$ 20,358,000
b. Contributions from System Members	11,788,000	11,241,000
c. Insurance Premium Tax	18,638,000	17,342,000
d. Total	\$ 51,840,000	\$ 48,941,000
<b>2. Net Investment Income</b>		
a. Interest	\$ 22,816,000	\$ 23,437,000
b. Dividends	7,357,000	6,804,000
c. Realized Gain and Unrealized Appreciation	(95,959,000)	81,769,000
d. Income from Securities Lending	345,000	383,000
e. Other	1,562,000	758,000
f. Total	\$ (63,879,000)	\$ 113,151,000
g. Investment Expense	(6,222,000)	(6,551,000)
h. Net Investment Income	\$ (70,101,000)	\$ 106,600,000
<b>3. Total Additions</b>	\$ (18,261,000)	\$ 155,541,000
<b>Deductions</b>		
<b>4. Retirement Benefits</b>	\$ (59,871,000)	\$ (58,123,000)
<b>5. Deferred Option Benefits</b>	\$ 0	\$ 0
<b>6. Refund of Contributions</b>	\$ (1,020,000)	\$ (1,178,000)
<b>7. Administrative Expenses</b>	\$ (1,350,000)	\$ (1,052,000)
<b>8. Total Deductions</b>	\$ (62,241,000)	\$ (60,353,000)
<b>9. Net Increase</b>	\$ (80,502,000)	\$ 95,188,000
<b>10. Net Assets Held in Trust for Pension Benefits</b>		
a. Beginning of Year	\$ 1,319,263,000	\$ 1,224,075,000
b. End of Year	\$ 1,238,761,000	\$ 1,319,263,000
<b>Reconciliation of Actuarial Asset Value and Market Value</b>		
Actuarial Asset Value	\$ 1,319,041,000	\$ 1,222,123,000
Deferred Gain/(Loss)	\$ (80,279,833)	\$ 97,139,829
Market Value	\$ 1,238,761,000	\$ 1,319,263,000

## SECTION 3.2

### RECONCILIATION OF ASSETS <sup>(1)</sup> (CONTINUED)

Transactions	Non-Deferred Option Plan Assets	Deferred Option Plan Assets	Total
<b>Additions</b>			
<b>1. Contributions</b>			
a. Contributions from Employers	\$ 20,167,000	\$ 1,247,000	\$ 21,414,000
b. Contributions from System Members	11,788,000	0	11,788,000
c. Insurance Premium Tax	18,638,000	0	18,638,000
d. Total	\$ 50,593,000	\$ 1,247,000	\$ 51,840,000
<b>2. Net Investment Income</b>			
a. Interest	\$ 20,811,000	\$ 2,005,000	\$ 22,816,000
b. Dividends	7,357,000	0	7,357,000
c. Realized Gain and Unrealized Appreciation	(95,959,000)	0	(95,959,000)
d. Income from Security Lending	345,000	0	345,000
e. Other	1,562,000	0	1,562,000
f. Total	\$ (65,884,000)	\$ 2,005,000	\$ (63,879,000)
g. Investment Expense	(6,222,000)	0	(6,222,000)
h. Net Investment Income	\$ (72,106,000)	\$ 2,005,000	\$ (70,101,000)
<b>3. Total Additions</b>	\$ (21,513,000)	\$ 3,252,000	\$ (18,261,000)
<b>Deductions</b>			
<b>4. Retirement Benefits</b>	\$ (47,883,000)	\$ (11,988,000)	\$ (59,871,000)
<b>5. Deferred Option Benefits Credited to Account</b>	(10,063,000)	10,063,000	0
<b>6. Refund of Contributions</b>	(1,020,000)	0	(1,020,000)
<b>7. Administrative Expenses</b>	(1,350,000)	0	(1,350,000)
<b>8. Total Deductions</b>	\$ (60,316,000)	\$ (1,925,000)	\$ (62,241,000)
<b>9. Net Increase</b>	\$ (81,829,000)	\$ 1,327,000	\$ (80,502,000)
<b>10. Net Assets Held in Trust for Pension Benefits</b>			
a. Beginning of Year	\$1,291,875,000	\$ 27,388,000	\$1,319,263,000
b. End of Year	\$1,210,046,000	\$ 28,715,000	\$1,238,761,000

(1) This allocation of assets is maintained for accounting purposes only. It is our understanding that all assets of the System are available to pay all benefits provided under the System.

## SECTION 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
1996/1997	84,018,212	67,214,569	16,803,643	0
1997/1998	96,431,854	57,859,113	19,286,371	19,286,370
1998/1999	36,234,277	14,493,710	7,246,855	14,493,712
1999/2000	25,028,597	5,005,719	5,005,719	15,017,159
2000/2001	(161,346,342)	0	(32,269,268)	(129,077,074)
<b>Total</b>	<b>\$ 80,366,598</b>	<b>\$ 144,573,111</b>	<b>\$ 16,073,320</b>	<b>\$ (80,279,833)</b>

Development of Actuarial Value of Assets	
1. Actuarial Value as of July 1, 2000 (Excluding DROP)	\$ 1,194,735,000
2. Contributions	
a. Member	\$ 11,788,000
b. Employer (Excluding DROP)	20,167,000
c. Insurance tax	18,638,000
d. Total	\$ 50,593,000
3. Decreases During the Year	
a. Benefit Payments (Excluding payments from DROP, including payments to DROP)	\$ 57,946,000
b. Return of Member Contributions	1,020,000
c. Noninvestment Expenses	1,350,000
d. Total	\$ 60,316,000
4. Expected Return at 7.5% on:	
a. Item 1	\$ 89,605,125
b. Item 2 (one-half year)	1,897,238
c. Item 3 (one-half year)	2,261,850
d. Total	\$ 89,240,513
5. Expected Actuarial value of Assets (Excluding DROP) June 30, 2001 (1 + 2 + 3 + 4)	\$ 1,274,252,513
6. Unrecognized Asset Gain as of June 30, 2000	\$ 97,139,829
7. DROP Assets	\$ 28,715,000
8. Expected Actuarial Value June 30, 2001 plus previous year's Unrecognized Asset Gain (5 + 6 + 7)	\$ 1,400,107,342
9. Market Value June 30, 2001	\$ 1,238,761,000
10. 2000/2001 Asset Gain/(Loss) (9 - 8)	\$ (161,346,342)
11. Asset Gain to be Recognized as of June 30, 2001	\$ 16,073,320
12. Initial Actuarial Value July 1, 2001 (5 + 7 + 11) (Rounded to \$1,000's)	\$ 1,319,041,000
13. Constraining Values:	
a. 80% of Market Value (9 x 0.8)	\$ 991,009,000
b. 120% of Market Value (9 x 1.2)	\$ 1,486,513,000
14. Actuarial Value July 1, 2001 (12), but no less than (13a), nor greater than (13b)	\$ 1,319,041,000

## SECTION 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%

Annual Returns before 1998 exclude DROP assets.



## ***SECTION 4: BASIS OF VALUATION***

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This section presents and describes the basis of the valuation. The census of Members, actuarial basis and benefit provisions of the System 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 System will continue in existence.

### **Section 4.1 System Members**

### **Section 4.2 Actuarial Basis**

### **Section 4.3 Summary of System Provisions**

## SECTION 4.1

### SYSTEM MEMBERS

#### A. Member Data Reconciliation

	Active Members		Inactive Members				Total
	Regular	Deferred Option Plan	Deferred Vested Members	Retired Members	Disabled Members	Bene-ficiaries	
As of July 1, 2000	3,778	357	53	1,490	153	399	6,230
Deferred Option Plan Retirees	(86)	86	0	0	0	0	0
Age Retirements	(20)	(76)	(4)	100	0	0	0
Disability Retirements	(5)	0	0	0	5	0	0
Deaths Without Beneficiaries	0	0	0	(9)	(3)	(9)	(21)
Deaths With Beneficiaries	(3)	(1)	0	(20)	(2)	26	0
Nonvested Terminations	(193)	0	0	0	0	0	(193)
Vested Terminations	(8)	0	8	0	0	0	0
Rehires	10	0	(1)	0	0	0	9
Expiration of Benefits	0	0	0	(6)	(2)	(7)	(15)
Vested Terminations Electing a Cash-Out	0	0	0	0	0	0	0
Data Corrections	0	0	(1)	1	0	3	3
Transfers Out	0	0	0	0	0	0	0
Transfers In	0	0	0	0	0	0	0
Net Change	(305)	9	2	66	(2)	13	(217)
New Entrants During the Year	343	0	0	0	0	0	343
As of July 1, 2001	3,816	366	55	1,556	151	412	6,356

## SECTION 4.1

### SYSTEM MEMBERS (CONTINUED)

#### B. Count of 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	125									125
25-29	616	49								665
30-34	420	324	98							842
35-39	183	198	397	100						878
40-44	74	102	173	249	79					677
45-49	27	53	72	115	124	36	1			428
50-54	6	26	28	49	29	33	1			172
55-59		2	12	5	3	4	1			27
60-64		1	1							2
65-69										0
70-74										0
75+										0
Total	1,451	755	781	518	235	73	3	0	0	3,816

#### C. Average Compensation

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	25,986									25,986
25-29	30,649	35,652								31,018
30-34	30,208	40,067	46,831							35,936
35-39	28,790	39,936	48,437	51,120						42,731
40-44	29,632	38,024	44,657	52,914	55,684					46,339
45-49	28,792	37,475	44,289	46,929	56,926	59,485	63,533			48,161
50-54	22,937	36,512	42,965	44,974	58,097	63,935	60,848			48,542
55-59		31,153	48,464	43,559	45,806	56,739	57,079			47,523
60-64		22,765	59,696							41,231
65-69										0
70-74										0
75+										0
Total	29,767	39,119	46,835	50,398	56,511	61,346	60,486	0	0	40,186

## SECTION 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 51	157	\$ 3,381,935	37	\$ 651,135	41	\$ 397,767	235	\$ 4,430,837
51	44	1,051,271	3	48,371	7	69,246	54	1,168,887
52	67	1,588,539	10	212,004	4	67,395	81	1,867,938
53	94	2,299,850	1	21,226	8	104,853	103	2,425,929
54	90	2,183,323	8	183,240	3	56,373	101	2,422,936
55	84	2,200,946	10	214,808	0	0	94	2,415,754
56	71	1,757,038	7	156,070	5	76,162	83	1,989,270
57	78	1,881,287	6	139,687	4	74,706	88	2,095,680
58	72	1,708,041	5	88,685	2	18,320	79	1,815,046
59	72	1,768,276	6	99,788	3	30,731	81	1,898,794
60	64	1,561,898	7	156,873	4	68,272	75	1,787,043
61	71	1,720,120	9	192,678	5	97,195	85	2,009,994
62	61	1,547,128	7	155,127	3	54,269	71	1,756,525
63	55	1,349,152	8	221,920	4	63,942	67	1,635,014
64	44	1,068,156	5	131,961	3	55,654	52	1,255,771
65	47	1,104,345	9	199,015	4	91,645	60	1,395,006
66	50	1,209,419	12	285,290	4	64,224	66	1,558,933
67	39	965,740	8	218,234	2	38,068	49	1,222,042
68	23	538,495	10	294,607	2	30,830	35	869,932
69	37	930,025	9	210,780	2	42,891	48	1,183,696
70	33	891,561	6	103,206	4	72,183	43	1,066,950
71	19	473,538	13	358,042	4	84,829	36	916,409
72	27	620,822	17	417,267	4	104,584	48	1,142,672
73	25	680,234	10	226,744	3	74,175	38	981,153
74	23	553,506	13	274,848	5	128,026	41	956,380
75	18	488,673	13	294,227	4	97,642	35	880,542
76	12	298,073	6	132,890	2	44,644	20	475,616
77	12	303,511	14	314,344	0	0	26	617,856
78	14	330,190	15	257,429	0	0	29	587,620
79	11	244,082	7	160,704	3	42,712	21	447,498
80	9	209,252	12	256,511	2	34,776	23	500,539
81	11	223,978	3	70,277	1	14,119	15	308,374
82	2	23,548	6	126,142	2	39,011	10	188,701
83	4	76,158	14	250,204	0	0	18	326,362
84	9	184,869	8	132,530	0	0	17	317,400
85	0	0	8	174,244	1	14,496	9	188,740
86	1	11,267	12	244,641	1	10,998	14	266,906
87	2	35,084	4	73,883	2	27,345	8	136,312
88	1	9,222	10	193,184	2	25,096	13	227,502
89	0	0	10	189,665	1	20,900	11	210,565
90	0	0	5	82,259	0	0	5	82,259
Over 90	3	43,031	29	519,527	0	0	32	572,558
<b>Total</b>	<b>1,556</b>	<b>\$ 37,515,586</b>	<b>412</b>	<b>\$ 8,744,277</b>	<b>151</b>	<b>\$ 2,338,080</b>	<b>2,119</b>	<b>\$ 48,597,943</b>

**SECTION 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	11	\$ 140,524	0	\$ 0
40	3	26,962	0	0
41	3	34,823	1	24,686
42	1	7,134	6	154,312
43	4	52,931	9	196,603
44	4	62,530	21	509,908
45	6	66,664	28	638,548
46	2	22,424	17	441,067
47	3	21,246	26	658,332
48	6	57,973	32	820,578
49	3	22,730	32	793,510
50	3	34,963	23	646,304
51	2	18,228	21	617,165
52	4	46,309	25	715,293
53	0	0	32	1,069,722
54	0	0	17	546,954
55	0	0	22	671,793
56	0	0	18	570,457
57	0	0	10	278,261
58	0	0	8	213,776
59	0	0	6	185,494
60	0	0	6	165,480
61	0	0	1	26,434
62	0	0	1	26,563
63	0	0	1	16,697
64	0	0	2	89,537
65 and over	0	0	1	26,895
Total	55	\$ 615,542	366	\$ 10,104,367

## SECTION 4.1

### SYSTEM MEMBERS (CONTINUED)

#### F. Member Statistics

Inactive Members as of July 1, 2001	Number	Amount of Annual Benefit
<b>Members Receiving Benefits</b>		
a. Retired	1,556	\$ 37,515,586
b. Beneficiaries	412	8,744,277
c. Disabled	151	2,338,080
<b>Total</b>	<b>2,119</b>	<b>\$ 48,597,943</b>
<b>Members with Deferred Benefits</b>		
a. Terminated Vested	55	\$ 615,542
b. Beneficiaries	N/A	N/A
c. Disabled	N/A	N/A
<b>Total</b>	<b>55</b>	<b>\$ 615,542</b>
<b>Deferred Option Plan Members</b>	<b>366</b>	<b>\$ 10,104,367</b>

Statistics for Active Members	Number	Average		
		Age	Service	Earnings
As of July 1, 2000				
a. Continuing	3,416	37.2	10.0	\$ 40,835
b. New	362	27.9	0.6	25,005
Total	3,778	36.3	9.1	\$ 39,318
As of July 1, 2001				
a. Continuing	3,463	37.2	9.9	\$ 41,865
b. New	353	29.2	0.7	23,721
Total	3,816	36.5	9.1	\$ 40,186

## SECTION 4.1

### SYSTEM MEMBERS (CONTINUED)

#### G. Data Tape Reconciliation

	July 1, 2001	July 1, 2000
<b>Tape Records Submitted</b>		
Records submitted	6,946	6,792
Not Eligible to Participate	0	(5)
Terminations/ No Benefits Payable	(590)	(558)
Denied Benefit	0	0
Data Corrections	0	1
Number Added	0	0
<b>Total Valued</b>	<b>6,356</b>	<b>6,230</b>

## SECTION 4.2

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### 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 method", this is a particular technique used by actuaries for establishing 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 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.

#### 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;



## **SECTION 4.2**

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### **ACTUARIAL BASIS (CONTINUED)**

#### **B. Asset Valuation Method (continued)**

- 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.
- Deferred Option Plan assets are included in the actuarial value. However, they are included at market value and are not subject to the smoothing described above.

The System has used this method since at least 1998.

#### **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 are July 1, 2001 rates of pay based upon the prior year's 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 dollar limitation and compensation limitation required by the Internal Revenue Code Section 401 and 415 for governmental plans.

No additional liability is being carried for the guaranteed minimum interest rate for the Deferred Option Plan account balances. Stochastic studies of similar Systems have been used to quantify the cost of this benefit. Further review and analysis of this liability is recommended. Please note that this is a volatile benefit and the impact in any one-year may be large.

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.

## ***SECTION 4.2***

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### **ACTUARIAL BASIS (CONTINUED)**

#### **C. Valuation Procedures (continued)**

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.

## SECTION 4.2

### ACTUARIAL BASIS (CONTINUED)

#### D. Actuarial Assumptions

The actuarial assumptions are selected by the Board with the recommendation of the actuary. The most recent experience study was performed for the five-year period ending June 30, 2000. The following assumptions are based on the results of that study.

#### 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	Prior Assumption			Current Assumption		
	Inflation %	Merit %	Increase %	Inflation %	Merit %	Increase %
1	4.0	15.00	19.00	3.0	16.00	19.00
2	4.0	11.00	15.00	3.0	12.00	15.00
3	4.0	5.75	9.75	3.0	6.75	9.75
4	4.0	5.25	9.25	3.0	6.25	9.25
5	4.0	4.75	8.75	3.0	5.75	8.75
6	4.0	4.50	8.50	3.0	5.50	8.50
7	4.0	4.00	8.00	3.0	5.00	8.00
8	4.0	3.25	7.25	3.0	4.25	7.25
9	4.0	3.10	7.10	3.0	4.10	7.10
10	4.0	2.90	6.90	3.0	3.90	6.90
15	4.0	1.90	5.90	3.0	2.90	5.90
20	4.0	1.00	5.00	3.0	2.00	5.00

## SECTION 4.2

### ACTUARIAL BASIS (CONTINUED)

#### D. Actuarial Assumptions (continued)

##### Demographic Assumptions

##### 1. Retirement Rates

Sample rates below:

Attained Service	Annual Rates of Retirement Per 100 Eligible Members	
	Prior Assumption	Current Assumption
20	40	30
21	25	30
22	25	20
23	25	20
24	25	25
25	25	25
26	30	30
27	35	35
28	40	40
29	45	45
30	100	100

##### 2. Mortality Rates

- (a) Active employees  
(pre-retirement)

**Current Assumption: RP-2000 No Collar Healthy Employees (Generational) (RP-2000 projected with 10 years mortality improvement)**

Prior Assumption: 1983 Group Annuity Mortality Table.

- (b) Active employees  
(postretirement) and  
nondisabled pensioners

**Current Assumption: RP-2000 Blue Collar Healthy Annuitant (Generational) (RP-2000 projected with 10 years mortality improvement)**

Prior Assumption: 1983 Group Annuity Mortality Table.

- (c) Disabled pensioners

**Current Assumption: RP-2000 Blue Collar Healthy Annuitant (Set forward 7 years) (Generational) (RP-2000 projected with 10 years mortality improvement)**

Prior Assumption: 1983 Group Annuity Mortality set forward 5 years for disabled experience.

## SECTION 4.2

### ACTUARIAL BASIS (CONTINUED)

#### D. Actuarial Assumptions (continued)

##### Demographic Assumptions (continued)

#### 3. Disability Rates

Graduated rates. See table below:

Age Range	Rate	
	Prior Assumption	Current Assumption
20-24	.0002	.0002
25-29	.0004	.0004
30-34	.0006	.0006
35-39	.0011	.0011
40-44	.0020	.0020
45-49	.0040	.0020
50-54	.0020	.0020
55-59	.0020	.0010

#### 4. Withdrawal Rates

Graduated rates by years of service.

Service Range	Rate	
	Prior Assumption	Current Assumption
0-1	.080	.100
2	.070	.085
3	.060	.070
4	.050	.060
5-10	.040	.040
11-15	.020	.020
16-20	.005	.005
Over 20	.000	.000

#### 5. Marital Status

(a) Percentage married:

Males: 85%; Females: 85%

(b) Age difference:

Males are assumed to be three (3) years older than females.

## **SECTION 4.2**

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### **ACTUARIAL BASIS (CONTINUED)**

#### **D. Actuarial Assumptions (continued)**

##### **Other Assumptions**

1. Assumed Age of Commencement  
for Deferred Benefits: Age 50.
  
2. Provision for Expenses: Administrative Expenses, as  
budgeted by the Oklahoma Police  
Pension and Retirement System.
  
3. Percentage of Disability: Based upon information provided by  
the Executive Director, we assume  
that employees becoming disabled  
have a 25%-49% impairment.
  
4. 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 equal to the average increase  
over the five prior years, which is  
3.6% for this valuation.  
  
Members, not eligible for this  
increase are assumed to receive a 2%  
annual ad hoc increase in benefits  
during each year of retirement. This  
assumption was adopted in 2000.
  
5. Deferred Option Plan: Deferred Option Plan members are  
assumed to remain in the Deferred  
Option Plan for the maximum of five  
years prior to electing a lump sum.

## **SECTION 4.3**

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### **SUMMARY OF SYSTEM PROVISIONS**

<b>Effective Date and Plan Year:</b>	The System became effective January 1, 1981 and has been amended each year since then. The plan year is July 1 to June 30.
<b>Administration:</b>	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.
<b>Type of Plan:</b>	A defined benefit plan.
<b>Employers Included:</b>	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.
<b>Eligibility:</b>	All persons employed as officers 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.
<b>Service Considered:</b>	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.
<b>Salary Considered:</b>	<p>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.</p> <p>Final average salary means the average paid gross salary for normally scheduled hours of an officer over the highest 30 consecutive months of the last 60 months of credited service.</p>

### **SECTION 4.3**

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#### **SUMMARY OF SYSTEM PROVISIONS (CONTINUED)**

<b>State Contributions:</b>	Insurance premium tax allocation.
<b>Municipality Contributions:</b>	Contribution is thirteen (13%) percent as of July 1, 1996.
<b>Member Contributions:</b>	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.
<b>Normal Retirement Benefit:</b>	
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:	Lifetime benefit.
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.
<b>Termination:</b>	
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.



## SECTION 4.3

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### SUMMARY OF SYSTEM PROVISIONS (CONTINUED)

#### 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.

<u>% Impairment</u>	<u>% of Benefit</u>
1% to 24%	25%
25% to 49%	50%
50% to 74%	75%
75% to 99%	90%

#### 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 percentages shown above, if partial disability.

## **SECTION 4.3**

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### **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).

**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.

If an active Member dies prior to retirement without leaving a beneficiary, a refund of the accumulated contributions made by the Member will be paid to the estate.

**Beneficiary:**

Surviving spouses must be married to the member for 30 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.

## **SECTION 4.3**

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### **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. Participation in the Deferred Option Plan 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 Deferred Option Plan. The monthly retirement benefits that the employee is eligible to receive are paid into the Deferred Option Plan account.

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

When the Member actually terminates employment, the Deferred Option Plan 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.

This Plan became effective during the July 1, 1990 to June 30, 1991 Plan Year. The Deferred Option Plan account is guaranteed a minimum of the valuation interest rate for investment return, or 2% less than the fund rate of return, if greater.