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OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM

State of Oklahoma
Public Employees Retirement System

Actuarial Valuation Report
As of July 1, 2010

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October 15, 2010

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

Members of the Board:

In this report are submitted the results of the annual valuation of the assets and liabilities of the State of Oklahoma Public Employees Retirement System, prepared as of July 1, 2010.

The purpose of this report is to provide a summary of the funded status of the System as of July 1, 2010, to provide the Annual Required Contribution (ARC) and the accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the Entry Age Normal cost method. A five-year market related value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 4.25% annually. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25 and 27.

We have prepared the Schedule of Funding Progress and Employer Contribution Trend Information shown in the Comprehensive Annual Financial Report. All historical information that references a valuation date prior to July 1, 2010 was prepared by the prior actuarial firm.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144
Phone (678) 388-1700 • Fax (678) 388-1730
www.CavMacConsulting.com
Offices in Englewood, CO • Kennesaw, GA • Omaha, NE • Hilton Head Island, SC

Future actuarial results may differ significantly from the current results 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. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

We have also reviewed the medical benefits provided by the System under Section 401(h) of the Internal Revenue Code and have determined that these benefits are subordinate to the retirement benefits as required.

In our opinion, in order for the System to operate in an actuarially sound manner, contributions equal to the ARC are necessary for future fiscal years. Assuming that these contributions are made to the System, from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,

Alisa Bennett

Patrice Beckham

Alisa Bennett, FSA, EA, FCA, MAAA
Principal and Senior Actuary

Patrice Beckham, FSA, EA, MAAA
Consulting Actuary

AB:PB/kc

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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, 2010 actuarial valuation for the System.

The primary purposes of performing an actuarial valuation are to:

- Determine the employer contribution rate required to fund the 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.

There was no change in the basic benefit provisions that impacted the results of the July 1, 2010 valuation. However, there were several bills passed by the 2010 Oklahoma Legislature that impacted OPERS. They include:

- A Voluntary Buyout Offer (VBO) was passed to encourage retirement eligible state employees to retire during the summer of 2010.
- Service credit for furloughed state employees was expanded to include employees of the House, Senate, and the court system.
- State agency employer contribution rate remained at 15.5% for FY2011(it was scheduled to increase to 16.5%). The 16.5% contribution rate is scheduled to begin July 1, 2011.
- The number of retirement benefit options for new elected officials was reduced from six to two (1.9% multiplier or a 4% multiplier).
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The full impact of the Voluntary Buyout Offer has probably not been captured in the July 1, 2010 valuation because there have been additional retirements under the VBO since June 30, 2010. However, based on the valuation data, it appears the VBO increased the number of retirements for FY2010 which decreased the number of active members on July 1 by about 4%. The other legislative changes did not have a measurable impact on the unfunded actuarial liability or normal cost.

There was no change in the actuarial assumptions and methods used in the valuation. This is the first valuation prepared by Cavanaugh Macdonald Consulting LLC. As part of our transition work, we replicated the July 1, 2009 actuarial valuation. While results were well within acceptable limits, there was a difference in the unfunded actuarial accrued liability (UAAL). Cavanaugh Macdonald's UAAL was $139 million higher than that reported in the official July 1, 2009 actuarial valuation report. The difference, 1.5% of total actuarial liability, is not significant as a percentage of the total actuarial liability and is due to the use of different valuation software.

The valuation results provide a snapshot view of the System's financial condition on July 1, 2010. The unfunded actuarial accrued liability for the System increased by $191 million due to various factors. A detailed analysis of the change in the unfunded actuarial accrued liability from July 1, 2009 to July 1, 2010 is shown on page 5.

The highlights of the valuation are shown below:

Funded Status ($M)	Actuarial Valuation Date July 1, 2010	Actuarial Valuation Date July 1, 2009
Actuarial Accrued Liability	$9,623	$9,291
Actuarial Value of Assets	$6,348	$6,208
Unfunded Actuarial Accrued Liability	$3,274	$3,083
Funded Ratio (Actuarial Value)	66.0%	66.8%
Market Value of Assets	$5,774	$5,174
Funded Ratio (Market Value)	60.0%	55.7%

There was a liability gain of $282 million, which resulted in an actuarial accrued liability that was lower than expected (2.8% 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 13.9% for the year ended June 30, 2010. 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 4.1% which resulted in an actuarial loss of $205 million.

The actuarial contribution rate for the employer increased from 2009 to 2010:

Contribution Rate	Actuarial Valuation Date July 1, 2010	Actuarial Valuation Date July 1, 2009
Normal Cost	12.56%	12.52%
Amortization of UAAL	14.99%	13.14%
Budgeted Expenses	0.39%	0.38%
Actuarial Contribution Rate	27.94%	26.04%
Less Estimated Member Contribution Rate	(4.07)%	(3.84)%
Employer Actuarial Contribution Rate	23.87%	22.20%
Less State Statutory Contribution Rate	(15.50)%	(15.50)%
Contribution Shortfall	8.37%	6.70%

A considerable shortfall exists between the actuarial contribution rate and the statutory contribution rate. This short fall will increase the unfunded actuarial accrued liability and defer progress on reaching long term funding goals.

EXPERIENCE

July 1, 2009 to July 1, 2010

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, 2010. 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 July 1, 2009 and July 1, 2010. Each component is examined in the following discussion.

ASSETS

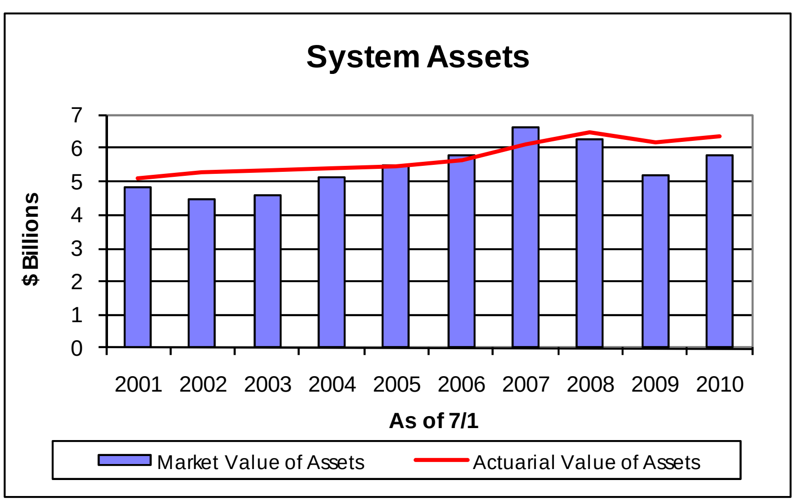
As of July 1, 2010, the System had total funds when measured on a market value basis of $5.8 billion. This was an increase of $600 million from the July 1, 2009 figure of $5.2 billion. The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method, 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 the market value and no more than 120% of market value, referred to as the corridor. See Table 3 for the detailed development of the actuarial value of assets as of July 1, 2010.

The actuarial value of assets as of July 1, 2010 was $6.348 billion. The annualized dollar-weighted rate of return for FY2010, measured on the actuarial value of assets, was approximately 4.1% Measured on the market value of assets, the rate of return was 13.9%, net of investment expenses.

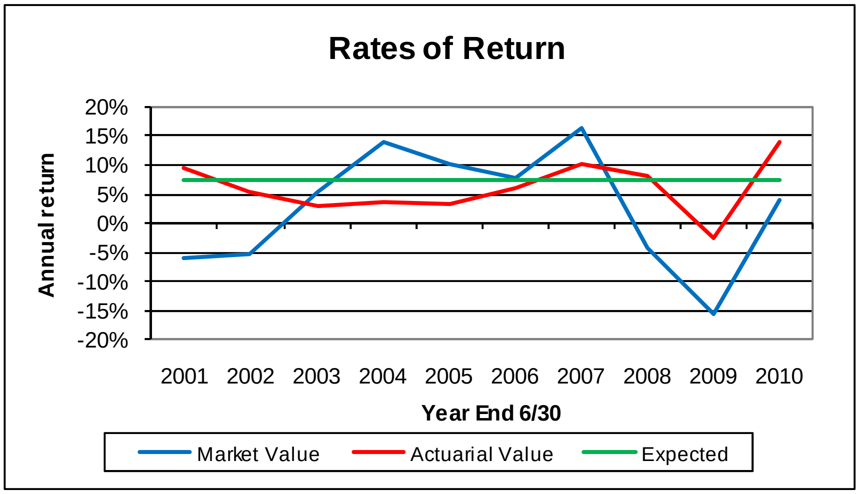
The components of the change in the market and actuarial value of assets for the System (in millions) are set forth below:

	Market Value $(millions)	Actuarial Value $(millions)
Net Assets, July 1, 2009	$5,174	$6,208
• Employer and Member Contributions	329	329
• Benefit Payments and Expenses	(445)	(445)
• Investment Income/(Loss)	716	256
Preliminary Value, July 1, 2010	5,774	6,348
Application of Corridor	N/A	N/A
Final Net Assets, July 1, 2010	$5,774	$6,348
Estimated Rate of Return	13.9%	4.1%

Due to the use of an asset smoothing method, there is about $574 million of 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 few years.



Due to investment experience lower than the assumed rate of return for much of the last decade, the actuarial value of assets has been higher than the market value in most years.



Rate 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 costs or member contributions. The difference between this liability and the 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/losses, and changes in the actuarial assumptions and methods will also impact the total actuarial accrued liability and the unfunded portion thereof.

The unfunded actuarial accrued liability as of July 1, 2010 is:

Actuarial Accrued Liability	$9,622,627,834
Actuarial Value of Assets	6,348,416,407
Unfunded Actuarial Accrued Liability	$3,274,211,427

See Table 5 for the detailed development of the Actuarial Accrued Liability and Table 8 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 the 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 (FY2010). There was an experience loss on the actuarial value of assets and an experience gain on liabilities. The net result was a increase in the UAAL.

Between July 1, 2009 and July 1, 2010 the change in the unfunded actuarial accrued liability for the System was as follows (in millions):

	$millions
Unfunded Actuarial Accrued Liability, July 1, 2009	$3,083
• effect of contributions less than actuarial rate	120
• expected increase due to amortization	(5)
• investment experience	205
• liability experience[1]	(282)
• other experience	14
• change in actuarial firms	139
• change in actuarial assumptions	0
• change in benefit provisions	0
Unfunded Actuarial Accrued Liability, July 1, 2010	$3,274

[1] Liability gain is about 2.8% of total actuarial accrued liability.

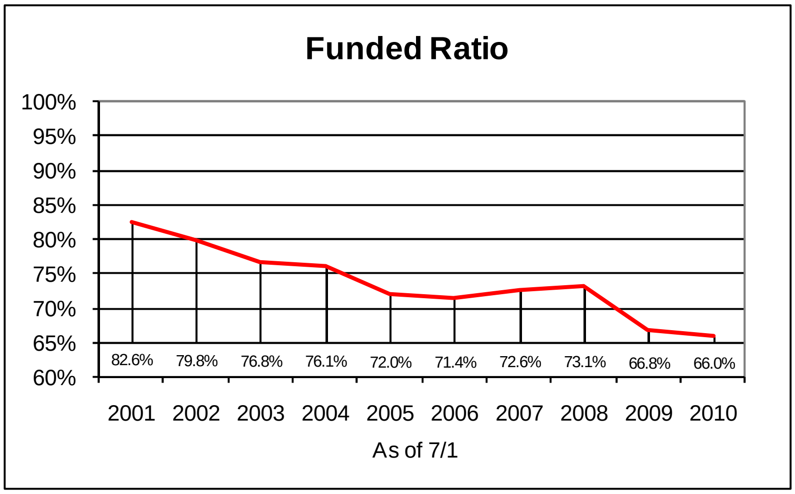
The liability gain for the System can be allocated to experience related to each actuarial assumption as follows:

Liability Source	Impact of AAL $(millions)	% of Expected Liability
Salary Increases	(197.2)	(1.99)
Mortality	(26.5)	(0.27)
Termination of Employment	15.9	0.16
Retirements	(12.4)	(0.13)
Disability	4.8	0.05
New entrants and rehires	25.2	0.25
Miscellaneous/data changes	(91.4)	(0.91)
Total (gain)/loss	(281.6)	(2.84)

A detailed summary of the change in the UAAL is shown in Table 10.

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 market value basis, is shown below (in $million).

	7/1/06	7/1/07	7/1/08	7/1/09	7/1/10
Using Actuarial Value of Assets:					
Funded Ratio	71.4%	72.6%	73.0%	66.8%	66.0%
Unfunded Actuarial Accrued Liability (UAAL)	$2,260	$2,303	$2,402	$3,083	$3,274
Using Market Value of Assets:					
Funded Ratio	73.5%	78.9%	70.3%	55.7%	60.0%
Unfunded Actuarial Accrued Liability (UAAL)	$2,097	$1,773	$2,639	$4,118	$3,848



The System's funded ratio has decreased significantly over the last 10 years. Numerous factors have contributed to the decline including changes in the benefit provisions, contributions less than the actuarial rate, demographic experience and investment experience less favorable than expected based on the assumptions.

CONTRIBUTION RATES

The funding objective of the System is to pay the normal cost rate plus an amount that 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:

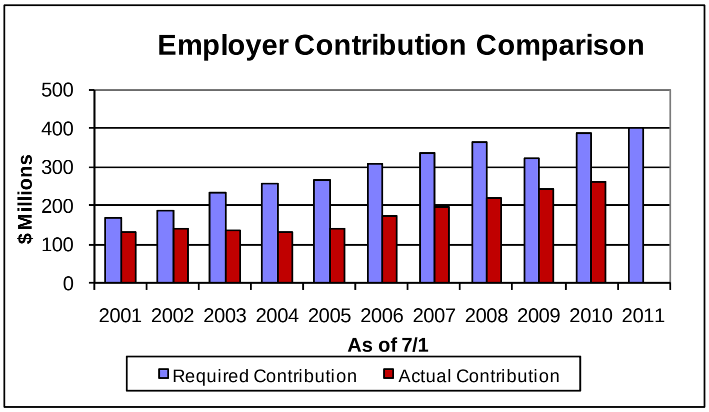
- A "normal cost" for the portion of projected liabilities allocated by the actuarial cost method to service of members during the year following the valuation date,

- 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 employer. 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 a different required contribution rate (see Summary of 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 the 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 1.0% each July until reaching 16.5%. The 1.0% increase that was supposed to be effective July 1, 2010 was delayed one year by the 2010 Legislature. The maximum contribution rate of 16.5% will be reached on July 1, 2011. For county and local employees, the contribution rate increased to 15.0% on July 1, 2005 and increases an additional 1.0% of payroll each year beginning July 1, 2006 until it reaches 20.0% on July 1, 2010. The ultimate contribution rate of 16.5% for the State is still less than the employer actuarial contribution rate for fiscal year 2011 developed in this valuation. When contributions to the System are less than the actuarial rate, the UAAL is expected to increase.

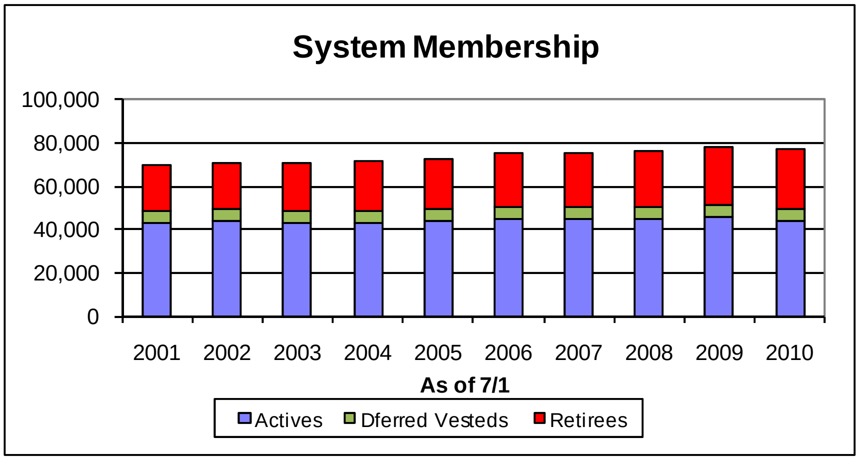
The following graph shows the total required employer contribution compared to the amount actually received in each year. The funding policy contribution equals the System's normal cost, budgeted expenses, and an amortization of the unfunded actuarial accrued liability. For July 1, 1998 and prior years, 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 period was changed to 20 years from July 1, 2007 (no change in the number of years remaining). As of July 1, 2010, 17 years remain in the amortization period.



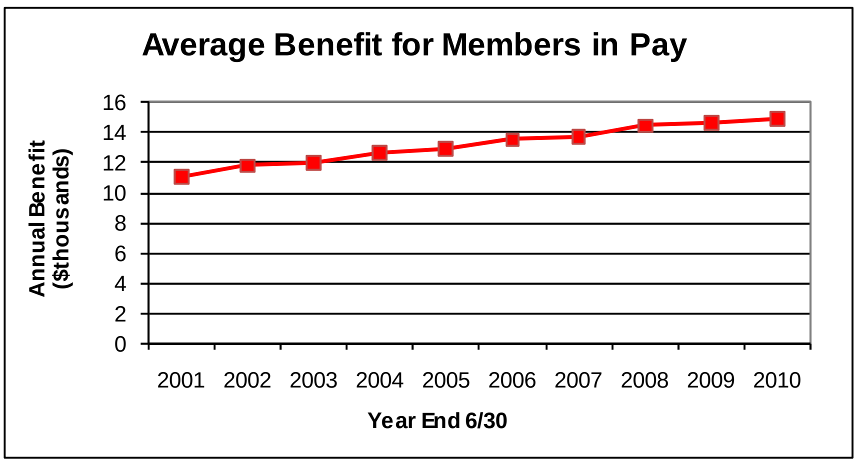
MEMBER INFORMATION

The number of active members included in the valuation decreased by nearly 4% from the 2009 to the 2010 valuation. This appears to be the result of new retirees not being replaced with new hires. 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 28,009 retirees and beneficiaries in the 2010 valuation, with an average benefit of $1,240 per month. This represents about a 2% increase in the average monthly benefit from the previous year.



The number of active members has been fairly stable for most of the period. The number of terminated vested 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 leave with higher salaries and, therefore, 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.

General Comments

The economy and financial markets have undergone significant turmoil over the last two years. The valuation results presented as of July 1, 2009 reflected the large loss on the market value of assets and noted that the asset smoothing mechanism would recognize this over the coming years. The valuation results this year do indeed reflect the continued recognition of past losses and the accompanying increase in the unfunded actuarial accrued liability and actuarial contribution rate.

The employer contribution rate has been increasing according to a schedule with an ultimate rate of 16.5%. The final increase as of July 1, 2010 to 16.5% of pay was to be the last of the scheduled increases. This final increase was delayed until July 1, 2011 by legislation passed in 2010. As noted earlier in the report, the actuarial contribution rate of 23.87% is significantly higher than what is currently being funded. Unless there are further increases in the contribution rate or substantial future investment gains, the financial health of the System will deteriorate and at some point may reach a point of severe problems. We encourage interested parties to be diligent in monitoring the financial health of the System and to consider what steps might be prudent to ensure the ability to deliver the promised benefits to members over the long term. The more quickly state leaders act to provide adequate funding to the System according to actuarial requirements, the lower the annual required contribution rate will be in the future.

This report reflects the first valuation performed by Cavanaugh Macdonald Consulting. We are grateful to the System for their help in this transition.

COMPARISON OF PRINCIPAL VALUATION RESULTS

	7/1/2010 Valuation	7/1/2009 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	43,934	45,683	(3.8)
Retired and Disabled Members and Beneficiaries	28,009	26,949	3.9
Inactive Members	5,560	5,638	(1.4)
Total members	77,503	78,270	(1.0)
Projected Annual Salaries of Active Members	$ 1,683,697,139	$1,732,975,532	(2.8)
Annual Retirement Payments for Retired Members and Beneficiaries	$ 416,699,157	$ 394,247,271	5.7
2. ASSETS AND LIABILITIES			
Total Actuarial Accrued Liability	$ 9,622,627,833	$9,291,457,837	3.6
Market Value of Assets	$ 5,774,379,263	$5,173,537,778	11.6
Actuarial Value of Assets	$ 6,348,416,407	$6,208,245,334	2.3
Unfunded Actuarial Accrued Liability	$ 3,274,211,426	$3,083,212,503	6.2
Funded Ratio	66.0%	66.8%	(1.2)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost Rate	12.56%	12.52%	
Amortization of Unfunded Actuarial Accrued Liability	14.99%	13.14%	
Budgeted Expenses	0.39%	0.38%	
Total Actuarial Required Contribution Rate	27.94%	26.04%	
Less Estimated Member Contribution Rate	4.07%	3.84%	
Employer Actuarial Required Contribution Rate	23.87%	22.20%	
Less Statutory State Employer contribution Rate	15.50%	15.50%	
Contribution Shortfall	8.37%	6.70%	

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Oklahoma Public Employees Retirement System

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, 2010 the market value of assets for the System was $5.8 billion. Table 1 is a comparison, at market values, of System assets as of July 1, 2010, and July 1, 2009, in total and by investment category. Table 2 summarizes the change in the market value of assets from July 1, 2009 to June 30, 2010.

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.

Oklahoma Public Employees Retirement System

Table 1

Analysis of Net Assets at Market Value

	June 30, 2010		June 30, 2009	
	Amount ($Millions)	% of Total	Amount ($Millions)	% of Total
Cash & Equivalents	$ 157.3	2.7%	$ 64.6	1.2%
Short-term investments	24.8	0.4%	10.3	0.2%
Government Obligations	1,321.2	22.3%	1,201.5	22.8%
Corporate Bonds	924.1	15.6%	819.7	15.5%
Domestic Equity	2,197.5	37.1%	2,009.4	38.0%
International Equity	1,299.3	21.9%	1,179.7	22.3%
Subtotal	$ 5,924.2	100.0%	$ 5,285.2	100.0%
Property (net)	0.7		0.4	
Other assets	0.3		0.1	
Net receivables/(payables)	(150.8)		(112.2)	
Net Assets	$ 5,774.4		$ 5,173.5	

Oklahoma Public Employees Retirement System

Table 2

Statement of Changes in Net Assets

	Fiscal Year Ended June 30	
	2010	2009
1. Market Value of Net Assets at Beginning of Year	$ 5,173,537,778	$ 6,255,207,565
2. Contributions		
a. Members	$ 69,041,436	$ 68,712,683
b. State and Local Agencies	259,779,236	243,021,660
c. Total Contributions (2a) + (2b)	$ 328,820,672	$ 311,734,343
3. Net Investment Income		
a. Net appreciation (depreciation) in fair value of investments	$ 610,499,166	$ (1,096,980,108)
b. Interest	76,143,014	106,523,529
c. Dividends	35,222,195	33,121,634
d. Securities lending activities	1,537,491	(5,711,760)
e. Other	36,966	1,428,336
f. Total investment income/(loss) (3a) + (3b) + (3c) + (3d) + (3e)	$ 723,438,832	$ (961,618,369)
g. Investment expenses	(6,543,751)	(5,630,115)
h. Net investment income/(loss) (3f) + (3g)	716,895,081	(967,248,484)
i. Total additions/(subtractions) (2c) + (3h)	$ 1,045,715,753	$ (655,514,141)
4. Deductions		
a. Retirement, death, and survivor benefits	$ 429,260,056	$ 410,036,580
b. Refunds and withdrawals	11,058,379	11,516,190
c. Administrative expenses	4,555,833	4,602,876
d. Total deductions (4a) + (4b) + (4c)	$ 444,874,268	$ 426,155,646
5. Net Change in Assets (3i) - (4d)	600,841,485	(1,081,669,787)
6. Market Value of Net Assets at End of Year (1) + (5)	$ 5,774,379,263	$ 5,173,537,778

Oklahoma Public Employees Retirement System

Table 3

Determination of 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
2006	$	30,656,285	$	24,525,028	$	6,131,257	$	0
2007		518,970,886		311,382,532		103,794,177		103,794,177
2008		(730,915,087)		(292,366,035)		(146,183,017)		(292,366,035)
2009		(1,449,929,882)		(289,985,976)		(289,985,976)		(869,957,930)
2010		605,615,805		0		121,123,161		484,492,644
Total	$	(1,025,601,993)	$	(246,444,451)	$	(205,120,398)	$	(574,037,144)

Development of Actuarial Value of Assets

1. Actuarial Value as of July 1, 2009	$	6,208,245,334
2. Contributions		
a. Member	$	69,041,436
b. Employer		259,779,236
c. Total (a) + (b)	$	328,820,672
3. Decreases during year		
a. Benefit payments	$	(429,260,056)
b. Refunds and withdrawals		(11,058,379)
c. Administrative expenses		(4,555,833)
d. Total (a) + (b) + (c)	$	(444,874,268)
4. Expected return at 7.5% on:		
a. Item 1	$	465,618,400
b. Item 2 (one-half year)		12,107,857
c. Item 3 (one-half year)		(16,381,190)
d. Total (a) + (b) + (c)	$	461,345,067
5. Expected actuarial value as of June 30, 2010 (1) + (2) + (3) + (4)	$	6,553,536,805
6. Unrecognized asset gain/(loss) as of July 1, 2009	$	(1,384,773,347)
7. Expected actuarial value as of June 30, 2010, plus previous year's unrecognized gain/(loss) (5) + (6)	$	5,168,763,458
8. Market Value as of June 30, 2010	$	5,774,379,263
9. Year end 2010 asset gain/(loss) (8) - (7)	$	605,615,805
10. Asset gain/(loss) to be recognized as of June 30, 2010	$	(205,120,398)
11. Initial Actuarial Value as of June 30, 2010 (5) + (10)	$	6,348,416,407
12. Constraining values:		
a. 80% of market value (8) x 0.8	$	4,619,503,410
b. 120% of market value (8) x 1.2	$	6,929,255,116
13. Actuarial Value as of June 30, 2010 (11), but not less than (12a), nor greater than (12b)	$	6,348,416,407

Oklahoma Public Employees Retirement System

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, 2010. 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, 2010. 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.

Oklahoma Public Employees Retirement System

Table 4

Present Value of Future Benefits
As of July 1, 2010

	Regular	Elected Officials	Hazardous Duty	Total
1. Active Employees				
a. Retirement Benefit	$ 4,388,626,315	$ 291,710,516	$ 298,203,763	$ 4,978,540,594
b. Withdrawal Benefit	255,287,671	12,640,712	13,185,269	281,113,652
c. Pre-Retirement Death Benefit	125,846,233	3,511,627	6,051,011	135,408,871
d. Disability Benefit	180,201,135	9,520,548	7,902,887	197,624,570
e. Return of Member Contributions	33,391,011	324,492	3,724,440	37,439,943
f. Supplemental Medical Benefit	190,380,525	5,661,257	10,785,503	206,827,285
g. Subtotal	$ 5,173,732,890	$ 323,369,152	$ 339,852,873	$ 5,836,954,915
2. Inactive Nonvested Members				$ 23,145,785
3. Inactive Vested Members				348,964,555
4. Return of Excess Contributions				922,082
5. Disabled Members				126,721,401
6. Retirees				4,083,228,432
7. Beneficiaries				274,149,337
8. Supplemental Medical Benefit for Retirees and Inactive Vested Members				177,033,554
9. COLA Reserve				218,696,496
10. Total PVFB				$ 11,089,816,557

Oklahoma Public Employees Retirement System

Table 5

Actuarial Accrued Liability
As of July 1, 2010

	Regular	Elected Officials	Hazardous Duty	Total
1. Present Value of Future Benefits for Active Members				
a. Retirement Benefit	$ 4,388,626,315	$ 291,710,516	$ 298,203,763	$ 4,978,540,594
b. Withdrawal Benefit	255,287,671	12,640,712	13,185,269	281,113,652
c. Pre-Retirement Death Benefit	125,846,233	3,511,627	6,051,011	135,408,871
d. Disability Benefit	180,201,135	9,520,548	7,902,887	197,624,570
e. Return of Member Contributions	33,391,011	324,492	3,724,440	37,439,943
f. Supplemental Medical Benefit	190,380,525	5,661,257	10,785,503	206,827,285
g. Subtotal	$ 5,173,732,890	$ 323,369,152	$ 339,852,873	$ 5,836,954,915
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	$ 924,902,399	$ 41,115,948	$ 73,524,930	$ 1,039,543,277
b. Withdrawal Benefit	147,049,690	7,860,892	7,794,447	162,705,029
c. Pre-Retirement Death Benefit	33,077,452	690,251	1,877,795	35,645,498
d. Disability Benefit	59,842,175	2,403,832	2,729,122	64,975,129
e. Return of Member Contributions	90,704,137	2,477,052	11,113,911	104,295,100
f. Supplemental Medical Benefit	55,593,853	1,352,894	3,077,944	60,024,691
g. Subtotal	$ 1,311,169,706	$ 55,900,869	$ 100,118,149	$ 1,467,188,724
3. Present Value of Future Benefits for Inactive Members				5,252,861,642
4. Total Actuarial Accrued Liability (1g) - (2g) + (3)				$ 9,622,627,833

Oklahoma Public Employees Retirement System

Table 6

Development of COLA Reserve

1. Reserve as of July 1, 2009	$	120,013,500
2. Interest at 7.5%		9,001,013
3. Reserve increment		89,681,983
4. Expected reserve as of July 1, 2010 (1) + (2) + (3)		218,696,496
5. Ad hoc cost of living increase during year ended June 30, 2010		-
6. Actual reserve as of July 1, 2010 (4) - (5), but not less than $0	$	218,696,496

Oklahoma Public Employees Retirement System

In the previous two sections, attention has been focused on the assets and the present value of all future benefits of the System. A comparison of Tables 3 and 4 indicates that there is a shortfall in current actuarial assets to meet the present value of all future benefits for current members and beneficiaries.

In an active system, there will always be a difference between the assets and the present value of all future benefits. An actuarial valuation sets a schedule of future contributions that will deal with this funding 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.

Oklahoma Public Employees Retirement System

Table 7

Normal Cost Contribution Rates
As Percentages of Salary

	Regular	Elected Officials	Hazardous Duty	Total	% of Pay
1. Normal Cost					
a. Retirement Benefit	$ 133,910,969	$ 8,065,002	$ 10,355,314	$ 152,331,285	9.04%
b. Withdrawal Benefit	18,648,329	1,353,405	1,075,131	21,076,865	1.25%
c. Pre-Retirement Death Benefit	4,620,452	134,440	270,958	5,025,850	0.30%
d. Disability Benefit	7,911,010	431,967	382,319	8,725,296	0.52%
e. Return of Member Contributions	11,899,472	463,424	1,555,724	13,918,620	0.83%
f. Supplemental Medical Benefit	9,673,230	327,230	477,951	10,478,411	0.62%
g. Total	$ 186,663,462	$ 10,775,468	$ 14,117,397	$ 211,556,327	12.56%
2. Estimated Payroll for the Year	$ 1,560,551,260	$ 38,552,517	$ 84,593,362	$ 1,683,697,139	
3. Normal Cost Rate (1g)/(2)	11.96%	27.95%	16.69%	12.56%	

Oklahoma Public Employees Retirement System

Table 8

Unfunded Actuarial Accrued Liability Contribution Rate

1. Actuarial Present Value of Future Benefits	$	11,089,816,557
2. Actuarial Present Value of Future Normal Costs		1,467,188,724
3. Actuarial Accrued Liability (1) - (2)	$	9,622,627,833
4. Actuarial Value of Assets		6,348,416,407
5. Unfunded Actuarial Accrued Liability (UAAL) (3) - (4)	$	3,274,211,426
6. Amortization of UAAL over 20 years from July 1, 2007 (assumed mid-year) *		252,418,324
7. Total Estimated Payroll for Year Ending June 30, 2011	$	1,683,697,139
8. Amortization as a Percent of Payroll		14.99%

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

Oklahoma Public Employees Retirement System

Table 9

Actuarial Contribution Rate

	July 1	
	2010	2009
1. Total Normal Cost Rate	12.56%	12.52%
2. Amortization of UAAL[1]	14.99%	13.14%
3. Budgeted Expenses[2]	0.39%	0.38%
4. Total Actuarial Contribution Rate (1) + (2) + (3)	27.94%	26.04%
5. Estimated Member Contribution Rate	4.07%	3.84%
6. Employer Actuarial Contribution Rate (4) - (5)	23.87%	22.20%

[1] Amortization of UAAL is a level percent of payroll.
[2] Provided by the system.

Oklahoma Public Employees Retirement System

Table 10

Calculation of Actuarial Gain/(Loss)

1. Expected actuarial accrued liability		
a. Actuarial accrued liability at July 1, 2009	$	9,291,457,837
b. Normal cost at July 1, 2009		216,994,724
c. Benefit payments for fiscal year ending June 30, 2010		(440,318,435)
d. Interest on (a), (b), and (c)		696,920,507
e. Change in actuary		139,147,833
f. Change in plan provisions		0
g. Expected actuarial accrued liability as of July 1, 2010 (a) + (b) + (c) + (d) + (e) + (f)	$	9,904,202,466
2. Actuarial accrued liability at July 1, 2010	$	9,622,627,833
3. Actuarial accrued liability gain/(loss) (1g) - (2)	$	281,574,633
4. Expected actuarial value of assets		
a. Actuarial value of assets at July 1, 2009	$	6,208,245,334
b. Contributions for fiscal year ending June 30, 2010		328,820,672
c. Benefit payment and administrative expenses for fiscal year ending June 30, 2010		(444,874,268)
d. Interest on (a), (b), and (c)		461,345,067
e. Expected actuarial value of assets as of July 1, 2010 (a) + (b) + (c) + (d)	$	6,553,536,805
5. Actuarial value of assets at July 1, 2010	$	6,348,416,407
6. Actuarial value of assets gain/(loss) (5) - (4e)	$	(205,120,398)
7. Net actuarial gain/(loss) (3) + (6)	$	76,454,235

Oklahoma Public Employees Retirement System

Table 11

Summary of Contribution Requirements

	Actuarial Valuation as of		
	July 1, 2010	July 1, 2009	Percent Change
1. Expected annual payroll	$ 1,683,697,139	$ 1,732,975,532	-2.8%
2. Total normal cost	$ 211,556,327	$ 216,994,724	-2.5%
3. Unfunded actuarial accrued liability	$ 3,274,211,426	$ 3,083,212,503	6.2%
4. Amortization of unfunded actuarial accrued liability over 20 years from July 1, 2007*	$ 252,418,324	$ 227,649,240	10.9%
5. Budgeted expenses (provided by the System)	$ 6,607,489	$ 6,565,830	0.6%
6. Total required contribution (2) + (4) + (5)	$ 470,582,140	$ 451,209,794	4.3%
7. Estimated member contributions	$ 68,570,507	$ 62,054,455	10.5%
8. Required employer contribution (6) - (7)	$ 402,011,633	$ 389,155,339	3.3%
9. Previous year's actual contribution			
a. Member	$ 69,041,436	$ 68,712,683	0.5%
b. Employer	259,779,236	243,021,660	6.9%
c. Total	$ 328,820,672	$ 311,734,343	5.5%

*Amortization of UAAL is a level percent of payroll.

Oklahoma Public Employees Retirement System

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 the 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.

Oklahoma Public Employees Retirement System

Table 12

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)
7/1/2005	$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%
7/1/2010	6,348,416,407	9,622,627,833	3,274,211,426	66.0%	1,683,697,139	194.5%

Valuation Date	July 1, 2010
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay, Closed
Remaining Amortization Period	17 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%

Oklahoma Public Employees Retirement System

Table 13

Accounting Information for GASB 25

Schedule of Employer Contributions

For Fiscal Year Ended June 30

Year End	Annual Required Contribution	Percentage Contributed
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%
2010	389,155,339	66.8%

Oklahoma Public Employees Retirement System

Table 14

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	
	2010	2009
Vested benefits		
Active members	$ 2,027,413,498	$ 2,134,849,690
Terminated vested members	294,919,268	298,119,049
Unclaimed contributions	23,145,785	22,174,789
Limited benefit	922,082	901,434
Retirees and beneficiaries	3,848,499,349	3,641,303,431
Supplemental medical insurance premiums	323,200,890	306,402,449
Total vested benefits	$ 6,518,100,872	$ 6,403,750,842
Nonvested benefits for active members	$ 363,361,313	$ 216,847,243
Total accumulated benefits	$ 6,881,462,185	$ 6,620,598,085
Market value of assets available for benefits	$ 5,774,379,263	$ 5,173,537,778
Funded ratio	83.9%	78.1%
Number of members		
Vested members		
Active members	22,255	22,745
Terminated vested members	5,560	5,638
Retirees and beneficiaries	28,009	26,949
Total vested members	55,824	55,332
Nonvested active members	21,679	22,938
Total members	77,503	78,270

Oklahoma Public Employees Retirement System

Table 14 (continued)

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 benefit as of July 1, 2009	$	6,620,598,085
Increase/(decrease) during the year attributable to:		
Benefits accrued and (gains)/losses		220,851,114
Increase due to interest		480,331,421
Benefits paid		(440,318,435)
Plan provision change		-
Net increase/(decrease)	$	260,864,100
Present value of accrued benefit as of July 1, 2010	$	6,881,462,185

Oklahoma Public Employees Retirement System

Table 15

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 the benefits expected to be paid to members currently active on July 1, 2010. The "Retirees" column shows benefits expected to be paid to members receiving benefit payments as of July 1, 2010 or to members who have terminated employment and are entitled to a deferred vested benefit.

Retirement, Survivor, and Withdrawal Benefits

Year Ending June 30	Actives	Retirees	Total
2011	$32,645,000	$419,438,000	$452,083,000
2012	64,501,000	420,582,000	485,083,000
2013	97,842,000	421,175,000	519,017,000
2014	133,247,000	421,398,000	554,645,000
2015	170,621,000	421,422,000	592,043,000
2016	208,890,000	420,236,000	629,126,000
2017	248,279,000	418,792,000	667,071,000
2018	288,904,000	416,980,000	705,884,000
2019	329,908,000	414,247,000	744,155,000
2020	370,974,000	411,131,000	782,105,000

Supplemental Medical Premium Benefits

Year Ending June 30	Actives	Retirees	Total
2011	$1,643,000	$17,540,000	$19,183,000
2012	3,628,000	17,195,000	20,823,000
2013	5,597,000	16,844,000	22,441,000
2014	7,593,000	16,493,000	24,086,000
2015	9,530,000	16,156,000	25,686,000
2016	11,381,000	15,769,000	27,150,000
2017	13,173,000	15,449,000	28,622,000
2018	14,868,000	15,161,000	30,029,000
2019	16,440,000	14,865,000	31,305,000
2020	17,883,000	14,552,000	32,435,000

Oklahoma Public Employees Retirement System

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 the 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% for the fiscal year ending June 30, 2012 with a contribution rate of 16.5%.

Oklahoma Public Employees Retirement System

Employer and employee contributions (continued)

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.

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

Oklahoma Public Employees Retirement System

Employer and employee contributions
(continued)

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

For All Pay			
Fiscal Year	**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	15.5%	3.5%	19.0%

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.

Oklahoma Public Employees Retirement System

Years of Service

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	to	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.

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.

Oklahoma Public Employees Retirement System

Years of Service

Participating Service (continued)

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.

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 member with more than twenty (20) years of service, the minimum is $13,800.

Oklahoma Public Employees Retirement System

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. Member 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):

Oklahoma Public Employees Retirement System

Normal retirement benefit
(continued)

% 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.

Elected officials who became members after November 1, 2010 have two benefit multiplier options: 1.9% or 4.0%

Oklahoma Public Employees Retirement System

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 and having a date of disability 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 for non-elected members.

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.

Oklahoma Public Employees Retirement System

Vested Benefit (continued)	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.
Pre-retirement death benefit	The spouse of a deceased active member who had met normal, early or vested retirement provision 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 provision 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 member's 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.

Oklahoma Public Employees Retirement System

Optional form 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 unpaid 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 provision. 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.

Oklahoma Public Employees Retirement System

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

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

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

In addition, an amount of $400 per month will be paid as long as a child of the deceased member is under the age

Oklahoma Public Employees Retirement System

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

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%

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.

Oklahoma Public Employees Retirement System

Actuarial Cost Method

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

Sometimes called the “funding method,” this is a particular technique used by actuaries for establishing the amount of the annual actuarial cost of pension 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 actuarial 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 year;

Oklahoma Public Employees Retirement System

- 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

The actuarial accrued liability 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, is equal to the amount of the individual's unclaimed contributions.

The wages used in the projection of benefits and liabilities are considered earnings for the year ending June 30, 2010, 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. Service for this group was provided by the System.

Oklahoma Public Employees Retirement System

Valuation Procedures
(continued)

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.

Oklahoma Public Employees Retirement System

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 assumptions

Monthly benefits: 2% per year

Medical Supplement: No increases assumed

Projection of 401(a)(17) compensation limit: Projected with inflation at 3.0%

Oklahoma Public Employees Retirement System

Demographic Assumptions

Retirement age:

Non-elected members

	Annual Rates of Retirement Per 100 Eligible Members	
Nearest Age	Those Eligible For Unreduced Retirement	Those Eligible For Reduced 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

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Oklahoma Public Employees Retirement System

Demographic Assumptions (continued)

Retirement age (continued):
Elected members

	Annual Rates of Retirement Per 100 Eligible Members	
Nearest Age	Those Eligible For Unreduced Retirement	Those Eligible For Reduced 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

Oklahoma Public Employees Retirement System

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

Oklahoma Public Employees Retirement System

Demographic Assumptions (continued)

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 members	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.

Disability Rates:

Graduated rates
Disabled rates per 100 members

Nearest Age	Male	Female
20	0.01	0.01
30	0.02	0.03
40	0.08	0.10
50	0.41	0.31
60	0.85	0.63

Oklahoma Public Employees Retirement System

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.

Assumed age for commencement of deferred benefits:	Currently active members assumed to terminate in the future prior to retirement eligibility are assumed to commence 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.

Oklahoma Public Employees Retirement System

Valuation Data Distribution – Actives – Regular Membership

Age	Years of 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	1,109	22								1,131
Avg. Pay	$22,550	$30,509								$22,704
25 to 29	2,605	564	15							3,184
Avg. Pay	$27,780	$30,631	$34,183							$28,315
30 to 34	2,076	1,211	292	1						3,580
Avg. Pay	$29,613	$35,593	$36,243	$32,056						$32,177
35 to 39	1,633	1,269	884	192	12					3,990
Avg. Pay	$29,923	$36,272	$40,149	$41,459	$39,345					$34,791
40 to 44	1,439	1,127	957	555	317	16				4,411
Avg. Pay	$29,862	$35,259	$39,085	$42,939	$43,910	$48,968				$35,966
45 to 49	1,320	1,220	984	718	907	567	67			5,783
Avg. Pay	$29,648	$35,003	$37,479	$40,964	$45,722	$46,207	$46,447			$37,854
50 to 54	1,406	1,237	1,085	720	932	925	434			6,739
Avg. Pay	$30,375	$35,134	$38,147	$40,522	$43,835	$47,474	$47,030			$38,865
55 to 59	1,126	1,088	936	771	921	631	635	8		6,116
Avg. Pay	$32,196	$36,086	$37,464	$40,096	$44,025	$46,813	$48,965	$46,567		$39,739
60 to 64	629	808	708	562	537	400	401	33	2	4,080
Avg. Pay	$31,176	$36,054	$37,870	$39,943	$43,051	$46,284	$51,161	$52,562	$50,824	$39,702
65 to 69	198	270	244	170	185	104	82	15	1	1,269
Avg. Pay	$30,164	$35,032	$36,877	$40,414	$42,165	$45,814	$46,624	$69,846	$83,051	$38,470
70 & up	102	102	97	83	89	33	26	4	3	539
Avg. Pay	$27,268	$29,380	$39,985	$39,290	$37,099	$43,625	$38,736	$56,726	$43,666	$35,295
Total	13,643	8,918	6,202	3,772	3,900	2,676	1,645	60	6	40,822
Avg. Pay	$29,110	$35,191	$38,216	$40,802	$43,970	$46,769	$48,609	$56,361	$52,616	$36,309

Oklahoma Public Employees Retirement System

Valuation Data Distribution – Actives – Elected Membership

Age	Years of 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										
Avg. Pay										
25 to 29	1	1								2
Avg. Pay	$38,400	$24,727								$31,564
30 to 34	11	7	5							23
Avg. Pay	$40,408	$37,832	$43,844							$40,371
35 to 39	9	12	12	3	1					37
Avg. Pay	$49,051	$38,093	$51,578	$40,173	$37,845					$45,294
40 to 44	17	20	23	10	4	1				75
Avg. Pay	$42,648	$42,075	$52,135	$61,496	$46,460	$33,399				$47,997
45 to 49	12	17	14	18	23	19	1			104
Avg. Pay	$43,246	$44,121	$55,668	$48,007	$50,593	$51,355	$53,025			$49,086
50 to 54	15	27	24	10	29	23	6			134
Avg. Pay	$46,629	$48,226	$61,307	$49,006	$44,459	$51,042	$56,337			$50,480
55 to 59	23	22	17	24	34	30	17			167
Avg. Pay	$46,707	$47,489	$43,128	$51,190	$50,539	$50,577	$55,063			$49,416
60 to 64	16	22	14	14	19	9	7			101
Avg. Pay	$39,433	$45,279	$44,402	$43,665	$56,702	$42,850	$65,321			$47,329
65 to 69	5	17	26	6	16	7	9	1	1	88
Avg. Pay	$47,966	$40,340	$43,343	$45,020	$46,768	$49,164	$50,129	$49,473	$43,200	$44,988
70 & up	4	7	8	4	5	2	2	2		34
Avg. Pay	$38,400	$39,105	$43,495	$44,844	$48,641	$48,783	$43,572	$49,412		$43,571
Total	113	152	143	89	131	91	42	3	1	765
Avg. Pay	$43,950	$43,689	$49,774	$49,203	$49,342	$49,756	$55,302	$49,432	$43,200	$47,856

Oklahoma Public Employees Retirement System

Valuation Data Distribution – Actives – Hazardous Duty Membership

Age	Years of 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	101									101
Avg. Pay	$24,839									$24,839
25 to 29	227	68								295
Avg. Pay	$27,671	$31,746								$28,611
30 to 34	159	138	62							359
Avg. Pay	$27,452	$32,866	$37,245							$31,224
35 to 39	117	115	113	34						379
Avg. Pay	$27,507	$33,560	$38,052	$42,566						$33,839
40 to 44	62	73	112	83	29					359
Avg. Pay	$26,860	$32,075	$38,114	$42,734	$44,786					$36,549
45 to 49	44	59	67	61	74	13				318
Avg. Pay	$29,775	$31,345	$36,190	$41,083	$46,524	$43,210				$38,034
50 to 54	35	36	56	39	54	17	4			241
Avg. Pay	$27,708	$30,356	$36,697	$39,109	$44,204	$46,143	$43,596			$37,297
55 to 59	30	34	45	48	25	13	1			196
Avg. Pay	$28,749	$31,526	$35,879	$39,853	$42,211	$45,145	$50,446			$36,502
60 to 64	11	11	19	18	17	3	2			81
Avg. Pay	$28,989	$32,261	$37,507	$38,989	$42,866	$48,106	$43,816			$37,640
65 to 69		2	5	1	3	1				12
Avg. Pay		$38,903	$36,633	$37,894	$39,073	$40,569				$38,054
70 & up	1	1	4							6
Avg. Pay	$30,369	$32,282	$32,819							$32,321
Total	787	537	483	284	202	47	7			2,347
Avg. Pay	$27,357	$32,354	$37,265	$41,120	$44,702	$45,062	$44,638			$34,104

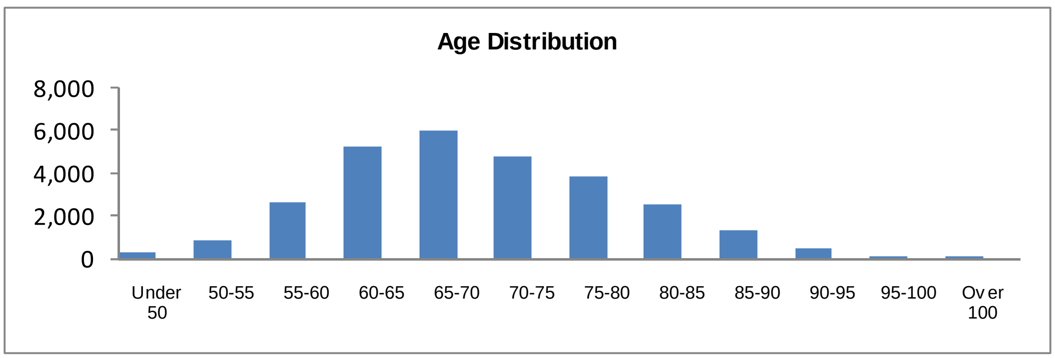
Oklahoma Public Employees Retirement System

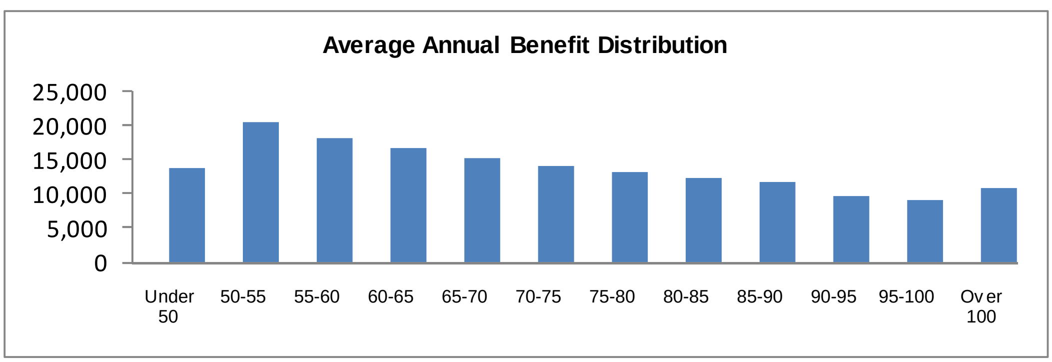
Valuation Data Distribution – Actives – All Membership Groups

Age	Years of 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	1,210	22								1,232
Avg. Pay	$22,741	$30,509								$22,880
25 to 29	2,833	633	15							3,481
Avg. Pay	$27,775	$30,742	$34,183							$28,342
30 to 34	2,246	1,356	359	1						3,962
Avg. Pay	$29,513	$35,327	$36,522	$32,056						$32,139
35 to 39	1,759	1,396	1,009	229	13					4,406
Avg. Pay	$29,860	$36,064	$40,050	$41,607	$39,230					$34,797
40 to 44	1,518	1,220	1,092	648	350	17				4,845
Avg. Pay	$29,883	$35,180	$39,260	$43,199	$44,011	$48,053				$36,196
45 to 49	1,376	1,296	1,065	797	1,004	599	68			6,205
Avg. Pay	$29,770	$34,957	$37,637	$41,132	$45,893	$46,305	$46,544			$38,052
50 to 54	1,456	1,300	1,165	769	1,015	965	444			7,114
Avg. Pay	$30,479	$35,274	$38,555	$40,561	$43,872	$47,535	$47,125			$39,031
55 to 59	1,179	1,144	998	843	980	674	653	8		6,479
Avg. Pay	$32,391	$36,170	$37,489	$40,398	$44,205	$46,948	$49,126	$46,567		$39,891
60 to 64	656	841	741	594	573	412	410	33	2	4,262
Avg. Pay	$31,341	$36,246	$37,984	$40,002	$43,498	$46,222	$51,367	$52,562	$50,824	$39,844
65 to 69	203	289	275	177	204	112	91	16	2	1,369
Avg. Pay	$30,602	$35,371	$37,484	$40,556	$42,481	$45,977	$46,971	$68,573	$63,125	$38,886
70 & up	107	110	109	87	94	35	28	6	3	579
Avg. Pay	$27,713	$30,026	$39,980	$39,545	$37,713	$43,920	$39,081	$54,288	$43,666	$35,751
Total	14,543	9,607	6,828	4,145	4,233	2,814	1,694	63	7	43,934
Avg. Pay	$29,130	$35,167	$38,391	$41,004	$44,171	$46,837	$48,759	$56,031	$51,271	$36,392

Oklahoma Public Employees Retirement System

Age	Number: Male	Number: Female	Number: Total	Annual Benefits: Male	Annual Benefits: Female	Annual Benefits: Total
Under 50	163	154	317	$2,495,268	$1,877,874	$4,373,142
50-55	321	529	850	6,823,418	10,619,417	17,442,835
55-60	1,118	1,548	2,666	21,006,776	27,166,608	48,173,384
60-65	2,300	2,905	5,205	41,468,850	45,309,382	86,778,232
65-70	2,649	3,314	5,963	43,879,565	46,914,521	90,794,085
70-75	2134	2,662	4,796	33,342,015	34,159,263	67,501,278
75-80	1,618	2,208	3,826	23,848,054	26,200,992	50,049,046
80-85	923	1,600	2,523	12,488,577	18,368,730	30,857,308
85-90	484	839	1,323	6,539,450	9,115,400	15,654,849
90-95	122	314	436	1,434,989	2,818,515	4,253,503
95-100	22	73	95	191,687	680,909	872,596
Over 100	0	9	9	0	97,229	97,229
Total	11,854	16,155	28,009	$193,518,648	$223,328,839	$416,847,488





Oklahoma Public Employees Retirement System

	Actuarial Valuation as of 7/1/2010	Actuarial Valuation as of 7/1/2009	% Change
1. Active members			
a. Number	43,934	45,683	-3.8%
b. Annual compensation	$ 1,683,697,139	$ 1,732,975,532	-2.8%
c. Average annual compensation	38,323	37,935	1.0%
d. Average age	46.5	46.3	0.5%
e. Average service	10.7	10.5	2.1%
2. Accumulated member contributions			
a. Active members	$ 487,979,877	$ 466,879,621	4.5%
b. Unclaimed contribution amounts	23,145,785	22,174,789	4.4%
c. Total	$ 511,125,663	$ 489,054,410	4.5%
3. Vested terminated members			
a. Number	3,534	3,781	-6.5%
b. Annual deferred benefits	$ 31,071,644	$ 32,125,048	-3.3%
c. Average annual deferred benefit	8,792	8,496	3.5%
d. Annual supplemental medical insurance premiums	$ 4,452,840	$ 4,764,060	-6.5%
4. Assumed deferred vested - count	2,026	1,857	9.1%
5. Retired members			
a. Number	23,563	22,698	3.8%
b. Annual retirement benefits	$ 373,584,819	$ 353,572,735	5.7%
c. Average annual retirement benefit	15,855	15,577	1.8%
d. Annual supplemental medical insurance premiums	$ 16,523,640	$ 16,277,940	1.5%
6. Beneficiaries			
a. Number	2,959	2,775	6.6%
b. Annual retirement benefits	$ 29,133,234	$ 26,960,372	8.1%
c. Average annual retirement benefit	9,846	9,715	1.3%
7. Disabled members			
a. Number	1,487	1,476	0.7%
b. Annual retirement benefits	$ 13,981,104	$ 13,714,164	1.9%
c. Average annual retirement benefit	9,402	9,291	1.2%
d. Annual supplemental medical insurance premiums	$ 992,880	$ 996,660	-0.4%
8. Total members included in valuation	77,503	78,270	-1.0%

Oklahoma Public Employees Retirement System

	Actuarial Valuation as of 7/1/2010	Actuarial Valuation as of 7/1/2009
Regular Members		
Number	40,822	42,415
Average annual compensation	$ 36,309	$ 37,857
Average age	46.7	46.5
Average service	10.7	10.5
Elected officials		
Number	765	770
Average annual compensation	$ 47,856	$ 49,654
Average age	54.1	53.3
Average service	14.9	14.2
Hazardous Duty		
Number	2,347	2,498
Average annual compensation	$ 34,104	$ 35,643
Average age	40.8	40.6
Average service	9.2	8.6
Total		
Number	$ 43,934	$ 45,683
Average annual compensation	36,392	37,935
Average age	46.5	46.3
Average service	10.7	10.5

Oklahoma Public Employees Retirement System

	Actuarial Valuation as of	
	7/1/2010	7/1/2009
Retirees		
Number	23,563	22,698
Average annual benefit	$ 15,855	$ 15,577
Average age	70.8	70.9
Disability Retirees		
Number	1,487	1,476
Average annual benefit	$ 9,402	$ 9,291
Average age	61.9	61.0
Beneficiaries		
Number	2,959	2,775
Average annual benefit	$ 9,846	$ 9,715
Average age	72.2	71.9
Total		
Number	28,009	26,949
Average annual benefit	$ 14,877	$ 14,629
Average age	70.5	70.5
Vested Members		
Number	5,560	5,638
Average annual benefit	$ 9,625	$ 9,570
Average age	51.1	50.9

	Active Members	Vested Terminated	Receiving Benefits: Retirees	Receiving Benefits: Disability Retirees	Receiving Benefits: Benefici-aries	Total Members
As of July 1, 2009	**45,683**	**5,638**	**22,698**	**1,476**	**2,775**	**78,270**
Age retirements	(1,417)	(290)	1,707	0	0	0
Disability retirements	(53)	(22)	0	75	0	0
Deaths without payments continuing	(61)	(15)	(654)	(47)	(106)	(883)
Deaths with payments continuing	(42)	(26)	(202)	(20)	290	0
Nonvested terminations/refund of contributions	(3,759)	(131)	0	0	0	(3,890)
Vested terminations	(516)	516	0	0	0	0
Transfers	(8)	(13)	0	0	0	(21)
Data adjustments	0	9	14	3	0	26
Rehires	396	(106)	0	0	0	290
New entrants during the year	3,711	0	0	0	0	3,711
Net change	(1,749)	(78)	865	11	184	(767)
As of July 1, 2010	**43,934**	**5,560**	**23,563**	**1,487**	**2,959**	**77,503**

	Active	Retired	Terminated Vested	Total
Records submitted on data file	43,788	47,070	3,561	94,419
Remove deceased retirees	0	(19,059)	0	(19,059)
Remove unusable data	(75)	0	(6)	(81)
Remove those with another status	(19)	(2)	(21)	(42)
Add those with no application	240	0	0	240
Add assumed vesteds	0	0	2,026	2,026
Total valued	**43,934**	**28,009**	**5,560**	**77,503**

Oklahoma Public Employees Retirement System

Accrued Benefit

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement, and retirement; changes in compensation, rates of investment earnings, and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarial Gain (Loss)

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Present Value

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets

The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Amortization Payment

That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Deferred Vested Participant

A vested member who has terminated employment prior to early or normal retirement age who does not withdraw his or her contributions and is, therefore, due a retirement benefit at a later date.

Entry Age Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

Market Value of Assets

The fair value of cash, investments and other property belonging to a pension plan that could be acquired by exchanging them on the open market.

Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method Projected Benefits

Projected Benefits

Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.

Unaccrued Benefit

The excess of an individual's Projected Benefits over the Accrued Benefits as of a specified date.

Unfunded Actuarial Accrued Liability

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.

Withdrawal Liability

The liability due to an active member terminating employment with a deferred vested benefit.

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, 2010, for the fiscal year ending June 30, 2011. The results of the valuation are set forth in this addendum, which reflects the benefit provisions in effect on July 1, 2010.

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 Board of Trustees' 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, 2010 valuation.

The results shown in this Addendum are not consistent with those in the July 1, 2010, valuation. The July 1, 2010, 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 Board of Trustees.

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.

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

Alisa Bennett

Alisa Bennett, FSA, EA, FCA, MAAA	October 15, 2010 Date

Patrice Beckham

Patrice Beckham, FSA, EA, MAAA	October 15, 2010 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, 2010, 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, 2010	July 1, 2009	Amount	Percent
Summary of Costs				
Required employer contribution for current year	$330,063,433	$336,565,236	($6,501,803)	-1.9%
Actual employer contributions received in prior year	259,779,236	243,021,660	16,757,576	6.9%
Funded Status				
Actuarial accrued liability	$9,662,170,804	$9,412,669,934	$249,500,870	2.7%
Actuarial value of assets	6,348,416,407	6,208,245,334	140,171,073	2.3%
Unfunded actuarial accrued liability	3,313,754,397	3,204,424,600	109,329,797	3.4%
Funded ratio	65.7%	66.0%	-0.3%	-0.4%
Market Value of Assets and Additional Liabilities				
Market value of assets	$5,774,379,263	$5,173,537,778	$600,841,485	11.6%

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, 2010, 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, 2010 Amount	July 1, 2009 Amount	Percent Change in Amount
Summary of Contribution Requirements			
1. Expected annual payroll	$ 1,683,697,139	$ 1,732,975,372	-2.8%
2. Total normal cost	$ 219,443,144	$ 225,164,548	-2.5%
3. Unfunded actuarial accrued liability	$ 3,313,754,397	$ 3,204,424,600	3.4%
4. Amortization of unfunded actuarial accrued liability over 30 years*	$ 172,583,307	$ 166,889,312	3.4%
5. Budgeted expenses (provided by the System	$ 6,607,489	$ 6,565,830	0.6%
6. Total required contribution (2) + (4) + (5)	$ 398,633,940	$ 398,619,691	0.0%
7. Estimated member contributions	$ 68,570,507	$ 62,054,455	10.5%
8. Required employer contributions (6) - (7), not less than $0	$ 330,063,433	$ 336,565,236	-1.9%
9. Previous year's actual contribution			
a. Member	$ 69,041,436	$ 68,712,683	0.5%
b. Employer	$ 259,779,236	$ 243,021,660	6.9%
c. Total	$ 328,820,672	$ 311,734,343	5.5%

*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, 2010, 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, 2010	July 1, 2009
1. Actuarial present value of benefits		
a. Active members	$ 6,061,465,567	$ 6,094,873,872
b. Terminated vested members and other inactives	416,214,790	423,528,054
c. Retirees, disableds, and beneficiaries	4,715,294,837	4,456,464,208
d. Total (a) + (b) + (c)	$ 11,192,975,194	$ 10,974,866,134
2. Actuarial present value of future normal costs	$ 1,530,804,390	$ 1,562,196,200
3. Total actuarial accrued liability (1) - (2)	$ 9,662,170,804	$ 9,412,669,934
4. Actuarial value of assets	$ 6,348,416,407	$ 6,208,245,334
5. Unfunded actuarial accrued liability (3) - (4)	$ 3,313,754,397	$ 3,204,424,600

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, 2010, 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, 2010**	**July 1, 2009**
Retirement benefits	$ 157,635,681	$ 162,056,590
Withdrawal benefits	21,596,784	22,656,901
Disability benefits	10,158,786	4,705,357
Death benefits	5,163,707	10,277,861
Refunds	14,160,646	14,330,186
Supplemental medical insurance premiums	10,727,540	11,137,652
Total normal cost	$ 219,443,144	$ 225,164,548