

***State of Oklahoma
Public Employees
Retirement System***

***Actuarial Valuation Report
as of July 1, 2007***

Prepared: October 2007



Oklahoma Public Employees Retirement System Actuarial Valuation Report

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1120 South 101st Street, Suite 400
Omaha, NE 68124-1088
Phone: (402) 393-9400
Fax: (402) 393-1037
www.milliman.com

October 18, 2007

Board of Trustees
Oklahoma Public Employees Retirement System
5801 N. Broadway Extension, Suite 400
P.O. Box 53007
Oklahoma City, OK 73152-3007

Dear Members of Board:

At your request, we have completed an actuarial valuation of the Oklahoma Public Employees Retirement System (OPERS) as of July 1, 2007 for the purpose of determining the actuarial contribution rate for the fiscal year ending June 30, 2008 and calculating and analyzing key financial measurements. The major findings of the valuation are contained in this report. There was no change in the benefit provisions, actuarial assumptions, or methods from the prior valuation.

In preparing our report, we relied, without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board (ASB) and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting recommendations of the American Academy of Actuaries.

We hereby further certify that, in our opinion, each actuarial assumption used is reasonably related to the experience of the System and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and has adopted them as indicated in Appendix C.



In the course of our valuation, we have examined the relative magnitude of medical benefits provided under Section 401(h) of the Internal Revenue Code. We have determined that these medical benefits are subordinate to the retirement benefits as required.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations under GASB Statement No. 25 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in this report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statement No. 25. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work product was prepared exclusively for OPERS for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning OPERS' operations, and uses OPERS' data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

We would like to express our appreciation to the OPERS staff, who gave substantial assistance in supplying the data on which this report is based.

I, Patrice A. Beckham F.S.A., am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Brent A. Banister F.S.A., am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

We respectfully submit the following report and look forward to discussing it with you.

MILLIMAN, Inc.

Sincerely,

Patrice A. Beckham, F.S.A.
Consulting Actuary

Brent A. Banister, F.S.A.
Actuary

SECTION I BOARD SUMMARY

OVERVIEW

The Oklahoma Public Employees Retirement System provides retirement benefits for most employees of the State of Oklahoma, for most County employees and for employees of Local Employers who have elected to participate in OPERS. This report presents the results of the July 1, 2007 actuarial valuation for the System.

The primary purposes of performing an actuarial valuation are to:

- determine the employer contribution rates required to fund each System on an actuarial basis,
- disclose asset and liability measures as of the valuation date,
- determine the experience of the System since the last valuation date, and
- analyze and report on trends in System contributions, assets, and liabilities over the past several years.

There was no change in the benefit provisions, actuarial assumptions, or methods from the prior valuation.

The valuation results provide a “snapshot” view of the System’s financial condition on July 1, 2007. The unfunded actuarial accrued liability for the System increased by \$43 million due to various factors. A detailed analysis of the change in the unfunded actuarial accrued liability from July 1, 2006 to July 1, 2007 is shown on page 4.

The highlights of the valuation are:

Funded Status (\$M)	Actuarial Valuation Date	
	July 1, 2007	July 1, 2006
Actuarial Accrued Liability	\$8,413	\$7,915
Actuarial Value of Assets	\$6,110	\$5,654
Unfunded Actuarial Accrued Liability (UAAL)	\$2,303	\$2,260
Funded Ratio (Actuarial Value)	72.6%	71.4%
Funded Ratio (Market Value)	78.9%	73.5%

There was a liability loss, which increased the actuarial accrued liability by \$92 million more than expected (1.11% of expected liability). The components of this liability loss are identified on page 4 of this report.

The net return on the market value of assets was 16.3% for the year ended June 30, 2007. The actuarial value of assets is determined using a method to smooth gains and losses in order to develop more stable contribution rates. The return on the actuarial value of assets was approximately 10.2%, which resulted in an actuarial gain of \$152 million.

The actuarial contribution rate for the employer increased from 2006 to 2007:

Contribution Rate	Actuarial Valuation Date	
	July 1, 2007	July 1, 2006
Normal Cost	12.34%	12.25%
Amortization of UAAL	13.39%	13.35%
Budgeted Expenses	<u>0.40%</u>	<u>0.41%</u>
Actuarial Contribution Rate	26.13%	26.01%
Less Estimated Member Contribution Rate	<u>(4.02%)</u>	<u>(3.88%)</u>
Employer Actuarial Contribution Rate	22.11%	22.13%
Less State Statutory Contribution Rate	(13.50%)	(12.50%)
Contribution Shortfall	8.61%	9.63%



As a result of the 1% increase in the employer contribution rate, the shortfall between the employer actuarial contribution rate and the statutory contribution rate decreased by just over 1.0% from the 2006 to the 2007 valuation. Given that the UAAL is amortized as a level dollar amount, we would expect the UAAL payment to decrease as a percent of pay. However, the contribution shortfall results in an increase in the UAAL which increases the amortization payment on the UAAL in the subsequent year. For the year ended June 30, 2007 there was favorable experience to offset the increase in the UAAL from the contribution shortfall.

EXPERIENCE

July 1, 2006 – June 30, 2007

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is July 1, 2007. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System, which are generally in excess of assets. The actuarial process leads to a method of determining the contributions needed by members and employers in the future to balance the System assets and liabilities.

Changes in the System's assets and liabilities impacted the change in the actuarial contribution rates between the July 1, 2006 and July 1, 2007 actuarial valuations. Each component is examined and quantified in the following discussion.

ASSETS

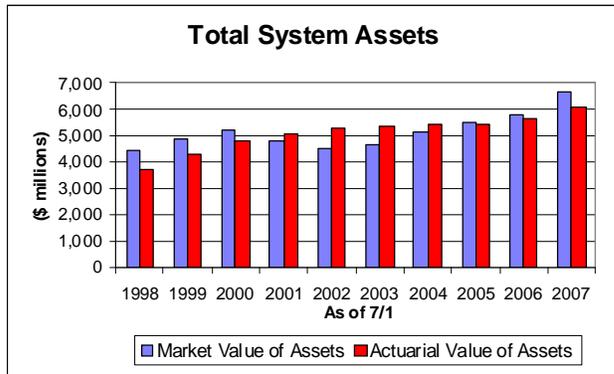
As of July 1, 2007, the System had total funds when measured on a market value basis of \$6.6 billion. This was an increase of \$0.8 billion from the July 1, 2006 figure of \$5.8 billion. The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method is used to smooth the effect of market fluctuations. See Table 3 on page 14 for the detailed development of the actuarial value of assets as of July 1, 2007.

The actuarial value of assets as of July 1, 2007, was \$6.1 billion. The annualized dollar-weighted rate of return for FY2007 measured on the actuarial value of assets was approximately 10.2% and measured on the market value of assets was 16.3%, net of investment expenses.

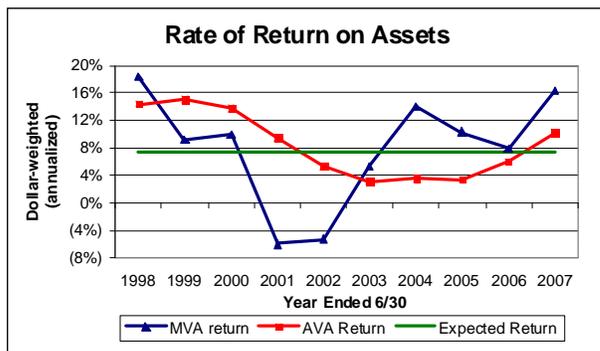
The components of the change in the market and actuarial value of assets for the System (in millions) are set forth below.

	Market Value \$(millions)	Actuarial Value \$(millions)
Net Assets, July 1, 2006	\$5,817	\$5,654
• Employer and Member Contributions	262	262
• Benefit Payments and Expenses	(377)	(377)
• Investment Income	938	571
Net Assets, July 1, 2007	\$6,640	\$6,110

Due to the use of an asset smoothing method, there is \$530 million of net deferred investment gain that has not yet been recognized. This deferred investment gain will gradually be reflected in the actuarial value of assets over the next four years.



From 1997 through 2000, the market value of assets exceeded the actuarial value. Investment experience in 2001 - 03 reversed the situation. As the negative investment experience was recognized in the asset smoothing method and favorable experience occurred over the last few years, the market value is again larger than the actuarial value.



Rates of return on the market value of assets are volatile. The return on the actuarial value of assets illustrates the advantage of using an asset smoothing method.

SYSTEM LIABILITIES

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial accrued (UAAL). The unfunded actuarial accrued liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial accrued liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods will also impact the total actuarial accrued liability (AAL) and the unfunded portion thereof.

The unfunded actuarial accrued liability is as follows:

Actuarial Accrued Liability	\$8,413,248,130
Actuarial Value of Assets	<u>6,110,230,058</u>
Unfunded Actuarial Accrued Liability	\$2,303,018,072

See Table 5 on page 17 for the detailed development of the Actuarial Accrued Liability and Table 7 on page 21 for the calculation of the Unfunded Actuarial Accrued Liability.

Other factors influencing the UAAL from year to year include actual experience versus that expected based on the actuarial assumptions (both asset and liability), changes in actuarial assumptions, procedures or methods and changes in benefit provisions. The actual experience measured in this valuation is that which occurred during the prior plan year (fiscal year 2007). There was an experience gain from the experience on the actuarial value of assets and an actuarial loss from experience for the actuarial accrued liability.

Between July 1, 2006 and July 1, 2007 the change in the unfunded actuarial accrued liability for the System was as follows (in millions):

	<u>\$ millions</u>
Unfunded Actuarial Accrued Liability, July 1, 2006	\$ 2,260
• effect of contributions less than actuarial rate	151
• expected decrease due to amortization method	(48)
• investment experience	(152)
• liability experience ¹	92
• change in actuarial assumptions	0
• change in benefit provisions	0
Unfunded Actuarial Accrued Liability, July 1, 2007	\$2,303

¹ Liability loss is about 1.27% of total actuarial accrued liability.

The liability loss for the System can be allocated to experience related to each actuarial assumption as follows:

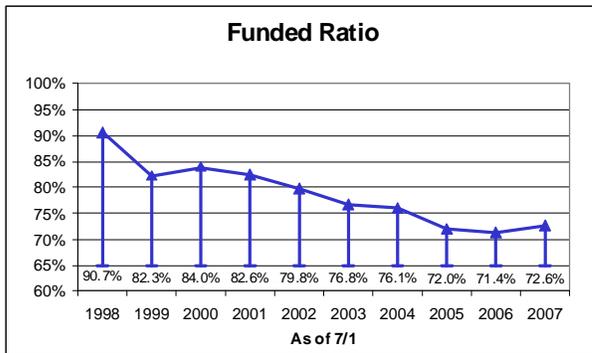
Liability Source	Impact on AAL (\$M)	% of Expected Liability
Salary increases	\$29.2	0.35%
Mortality	21.6	0.26
Termination of employment	10.5	0.13
Retirements	13.9	0.17
Disability	3.1	0.04
New entrants and rehires	8.9	0.10
Miscellaneous/data change	<u>5.2</u>	<u>0.06</u>
Total (gain)/loss	\$92.4	1.11%

A detailed summary of the change in the unfunded actuarial accrued liability is shown in Table 9 on page 23.

An evaluation of the unfunded actuarial accrued liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial liability. The funded status information is shown below (in millions).

	7/1/04	7/1/05	7/1/06	7/1/07
Actuarial Value of Assets (\$M)	5,412	5,450	5,654	6,110
Actuarial Accrued Liability	7,115	7,575	7,914	8,413
Funded Ratio	76.1%	72.0%	71.4%	72.6%
Unfunded Actuarial Accrued Liability (UAAL)	\$1,703	\$2,125	\$2,260	\$2,303





The System's funded status has decreased significantly over the past 10 years. Numerous factors have contributed to the decline including changes in benefit provisions, contributions less than the actuarial rate, changes in actuarial assumptions, demographic experience and investment experience from 2001-03.

CONTRIBUTION RATES

The funding objective of the System is to pay the normal cost rate plus an amount which will pay off the unfunded actuarial accrued liability over a 40-year period commencing July 1, 1987.

Under the Entry Age Normal cost method, the actuarial contribution rate consists of:

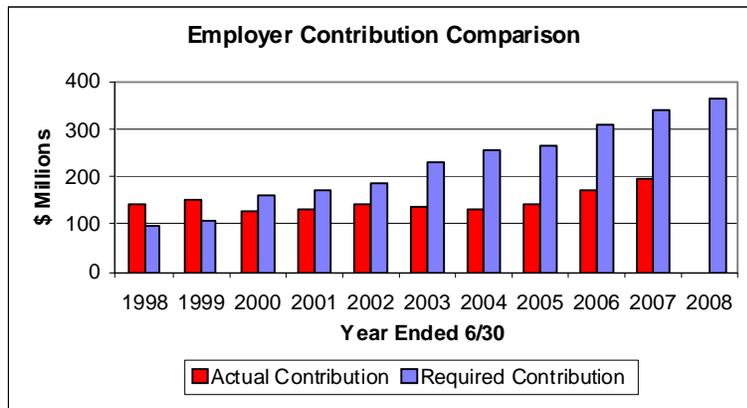
- a "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date,
- an "unfunded actuarial accrued liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets on hand.

Contributions to the Retirement System are made by the members and their employers. Most State employees pay 3.5% of compensation. Local government employees contribute from 3.5% to 8.5% of compensation, depending on the rate chosen by their employers. Elected officials and Hazardous Duty employees have different required contributions (see the Summary of System Provisions section of this report). Starting in 2004, participants were eligible to make an election to contribute an additional 2.91% of pay and to increase their benefit accrual multiplier for future years of service to 2.5%.

Effective July 1, 1999, the State's contribution rate was reduced from 12.5% to 10.0% of payroll and stayed at that level until 2005. For the same period, the total employer and employee contribution rates for county and local employees was 13.5% of payroll. As of July 1, 2005, the State's contribution rate increased to 11.5% of payroll and increases an additional 1% each July 1 until it reaches 16.5% on July 1, 2010. It is scheduled to remain at 16.5% thereafter. For county and local employees, the contribution rate increased to 15.0% on July 1, 2005 and increases an additional 1% of payroll each year beginning July 1, 2006 until it reaches 20.0% on July 1, 2010. The ultimate contribution rates are still less than the employer actuarial required contribution rate for fiscal year 2008 of 22.11% developed in this valuation.

The following graph shows the total required employer contribution compared to the amount actually received in the year. The funding policy contribution equals the System's normal cost, budgeted expenses and an amortization of the unfunded actuarial accrued liability. For July 1, 1998 and prior years, the unfunded actuarial accrued liability was amortized over 25 years from July 1, 1987. For the July 1, 1999 valuation, the amortization period was changed to 40 years from July 1, 1987. At July 1, 2007, 20 years remain in the amortization period.

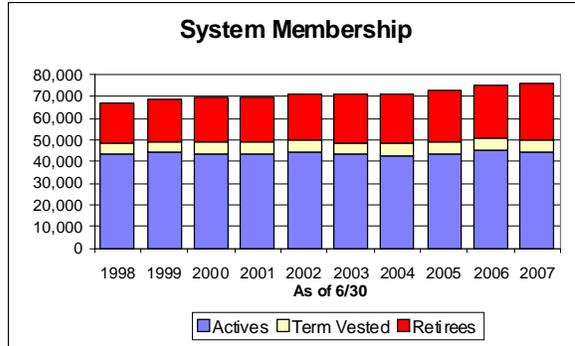




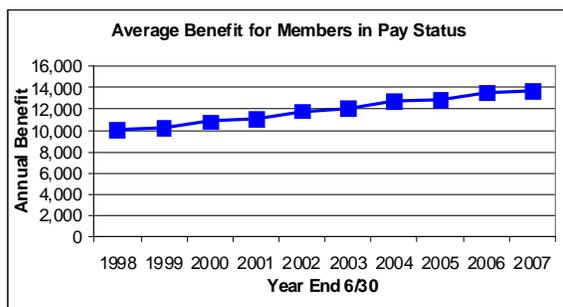
MEMBER INFORMATION

The number of active members included in the valuation decreased by about 1.5% from 2006 to 2007. Part of the decline was due to a change in the way the data records were handled for members for whom no application has been filed. Last year, all records on the “No App” file were included in the valuation. For this valuation, only new “No App” records from FY 2007 were included in that category. Historically, the size of the active group has remained fairly stable.

Retired member counts and average retirement benefit amounts continue to increase steadily. There were 25,233 retirees and beneficiaries in the 2007 valuation, with an average benefit of \$1,146 per month. This represents a 1.6% increase in the average monthly benefit from the previous year.



The size of the active group has been very stable over the last 10 years. The number of terminated vested members and retirees has increased, which is to be expected in an ongoing retirement system.



The average benefit for retirees has climbed steadily over the past 10 years as new retirees retire with higher salaries and therefore receive higher benefits than those already retired. In addition, most of the members who die are older with smaller benefits. Ad hoc COLAs granted by the Legislature have also increased the average benefit during this period.

SUMMARY

Under the System's funding policy, the unfunded actuarial accrued liability (UAAL) is paid off over the remaining amortization period with payments that are a level dollar amount. Given the expectation that covered payroll will increase in future years, the level dollar UAAL payments result in a declining contribution rate, when determined as a percentage of payroll. Based on the projection model developed in conjunction with the 2006 valuation, the statutory contribution rate increases and the actuarial contribution rate decreases over time and the two converge before the end of the amortization period. Based on these projections, which assume that all assumptions are met each year (including a 7.5% return on the market value of assets), the current schedule of contributions will be sufficient to amortize the UAAL by 2027 (the UAAL will be \$0).

The long-term funding projections are very sensitive to the investment return assumed. The volatility in the rate of return on the market value due to capital market fluctuations from year to year makes the evaluation of the System's long term funding challenging. Given the current funded status of the System, the relative values of market and actuarial value of assets, and the current schedule for increased employer contributions, the System is in actuarial balance over the long term. However, to the extent that actual experience, particularly investment return, is less favorable than that anticipated by the actuarial assumptions, the current contribution schedule may not be sufficient to reach the System's goal of being fully funded by 2027.

A summary of key data elements and valuation results as of July 1, 2007 and July 1, 2006 are presented on the following page. More detail on each of these elements can be found in the following Sections of this report.



SUMMARY OF PRINCIPAL RESULTS
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM

	7/1/2007 Valuation	7/1/2006 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members*	44,712	45,472	(1.7)
Retired and Disabled Members and Beneficiaries	25,233	24,372	3.5
Inactive Members	<u>5,637</u>	<u>5,568</u>	1.2
Total Members	<u><u>75,582</u></u>	<u><u>75,412</u></u>	0.2
Projected Annual Salaries of Active Members*	\$ 1,626,737,832	\$ 1,568,350,023	3.7
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 346,932,229	\$ 329,736,666	5.2
*Includes "No Application" members			
2. ASSETS AND LIABILITIES			
Total Actuarial Accrued Liability	\$ 8,413,248,130	\$ 7,914,657,886	6.3
Market Value of Assets	6,640,477,411	5,817,165,538	14.2
Actuarial Value of Assets	6,110,230,058	5,654,276,043	8.1
Unfunded Actuarial Accrued Liability	2,303,018,072	2,260,381,843	1.9
Funded Ratio	72.6%	71.4%	1.7
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost Rate	12.34%	12.25%	0.7
Amortization of Unfunded Actuarial Accrued Liability	13.39%	13.35%	0.3
Budgeted Expenses	<u>0.40%</u>	<u>0.41%</u>	(2.4)
Actuarial Required Contribution Rate	26.13%	26.01%	0.5
Less Estimated Member Contribution Rate	<u>4.02%</u>	<u>3.88%</u>	3.6
Employer Actuarial Required Contribution Rate	22.11%	22.13%	(0.1)
Less Statutory State Employer Contribution Rate	<u>13.50%</u>	<u>12.50%</u>	8.0
Contribution Shortfall	8.61%	9.63%	(10.6)

SECTION 2

SCOPE OF THE REPORT

This report presents the actuarial valuation of the Oklahoma Public Employees Retirement System (OPERS) as of July 1, 2007. This valuation was prepared at the request of the System's Board of Trustees.

The reader is encouraged to review the actuarial certification letter, where the guidelines employed in the preparation of this report are outlined. Also included in this letter are comments on the sources and reliability of both the data and the actuarial assumptions upon which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the System. Sections 4 and 5 describe how the obligations of the System are to be met under the actuarial cost method in use.

This report includes several appendices and an addendum:

- Appendix A Schedules of valuation data classified by various categories of members.
- Appendix B A summary of the current benefit structure, as determined by the provisions of governing law on July 1, 2007.
- Appendix C A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D A glossary of actuarial terms.
- Addendum Provides actuarial results based on assumptions prescribed in 74 Okla. Stat, Section 909.1(H)

SECTION 3

ASSETS

Market Value of Assets

The current market value represents the "snapshot" or "cash-out" value of System assets as of the valuation date. In addition, market values of assets provide a basis for measuring investment performance from time to time. At July 1, 2007 the market value of assets for the Retirement System was \$6.6 billion. Table 1 on page 12 is a comparison, at market values, of System assets as of July 1, 2007, and July 1, 2006, in total and by investment category. Table 2 on page 13 summarizes the change in the market value of assets from July 1, 2006 to June 30, 2007.

Actuarial Value of Assets

Neither the market value of assets, representing a "cash-out" value of System assets, nor the book value of assets, representing the cost of investments, may be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used, which dampens swings in the market value while still indirectly recognizing market values.

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

- at the beginning of each fiscal 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 fiscal 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 fiscal year;
- the difference between the expected actuarial asset value and the market value is the investment gain or loss for the previous fiscal year;
- the (final) actuarial asset value is the preliminary value plus 20% of the investment gains and losses for each of the five previous fiscal years, but in no case more than 120% of the market value or less than 80% of the market value.

Table 3 on page 14 shows the development of the actuarial value of assets (AVA) as of the valuation date.

TABLE 1
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ANALYSIS OF NET ASSETS AT MARKET VALUE

	<u>June 30, 2007</u>		<u>June 30, 2006</u>	
	<u>Amount</u> (\$ Millions)	<u>% of</u> <u>Total</u>	<u>Amount</u> (\$ Millions)	<u>% of</u> <u>Total</u>
Cash & Equivalents	\$ 42.8	0.6	\$ 42.1	0.7
Short-term Investments	163.2	2.4	17.7	0.3
Government Obligations	1,580.2	22.9	1,305.9	21.6
Corporate Bonds	907.8	13.1	998.7	16.5
Domestic Equity	2,882.6	41.8	2,526.8	41.7
International Equity	1,321.0	19.2	1,164.3	19.2
Subtotal	\$ 6,897.6	100.0	\$ 6,055.5	100.0
Property (net)	0.7		0.6	
Other assets	0.1		0.1	
Net Receivables/(Payables)	<u>(257.9)</u>		<u>(239.0)</u>	
Net Assets	\$ <u>6,640.5</u>		\$ <u>5,817.2</u>	



TABLE 2
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF CHANGES IN NET ASSETS

(Market Value)

	Fiscal Year Ended June 30	
	2007	2006
1. Market Value of Net Assets at Beginning of Year	\$ 5,817,165,538	\$ 5,504,489,147
2. Contributions:		
a. Members	64,179,909	55,988,703
b. State and Local Agencies	197,756,938	171,273,052
c. Total Contributions (2a) + (2b)	<u>261,936,847</u>	<u>227,261,755</u>
3. Net Investment Income:		
a. Net appreciation in fair value of investments	800,498,608	312,735,516
b. Interest	111,670,097	96,454,218
c. Dividends	31,227,351	30,062,249
d. Securities lending activities	1,549,987	1,657,368
e. Other	57,300	136,733
f. Total investment income (3a) + (3b) + (3c) + (3d) + (3e)	<u>945,003,343</u>	<u>441,046,084</u>
g. Investment expenses	<u>(6,213,878)</u>	<u>(6,092,429)</u>
h. Net investment income (3f) + (3g)	938,789,465	434,953,655
i. Total additions (2c) + (3h)	1,200,726,312	662,215,410
4. Deductions:		
a. Retirement, death, and survivor benefits	361,045,265	334,378,348
b. Refunds and withdrawals	11,815,777	11,120,588
c. Administrative expenses	4,553,397	4,040,083
d. Total deductions (4a) + (4b) + (4c)	<u>377,414,439</u>	<u>349,539,019</u>
5. Net Change in Assets (3i) - (4d)	823,311,873	312,676,391
6. Market Value of Net Assets at End of Year (1) + (5)	\$ 6,640,477,411	\$ 5,817,165,538

TABLE 3
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL VALUE OF ASSETS

Schedule Of Asset Gains/(Losses)

Year End	Original Amount	Recognized in Prior Years	Recognized in This Year	Recognized in Future Years
2003	\$ (153,115,261)	\$ (122,492,208)	\$ (30,623,053)	\$ -
2004	239,722,094	143,833,257	47,944,419	47,944,418
2005	121,831,139	48,732,456	24,366,228	48,732,455
2006	30,656,285	6,131,257	6,131,257	18,393,771
2007	518,970,886	0	103,794,177	415,176,709
Total	<u>\$ 758,065,143</u>	<u>\$ 76,204,762</u>	<u>\$ 151,613,028</u>	<u>\$ 530,247,353</u>

Development of Actuarial Value of Assets

1. Actuarial value as of July 1, 2006	\$ 5,654,276,043
2. Contributions	
a. Member	\$ 64,179,909
b. Employer	197,756,938
c. Total (a) + (b)	<u>\$ 261,936,847</u>
3. Decreases during year	
a. Benefit payments	\$ (361,045,265)
b. Return of member contributions	(11,815,777)
c. Noninvestment expenses	(4,553,397)
d. Total (a) + (b) + (c)	<u>\$ (377,414,439)</u>
4. Expected return at 7.5% on:	
a. Item 1	\$ 424,070,703
b. Item 2 (one-half year)	9,645,056
c. Item 3 (one-half year)	(13,897,180)
d. Total (a) + (b) + (c)	<u>\$ 419,818,579</u>
5. Expected actuarial value as of June 30, 2007 (1) + (2) + (3) + (4)	\$ 5,958,617,030
6. Unrecognized asset gain/(loss) as of June 30, 2006	\$ 162,889,495
7. Expected actuarial value June 30, 2006, plus previous year's unrecognized asset gain/(loss) (5) + (6)	\$ 6,121,506,525
8. Market value June 30, 2007	\$ 6,640,477,411
9. Year end 2007 asset gain/(loss) (8) - (7)	\$ 518,970,886
10. Asset gain/(loss) to be recognized as of June 30, 2007	\$ 151,613,028
11. Initial actuarial value July 1, 2007 (5) + (10)	\$ 6,110,230,058
12. Constraining values:	
a. 80% of market value (8) x 0.8	\$ 5,312,381,929
b. 120% of market value (8) x 1.2	\$ 7,968,572,893
13. Actuarial value as of July 1, 2007 (11), but no less than (12a), nor greater than (12b)	\$ 6,110,230,058

SECTION 4

SYSTEM LIABILITIES

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the System as of the valuation date, July 1, 2007. In this section, the discussion will focus on the commitments of the System, which are referred to as its liabilities.

Table 4 on page 16 contains an analysis of the actuarial present value of all future benefits (PVFB) for contributing members, inactive members, retirees and their beneficiaries. The analysis is provided for each group.

The liabilities summarized in Table 4 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measures of both benefits already earned and future benefits expected to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and, if an optional benefit is chosen, for the lives of the surviving beneficiaries.

The actuarial assumptions used to determine liabilities are based on the results of an Experience Study based on the three year period ended June 30, 2004. This set of assumptions, as shown in Appendix C, was first used for the July 1, 2005 valuation.

The liabilities reflect the benefit structure in place as of July 1, 2007. Additionally, a 2% annual COLA in future years is included in the liabilities shown in the report.

Actuarial Liabilities

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to do this allocation, it is necessary for the funding method to “breakdown” the present value of future benefits into two components:

- (1) that which is attributable to the past and
- (2) that which is attributable to the future.

Actuarial terminology calls the part attributable to the past the “past service liability” or the “actuarial accrued liability”. The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the “normal cost”. Table 5 contains the calculation of actuarial liabilities for all groups.

The System uses an assumption of a 2% annual COLA each year in developing liabilities and contribution rates even though the System does not have an automatic COLA provision. Ad hoc COLAs have historically been granted by the Legislature every other year. In order to avoid actuarial gains in the year in which a COLA is not granted and an actuarial loss in the years in which a COLA is granted, the System’s liabilities include a “COLA Reserve”. The COLA Reserve is included in the actuarial accrued liability to account for expected cost of living adjustments to the benefits of retired participants that have not been granted by the valuation date. Any ad hoc increase granted will decrease the reserve amount by the cost of the increase. When the cost of an ad hoc increase is greater than the amount of the reserve, the reserve is set to zero and the period for calculating ungranted increases is set to the valuation date.



TABLE 4
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF JULY 1, 2007

	Regular	Elected Officials	Hazardous Duty	Total
1. Active employees				
a. Retirement Benefit	\$ 4,000,669,645	\$ 231,526,307	\$ 277,592,274	\$ 4,509,788,226
b. Withdrawal Benefit	322,937,134	18,844,428	16,710,820	358,492,382
c. Pre-Retirement Death Benefit	98,428,296	3,715,453	3,359,880	105,503,629
d. Disability Benefit	161,344,454	10,155,680	5,321,866	176,822,000
e. Return of Member Contributions	24,261,185	540,167	3,633,107	28,434,459
f. Supplementary Medical Benefit	183,842,243	4,787,486	11,192,683	199,822,412
g. Application Not Submitted	25,727,766	0	0	25,727,766
h. Total	\$ 4,817,210,723	\$ 269,569,521	\$ 317,810,630	\$ 5,404,590,874
2. Inactive Nonvested Members				18,972,309
3. Inactive Vested Members				341,980,483
4. Return of Excess Contributions				1,029,680
5. Disabled Members				115,518,435
6. Retirees				3,410,541,869
7. Beneficiaries				216,655,246
8. Supplementary Medical Benefit for Retirees and Inactive Vested Members				170,765,676
9. COLA Reserve				88,225,940
10. Total PVFB				\$ 9,768,280,512

TABLE 5
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL ACCRUED LIABILITY
AS OF JULY 1, 2007

	Regular	Elected Officials	Hazardous Duty	Total
1. Present Value of Future Benefits for Active Members				
a. Retirement Benefit	\$ 4,000,669,645	\$ 231,526,307	\$ 277,592,274	\$ 4,509,788,226
b. Withdrawal Benefit	322,937,134	18,844,428	16,710,820	358,492,382
c. Pre-Retirement Death Benefit	98,428,296	3,715,453	3,359,880	105,503,629
d. Disability Benefit	161,344,454	10,155,680	5,321,866	176,822,000
e. Return of Member Contributions	24,261,185	540,167	3,633,107	28,434,459
f. Supplementary Medical Benefit	183,842,243	4,787,486	11,192,683	199,822,412
g. Application Not Submitted	25,727,766	0	0	25,727,766
h. Total	\$ 4,817,210,723	\$ 269,569,521	\$ 317,810,630	\$ 5,404,590,874
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	\$ 809,083,592	\$ 36,437,866	\$ 64,967,248	\$ 910,488,706
b. Withdrawal Benefit	173,828,567	9,411,473	8,505,062	191,745,102
c. Pre-Retirement Death Benefit	24,337,150	759,036	1,252,075	26,348,261
d. Disability Benefit	49,312,627	2,505,996	1,924,465	53,743,088
e. Return of Member Contributions	77,764,025	3,265,498	9,147,427	90,176,950
f. Supplementary Medical Benefit	56,518,250	1,422,799	2,932,167	60,873,216
g. Application Not Submitted	21,657,059	0	0	21,657,059
h. Total	\$ 1,212,501,270	\$ 53,802,668	\$ 88,728,444	\$ 1,355,032,382
2. Present Value of Future Benefits for Inactive Members				<u>4,363,689,638</u>
3. Total Actuarial Accrued Liability (1h) - (2h) + 3				<u>\$ 8,413,248,130</u>



TABLE 6
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DEVELOPMENT OF COLA RESERVE

1. Reserve as of July 1, 2006	\$	13,301,442
2. Interest at 7.5%		997,608
3. Reserve increment		<u>73,926,890</u>
4. Expected reserve as of July 1, 2007		88,225,940
5. Ad hoc cost of living increase during year ended June 30, 2007		<u>0</u>
6. Actual reserve on July 1, 2007 (4) less (5), not less than \$0	\$	88,225,940

SECTION 5

EMPLOYER CONTRIBUTIONS

The previous two sections were devoted to a discussion of the assets and liabilities of the System. A comparison of Tables 3 and 4 indicates that current assets fall short of meeting the present value of future benefits (total liability). This is expected in all but a fully closed down fund, where no further contributions are anticipated.

In an active system, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost and (2) the payment on the unfunded actuarial liability.

The term “fully funded” is often applied to a system in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely funded and/or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial accrued liability (UAAL) exists.

Description of Rate Components

The actuarial cost method used by the System is the traditional Entry Age Normal (EAN) – level percent of pay cost method. Under the EAN cost method, the actuarial present value of each member’s projected benefit is allocated on a level basis over the member’s compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/losses.

The Unfunded Actuarial Accrued Liability is amortized as a level dollar amount over a 40-year period from July 1, 1987. Given a stable active workforce, this amortization method is expected to produce a payment stream that decreases as a percent of covered payroll.

Contribution Rate Summary

The normal cost rate is developed in Table 6 on page 20. Table 7 on page 21 develops the contribution rate for amortization of the unfunded actuarial accrued liability. Table 8 on page 22 develops the total actuarial contribution rate.

TABLE 7
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF JULY 1, 2007

	Regular	Elected Officials	Hazardous Duty	Total	% of Pay
1. Normal Cost at Beginning of Year					
a. Retirement Benefit	\$ 121,086,018	\$ 6,742,147	\$ 10,384,370	\$ 138,212,535	8.49%
b. Withdrawal Benefit	22,688,704	1,406,089	1,316,078	25,410,871	1.56%
c. Pre-Retirement Death Benefit	3,504,488	132,382	199,602	3,836,472	0.24%
d. Disability Benefit	6,753,310	409,795	295,919	7,459,024	0.46%
e. Return of Member Contributions	10,529,597	517,847	1,454,487	12,501,931	0.77%
f. Supplementary Medical Benefit	9,311,220	283,199	482,724	10,077,142	0.62%
g. Application Not Submitted	3,218,303	0	0	3,218,303	0.20%
h. Total	<u>\$ 177,091,638</u>	<u>\$ 9,491,460</u>	<u>\$ 14,133,181</u>	<u>\$ 200,716,279</u>	<u>12.34%</u>
2. Estimated Payroll for the Year	\$ 1,507,406,601	\$ 34,525,293	\$ 84,805,938	\$ 1,626,737,832	
3. Normal Cost Rate [(1h) / (2)]	<u>11.75%</u>	<u>27.49%</u>	<u>16.67%</u>	<u>12.34%</u>	

TABLE 8
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
UNFUNDED ACTUARIAL ACCRUED LIABILITY CONTRIBUTION RATE
AS OF JULY 1, 2007

1. Actuarial Present Value of Future Benefits	\$ 9,768,280,512	
2. Actuarial Present Value of Future Normal Costs	<u>1,355,032,382</u>	
3. Actuarial Accrued Liability (1) - (2)	\$ 8,413,248,130	
4. Actuarial Value of Assets	<u>6,110,230,058</u>	
5. Unfunded Actuarial Accrued Liability (UAAL) (3) - (4)	\$ 2,303,018,072	
6. Amortization of UAAL over 40 years from July 1, 1987 (assumed mid-year)	\$ 217,885,110	
7. Total Estimated Payroll for Year Ending June 30, 2008	\$ 1,626,737,832	
8. Amortization as a Percent of Payroll		13.39%



TABLE 9
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL CONTRIBUTION RATE

	July 1	
	2007	2006
1. Total Normal Cost Rate	12.34%	12.25%
2. Amortization of UAAL	13.39%	13.35%
3. Budgeted Expenses *	<u>0.40%</u>	<u>0.41%</u>
4. Total Actuarial Contribution Rate (1) + (2) + (3)	26.13%	26.01%
5. Estimated Member Contribution Rate	<u>4.02%</u>	<u>3.88%</u>
6. Employer Actuarial Contribution Rate (4) - (5)	22.11%	22.13%

* Provided by the System

TABLE 10
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
CALCULATION OF ACTUARIAL GAIN/(LOSS)

The actuarial gain/(loss) is comprised of both the liability and the actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of July 1, 2007.

1. Expected actuarial accrued liability		
a. Actuarial accrued liability at July 1, 2006	\$	7,914,657,886
b. Normal cost at July 1, 2006		185,299,758
c. Benefit payments for fiscal year ending June 30, 2007		(372,861,042)
d. Interest on (a), (b), and (c)		593,767,309
e. Change in plan provisions		0
f. Expected actuarial accrued liability at July 1, 2007	\$	<u>8,320,863,911</u>
(a) + (b) + (c) + (d) + (e)		
2. Actuarial accrued liability at July 1, 2007	\$	8,413,248,130
3. Actuarial liability gain/(loss) (1e) – (2)	\$	(92,384,219)
4. Expected actuarial value of assets		
a. Actuarial value of assets at July 1, 2006	\$	5,654,276,043
b. Contributions for fiscal year ending June 30, 2007		261,936,847
c. Benefit payments and administrative expenses for fiscal year ending June 30, 2007		(377,414,439)
d. Interest on (a), (b), and (c)		419,818,580
e. Expected actuarial value of assets at July 1, 2007	\$	<u>5,958,617,031</u>
(a) + (b) + (c) +(d)		
5. Actuarial value of assets at July 1, 2007	\$	6,110,230,058
6. Actuarial value of assets gain/(loss) (5) – (4e)	\$	151,613,027
7. Net actuarial gain/(loss) (3) + (6)	\$	59,228,808

TABLE 11
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF CONTRIBUTION REQUIREMENTS

	Actuarial Valuation as of		Percent Change in Amount
	July 1, 2007	July 1, 2006	
	Amount	Amount	
1. Expected annual payroll	\$ 1,626,552,249	\$ 1,568,350,023	3.7%
2. Total normal cost	\$ 200,716,279	\$ 179,621,841	11.7%
3. Unfunded actuarial accrued liability	\$ 2,303,018,072	\$ 2,260,381,843	1.9%
4. Amortization of unfunded actuarial accrued liability over 40 years from July 1, 1987	\$ 217,885,110	\$ 213,851,360	1.9%
5. Budgeted expenses (provided by the System)	\$ 6,429,870	\$ 6,496,405	(1.0%)
6. Total required contribution (2) + (4) + (5)	\$ 425,031,259	\$ 395,472,445	7.5%
7. Estimated member contribution	\$ 61,116,907	\$ 56,922,429	7.4%
8. Required employer contribution (6) – (7)	\$ 363,914,352	\$ 338,550,016	7.5%
9. Previous year's actual contribution			
a. Member	\$ 64,179,909	\$ 55,988,703	14.6%
b. Employer	197,756,938	171,273,052	15.5%
c. Total	\$ <u>261,936,847</u>	\$ <u>227,261,755</u>	15.3%

SECTION 6

ACCOUNTING AND OTHER INFORMATION

Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans (GASB 25), establishes financial reporting standards for defined benefit pension plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress provides information about whether the financial strength of the Plan is improving or deteriorating over time.
- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed.

In addition to information required by GASB, we also provide an exhibit showing the present value of accumulated benefits under FASB Statement No. 35 and an exhibit showing the expected benefit payments for the System.



TABLE 12
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACCOUNTING INFORMATION FOR GASB 25

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll ((b-a)/c)
7/1/2002	\$5,299,781,370	\$6,639,720,469	\$1,339,939,099	79.8%	\$1,450,317,127	92.4%
7/1/2003	5,354,795,771	6,974,586,356	1,619,790,585	76.8%	1,411,719,256	114.7%
7/1/2004	5,412,166,797	7,114,778,205	1,702,611,408	76.1%	1,383,965,233	123.0%
7/1/2005	5,450,664,963	7,575,419,808	2,124,754,845	72.0%	1,454,210,509	146.1%
7/1/2006	5,654,276,043	7,914,657,886	2,260,381,843	71.4%	1,568,350,023	144.1%
7/1/2007	6,110,230,058	8,413,248,130	2,303,018,072	72.6%	1,626,737,832	141.6%

Valuation Date	7/1/07
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Dollar Closed
Remaining Amortization Period	20 years
Asset Valuation Method	5 Year Moving Average (see Appendix C)
Actuarial Assumptions:	
Investment Rate of Return	7.5%
Projected Salary Increases	5.1% - 9.0%
Cost of Living Adjustment	2%

TABLE 13
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACCOUNTING INFORMATION FOR GASB 25

Schedule of Employer Contributions
For the Fiscal Year Ended June 30

Year	Annual Required Contribution	Percentage Contributed
2002	\$187,991,746	74.3%
2003	232,891,719	59.1%
2004	257,038,902	51.9%
2005	266,044,444	52.5%
2006	309,980,339	55.3%
2007	338,550,016	58.4%

The Annual Required Contribution (ARC) is calculated each year as part of the actuarial valuation. The ARC includes the employer's normal cost and an amortization payment of the unfunded actuarial accrued liability, in accordance with the parameters in GASB 25. This exhibit shows the dollar amount of ARC applicable each of the last six years and the percentage of the ARC that was actually contributed by the employer.



TABLE 14
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
FASB NO. 35 INFORMATION
ACTUARIAL PRESENT VALUE OF ACCUMULATED BENEFITS

The actuarial present value of vested and nonvested accumulated System benefits is computed on an ongoing System basis in order to provide information on benefit liabilities calculated in accordance with Financial Accounting Standards Board Statement No. 35. In this calculation, a determination is made of all benefits earned by current participants 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. *An assumption of 2% annual 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.*

	July 1	
	2007	2006
Vested benefits		
Active members	\$ 1,899,501,811	\$ 1,808,051,099
Terminated vested members	288,683,063	282,649,382
Unclaimed contributions	18,972,309	17,397,925
Limited benefit	1,029,680	1,069,635
Retirees and beneficiaries	3,212,312,158	3,034,316,856
Supplemental medical insurance premiums	297,663,694	293,996,456
Total vested benefits	\$ 5,718,162,715	\$ 5,437,481,353
Nonvested benefits		
Active members	\$ 201,137,897	\$ 200,216,350
Members who have not completed an application	1,031,938	833,243
Total nonvested benefits	\$ 202,169,835	\$ 201,049,593
Total accumulated benefits	\$ 5,920,332,549	\$ 5,638,530,946
Market value of assets available for benefits	\$ 6,640,477,411	\$ 5,817,165,538
Funded ratio	112.2%	103.2%
Number of members		
Vested members		
Active members	22,475	22,314
Terminated vested members	5,637	5,568
Retirees and beneficiaries	25,233	24,372
Total vested members	53,345	52,254
Nonvested active members	22,237	23,158
Total members	75,582	75,412



TABLE 14 (continued)
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
FASB NO. 35 INFORMATION
ACTUARIAL PRESENT VALUE OF ACCUMULATED 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.

Present value of accrued benefits as of July 1, 2006	\$ 5,638,530,946
Increase/(decrease) during the year attributable to:	
Benefits accrued and (gains)/losses	245,755,114
Increase for interest due to discount period	408,907,532
Benefits paid	(372,861,042)
Plan provision change	0
Assumption change	0
Net increase/(decrease)	\$ <u>281,801,603</u>
Present value of accrued benefits as of July 1, 2007	\$ 5,920,332,549



TABLE 15
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
TEN-YEAR PROJECTED BENEFIT PAYMENTS

The chart below shows estimated benefits expected to be paid over the next ten years, based on the assumptions used in this valuation. The “Actives” column shows benefits expected to be paid to members currently active on July 1, 2007. The “Retirees” column shows benefits expected to be paid to all other members. This includes those who, as of July 1, 2007, are receiving benefit payments or who terminated employment and are entitled to a deferred vested benefit.

Retirement, Survivor, and Withdrawal Benefits

Year Ending June 30	Actives	Retirees	Total
2008	\$18,019,616	\$349,488,205	\$367,507,821
2009	45,611,256	350,688,291	396,299,547
2010	75,454,087	351,946,729	427,400,816
2011	107,136,606	352,376,350	459,512,956
2012	140,396,912	352,298,827	492,695,739
2013	175,377,236	351,945,364	527,322,600
2014	212,033,519	351,153,574	563,187,093
2015	249,917,160	350,321,842	600,239,002
2016	288,632,978	348,564,187	637,197,165
2017	328,182,553	346,375,632	674,558,185

Supplementary Medical Premium Benefits

Year Ending June 30	Actives	Retirees	Total
2008	\$1,203,348	\$16,833,739	\$18,037,087
2009	2,554,061	16,507,358	19,061,419
2010	3,915,567	16,197,935	20,113,502
2011	5,280,700	15,876,720	21,157,420
2012	6,658,034	15,529,554	22,187,588
2013	8,026,087	15,190,329	23,216,416
2014	9,377,691	14,828,982	24,206,673
2015	10,671,296	14,545,535	25,216,831
2016	11,911,269	14,219,916	26,131,185
2017	13,144,549	13,913,117	27,057,666



APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
COMPARATIVE SUMMARY OF MEMBER DATA

	Actuarial Valuation as of		%
	7/1/2007	7/1/2006	Change
Summary of Data			
1. Active members			
a. Number			
i) Active members	43,666	43,488	0.4%
ii) Members without an application	1,046	1,984	(47.3%)
iii) Total	44,712	45,472	(1.7%)
b. Annual compensation	\$ 1,626,737,832	\$ 1,568,350,023	3.7%
c. Average annual compensation	36,383	34,490	5.5%
d. Average age	46.3	46.2	0.2%
e. Average service	10.7	10.7	0.0%
2. Accumulated member contributions			
a. Active members	\$ 409,159,195	\$ 383,989,541	6.6%
b. Unclaimed contribution amounts	18,972,309	17,397,925	9.0%
c. Members without applications	510,956	1,868,655	(72.7%)
d. Total	\$ 428,642,460	\$ 403,256,121	6.3%
3. Vested terminated members			
a. Number	4,030	4,150	(2.9%)
b. Annual deferred benefits	\$ 33,334,936	\$ 33,334,936	0.0%
c. Average annual deferred benefit	8,272	8,033	3.0%
d. Annual supplemental medical insurance premiums	\$ 5,077,800	\$ 5,229,000	(2.9%)
4. Assumed deferred vested - count	1,607	1,418	13.3%
5. Retired members			
a. Number	21,349	20,672	3.3%
b. Annual retirement benefits	\$ 312,237,017	\$ 297,237,745	5.0%
c. Average annual retirement benefit	14,625	14,379	1.7%
d. Annual supplemental medical insurance premiums	\$ 15,871,273	\$ 15,780,446	0.6%
6. Beneficiaries			
a. Number	2,496	2,381	4.8%
b. Annual retirement benefits	\$ 22,362,876	\$ 20,882,510	7.1%
c. Average annual deferred benefit	\$ 8,959	\$ 8,770	2.2%
7. Disabled members			
a. Number	1,388	1,319	5.2%
b. Annual retirement benefits	\$ 12,332,336	\$ 11,616,411	6.2%
c. Average annual retirement benefit	8,885	8,807	0.9%
d. Annual supplemental medical insurance premiums	\$ 980,954	\$ 949,673	3.3%
8. Total members included in valuation	75,582	75,412	0.2%

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
MEMBER DATA RECONCILIATION

	Active Members	Vested Terminated	Receiving Benefits			Total Members
			Retirees	Disability Retirees	Benefici- aries	
As of July 1, 2006	45,472	5,568	20,672	1,319	2,381	75,412
Age retirements	(1,141)	(281)	1,422	0	0	0
Disability retirements	(60)	(47)	0	107	0	0
Deaths without payments continuing	(51)	(23)	(619)	(37)	(103)	(833)
Deaths with payments continuing	(26)	(29)	(153)	(9)	217	0
Nonvested terminations/refund of contributions	(3,499)	(110)	0	0	0	(3,609)
Vested terminations	(671)	671	0	0	0	0
Transfers	0	0	0	0	0	0
Data adjustments	0	15	27	8	1	51
Rehires	127	(127)	0	0	0	0
New entrants during the year	5,499	0	0	0	0	5,499
No applications (net change)*	(938)	0	0	0	0	(938)
Net Change	(760)	69	677	69	115	170
As of July 1, 2007	44,712	5,637	21,349	1,388	2,496	75,582

*Members contributing to the System but for whom no enrollment application has been received.

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DATA TAPE RECONCILIATION

	Active	Retired	Vested Terminated	Total
Records submitted on data tape	43,795	41,934	4,062	89,791
Remove deceased retiree records	0	(16,701)	0	(16,701)
Remove unusable data	(15)	0	0	(15)
Remove those with another status	(114)	0	(32)	(146)
Add those with no application	1,046	0	0	1,046
Add assumed vesteds	<u>0</u>	<u>0</u>	<u>1,607</u>	<u>1,607</u>
Total valued	44,712	25,233	5,637	74,582

**APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF MEMBERSHIP DATA**

ACTIVE MEMBER DATA

	7/1/2007	7/1/2006
Regular		
Number	40,538	40,353
Average Current Age	46.5	46.4
Average Service	10.8	10.8
Average Pay	\$36,521	\$34,908
Elected Officials		
Number	758	767
Average Current Age	53.1	53.7
Average Service	14.3	14.9
Average Pay	\$45,548	\$44,774
Hazardous Duty		
Number	2,370	2,368
Average Current Age	40.6	40.0
Average Service	8.6	8.3
Average Pay	\$35,783	\$32,194
Total		
Number*	43,666	43,488
Average Current Age	46.3	46.2
Average Service	10.7	10.7
Average Pay	\$36,638	\$34,934

*Count excludes those with no application



**APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF MEMBERSHIP DATA**

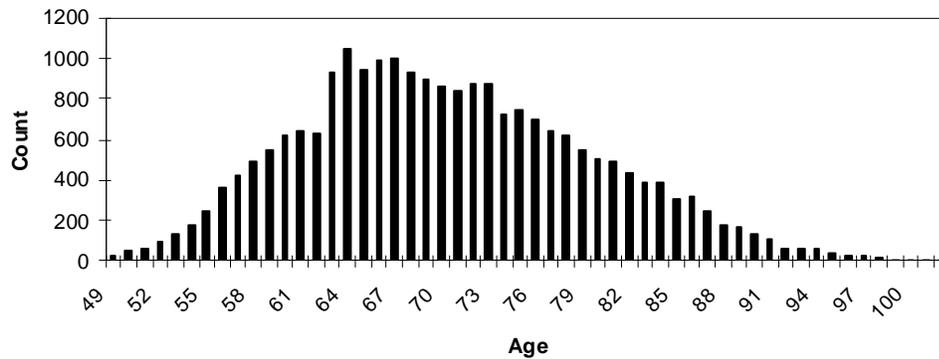
INACTIVE MEMBER DATA

	7/1/2007	7/1/2006
Retirees		
Number	21,349	20,672
Average Annual Benefit	\$14,625	\$14,379
Average Age	70.9	70.9
Disability Retirees		
Number	1,388	1,319
Average Annual Benefit	\$8,885	\$8,807
Average Age	60.6	60.2
Beneficiaries		
Number	2,496	2,381
Average Annual Benefit	\$8,959	\$8,770
Average Age	71.9	71.6
Total		
Number	25,233	24,372
Average Annual Benefit	\$13,749	\$13,529
Average Age	70.4	70.4
Vested Members		
Number	5,637	5,568
Average Annual Benefit	\$9,654	\$9,754
Average Age	50.5	50.4



APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of July 1, 2007

All Retirees (excluding Beneficiaries)

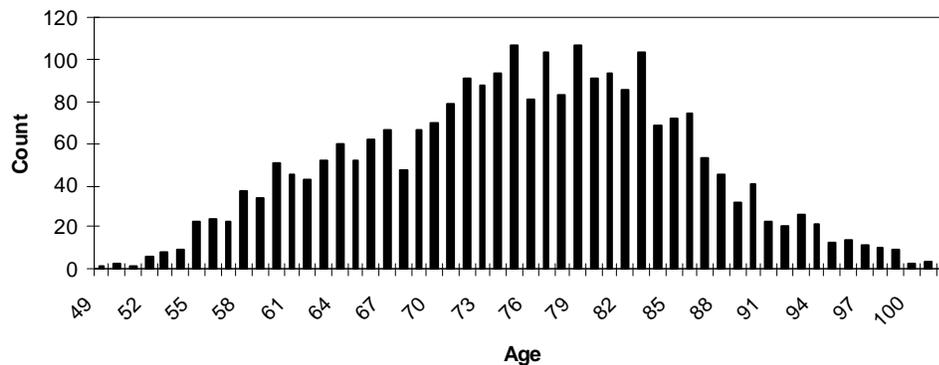


Count: 22,737

Average age: 70.3

Average benefit: \$ 14,275

Beneficiaries



Count: 2,496

Average age: 71.9

Average benefit: \$ 8,959



APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF VESTED MEMBERS
as of July 1, 2007



Count: 5,637

Average age: 50.5

Average benefit: \$ 9,654

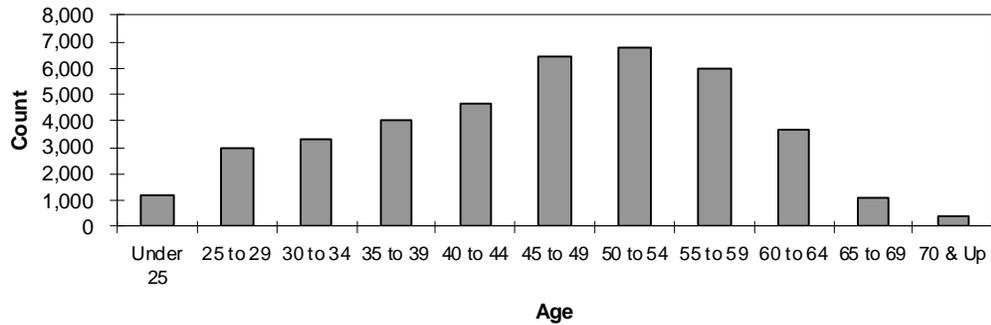
Includes assumed vested members

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of July 1, 2007

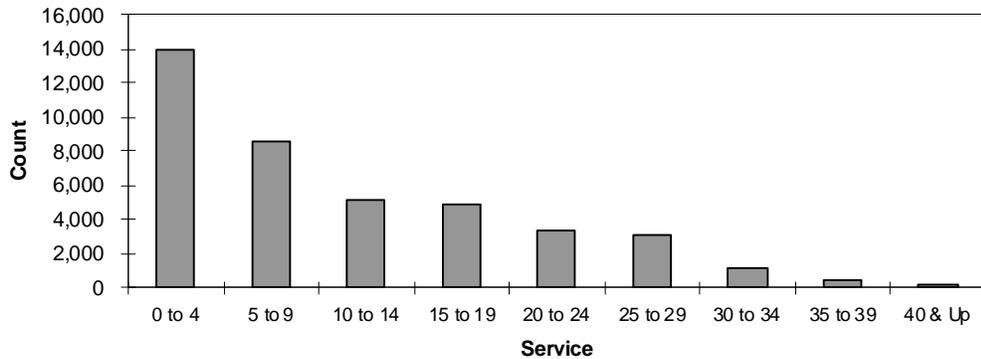
Regular Members

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	1,165	18	0	0	0	0	0	0	0	1,183
25 to 29	2,444	472	10	0	0	0	0	0	0	2,926
30 to 34	1,901	1,216	223	4	0	0	0	0	0	3,344
35 to 39	1,715	1,212	785	269	14	0	0	0	0	3,995
40 to 44	1,547	1,074	791	829	377	72	0	0	0	4,690
45 to 49	1,664	1,256	845	945	870	827	47	0	0	6,454
50 to 54	1,493	1,221	814	988	768	1,044	415	52	1	6,796
55 to 59	1,111	1,071	810	901	693	645	460	228	33	5,952
60 to 64	643	700	554	608	436	338	180	161	77	3,697
65 to 69	161	222	210	206	114	79	42	24	21	1,079
70 & Up	84	72	70	91	40	33	15	4	13	422
Total	13,928	8,534	5,112	4,841	3,312	3,038	1,159	469	145	40,538

Age Distribution



Service Distribution



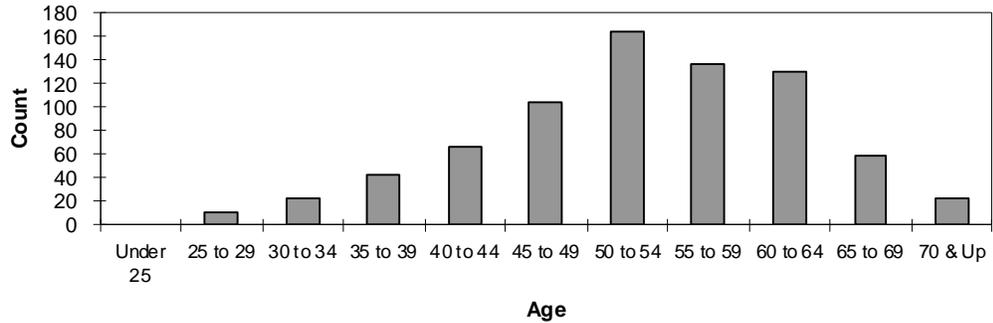
Excludes members who have not filed an application

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of July 1, 2007

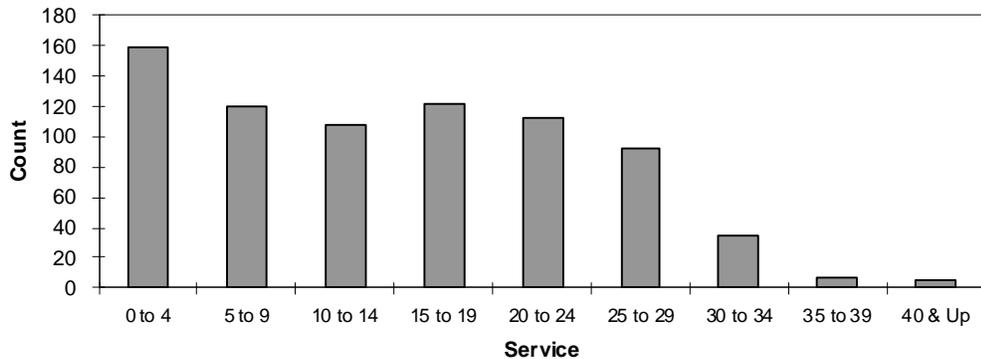
Elected Members

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	9	1	0	0	0	0	0	0	0	10
30 to 34	13	5	4	0	0	0	0	0	0	22
35 to 39	14	17	10	1	0	0	0	0	0	42
40 to 44	19	7	9	19	8	4	0	0	0	66
45 to 49	16	20	14	15	19	19	1	0	0	104
50 to 54	29	20	16	24	33	30	12	1	0	165
55 to 59	24	14	19	26	24	13	13	4	0	137
60 to 64	21	18	18	27	16	21	7	1	2	131
65 to 69	10	13	14	4	10	4	2	0	2	59
70 & Up	4	5	4	5	2	1	0	0	1	22
Total	159	120	108	121	112	92	35	6	5	758

Age Distribution



Service Distribution

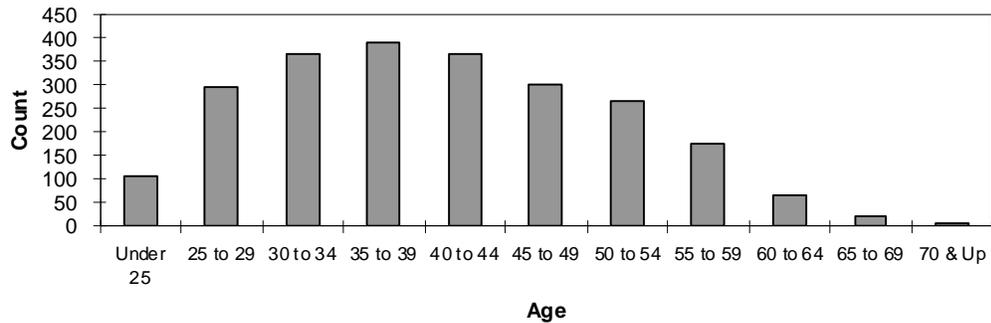


**APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of July 1, 2007**

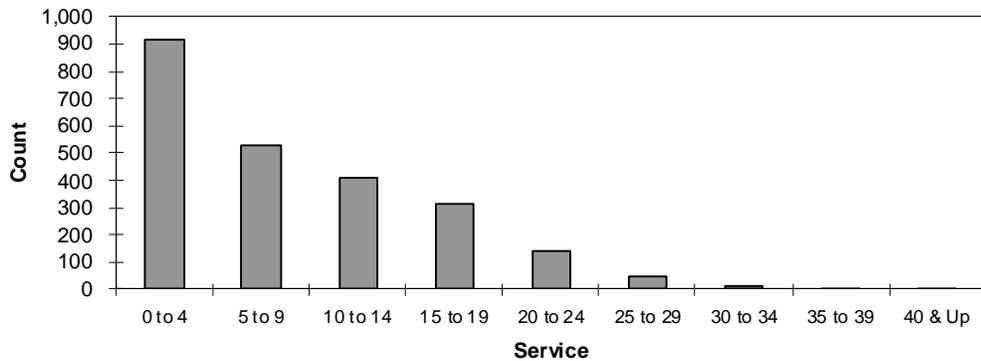
Hazardous Duty Members

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	108	0	0	0	0	0	0	0	0	108
25 to 29	252	47	0	0	0	0	0	0	0	299
30 to 34	182	136	48	0	0	0	0	0	0	366
35 to 39	130	114	114	35	0	0	0	0	0	393
40 to 44	88	71	74	106	26	1	0	0	0	366
45 to 49	57	61	56	67	49	10	1	0	0	301
50 to 54	56	46	54	54	31	21	5	1	0	268
55 to 59	30	32	38	36	22	13	3	2	0	176
60 to 64	7	18	16	13	9	2	1	0	0	66
65 to 69	3	4	4	4	1	2	0	0	1	19
70 & Up	1	3	2	1	0	1	0	0	0	8
Total	914	532	406	316	138	50	10	3	1	2,370

Age Distribution



Service Distribution



APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS

Following is a summary of the major System provisions used in the actuarial valuation of the System.

Effective date and fiscal year	The System became effective January 1, 1964. The fiscal year is July 1 to June 30.
Administration	The System is administered by a 13 member Oklahoma Public Employees Retirement System Board of Trustees. The Board acts as the fiduciary for investment and administration of the System.
Employees included	<p>All permanent employees of the State of Oklahoma, legislated agencies, and any other employer such as county, county hospital, city, or trust in which a municipality is the primary beneficiary, are eligible to join if:</p> <ul style="list-style-type: none">- the employee is not eligible for or participating in another retirement system authorized under Oklahoma law, is covered by Social Security and not participating in the U.S. Civil Service retirement System,- the employee is scheduled for 1,000 hours per year and salary is not less than the hourly rate of the monthly minimum wage for State employees (for employees of local government employers, not less than the hourly rate of the monthly minimum wage for such employees). <p>Membership is mandatory for new eligible employees on the first of the month following employment.</p>
Employer and employee contributions	<p>Most State employees except elected officials and Hazardous Duty employees:</p> <p style="margin-left: 40px;">Employee: 3.5% Employer: 13.5%* Total: 17.0%</p> <p>*The employer contribution rate will increase by 1% annually through the fiscal year ending June 30, 2011 at which time it reaches 16.5%.</p> <p>Prior to July 1, 2006 the employee contribution rate varied on pay above/below \$25,000 as shown in the chart at the end of this section. This plan provision was changed by the 2006 Legislature.</p> <p>Elected officials select a contribution rate of 4.5%, 6%, 7.5%, 8.5%, 9%, or 10% which determines the computation factor used in determining their benefit.</p>



APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Employer and employee contributions
(continued)

Contributions for Hazardous Duty employees are summarized at the end of this appendix.

Local government employees contribute from 3.5% to 8.5% of pay, depending on the rate chosen by their employers.

Starting in 2004, regular members may make an election to contribute an additional 2.91% of pay and increase their accrual rate for future years of service to 2.5% (referred to as Step-Up Option).

Contributions are based on compensation defined by the Board.

Contribution Summary: Regular State Contributions (By Statute)

Fiscal Year	For Pay Under \$25,000			Applicable Salary Cap
	Employer Contribution	Employee Contribution	Total Contribution	
1994-1995	11.5%	2.0%	13.5%	\$50,000
1995-1996	11.5%	2.0%	13.5%	\$60,000
1996-1997	12.0%	2.5%	14.5%	\$70,000
1997-1998	12.5%	3.0%	15.5%	\$80,000
1998-1999	12.5%	3.0%	16.0%	No Cap
1999-2005	10.0%	3.0%	13.0%	No Cap
2005-2006	11.5%	3.0%	14.5%	No Cap

Fiscal Year	For Pay Between \$25,000 and Cap			Applicable Salary Cap
	Employer Contribution	Employee Contribution	Total Contribution	
1994-1995	11.5%	3.5%	15.0%	\$50,000
1995-1996	11.5%	3.5%	15.0%	\$60,000
1996-1997	12.0%	3.5%	15.5%	\$70,000
1997-1998	12.5%	3.5%	16.0%	\$80,000
1998-1999	12.5%	3.5%	16.0%	No Cap
1999-2005	10.0%	3.5%	13.5%	No Cap
2005-2006	11.5%	3.5%	15.0%	No Cap

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS

(continued)

Employer and employee contributions
(continued)

Fiscal Year	For All Pay		Total Contribution
	Employer Contribution	Employee Contribution	
2006-2007	12.5%	3.5%	16.0%
2007-2008	13.5%	3.5%	17.0%
2008-2009	14.5%	3.5%	18.0%
2009-2010	15.5%	3.5%	19.0%
2010-2011	16.5%	3.5%	20.0%

Service

Prior service

All service of the employee prior to the employer's entry date is credited prior service providing the participating employer joined on or before January 1, 1975. Prior service for employees of employers who join after January 1, 1975, may be purchased by the employee. Prior service is allowed for certain active wartime military service (maximum 5 years credit) for members employed prior to July 1, 2000 and for employment with public schools or Board of Regents for Higher Education prior to July, 1943. Service need not be continuous employment to be credited.

Participating service

After the employer's entry date, a member's participating service is credited for all periods of employment for which required contributions are made. Service is prorated according to hours worked per month on and after July 1, 1979. Certain active wartime military service is credited, provided the contribution accumulation is not withdrawn. Active and retired members are credited with additional participating service based on their accumulated contributions prior to June 30, 1977 (if not withdrawn prior to retirement), according to the following:

<u>Member Accumulation</u>		<u>Additional Years</u>
\$ 1	to \$ 500	1
501	to 1,000	2
1,001	to 1,500	3
1,501	to 2,000	4
2,001	or More	5

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

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Service (continued)

Participating service

A member may receive credit for those years of service as an elected official if the member is not receiving credit for that service in any other public retirement system. The member must pay an amount equal to the actuarial cost to fund the difference between the member's projected benefits with and without the additional service credit.

The total participating service of a member who retires or terminates employment and elects a vested benefit shall include up to one hundred thirty (130) days of unused sick leave accumulated subsequent to August 1, 1959, during the member's employment with any participating employer. Such credit shall be added in terms of whole months. If unused sick leave entitles the member to an additional year of service, the additional cost is borne by the employer.

A member may receive credit for those years of credited service accumulated by the member while a member of the Oklahoma Firefighters Pension and Retirement System, the Oklahoma Police Pension and Retirement System, the Uniform Retirement System for Justices and Judges, the Oklahoma Law Enforcement Retirement System, or the Teachers' Retirement System of Oklahoma, if the member is not receiving or eligible to receive retirement credit or benefits from this service in any other public retirement system. The member may receive credit for this service by paying the amount actuarially determined to cover the cost of the previous service.

Credited service

Credited service equals prior service plus participating service. This service is added together and the result is rounded up to the next year if the number of remaining months is equal to or greater than six.

Compensation

The member's basic salary and wages as defined by the Board of Trustees includes amounts for deferred tax sheltered annuities. Overtime and moving expenses are excluded. Any compensation in excess of the maximum applicable amount is excluded.



APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Final average compensation

The average of the thirty-six highest months of compensation earned within the last ten (10) years of participating service, subject to any applicable salary caps and on which contributions have been made.

For all members hired prior to July 1, 1995, the minimum final average compensation is \$13,800. For members hired on or after July 1, 1995, no minimum is applied until the member has fifteen (15) years of service. For members with between fifteen (15) and twenty (20) years of service, the minimum final average compensation is \$6,900. For members with more than twenty (20) years of service, the minimum is \$13,800.

Normal retirement date

Normal retirement is the earliest of: first day of the month coinciding with or next following the 62nd birthday; or, the first day of the month coinciding with or following the date at which the sum of a member's age and number of years of credited service total eighty (80) if the member was hired prior to July 1, 1992; or following the date at which the sum of member's age and number of years of credited service total ninety (90) if the member was hired after July 1, 1992. Members employed after January 1, 1983 must complete at least six years of full-time equivalent employment with a participating employer before receiving any retirement benefits.

The normal retirement date for elected officials is the first of the month coinciding with or following the official's 60th birth date or the first day of the month coinciding with or following the date at which the sum of the member's age and years of credited service total eighty (80).

Normal retirement benefit

The benefit on or after normal retirement, payable monthly for life to non-elected members, is as follows:

2% of final average compensation multiplied by years of credited service.

For members who have elected the Step-Up Option, a 2.5% multiplier is applied to the full "stepped-up" years.

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

The benefit payable monthly for life to elected officials is the greater of 1) the preceding benefit, or 2) the benefit calculated using highest annual compensation as an elected official times credited service multiplied by the following applicable contribution rate):

<u>% of Compensation Contributed</u>	<u>% of Highest Annual Compensation</u>
4.5%	1.9%
6.0	2.5
7.5	3.0
8.5	3.4
9.0	3.6
10.0	4.0

Elected officials who became members after July 1, 1990 must participate in the System as an elected official for at least six years to qualify for the elected official benefit formula.

Early retirement benefit

A member with at least ten (10) years of participating service may retire as early as age 55. The benefit is determined by the normal retirement formula based on years of credited service and Final Average Compensation (highest annual compensation for elected officials) at termination. The percentage payable at early retirement age is:

<u>Elected Officials</u>		<u>Other Members</u>	
Age	Percentage	Age	Percentage
60	100%	62	100.0%
59	94	61	93.3
58	88	60	86.7
57	82	59	80.0
56	76	58	73.3
55	70	57	66.7
		56	63.3
		55	60.0

Disability benefit

A member with at least eight (8) years of credited service is eligible for a disability benefit provided the member qualifies for disability benefits as certified by the Social Security Administration or the Railroad Retirement Board within one year after the date last physically on the job. The benefit is determined by the normal retirement formula based on service and salary history at date of disability. The benefit is payable immediately without actuarial reduction.

Option A is the only available form of survivor payment.

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Vested benefit

A member who terminates after eight years of credited service (six years for elected officials) is eligible for a vested benefit determined by the normal retirement formula, based on service and compensation to date of termination.

The benefit is payable at age 62 (or age 60 if an elected official), provided the member's contribution accumulation is not withdrawn and the member has at least six years of full time equivalent employment. A member with 10 or more years of service also has the option of reduced benefits at early retirement age.

Members terminating with less than eight years (or six years if an elected official) of credited service may elect to receive a refund of their contribution accumulation.

A limited additional retirement service benefit of \$200 per month is payable up to the total of excess contributions paid by the member for those vested members as of July 1, 1998. This is not applicable for active members who received a transfer of excess contributions or retired members as of July 1, 1998.

Preretirement death benefit

The spouse of a deceased active member who had met normal, early or vested retirement provisions may elect a spouse's benefit. The spouse's benefit is the benefit that would have been paid if the member had retired and elected the joint and 100% survivor option (Option B). If named as the designated beneficiary, the spouse may elect a refund of the member's contribution accumulation in lieu of the Option B monthly benefit.

In addition to the provisions above, the eligible spouse of a deceased elected official with at least six (6) years of elected service and married at least three years immediately preceding death may elect to receive 50% of the benefit the member would be eligible to receive. The starting date of benefits is the date the deceased member would have been eligible for early or normal retirement. Benefits cease upon death or remarriage of the surviving spouse.

Any other designated beneficiary of a member other than an eligible spouse will receive a refund of the members' contribution accumulation.

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Post-retirement death benefit

Upon the death of a retired member, a \$5,000 lump-sum death benefit will be paid to the member's beneficiary, or estate if there is no beneficiary.

Optional forms of retirement benefits

The normal form of benefit for a single member other than an elected official is a single life monthly annuity with a guaranteed refund of the contribution accumulation. The normal form for a married member is a 50% joint and survivor annuity benefit. Optional forms of payment with actuarial reduction are available to all members retiring under the normal retirement, early retirement or vested retirement provisions. These options are:

Option A – Joint and 50% Survivor Annuity with a return to the unreduced amount if the joint annuitant dies.

Option B – Joint and 100% Survivor Annuity with a return to the unreduced amount if the joint annuitant dies.

Option C – Life Annuity with a minimum of 120 monthly payments.

For married members, spousal consent is required for any option other than Option A.

Medicare Gap Benefit Option allows members under age 65 to receive a higher benefit before age 65 (to help pay health insurance premiums) and a permanently lower benefit after age 65.

Post-retirement medical benefit

The System will contribute the lesser of \$105 per month or the Medicare Supplement Premium to the Oklahoma State and Education Employee's Group Health Insurance Program (or other eligible employer health plans) for members receiving retirement benefits.

Expenses

The expenses of administering the retirement system are paid from the retirement trust fund.

**Hazardous Duty Members
(Department of Corrections,
Oklahoma Military Department Firefighters)
Benefits**

Members covered by the Hazardous Duty Provisions have the retirement eligibility requirements, contribution rates and benefit formula described below.

Department of Corrections:

The normal retirement is the earliest of: 20 years of service as a member covered by the Department of Corrections Hazardous Duty Provisions; or, the first day of the month coinciding with or next following the 62nd birthday; or, the first day of the month coinciding with or following the date at which the sum of a member's age and number of years of credited

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Hazardous Duty Members
(Department of Corrections,
Oklahoma Military Department Firefighters)
Benefits (continued)

service total eighty (80) if the member was hired prior to July 1, 1992, or following the date at which the sum of a member's age and number of years of credited service total ninety (90) if the member was hired after July 1, 1992. Members employed after January 1, 1983 must complete at least six years of full-time equivalent employment with a participating employer before receiving any retirement benefits. The benefit formula is 2.5% of final average compensation, multiplied by the number of years of service as an eligible officer for service, not exceeding 20 years. For service in excess of 20 years the benefit formula is 2% of final average compensation.

Members eligible for these benefits with at least five years of experience in their positions on or after June 30, 2004 remain eligible to retire after 20 years even if they transfer to positions within DOC that are not eligible to retire after 20 years.

Special Surviving Spouse and Child benefits for any member employed by the Department of Corrections (DOC) killed or mortally wounded during the performance of duty are equal to 2.5% of final average monthly compensation multiplied by the greater of the member's actual service or 20 years.

In addition, an amount of \$400 per month will be paid as long as a child of the deceased member is under the age of 18 (or 22 if enrolled fulltime at an institution of higher education).

Contributions for members covered by the Department of Corrections Hazardous Duty Provisions are:

<u>Year</u>	<u>Up to \$25,000</u>	<u>Above \$25,000</u>	
1994/1995	6.5%	8.0%	
1995/1996	6.5%	8.0%	
1996/1997	7.0%	8.0%	
1997/1998	7.5%	8.0%	
	First 20 Years of Service	<u>Service Beyond 20 Years</u>	
		<u>Up to \$25,000</u>	<u>Above \$25,000</u>
1998/1999	8.0%	3.0%	0.0%
1999/2000	8.0%	3.0%	0.0%
2000 and on	8.0%	3.0%	3.5%

APPENDIX B
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF SYSTEM PROVISIONS
(continued)

Hazardous Duty Members
(Department of Corrections,
Oklahoma Military Department Firefighters)
Benefits (continued)

Oklahoma Military Department Firefighters:

The benefit for Oklahoma Military Department firefighters who began employment July 1, 2002 and after is based on a 2.5% benefit multiplier. They are also eligible for full benefits after 20 years as a firefighter and their employee contribution rate is 8%. Oklahoma Military Department firefighters employed prior to July 1, 2002 were given a one time option to (a) have their benefit formula, retirement eligibility, and employee contribution rate remain unchanged, (b) apply the new provisions (including the new contribution rate) to service after January 1, 2003, or (c) apply the new benefit formula and retirement eligibility to all of the member's service, apply the 8% contribution rate for service after July 1, 2002, and make a contribution equal to the increase in the actuarial value of the member's retirement benefit.

In contrast to DOC members, the 2.5% formula and 8% contribution rate applies to service after 20 years.



APPENDIX C

OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Cost Method

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

Sometimes called "funding method," this is a particular technique used by actuaries for establishing the amount of the annual actuarial cost of pension System 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.

Asset Valuation Method

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

- at the beginning of each fiscal 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 fiscal 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 fiscal year;
- the difference between the expected actuarial asset value and the market value is the investment gain or loss for the previous fiscal year;
- the (final) actuarial asset value is the preliminary value plus 20% of the investment gains and losses for each of the five previous fiscal years, but in no case more than 120% of the market value or less than 80% of the market value.

Amortization Method

The Unfunded Actuarial Accrued Liability is amortized as a level dollar amount over a 40 year period from July 1, 1987. Given a stable active workforce, this amortization method is expected to produce a payment stream that decreases as a percent of covered payroll.

APPENDIX C
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL METHODS AND ASSUMPTIONS
(continued)

Valuation Procedures

No actuarial accrued liability in excess of the unclaimed contributions 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 has not occurred as of the valuation date.

The wages used in the projection of benefits and liabilities are considered earnings for the year ending June 30, 2007, increased by the salary scale to develop expected earnings for the current valuation year. Earnings are annualized for members with less than twelve months of reported earnings.

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

The calculations for the required employer contribution are determined as of mid-year. This is a reasonable estimate since contributions are made on a monthly basis throughout the year.

We did not value the 415 limit for active participants. The impact was assumed to be *de minimus*.

The compensation limitation under IRC Section 401(a)(17) is considered in this valuation.

Liability is included for members who appear to be deferred vested, but who are not in the vested data provided. An estimated benefit was calculated based on pay and service from prior valuations. A corrected benefit and status will be provided by the System when the actual benefit and status have been finalized.

Included in the valuation are "Members Without Applications." These members are contributing to the System but have not yet filled out an enrollment application. For these members, amounts are added to the active liability and normal cost based on the average liability and normal cost for a new member. They are also assigned the average compensation for new members. Additional compensation equal to the average for new members is added to total earnings so that these members would be reflected in the normal cost contribution.

A liability is included for contribution amounts due to be refunded to terminated vested members who made voluntary contributions to increase the maximum compensation limit prior to July 1, 1998. The System supplied the included amounts.

The System uses an assumption of a 2% annual COLA each year in developing liabilities and contribution rates. The System does not have an automatic COLA provision, but ad hoc COLAs have historically been granted by the Legislature every other year. In order to avoid actuarial gains in the year in which a COLA is not granted and an actuarial loss in the years in which a COLA is granted, the System's liabilities include a "COLA Reserve". The COLA Reserve is included in the actuarial accrued liability to account for expected cost of living adjustments to the benefits of retired participants that have not been granted by the valuation date. Any ad hoc increase granted will decrease the reserve amount by the cost of the increase. When the cost of an ad hoc increase is greater than the amount of the reserve, the reserve is set to zero and the period for calculating ungranted increases is set to the valuation date.

APPENDIX C
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL METHODS AND ASSUMPTIONS

(continued)

SUMMARY OF ACTUARIAL ASSUMPTIONS

Economic Assumptions

Investment Return: 7.5% net of investment expenses per annum, compounded annually.

Salary Increases: Sample rates below (midpoint of range shown):

<u>Nearest Age</u>	<u>% Increase</u>
20 - 24	9.0
25 - 29	8.0
30 - 34	6.7
35 - 39	6.1
40 - 44	5.8
45 - 49	5.4
50 - 54	5.1
55 - 59	5.1
60 - 64	5.1
65+	5.1

Ad hoc benefit increase assumption:
 Monthly benefits 2% per year.
 Medical supplement No increases assumed.

Projection of 401(a)(17) compensation limit: Projected with inflation at 2.5%.

APPENDIX C
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL METHODS AND ASSUMPTIONS
(continued)

Demographic Assumptions

Retirement age:

Elected and non-elected members		Annual Rates of Retirement Per 100 Eligible Members	
<u>Nearest Age</u>	<u>Those Eligible For Unreduced Retirement</u>	<u>Those Not Eligible For Unreduced Retirement</u>	
50	10	N/A	
51	10	N/A	
52	10	N/A	
53	10	N/A	
54	10	N/A	
55	10	4	
56	10	5	
57	11	5	
58	12	6	
59	13	7	
60	14	7	
61	35	20	
62	30	N/A	
63	15	N/A	
64	25	N/A	
65	30	N/A	
66	25	N/A	
67	23	N/A	
68	22	N/A	
69	21	N/A	
70	100	N/A	

APPENDIX C
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL METHODS AND ASSUMPTIONS
(continued)

Demographic Assumptions (continued)

Retirement age (continued):

Hazardous Duty	Annual Rates of Retirement Per 100 Eligible Members			
	<u>Service</u>	<u>Rate</u>	<u>Nearest Age</u>	<u>Less than 20 Years of Service</u>
	20-21	25	50	N/A
	21-30	18	51	N/A
	30+	100	52	N/A
			53	N/A
			54	N/A
			55	4
			56	5
			57	5
			58	6
			59	7
			60	7
			61	20
			62	40
			63	22
			64	25
			65	40
			66	25
			67	23
			68	22
			69	21
			70	100

Mortality Rates:

Active Participants and nondisabled pensioners	RP-2000 Combined Active/Retiree Healthy Mortality Table projected to 2010 using Scale AA.
Disabled pensioners	RP-2000 Combined Active/Retiree Healthy Mortality Table projected to 2010 using Scale AA set forward 15 years for disabled experience.
Hazardous Duty	For Department of Corrections officers, we assumed the mortality rate is 10% higher than the above table while the participant is active. This 10% is assumed to be in-line-of-duty.

APPENDIX C
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL METHODS AND ASSUMPTIONS
(continued)

Demographic Assumptions (continued)

Disability Rates:

Graduated rates
Disabled rates per 100 members

Nearest <u>Age</u>	<u>Male</u>	<u>Female</u>
20	.01	.01
30	.02	.03
40	.08	.10
50	.41	.31
60	.85	.63

Withdrawal Rates:

<u>Age</u>	<u>0-2 Years</u>	<u>2-3 Years</u>	<u>3-4 Years</u>	<u>4-5 Years</u>	<u>Over 5 Years</u>
25	0.2355	0.1891	0.1709	0.1369	0.1426
30	0.2210	0.1704	0.1554	0.1268	0.1004
35	0.2044	0.1535	0.1365	0.1215	0.0769
40	0.1809	0.1398	0.1207	0.1094	0.0589
45	0.1667	0.1248	0.1131	0.0945	0.0468
50	0.1400	0.1085	0.1029	0.0834	0.0436
55	0.1314	0.0934	0.0869	0.0704	0.0436

Marital Status:

Percentage married

Males: 85%; Females: 85%

Age difference

Males are assumed to be four years older than spouses.

Children:

Special death benefits are provided upon the in-line-of-duty death of Department of Corrections employees who have young children. We have assumed the average age of the youngest child of such employees is nine and that 50% of such children will attend an institution of higher education to age 22.

Form of Payment:

Participants are assumed to elect a life-only form of payment and are assumed to not elect a return of contributions if they are vested.

APPENDIX C
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL METHODS AND ASSUMPTIONS

(continued)

Other Assumptions

Assumed age of commencement for deferred benefits

Currently active members assumed to terminate in the future prior to retirement eligibility are assumed to benefits at age 62 (non-elected members) or age 60 (elected members). Currently inactive members with deferred benefits are assumed to commence benefits on a date provided by OPERS.

Provision for expenses

Administrative expenses, as budgeted by the Oklahoma Public Employees Retirement System.

APPENDIX D
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
GLOSSARY OF TERMS

Actuarial Accrued Liability	The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as “accrued liability” or “actuarial liability”.
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the “actuarial funding method”.
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

APPENDIX D
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
GLOSSARY OF TERMS
(continued)

Unfunded Actuarial Accrued Liability The difference between actuarial accrued liability and the valuation assets. Sometimes referred to as “unfunded actuarial liability” or “unfunded accrued liability”.

Most retirement systems have unfunded actuarial accrued liability. They arise each time new benefits are added and each time an actuarial loss is realized.

The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).

ADDENDUM

ADDENDUM
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
CERTIFICATION

We have prepared an actuarial valuation of the State of Oklahoma Public Employees Retirement System as of July 1, 2007, for the fiscal year ending June 30, 2008. The results of the valuation are set forth in this addendum, which reflects the benefit provisions in effect on July 1, 2007.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete, or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

The results in this Addendum have been prepared for the sole purpose of meeting the Retirement Board's requirement to submit this information to the Oklahoma State Pension Commission, based on the following prescribed assumptions (74 Okla.Stat, Section 909.1(H)):

- Interest rate: 7.50%
- COLA assumption: 2.00%
- Mortality: RP-2000 Mortality Table for Employees, Healthy Retirees and Disabled Retirees with Mortality Projected Forward from 2000 using Scale AA.
- Amortization period: 30 years, open period
- Sources of all contributions and revenues, including dedicated tax free revenue and federal monies

All other assumptions, methodologies, and System provisions used are consistent with those used in the July 1, 2007 valuation.

The results shown in this Addendum are not consistent with those in the July 1, 2007, valuation. The July 1, 2007, valuation results were determined in accordance with generally accepted actuarial principles and practices that are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying opinion and supporting recommendations of the American Academy of Actuaries. The results shown in this Addendum are not based on the assumptions and methodologies adopted by the Retirement Board. For those results, see the July 1, 2007, actuarial valuation.

Milliman's work product was prepared exclusively for the Oklahoma Public Employees Retirement System (OPERS) for a specific and limited purpose. It is a complex technical analysis that assumes a high level of knowledge concerning OPERS' operations, and used OPERS data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose other than to provide the required reporting to the Oklahoma State Pension Commission. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage a qualified professional for advice appropriate to its own specific needs.

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

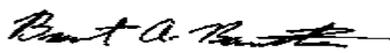
The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.



Patrice A. Beckham, F.S.A.

October 18, 2007

Date



Brent A. Banister, F.S.A.

October 18, 2007

Date

ADDENDUM

OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM SUMMARY OF VALUATION RESULTS UNDER PRESCRIBED ASSUMPTIONS

This supplemental report has been prepared to present the results of a valuation of the State of Oklahoma Public Employees Retirement System as of July 1, 2007, based on the prescribed assumptions under 74 Okla.Stat, Section 909.1(H), of current statutes and regulations issued thereunder.

A summary of principal valuation results from the current and the prior valuation follows.

	Actuarial Valuation as of		Change Between Years	
	July 1, 2007	July 1, 2006	Amount	Percent
Summary of Costs				
Required employer contribution for current year	\$350,874,899	\$333,987,922	\$16,886,977	5.1%
Actual employer contributions received in prior year	197,756,938	171,273,052	26,483,886	15.5%
Funded Status				
Actuarial accrued liability	\$8,527,422,705	\$8,080,284,787	\$447,137,918	5.5%
Actuarial value of assets	6,110,230,058	5,654,276,043	455,954,015	8.1%
Unfunded actuarial accrued liability	2,417,192,647	2,426,008,744	(8,816,097)	-0.4%
Funded Ratio	71.7%	70.0%	1.7%	2.4%
Market Value of Assets and Additional Liabilities				
Market value of assets	\$6,640,477,411	\$5,817,165,538	\$823,311,873	14.2%



ADDENDUM

OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM SUMMARY OF VALUATION RESULTS UNDER PRESCRIBED ASSUMPTIONS (continued)

This supplemental report has been prepared to present the results of a valuation of the State of Oklahoma Public Employees Retirement System as of July 1, 2007, based on the prescribed assumptions under 74 Okla.Stat, Section 909.1(H), of current statutes and regulations issued thereunder.

A summary of principal valuation results from the current and the prior valuation follows.

	Actuarial Valuation as of		Percent Change in Amount
	July 1, 2007	July 1, 2006	
	Amount	Amount	
Summary of Contribution Requirements			
1. Expected annual payroll	\$ 1,626,737,832	\$ 1,568,350,023	3.7%
2. Total normal cost	\$ 208,163,852	\$ 186,295,904	11.7%
3. Unfunded actuarial accrued liability	\$ 2,417,192,647	\$ 2,426,008,744	(0.4%)
4. Amortization of unfunded actuarial accrued liability over 30 years	\$ 197,398,083	\$ 198,118,042	(0.4%)
5. Budgeted expenses (provided by the System)	\$ 6,429,870	\$ 6,496,405	(1.0%)
6. Total required contribution (2) + (4) + (5)	\$ 411,991,805	\$ 390,910,351	5.4%
7. Estimated member contribution	\$ 61,116,907	\$ 56,922,429	7.4%
8. Required employer contributions (not less than \$0) (6) – (7)	\$ 350,874,899	\$ 333,987,922	5.1%
9. Previous year's actual contribution			
a. Member	\$ 64,179,909	\$ 55,988,703	14.6%
b. Employer	197,756,938	171,273,052	15.5%
c. Total	\$ 261,936,847	\$ 227,261,755	15.3%

ADDENDUM

OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM UNFUNDED ACTUARIAL ACCRUED LIABILITY

This supplemental report has been prepared to present the results of a valuation of the State of Oklahoma Public Employees Retirement System as of July 1, 2007, based on the prescribed assumptions under 74 Okla.Stat, Section 909.1(H), of current statutes and regulations issued thereunder.

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

	July 1, 2007	July 1, 2006
1. Actuarial present value of benefits		
a. Active members	\$ 5,607,784,120	\$ 5,347,986,345
b. Terminated vested members and other nonactives	406,660,836	396,633,761
c. Retirees, disableds and beneficiaries	3,930,792,779	3,710,679,863
d. Total (a) + (b) + (c)	\$ <u>9,945,237,735</u>	\$ <u>9,455,299,969</u>
2. Actuarial present value of future normal costs	\$ 1,417,815,030	\$ 1,375,015,182
3. Total actuarial accrued liability (1 – 2)	\$ 8,527,422,705	\$ 8,080,284,787
4. Actuarial value of assets	\$ 6,110,230,058	\$ 5,654,276,043
5. Unfunded actuarial accrued liability (3) – (4), not less than \$0	\$ 2,417,192,647	\$ 2,426,008,744

ADDENDUM

OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM NORMAL COST

This supplemental report has been prepared to present the results of a valuation of the State of Oklahoma Public Employees Retirement System as of July 1, 2007, based on the prescribed assumptions under 74 Okla.Stat, Section 909.1(H), of current statutes and regulations issued thereunder.

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

Component	July 1, 2007	July 1, 2006
Retirement benefits	\$ 143,986,662	\$ 126,860,568
Withdrawal benefits	26,293,204	23,431,707
Disability benefits	2,821,554	2,526,802
Death benefits	8,913,323	7,896,229
Refunds	12,473,699	10,973,368
Supplemental medical insurance premiums	10,337,693	9,032,513
Normal cost for people who have not submitted an application	3,337,718	5,574,717
Total normal cost	\$ 208,163,852	\$ 186,295,904