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OKLAHOMA PUBLIC EMPLOYEES RETIREMENT SYSTEM

State of Oklahoma
Public Employees Retirement System

Actuarial Valuation Report
as of July 1, 2011

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Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

October 14, 2011

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, 2011.

The purpose of this report is to provide a summary of the funded status of the System as of July 1, 2011, 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 actuarial accrued liability (UAAL) that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 4.00% annually. Since the previous valuation, the rates of real wage growth, withdrawal, disability, and the probability of electing a vested benefit have been revised due to the three-year experience study for the period ending June 30, 2010. 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.

Also, since the last valuation, the plan provisions of the System have been amended by House Bill 2132. Under this legislation, COLAs are removed from the definition of “non-fiscal retirement bills” in the Oklahoma Pension Legislation Actuarial Analysis Act (“OPLAAA”). The effect of these amendments makes any COLA bill subject to all of the requirements of OPLAAA including the requirement that such bills provide adequate funding to pay the cost. Therefore, as of July 1, 2011, liabilities have been calculated without considering future COLAs, and the COLA reserve has been removed.

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 previous 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

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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.

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. Because 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 supplemental 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 at least 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. Because the statutory contribution exceeds the ARC in this valuation, we recommend the statutory contribution be contributed in order to protect against future investment and experience losses, or, in the absence of such losses, to pay the UAAL down faster than under the current schedule.

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

Respectfully submitted,

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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, 2011 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;
- Evaluate the sufficiency of the statutory contribution rate;
- 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.

Since the previous valuation, the rates of real wage growth, withdrawal, disability, and the probability of electing a vested benefit have been revised due to the three-year experience study for the period ending June 30, 2010. Also, since the last valuation, the plan provisions of the System have been amended by House Bill 2132. Under this legislation, COLAs are removed from the definition of "non-fiscal retirement bills" in the Oklahoma Pension Legislation Actuarial Analysis Act ("OPLAAA"). The effect of these amendments makes any COLA bill subject to all of the requirements of OPLAAA including the requirement that such bills provide adequate funding to pay the cost. Therefore, as of July 1, 2011, liabilities have been calculated without considering future COLAs, and the COLA reserve has been removed.

In addition, there were several bills passed by the 2011 Oklahoma Legislature and signed by the Governor that will impact only future OPERS members or that otherwise have no fiscal impact on the current valuation. They include:

- SB794 - OPERS Reform Bill
  This bill became the vehicle to increase the retirement age for all OPERS members. The final bill creates a specific retirement age of 65 for all new OPERS members joining on or after November 1, 2011. Members will still be eligible to retire at age 60 if they meet the "Rule of 90." Elected officials elected or appointed on or after November 1, 2011 will have the same benefit formula and contribution rate as regular OPERS members. They will also have a retirement age of 65 or 62 with 10 years of service. The vesting is increased to 8 years from the current 6 years. Early retirement options will begin at age 60 instead of the current age 55 for both regular and elected officials.

- SB347 - Municipal Employees/Officers
  Municipal employees and officers will forfeit retirement benefits upon final conviction, guilty plea or nolo contendere to specified crimes.

- SB782 - OPLAAA Date Change
  Amends 62 O.S. § 3109 to move the deadline for completion of an actuarial investigation from November 1 to December 1. The final bill deletes the requirement that the state pension systems submit reports annually to the Pension Commission using standard actuarial assumptions.

- SB840 - OPERS Request Bill
  All administrative appeals from OPERS board actions are to be brought in Oklahoma County. Deadlines related to hearing procedures were cleaned up and specific authority to use hearing examiners was put

into law. The new law specifically gives the Board jurisdiction over all disputes involving members and participating employers. When local employers collect contributions from members the new law provides that they are trust funds. The late charge for paying contributions was increased.

The valuation results provide a snapshot view of the System's financial condition on July 1, 2011. The unfunded actuarial accrued liability for the System decreased by $1,693 million due to various factors, the largest being the removal of the COLA assumption. A detailed analysis of the change in the unfunded actuarial accrued liability from July 1, 2010 to July 1, 2011 is shown on page 5.

The highlights of the valuation are shown below:

	Actuarial Valuation Date	
Funded Status $(millions)	**July 1, 2011**	**July 1, 2010**
Actuarial Accrued Liability	$8,180	$9,623
Actuarial Value of Assets	$6,599	$6,348
Unfunded Actuarial Accrued Liability	$1,581	$3,274
Funded Ratio (Actuarial Value)	80.7%	66.0%
Market Value of Assets	$6,841	$5,774
Funded Ratio (Market Value)	83.6%	60.0%

There was a liability decrease of $35.9 million due to the revised assumptions based on the experience study and a liability decrease of $1,702.7 million due to the elimination of the COLA assumption and reserve. In addition, there was a liability gain of $153.1 from other factors which resulted in an actuarial accrued liability that was lower than expected (1.8% 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 21.5% for the year ended June 30, 2011. 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 6.5% which resulted in an actuarial loss of $60.0 million.

The actuarial contribution rate for the employer decreased from 2010 to 2011:

	Actuarial Valuation Date	
Contribution Rate	**July 1, 2011**	**July 1, 2010**
Normal Cost	10.66%	12.56%
Amortization of UAAL	8.27%	14.99%
Budgeted Expenses	0.45%	0.39%
Actuarial Contribution Rate	19.38%	27.94%
Less Estimated Member Contribution Rate	(4.09)%	(4.07)%
Employer Actuarial Contribution Rate	15.29%	23.87%
Less State Statutory Contribution Rate	(16.50)%	(15.50)%
Contribution Shortfall	(1.21)%	8.37%

Primarily due to the removal of the COLA assumption and reserve, the actuarial contribution rate is less than the statutory contribution rate. This will decrease the unfunded actuarial accrued liability and accelerate progress on reaching long term funding goals.

EXPERIENCE: July 1, 2010 to July 1, 2011

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, 2011. 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, 2010 and July 1, 2011. Each component is examined in the following discussion.

ASSETS

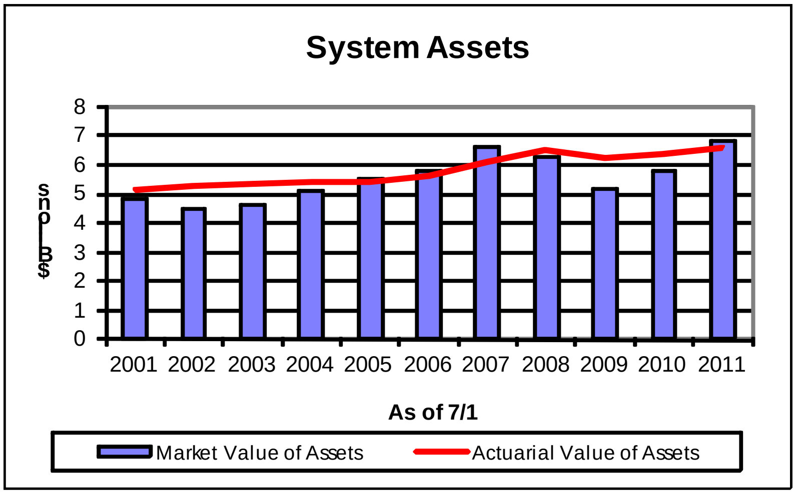
As of July 1, 2011, the System had total funds when measured on a market value basis of $6.8 billion. This was an increase of $1.0 billion from the July 1, 2010 figure of $5.8 billion. The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method, 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, 2011.

The actuarial value of assets as of July 1, 2011 was $6.599 billion. The annualized dollar-weighted rate of return for FY2011, measured on the actuarial value of assets, was approximately 6.5%. Measured on the market value of assets, the rate of return was 21.5%, net of investment expenses.

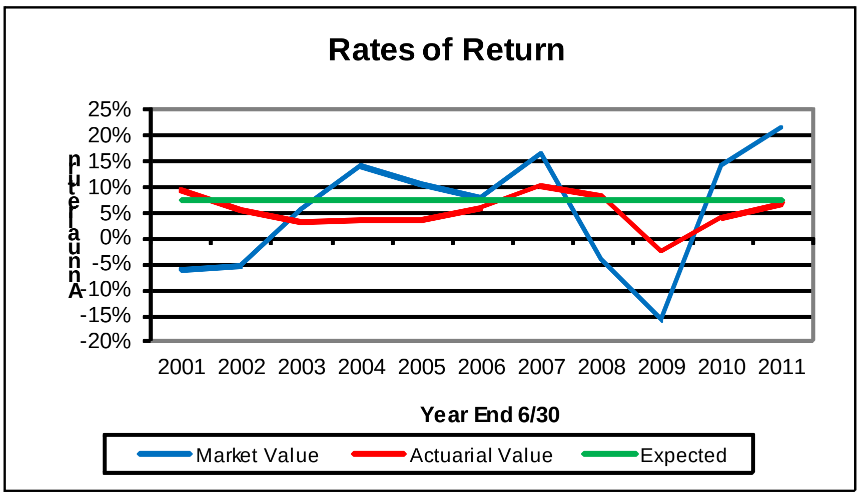
The components of the change in the market and actuarial value of assets for the System are set forth below:

	Market Value $(millions)	Actuarial Value $(millions)
Net Assets, July 1, 2010	$5,774	$6,348
• Employer and Member Contributions	319	319
• Benefit Payments and Expenses	(479)	(479)
• Investment Income/(Loss)	1,227	411
Preliminary Value, July 1, 2011	6,841	6,599
Application of Corridor	N/A	N/A
Final Net Assets, July 1, 2011	$6,841	$6,599
Estimated Rate of Return	21.5%	6.5%

Due to the use of an asset smoothing method, there is about $242 million of deferred investment gain 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 actual 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, 2011 is:

Actuarial Accrued Liability	$8,179,767,661
Actuarial Value of Assets	6,598,627,939
Unfunded Actuarial Accrued Liability	$1,581,139,722

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 plan year ending June 30, 2011. There was an experience loss on the actuarial value of assets and an experience gain on liabilities. The net result was a decrease in the UAAL.

Between July 1, 2010 and July 1, 2011 the change in the unfunded actuarial accrued liability for the System was as follows (in millions):

	$millions
Unfunded Actuarial Accrued Liability, July 1, 2010	$3,274
• effect of contributions less than actuarial rate	146
• expected increase due to amortization	(16)
• investment experience	59
• liability experience[1]	(153)
• other experience	10
• change in actuarial assumptions	(36)
• change in COLA assumption/reserve	(1,703)
Unfunded Actuarial Accrued Liability, July 1, 2011	$1,581

[1] Liability gain is about 1.8% of total actuarial accrued liability

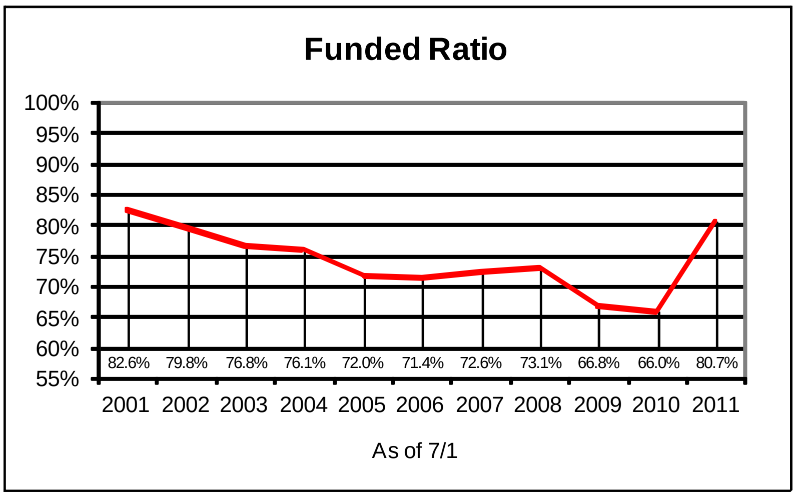
The liability gain for the System can be allocated to experience related to each actuarial assumption as follows:

Liability Source	Impact of AAL $(millions)	% of Expected Liability
Salary Increases	$ (132.9)	(1.59)%
Mortality	(19.1)	(0.23)%
Termination of Employment	(14.5)	(0.17)%
Retirements	23.5	0.28%
Disability	4.1	0.05%
New entrants and rehires	17.1	0.21%
Miscellaneous/data changes	(31.3)	(0.38)%
Total (gain)/loss	$ (153.1)	(1.83)%

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 because 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, which is 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	7/1/11
Using Actuarial Value of Assets:						
Funded Ratio	71.4%	72.6%	73.0%	66.8%	66.0%	80.7%
Unfunded Actuarial Accrued Liability (UAAL)	$2,260	$2,303	$2,402	$3,083	$3,274	$1,581
Using Market Value of Assets:						
Funded Ratio	73.5%	78.9%	70.3%	55.7%	60.0%	83.6%
Unfunded Actuarial Accrued Liability (UAAL)	$2,097	$1,773	$2,639	$4,118	$3,848	$1,339



Before the removal of the COLA assumption and reserve , the System's funded ratio had 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.

Removing the COLA assumption and reserve has decreased liabilities and the funded ratio has increased to 80.7% as of July 1, 2011.

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.

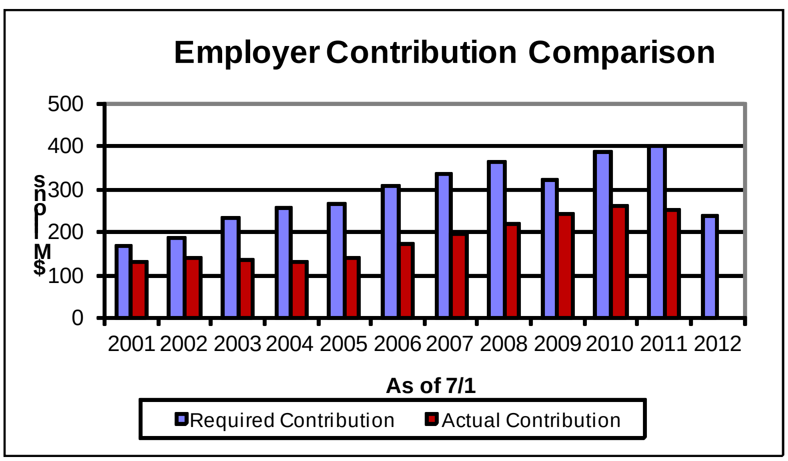
Under the Entry Age Normal cost method, the actuarial contribution rate consists of:

- 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 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, most 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 combined 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 and was effective July 1, 2011. For county and local employees, the contribution rate increased to 15.0% on July 1, 2005 and increased an additional 1.0% of payroll each year beginning July 1, 2006 until it reached 20.0% on July 1, 2010. The ultimate contribution rate of 16.5% for the State is now greater than the employer actuarial contribution rate for fiscal year 2011 developed in this valuation. When contributions to the System are greater than the actuarial rate, the UAAL is expected to decrease and be paid down faster. As of the July 1, 2011 valuation, if the System pays the statutory rate it is projected the UAAL will be paid off in 14 years.

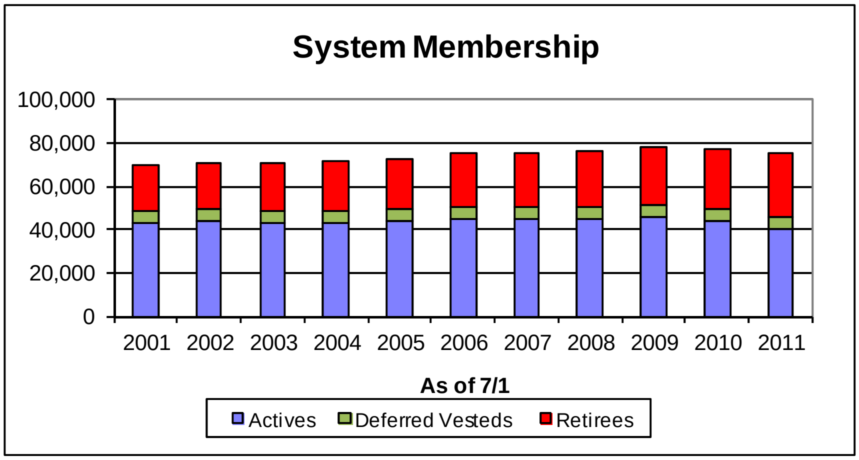
The following graph shows the total required employer contribution compared to the amount actually received in each year. The funding policy contribution equals the System's normal cost, budgeted expenses, and an amortization of the unfunded actuarial accrued liability. For July 1, 1998 and prior years, 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, 2011, 16 years remain in the amortization period.



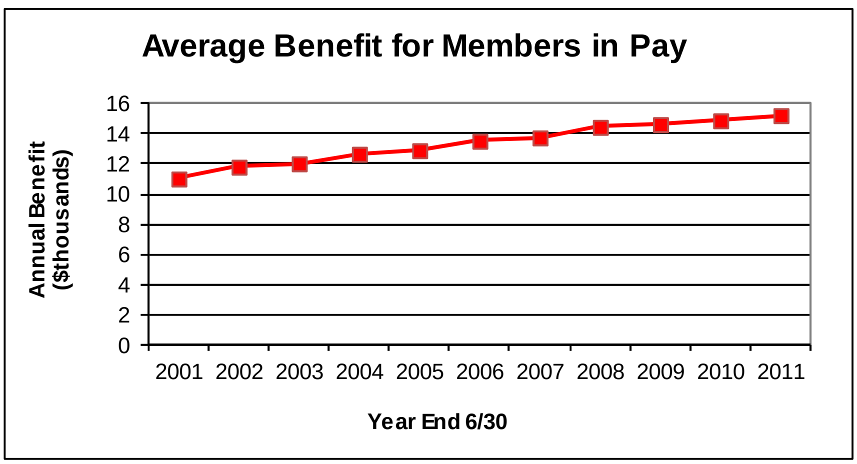
MEMBER INFORMATION

The number of active members included in the valuation decreased by nearly 4% from the 2009 to the 2010 valuation and by 8% from the 2010 to the 2011 valuation. This appears to be the result of new retirees and terminations 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 29,418 retirees and beneficiaries in the 2011 valuation, with an average benefit of $1,269 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 with a slight decline over the last two years. 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 experienced significant volatility over the last three 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 losses of 2008 and 2009 were so large that their recognition in the actuarial value of assets surpass the portion of the 2007, 2010 and 2011 gains being recognized, resulting in a net loss recognized as of July 1, 2011. In the absence of new losses in future years, the smoothing method is projected to start recognizing net gains in 2012.

The employer contribution rate has been increasing according to a schedule with an ultimate rate of 16.50% being reached as of July 1, 2011. As noted earlier in the report, mainly due to the removal of the COLA assumption and reserve, the actuarial contribution rate of 15.29% is less than what is currently being funded. Absent future investment or experience losses, this will serve to decrease the UAAL and cause it to be paid down faster. As of the July 1, 2011 valuation, if the System pays the statutory rate it is projected that the UAAL will be paid off in 14 years. Paying the statutory rate also helps to protect against future investment and experience losses that may be more frequent and/or severe in this time of economic uncertainty.

COMPARISON OF PRINCIPAL VALUATION RESULTS

		7/1/2011 Valuation		7/1/2010 Valuation	% Change
1. PARTICIPANT DATA					
Number of:					
Active Members		40,551		43,934	(7.7)
Retired and Disabled Members and Beneficiaries		29,418		28,009	5.0
Inactive Members		5,522		5,560	(0.7)
Total Members		75,491		77,503	(2.6)
Projected Annual Salaries of Active Members	$	1,570,500,148	$	1,683,697,139	(6.7)
Annual Retirement Payments for Retired Members and Beneficiaries	$	447,919,757	$	416,699,157	7.5
2. ASSETS AND LIABILITIES					
Total Actuarial Accrued Liability	$	8,179,767,661	$	9,622,627,833	(15.0)
Market Value of Assets	$	6,841,001,769	$	5,774,379,263	18.5
Actuarial Value of Assets	$	6,598,627,939	$	6,348,416,407	3.9
Unfunded Actuarial Accrued Liability	$	1,581,139,722	$	3,274,211,426	(51.7)
Funded Ratio		80.7%		66.0%	22.3
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL					
Normal Cost Rate		10.66%		12.56%	
Amortization of Unfunded Actuarial Accrued Liability		8.27%		14.99%	
Budgeted Expenses		0.45%		0.39%	
Total Actuarial Required Contribution Rate		19.38%		27.94%	
Less Estimated Member Contribution Rate		4.09%		4.07%	
Employer Actuarial Required Contribution Rate		15.29%		23.87%	
Less Statutory State Employer Contribution Rate		16.50%		15.50%	
Contribution Shortfall/(Surplus)		(1.21%)		8.37%	

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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, 2011 the market value of assets for the System was $6.8 billion. Table 1 is a comparison, at market values, of System assets as of July 1, 2011, and July 1, 2010, in total and by investment category. Table 2 summarizes the change in the market value of assets from July 1, 2010 to June 30, 2011.

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, 2011			June 30, 2010		
		Amount $(millions)	% of Total		Amount $(millions)	% of Total
Cash & Equivalents	$	174.9	2.5%	$	157.3	2.7%
Short-term Investments		39.6	0.6%		24.8	0.4%
Government Obligations		1,435.4	20.3%		1,321.2	22.3%
Corporate Bonds		854.5	12.1%		924.1	15.6%
Domestic Equity		2,859.8	40.6%		2,197.5	37.1%
International Equity		1,686.6	23.9%		1,299.3	21.9%
Subtotal	$	7,050.8	100.0%	$	5,924.2	100.0%
Property (net)		0.8			0.7	
Other Assets		0.2			0.3	
Net Receivables/(payables)		(210.8)			(150.8)	
Net Assets	$	6,841.0		$	5,774.4	

Oklahoma Public Employees Retirement System

Table 2

Statement of Changes in Net Assets

	Fiscal Year Ended June 30 2011		Fiscal Year Ended June 30 2010	
1. Market Value of Net Assets at Beginning of Year	$	5,774,379,263	$	5,173,537,778
2. Contributions				
a. Members	$	66,431,434	$	69,041,436
b. State and Local Agencies		252,904,579		259,779,236
c. Total Contributions (2a) + (2b)		319,336,013		328,820,672
3. Net Investment Income				
a. Net appreciation (depreciation) in fair value of investments	$	1,122,811,032	$	610,499,166
b. Interest		69,039,631		76,143,014
c. Dividends		40,475,599		35,222,195
d. Securities lending activities		1,826,242		1,537,491
e. Other		0		36,966
f. Total investment income/(loss) (3a) + (3b) + (3c) + (3d) + (3e)	$	1,234,152,504	$	723,438,832
g. Investment expenses		(7,466,011)		(6,543,751)
h. Net investment income/(loss) (3f) + (3g)		1,226,686,493		716,895,081
i. Total additions/(subtractions) (2c) + (3h)	$	1,546,022,506	$	1,045,715,753
4. Deductions				
a. Retirement, death, and survivor benefits	$	462,062,563	$	429,260,056
b. Refunds and withdrawals		12,656,758		11,058,379
c. Administrative expenses		4,680,679		4,555,833
d. Total deductions (4a) + (4b) + (4c)	$	479,400,000	$	444,874,268
5. Net Change in Assets (3i) - (4d)		1,066,622,506		600,841,485
6. Market Value of Net Assets at End of Year (1) + (5)	$	6,841,001,769	$	5,774,379,263

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
2007	$	518,970,886	$	415,176,709	$	103,794,177	$	0
2008		(730,915,087)		(438,549,052)		(146,183,017)		(146,183,018)
2009		(1,449,929,882)		(579,971,953)		(289,985,976)		(579,971,953)
2010		605,615,805		121,123,161		121,123,161		363,369,483
2011		756,449,148		0		151,289,830		605,159,318
Total	$	(299,809,130)	$	(482,221,135)	$	(59,961,825)	$	242,373,830

Development of Actuarial Value of Assets

1. Actuarial Value as of July 1, 2010	$	6,348,416,407
2. Contributions		
a. Member	$	66,431,434
b. Employer		252,904,579
c. Total (a) + (b)	$	319,336,013
3. Decreases during year		
a. Benefit payments	$	(462,062,563)
b. Refunds and withdrawals		(12,656,758)
c. Administrative expenses		(4,680,679)
d. Total (a) + (b) + (c)	$	(479,400,000)
4. Expected return at 7.5% on:		
a. Item 1	$	476,131,231
b. Item 2 (one-half year)		11,758,612
c. Item 3 (one-half year)		(17,652,499)
d. Total (a) + (b) + (c)	$	470,237,344
5. Expected actuarial value as of June 30, 2011 (1) + (2c) + (3d) + (4d)	$	6,658,589,764
6. Unrecognized asset gain/(loss) as of July 1, 2010	$	(574,037,143)
7. Expected actuarial value as of June 30, 2011, plus previous year's unrecognized gain/(loss) (5) + (6)	$	6,084,552,621
8. Market Value as of June 30, 2011	$	6,841,001,769
9. Year end 2011 asset gain/(loss) (8) - (7)	$	756,449,148
10. Asset gain/(loss) to be recognized as of June 30, 2011	$	(59,961,825)
11. Initial Actuarial Value as of June 30, 2011 (5) + (10)	$	6,598,627,939
12. Constraining values:		
a. 80% of market value (8) x 0.8	$	5,472,801,415
b. 120% of market value (8) x 1.2	$	8,209,202,123
13. Actuarial Value as of June 30, 2011 (11), but not less than (12a), nor greater than (12b)	$	6,598,627,939

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, 2011. 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, 2010. This set of assumptions, as shown in Appendix C, is first used for this July 1, 2011 valuation.

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 "break down" 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.

In prior valuations, the System used an assumption of a 2% annual COLA each year in developing liabilities and contribution rates. The System did not have an automatic COLA provision, but ad hoc COLAs had 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 included a "COLA Reserve."

Since the last valuation, the plan provisions of the System have been amended by House Bill 2132. Under this legislation, COLAs are removed from the definition of "non-fiscal retirement bills" in the Oklahoma Pension Legislation Actuarial Analysis Act ("OPLAAA"). The effect of these amendments makes any COLA bill subject to all of the requirements of OPLAAA including the requirement that such bills provide adequate funding to pay the cost. Therefore, as of July 1, 2011, liabilities have been calculated without considering future COLAs, and the COLA reserve has been removed.

Oklahoma Public Employees Retirement System

Table 4

Present Value of Future Benefits
As of July 1, 2011

	Regular	Elected Officials	Hazardous Duty	Total
1. Active Employees				
a. Retirement Benefit	$ 3,555,532,032	$ 223,045,739	$ 196,745,254	$ 3,975,323,025
b. Withdrawal Benefit	187,607,681	9,270,846	9,761,017	206,639,544
c. Pre-Retirement Death Benefit	102,701,641	2,639,080	4,163,331	109,504,052
d. Disability Benefit	126,955,425	6,109,370	4,876,812	137,941,607
e. Return of Member Contributions	34,113,447	402,547	3,110,855	37,626,849
f. Supplemental Medical Benefit	181,098,120	5,276,585	9,018,601	195,393,306
g. Subtotal	$ 4,188,008,346	$ 246,744,167	$ 227,675,870	$ 4,662,428,383
2. Inactive Nonvested Members				$ 27,045,737
3. Inactive Vested Members				313,447,560
4. Return of Excess Contributions				849,207
5. Disabled Members				113,161,534
6. Retirees				3,788,344,228
7. Beneficiaries				252,488,993
8. Supplemental Medical Benefit for Retirees and Inactive Vested Members				182,423,076
9. COLA Reserve				0
10. Total PVFB				$ 9,340,188,718

Oklahoma Public Employees Retirement System

Table 5

Actuarial Accrued Liability
As of July 1, 2011

	Regular	Elected Officials	Hazardous Duty	Total
1. Present Value of Future Benefits for Active Members				
a. Retirement Benefit	$ 3,555,532,032	$ 223,045,739	$ 196,745,254	$ 3,975,323,025
b. Withdrawal Benefit	187,607,681	9,270,846	9,761,017	206,639,544
c. Pre-Retirement Death Benefit	102,701,641	2,639,080	4,163,331	109,504,052
d. Disability Benefit	126,955,425	6,109,370	4,876,812	137,941,607
e. Return of Member Contributions	34,113,447	402,547	3,110,855	37,626,849
f. Supplemental Medical Benefit	181,098,120	5,276,585	9,018,601	195,393,306
g. Subtotal	$ 4,188,008,346	$ 246,744,167	$ 227,675,870	$ 4,662,428,383
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	$ 727,428,480	$ 31,605,297	$ 52,392,474	$ 811,426,251
b. Withdrawal Benefit	105,169,945	5,929,952	5,360,898	116,460,795
c. Pre-Retirement Death Benefit	26,049,877	532,237	1,344,486	27,926,600
d. Disability Benefit	42,021,043	1,591,334	1,753,926	45,366,303
e. Return of Member Contributions	92,638,449	2,383,730	10,061,383	105,083,562
f. Supplemental Medical Benefit	50,191,910	1,260,782	2,704,854	54,157,546
g. Subtotal	$ 1,043,499,704	$ 43,303,332	$ 73,618,021	$ 1,160,421,057
3. Present Value of Future Benefits for Inactive Members				4,677,760,335
4. Total Actuarial Accrued Liability (1g) - (2g) + (3)				$ 8,179,767,661

Oklahoma Public Employees Retirement System

Table 6

Development of COLA Reserve

1. Reserve as of July 1, 2010	$	218,696,496
2. Interest at 7.5%		16,402,237
3. Reserve increment		83,079,895
4. Expected reserve as of July 1, 2011 (1) + (2) + (3)		318,178,628
5. Change in law		(318,178,628)
6. Actual reserve as of July 1, 2011	$	0

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	$ 105,816,691	$ 6,147,570	$ 7,100,615	$ 119,064,876	7.59%
b. Withdrawal Benefit	13,236,310	1,018,266	706,229	14,960,805	0.95%
c. Pre-Retirement Death Benefit	3,644,724	102,027	188,724	3,935,475	0.25%
d. Disability Benefit	5,531,426	283,813	238,085	6,053,324	0.39%
e. Return of Member Contributions	12,102,710	443,561	1,336,628	13,882,899	0.88%
f. Supplemental Medical Benefit	8,797,089	296,498	400,463	9,494,050	0.60%
g. Total	$ 149,128,950	$ 8,291,735	$ 9,970,744	$ 167,391,429	10.66%
2. Estimated Payroll for the Year	$ 1,464,978,079	$ 35,522,499	$ 69,999,570	$ 1,570,500,148	
3. Normal Cost Rate (1g)/(2)	10.18%	23.34%	14.24%	10.66%	

Oklahoma Public Employees Retirement System

Table 8

Unfunded Actuarial Accrued Liability Contribution Rate

1. Actuarial Present Value of Future Benefits	$	9,340,188,718
2. Actuarial Present Value of Future Normal Costs		1,160,421,057
3. Actuarial Accrued Liability (1) - (2)	$	8,179,767,661
4. Actuarial Value of Assets		6,598,627,939
5. Unfunded Actuarial Accrued Liability (UAAL) (3) - (4)	$	1,581,139,722
6. Amortization of UAAL over 20 years from July 1, 2007 (assumed mid-year) *		129,814,798
7. Total Estimated Payroll for Year Ending June 30, 2012	$	1,570,500,148
8. Amortization as a Percent of Payroll		8.27%

*The UAAL is amortized as a level percent of payroll, assuming payroll increases 4.0% per year

Oklahoma Public Employees Retirement System

Table 9

Actuarial Contribution Rate

	July 1	
	2011	2010
1. Total Normal Cost Rate	10.66%	12.56%
2. Amortization of UAAL[1]	8.27%	14.99%
3. Budgeted Expenses[2]	0.45%	0.39%
4. Total Actuarial Contribution Rate (1) + (2) + (3)	19.38%	27.94%
5. Estimated Member Contribution Rate	4.09%	4.07%
6. Employer Actuarial Contribution Rate (4) - (5)	15.29%	23.87%

[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, 2010	$	9,622,627,833
b. Normal cost at mid-year		211,556,327
c. Benefit payments for fiscal year ending June 30, 2011		(474,719,321)
d. Interest on (a), (b), and (c)		712,006,882
e. Change in assumptions		(35,855,677)
f. Change in COLA assumption/reserve		(1,702,746,611)
g. Expected actuarial accrued liability as of July 1, 2011 (a) + (b) + (c) + (d) + (e) + (f)	$	8,332,869,433
2. Actuarial accrued liability at July 1, 2011	$	8,179,767,661
3. Actuarial accrued liability gain/(loss) (1g) - (2)	$	153,101,772
4. Expected actuarial value of assets		
a. Actuarial value of assets at July 1, 2010	$	6,348,416,407
b. Contributions for fiscal year ending June 30, 2011		319,336,013
c. Benefit payment and administrative expenses for fiscal year ending June 30, 2011		(479,400,000)
d. Interest on (a), (b), and (c)		470,237,344
e. Expected actuarial value of assets as of July 1, 2011 (a) + (b) + (c) + (d)	$	6,658,589,764
5. Actuarial value of assets at July 1, 2011	$	6,598,627,939
6. Actuarial value of assets gain/(loss) (5) - (4e)	$	(59,961,825)
7. Net actuarial gain/(loss) (3) + (6)	$	93,139,947

Oklahoma Public Employees Retirement System

Table 11

Summary of Contribution Requirements

	Actuarial Valuation as of		Percent Change
	July 1, 2011	July 1, 2010	
1. Expected annual payroll	$ 1,570,500,148	$ 1,683,697,139	(6.7%)
2. Total normal cost	$ 167,391,429	$ 211,556,327	(20.9%)
3. Unfunded actuarial accrued liability	$ 1,581,139,722	$ 3,274,211,426	(51.7%)
4. Amortization of unfunded actuarial accrued liability over 20 years from July 1, 2007*	$ 129,814,798	$ 252,418,324	(48.6%)
5. Budgeted expenses (provided by the System)	$ 7,084,709	$ 6,607,489	7.2%
6. Total required contribution (2) + (4) + (5)	$ 304,290,936	$ 470,582,140	(35.3%)
7. Estimated member contributions	$ 64,159,198	$ 68,570,507	(6.4%)
8. Required employer contribution (6) - (7)	$ 240,131,738	$ 402,011,633	(40.3%)
9. Previous year's actual contribution			
a. Member	$ 66,431,434	$ 69,041,436	(3.8%)
b. Employer	252,904,579	259,779,236	(2.6%)
c. Total	$ 319,336,013	$ 328,820,672	(2.9%)

*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)
7/1/2006	$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%
7/1/2011	6,598,627,939	8,179,767,661	1,581,139,722	80.7%	1,570,500,148	100.7%

Valuation Date	July 1, 2011
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay, Closed
Remaining Amortization Period	16 Years
Asset Valuation Method	5 Year Moving Average (see Appendix C)
Actuarial Assumptions:	
Investment Rate of Return	7.5%
Projected Salary Increases	4.9% - 8.8%
Cost of Living Adjustment	0%

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
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%
2011	402,011,633	62.9%

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. ***Only System liabilities accrued (and in statute) as of the valuation date are included.***

	July 1			
		2011		2010
Vested benefits				
Active members	$	1,934,805,510	$	2,027,413,498
Terminated vested members		313,447,560		294,919,268
Unclaimed contributions		27,045,737		23,145,785
Limited benefit		849,207		922,082
Retirees and beneficiaries		4,153,994,755		3,848,499,349
Supplemental medical insurance premiums		320,999,786		323,200,890
Total vested benefits	$	6,751,142,555	$	6,518,100,872
Nonvested benefits for active members	$	343,433,050	$	363,361,313
Total accumulated benefits	$	7,094,575,605	$	6,881,462,185
Market value of assets available for benefits	$	6,841,001,769	$	5,774,379,263
Funded ratio		96.4%		83.9%
Number of members				
Vested members				
Active members		21,057		22,255
Terminated vested members		5,522		5,560
Retirees and beneficiaries		29,418		28,009
Total vested members		55,997		55,824
Nonvested active members		19,494		21,679
Total members		75,491		77,503

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, 2010	$	6,881,462,185
Increase/(decrease) during the year attributable to:		
Benefits accrued and (gains)/losses		189,203,224
Increase due to interest		498,629,517
Benefits paid		(474,719,321)
Plan provision change		0
Net increase/(decrease)	$	213,113,420
Present value of accrued benefit as of July 1, 2011	$	7,094,575,605

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, 2011. The "Retirees" column shows benefits expected to be paid to members receiving benefit payments as of July 1, 2011 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
2012	$31,630,000	$450,828,000	$482,458,000
2013	60,736,000	443,695,000	504,431,000
2014	91,085,000	436,149,000	527,234,000
2015	122,484,000	428,610,000	551,094,000
2016	154,719,000	420,269,000	574,988,000
2017	187,514,000	411,845,000	599,359,000
2018	221,084,000	402,938,000	624,022,000
2019	254,052,000	393,829,000	647,881,000
2020	287,048,000	384,840,000	671,888,000
2021	318,699,000	375,098,000	693,797,000

Supplemental Medical Premium Benefits

Year Ending June 30	Actives	Retirees	Total
2012	$1,561,000	$18,049,000	$19,610,000
2013	3,443,000	17,716,000	21,159,000
2014	5,349,000	17,374,000	22,723,000
2015	7,217,000	17,043,000	24,260,000
2016	9,045,000	16,663,000	25,708,000
2017	10,834,000	16,341,000	27,175,000
2018	12,547,000	16,003,000	28,550,000
2019	14,136,000	15,696,000	29,832,000
2020	15,607,000	15,392,000	30,999,000
2021	16,939,000	15,087,000	32,026,000

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, and any other employer such as a county, county hospital, city or town, conservation districts, circuit engineering districts, and any trust in which a county, city or town participates and 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:	16.5%
Total:	20.0%

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.

Before November 1, 2010, elected officials selected a contribution rate of 4.5%, 6%, 7.5%, 8.5%, 9% or 10% which determines the computation factor used in calculating their benefit. Elected officials elected or appointed on or after November 1, 2010 were limited to selecting either the 4.5% contribution rate or the 10% contribution rate.

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%
2011-2012	16.5%	3.5%	20.0%

Years of Service

Prior Service

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

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 or her 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. 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 (36) 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: (1) first day of the month coinciding with or next following the 62nd birthday; or, (2) 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 (3) following the date at which the sum of member's age and number of years of credited service total ninety (90) if the member was hired after July 1, 1992. Members employed after January 1, 1983 must complete at least six (6) years of full-time equivalent employment with a participating employer before receiving any retirement benefits.

For regular employees hired on or after November 1, 2011, the retirement age will be age 65. Alternatively, they may retire under the "Rule of 90" if they are age 60.

The normal retirement date for elected officials is the first of the month coinciding with or following the official's 60th birthday 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). For regular employees hired on or after November 1, 2011, the retirement age will be age 65. Alternatively, they may retire under the "Rule of 90" if they are age 60.

For elected officials appointed or elected on or after November 1, 2011, the retirement age will be 65 with a minimum of 8 years of elected service, or age 62 if they have 10 years of elected service.

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 computation factor:

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 (6) years to qualify for the elected official benefit formula on all years of participating service. For elected officials elected or appointed on or after November 1, 2011, the vesting period will be eight (8) years.

OPERS members who are elected after August 21, 2008 have a benefit cap of 100% of their highest annual salary. Elected officials who 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 were appointed or elected on or 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

The following table applies both to regular employees employed, or elected officials appointed or elected, on or after November 1, 2011:

:

Elected Officials and Regular Members	
Age	Percentage
65	100%
64	93.33
63	86.67
62	80.00
61	73.33
60	66.67

Oklahoma Public Employees Retirement System

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 (8) 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 (6) years of full time equivalent employment. A member with ten (10) or more years of service also has the option of reduced benefits at early retirement age.

Members terminating with less than eight (8) years (or six years if an elected official) of credited service may elect to receive a refund of their member 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.

For regular employees employed on or after November 1, 2011, a vested benefit will not be payable for Normal Retirement until age 65. For elected officials appointed or elected on or after November 1, 2011, a vested benefit will require at least eight (8) years of elected service and is not payable for normal retirement until age 65.

Oklahoma Public Employees Retirement System

Pre-retirement death benefit

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

In addition to the provision above, the eligible spouse of a deceased elected official with at least six (6) years of elected service and married at least three (3) 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 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: Twenty (20) years of service as a member covered by the Department of Corrections Hazardous Duty Provisions; or, the first day of the month coinciding with or next following the 62nd birthday; or, the first day of the month coinciding with or following the date at which the sum of a member's age and number of years of credited service total eighty (80), if the member was hired prior 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 (6) 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 twenty (20) years. For service in excess of twenty (20) years the benefit formula is 2% of final average compensation.

Members eligible for these benefits with at least five (5) years of experience in their positions on or after June 30, 2004 remain eligible to retire after twenty (20) years even if they transfer to positions within DOC that are not eligible to retire after twenty (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 twenty (20) years.

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

Oklahoma Public Employees Retirement System

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

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 twenty (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 twenty (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 had it 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, 2011, 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 midyear. 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.

In prior valuations, the System used an assumption of a 2% annual COLA each year in developing liabilities and contribution rates. The System did not have an automatic COLA provision, but ad hoc COLAs had historically been granted on a regular basis by the Legislature. 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 included a "COLA Reserve".

Since the last valuation, the plan provisions of the System have been amended by House Bill 2132. Under this legislation, COLAs are removed from the definition of "non-fiscal retirement bills" in the Oklahoma Pension Legislation Actuarial Analysis Act ("OPLAAA"). The effect of these amendments makes any COLA bill subject to all of the requirements of OPLAAA including the requirement that such bills provide adequate funding to pay the cost. Therefore, as of July 1, 2011, liabilities have been calculated without considering future COLAs, and the COLA reserve has been removed.

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	8.75
25 - 29	7.75
30 – 34	6.45
35 – 39	5.85
40 – 44	5.55
45 – 49	5.15
50 – 54	4.85
55 – 59	4.85
60 – 64	4.85
65+	4.85

Payroll Growth: 4.00% per year

Ad hoc benefit increase assumptions

Monthly Benefits: Because of the passage of House Bill 2132, 0%

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	N/A
61	20	N/A
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	0.25	0.29
60	0.75	0.45

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	0.0700
30	0.2400	0.1750	0.1554	0.1268	0.1050	0.1050	0.1050	0.1050	0.1004	0.0700
35	0.2150	0.1590	0.1365	0.1215	0.0870	0.0860	0.0850	0.0850	0.0769	0.0580
40	0.1930	0.1400	0.1208	0.1094	0.0770	0.0748	0.0725	0.0725	0.0589	0.0440
45	0.1880	0.1200	0.1132	0.0945	0.0670	0.0635	0.0600	0.0600	0.0468	0.0320
50	0.1830	0.0970	0.1030	0.0835	0.0650	0.0575	0.0500	0.0500	0.0436	0.0300
55	0.1800	0.0900	0.0869	0.0705	0.0650	0.0575	0.0500	0.0500	0.0436	0.0300

Probability of Electing Vested Benefit:

Regular Members Only	
Age	Rate
Under 34	70%
34- 38	75%
39 – 46	80%
47	85%
48	90%
49	95%
50+	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: Current 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). Current 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	759	26								785
Avg. Pay	$22,560	$30,610								$22,827
25 to 29	2,147	548	13							2,708
Avg. Pay	$28,008	$30,664	$33,392							$28,571
30 to 34	1,673	1,347	300	3						3,323
Avg. Pay	$29,420	$35,395	$35,629	$35,167						$32,408
35 to 39	1,396	1,220	878	171	5					3,670
Avg. Pay	$29,881	$35,868	$40,264	$40,905	$40,732					$34,884
40 to 44	1,234	1,166	978	573	298	9				4,258
Avg. Pay	$29,801	$35,670	$39,589	$42,309	$44,343	$49,722				$36,399
45 to 49	1,091	1,119	982	647	840	454	65			5,198
Avg. Pay	$29,987	$34,887	$37,399	$39,902	$46,095	$47,298	$46,667			$38,000
50 to 54	1,082	1,216	997	710	969	834	441	1		6,250
Avg. Pay	$30,693	$35,227	$37,715	$40,241	$44,381	$49,408	$46,630	$54,065		$39,527
55 to 59	965	1,118	976	722	928	548	634	9	1	5,901
Avg. Pay	$31,742	$35,809	$38,063	$40,194	$44,535	$48,026	$49,706	$47,707	$59,316	$40,075
60 to 64	574	799	700	560	505	345	397	43	2	3,925
Avg. Pay	$32,009	$36,482	$37,370	$39,990	$43,666	$46,970	$50,208	$54,945	$69,836	$39,940
65 to 69	188	302	264	167	169	87	89	21	2	1,289
Avg. Pay	$32,405	$35,323	$37,953	$41,436	$42,329	$45,202	$49,639	$71,461	$65,409	$39,437
70 & up	88	112	86	68	84	32	28	5	4	507
Avg. Pay	$28,965	$29,404	$35,784	$41,711	$38,627	$62,766	$38,439	$54,257	$34,483	$36,479
Total	11,197	8,973	6,174	3,621	3,798	2,309	1,654	79	9	37,814
Avg. Pay	$29,341	$35,177	$38,213	$40,570	$44,476	$48,329	$48,693	$58,456	$51,971	$36,842

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	2									2
Avg. Pay	$19,741									$19,741
25 to 29	2	2								4
Avg. Pay	$38,400	$31,710								$35,055
30 to 34	14	5	3							22
Avg. Pay	$38,496	$39,960	$37,966							$38,756
35 to 39	12	14	9	6						41
Avg. Pay	$37,539	$38,929	$60,820	$45,837						$44,338
40 to 44	17	20	27	12	5					81
Avg. Pay	$44,427	$42,170	$47,841	$52,217	$50,983					$46,566
45 to 49	13	17	11	15	19	16	1			92
Avg. Pay	$43,005	$42,566	$35,093	$55,570	$46,297	$47,595	$56,712			$45,654
50 to 54	20	24	22	11	28	25	12			142
Avg. Pay	$39,273	$48,085	$52,708	$46,013	$45,538	$54,711	$57,514			$48,861
55 to 59	24	24	18	20	29	29	10			154
Avg. Pay	$45,056	$44,705	$42,949	$45,643	$47,012	$52,965	$46,355			$46,773
60 to 64	13	16	13	18	16	12	9	1		98
Avg. Pay	$42,331	$42,582	$44,980	$41,989	$52,776	$44,416	$53,549	$34,619		$45,573
65 to 69	6	16	16	6	9	2	6	2		63
Avg. Pay	$48,048	$42,055	$44,537	$46,127	$44,918	$46,212	$47,507	$50,117		$44,960
70 & up	2	10	7	5	5	3	2	1	1	36
Avg. Pay	$41,142	$41,095	$46,422	$46,598	$48,802	$46,522	$62,694	$46,200	$43,200	$45,821
Total	125	148	126	93	111	87	40	4	1	735
Avg. Pay	$41,661	$43,023	$46,777	$47,524	$47,438	$50,923	$52,570	$45,263	$43,200	$46,138

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	56									56
Avg. Pay	$25,542									$25,542
25 to 29	192	62								254
Avg. Pay	$27,189	$30,063								$27,891
30 to 34	118	137	49							304
Avg. Pay	$26,995	$31,963	$35,460							$30,599
35 to 39	98	117	122	21						358
Avg. Pay	$26,432	$31,274	$37,456	$40,474						$32,595
40 to 44	43	77	111	84	23					338
Avg. Pay	$25,561	$31,536	$36,715	$41,319	$45,561					$35,862
45 to 49	41	56	67	62	37	3				266
Avg. Pay	$25,529	$31,239	$35,656	$42,353	$47,000	$41,833				$36,374
50 to 54	32	30	48	39	23	6				178
Avg. Pay	$27,551	$30,194	$36,293	$39,417	$41,910	$39,502				$35,212
55 to 59	24	37	46	36	21	3				167
Avg. Pay	$26,984	$31,177	$35,299	$38,906	$40,711	$46,187				$34,844
60 to 64	7	16	20	18	6	2	1			70
Avg. Pay	$28,380	$30,361	$35,881	$38,911	$43,080	$45,860	$45,352			$35,686
65 to 69		2	2	1	2					7
Avg. Pay		$34,447	$36,431	$46,202	$42,776					$39,073
70 & up	1		3							4
Avg. Pay	$27,701		$35,990							$33,918
Total	612	534	468	261	112	14	1			2,002
Avg. Pay	$26,680	$31,262	$36,401	$40,732	$44,195	$42,342	$45,352			$33,105

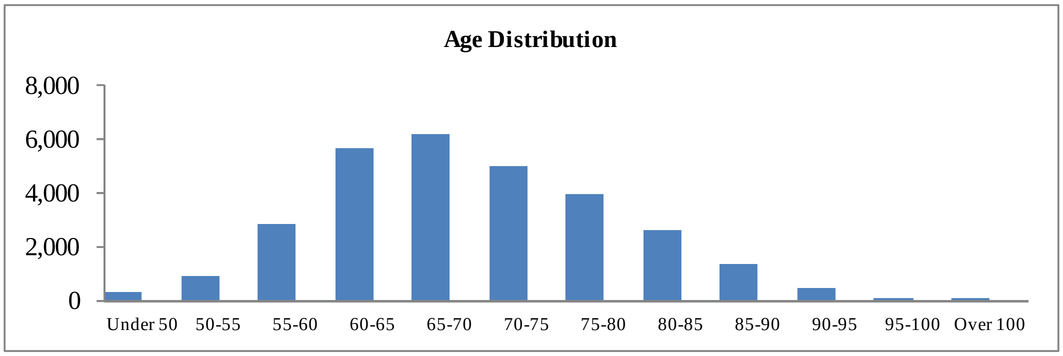
Oklahoma Public Employees Retirement System

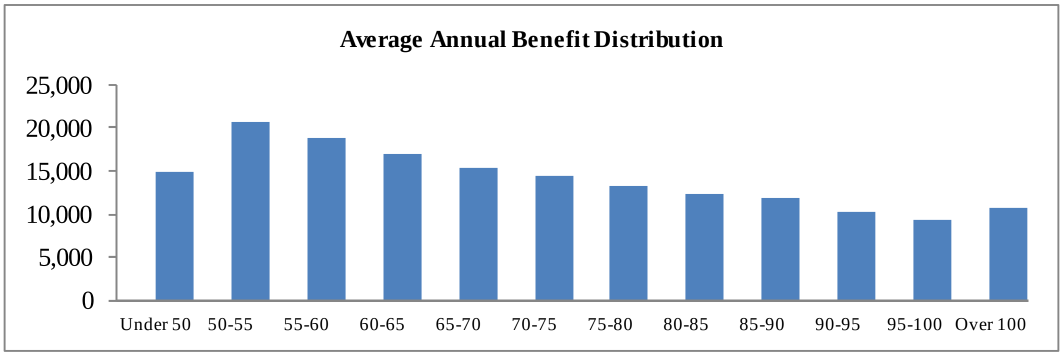
Valuation Data Distribution – Actives – All Membership Groups

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	817	26								843
Avg. Pay	$22,758	$30,610								$23,000
25 to 29	2,341	612	13							2,966
Avg. Pay	$27,949	$30,607	$33,392							$28,521
30 to 34	1,805	1,489	352	3						3,649
Avg. Pay	$29,332	$35,094	$35,626	$35,167						$32,295
35 to 39	1,506	1,351	1,009	198	5					4,069
Avg. Pay	$29,717	$35,502	$40,108	$41,009	$40,732					$34,778
40 to 44	1,294	1,263	1,116	669	326	9				4,677
Avg. Pay	$29,853	$35,521	$39,503	$42,363	$44,531	$49,722				$36,537
45 to 49	1,145	1,192	1,060	724	896	473	66			5,556
Avg. Pay	$29,976	$34,825	$37,265	$40,437	$46,137	$47,273	$46,819			$38,049
50 to 54	1,134	1,270	1,067	760	1,020	865	453	1		6,570
Avg. Pay	$30,755	$35,351	$37,960	$40,283	$44,357	$49,492	$46,919	$54,065		$39,612
55 to 59	1,013	1,179	1,040	778	978	580	644	9	1	6,222
Avg. Pay	$31,945	$35,845	$38,026	$40,274	$44,527	$48,264	$49,654	$47,707	$59,316	$40,101
60 to 64	594	831	733	596	527	359	407	44	2	4,093
Avg. Pay	$32,192	$36,481	$37,464	$40,018	$43,936	$46,879	$50,270	$54,483	$69,836	$40,002
65 to 69	194	320	282	174	180	89	95	23	2	1,359
Avg. Pay	$32,889	$35,654	$38,316	$41,625	$42,463	$45,225	$49,504	$69,605	$65,409	$39,691
70 & up	91	122	96	73	89	35	30	6	5	547
Avg. Pay	$29,219	$30,362	$36,566	$42,046	$39,199	$61,374	$40,056	$52,914	$36,227	$37,075
Total	11,934	9,655	6,768	3,975	4,021	2,410	1,695	83	10	40,551
Avg. Pay	$29,334	$35,081	$38,247	$40,743	$44,550	$48,388	$48,782	$57,820	$51,094	$36,826

Oklahoma Public Employees Retirement System

Age	Number Male	Number Female	Number Total	Annual Benefits Male	Annual Benefits Female	Annual Benefits Total
Under 50	178	145	323	2,910,231	1,879,151	$4,789,382
50-55	355	559	914	7,678,101	11,322,033	19,000,134
55-60	1,143	1,663	2,806	22,544,036	30,429,231	52,973,267
60-65	2,497	3,184	5,681	45,059,054	51,204,466	96,263,520
65-70	2,716	3,441	6,157	45,950,827	49,081,233	95,032,060
70-75	2,260	2,739	4,999	35,946,486	36,631,587	72,578,073
75-80	1,645	2,331	3,976	24,395,448	28,367,302	52,762,750
80-85	985	1,620	2,605	13,478,657	18,769,896	32,248,553
85-90	474	904	1,378	6,667,564	9,792,532	16,460,096
90-95	138	339	477	1,541,438	3,311,951	4,853,389
95-100	17	72	89	138,694	680,915	819,609
Over 100	1	12	13	16,875	122,049	138,924
Total	12,409	17,009	29,418	$206,327,411	$241,592,346	$447,919,757





Oklahoma Public Employees Retirement System

	Actuarial Valuation as of 7/1/2011	Actuarial Valuation as of 7/1/2010	% Change
1. Active members			
a. Number	40,551	43,934	(7.7%)
b. Annual compensation	$ 1,570,500,148	$ 1,683,697,139	(6.7%)
c. Average annual compensation	38,729	38,323	1.1%
d. Average age	47.0	46.5	1.0%
e. Average service	11.1	10.7	3.9%
2. Accumulated member contributions			
a. Active members	$ 488,417,672	$ 487,979,877	0.1%
b. Unclaimed contribution amounts	27,045,737	23,145,785	16.8%
c. Total	$ 515,463,409	$ 511,125,662	0.8%
3. Vested terminated members			
a. Number	3,501	3,534	(0.9%)
b. Annual deferred benefits	$ 32,372,954	$ 31,071,644	4.2%
c. Average annual deferred benefit	9,247	8,792	5.2%
d. Annual supplemental medical insurance premiums	$ 4,411,260	$ 4,452,840	(0.9%)
4. Assumed deferred vested - count	2,021	2,026	(0.2%)
5. Retired members			
a. Number	24,804	23,563	5.3%
b. Annual retirement benefits	$ 402,371,482	$ 373,584,819	7.7%
c. Average annual retirement benefit	16,222	15,855	2.3%
d. Annual supplemental medical insurance premiums	$ 17,033,940	$ 16,523,640	3.1%
6. Beneficiaries			
a. Number	3,107	2,959	5.0%
b. Annual retirement benefits	$ 31,259,175	$ 29,133,234	7.3%
c. Average annual retirement benefit	10,061	9,846	2.2%
7. Disabled members			
a. Number	1,507	1,487	1.3%
b. Annual retirement benefits	$ 14,289,100	$ 13,981,104	2.2%
c. Average annual retirement benefit	9,482	9,402	0.8%
d. Annual supplemental medical insurance premiums	$ 981,540	$ 992,880	(1.1%)
8. Total members included in valuation	75,491	77,503	(2.6%)

Oklahoma Public Employees Retirement System

	Actuarial Valuation as of 7/1/2011	Actuarial Valuation as of 7/1/2010
Regular Members		
Number	37,814	40,822
Average annual compensation	$ 36,842	$ 36,309
Average age	47.2	46.7
Average service	11.2	10.7
Elected officials		
Number	735	765
Average annual compensation	$ 46,138	$ 47,856
Average age	53.4	54.1
Average service	14.5	14.9
Hazardous Duty		
Number	2,002	2,347
Average annual compensation	$ 33,105	$ 34,104
Average age	40.8	40.8
Average service	9.0	9.2
Total		
Number	40,551	43,934
Average annual compensation	$ 36,826	$ 36,392
Average age	47.0	46.5
Average service	11.1	10.7

Oklahoma Public Employees Retirement System

	Actuarial Valuation as of 7/1/2011	Actuarial Valuation as of 7/1/2010
Retirees		
Number	24,804	23,563
Average annual benefit	$ 16,222	$ 15,855
Average age	70.6	70.8
Disability Retirees		
Number	1,507	1,487
Average annual benefit	$ 9,482	$ 9,402
Average age	62.3	61.9
Beneficiaries		
Number	3,107	2,959
Average annual benefit	$ 10,061	$ 9,846
Average age	72.6	72.2
Total		
Number	29,418	28,009
Average annual benefit	$ 15,226	$ 14,877
Average age	70.4	70.5
Vested Members		
Number	5,522	5,560
Average annual benefit	$ 10,037	$ 9,625
Average age	51.4	51.1

	Active Members	Vested Terminated	Receiving Benefits Retirees	Disability Retirees	Benefici-aries	Total Members
As of July 1, 2010	**43,934**	**5,560**	**23,563**	**1,487**	**2,959**	**77,503**
Age retirements	(1,763)	(333)	2,096	0	0	0
Disability retirements	(46)	(26)	0	72	0	0
Deaths without payments continuing	(67)	(18)	(661)	(43)	(117)	(906)
Deaths with payments continuing	(30)	(14)	(206)	(15)	265	0
Nonvested terminations/refund of contributions	(3,683)	(129)	0	0	0	(3,812)
Vested terminations	(624)	624	0	0	0	0
Transfers	(6)	(14)	0	0	0	(20)
Data adjustments	0	9	12	6	0	27
Rehires	619	(137)	0	0	0	482
New entrants during the year	2,217	0	0	0	0	2,217
Net change	(3,383)	(38)	1,241	20	148	(2,012)
As of July 1, 2011	**40,551**	**5,522**	**24,804**	**1,507**	**3,107**	**75,491**

	Active	Retired	Terminated Vested	Total
Records submitted on data file	40,280	49,307	3,513	93,100
Remove deceased retirees	0	(19,887)	0	(19,887)
Remove unusable data	(96)	0	(12)	(108)
Remove those with another status	(120)	(2)	0	(122)
Add those with no application	487	0	0	487
Add assumed vesteds	0	0	2,021	2,021
Total valued	**40,551**	**29,418**	**5,522**	**75,491**

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.