State of Oklahoma Public Employees Retirement System

Actuarial Valuation Report as of July 1, 2009

Prepared: October 2009

Milliman

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Oklahoma Public Employees Retirement System
Actuarial Valuation Report

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October 13, 2009

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

Re: July 1, 2009 Actuarial Valuation

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, 2009 for the purpose of determining the actuarial contribution rate for the fiscal year ending June 30, 2010 and calculating and analyzing key financial measurements. The major findings of the valuation are contained in this report. This report reflects the benefit provisions and contribution rates in effect as of July 1, 2009.

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. We have found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and 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, plan provisions described in Appendix B of this report, 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 is prepared solely for the internal business use of the Oklahoma Public Employees Retirement System ("System"). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

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The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

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.

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

Sincerely,

MILLIMAN, Inc.

Patrice Beckham

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

Brent A. Banister, F.S.A.
Consulting 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, 2009 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 plan provisions or actuarial assumptions since the 2008 valuation. The valuation results provide a "snapshot" view of the System's financial condition on July 1, 2009. The unfunded actuarial accrued liability for the System increased by $681 million due to various factors. A detailed analysis of the change in the unfunded actuarial accrued liability from July 1, 2008 to July 1, 2009 is shown on page 4.

The highlights of the valuation are:

	Actuarial Valuation Date	
Funded Status ($M)	**July 1, 2009**	**July 1, 2008**
Actuarial Accrued Liability	$9,291	$8,894
Actuarial Value of Assets	$6,208	$6,492
Unfunded Actuarial Accrued Liability (UAAL)	$3,083	$2,402
Funded Ratio (Actuarial Value)	66.8%	73.0%
Market Value of Assets	$5,174	$6,255
Funded Ratio (Market Value)	55.7%	70.3%

There was a liability gain of $58 million, which resulted in an actuarial accrued liability that was lower than expected (0.62% of expected liability). The components of this net liability gain are identified on page 5 of this report.

The net return on the market value of assets was -15.4% for the year ended June 30, 2009. 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 -2.6%, which resulted in an actuarial loss of $652 million.

The actuarial contribution rate for the employer increased from 2008 to 2009:

	Actuarial Valuation Date	
Contribution Rate	**July 1, 2009**	**July 1, 2008**
Normal Cost	12.52%	12.46%
Amortization of UAAL	13.14%	10.13%
Budgeted Expenses	0.38%	0.39%
Actuarial Contribution Rate	26.04%	22.98%
Less Estimated Member Contribution Rate	(3.84)%	(4.04)%
Employer Actuarial Contribution Rate	22.20%	18.94%
Less State Statutory Contribution Rate	(15.50)%	(14.50)%
Contribution Shortfall	6.70%	4.44%

Despite the fact the employer contribution rate increased 1%, the shortfall between the employer actuarial contribution rate and the statutory contribution rate increased from 4.44% to 6.70%. This is due to the significant loss on assets resulting from the market conditions in the past year.

EXPERIENCE

July 1, 2008 – June 30, 2009

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, 2009. 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, 2008 and July 1, 2009 actuarial valuations. Each component is examined in the following discussion.

ASSETS

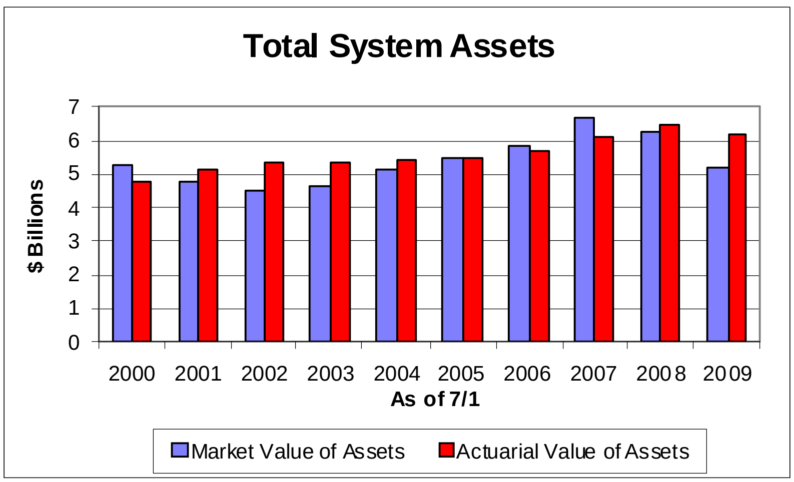
As of July 1, 2009, the System had total funds when measured on a market value basis of $5.2 billion. This was a decrease of $1.1 billion from the July 1, 2008 figure of $6.3 billion. The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method, which smoothes the effect of market fluctuations, is used to determine the value of assets used in the valuation called the "actuarial value of assets". Differences between the actual return on the market value of assets and the assumed return on the actuarial value of assets are phased in over a five-year period. The resulting value must be no less than 80% of market value and no more than 120% of market value referred to as a corridor. The corridor applied this year and the actuarial value of assets was set to 120% of market value. See Table 3 on page 16 for the detailed development of the actuarial value of assets as of July 1, 2009.

The actuarial value of assets as of July 1, 2009, was $6.2 billion. The annualized dollar-weighted rate of return for FY2009, measured on the actuarial value of assets, was approximately -2.6% and measured on the market value of assets was a -15.4%, net of investment expenses.

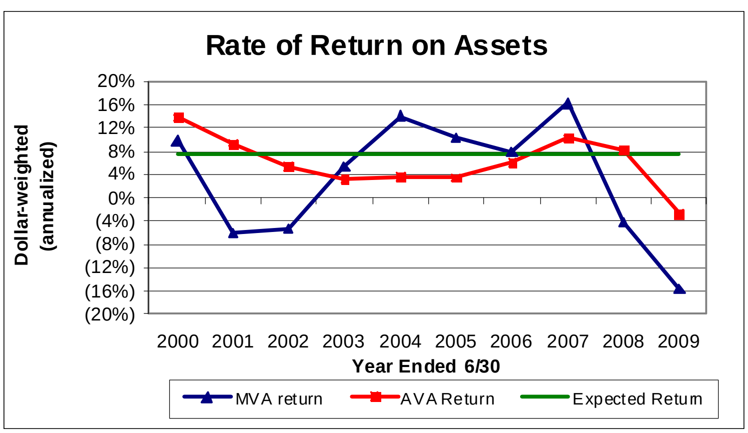
The components of the change in the market and actuarial value of assets for the System (in millions) are set forth below.

	Market Value $(millions)	Actuarial Value $(millions)
Net Assets, July 1, 2008	$6,255	$6,492
• Employer and Member Contributions	312	312
• Benefit Payments and Expenses	(426)	(426)
• Investment Income/(Loss)	(967)	180
Preliminary Value, July 1, 2009	5,174	6,558
Application of Corridor	N/A	(350)
Final Net Assets, July 1, 2009	$5,174	$6,208
Estimated Rate of Return	-15.4%	-2.6%

Due to the use of an asset smoothing method, there is about $1 billion of net deferred investment loss that has not yet been recognized. This deferred investment experience will be reflected in the actuarial value of assets over the next four years.



The market value of assets during this period has been both higher and lower than the actuarial value of assets. This is to be expected when using an asset smoothing method.



Rates of return on the market value of assets are very 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 liability (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	$ 9,291,457,837
Actuarial Value of Assets	6,208,245,334
Unfunded Actuarial Accrued Liability	$ 3,083,212,503

See Table 5 on page 19 for the detailed development of the Actuarial Accrued Liability and Table 8 on page 23 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 2009). There was an experience loss on the actuarial value of assets and an experience gain on the actuarial accrued liability. The net result was an actuarial loss which resulted in an increase in the UAAL.

Between July 1, 2008 and July 1, 2009 the change in the unfunded actuarial accrued liability for the System was as follows (in millions):

	$ millions
Unfunded Actuarial Accrued Liability, July 1, 2008	$2,402
• effect of contributions less than actuarial rate	83
• expected increase due to amortization method	4
• investment experience	652
• liability experience[1]	(58)
• change in actuarial assumptions	0
• change in benefit provisions	0
Unfunded Actuarial Accrued Liability, July 1, 2009	$3,083

[1] Liability gain is about 0.62% of total actuarial accrued liability.

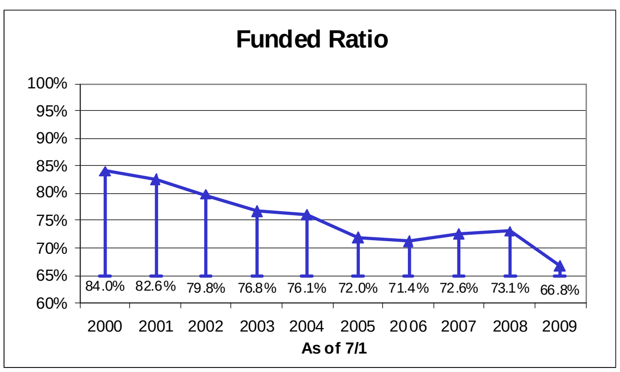
The liability gain for the System can be allocated to experience related to each actuarial assumption as follows:

Liability Source	Impact on AAL ($M)	% of Expected Liability
Salary increases	$(65.2)	(0.70%)
Mortality	(53.9)	(0.58%)
Termination of employment	2.8	0.03%
Retirements	8.2	0.09%
Disability	4.4	0.05%
New entrants and rehires	23.1	0.25%
Miscellaneous/data change	22.4	0.24%
Total (gain)/loss	$(58.2)	(0.62%)

A detailed summary of the change in the unfunded actuarial accrued liability is shown in Table 10 on page 25.

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 accrued 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 accrued liability. The funded status information, on both an actuarial and a market value basis, is shown below (in millions).

	7/1/05	7/1/06	7/1/07	7/1/08	7/1/09
Using Actuarial Value of Assets:					
Funded Ratio	72.0%	71.4%	72.6%	73.0%	66.8%
Unfunded Actuarial Accrued Liability (UAAL)	$2,125	$2,260	$2,303	$2,402	$3,083
Using Market Value of Assets:					
Funded Ratio	72.7%	73.5%	78.9%	70.3%	55.7%
Unfunded Actuarial Accrued Liability (UAAL)	$2,071	$2,097	$1,773	$2,639	$4,118



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.

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 20-year period commencing July 1, 2007.

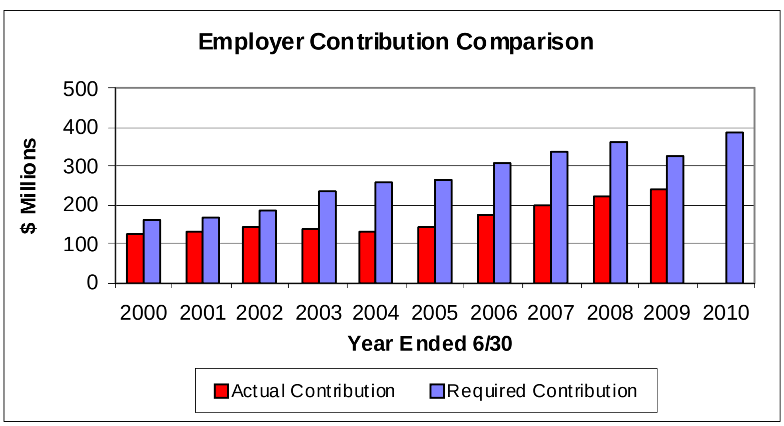
Under the Entry Age Normal cost method, the actuarial contribution rate consists of:

- 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.

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. 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%. Elected officials and Hazardous Duty employees have different required contributions (see the Summary of System Provisions section of this report).

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 were 13.5% of payroll. As of July 1, 2005, the State's contribution rate increased to 11.5% of payroll with additional increases of 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 rate for the State is still less than the employer actuarial contribution rate for fiscal year 2010 of 22.20% developed in this valuation. When contributions to the System are less than the actuarial rate, the UAAL is expected to increase.

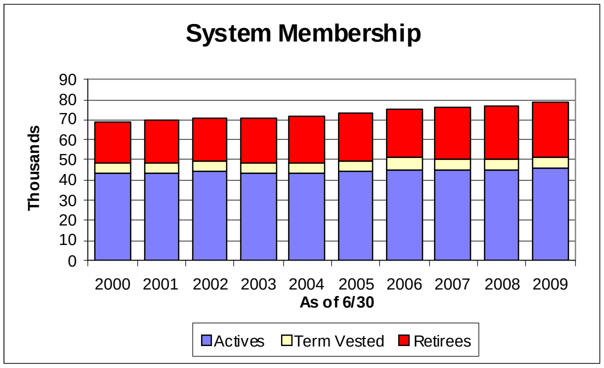
The following graph shows the total required employer contribution compared to the amount actually received in each year. The funding policy contribution equals the System's normal cost, budgeted expenses and an amortization of the unfunded actuarial accrued liability. For July 1, 1998 and prior years, 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. For the July 1, 2008 valuation, the amortization was changed to 20 years from July 1, 2007 (no change in the number of years remaining). At July 1, 2009, 18 years remain in the amortization period.



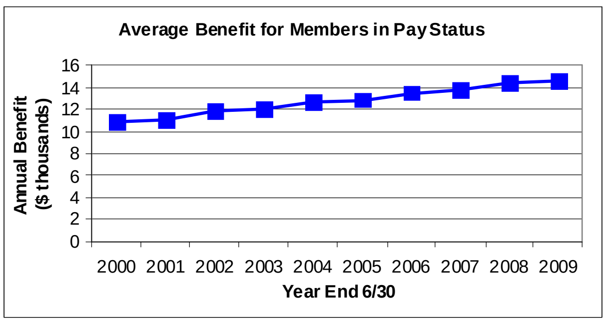
MEMBER INFORMATION

The number of active members included in the valuation increased by about 1% from 2008 to 2009. 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 26,949 retirees and beneficiaries in the 2009 valuation, with an average benefit of $1,219 per month. This represents a 0.5% 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 of 18 years with payments that are a level percent of payroll. 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 not expected to be in actuarial balance over the long term (current assets plus present value of future contributions is equal to or greater than the present value of future benefits). Based on projections using the model developed in conjunction with the 2008 valuation and reflecting the actual FY2009 return, the statutory contribution rate and the actuarial contribution rate are not expected to converge before the end of the amortization period. Based on these projections, which assume that all assumptions are met in future years (including a 7.5% return on the market value of assets), the current schedule of contributions will be insufficient to amortize the UAAL by 2027. If the UAAL is to be amortized by 2027, a higher contribution rate will be necessary.

The funded ratio in the 2009 valuation dropped to 67% primarily due to the stock market performance in the last plan year. Most public retirement plans are similarly situated and experienced significant asset losses. The investment return on the market value of assets for FY2009 was -15%. When compared to the expected return of +7.50%, the assets were nearly 25% lower than expected. Such a dramatic drop in the asset value results in a significant increase in the actuarially required contribution. When the fixed nature of the employee contribution rate is factored into the calculation, the impact on the employer contribution rate is even more significant.

Retirement plans use several mechanisms to provide more stability in the contribution rate. These include an asset smoothing method, which smoothes out the peaks and valleys of investment returns, and amortization of actuarial gains or losses. The System utilizes an asset smoothing method that spreads the difference between expected return on actuarial assets and actual market return over a five-year period, but the resulting value must be no less than 80% and no more than 120% of market value (referred to as a corridor). Due to the smoothing method and application of the corridor, the rate of return on the actuarial value of assets for the plan year ending in 2009 was about -3% as compared to -15% on the pure market value.

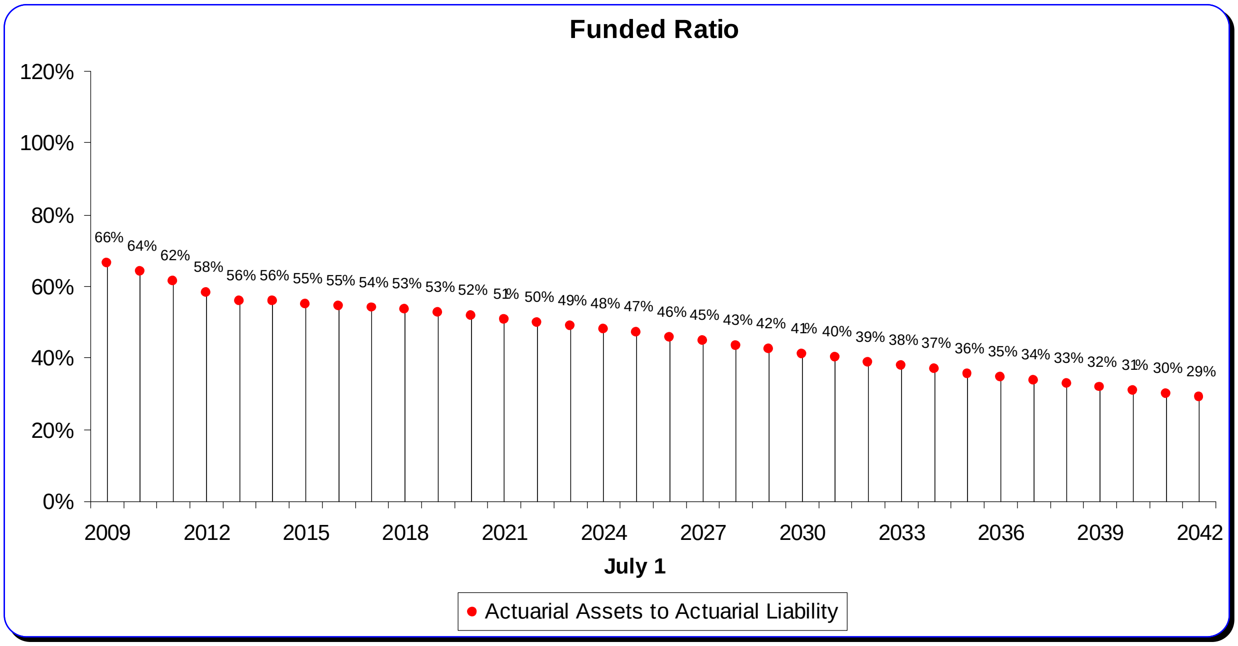
Given the size of the investment loss, a significant increase in the actuarially required contribution level could not be avoided, even with the use of these "stability mechanisms". The normal cost rate remained fairly stable as a percentage of payroll, but the System's unfunded actuarial accrued liability increased from $2.4 billion to $3.1 billion. As a result, the actuarially required contribution rate increased from 22.98% last year to 26.04% of pay in this year's valuation.

As mentioned above, the System utilizes an asset smoothing method in the valuation process. While this is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred (unrecognized) investment experience. The asset smoothing method impacts only the timing of when the actual market experience on the assets is recognized in the valuation process. Due to the dramatically negative return in FY2009, the corridor of 120% of market value applied to the actuarial value of assets this year so actuarial value exceeds the pure market value by 20%. If asset returns are not significantly higher than 7.5% over the next few years, the $1 billion of deferred investment experience will be recognized and the employer actuarially required contribution rate can be expected to increase significantly.

The challenge at this time is that the market continues to exhibit extreme volatility and there is concern about the stability of market conditions. Historically, markets have recovered and, if this happens, it should help offset some of the current deferred losses. The use of an asset smoothing method defers some of the investment experience from FY2009 to later years. Consequently, absent a significant and sustained recovery in the market, part of the unrecognized loss ($1 billion) will be reflected in the June 30, 2010 and subsequent years' valuations. Actual investment returns over the next few years will determine exactly how much the System's funding will be affected and the magnitude of the increase in the unfunded actuarial liability and the actuarial contribution rate.

The employer actuarial contribution rate for fiscal year end June 30, 2009 was 18.94%. The statutory contribution rate was 14.50% of covered payroll. This difference between the actual and actuarial contribution rate increased the unfunded actuarial accrued liability by about $83 million. To the extent the System does not have investment returns above the assumed rate of 7.50% or other favorable experience sufficient to offset the contribution shortfall, the unfunded actuarial accrued liability will increase.

The long-term financial health of this retirement system is heavily dependent on two key items: (1) investment returns and (2) contributions to the System. Given the System's funded status, the magnitude of the deferred investment losses, and the current schedule of contribution rates, the funded ratio of the System is expected to steadily decline, as shown in the following graph. If, as expected, the funded status continues to decline, it may impact the sustainability of the current benefit structure over the long term. We strongly recommend the long-term funding of the System be evaluated.



A summary of key data elements and valuation results as of July 1, 2009 and July 1, 2008 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

	7/1/2009 Valuation	7/1/2008 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	45,683	45,120	1.2
Retired and Disabled Members and Beneficiaries	26,949	26,033	3.5
Inactive Members	5,638	5,580	1.0
Total Members	78,270	76,733	2.0
Projected Annual Salaries of Active Members	$ 1,732,975,532	$ 1,682,663,413	3.0
Annual Retirement Payments for Retired Members and Beneficiaries	$ 394,247,271	$ 376,147,494	4.8
2. ASSETS AND LIABILITIES			
Total Actuarial Accrued Liability	$ 9,291,457,837	$ 8,894,287,254	4.5
Market Value of Assets	5,173,537,778	6,255,207,565	(17.3)
Actuarial Value of Assets	6,208,245,334	6,491,928,362	(4.4)
Unfunded Actuarial Accrued Liability	3,083,212,503	2,402,358,892	28.3
Funded Ratio	66.8%	73.0%	(8.5)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost Rate	12.52%	12.46%	0.5
Amortization of Unfunded Actuarial Accrued Liability	13.14%	10.13%	29.7
Budgeted Expenses	0.38%	0.39%	(2.6)
Actuarial Required Contribution Rate	26.04%	22.98%	13.3
Less Estimated Member Contribution Rate	3.84%	4.04%	(5.0)
Employer Actuarial Required Contribution Rate	22.20%	18.94%	17.2
Less Statutory State Employer Contribution Rate	15.50%	14.50%	6.9
Contribution Shortfall	6.70%	4.44%	50.9

SECTION 2

SCOPE OF THE REPORT

This report presents the actuarial valuation of the Oklahoma Public Employees Retirement System (OPERS) as of July 1, 2009. 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, 2009.
- 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)

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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, 2009 the market value of assets for the Retirement System was $5.2 billion. Table 1 is a comparison, at market values, of System assets as of July 1, 2009, and July 1, 2008, in total and by investment category. Table 2 summarizes the change in the market value of assets from July 1, 2008 to June 30, 2009.

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 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

	June 30, 2009			June 30, 2008		
		Amount ($ Millions)	% of Total		Amount ($ Millions)	% of Total
Cash & Equivalents	$	64.6	1.2	$	61.5	1.0
Short-term Investments		10.3	0.2		29.6	0.5
Government Obligations		1,201.5	22.7		1,468.1	22.9
Corporate Bonds		819.7	15.6		1,013.3	15.8
Domestic Equity		2,009.4	38.0		2,378.8	37.1
International Equity		1,179.7	22.3		1,456.6	22.7
Subtotal	$	5,285.2	100.0	$	6,407.9	100.0
Property (net)		0.4			0.6	
Other assets		0.1			0.1	
Net Receivables/(Payables)		(112.2)			(153.4)	
Net Assets	$	5,173.5		$	6,255.2	

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

(Market Value)

	Fiscal Year Ended June 30	
	2009	**2008**
1. Market Value of Net Assets at Beginning of Year	$ 6,255,207,565	$ 6,640,477,411
2. Contributions:		
a. Members	68,712,683	66,699,385
b. State and Local Agencies	243,021,660	220,075,992
c. Total Contributions (2a) + (2b)	311,734,343	286,775,377
3. Net Investment Income:		
a. Net appreciation/(depreciation) in fair value of investments	(1,096,980,108)	(434,708,712)
b. Interest	106,523,529	123,079,649
c. Dividends	33,121,634	35,326,965
d. Securities lending activities	(5,711,760)	5,428,770
e. Other	1,428,336	75,945
f. Total investment income/(loss) (3a) + (3b) + (3c) + (3d) + (3e)	(961,618,369)	(270,797,383)
g. Investment expenses	(5,630,115)	(5,850,149)
h. Net investment income/(loss) (3f) + (3g)	(967,248,484)	(276,647,532)
i. Total additions/(subtractions) (2c) + (3h)	(655,514,141)	10,127,845
4. Deductions:		
a. Retirement, death, and survivor benefits	410,036,580	377,974,103
b. Refunds and withdrawals	11,516,190	12,848,142
c. Administrative expenses	4,602,876	4,575,446
d. Total deductions (4a) + (4b) + (4c)	426,155,646	395,397,691
5. Net Change in Assets (3i) - (4d)	(1,081,669,787)	(385,269,846)
6. Market Value of Net Assets at End of Year (1) + (5)	$ 5,173,537,778	$ 6,255,207,565

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
2005	$	121,831,139	$	97,464,912	$	24,366,227	$	0
2006		30,656,285		18,393,771		6,131,257		6,131,257
2007		518,970,886		207,588,354		103,794,177		207,588,355
2008		(730,915,087)		(146,183,017)		(146,183,017)		(438,549,053)
2009		(1,449,929,882)		0		(289,985,976)		(1,159,943,906)
Total	$	(1,509,386,659)	$	177,264,020	$	(301,877,332)	$	(1,384,773,347)

Development of Actuarial Value of Assets

1. Actuarial value as of July 1, 2008	$	6,491,928,362
2. Contributions		
a. Member	$	68,712,683
b. Employer		243,021,660
c. Total (a) + (b)	$	311,734,343
3. Decreases during year		
a. Benefit payments	$	(410,036,580)
b. Return of member contributions		(11,516,190)
c. Noninvestment expenses		(4,602,876)
d. Total (a) + (b) + (c)	$	(426,155,646)
4. Expected return at 7.5% on:		
a. Item 1	$	486,894,627
b. Item 2 (one-half year)		11,478,703
c. Item 3 (one-half year)		(15,691,932)
d. Total (a) + (b) + (c)	$	482,681,398
5. Expected actuarial value as of June 30, 2009 (1) + (2) + (3) + (4)	$	6,860,188,457
6. Unrecognized asset gain/(loss) as of June 30, 2008	$	(236,720,797)
7. Expected actuarial value June 30, 2009, plus previous year's unrecognized asset gain/(loss) (5) + (6)	$	6,623,467,660
8. Market value June 30, 2009	$	5,173,537,778
9. Year end 2009 asset gain/(loss) (8) – (7)	$	(1,449,929,882)
10. Asset gain/(loss) to be recognized as of June 30, 2009	$	(301,877,332)
11. Initial actuarial value July 1, 2009 (5) + (10)	$	6,558,311,125
12. Constraining values:		
a. 80% of market value (8) x 0.8	$	4,138,830,222
b. 120% of market value (8) x 1.2	$	6,208,245,334
13. Actuarial value as of July 1, 2009 (11), but no less than (12a), nor greater than (12b)	$	6,208,245,334

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, 2009. In this section, the discussion will focus on the commitments of the System, which are referred to as its liabilities.

Table 4 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, 2007. This set of assumptions, as shown in Appendix C, was first used for the July 1, 2008 valuation.

The liabilities reflect the benefit structure in place as of July 1, 2009. Additionally, the liabilities shown in the report assume a 2% annual COLA will be granted by the Legislature in future years.

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, 2009

	Regular	Elected Officials	Hazardous Duty	Total
1. Active employees				
a. Retirement Benefit	$ 4,440,752,560	$ 280,485,748	$ 298,225,762	$ 5,019,464,070
b. Withdrawal Benefit	265,492,094	13,340,572	14,302,162	293,134,828
c. Pre-Retirement Death Benefit	113,551,078	3,513,874	5,461,100	122,526,052
d. Disability Benefit	177,146,153	9,410,556	7,878,199	194,434,908
e. Return of Member Contributions	35,700,713	612,229	4,324,105	40,637,047
f. Supplementary Medical Benefit	188,788,306	5,296,433	10,525,705	204,610,444
g. Total	$ 5,221,430,904	$ 312,659,412	$ 340,717,033	$ 5,874,807,349
2. Inactive Nonvested Members				22,174,789
3. Inactive Vested Members				353,280,138
4. Return of Excess Contributions				901,434
5. Disabled Members				124,258,098
6. Retirees				3,858,117,822
7. Beneficiaries				259,500,682
8. Supplementary Medical Benefit for Retirees and Inactive Vested Members				174,785,524
9. COLA Reserve				120,013,500
10. Total PVFB				$ 10,787,839,335

TABLE 5
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL ACCRUED LIABILITY
AS OF JULY 1, 2009

	Regular	Elected Officials	Hazardous Duty	Total
1. Present Value of Future Benefits for Active Members				
a. Retirement Benefit	$ 4,440,752,560	$ 280,485,748	$ 298,225,762	$ 5,019,464,070
b. Withdrawal Benefit	265,492,094	13,340,572	14,302,162	293,134,828
c. Pre-Retirement Death Benefit	113,551,078	3,513,874	5,461,100	122,526,052
d. Disability Benefit	177,146,153	9,410,556	7,878,199	194,434,908
e. Return of Member Contributions	35,700,713	612,229	4,324,105	40,637,047
f. Supplementary Medical Benefit	188,788,306	5,296,433	10,525,705	204,610,444
g. Total	$ 5,221,430,904	$ 312,659,412	$ 340,717,033	$ 5,874,807,349
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	$ 944,964,146	$ 42,096,879	$ 78,343,593	$ 1,065,404,618
b. Withdrawal Benefit	151,258,783	8,041,276	8,445,394	167,745,453
c. Pre-Retirement Death Benefit	29,764,249	729,048	1,961,991	32,455,288
d. Disability Benefit	58,461,550	2,426,875	2,822,627	63,711,052
e. Return of Member Contributions	90,492,807	3,661,997	11,118,110	105,272,914
f. Supplementary Medical Benefit	57,229,904	1,377,594	3,184,675	61,792,173
g. Total	$ 1,332,171,439	$ 58,333,669	$ 105,876,390	$ 1,496,381,498
3. Present Value of Future Benefits for Inactive Members				4,913,031,986
4. Total Actuarial Accrued Liability (1g) - (2g) + 3				$ 9,291,457,837

TABLE 6
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DEVELOPMENT OF COLA RESERVE

1. Reserve as of July 1, 2008	$	33,638,825
2. Interest at 7.5%		2,522,912
3. Reserve increment		83,851,762
4. Expected reserve as of July 1, 2009 (1) + (2) + (3)		120,013,500
5. Ad hoc cost of living increase during year ended June 30, 2009		0
6. Actual reserve on July 1, 2009 (4) less (5), not less than $0	$	120,013,500

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 accrued 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 accrued liability. The unfunded actuarial accrued liability represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses.

Effective with the July 1, 2008 valuation, the UAAL is amortized as a level percent of payroll over a closed 20-year period commencing July 1, 2007. Prior to 2008, the unfunded actuarial accrued liability was amortized as a level dollar amount over a 40-year period from July 1, 1987. Given a stable active workforce, the level percent of payroll amortization method is expected to produce a payment stream that is constant as a percent of covered payroll.

Contribution Rate Summary

The normal cost rate is developed in Table 7. Table 8 develops the contribution rate for amortization of the unfunded actuarial accrued liability. Table 9 develops the total actuarial contribution rate.

TABLE 7
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF JULY 1, 2009

	Regular	Elected Officials	Hazardous Duty	Total	% of Pay
1. Normal Cost					
a. Retirement Benefit	$ 137,895,428	$ 8,018,083	$ 10,944,717	$ 156,858,229	9.05%
b. Withdrawal Benefit	19,367,957	1,338,410	1,144,331	21,850,699	1.26%
c. Pre-Retirement Death Benefit	4,145,866	135,172	275,933	4,556,971	0.26%
d. Disability Benefit	7,711,081	420,349	382,671	8,514,100	0.49%
e. Return of Member Contributions	12,134,520	648,889	1,545,339	14,328,748	0.83%
f. Supplementary Medical Benefit	10,072,574	325,983	487,420	10,885,977	0.63%
g. Total	$ 191,327,427	$ 10,886,886	$ 14,780,411	$ 216,994,724	12.52%
2. Estimated Payroll for the Year	$ 1,605,706,821	$ 38,233,577	$ 89,035,134	$ 1,732,975,532	
3. Normal Cost Rate [(1g) / (2)]	11.92%	28.47%	16.60%	12.52%	

TABLE 8
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
UNFUNDED ACTUARIAL ACCRUED LIABILITY CONTRIBUTION RATE
AS OF JULY 1, 2009

1. Actuarial Present Value of Future Benefits	$	10,787,839,335
2. Actuarial Present Value of Future Normal Costs		1,496,381,498
3. Actuarial Accrued Liability (1) - (2)	$	9,291,457,837
4. Actuarial Value of Assets		6,208,245,334
5. Unfunded Actuarial Accrued Liability (UAAL) (3) - (4)	$	3,083,212,503
6. Amortization of UAAL over 20 years from July 1, 2007 (assumed mid-year) *	$	227,649,240
7. Total Estimated Payroll for Year Ending June 30, 2010	$	1,732,975,532
8. Amortization as a Percent of Payroll		13.14%

* The UAAL is amortized as a level percent of payroll, assuming payroll increases of 4.25% per year.

TABLE 9
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL CONTRIBUTION RATE

	July 1	
	2009	**2008**
1. Total Normal Cost Rate	12.52%	12.46%
2. Amortization of UAAL [1]	13.14%	10.13%
3. Budgeted Expenses [2]	0.38%	0.39%
4. Total Actuarial Contribution Rate (1) + (2) + (3)	26.04%	22.98%
5. Estimated Member Contribution Rate	3.84%	4.04%
6. Employer Actuarial Contribution Rate (4) - (5)	22.20%	18.94%

[1] Amortization of UAAL is level percent of payroll.
[2] 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, 2009.

1. Expected actuarial accrued liability		
a. Actuarial accrued liability at July 1, 2008	$	8,894,287,254
b. Normal cost at July 1, 2008		209,643,564
c. Benefit payments for fiscal year ending June 30, 2009		(421,552,770)
d. Interest on (a), (b), and (c)		667,272,367
e. Change in assumptions		0
f. Change in plan provisions		0
g. Expected actuarial accrued liability at July 1, 2009 (a) + (b) + (c) + (d) + (e) + (f)	$	9,349,650,415
2. Actuarial accrued liability at July 1, 2009	$	9,291,457,837
3. Actuarial accrued liability gain/(loss) (1g) – (2)	$	58,192,578
4. Expected actuarial value of assets		
a. Actuarial value of assets at July 1, 2008	$	6,491,928,362
b. Contributions for fiscal year ending June 30, 2009		311,734,343
c. Benefit payments and administrative expenses for fiscal year ending June 30, 2009		(426,155,646)
d. Interest on (a), (b), and (c)		482,681,398
e. Expected actuarial value of assets at July 1, 2009 (a) + (b) + (c) +(d)	$	6,860,188,457
5. Actuarial value of assets at July 1, 2009	$	6,208,245,334
6. Actuarial value of assets gain/(loss) (5) – (4e)	$	(651,943,123)
7. Net actuarial gain/(loss) (3) + (6)	$	(593,750,545)

TABLE 11
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF CONTRIBUTION REQUIREMENTS

	Actuarial Valuation as of				
	July 1, 2009		July 1, 2008		
		Amount		Amount	Percent Change in Amount
1. Expected annual payroll	$	1,732,975,532	$	1,682,663,413	3.0%
2. Total normal cost	$	216,994,724	$	209,643,564	3.5%
3. Unfunded actuarial accrued liability	$	3,083,212,503	$	2,402,358,892	28.3%
4. Amortization of unfunded actuarial accrued liability over 20 years from July 1, 2007 *	$	227,649,240	$	170,395,498	33.6%
5. Budgeted expenses (provided by the System)	$	6,565,830	$	6,548,483	0.3%
6. Total required contribution (2) + (4) + (5)	$	451,209,794	$	386,587,545	16.7%
7. Estimated member contribution	$	62,054,455	$	63,482,772	(2.2%)
8. Required employer contribution (6) – (7)	$	389,155,339	$	323,104,773	20.4%
9. Previous year's actual contribution					
a. Member	$	68,712,683	$	66,699,385	3.0%
b. Employer		243,021,660		220,075,992	10.4%
c. Total	$	311,734,343	$	286,775,377	8.7%

* Amortization of UAAL is level percent of payroll.

SECTION 6

ACCOUNTING AND OTHER INFORMATION

Governmental Accounting Standards Board Statement No. 25, Financial Reporting for Defined Benefit Pension Plans as amended by GASB 50, (referred to as 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)
7/1/2004	$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%
7/1/2008	6,491,928,362	8,894,287,254	2,402,358,892	73.0%	1,682,663,413	142.8%
7/1/2009	6,208,245,334	9,291,457,837	3,083,212,503	66.8%	1,732,975,532	177.9%

Valuation Date	7/1/09
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay, Closed
Remaining Amortization Period	18 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
2004	$257,038,902	51.9%
2005	266,044,444	52.5%
2006	309,980,339	55.3%
2007	338,550,016	58.4%
2008	363,914,352	60.5%
2009	323,104,773	75.2%

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	
	2009	**2008**
Vested benefits		
Active members	$ 2,134,849,690	$ 2,044,393,656
Terminated vested members	298,119,049	290,628,014
Unclaimed contributions	22,174,789	21,201,495
Limited benefit	901,434	970,852
Retirees and beneficiaries	3,641,303,431	3,476,574,503
Supplemental medical insurance premiums	306,402,449	302,656,684
Total vested benefits	$ 6,403,750,842	$ 6,136,425,204
Nonvested benefits for active members	$ 216,847,243	$ 208,208,380
Total accumulated benefits	$ 6,620,598,085	$ 6,344,633,584
Market value of assets available for benefits	$ 5,173,537,778	$ 6,255,207,565
Funded ratio	78.1%	98.6%
Number of members		
Vested members		
Active members	22,745	22,670
Terminated vested members	5,638	5,580
Retirees and beneficiaries	26,949	26,033
Total vested members	55,332	54,283
Nonvested active members	22,938	22,450
Total members	78,270	76,733

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, 2008	$	6,344,633,584
Increase/(decrease) during the year attributable to:		
Benefits accrued and (gains)/losses		237,477,981
Increase for interest due to discount period		460,039,290
Benefits paid		(421,552,770)
Plan provision change (COLA)		0
Net increase/(decrease)	$	275,964,501
Present value of accrued benefits as of July 1, 2009	$	6,620,598,085

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, 2009. The “Retirees” column shows benefits expected to be paid to all other members. This includes those who, as of July 1, 2009, 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
2010	$22,525,960	$397,063,275	$419,589,235
2011	55,963,965	398,353,869	454,317,834
2012	90,713,880	399,242,002	489,955,882
2013	127,244,114	399,587,973	526,832,087
2014	165,754,226	399,282,701	565,036,927
2015	205,542,874	399,063,100	604,605,974
2016	245,964,469	397,714,132	643,678,601
2017	287,198,048	396,278,890	683,476,938
2018	328,831,610	394,072,487	722,904,097
2019	370,381,910	391,010,224	761,392,134

Supplementary Medical Premium Benefits

Year Ending June 30	Actives	Retirees	Total
2010	$1,575,468	$17,301,893	$18,877,361
2011	3,454,675	16,972,739	20,427,414
2012	5,336,275	16,630,877	21,967,152
2013	7,199,920	16,282,548	23,482,468
2014	9,071,540	15,908,666	24,980,206
2015	10,872,136	15,572,973	26,445,109
2016	12,580,714	15,210,003	27,790,717
2017	14,226,069	14,924,727	29,150,796
2018	15,786,496	14,638,863	30,425,359
2019	17,243,368	14,343,763	31,587,131

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

	Actuarial Valuation as of 7/1/2009	Actuarial Valuation as of 7/1/2008	% Change
Summary of Data			
1. Active members			
a. Number	45,683	45,120	1.2%
b. Annual compensation	$ 1,732,975,532	$ 1,682,663,413	3.0%
c. Average annual compensation	37,935	37,293	1.7%
d. Average age	46.3	46.2	0.2%
e. Average service	10.5	10.5	(0.1%)
2. Accumulated member contributions			
a. Active members	$ 466,879,621	$ 439,754,417	6.2%
b. Unclaimed contribution amounts	22,174,789	21,201,495	4.6%
c. Total	$ 489,054,410	$ 460,955,912	6.1%
3. Vested terminated members			
a. Number	3,781	4,014	(5.8%)
b. Annual deferred benefits	$ 32,125,048	$ 33,661,975	(4.6%)
c. Average annual deferred benefit	$ 8,496	$ 8,386	1.3%
d. Annual supplemental medical insurance premiums	$ 4,764,060	$ 5,057,640	(5.8%)
4. Assumed deferred vested - count	1,857	1,566	18.6%
5. Retired members			
a. Number	22,698	21,980	3.3%
b. Annual retirement benefits	$ 353,572,735	$ 337,999,824	4.6%
c. Average annual retirement benefit	15,577	$ 15,378	1.3%
d. Annual supplemental medical insurance premiums	$ 16,277,940	$ 16,066,260	1.3%
6. Beneficiaries			
a. Number	2,775	2,618	6.0%
b. Annual retirement benefits	$ 26,960,372	$ 24,750,345	8.9%
c. Average annual deferred benefit	$ 9,715	$ 9,454	2.8%
7. Disabled members			
a. Number	1,476	1,435	2.9%
b. Annual retirement benefits	$ 13,714,164	$ 13,397,325	2.4%
c. Average annual retirement benefit	9,291	$ 9,336	(0.5%)
d. Annual supplemental medical insurance premiums	$ 996,660	$ 992,880	0.4%
8. Total members included in valuation	78,270	76,733	2.0%

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
MEMBER RECORD RECONCILIATION

			Receiving Benefits			
	Active Members	Vested Terminated	Retirees	Disability Retirees	Benefici-aries	Total Members
As of July 1, 2008	**45,120**	**5,580**	**21,980**	**1,435**	**2,618**	**76,733**
Age retirements	(1,199)	(303)	1,502	0	0	0
Disability retirements	(60)	(33)	0	93	0	0
Deaths without payments continuing	(57)	0	(608)	(39)	(108)	(812)
Deaths with payments continuing	(41)	(20)	(185)	(18)	264	0
Nonvested terminations/refund of contributions	(3,315)	(127)	0	0	0	(3,442)
Vested terminations	(680)	680	0	0	0	0
Transfers	(53)	0	0	0	0	(53)
Data adjustments	0	11	9	5	1	26
Rehires	277	(150)	0	0	0	127
New entrants during the year	5,691	0	0	0	0	5,691
Net Change	563	58	718	41	157	1,537
As of July 1, 2009	**45,683**	**5,638**	**22,698**	**1,476**	**2,775**	**78,270**

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DATA TAPE RECONCILIATION

	Active	Retired	Vested Terminated	Total
Records submitted on data tape	44,584	45,208	3,810	93,602
Remove deceased retiree records	0	(18,259)	0	(18,259)
Remove unusable data	(16)	0	0	(16)
Remove those with another status	(41)	0	(29)	(70)
Add those with no application	1,156	0	0	1,156
Add assumed vesteds	0	0	1,857	1,857
Total valued	**45,683**	**26,949**	**5,638**	**78,270**

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF MEMBERSHIP DATA

ACTIVE MEMBER DATA

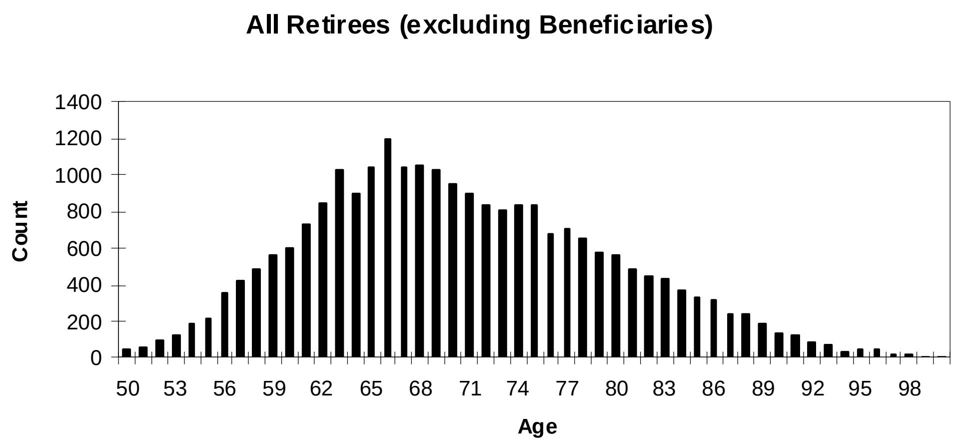
	7/1/2009	7/1/2008
Regular		
Number	42,415	40,538
Average Current Age	46.5	46.5
Average Service	10.5	10.8
Average Pay	$37,857	$36,521
Elected Officials		
Number	770	758
Average Current Age	53.3	53.1
Average Service	14.2	14.3
Average Pay	$49,654	$45,548
Hazardous Duty		
Number	2,498	2,370
Average Current Age	40.6	40.6
Average Service	8.6	8.6
Average Pay	$35,643	$35,783
Total		
Number	45,683	43,666
Average Current Age	46.3	46.3
Average Service	10.5	10.7
Average Pay	$37,935	$36,638

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF MEMBERSHIP DATA

INACTIVE MEMBER DATA

	7/1/2009	7/1/2008
Retirees		
Number	22,698	21,980
Average Annual Benefit	$15,577	$15,378
Average Age	70.9	70.9
Disability Retirees		
Number	1,476	1,435
Average Annual Benefit	$9,291	$9,336
Average Age	61.4	61.0
Beneficiaries		
Number	2,775	2,618
Average Annual Benefit	$9,715	$9,454
Average Age	72.0	71.9
Total		
Number	26,949	26,033
Average Annual Benefit	$14,629	$14,449
Average Age	70.5	70.5
Vested Members		
Number	5,638	5,580
Average Annual Benefit	$9,570	$9,622
Average Age	50.9	50.7

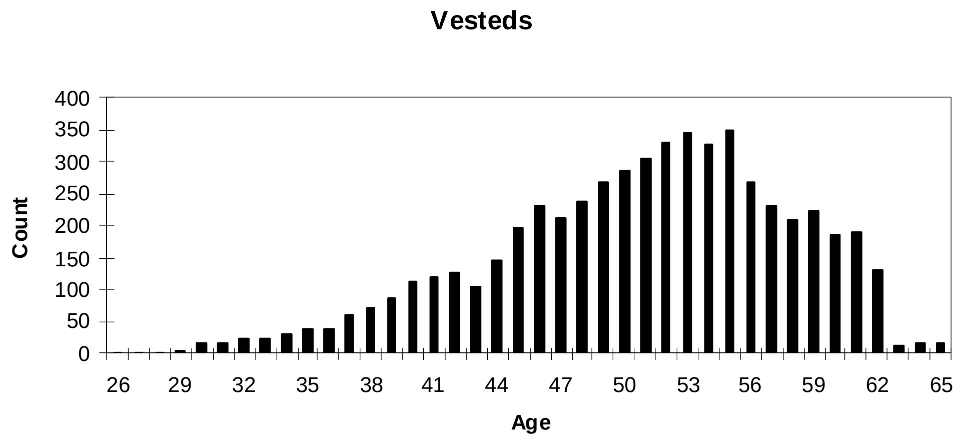
APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of July 1, 2009



Count: 24,174 Average age: 70.3 Average benefit: $ 15,193

Count: 2,775 Average age: 72.0 Average benefit: $ 9,715

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF VESTED MEMBERS
as of July 1, 2009



Count: 5,638 Average age: 50.9 Average benefit: $ 9,570

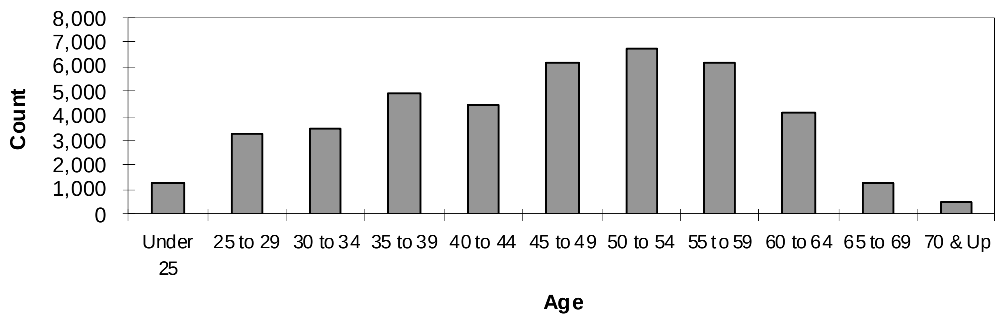
Includes assumed vested members

APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of July 1, 2009

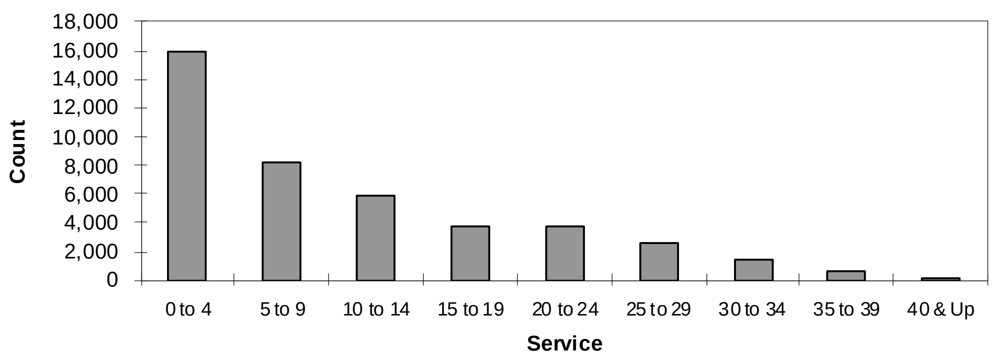
Regular Members

Age	Service 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	Total
Under 25	1,256	22	0	0	0	0	0	0	0	1,278
25 to 29	2,737	514	11	0	0	0	0	0	0	3,262
30 to 34	2,083	1,099	286	3	0	0	0	0	0	3,471
35 to 39	2,685	1,150	876	177	17	1	0	0	0	4,906
40 to 44	1,579	1,002	900	576	333	25	0	0	0	4,415
45 to 49	1,663	1,198	959	721	935	656	67	0	0	6,199
50 to 54	1,590	1,164	958	735	893	893	486	61	0	6,780
55 to 59	1,253	999	865	751	832	559	544	298	23	6,124
60 to 64	724	739	696	504	552	369	211	251	123	4,169
65 to 69	219	243	229	200	165	105	54	41	27	1,283
70 & Up	96	93	95	87	71	37	19	17	13	528
Total	15,885	8,223	5,875	3,754	3,798	2,645	1,381	668	186	42,415

Age Distribution



Service Distribution

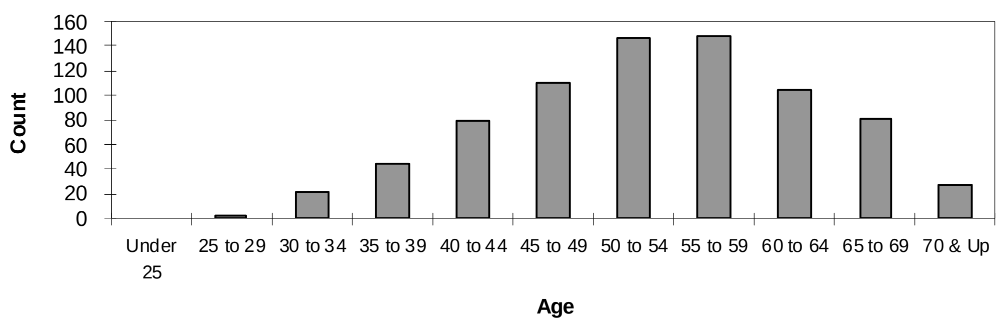


APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of July 1, 2009

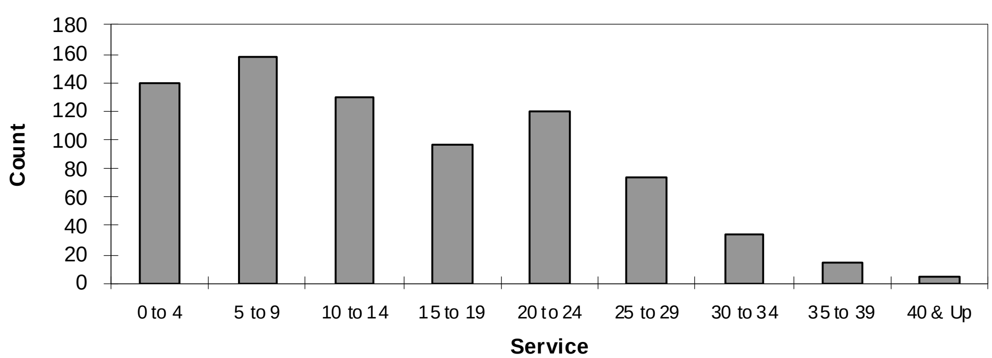
Elected Members

	Service									
Age	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	Total
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	1	2	0	0	0	0	0	0	0	3
30 to 34	12	7	3	0	0	0	0	0	0	22
35 to 39	9	18	14	3	0	0	0	0	0	44
40 to 44	24	25	16	11	3	1	0	0	0	80
45 to 49	17	15	20	15	22	19	2	0	0	110
50 to 54	25	22	16	16	32	24	10	2	0	147
55 to 59	23	22	19	24	30	13	12	6	0	149
60 to 64	15	23	13	15	18	9	7	4	1	105
65 to 69	11	17	21	9	9	7	4	2	2	82
70 & Up	3	6	7	4	5	1	0	0	2	28
Total	140	157	129	97	119	74	35	14	5	770

Age Distribution



Service Distribution

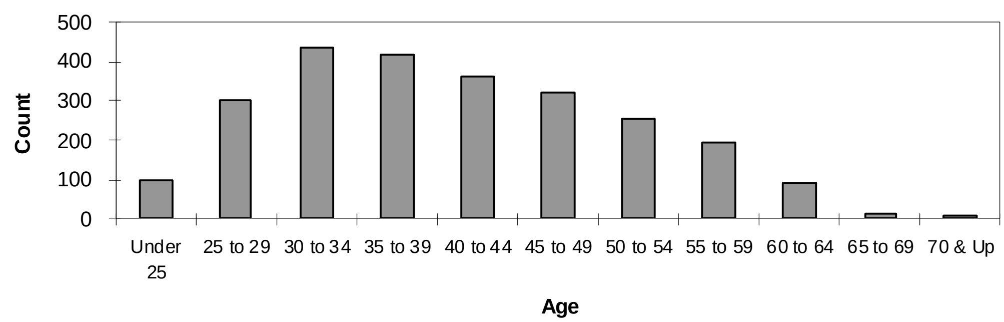


APPENDIX A
OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of July 1, 2009

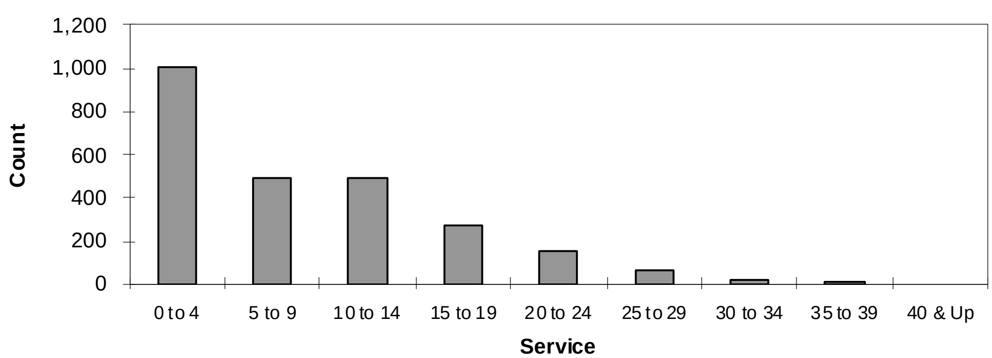
Hazardous Duty Members

	Service									
Age	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	Total
Under 25	100	1	0	0	0	0	0	0	0	101
25 to 29	241	60	0	0	0	0	0	0	0	301
30 to 34	261	115	58	0	0	0	0	0	0	434
35 to 39	159	96	135	22	3	0	0	0	0	415
40 to 44	73	78	89	90	32	0	0	0	0	362
45 to 49	70	59	66	56	54	17	0	0	0	322
50 to 54	47	25	64	49	40	26	4	0	0	255
55 to 59	39	35	49	32	14	11	10	5	0	195
60 to 64	11	17	22	18	12	5	4	2	0	91
65 to 69	0	5	5	3	1	2	0	0	0	16
70 & Up	1	3	1	0	0	0	1	0	0	6
Total	1,002	494	489	270	156	61	19	7	0	2,498

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

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:

a) the employee is not eligible for or participating in another retirement system authorized under Oklahoma law, is covered by Social Security and is not participating in the U.S. Civil Service Retirement System,
b) 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).

Membership is mandatory for new eligible employees on the first of the month following employment.

Employer and employee contributions

Most State employees except elected officials and Hazardous Duty employees:

Employee: 3.5%
Employer: 15.5%*
Total: 18.0%

* The employer contribution rate will increase by 1% annually through the fiscal year ending June 30, 2011 at which time it reaches a maximum of 16.5%.

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.

Elected officials select a contribution rate of 4.5%, 6%, 7.5%, 8.5%, 9%, or 10% which determines the computation factor used in calculating their benefit.

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)

	For Pay Under $25,000			
Fiscal Year	**Employer Contribution**	**Employee Contribution**	**Total Contribution**	**Applicable Salary Cap**
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

	For Pay Between $25,000 and Cap			
Fiscal Year	**Employer Contribution**	**Employee Contribution**	**Total Contribution**	**Applicable Salary Cap**
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 Employer Contribution	Employee Contribution	Total 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%

Years of 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:

Member Accumulation			Additional Years
$ 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 or her 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.

Years of 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, including amounts contributed to deferred compensation plans. Overtime and moving expenses are excluded.

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.

Final average compensation (continued)

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 "stepped-up" full years.

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):

% of Compensation Contributed	% of Highest Annual Compensation
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.

OPERS members who are elected after August 21, 2008 have a benefit cap of 100% of their highest annual salary. Elected officials that become members after August 21, 2008 receive a benefit that consists of two separate calculations. Their non-elected years are multiplied by 2% and their elected years are multiplied by the applicable percentage selected and paid for by the members.

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:

Elected Officials		Other Members	
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.

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.

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 service total eighty (80) if the member was hired prior

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

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:

Year	Up to $25,000	Above $25,000
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	Service Beyond 20 Years	
		Up to $25,000	Above $25,000
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%

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 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

Effective July 1, 2008, the unfunded actuarial accrued liability is amortized as a level percent of payroll over a 20-year closed period commencing July 1, 2007. Given a stable active workforce, this amortization method is expected to produce a payment stream that is constant as a percent of covered payroll.

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, 2009, 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.

Members who are contributing to the System, but have not yet filled out an enrollment application, are included as active members. Where data elements are missing, reasonable estimates are used. Service is estimated based on hours worked. Age is based on average entry age for other members. Gender is assigned in proportion to the overall group.

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.

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):

Nearest Age	% Increase
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

Payroll Growth: 4.25% per year

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 3.0%.

Demographic Assumptions

Retirement age:

Non-elected members

	Annual Rates of Retirement Per 100 Eligible Members	
Nearest Age	Those Eligible For Unreduced Retirement	Those Not Eligible For Unreduced Retirement
50	20	N/A
51	20	N/A
52	20	N/A
53	20	N/A
54	20	N/A
55	10	4
56	10	5
57	11	5
58	12	6
59	13	7
60	14	7
61	20	20
62	30	N/A
63	15	N/A
64	15	N/A
65	30	N/A
66	20	N/A
67	20	N/A
68	20	N/A
69	25	N/A
70	100	N/A

Demographic Assumptions (continued)

Retirement age (continued):

Elected members

	Annual Rates of Retirement Per 100 Eligible Members	
Nearest Age	Those Eligible For Unreduced Retirement	Those Not Eligible For Unreduced Retirement
50	30	N/A
51	30	N/A
52	30	N/A
53	30	N/A
54	30	N/A
55	10	10
56	10	10
57	20	10
58	20	10
59	20	10
60	20	10
61	20	10
62	20	N/A
63	20	N/A
64	20	N/A
65	20	N/A
66	40	N/A
67	40	N/A
68	40	N/A
69	40	N/A
70	100	N/A

Demographic Assumptions (continued)

Retirement age (continued):

Hazardous Duty

Annual Rates of Retirement Per 100 Eligible Members

Service	Rate	Nearest Age	Less than 20 Years of Service
20	20	50	N/A
21-24	15	51	N/A
25-29	20	52	N/A
30-34	25	53	N/A
35+	100	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.

Demographic Assumptions (continued)

Disability Rates:

Graduated rates
Disabled rates per 100 members

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

Withdrawal Rates:

Age	0-2 Years	2-3 Years	3-4 Years	4-5 Years	5-6 Years	6-7 Years	7-8 Years	8-9 Years	9-10 Years	Over 10 Years
25	0.2600	0.2000	0.1709	0.1369	0.1426	0.1426	0.1426	0.1426	0.1426	0.0800
30	0.2400	0.1750	0.1554	0.1268	0.1050	0.1050	0.1050	0.1050	0.1050	0.0800
35	0.2150	0.1590	0.1365	0.1215	0.0850	0.0850	0.0850	0.0850	0.0850	0.0680
40	0.1930	0.1400	0.1208	0.1094	0.0725	0.0725	0.0725	0.0725	0.0725	0.0480
45	0.1880	0.1200	0.1132	0.0945	0.0600	0.0600	0.0600	0.0600	0.0600	0.0320
50	0.1830	0.0970	0.1030	0.0835	0.0500	0.0500	0.0500	0.0500	0.0500	0.0320
55	0.1800	0.0900	0.0869	0.0705	0.0500	0.0500	0.0500	0.0500	0.0500	0.0320

Probability of Electing Vested Benefit:

Regular Members Only	
Age	Rate
Under 35	80%
36-46	85%
47+	100%

Marital Status:

Percentage married: 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.

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.

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, 2009, for the fiscal year ending June 30, 2010. The results of the valuation are set forth in this addendum, which reflects the benefit provisions in effect on July 1, 2009.

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, 2009 valuation.

The results shown in this Addendum are not consistent with those in the July 1, 2009, valuation. The July 1, 2009, 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.

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 Beckham

Patrice A. Beckham, F.S.A.	October13, 2009 Date
Brent A. Banister, F.S.A.	October 13, 2009 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, 2009, 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, 2009	**July 1, 2008**	**Amount**	**Percent**
Summary of Costs				
Required employer contribution for current year	$336,565,236	$294,996,088	$41,569,148	14.1%
Actual employer contributions received in prior year	243,021,660	220,075,992	22,945,668	10.4%
Funded Status				
Actuarial accrued liability	$9,412,669,934	$9,079,172,849	$333,497,085	3.7%
Actuarial value of assets	6,208,245,334	6,491,928,362	(283,683,028)	-4.4%
Unfunded actuarial accrued liability	3,204,424,600	2,587,244,487	617,180,113	23.9%
Funded Ratio	66.0%	71.5%	(5.5%)	(7.8%)
Market Value of Assets and Additional Liabilities				
Market value of assets	$5,173,537,778	$6,255,207,565	($1,081,669,787)	-17.3%

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, 2009, 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				
	July 1, 2009		July 1, 2008		
		Amount		Amount	Percent Change in Amount
Summary of Contribution Requirements					
1. Expected annual payroll	$	1,732,975,532	$	1,682,663,413	3.0%
2. Total normal cost	$	225,164,548	$	217,184,359	3.7%
3. Unfunded actuarial accrued liability	$	3,204,424,600	$	2,587,244,487	23.9%
4. Amortization of unfunded actuarial accrued liability over 30 years*	$	166,889,312	$	134,746,018	23.9%
5. Budgeted expenses (provided by the System)	$	6,565,830	$	6,548,483	0.3%
6. Total required contribution (2) + (4) + (5)	$	398,619,691	$	358,478,860	11.2%
7. Estimated member contribution	$	62,054,455	$	63,482,772	(2.2%)
8. Required employer contributions (not less than $0) (6) – (7)	$	336,565,236	$	294,996,088	14.1%
9. Previous year's actual contribution					
a. Member	$	68,712,683	$	66,699,385	3.0%
b. Employer		243,021,660		220,075,992	10.4%
c. Total	$	311,734,343	$	286,775,377	8.7%

* Amortized as a level percent of payroll.

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, 2009, 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, 2009		**July 1, 2008**
1. Actuarial present value of benefits				
a. Active members	$	6,094,873,872	$	5,931,154,271
b. Terminated vested members and other nonactives		423,528,054		412,035,156
c. Retirees, disableds and beneficiaries		4,456,464,208		4,252,885,059
d. Total (a) + (b) + (c)	$	10,974,866,134	$	10,596,074,486
2. Actuarial present value of future normal costs	$	1,562,196,200	$	1,516,901,637
3. Total actuarial accrued liability (1 – 2)	$	9,412,669,934	$	9,079,172,849
4. Actuarial value of assets	$	6,208,245,334	$	6,491,928,362
5. Unfunded actuarial accrued liability (3) – (4), not less than $0	$	3,204,424,600	$	2,587,244,487

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, 2009, 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, 2009**	**July 1, 2008**
Retirement benefits	$ 162,056,590	$ 155,997,494
Withdrawal benefits	22,656,901	21,977,395
Disability benefits	4,705,357	4,533,570
Death benefits	10,277,861	9,912,648
Refunds	14,330,186	14,624,561
Supplemental medical insurance premiums	11,137,652	10,138,690
Total normal cost	$ 225,164,548	$ 217,184,359