

October 2005

State of Oklahoma

Public Employees Retirement System

Actuarial Valuation Report as of July 1, 2005

MERCER

Human Resource Consulting

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Report Highlights

This report has been prepared by Mercer Human Resource Consulting for the Oklahoma Public Employees Retirement System to:

- Present the results of the valuation as of July 1, 2005;
- Review experience under the System for the year ended June 30, 2005;
- Provide reporting and disclosure information for auditors' reports, governmental agencies and other interested parties.

The main financial highlights are:

- The funded status of the System, as measured by the funded ratio, decreased from 76.1% to 72.0% over the past year. The unfunded accrued liability increased by \$422.1 million.

Funded Status (\$000,000)	Actuarial Valuation as of	
	July 1, 2005	July 1, 2004
Accrued liability	\$7,575.4	\$7,114.8
Actuarial value of assets	5,450.7	5,412.1
Unfunded accrued liability	\$2,124.7	\$1,702.6
Funded ratio	72.0%	76.1%

- The key items responsible for changes in the funded status are described below.
 - There were changes in actuarial assumptions. The Effects of Changes section of this report describes these changes and shows the effect of the changes on the System.
 - Liability losses occurred resulting in an accrued liability \$55.8 million more than expected (0.7% of expected liability). The components of this loss are summarized in the Effects of Changes section in this report.
 - The market value of assets increased by approximately 10.3% during the year. The actuarial value of assets is determined using a method to smooth gains and losses to result in more stable costs. As a result, the return on the actuarial value was approximately 3.4%. Compared to the expected return of 7.5%, there was a loss of \$217.7 million.
- The required employer contribution (from an actuarial perspective) increased as a percent of covered payroll.

Contribution Summary (\$000,000)	Actuarial Valuation as of	
	July 1, 2005	July 1, 2004
Total required contribution	\$363.8	\$315.8
Expected employee contributions	53.8	49.8
Required employer contribution	\$310.0	\$266.0
As a % of covered payroll	21.3%	19.2%

The statutory contribution rate for employers is 10.0% of salary for the fiscal year beginning July 1, 2004 and 11.5% of salary for the fiscal year beginning July 1, 2005. The rate for county and local employers may vary.

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or System provisions between the two valuations are described in the section titled "Effects of Changes."

	Actuarial Valuation as of		Change Between Years	
	July 1, 2005	July 1, 2004	Amount	Percent
Summary of Costs				
Required employer contribution for current year	\$ 309,980,339	\$ 266,044,444	\$ 43,935,895	16.5%
Actual employer contributions received in prior year	\$ 139,757,160	\$ 133,522,780	\$ 6,234,380	4.7%
GASB No. 25 Funded Status				
Actuarial accrued liability	\$ 7,575,419,808	\$ 7,114,778,205	\$ 460,641,603	6.5%
Actuarial value of assets	5,450,664,963	5,412,166,797	38,498,166	0.7%
Unfunded actuarial accrued liability	\$ 2,124,754,845	\$ 1,702,611,408	\$ 422,143,437	24.8%
Market Value of Assets and Additional Liabilities				
Market value of assets	\$ 5,504,489,147	\$ 5,126,418,028	\$ 378,071,119	7.4%
Actuarial present value of accumulated System benefits (FAS No. 35)	5,359,949,762	5,111,634,479	248,315,283	4.9%
Present value of projected System benefits	8,781,347,825	8,274,968,938	506,378,887	6.1%
Summary of Data				
Number of participants in valuation				
Active members	43,918	43,000	918	2.1%
Terminated vested members	5,521	5,482	39	0.7%
Retired members	20,165	19,666	499	2.5%
Joint annuitants/surviving spouses	2,250	2,119	131	6.2%
Disabled members	1,264	1,205	59	4.9%
Total	73,118	71,472	1,646	2.3%
Active Participant Statistics				
Total annual compensation ¹	\$ 1,454,210,509	\$ 1,383,965,233	\$ 70,245,276	5.1%
Average compensation ¹	\$ 33,112	\$ 32,185	\$ 927	2.9%
Average age	45.7	45.7	0.0	0.0%
Average service	10.5	10.6	(0.1)	(0.9%)

¹Compensation is projected one year based on the salary increase assumption.

Effects of Changes

Changes in Actuarial Assumptions

The mortality assumption was changed from the 1983 Group Annuity Mortality Table for active and nondisabled pensioners to the RP-2000 Mortality Table projected to 2010 by Scale AA. The mortality assumption for disabled pensioners was changed from the 1983 Group Annuity Mortality Table set forward 10 years to the RP-2000 Mortality Table projected to 2010 by Scale AA set forward 15 years. The withdrawal, disability and retirement rates were updated to better reflect experience based on the recent experience analysis. The total effect of these changes was to increase the accrued liability by \$54,700,168.

Actuarial Experience During the Fiscal Year

The System experienced a liability loss of \$55,778,000 and an asset loss of \$217,742,000 during the year ended June 30, 2005. The significant items are developed as follows:

Liability Sources	Impact on Actuarial Liability	Percent of Expected Liability
Salary increases	\$ 29,879,000	0.40%
Deaths	12,695,000	0.17%
Terminations	(18,053,000)	(0.24%)
Retirements	63,000	0.00%
Disability	(3,453,000)	(0.05%)
New entrants and rehires	(31,976,000)	(0.43%)
Miscellaneous/data	(44,933,000)	(0.60%)
Actuarial gain/(loss)	\$ (55,778,000)	(0.74%)

Asset Sources	Impact on Actuarial Value of Assets
Expected investment return	\$ 400,503,000
Investment return on actuarial value of assets	182,761,000
Actuarial gain/(loss)	\$ (217,742,000)
Net actuarial gain/(loss)	\$ (273,520,000)

Certification

We have prepared an actuarial valuation of the Oklahoma Public Employees Retirement System (OPERS) as of July 1, 2005, for the fiscal year ending June 30, 2006. The results of the valuation are set forth in this report, which reflects the legislation effective on July 1, 2005.

The valuation is based on employee and financial data which were provided by OPERS and the independent auditor, respectively, and which are summarized in this report.



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

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

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

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

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

	<u>10/7/2005</u>
Brent A. Hradek, FSA, EA	Date
	<u>10/7/2005</u>
Stephen T. McElhaney, FSA, EA	Date
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Report Details

The remainder of the report includes information supporting the results presented in the previous sections.

- **Funding results** shows the liabilities for System benefits and the derivation of the various contribution amounts.
- **Accounting results** shows the information required for the System's accounting and disclosure.
- **System assets** presents information about the System's assets as reported by the System administrator or trustee. The System assets represent the portion of total System liabilities that has been funded.
- **Participant data** presents and describes the participant data used in the valuation.
- **Actuarial basis** describes the System provisions, as well as the methods and assumptions used to value the System. The valuation is based on the premise that the System is ongoing.
- **Addendum** provides actuarial results based on assumptions prescribed in 11 O.S. 2001, Section 50-105.4, Section H.

Funding Results

Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of		Percent Change
	July 1, 2005	July 1, 2004	
Summary of Data			
1. Active members			
a. Number			
i) Active members	43,259	42,253	2.4%
ii) Members without applications	659	747	(11.8%)
iii) Total	43,918	43,000	2.1%
b. Annual compensation	\$ 1,454,210,509	\$ 1,383,965,233	5.1%
c. Average annual compensation	\$ 33,112	\$ 32,185	2.9%
d. Average age	45.7	45.7	0.0%
e. Average service	10.5	10.6	(0.9%)
2. Accumulated member contributions			
a. Active members	\$ 360,106,166	\$ 340,524,234	5.8%
b. Unclaimed contribution accounts	\$ 15,912,578	\$ 14,587,367	9.1%
c. Members without applications	\$ 1,523,808	\$ 2,107,652	(27.7%)
d. Total	\$ 377,542,552	\$ 357,219,253	5.7%
3. Vested terminated members			
a. Number	4,162	4,182	(0.5%)
b. Annual deferred benefits	\$ 32,524,299	\$ 32,004,615	1.6%
c. Average annual deferred benefit	\$ 7,815	\$ 7,653	2.1%
d. Annual supplemental medical insurance premiums	\$ 5,244,120	\$ 5,269,320	(0.5%)
4. Assumed deferred vested-number	1,359	1,300	4.5%
5. Retired members			
a. Number	20,165	19,666	2.5%
b. Annual retirement benefits	\$ 275,940,893	\$ 263,910,392	4.6%
c. Average annual retirement benefit	\$ 13,684	\$ 13,420	2.0%
d. Annual supplemental medical insurance premiums	\$ 17,166,240	\$ 17,162,460	0.0%
6. Joint annuitants/surviving spouses			
a. Number	2,250	2,119	6.2%
b. Annual retirement benefits	\$ 18,845,956	\$ 17,357,194	8.6%
c. Average annual retirement benefit	\$ 8,376	\$ 8,191	2.3%
7. Disabled members			
a. Number	1,264	1,205	4.9%
b. Annual retirement benefits	\$ 10,648,153	\$ 9,966,044	6.8%
c. Average annual retirement benefit	\$ 8,424	\$ 8,271	1.9%
d. Annual supplemental medical insurance premiums	\$ 991,620	\$ 979,020	1.3%
8. Total members included in valuation	73,118	71,472	2.3%

Funding Results

Comparative Summary of Principal Valuation Results *(continued)*

	Actuarial Valuation as of		Percent Change
	July 1, 2005	July 1, 2004	
Summary of Assets, Liabilities and Funded Status			
1. System assets on valuation date			
a. Actuarial value	\$ 5,450,664,963	\$ 5,412,166,797	0.7%
b. Market value	\$ 5,504,489,147	\$ 5,126,418,028	7.4%
2. Actuarial accrued liability ²	\$ 7,575,419,808	\$ 7,114,778,205	6.5%
a. Funded ratio - actuarial value ²	72.0%	76.1%	(5.4%)
b. Funded ratio - market value	72.7%	72.1%	0.8%
3. Unfunded actuarial accrued liability (based on actuarial value of assets)	\$ 2,124,754,845	\$ 1,702,611,408	24.8%
4. Present value of accumulated benefits (FASB No. 35)	\$ 5,359,949,762	\$ 5,111,634,479	4.9%
a. Funded ratio - actuarial value	101.7%	105.9%	(4.0%)
b. Funded ratio - market value	102.7%	100.3%	2.4%

² GASB No. 25 Basis.

Funding Results

Comparative Summary of Principal Valuation Results (continued)

	Actuarial Valuation as of		July 1, 2004		Percent Change in Amount
	July 1, 2005	% of Covered Comp.	July 1, 2004	% of Covered Comp.	
	Amount		Amount		
Summary of Contribution Requirements					
1. Annual covered compensation for members included in valuation	\$ 1,454,210,509	N/A	\$ 1,383,965,233	N/A	5.1%
2. Total normal cost mid-year	\$ 162,612,792	11.2%	\$ 155,820,179	11.3%	4.4%
3. Unfunded actuarial accrued liability	\$ 2,124,754,845	146.1%	\$ 1,702,611,408	123.0%	24.8%
4. Amortization of unfunded actuarial accrued liability over 40 years from July 1, 1987 mid-year	\$ 193,142,940	13.3%	\$ 152,055,633	11.0%	27.0%
5. Budgeted expenses provided by the System	\$ 8,053,062	0.6%	\$ 7,947,782	0.6%	1.3%
6. Total required contribution (2. + 4. + 5.)	\$ 363,808,794	25.0%	\$ 315,823,594	22.8%	15.2%
7. Estimated member contribution	\$ 53,828,455	3.7%	\$ 49,779,150	3.6%	8.1%
8. Required state contribution to amortize unfunded actuarial accrued liability over 40 years from July 1, 1987 at mid-year (6.-7.)	\$ 309,980,339	21.3%	\$ 266,044,444	19.2%	16.5%
9. Previous year's actual contribution					
a. Member	\$ 52,017,896	3.8% ³	\$ 48,469,861	3.4% ³	7.3%
b. Employer	\$ 139,757,160	10.1% ³	\$ 133,522,780	9.5% ³	4.7%
c. Total	\$ 191,775,056	13.9% ³	\$ 181,992,641	12.9% ³	5.4%

³ Percent of previous years' annual compensation for active members (\$1,383,965,233 at July 1, 2004 and \$1,411,719,256 at July 1, 2003).

Funding Results

Unfunded Actuarial Accrued Liability

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

	<u>July 1, 2005</u>	<u>July 1, 2004</u>
1. Actuarial present value of benefits		
a. Active members ⁴	\$ 4,872,387,496	\$ 4,638,661,503
b. Terminated vested members ⁵	386,187,736	346,302,909
c. Retirees, disableds and joint annuitants/surviving spouses	3,522,772,593	3,290,004,526
d. Total (a. + b. + c.)	\$ 8,781,347,825	\$ 8,274,968,938
2. Actuarial present value of future normal costs	\$ 1,205,928,017	\$ 1,160,190,733
3. Total actuarial accrued liability (1 - 2)	\$ 7,575,419,808	\$ 7,114,778,205
4. Actuarial value of assets	\$ 5,450,664,963	\$ 5,412,166,797
5. Unfunded actuarial accrued liability (3. - 4., not less than \$0)	\$ 2,124,754,845	\$ 1,702,611,408

⁴ Includes \$16,338,841 for 659 members who have not completed applications as of July 1, 2005 and \$17,294,606 for 747 members who have not completed applications as of July 1, 2004.

⁵ Includes \$15,912,578 for unclaimed contributions, \$130,129,768 for 1,359 assumed deferred vested employees, and \$1,121,549 for the limited additional retirement benefits as of July 1, 2005. Includes \$14,587,367 for unclaimed contributions, \$104,991,663 for 1,300 assumed deferred vested employees, and \$1,146,393 for the limited additional retirement benefits as of July 1, 2004.

Funding Results

Actuarial Gain/(Loss)

The actuarial gain/(loss) is comprised of both the liability gain/(loss) and the actuarial asset gain/(loss). Each of these represents the difference between the expected and actual values as of July 1, 2005.

1. Expected actuarial accrued liability		
a. Actuarial accrued liability at July 1, 2004	\$	7,114,778,205
b. Normal cost at July 1, 2004		150,188,124
c. Interest on a. + b. to end of year		544,872,475
d. Benefit payments for fiscal year ending June 30, 2005, with interest to end of year		(344,896,983)
e. Expected actuarial accrued liability before changes (a. + b. + c. + d.)	\$	7,464,941,821
f. Change in actuarial accrued liability at July 1, 2005, due to change in actuarial assumptions		54,700,168
g. Expected actuarial accrued liability at July 1, 2005 (e. + f.)	\$	7,519,641,989
2. Actuarial accrued liability at July 1, 2005	\$	7,575,419,808
3. Actuarial liability gain/(loss) (1.g. - 2)	\$	(55,777,819)
4. Expected actuarial value of assets		
a. Actuarial value of assets at July 1, 2004	\$	5,412,166,797
b. Interest on a. to end of year		405,912,510
c. Contributions made for fiscal year ending June 30, 2005		191,775,056
d. Interest on c. to end of year		7,191,565
e. Benefit payments and administrative expenses for fiscal year ending June 30, 2005, with interest to end of year		(348,639,151)
f. Expected actuarial value of assets at July 1, 2005 (a. + b. + c. + d. + e.)	\$	5,668,406,777
5. Actuarial value of assets as of July 1, 2005	\$	5,450,664,963
6. Actuarial asset gain/(loss) (5. - 4f.)	\$	(217,741,814)
7. Net actuarial gain/(loss) (3. + 6.)	\$	(273,519,633)

COLA Reserve

1. Reserve as of July 1, 2004	\$	0
2. Interest at 7.5%		0
3. Reserve increment		65,375,573
4. Expected reserve as of July 1, 2005		65,375,573
5. Ad hoc cost of living increase during 2004/2005		0
6. Actual reserve on July 1, 2005 (4. less 5., not less than \$0)	\$	65,375,573

Funding Results

Normal Cost

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

Component	July 1, 2005	July 1, 2004
Retirement benefits	\$ 109,377,094	\$ 105,778,625
Withdrawal benefits	18,387,849	15,896,237
Disability benefits	6,015,032	5,189,058
Death benefits	4,665,038	5,404,534
Refunds	6,956,943	6,383,833
Supplemental medical insurance premiums	9,600,495	9,602,691
Normal cost for people who have not submitted an application	1,732,770	1,933,146
Total normal cost at beginning of year	\$ 156,735,221	\$ 150,188,124
Total normal cost at mid year	\$ 162,612,792	\$ 155,820,179
Normal cost rate at mid year	11.18%	11.26%
Annual covered payroll	\$ 1,454,210,509	\$ 1,383,965,233
Portion of normal cost for hazardous duty employees		
Normal cost at mid year	\$ 19,990,164	\$ 19,513,401
Annual covered payroll	158,379,372	157,357,723
Normal cost rate at mid year	12.62%	12.40%
Portion of normal cost for elected officials		
Normal cost at midyear	\$ 8,427,157	\$ 8,245,964
Annual covered payroll	32,607,766	32,205,389
Normal cost rate at midyear	25.84%	25.60%

Funding Results

Contributions

Contributions to the Retirement System are made by the members and their employers.

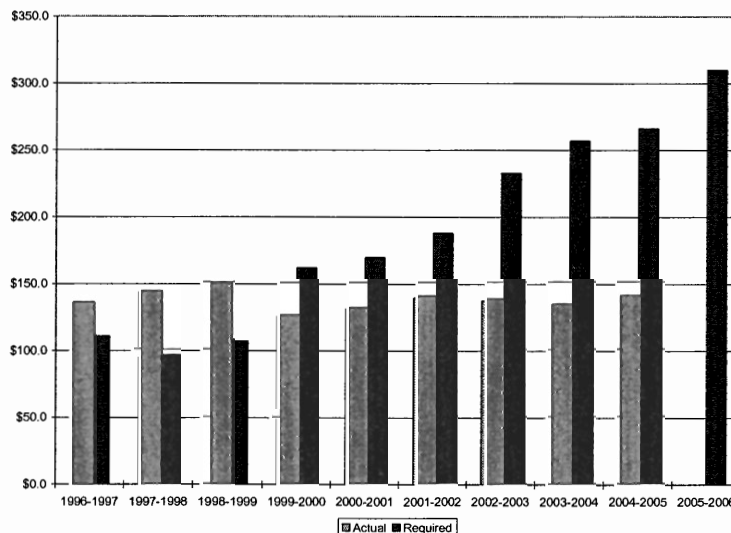
Effective July 1, 1998, State employees pay 3.0% of covered compensation up to \$25,000 per year and 3.5% of covered compensation over \$25,000. Local government employees contribute from 3.5% to 8.5% of covered compensation, depending on the rate chosen by their employers. Elected officials and employees of the Department of Corrections have different required contributions (see the Summary of System Provisions section of this report). Starting in 2004, participants may make an election to contribute an additional 2.91% of pay and to increase their accrual rate for future service to 2.5%.

Following is a graph representing the total required employer contribution compared to the amount actually received in the year. The funding policy contribution equals the System's normal cost, budgeted expenses and an amortization of the unfunded accrued liability. For July 1, 1998 and prior years, the unfunded 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 (22 years remaining as of July 1, 2005).

As of July 1, 1999, the State's employer contribution was reduced to 10.0% of covered compensation. As of July 1, 2005, the State's contribution rate increased to 11.5% of covered compensation and will increase an additional 1% of covered compensation each July 1 until it reaches 16.5% on July 1, 2010. It is scheduled to remain at 16.5% thereafter. For county and local employees, the total employer and employee contribution rate is 13.5% of covered compensation. This contribution rate increased to 15.0% on July 1, 2005 and will increase an additional 1% of covered compensation each year beginning July 1, 2006 until it reaches 20.0% on July 1, 2010.

The employer contribution is not sufficient to fund the contribution developed under Governmental Accounting Standards Number 25 which includes the recognition of future 2% ad-hoc COLAs.

Employer Contributions Received versus Contributions Required Under GASB 25 (\$000,000)



Funding Results

Ten-Year Projected Cash Flow

(Retirement Benefit Payments)⁶

The chart below shows estimated benefits expected to be paid over the next ten years, based on the assumptions used in this valuation. The "Actives" column shows benefits expected to be paid to members currently active on July 1, 2005. The "Retirees" column shows benefits expected to be paid to all other members. This includes those who, as of July 1, 2005, are receiving benefit payments or who terminated employment and are entitled to a deferred vested benefit.

Fiscal Year Ending	Actives	Retirees ⁷	Total
6/30/2006	\$ 25,459,913	\$ 331,347,928	\$ 356,807,841
6/30/2007	48,534,715	332,109,423	380,644,138
6/30/2008	73,844,771	332,556,503	406,401,274
6/30/2009	101,750,383	332,742,226	434,492,609
6/30/2010	131,876,134	332,551,589	464,427,723
6/30/2011	163,970,918	331,785,537	495,756,455
6/30/2012	197,397,761	330,868,354	528,266,115
6/30/2013	232,214,047	329,683,897	561,897,944
6/30/2014	268,789,538	328,001,530	596,791,068
6/30/2015	306,175,315	325,797,423	631,972,738

Expected Three-Year Cash Flow on Supplemental Medical Insurance Premiums

Fiscal Year Ending	Actives	Retirees	Total
6/30/2006	\$ 1,897,140	\$ 18,166,974	\$ 20,064,114
6/30/2007	3,480,943	17,784,970	21,265,913
6/30/2008	5,121,035	17,405,596	22,526,631

⁶ Includes medical insurance premium to retirees.

⁷ Includes disabled members, surviving spouses, and terminated vested members.

Funding Results

Liability Detail

Actuarial Accrued Liability	July 1, 2005	July 1, 2004
1. Actives		
a. Retirement benefits	\$ 3,204,490,935	\$ 3,037,679,524
b. Withdrawal benefits	152,077,224	132,909,289
c. Disability benefits	115,618,553	99,269,276
d. Death benefits	85,411,351	100,306,224
e. Refunds	(34,979,890)	(33,056,513)
f. Supplemental medical insurance premiums	140,709,612	138,811,656
g. Liability for people who have not submitted an application	3,131,694	2,551,314
h. Total	\$ 3,666,459,479	\$ 3,478,470,770
2. Inactives		
a. Terminated vested members	\$ 334,573,678	\$ 297,734,900
b. Unclaimed contributions	15,912,578	14,587,367
c. Retired members	3,027,948,648	2,868,962,532
d. Disabled members	101,043,328	106,329,253
e. Joint annuitants/surviving spouses	181,813,113	168,652,156
f. Supplemental medical insurance premiums	181,171,862	178,894,834
g. Refund of excess contributions for terminated vested members	1,121,549	1,146,393
h. COLA reserve	65,375,573	0
i. Total	\$ 3,908,960,329	\$ 3,636,307,435
3. Actuarial Accrued Liability	\$ 7,575,419,808	\$ 7,114,778,205
Normal Cost		
1. Retirement benefits	\$ 109,377,094	\$ 105,778,625
2. Withdrawal benefits	18,387,849	15,896,237
3. Disability benefits	6,015,032	5,189,058
4. Death benefits	4,665,038	5,404,534
5. Refunds	6,956,943	6,383,833
6. Supplemental medical insurance premiums	9,600,495	9,602,691
7. People who have not submitted an application	1,732,770	1,933,146
8. Total	\$ 156,735,221	\$ 150,188,124

Accounting Results

FASB No. 35 Information

Actuarial Present Value of Accumulated System Benefits

The actuarial present value of vested and nonvested accumulated System benefits is computed on an ongoing System basis in order to provide required information under Financial Accounting Standards Board Statement No. 35. In this calculation, a determination is made of all benefits earned by current 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. *Assumption of 2% future ad hoc cost-of-living increases is not reflected in this liability. Only System liabilities accrued (and in statute) as of the valuation date are included.*

Accumulated System Benefits	July 1, 2005	July 1, 2004
Vested benefits		
▪ Active members ⁸	\$ 1,595,807,744	\$ 1,521,811,949
▪ Terminated vested members ⁹	299,511,205	267,539,078
▪ Retirees and joint annuitants/surviving spouses	2,841,842,164	2,698,711,721
▪ Supplemental medical insurance premiums	289,949,485	284,384,536
Total vested benefits	\$ 5,027,110,598	\$ 4,772,447,284
Nonvested benefits	332,839,164	339,187,195
Total accumulated System benefits	\$ 5,359,949,762	\$ 5,111,634,479
Assumed rate of interest	7.50%	7.50%
Market value of assets available for benefits	\$ 5,504,489,147	\$ 5,126,418,028
Funded ratio	102.7%	100.3%
Change in accumulated System benefits due to:		
▪ Assumption changes	\$ 26,116,906	\$ 0
▪ System provision changes	0	3,872,519
Number of Members	July 1, 2005	July 1, 2004
Vested members		
▪ Active members	21,512	21,863
▪ Terminated vested members	5,521	5,482
▪ Retirees and joint annuitants/surviving spouses	23,679	22,990
Total vested members	50,712	50,335
Nonvested members	22,406	21,137
Total members	73,118	71,472

⁸ Includes \$754,964 for 659 members who had not completed applications as of July 1, 2005 and \$784,451 for 747 members who have not completed applications as of July 1, 2004.

⁹ Includes \$15,912,578 for unclaimed contributions and \$1,121,549 for the limited additional retirement benefit as of July 1, 2005. Includes \$14,587,367 for unclaimed contributions and \$1,146,393 for the limited additional retirement benefit as of July 1, 2004.

Accounting Results

FASB No. 35 Information *(continued)*

Statement of Changes in Accumulated System Benefits

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

Actuarial Present Value of Accumulated System Benefits as of July 1, 2004	\$ 5,111,634,479
Increase/(decrease) during year attributable to:	
▪ Normal cost and (gains)/losses	\$ 183,722,774
▪ Increase for interest due to decrease in discount period	370,906,430
▪ Benefits paid	(332,430,827)
▪ Assumption changes	26,116,906
Net increase/(decrease)	\$ 248,315,283
Actuarial present value of accumulated System benefits as of July 1, 2005	\$ 5,359,949,762

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

Accounting Results

GASB No. 25 Information

Supplementary Schedules

Financial Reporting for Defined Benefit and Note Disclosures for Defined Contribution Plans (GASB Statement No. 25), became effective for periods beginning after June 15, 1996, and requires funded status to be measured based upon the actuarial funding method adopted by the Board of Retirement. The Board adopted the Entry Age Normal Cost Method.

Schedule of Funding Progress

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

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
7/1/2000	4,785,555,333	5,694,725,385	909,170,052	84.0%	1,281,505,876	70.9%
7/1/2001	5,110,226,650	6,190,228,108	1,080,001,458	82.6%	1,317,043,030	82.0%
7/1/2002	5,299,781,370	6,639,720,469	1,339,939,099	79.8%	1,450,317,127	92.4%
7/1/2003	5,354,795,771	6,974,583,356	1,619,787,585	76.8%	1,411,719,256	114.7%
7/1/2004	5,412,166,797	7,114,778,205	1,702,611,408	76.1%	1,383,965,233	123.0%
7/1/2005	5,450,664,963	7,575,419,808	2,124,754,845	72.0%	1,454,210,509	146.1%

Schedule of Employer Contributions

The GASB Statement No. 25 required and actual contributions are as follows:

Year Ended June 30	Annual Required Contribution	Percentage Contributed
2000	161,793,250	77.8%
2001	169,642,126	77.3%
2002	187,991,746	74.3%
2003	232,891,719	59.1%
2004	257,038,902	51.9%
2005	266,044,444	52.5%

System Assets

Summary of Assets

Asset Category	Market Value as of June 30, 2005	Market Value as of June 30, 2004
1. Cash and short-term investments		
a. Cash and short-term investments	\$ 85,159,723	\$ 287,229,469
2. Receivables		
a. Interest and dividends	18,708,412	19,484,131
b. Member contributions	1,198,941	1,112,144
c. Employer contributions	3,059,092	2,844,645
d. Due from brokers for securities sold	432,504,216	217,041,306
e. Total	\$ 455,470,661	\$ 240,482,226
3. Investments at fair value		
a. Government bonds	1,300,115,328	1,446,162,605
b. Corporate bonds	814,947,694	556,088,898
c. Domestic stocks	2,457,603,320	2,594,844,949
d. Foreign stocks	851,775,061	478,939,730
e. Total	\$ 5,424,441,403	\$ 5,076,036,182
4. Other assets		
a. Other assets	211,361	315,071
5. Assets used in System operations		
a. Property and equipment	427,190	328,826
6. Total assets	\$ 5,965,710,338	\$ 5,604,391,774
7. Liabilities		
a. Due to brokers and investment managers	(461,221,191)	(477,973,746)
b. Accounts payable and accrued expenses	0	0
c. Benefits payable	0	0
d. Total liabilities	\$ (461,221,191)	\$ (477,973,746)
8. Net assets available for pension benefits	\$ 5,504,489,147	\$ 5,126,418,028

System Assets

Reconciliation of Assets

Transactions	Fiscal Year Ended June 30, 2005	Fiscal Year Ended June 30, 2004
Additions		
1. Contributions		
a. Contributions from System members	\$ 52,017,896	\$ 48,469,861
b. Contributions from employers	139,757,160	133,522,780
c. Total	\$ 191,775,056	\$ 181,992,641
2. Net investment income		
a. Interest	\$ 90,694,789	\$ 85,953,682
b. Dividends	29,816,319	19,229,959
c. Realized and unrealized appreciation	407,023,558	536,405,501
d. Security lending activities	1,519,139	1,142,635
e. Other	101,742	60,697
f. Total	\$ 529,155,547	\$ 642,792,474
g. Investment expense	(6,821,748)	(6,303,235)
h. Net investment income	\$ 522,333,799	\$ 636,489,239
3. Total additions	\$ 714,108,855	\$ 818,481,880
Deductions		
4. Retirement, death and survivor benefits	\$ (321,568,856)	\$ (297,799,619)
5. Refund of contributions	(10,861,971)	(9,833,972)
6. Administrative expenses	(3,606,909)	(3,493,404)
7. Total deductions	\$ (336,037,736)	\$ (311,126,995)
8. Change in assets not available for benefits	0	0
9. Net increase	\$ 378,071,119	\$ 507,354,885
10. Net assets held in trust for pension benefits		
a. Beginning of year	\$ 5,126,418,028	\$ 4,619,063,143
b. End of year	\$ 5,504,489,147	\$ 5,126,418,028
Reconciliation of Actuarial Value and Market Value		
Actuarial asset value	\$ 5,450,664,963	\$ 5,412,166,797
Deferred gain/(loss)	53,824,184	(285,748,769)
Market value	\$ 5,504,489,147	\$ 5,126,418,028

System Assets

Actuarial Value of Assets

Schedule of Asset Gains/(Losses)

Year	Original Amount	Recognized in Prior Years	Recognized This Year	Recognized in Future Years
2000/2001	\$ (666,007,650)	\$ (532,806,120)	\$ (133,201,530)	\$ 0
2001/2002	(631,139,394)	(378,683,637)	(126,227,879)	(126,227,878)
2002/2003	(153,115,261)	(61,246,104)	(30,623,052)	(61,246,105)
2003/2004	239,722,094	47,944,419	47,944,419	143,833,256
2004/2005	121,831,139	0	24,366,228	97,464,911
Total	\$ (1,088,709,072)	\$ (924,791,442)	\$ (217,741,814)	\$ 53,824,184

Development of Actuarial Value of Assets

1. Actuarial value as of July 1, 2004	\$ 5,412,166,797
2. Contributions	
a. Member	52,017,896
b. Employer	139,757,160
c. Total (a. + b.)	\$ 191,775,056
3. Decreases during year	
a. Benefit payments	(321,568,856)
b. Return of member contributions	(10,861,971)
c. Noninvestment expenses	(3,606,909)
d. Total (a. + b. + c.)	\$ (336,037,736)
4. Expected return at 7.5% on:	
a. Item 1	405,912,510
b. Item 2 (one-half year)	7,191,565
c. Item 3 (one-half year)	(12,601,415)
d. Total (a. + b. + c.)	\$ 400,502,660
5. Expected actuarial value of assets June 30, 2005 (1. + 2. + 3. + 4.)	\$ 5,668,406,777
6. Unrecognized asset gain/(loss) as of June 30, 2004	(285,748,769)
7. Expected actuarial value June 30, 2005, plus previous year's unrecognized asset gain/(loss) (5. + 6.)	\$ 5,382,658,008
8. Market value June 30, 2005	5,504,489,147
9. 2004/2005 asset gain/(loss) (8. - 7.)	\$ 121,831,139
10. Asset gain/(loss) to be recognized as of June 30, 2005	(217,741,814)
11. Initial actuarial value July 1, 2005 (5. + 10.)	\$ 5,450,664,963
12. Constraining values:	
a. 80% of market value (8. x .8)	\$ 4,403,591,318
b. 120% of market value (8. x 1.2)	\$ 6,605,386,976
13. Actuarial value as of July 1, 2005 <i>(11.), but no less than (12a.), nor greater than (12b.)</i>	\$ 5,450,664,963

System Assets

Average Annual Rates of Investment Return

The annual return on market value shown below is the return on the actual value of System assets during the year. The actuarial value of assets amortizes the difference between each year's actual return on assets and the investment return assumption used for the valuation. The annual return on actuarial value reflects this amortization.

The Average Return Since Fiscal Year columns show the average annual return after that fiscal year. For instance, the average return of market value shown for the year 2001 is 3.4%. This is the average annual return for the five years beginning with the fiscal year ended June 30, 2001 and ending with the fiscal year ended June 30, 2005. Over time, the average return on actuarial value and the average return on market value should converge.

Fiscal Year Ending June 30	Actuarial Value		Market Value	
	Annual	Average Return Since Fiscal Year	Annual	Average Return Since Fiscal Year
1996	11.7%	9.2%	15.0%	8.6%
1997	13.2%	8.9%	18.6%	7.9%
1998	14.4%	8.4%	18.3%	6.7%
1999	15.0%	7.5%	9.2%	5.1%
2000	13.8%	6.3%	9.9%	4.4%
2001	9.4%	4.9%	(6.0%)	3.4%
2002	5.3%	3.8%	(5.3%)	5.9%
2003	3.1%	3.3%	5.4%	9.9%
2004	3.5%	3.5%	14.0%	12.2%
2005	3.4%	3.4%	10.3%	10.3%

Participant Data

Member Data Reconciliation

	Receiving Benefits					Total Members
	Active Members	With Deferred Benefits	Retired Members	Disabled Members	Joint Annuitants and Surviving Spouses	
As of July 1, 2004	43,000	5,482	19,666	1,205	2,119	71,472
Age retirements	(1,079)	(220)	1,299			0
Disability retirements	(64)	(42)		106		0
Deaths without payments continuing	(67)	(16)	(646)	(42)	(98)	(869)
Deaths with payments continuing	(38)	(16)	(162)	(12)	228	0
Nonvested terminations	(3,209)					(3,209)
Vested terminations	(622)	622				0
Refund of contributions		(132)				(132)
Transfers						0
Data corrections		15 ¹⁰	15 ¹¹	8 ¹²	1 ¹³	39
Rehires	820	(172)	(7)	(1)		640
Net	(4,259)	39	499	59	131	(3,531)
New entrants during the year	4,801	0	0	0	0	4,801
No applications	376	0	0	0	0	376
Net change	918	39	499	59	131	1,646
As of July 1, 2005	43,918	5,521	20,165	1,264	2,250	73,118

¹⁰ 15 people were shown as unclaimed contributions in the last valuation and are now shown on the vested tape.

¹¹ 21 people were shown as unclaimed contributions in the last valuation and are now valued as retired; 6 people were shown as retirees in the last valuation and were now reported as disabled members.

¹² 6 people were shown as retirees in the last valuation and were now reported as disabled members, 2 people were shown as unclaimed contributions in the last valuation were now reported as disabled members.

¹³ 1 person was shown as an unclaimed contribution in the last valuation and was now reported as a beneficiary.

Participant Data

Count of Paid Active Members

Age	Years of Service									Total
	0 - 4	5 - 9	10 -14	15 -19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20	74									74
20 - 24	1,510	20								1,530
25 - 29	2,500	544	1							3,045
30 - 34	2,303	1,390	272	18						3,983
35 - 39	1,865	1,333	767	395	32					4,392
40 - 44	1,955	1,317	865	1,107	712	85				6,041
45 - 49	1,845	1,334	912	1,052	1,126	699	117			7,085
50 - 54	1,463	1,182	987	1,048	899	886	449	32		6,946
55 - 59	1,217	1,053	825	977	713	439	436	182	20	5,862
60 - 64	558	639	473	551	397	213	155	71	48	3,105
65 - 69	143	193	162	160	72	41	35	16	19	841
70 - 74	58	53	50	52	25	17	5	5	7	272
75+	19	14	11	13	14	4	5	1	2	83
Total	15,510	9,072	5,325	5,373	3,990	2,384	1,202	307	96	43,259
										<u>659¹⁴</u>
										43,918

Average Compensation ¹⁵

Age	Years of Service									Total
	0 - 4	5 - 9	10 -14	15 -19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20	16,391									16,391
20 - 24	22,356	28,334								22,435
25 - 29	26,498	29,548	37,432							27,047
30 - 34	27,411	32,697	33,429	36,956						29,710
35 - 39	27,526	33,108	36,440	37,489	37,664					31,747
40 - 44	28,190	32,068	36,088	40,318	39,416	39,270				33,868
45 - 49	28,209	31,909	35,963	39,159	41,049	40,196	38,506			34,923
50 - 54	29,503	32,737	34,702	37,883	40,491	42,616	42,782	40,017		36,058
55 - 59	29,371	32,535	34,933	37,810	40,308	41,786	44,555	44,175	53,559	36,060
60 - 64	28,705	30,760	34,723	36,358	39,211	37,609	41,748	45,151	47,950	34,682
65 - 69	29,064	30,606	35,082	33,734	40,523	36,856	40,709	37,862	56,374	34,095
70 - 74	23,930	33,969	29,967	34,083	37,536	30,708	57,771	41,260	50,092	32,225
75+	26,126	32,820	30,594	30,591	45,346	35,131	56,048	65,925	13,701	34,205
Total	27,324	32,165	35,325	38,255	40,273	40,990	42,933	43,662	50,228	33,230¹⁵

¹⁴ Members without applications

¹⁵ Average compensation for members without applications is \$25,366. The average for all members including the members without applications is \$33,112.

Participant Data

Members in Pay Status - Annual Benefits

Age	Retirees		Joint Annuitants & Surviving Spouses		Disabled Members		Current Payment Total	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
Under 51	82	1,757,906	76	764,230	133	1,135,688	291	3,657,824
51	42	929,303	12	114,833	38	357,468	92	1,401,604
52	59	1,470,797	14	119,456	38	347,941	111	1,938,194
53	93	2,194,090	16	162,764	34	338,053	143	2,694,907
54	136	3,288,522	13	71,518	53	480,070	202	3,840,110
55	175	3,780,959	18	148,824	68	623,866	261	4,553,649
56	302	5,628,091	26	296,021	64	660,277	392	6,584,389
57	351	6,683,142	41	435,767	67	624,252	459	7,743,161
58	402	7,309,067	29	292,798	68	641,866	499	8,243,731
59	430	7,716,383	36	400,114	69	575,984	535	8,692,481
60	380	6,877,579	41	324,093	54	456,254	475	7,657,926
61	510	8,974,600	50	435,559	58	381,459	618	9,791,618
62	685	11,223,661	58	517,534	75	598,667	818	12,339,862
63	769	11,557,074	70	579,274	64	552,998	903	12,689,346
64	830	12,353,574	60	569,321	46	333,313	936	13,256,208
65	831	12,596,673	57	448,014	57	446,446	945	13,491,133
66	853	12,237,688	62	580,746	39	292,085	954	13,110,519
67	857	11,592,294	73	642,143	42	316,300	972	12,550,737
68	828	11,640,974	75	591,663	34	290,275	937	12,522,912
69	832	10,778,830	58	585,351	24	154,715	914	11,518,896
70	872	10,934,823	88	764,971	24	161,606	984	11,861,400
71	874	11,260,932	92	646,725	25	189,308	991	12,096,965
72	726	9,385,555	82	742,158	28	216,626	836	10,344,339
73	772	9,521,693	77	616,432	15	119,954	864	10,258,079
74	724	8,784,362	76	713,716	13	100,161	813	9,598,239
75	676	8,295,599	84	714,566	17	113,829	777	9,123,994
76	654	7,942,140	75	623,177	10	89,312	739	8,654,629
77	589	6,515,878	85	653,000	5	37,169	679	7,206,047
78	556	6,873,967	93	803,304	0	-	649	7,677,271
79	559	6,544,879	84	611,703	0	-	643	7,156,582
80	495	5,574,355	73	676,210	0	-	568	6,250,565
81	457	5,063,932	66	540,011	0	-	523	5,603,943
82	452	5,087,547	50	430,006	1	6,769	503	5,524,322
83	352	4,061,364	47	373,124	0	-	399	4,434,488
84	389	4,147,859	51	347,610	0	-	440	4,495,469
85	291	3,188,241	43	271,779	0	-	334	3,460,020
86	228	2,300,955	44	284,310	0	-	272	2,585,265
87	213	2,046,846	25	129,171	0	-	238	2,176,017
88	173	1,680,493	20	103,813	0	-	193	1,784,306
89	153	1,414,770	24	167,275	0	-	177	1,582,045
90	92	856,716	23	190,171	0	-	115	1,046,887
Over 90	421	3,866,780	63	362,701	1	5,442	485	4,234,923
Total	20,165	\$ 275,940,893	2,250	\$ 18,845,956	1,264	\$ 10,648,153	23,679	\$ 305,435,002

Participant Data

Terminated Vested Members - Deferred Annual Benefits

Age	Members With Deferred Benefits	
	No.	Benefit
Under 41	516	\$ 5,379,951
41	134	1,330,728
42	175	1,736,595
43	179	1,820,530
44	177	1,831,801
45	213	1,994,461
46	237	2,284,659
47	235	2,463,837
48	285	3,344,283
49	300	3,014,624
50	275	2,971,894
51	313	3,538,977
52	316	3,667,416
53	303	3,270,952
54	286	3,083,275
55	306	3,258,443
56	233	2,161,224
57	242	2,150,841
58	217	1,955,349
59	194	1,497,572
60	129	1,197,164
61	137	1,024,338
62	71	574,089
63	12	134,547
64	9	139,448
65	7	114,913
66	4	44,818
67	5	41,160
68	0	0
69	2	45,943
70	3	87,712
Over 70	6	107,139
Total	5,521	\$ 56,268,683

Participant Data

Member Statistics

Inactive Members as of July 1, 2005	No.	Amount of Annual Benefit ¹⁶
Members Receiving Benefits		
▪ Retired	20,165	\$ 275,940,893
▪ Joint annuitants and surviving spouses	2,250	18,845,956
▪ Disabled	1,264	10,648,153
Total	23,679	\$ 305,435,002

Members with Deferred Benefits	No.	Amount of Annual Benefit ¹⁶
▪ Vested terminated	4,162	\$ 32,524,299
▪ Assumed deferred vested members ¹⁷	1,359	23,744,384
Total	5,521	\$ 56,268,683

Statistics for	No.	Average		
		Age	Service	Earnings
Active Members as of July 1, 2004				
▪ Continuing	37,973	46.8	11.9	\$ 33,304
▪ New	5,027	37.4	1.0	\$ 23,737
Total	43,000	45.7	10.6	\$ 32,185
Active members as of July 1, 2005				
▪ Continuing	37,676	47.0	12.0	\$ 34,512
▪ New	6,242	38.0	1.3	\$ 24,664
Total	43,918	45.7	10.5	\$ 33,112

¹⁶ Does not include monthly medical insurance premium.

¹⁷ Estimated benefits.

Participant Data

Data Tape Reconciliation

	Active	Retired	Vested Terminations	Total
Records submitted on data tape	43,364	38,908	4,188	86,460
Passed without alteration	43,259	23,679	4,157	71,095
Earnings based on salary due to missing year-to-date earnings	0	0	0	0
New members with hire dates not reflecting breaks in service	0	0	0	0
Data tapes records included	43,259	23,679	4,157	71,095
Other members included	659 ¹⁸	0	1,364 ²¹	2,023
Total valued	43,918	23,679	5,521	73,118
Number deleted	105 ¹⁹	15,229 ²⁰	31 ²²	15,365
Number added	659	0	1,364	2,023

¹⁸ Members who have not completed applications.

¹⁹ 5 members were on the vested tape; they were assumed to be a vested termination. 90 members were on the retired tape; they were assumed to be receiving payments. 5 members were on the unclaimed tape, and 2 of these were assumed deferred vesteds. 5 members were on the active tape (found during data question process).

²⁰ 15,229 people were marked as deaths without a beneficiary receiving a payment.

²¹ 1,359 assumed deferred vesteds, 3 members were not reported on the vested tape (found during data question process), 2 members were reported as vested on the inactive tape.

²² 31 members were on the retired tape; they were assumed to be receiving payments.

Actuarial Basis

Actuarial Cost Method

Cost Method Used for Funding

Entry Age Actuarial Cost Method

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

Sometimes called "funding method," this is a particular technique used by actuaries for establishing the amount of the annual actuarial cost of pension System benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the System is comprised of (1) the normal cost and (2) an amortization payment on the unfunded actuarial accrued liability.

Under the Entry Age Actuarial Cost Method, the **Normal Cost** is computed as the level percentage of pay which, if paid from the earliest time each member would have been eligible to join the System if it then existed (thus, entry age) until his retirement or termination, would accumulate with interest at the rate assumed in the valuation to a fund sufficient to pay all benefits under the System.

The **Actuarial Accrued Liability** under this method at any point in time is the theoretical amount of the fund that would have accumulated had annual contributions equal to the normal cost been made in prior years (it does not represent the liability for benefits accrued to the valuation date). The **Unfunded Actuarial Accrued Liability** is the excess of the actuarial accrued liability over the actuarial value of System assets actually on hand on the valuation date.

Under this method experience gains or losses, i.e. decreases or increases in accrued liabilities attributable to deviations in experience from the actuarial assumptions, adjust the unfunded actuarial accrued liability.

Present Value of Accrued System Benefits (FASB #35)

The present value of accrued System benefits represents the actuarial present value of benefits which are accrued based on service and salary information as of the valuation date.

Actuarial Basis

Asset Valuation Method

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

- at the beginning of each 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.

Actuarial Basis

Valuation Procedures

No actuarial accrued liability in excess of the unclaimed contributions is held for nonvested, inactive members who have a break in service, or for nonvested members who have quit or been terminated, even if a break in service has not occurred as of the valuation date.

The wages used in the projection of benefits and liabilities are considered earnings for the year ending June 30, 2005, 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.

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

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

Benefits above the projected 415 limit for active participants are assumed to be immaterial for the valuation.

The compensation limitation under IRC Section 401(a)(17) is considered in this valuation. On a projected basis, the impact of this limitation is insignificant.

Liability is included for members who appear to be deferred vested, but who are not on the vested data tapes 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 administrator when the actual benefit and status have been finalized.

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

The retirement benefit liability for retired members that elected payment Option A or payment Option B is increased by 2.0% to account for the liability for the pop-up provision of the payment option.

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 administrator supplied the included amounts.

An amount has been included in the accrued liability to account for cost of living adjustments to the benefits of retired participants that have not been granted by the valuation date. Any ad hoc increase granted will decrease the reserve amount by the cost of the increase. When the cost of an ad hoc increase is greater than the amount of the reserve, the reserve is set to zero and the period for calculating ungranted increases is set to the valuation date.

Actuarial Basis

Summary of Actuarial Assumptions

Economic Assumptions																							
<i>Investment return</i>	7.5% net of investment expenses per annum, compounded annually																						
<i>Earnings progression</i>	Sample rates below (midpoint of range shown):																						
	<table border="1"> <thead> <tr> <th>Nearest Age</th> <th>% Increase</th> </tr> </thead> <tbody> <tr> <td>20-24</td> <td>9.0</td> </tr> <tr> <td>25-29</td> <td>8.0</td> </tr> <tr> <td>30-34</td> <td>6.7</td> </tr> <tr> <td>35-39</td> <td>6.1</td> </tr> <tr> <td>40-44</td> <td>5.8</td> </tr> <tr> <td>45-49</td> <td>5.4</td> </tr> <tr> <td>50-54</td> <td>5.1</td> </tr> <tr> <td>55-59</td> <td>5.1</td> </tr> <tr> <td>60-64</td> <td>5.1</td> </tr> <tr> <td>65+</td> <td>5.1</td> </tr> </tbody> </table>	Nearest Age	% Increase	20-24	9.0	25-29	8.0	30-34	6.7	35-39	6.1	40-44	5.8	45-49	5.4	50-54	5.1	55-59	5.1	60-64	5.1	65+	5.1
Nearest Age	% Increase																						
20-24	9.0																						
25-29	8.0																						
30-34	6.7																						
35-39	6.1																						
40-44	5.8																						
45-49	5.4																						
50-54	5.1																						
55-59	5.1																						
60-64	5.1																						
65+	5.1																						
<i>Ad hoc benefit increase assumption</i>																							
<i>Monthly benefits</i>	2% per year																						
<i>Medical supplement</i>	No increases assumed																						
<i>Projection of 401(a)(17) compensation limit</i>	Projected with inflation at 2.5%																						

Actuarial Basis

Summary of Actuarial Assumptions *(continued)*

Demographic Assumptions

Retirement age

Elected and non-elected members

Annual Rates of Retirement
Per 100 Eligible Members

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

Actuarial Basis

Summary of Actuarial Assumptions (continued)

Demographic Assumptions (continued)

Retirement age (continued)

*Department of Corrections
officers*

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

Mortality rates

Active participants and nondisabled pensioners

RP-2000 combined active/retiree healthy mortality table projected to 2010 using Scale AA.

Disabled pensioners

RP-2000 combined active/retiree healthy mortality table projected to 2010 using Scale AA set forward 15 years for disabled experience.

Department of Corrections

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.

Actuarial Basis

Summary of Actuarial Assumptions (continued)

Demographic Assumptions (continued)

Disability rates

Graduated rates

Disabled rates per 100 members

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

Withdrawal rates

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

Marital status

Percentage married

Males: 85%; Females: 85%

Age difference

Males are assumed to be four years older than spouses

Children

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

Form of Payment

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

Actuarial Basis

Summary of Actuarial Assumptions (continued)

Other Assumptions

Assumed age of commencement for deferred benefits

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

Actuarial value of assets

An expected actuarial value is determined equal to the prior year's actuarial value of assets plus cash flow (excluding realized and unrealized gains and losses) for the year ended on the valuation date and assuming 7.5% interest return. Twenty percent (20%) of any (gain)/loss as measured by the difference between the expected actuarial value and the market value at the valuation date is added to the expected actuarial value plus prior unrecognized gains or losses. The (gain)/loss is amortized over five years. The result is constrained to a value of 80% to 120% of the market value at the valuation date.

Provision for expenses

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

Actuarial Basis

Summary of System Provisions

Following is a summary of the major System provisions used to determine the System’s financial position. It should not be used in determining System benefits.

<i>Effective date and fiscal year</i>	The System became effective January 1, 1964. The fiscal year is July 1 to June 30.
<i>Administration</i>	The System is administered by a 13 member Oklahoma Public Employees Retirement System Board of Trustees. The Board acts as the fiduciary for investment and administration of the System.
<i>Employees included</i>	<p>All permanent employees of the State of Oklahoma, legislated agencies, and any other employer such as county, county hospital, city, or trust in which a municipality is the primary beneficiary, are eligible to join if:</p> <ul style="list-style-type: none"> – the employee is not eligible for or participating in another retirement system authorized under Oklahoma law, is covered by Social Security and not participating in the U.S. Civil Service Retirement System, – the employee is scheduled for 1,000 hours per year and salary is not less than the hourly rate of the monthly minimum wage for State employees (for employees of local government employers, not less than the hourly rate of the monthly minimum wage for such employees). <p>Membership is mandatory for new eligible employees on the first of the month following employment.</p>
<i>Employer and employee contributions</i>	<p>See the following chart for the schedule of employee contributions for all State employees except elected officials and Department of Corrections employees. Elected officials contribute 4.5%, 6%, 7.5%, 8.5%, 9%, or 10% depending upon the computation factor used in determining their benefit. The benefits and contribution amounts for elected officials will be based on the maximum compensation levels set forth in the chart below. Contributions for Department of Corrections employees are summarized at the end of this section. Local government employees contribute from 3.5% to 8.5% of pay, depending on the rate chosen by their employers. Starting in 2004, participants may make an election to contribute an additional 2.91% of pay and to increase their accrual rate for future service to 2.5%.</p> <p>Contributions are based on compensation defined by the Board.</p>

Actuarial Basis

Summary of System Provisions *(continued)*

<i>Employer and employee contributions (continued)</i>	State Employee Contributions 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
	2006-2007	12.5%	3.0%	15.5%	No Cap
	2007-2008	13.5%	3.0%	16.5%	No Cap
	2008-2009	14.5%	3.0%	17.5%	No Cap
	2009-2010	15.5%	3.0%	18.5%	No Cap
	2010-2011	16.5%	3.0%	19.5%	No Cap

State Employee Contributions 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
2006-2007	12.5%	3.5%	16.0%	No Cap
2007-2008	13.5%	3.5%	17.0%	No Cap
2008-2009	14.5%	3.5%	18.0%	No Cap
2009-2010	15.5%	3.5%	19.0%	No Cap
2010-2011	16.5%	3.5%	20.0%	No Cap

Actuarial Basis

Summary of System Provisions *(continued)*

Service considered

Prior service

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

Participating service

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

Member Accumulation			Additional Years
\$ 1	to	\$ 500	1
501	to	1,000	2
1,001	to	1,500	3
1,501	to	2,000	4
2,001	or	more	5

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

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

Actuarial Basis

Summary of System Provisions *(continued)*

Service considered (continued)

Participating service

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

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

Credited Service

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

Compensation considered

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

Final average compensation

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

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

Actuarial Basis

Summary of System Provisions *(continued)*

Normal retirement date

Normal retirement is the earliest of: first day of the month coinciding with or next following the 62nd birthday; or, the first day of the month coinciding with or following the date at which the sum of a member's age and number of years of credited service total eighty (80) if the member was hired prior to July 1, 1992; or following the date at which the sum of member's age and number of years of credited service total ninety (90) if the member was hired after July 1, 1992. Members employed after January 1, 1983 must complete at least six years of full-time equivalent employment with a participating employer before receiving any retirement benefits. The normal retirement date for elected officials is the first of the month coinciding with or following the official's 60th birth date or the first day of the month coinciding with or following the date at which the sum of the member's age and years of credited service total eighty (80).

Normal retirement benefit

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

2% of final average compensation up to applicable maximum compensation multiplied by all service.

For members who have elected the "step up" option, a 2.5% multiplier is applied to the full "stepped up" 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 up to the maximum applicable limit times credited service multiplied by the following applicable percentage (based on the applicable contribution rate):

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

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

Actuarial Basis

Summary of System Provisions *(continued)*

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 credited service and Final Average Compensation (highest annual compensation for elected officials) at termination. The percentage payable at early retirement age is:

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

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

Option A is the only available form of survivor payment.

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

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

Actuarial Basis

Summary of System Provisions *(continued)*

<i>Vested benefit (continued)</i>	<p>Members terminating with less than eight years (or six years if an elected official) of credited service may elect to receive a refund of their contribution accumulation.</p> <p>A limited additional retirement 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.</p>
<i>Preretirement death benefit</i>	<p>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.</p> <p>In addition to the provisions above, the eligible spouse of a deceased elected official with at least six (6) years of elected service and married at least three years immediately preceding death may elect to receive 50% of the benefit the member would be eligible to receive. The starting date of benefits is the date the deceased member would have been eligible for early or normal retirement. Benefits cease upon death or remarriage of the surviving spouse.</p> <p>Any other designated beneficiary of a member other than an eligible spouse will receive a refund of the member's contribution accumulation.</p>
<i>Postretirement death benefit</i>	<p>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.</p>
<i>Optional forms of retirement benefits</i>	<p>The normal form of benefit for a single member other than an elected official is a single life monthly annuity with a guaranteed refund of the contribution accumulation. The normal form for a married member is a 50% joint and survivor annuity benefit. Optional forms of payment with actuarial reduction are available to all members retiring under the normal retirement, early retirement or vested retirement provisions. These options providing post-retirement death benefits are:</p> <p>Option A--Joint and 50% survivor annuity with a return to the unreduced amount if the joint annuitant dies.</p> <p>Option B--Joint and 100% survivor annuity with a return to the unreduced amount if the joint annuitant dies.</p> <p>Option C--Life annuity with a minimum of 120 monthly payments.</p> <p>For married members, spousal consent is required for any option other than Option A.</p>

Actuarial Basis

Summary of System Provisions *(continued)*

<i>Postretirement medical insurance premium</i>	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.
<i>Expenses</i>	The expenses of administering the retirement system are paid from the retirement trust fund.
<i>Hazardous duty members (Department of Corrections, Oklahoma Military Department firefighters) benefits</i>	<p>Members covered by the Department of Corrections Hazardous Duty Provisions have the retirement eligibility requirements, contribution rates and benefit formula described below.</p> <p>The normal retirement is the earliest of: 20 years of service as a member covered by the Department of Corrections Hazardous Duty Provisions; or, the first day of the month coinciding with or next following the 62nd birthday; or, the first day of the month coinciding with or following the date at which the sum of a member's age and number of years of credited service total eighty (80) if the member was hired prior to July 1, 1992; or following the date at which the sum of a member's age and number of years of credited service total ninety (90) if the member was hired after July 1, 1992. Members employed after January 1, 1983 must complete at least six years of full-time equivalent employment with a participating employer before receiving any retirement benefits. The benefit formula is 2½% of final average compensation, multiplied by the number of years of service as an eligible officer for service, not exceeding 20 years. For service in excess of 20 years the benefit formula is 2% of final average compensation.</p> <p>Members eligible for these benefits with at least five years of experience in their positions remain eligible to retire after 20 years even if they transfer to positions within DOC that are not eligible to retire after 20 years.</p> <p>Special Surviving Spouse and Child benefits for any member employed by the Department of Corrections (DOC) killed or mortally wounded during the performance of duty are equal to 2.5% of final average monthly compensation multiplied by the greater of the member's actual service or 20 years.</p> <p>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).</p>

Actuarial Basis

Summary of System Provisions (continued)

<i>Hazardous duty members (Department of Corrections, Oklahoma Military Department firefighters) benefits (continued)</i>	Contributions for members covered by the Department of Corrections Hazardous Duty Provisions are:		
	<u>Year</u>	<u>Up to \$25,000</u>	<u>Above \$25,000</u>
	1994/1995	6.5%	8.0%
	1995/1996	6.5%	8.0%
	1996/1997	7.0%	8.0%
	1997/1998	7.5%	8.0%
		First 20 Years of <u>Service</u>	<u>Service Beyond 20 Years</u>
			<u>Up to \$25,000</u> <u>Above \$25,000</u>
	1998/1999	8.0%	3.0% 0.0%
	1999/2000	8.0%	3.0% 0.0%
	2000 and on	8.0%	3.0% 3.5%

The benefit for Oklahoma Military Department firefighters who began employment July 1, 2002 and after is based on a 2½% computation factor. They are also eligible for full benefits after 20 years as a firefighter and their employee contribution rate is 8%. Oklahoma Military Department firefighters employed prior to July 1, 2002 were given a one time option to (a) have their benefit formula, retirement eligibility, and employee contribution rate remain unchanged, (b) apply the new provisions (including the new contribution rate) to service after January 1, 2003, or (c) apply the new benefit formula and retirement eligibility to all of the member's service, apply the 8% contribution rate for service after July 1, 2002, and make a contribution equal to the increase in the actuarial value of the member's retirement benefit.

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

Addendum

Certification

We have prepared an actuarial valuation of the State of Oklahoma Public Employees Retirement System (OPERS) as of July 1, 2005, for the fiscal year ending June 30, 2006. The results of the valuation are set forth in this report, which reflects legislation effective on July 1, 2005.

The valuation is based on employee and financial data which were provided by OPERS and the independent auditor, respectively, and which are summarized in this report.

The results in this Addendum have been prepared for the sole purpose of meeting the Retirement Board's requirement to submit this information to the Oklahoma State Pension Commission, based on the following prescribed assumptions (11 O.S. 2001, Section 50-105.4, Section H):

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

All other assumptions, methodologies, and System provisions used are consistent with those used in the July 1, 2005 valuation.

The results shown in this Addendum are not consistent with those in the July 1, 2005 valuation. The July 1, 2005 valuation results were determined in accordance with generally accepted actuarial principles and procedures, and are in compliance with the Actuarial Standards Board Actuarial Standard of Practice No. 27-Selection of Economic Assumptions for Measuring Pension Obligations. The results shown in this Addendum are not based on the assumptions and methodologies adopted by the Retirement Board. For those results, see the July 1, 2005 actuarial valuation.

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

The information contained in this document (including any attachments) is not intended by Mercer to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

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

Brent A. Hradek, FSA, EA

10/7/2005

Date

Stephen T. McElhane, FSA, EA

10/7/2005

Date

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Mercer Human Resource Consulting

Addendum

Summary of Valuation Results Under Prescribed Assumptions

This supplemental report has been prepared by Mercer Human Resource Consulting to present the results of a valuation of the State of Oklahoma Public Employees Retirement System as of July 1, 2005, based on the prescribed assumptions under 11 O.S. 2001, Section 50-105.4, Section H of current statutes and regulations issued thereunder.

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

	Actuarial Valuation as of		Change Between Years	
	July 1, 2005	July 1, 2004	Amount	Percent
Summary of Costs				
Required employer contribution for current year	\$ 301,743,270	\$ 273,089,154	\$ 28,654,116	10.5%
Actual employer contributions received in prior year	139,757,160	133,522,780	6,234,380	4.7%
Funded Status				
Actuarial accrued liability	\$ 7,665,911,831	\$ 7,278,338,079	\$ 387,573,752	5.3%
Actuarial value of assets	5,450,664,963	5,412,166,797	38,498,166	0.7%
Unfunded actuarial accrued liability	\$ 2,215,246,868	\$ 1,866,171,282	\$ 349,075,586	18.7%
Market Value of Assets and Additional Liabilities				
Market value of assets	\$ 5,504,489,147	\$ 5,126,418,028	\$ 378,071,119	7.4%
Present value of projected System benefits	8,908,073,008	8,499,288,630	408,784,378	4.8%

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Summary of Valuation Results Under Prescribed Assumptions *(continued)*

	Actuarial Valuation as of		Actuarial Valuation as of		Percent Change in Amount
	July 1, 2005		July 1, 2004		
	Amount	% of Covered Comp.	Amount	% of Covered Comp.	
Summary of Contribution Requirements					
1. Annual covered compensation for members included in valuation	\$ 1,454,210,509	N/A	\$ 1,383,965,233	N/A	5.1%
2. Total normal cost mid-year	166,494,032	11.4%	162,421,506	11.7%	2.5%
3. Unfunded actuarial accrued liability	2,215,246,868	152.3%	1,866,171,282	134.8%	18.7%
4. Amortization of unfunded actuarial accrued liability over 30 years	181,024,631	12.4%	152,499,016	11.0%	18.7%
5. Budgeted expenses provided by the System	8,053,062	0.6%	7,947,782	0.6%	1.3%
6. Total required contribution (2. + 4. + 5.)	\$ 355,571,725	24.5%	\$ 322,868,304	23.3%	10.1%
7. Estimated member contribution	53,828,455	3.7%	49,779,150	3.6%	8.1%
8. Required employer contributions (not less than \$0) (6. - 7.)	\$ 301,743,270	20.7%	\$ 273,089,154	19.7%	10.5%
9. Previous year's actual contribution					
a. Member	52,017,896	3.8% ²³	48,469,861	3.4% ²³	7.3%
b. Employer	139,757,160	10.1% ²³	133,522,780	9.5% ²³	4.7%
c. Total	191,775,056	13.9% ²³	181,992,641	12.9% ²³	5.4%

²³ Percent of previous years' annual compensation for active members (\$1,383,965,233 at July 1, 2004 and \$1,411,719,256 at July 1, 2003).

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Unfunded Actuarial Accrued Liability

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

	July 1, 2005	July 1, 2004
1. Actuarial present value of benefits		
a. Active members ²⁴	\$ 4,984,571,519	\$ 4,832,288,202
b. Terminated vested members ²⁵	390,612,932	357,790,543
c. Retirees, disableds and joint annuitants/surviving spouses	3,532,888,557	3,309,209,885
d. Total (a. + b. + c.)	\$ 8,908,073,008	\$ 8,499,288,630
2. Actuarial present value of future normal costs	1,242,161,177	1,220,950,551
3. Total actuarial accrued liability (1 - 2)	\$ 7,665,911,831	\$ 7,278,338,079
4. Actuarial value of assets	5,450,664,963	5,412,166,797
5. Unfunded actuarial accrued liability <i>(3. - 4., not less than \$0)</i>	\$ 2,215,246,868	\$ 1,866,171,282

²⁴ Includes \$16,985,763 for 659 members who have not completed applications as of July 1, 2005.

²⁵ Includes \$15,912,578 for unclaimed contributions, \$130,129,768 for 1,359 assumed deferred vested employees, and \$1,121,549 for the limited additional retirement benefits as of July 1, 2005.

Addendum

Normal Cost

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

Component	July 1, 2005	July 1, 2004
Retirement benefits	\$ 113,716,485	\$ 112,976,612
Withdrawal benefits	18,873,200	16,821,091
Disability benefits	5,473,001	4,683,539
Death benefits	3,915,820	3,715,214
Refunds	6,946,778	6,327,826
Supplemental medical insurance premiums	9,749,637	9,985,844
Normal cost for people who have not submitted an application	1,801,254	2,040,723
Total normal cost at beginning of year	\$ 160,476,175	\$ 156,550,849
Total normal cost at mid year	\$ 166,494,032	\$ 162,421,506
Normal cost rate at mid year	11.45%	11.74%
Annual covered payroll	\$ 1,454,210,509	\$ 1,383,965,233

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