

**State of Oklahoma Public Employees  
Retirement System**

*Actuarial Valuation Report as of July 1, 2001*

October 12, 2001

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## Highlights - Purpose

This report has been prepared by William M. Mercer, Incorporated for the Oklahoma Public Employees Retirement System to:

- Present the results of the valuation as of July 1, 2001;
- Review experience under the Plan for the year ended June 30, 2001;
- 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 84.0% to 82.6% over the past year. The unfunded accrued liability increased by \$170.8 million.

<b>GASB No. 25 Funded Status (\$000,000)</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Accrued Liability	\$ 6,190.2	\$ 5,694.7
Actuarial Value of Assets	5,110.2	4,785.5
Unfunded Accrued Liability	\$ 1,080.0	\$ 909.2
Funded Ratio	82.6%	84.0%

- The key items responsible for changes in the GASB No. 25 funded status are described below.
  - Liability losses occurred resulting in an accrued liability \$235.1 million larger than expected (3.9% of expected liability). The components of this loss are summarized in the Effects of Changes section in this report.
  - The market value of assets lost approximately 6.0% 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 9.4%. Compared to the expected return of 7.5%, this resulted in gains of \$89.1 million.
- The funded ratio on a FAS 35 basis, measuring the market value of plan assets versus the present value of benefits accrued as of the valuation date, decreased from 131.2% to 111.7%.
- The required employer contribution increased as a percent of covered payroll.

<b>Contribution Summary (\$000,000)</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Total Required Contribution	\$234.6	\$215.0
Expected Employee Contributions	46.6	45.4
Required Employer Contribution	\$188.0	\$169.6
As a % of Covered Payroll	14.3%	13.2%

## Highlights - Summary of 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 plan provisions between the two valuations are described in the section titled "Effects of Changes".

	Actuarial Valuation as of		Change Between Years	
	July 1, 2001	July 1, 2000	Amount	Percent
<b>Summary of Costs</b>				
Required Employer Contribution for Current Year	\$ 187,991,746	\$ 169,642,126	\$ 18,349,620	10.8%
Actual Employer Contributions Received in Prior Year	\$ 131,200,423	\$ 125,803,575	\$ 5,396,848	4.3%

<b>GASB No. 25 Funded Status</b>				
Actuarial Accrued Liability	\$ 6,190,228,108	\$ 5,694,725,385	\$ 495,502,723	8.7%
Actuarial Value of Assets	\$ 5,110,226,650	\$ 4,785,555,333	\$ 324,671,317	6.8%
Unfunded Actuarial Accrued Liability	\$ 1,080,001,458	\$ 909,170,052	\$ 170,831,406	18.8%

<b>Market Value of Assets and Additional Liabilities</b>				
Market Value of Assets	\$ 4,815,296,738	\$ 5,245,775,735	\$ (430,478,997)	(8.2%)
Actuarial Present Value of Accumulated Plan Benefits (FAS No.35)	\$ 4,310,393,532	\$ 3,998,704,638	\$ 311,688,894	7.8%
Present Value of Projected Plan Benefits	\$ 7,190,954,492	\$ 6,673,868,112	\$ 517,086,380	7.7%

<b>Summary of Data</b>				
Number of Participants in Valuation				
Active Members	43,696	43,775	(79)	(0.2%)
Terminated Vested Members	5,241	5,116	125	2.4%
Retired Members	18,099	17,732	367	2.1%
Joint Annuitants/Surviving Spouses	1,744	1,626	118	7.3%
Disabled Members	1,020	948	72	7.6%
<b>Total</b>	<b>69,800</b>	<b>69,197</b>	<b>603</b>	<b>0.9%</b>

<b>Active Participant Statistics</b>				
Total Annual Compensation	\$ 1,317,043,030	\$ 1,281,505,876	\$ 35,537,154	2.8%
Average Compensation	\$ 30,141	\$ 29,279	\$ 862	2.9%
Average Age	45.0	44.7	0.3	0.7%
Average Service	10.5	10.3	0.2	1.9%

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## Highlights - Effects of Changes

### Changes in Plan Provisions

There have been no changes to the statutes since the prior valuation that materially effect the actuarial valuation.

### Changes in Actuarial Assumptions

There have been no changes in assumptions since the prior valuation.

### Changes in Actuarial Methods

There have been no changes in actuarial methods since the prior valuation.

### Actuarial Experience During the Plan Year

The Plan experienced a liability loss of \$235,081,000 and an asset gain of \$89,143,000 during the year ended June 30, 2001. The significant items are developed as follows:

<b>Liability Sources</b>	<b>Impact on Actuarial Liability</b>	<b>Percent of Expected Liability</b>
Salary Increases	\$ (65,928,000)	(1.11%)
Deaths	(7,195,000)	(0.12%)
Terminations	(40,276,000)	(0.68%)
Retirements	(66,704,000)	(1.12%)
Disability	(2,416,000)	(0.04%)
New Entrants and Rehires	(37,235,000)	(0.63%)
Miscellaneous/Data	(15,327,000)	(0.25%)
Actuarial Gain/(Loss)	\$ (235,081,000)	(3.95%)

<b>Asset Sources</b>	<b>Impact on Actuarial Value of Assets</b>
Expected Investment Return	\$ 354,457,000
Investment Return on Actuarial Value of Assets	443,600,000
Actuarial Gain/(Loss)	\$ 89,143,000

<b>Net Actuarial Gain/(Loss)</b>	<b>\$ (145,938,000)</b>
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## Highlights - Certification

We have prepared an actuarial valuation of the Oklahoma Public Employees Retirement System ("OPERS") as of July 1, 2001, for the plan year ending June 30, 2002. The results of the valuation are set forth in this report, which reflects the provisions of the Plan as amended and effective on July 1, 2001.

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

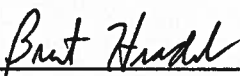
All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures, in accordance with the provisions of current State Statutes and regulations issued thereunder, using an actuarial cost method which we believe is appropriate.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

There have been no changes in actuarial assumptions and plan provisions since the prior valuation.

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.

**I, Brent A. Hradek, FSA, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.**

  
\_\_\_\_\_  
Brent A. Hradek, FSA

10/12/2001  
\_\_\_\_\_  
Date

**I, Stephen T. McElhaney, FSA, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.**

  
\_\_\_\_\_  
Stephen T. McElhaney, F.S.A., E.A.

10/12/2001  
\_\_\_\_\_  
Date

William M. Mercer, Incorporated  
2200 Ross Avenue, Suite 3500  
Dallas, Texas 75201

214 220 3500

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## **Section 1: Funding Results**

- Section 1.1** A comparative summary of valuation results.
- Section 1.2** The unfunded actuarial accrued liability as of the valuation date.
- Section 1.3** A development of the actuarial gain or loss during the year.
- Section 1.4** The normal cost as of the valuation date.
- Section 1.5** A summary of the contribution requirements for the plan year.
- Section 1.6** A ten-year projection of benefit payments.
- Section 1.7** A summary of the components of the actuarial accrued liability.

## Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of		Percent Change
	July 1, 2001	July 1, 2000	
<b>A. Summary of Data</b>			
1. Active Members			
a. Number			
i) Active Members	42,450	42,649	(0.5%)
ii) Members without applications	1,246	1,126	10.7%
iii) Total	43,696	43,775	(0.2%)
b. Annual Compensation	\$ 1,317,043,030	\$ 1,281,505,876	2.8%
c. Average Annual Compensation	\$ 30,141	\$ 29,279	2.9%
d. Average Age	45.0	44.7	0.7%
e. Average Service	10.5	10.3	1.9%
2. Accumulated Member Contributions			
a. Active Members	\$ 273,213,844	\$ 266,182,702	2.6%
b. Unclaimed Contribution Accounts	\$ 10,689,887	\$ 9,972,883	7.2%
c. Members Without Applications	\$ 1,530,603	\$ 1,541,008	(0.7%)
d. Total	\$ 285,434,334	\$ 277,696,593	2.8%
3. Vested Terminated Members			
a. Number	4,100	3,996	2.6%
b. Annual Deferred Benefits	\$ 29,168,179	\$ 27,841,284	
c. Average Annual Deferred Benefit	\$ 7,114	\$ 6,967	
d. Annual Supplemental Medical Insurance Premiums	\$ 5,166,000	\$ 5,034,960	2.6%
4. Assumed Deferred Vested-Number	1,141	1,120	1.9%
5. Retired Members			
a. Number	18,099	17,732	2.1%
b. Annual Retirement Benefits	\$ 210,695,925	\$ 202,158,779	4.2%
c. Average Annual Retirement Benefit	\$ 11,641	\$ 11,401	2.1%
d. Annual Supplemental Medical Insurance Premiums	\$ 16,323,300	\$ 16,455,600	(0.8%)
6. Joint Annuitants/Surviving Spouses			
a. Number	1,744	1,626	7.3%
b. Annual Retirement Benefits	\$ 11,971,690	\$ 10,833,379	10.5%
c. Average Annual Retirement Benefit	\$ 6,865	\$ 6,663	3.0%
7. Disabled Members			
a. Number	1,020	948	7.6%
b. Annual Retirement Benefits	\$ 7,453,499	\$ 6,885,535	8.2%
c. Average Annual Retirement Benefit	\$ 7,307	\$ 7,263	0.6%
d. Annual Supplemental Medical Insurance Premiums	\$ 858,060	\$ 820,260	4.6%
8. Total Members Included in Valuation	69,800	69,197	0.9%



## Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of		Percent Change
	July 1, 2001	July 1, 2000	
<b>B. Summary of Assets, Liabilities and Funded Status</b>			
1. Plan Assets on Valuation Date			
a. Actuarial Value	\$ 5,110,226,650	\$ 4,785,555,333	6.8%
b. Market Value	\$ 4,815,296,738	\$ 5,245,775,735	(8.2%)
2. Actuarial Accrued Liability <sup>(1)</sup>			
	\$ 6,190,228,108	\$ 5,694,725,385	8.7%
a. Funded ratio - Actuarial Value <sup>(1)</sup>	82.6%	84.0%	(1.7%)
b. Funded ratio - Market Value	77.8%	92.1%	(15.5%)
3. Unfunded Actuarial Accrued Liability (Based on Actuarial Value of Assets)			
	\$ 1,080,001,458	\$ 909,170,052	18.8%
4. Present Value of Accumulated Benefits (FASB No. 35)			
a. Funded ratio - Actuarial Value	118.6%	119.7%	(0.9%)
b. Funded ratio - Market Value	111.7%	131.2%	(14.9%)

<sup>(1)</sup> GASB No. 25 Basis.

## Comparative Summary of Principal Valuation Results

	Actuarial Valuation as of				Percent Change In Amount
	July 1, 2001		July 1, 2000		
	Amount	% of Covered Comp.	Amount	% of Covered Comp.	
<b>C. Summary of Contribution Requirements</b>					
1. Annual Covered Compensation for Members included in Valuation	\$ 1,317,043,030	N/A	\$ 1,281,505,876	N/A	2.8%
2. Total Normal Cost Mid-year	\$ 137,726,673	10.5%	\$ 134,144,152	10.5%	2.7%
3. Unfunded Actuarial Accrued Liability	\$ 1,080,001,458	82.0%	\$ 909,170,052	70.9%	18.8%
4. Amortization of Unfunded Actuarial Accrued Liability over 40 Years from July 1, 1987 Mid-year	\$ 92,245,534	7.0%	\$ 76,691,338	6.0%	20.3%
5. Budgeted Expenses Provided by the System	\$ 4,631,148	0.4%	\$ 4,180,333	0.3%	10.8%
6. Total Required Contribution (2. + 4. + 5.)	\$ 234,603,355	17.8%	\$ 215,015,823	16.8%	9.1%
7. Estimated Member Contribution	\$ 46,611,609	3.5%	\$ 45,373,697	3.5%	2.7%
8. Required State Contribution to amortize unfunded actuarial accrued liability over 40 Years From July 1, 1987 at Mid-year (6.-7.)	\$ 187,991,746	14.3%	\$ 169,642,126	13.2%	10.8%
9. Previous Year's Actual Contribution					
a. Member	\$ 47,323,569	3.7% <sup>(1)</sup>	\$ 45,057,894	3.7% <sup>(1)</sup>	5.0%
b. Employer	\$ 131,200,423	10.2% <sup>(1)</sup>	\$ 125,803,575	10.3% <sup>(1)</sup>	4.3%
c. Total	\$ 178,523,992	13.9% <sup>(1)</sup>	\$ 170,861,469	14.0% <sup>(1)</sup>	4.5%

<sup>(1)</sup> Percent of previous years' annual compensation for active members (\$1,281,505,876 at July 1, 2000 and \$1,219,031,066 at July 1, 1999).

## Unfunded Actuarial Accrued Liability

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

	July 1, 2001	July 1, 2000
1. Actuarial Present Value of Benefits		
a. Active Members <sup>(1)</sup>	\$ 4,111,534,949	\$ 3,940,200,599
b. Terminated Vested Members <sup>(2)</sup>	250,189,649	236,381,300
c. Retirees, Disableds and Joint Annuitants/Surviving Spouses	2,829,229,894	2,497,286,213
d. Total (a. + b. +c.)	\$ 7,190,954,492	\$ 6,673,868,112
2. Actuarial Present Value of Future Normal Costs	\$ 1,000,726,384	\$ 979,142,727
3. Total Actuarial Accrued Liability (1 - 2)	\$ 6,190,228,108	\$ 5,694,725,385
4. Actuarial Value of Assets	\$ 5,110,226,650	\$ 4,785,555,333
5. Unfunded Actuarial Accrued Liability (3. - 4., not less than \$0)	\$ 1,080,001,458	\$ 909,170,052

<sup>(1)</sup> Includes \$7,954,857 for 1,246 members who have not completed applications as of July 1, 2001 and \$6,970,772 for 1,126 members who have not completed applications as of July 1, 2000. It also includes \$37,681,953 for the transfer of excess contributions as of July 1, 2000.

<sup>(2)</sup> Includes \$10,689,887 for unclaimed contributions, \$47,662,349 for 1,141 assumed deferred vested employees, and \$1,100,433 for the limited additional retirement benefits as of July 1, 2001. Includes \$9,972,883 for unclaimed contributions, \$45,160,201 for 1,120 assumed deferred vested employees, and \$1,023,659 for the limited additional retirement benefit as of July 1, 2000.

**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, 2001.

1. Expected Actuarial Accrued Liability	
a. Actuarial Accrued Liability at July 1, 2000	\$ 5,694,725,385
b. Normal Cost at July 1, 2000	129,295,568
c. Interest on a. + b. to End of Year	436,801,571
d. Benefit Payments for Plan Year Ending June 30, 2001, with Interest to End of Year	(305,675,581)
e. Expected Actuarial Accrued Liability Before Changes (a. + b. + c. + d.)	\$ 5,955,146,943
f. Change in Actuarial Accrued Liability at July 1, 2001, Due to Change in Actuarial Assumptions	0
g. Change in Actuarial Accrued Liability at July 1, 2001, Due to Change in Plan Provisions	0
h. Expected Actuarial Accrued Liability at July 1, 2001 (e. + f. + g.)	\$ 5,955,146,943
2. Actuarial Accrued Liability at July 1, 2001	\$ 6,190,228,108
3. Actuarial Liability Gain/(Loss) (1.h. - 2)	\$ (235,081,165)
4. Expected Actuarial Value of Assets	
a. Actuarial Value of Assets at July 1, 2000	\$ 4,785,555,333
b. Interest on a. to End of Year	358,916,650
c. Contributions Made for Plan Year Ending June 30, 2001	178,523,992
d. Interest on c. to End of Year	6,694,650
e. Benefit Payments and Expenses for Plan Year Ending June 30, 2001, with Interest to End of Year	(308,606,639)
f. Expected Actuarial Value of Assets at July 1, 2000 (a. + b. + c. + d. + e.)	\$ 5,021,083,986
5. Actuarial Value of Assets as of July 1, 2001	\$ 5,110,226,650
6. Actuarial Asset Gain/(Loss) (5. - 4f.)	\$ 89,142,664
7. Net Actuarial Gain/(Loss) (3. + 6.)	\$ (145,938,501)
<b>COLA Reserve</b>	
1. Reserve as of July 1, 2000	\$ 0
2. Interest at 7.5%	0
3. Reserve Increment	51,601,609
4. Expected Reserve as of July 1, 2001	51,601,609
5. Ad Hoc cost of living increase during 2000/2001	0
6. Actual Reserve on July 1, 2001 (4. Less 5., not less than \$0)	51,601,609

## Normal Cost

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

<b>Component</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
Retirement Benefits	\$ 91,949,128	\$ 89,326,072
Withdrawal Benefits	13,984,350	13,582,539
Disability Benefits	5,023,050	4,870,874
Death Benefits	4,877,491	4,760,267
Refunds	5,701,255	5,562,212
Supplemental Medical Insurance Premiums	8,967,584	8,843,731
Contributions with no application from client	2,245,742	2,349,873
<b>Total Normal Cost at Beginning of Year</b>	<b>\$ 132,748,600</b>	<b>\$ 129,295,568</b>
<b>Total Normal Cost at Mid Year</b>	<b>\$ 137,726,673</b>	<b>\$ 134,144,152</b>
Normal Cost Rate at Mid Year	10.46%	10.47%
Annual Covered Payroll	\$ 1,317,043,030	\$ 1,281,505,876

**Contributions**

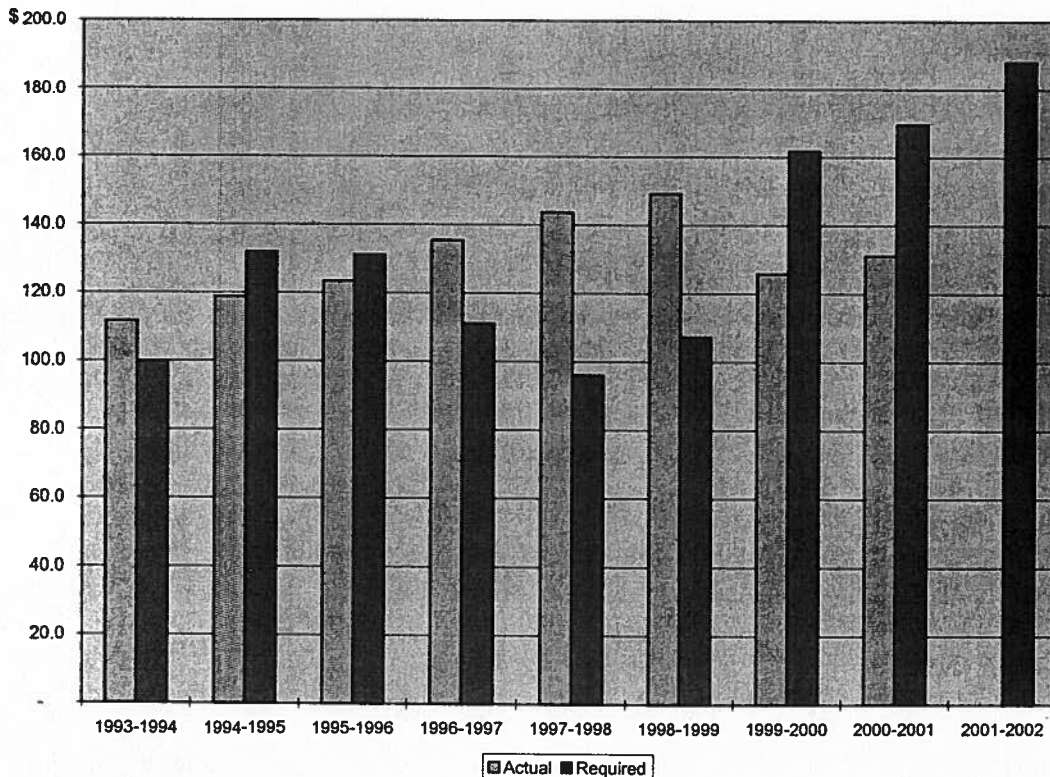
Contributions to the Retirement System are made by the Members and their employers.

Effective July 1, 1998, State employees pay 3.0% of gross salary up to \$25,000 per year and 3.5% of gross salary over \$25,000. Local government employees contribute from 3.5% to 8.5% of pay, depending on the rate chosen by their employers. Elected officials and employees of the Department of Corrections have different required contributions (see Section 4.3).

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 plan's normal cost, budgeted expenses and an amortization of the unfunded accrued liability. For July 1, 1998 and prior years, the unfunded accrued liability is 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 (26 years remaining as of July 1, 2001).

As of July 1, 1999, the State's employer contribution is reduced to 10.0% of pay. The State contribution is not sufficient to fund the contribution developed under Governmental Accounting Standards Number 25 (developed on page 9) which includes the recognition of future ad-hoc COLAs at 66.7% of the assumed inflation rate.

**Employer Contributions Received  
versus Contributions Required  
by Funding Policy  
(\$000,000)**



### Ten-Year Projected Cash Flow (Retirement Benefit Payments)

The chart below shows estimated benefits expected to be paid over the next ten years, based on the assumptions used in this valuation. The "Actives" column shows benefits expected to be paid to members currently active on July 1, 2001. The "Retirees" column shows benefits expected to be paid to all other members. This includes those who, as of July 1, 2001, are receiving benefit payments or who terminated employment and are entitled to a deferred vested benefit.

Plan Year Ending	Actives	Retirees <sup>(1)</sup>	Total <sup>(2)</sup>
06/30/2002	\$ 23,784,602	\$ 251,786,385	\$ 275,570,987
06/30/2003	41,647,392	252,548,124	294,195,516
06/30/2004	60,643,693	253,169,305	313,812,998
06/30/2005	81,335,096	253,590,767	334,925,863
06/30/2006	104,070,440	253,865,917	357,936,357

06/30/2007	128,057,653	253,966,361	382,024,014
06/30/2008	153,700,324	253,933,321	407,633,645
06/30/2009	181,576,420	253,980,605	435,557,025
06/30/2010	211,725,661	253,728,215	465,453,876
06/30/2011	243,388,489	252,912,856	496,301,345

<sup>(1)</sup> Includes Disabled Members, Joint Annuitants and Beneficiaries, Surviving Spouses and Terminated Vested Members.

<sup>(2)</sup> Includes supplemental medical insurance premium.

### Expected three year cash flow on supplemental medical insurance premiums.

Plan Year Ending	Actives	Retirees	Total
06/30/2002	\$ 1,597,404	\$ 17,113,298	\$ 18,710,702
06/30/2003	2,995,705	16,673,397	19,669,102
06/30/2004	4,448,602	16,246,908	20,695,510

## Liability Detail

<b>Actuarial Accrued Liability</b>	<b>July 1, 2001</b>	<b>July 1, 2000</b>
<b>1. Actives</b>		
a. Retirement Benefits	\$ 2,680,337,176	\$ 2,507,057,911
b. Withdrawal Benefits	128,528,538	126,876,681
c. Disability Benefits	97,572,621	92,739,958
d. Death Benefits	92,906,629	88,216,536
e. Refunds	(30,590,219)	(29,835,630)
f. Supplemental Medical Insurance Premiums	134,098,963	131,349,691
g. Liability for people who have not submitted an application	7,954,857	6,970,772
h. Refund of excess contributions for Active Members	0	37,681,953
i. Total	\$ 3,110,808,565	\$ 2,961,057,872
<b>2. Inactives</b>		
a. Terminated Vested Members	\$ 209,475,665	\$ 197,962,288
b. Unclaimed Contributions	10,689,887	9,972,883
c. Retired Members	2,435,585,119	2,175,355,384
d. Disabled Members	85,170,509	75,657,443
e. Joint Annuitants/Surviving Spouses	118,050,721	106,889,942
f. Supplemental Medical Insurance Premiums	167,745,600	166,805,914
g. Refund of Excess Contributions for Terminated Vested Members	1,100,433	1,023,659
h. COLA Reserve	51,601,609	0
i. Total	\$ 3,079,419,543	\$ 2,733,667,513
<b>3. Actuarial Accrued Liability</b>	<b>\$ 6,190,228,108</b>	<b>\$ 5,694,725,385</b>

<b>Normal Cost</b>		
1. Retirement Benefits	\$ 91,949,128	\$ 89,326,072
2. Withdrawal Benefits	13,984,350	13,582,539
3. Disability Benefits	5,023,050	4,870,874
4. Death Benefits	4,877,491	4,760,267
5. Refunds	5,701,255	5,562,212
6. Supplemental Medical Insurance Premiums	8,967,584	8,843,731
7. People who have not submitted an application	2,245,742	2,349,873
<b>8. Total</b>	<b>\$ 132,748,600</b>	<b>\$ 129,295,568</b>



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## **Section 2: Accounting Results**

**Section 2.1** Information pertaining to the actuarial present value of accumulated plan benefits as required under FAS No. 35.

**Section 2.2** Items required under GASB No. 25.

## FAS No. 35 Information

### A. Actuarial Present Value of Accumulated Plan Benefits

The actuarial present value of vested and nonvested accumulated plan benefits was computed on an ongoing plan 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 Plan Benefits	July 1, 2001	July 1, 2000
Vested Benefits		
• Active Members <sup>(1)</sup>	\$ 1,319,138,975	\$ 1,261,634,820
• Terminated Vested Members <sup>(2)</sup>	188,703,420	178,122,373
• Retirees and Joint Annuitants/Surviving Spouses	2,247,537,652	2,027,253,807
• Supplemental Medical Insurance Premiums	266,356,261	264,008,914
<b>Total Vested Benefits</b>	<b>\$ 4,021,736,308</b>	<b>\$ 3,731,019,914</b>
Nonvested Benefits	288,657,224	267,684,724
<b>Total Accumulated Plan Benefits</b>	<b>\$ 4,310,393,532</b>	<b>\$ 3,998,704,638</b>
Assumed Rate of Interest	7.50%	7.50%
Market Value of Assets Available for Benefits	\$ 4,815,296,738	\$ 5,245,775,735
Funded Ratio	111.7%	131.2%
Change in Accumulated Plan Benefits Due to:		
• Assumption Changes	\$ 0	\$ 0
• Plan Provision Changes	\$ 0	\$ 178,897,095

Number of Members	July 1, 2001	July 1, 2000
Vested Members		
• Active Members <sup>(1)</sup>	23,736	24,425
• Terminated Vested Members <sup>(2)</sup>	5,116	5,198
• Retirees and Joint Annuitants/Surviving Spouses	20,306	19,633
<b>Total Vested Members</b>	<b>49,158</b>	<b>49,256</b>
Nonvested Members	20,642	19,691
<b>Total Members</b>	<b>69,800</b>	<b>68,947</b>

<sup>(1)</sup> Includes \$2,975,611 for 1,246 members who have not completed applications as of July 1, 2001 and \$2,729,140 for 1,126 members who had not completed applications as of July 1, 2000. It also includes \$37,681,953 for transfer of excess contributions as of July 1, 2000.

<sup>(2)</sup> Includes \$10,689,887 for unclaimed contributions and \$1,100,433 for the limited additional retirement benefit as of July 1, 2001. Includes \$9,972,883 for unclaimed contributions and \$1,023,659 for the limited additional retirement benefit as of July 1, 2000.

## FAS No. 35 Information

### B. Statement of Changes in Accumulated Plan Benefits

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

<b>Actuarial Present Value of Accumulated Plan Benefits as of July 1, 2000</b>	<b>\$ 3,998,704,638</b>
<b>Increase/(Decrease) During Year Attributable to:</b>	
• Normal Cost and (gains)/losses	\$ 317,461,627
• Increase for Interest Due to Decrease in Discount Period	288,854,333
• Benefits Paid	(294,627,066)
• Plan Amendment	0
• Assumption Changes	0
<b>Net Increase/(Decrease)</b>	<b>\$ 311,688,894</b>
<b>Actuarial Present Value of Accumulated Plan Benefits as of July 1, 2001</b>	<b>\$ 4,310,393,532</b>

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

**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.

**A. 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)
07/01/1996	\$ 2,893,339,691	\$ 3,318,226,436	\$ 424,886,745	87.2%	\$ 1,117,631,035	38.0%
07/01/1997	3,270,947,820	3,594,630,911	323,683,091	91.0%	1,176,659,783	27.5%
07/01/1998	3,732,849,134	4,116,569,826	383,720,692	90.7%	1,154,342,141	33.2%
07/01/1999	4,261,624,240	5,179,784,869	918,160,629	82.3%	1,219,031,066	75.3%
07/01/2000	4,785,555,333	5,694,725,385	909,170,052	84.0%	1,281,505,876	70.9%
07/01/2001	5,110,226,650	6,190,228,108	1,080,001,458	82.6%	1,317,043,030	82.0%

**B. 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
1996	\$ 131,266,084	103.1%
1997	110,887,284	122.1%
1998	95,973,977	149.7%
1999	107,171,639	139.2%
2000	161,793,250	77.8%
2001	169,642,126	77.3%

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## **Section 3: Plan Assets**

This section presents information regarding plan assets as reported by the plan administrator or trustee. The plan assets represent the portion of total plan liabilities which has been funded as of the valuation date.

- Section 3.1** Summary of Market Value of Assets
- Section 3.2** Reconciliation of Assets
- Section 3.3** Actuarial Value of Plan Assets as of July 1, 2001
- Section 3.4** Average Annual Rates of Investment Return

## Summary of Assets

<b>Asset Category</b>	<b>Market Value as of June 30, 2001</b>	<b>Market Value as of June 30, 2000</b>
<b>1. Cash and Short-Term Investments</b>	<b>Amount</b>	<b>Amount</b>
a. Cash and Short-Term Investments	\$ 141,176,125	\$ 384,629,299
<b>2. Receivables</b>		
a. Interest and Dividends	27,594,938	25,188,305
b. Member Contributions	758,639	629,077
c. Employer Contributions	1,938,750	1,633,277
d. Due from Brokers for Securities Sold	62,291,985	153,673,708
e. Total	\$ 92,584,312	\$ 181,124,367
<b>3. Investments at fair value</b>		
a. Government Bonds	1,374,512,455	1,164,071,406
b. Corporate Bonds	592,791,836	612,105,347
c. Domestic Stocks	2,161,752,068	2,611,088,739
d. Foreign Stocks	553,499,634	759,412,721
e. Real Estate	37,774	2,045,352
f. Total	\$ 4,682,593,767	\$ 5,148,723,565
<b>4. Other Assets</b>		
a. Other Assets	111,394	87,202
<b>5. Assets used in plan operations</b>		
a. Property and Equipment	428,701	372,986
<b>6. Total Assets</b>	<b>4,916,894,299</b>	<b>5,714,937,419</b>
<b>7. Liabilities</b>		
a. Due to Brokers and Investment Managers	(101,597,561)	(469,161,684)
b. Accounts Payable and Accrued Expenses	0	0
c. Benefits Payable	0	0
d. Total Liabilities	(101,597,561)	(469,161,684)
<b>8. Net Assets Available for Pension Benefits</b>	<b>\$ 4,815,296,738</b>	<b>\$ 5,245,775,735</b>

## Reconciliation of Assets

Transactions	Fiscal Year Ended June 30, 2001	Fiscal Year Ended June 30, 2000
<b>Additions</b>		
<b>1. Contributions</b>		
a. Contributions from Plan Members	\$ 47,323,569	\$ 45,057,894
b. Contributions from Employers	\$ 131,200,423	\$ 125,803,575
c. Total	\$ 178,523,992	\$ 170,861,469
<b>2. Net Investment Income</b>		
a. Interest	\$ 126,929,478	\$ 124,451,462
b. Dividends	9,978,449	13,470,739
c. Realized and Unrealized Appreciation	(440,787,117)	344,931,508
d. Real Estate	(217,694)	647,273
e. Security Lending Activities	2,000,132	2,113,698
f. Other	133,899	30,360
g. Total	\$ (301,962,853)	\$ 485,645,040
h. Investment Expense	(9,587,954)	(9,115,058)
i. Net Investment Income	\$ (311,550,807)	\$ 476,529,982
<b>3. Total Additions</b>	\$ (133,026,815)	\$ 647,391,451
<b>Deductions</b>		
<b>4. Retirement, Death and Survivor Benefits</b>	\$ (247,076,546)	\$ (222,746,667)
<b>5. Refund of Contributions</b>	(47,550,520)	(7,588,290)
<b>6. Administrative Expenses</b>	(2,825,116)	(2,478,971)
<b>7. Total Deductions</b>	\$ (297,452,182)	\$ (232,813,928)
<b>8. Change in Assets Not Available for Benefits</b>	0	0
<b>9. Net Increase</b>	\$ (430,478,997)	\$ 414,577,523
<b>10. Net Assets Held in Trust for Pension Benefits</b>		
a. Beginning of Year	\$ 5,245,775,735	\$ 4,831,198,212
b. End of Year	\$ 4,815,296,738	\$ 5,245,775,735
<b>Reconciliation of Actuarial Value and Market Value</b>		
Actuarial Asset Value	\$ 5,110,226,650	\$ 4,785,555,333
Deferred Gain/(Loss)	\$ (294,929,912)	\$ 460,220,402
Market Value	\$ 4,815,296,738	\$ 5,245,775,735

## Actuarial Value of Assets

Schedule of Asset Gains/(Losses)				
Year	Original Amount	Recognized in Prior Years	Recognized This Year	Recognized in Future Years
1996/1997	373,744,179	298,995,344	74,748,835	0
1997/1998	445,803,918	267,482,352	89,160,784	89,160,782
1998/1999	132,941,494	53,176,598	26,588,299	53,176,597
1999/2000	159,231,381	31,846,276	31,846,276	95,538,829
2000/2001	(666,007,650)	0	(133,201,530)	(532,806,120)
<b>Total</b>	<b>\$ 445,713,322</b>	<b>\$ 651,500,570</b>	<b>\$ 89,142,664</b>	<b>\$ (294,929,912)</b>

Development of Actuarial Value of Assets		
1.	Actuarial Value as of July 1, 2000	\$ 4,785,555,333
2.	Contributions	
a.	Member	\$ 47,323,569
b.	Employer	131,200,423
c.	Total (a. + b.)	\$ 178,523,992
3.	Decreases during Year	
a.	Benefit Payments	\$ (247,076,546)
b.	Return of Member Contributions	(47,550,520)
c.	Noninvestment Expenses	(2,825,116)
d.	Total (a. + b. + c.)	\$ (297,452,182)
4.	Expected Return at 7.5% on:	
a.	Item 1	\$ 358,916,650
b.	Item 2 (one-half year)	6,694,650
c.	Item 3 (one-half year)	(11,154,457)
d.	Total (a. + b. + c.)	\$ 354,456,843
5.	Expected Actuarial Value of Assets June 30, 2001 (1. + 2. + 3. + 4.)	\$ 5,021,083,986
6.	Unrecognized Asset Gain as of June 30, 2000	460,220,402
7.	Expected Actuarial Value June 30, 2001, plus Previous Year's Unrecognized Asset Gain (5. + 6.)	\$ 5,481,304,388
8.	Market Value June 30, 2001	4,815,296,738
9.	2000/2001 Asset Gain (8. - 7.)	\$ (666,007,650)
10.	Asset Gain to be Recognized as of June 30, 2001	89,142,664
11.	Initial Actuarial Value July 1, 2001 (5. + 10.)	\$ 5,110,226,650
12.	Constraining Values:	
a.	80% of Market Value (8. x .8)	\$ 3,852,237,390
b.	120% of Market Value (8. x 1.2)	\$ 5,778,356,086
13.	Actuarial Value as of July 1, 2001 (11.), but no less than (12a.), nor greater than (12b.)	\$ 5,110,226,650



## Average Annual Rates of Investment Return

Year Ending June 30	Actuarial Value		Market Value	
	Annual	Cumulative	Annual	Cumulative
1990	8.5%	8.5%	11.2%	11.2%
1991	7.8%	8.1%	5.8%	8.5%
1992	7.7%	8.0%	11.6%	9.5%
1993	8.5%	8.1%	13.8%	10.6%
1994	8.9%	8.3%	0.1%	8.4%
1995	10.0%	8.6%	16.6%	9.7%
1996	11.7%	9.0%	15.0%	10.5%
1997	13.2%	9.5%	18.6%	11.4%
1998	14.4%	10.1%	18.3%	12.2%
1999	15.0%	10.5%	9.2%	11.9%
2000	13.8%	10.8%	9.9%	11.7%
2001	9.4%	10.7%	(6.0%)	10.1%

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## **Section 4: Basis of Valuation**

This section presents and describes the basis of the valuation. The census of members, actuarial basis and provisions of the Plan are the foundation of the valuation, since these are the present facts on which the projection of benefit payments will depend. The valuation is based on the premise that the Plan will continue in existence.

**Section 4.1** The member data used for the actuarial valuation.

**Section 4.2** The actuarial funding method, procedures and actuarial assumptions.

**Section 4.3** The plan provisions valued in the actuarial valuation.

## Plan Members

## A. Member Data Reconciliation

	Inactive Members					Total Members
	Active Members	With Deferred Benefits	Receiving Benefits			
			Retired Members	Disabled Members	Joint Annuitants and Surviving Spouses	
As of July 1, 2000	43,775	5,116	17,732	948	1,626	69,197
Age Retirements	(971)	(154)	1,125	0	0	0
Disability Retirements	(67)	(44)	0	111	0	0
Deaths Without Payments Continuing	(25)	(4)	(638)	(37)	(70)	(774)
Deaths With Payments Continuing	(36)	(9)	(133)	(8)	186	0
Nonvested Terminations	(3,340)	0	0	0	0	(3,340)
Vested Terminations	(867)	867	0	0	0	0
Refund of Contributions	0	(403)	0	0	0	(403)
Transfers	0	0	0	0	0	0
Data Corrections	0	27 <sup>(1)</sup>	18 <sup>(2)</sup>	6 <sup>(3)</sup>	2 <sup>(4)</sup>	53
Rehires	662	(155)	(5)	0	0	502
Net	(4,644)	125	367	72	118	(3,962)
New Entrants During the Year	3,746	0	0	0	0	3,746
No Applications	819	0	0	0	0	819
Net Change	(79)	125	367	72	118	603
As of July 1, 2001	43,696	5,241	18,099	1,020	1,744	69,800

<sup>(1)</sup> 27 people were shown as unclaimed contributions in last valuation and are now shown on the vested tape.

<sup>(2)</sup> 16 people were shown as unclaimed contributions in the last valuation and are now valued as retired. 2 people were added who were not reported in prior years.

<sup>(3)</sup> 8 people were shown as unclaimed contributions in the last valuation and are now valued as disabled members, 2 people were added who were not reported in prior years.

<sup>(4)</sup> 3 people were shown as unclaimed contributions in the last valuation and are now valued as beneficiaries. 1 person was reported as a beneficiary in the last valuation and was not shown on the retired tape this year.

## B. 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	50									50
20 - 24	1,241	12								1,253
25 - 29	2,597	437	13							3,047
30 - 34	2,322	1,147	492	21						3,982
35 - 39	2,077	1,065	1,299	658	114					5,213
40 - 44	2,024	1,041	1,308	1,140	907	114				6,534
45 - 49	1,835	1,111	1,314	964	1,180	718	54			7,176
50 - 54	1,480	1,008	1,327	962	865	768	331	52	5	6,798
55 - 59	1,041	740	990	798	631	358	193	114	32	4,897
60 - 64	455	431	604	374	305	194	88	48	36	2,535
65 - 69	142	121	220	94	71	34	12	13	12	719
70 - 74	36	27	59	21	19	9	2	1	9	183
75+	11	8	13	12	6	7	2	2	2	63
<b>Total</b>	<b>15,311</b>	<b>7,148</b>	<b>7,639</b>	<b>5,044</b>	<b>4,098</b>	<b>2,202</b>	<b>682</b>	<b>230</b>	<b>96</b>	<b>42,450</b>

1,246<sup>(1)</sup>

43,696

C. Average Compensation <sup>(3)</sup>

Age	Years of Service									Total
	0 - 4	5 - 9	10 -14	15 -19	20 - 24	25 - 29	30 -34	35 - 39	40+	
Under 20	11,151									11,151
20 - 24	18,763	20,375								18,778
25 - 29	23,884	27,777	28,039							24,458
30 - 34	25,006	30,257	31,900	33,969						27,411
35 - 39	24,782	31,132	34,109	34,630	35,730					29,882
40 - 44	24,654	30,767	33,474	37,461	34,878	34,671				31,216
45 - 49	25,575	31,001	33,253	35,799	38,297	38,084	39,294			32,641
50 - 54	25,829	30,032	33,406	36,059	37,391	39,925	41,234	40,033	14,039	33,303
55 - 59	24,602	29,285	32,161	34,507	34,716	37,128	39,868	45,577	45,285	31,896
60 - 64	25,001	30,102	31,493	34,477	34,091	36,142	38,471	46,375	45,363	31,921
65 - 69	24,316	27,535	31,845	33,273	32,732	38,806	39,670	43,905	41,886	30,752
70 - 74	21,247	26,115	30,573	33,174	38,347	44,607	45,966	*	66,741	32,007
75+	40,848	43,348	32,127	35,955	29,674	33,463	25,917	13,965	48,409	35,462
<b>Total</b>	<b>24,304</b>	<b>30,220</b>	<b>33,023</b>	<b>35,704</b>	<b>36,305</b>	<b>38,237</b>	<b>40,279</b>	<b>44,154</b>	<b>45,355</b>	<b>30,516<sup>(2)</sup></b>

<sup>(1)</sup> Members without applications<sup>(2)</sup> Average compensation for members without applications is \$16,989. The average for all members including the members without applications is \$30,141.<sup>(3)</sup> The average compensation is not shown for cells with only one member.

## D. Paid Members in Pay Status - Annual Benefits

Attained Age	Retirees		Joint Annuitants & Surviving Spouses		Disabled Members		Current Payment Total	
	No.	Benefit	No.	Benefit	No.	Benefit	No.	Benefit
Under 51	69	\$ 1,440,025	58	\$ 377,017	170	\$ 1,231,000	297	\$ 3,048,042
51	93	1,872,031	12	131,417	38	285,117	143	2,288,565
52	110	2,382,795	21	192,461	40	366,520	171	2,941,776
53	142	2,986,992	12	117,021	41	324,836	195	3,428,849
54	172	3,243,853	16	126,815	40	343,270	228	3,713,938
55	200	3,458,079	23	150,708	48	368,175	271	3,976,962
56	258	4,106,100	23	146,179	33	251,667	314	4,503,946
57	361	6,027,235	31	216,012	49	299,626	441	6,542,873
58	336	5,480,181	36	229,298	53	396,599	425	6,106,078
59	397	6,123,726	37	272,813	52	444,927	486	6,841,466
60	417	6,336,895	33	254,619	49	330,969	499	6,922,483
61	500	7,191,922	40	316,646	62	453,780	602	7,962,348
62	659	8,281,746	55	410,686	44	301,482	758	8,993,914
63	701	8,869,118	39	290,220	49	330,401	789	9,489,739
64	738	8,773,250	38	309,047	42	321,209	818	9,403,506
65	806	9,333,626	65	461,995	31	179,193	902	9,974,814
66	858	9,866,746	73	464,888	30	185,111	961	10,516,745
67	751	8,783,706	60	449,643	33	242,415	844	9,475,764
68	802	9,038,223	53	341,844	30	209,193	885	9,589,260
69	768	8,373,493	55	401,734	23	159,539	846	8,934,766
70	737	8,032,438	64	446,644	20	136,669	821	8,615,751
71	727	8,012,469	70	550,154	22	137,915	819	8,700,538
72	686	6,961,344	72	474,375	14	110,632	772	7,546,351
73	643	7,096,342	85	673,829	6	37,025	734	7,807,196
74	665	6,954,308	62	385,525	1	6,229	728	7,346,062
75	597	6,005,591	69	536,670	0	0	666	6,542,261
76	584	5,889,335	63	411,051	0	0	647	6,300,386
77	569	5,884,275	48	346,259	0	0	617	6,230,534
78	465	4,766,960	50	340,047	0	0	515	5,107,007
79	529	5,218,938	53	322,459	0	0	582	5,541,397
80	393	3,802,230	50	264,167	0	0	443	4,066,397
81	338	3,007,736	47	271,054	0	0	385	3,278,790
82	344	2,953,392	30	163,682	0	0	374	3,117,074
83	295	2,560,796	27	124,372	0	0	322	2,685,168
84	248	2,088,442	33	194,426	0	0	281	2,282,868
85	183	1,512,584	29	198,813	0	0	212	1,711,397
86	200	1,693,649	23	121,257	0	0	223	1,814,906
87	183	1,479,706	23	91,411	0	0	206	1,571,117
88	151	1,284,838	20	114,391	0	0	171	1,399,229
89	104	881,979	15	86,575	0	0	119	968,554
90	96	763,097	8	47,240	0	0	104	810,337
Over 90	224	1,875,734	23	146,226	0	0	247	2,021,960
<b>Total</b>	<b>18,099</b>	<b>\$ 210,695,925</b>	<b>1,744</b>	<b>\$ 11,971,690</b>	<b>1,020</b>	<b>\$ 7,453,499</b>	<b>20,863</b>	<b>\$ 230,121,114</b>

## E. Terminated Vested Members - Annual Benefits

Attained Age	Members With Deferred Benefits	
	No.	Benefit
Under 41	949	\$ 5,875,373
41	188	1,387,433
42	184	1,470,763
43	223	1,641,230
44	259	2,062,953
45	239	1,895,330
46	266	2,277,440
47	262	2,423,736
48	253	2,194,402
49	256	2,214,313
50	267	2,227,611
51	268	2,166,352
52	284	2,172,724
53	281	2,120,287
54	252	1,680,529
55	144	993,667
56	150	990,579
57	135	833,547
58	122	732,312
59	87	491,420
60	73	405,199
61	59	285,446
62	9	35,726
63	6	43,242
64	4	17,178
65	3	13,608
66	2	11,112
67	3	11,826
68	1	2,985
69	1	6,821
70	1	24,603
Over 70	10	63,123
<b>Total</b>	<b>5,241</b>	<b>\$ 38,772,870</b>

## F. Member Statistics

Inactive Members as of July 1, 2001	No.	Amount of Annual Benefit <sup>(1)</sup>
<b>Members Receiving Benefits</b>		
• Retired	18,099	\$ 210,695,925
• Joint Annuitants and Surviving Spouses	1,744	11,971,690
• Disabled	1,020	7,453,499
<b>Total</b>	<b>20,863</b>	<b>\$ 230,121,114</b>
<b>Members with Deferred Benefits</b>		
• Vested Terminated	4,100	\$ 29,168,179
• Assumed Deferred Vested Members <sup>(2)</sup>	1,141	9,604,691
<b>Total</b>	<b>5,241</b>	<b>\$ 38,772,870</b>

Statistics for Active Members	No.	Average		
		Age	Service	Earnings
<b>As of July 1, 2000</b>				
• Continuing	38,150	45.8	11.5	\$ 30,560
• New	5,625	37.5	1.9	\$ 20,595
<b>Total</b>	<b>43,775</b>	<b>44.7</b>	<b>10.3</b>	<b>\$ 29,279</b>
<b>As of July 1, 2001</b>				
• Continuing	38,113	46.0	11.7	\$ 32,059
• New	5,583	38.3	2.1	\$ 17,051
<b>Total</b>	<b>43,696</b>	<b>45.0</b>	<b>10.5</b>	<b>\$ 30,141</b>

<sup>(1)</sup> Does not include monthly medical insurance premium

<sup>(2)</sup> Estimated benefits.

## G. Data Tape Reconciliation

	Active	Retired	Vested Terminations	Total
Records Submitted on Data Tape	42,530	33,171	4,110	79,811
Passed without alteration	42,443	20,863	4,100	67,406
Earnings based on salary due to missing year to date earnings	7	0	0	7
New members with hire dates not reflecting breaks in service	0	0	0	0
Data tapes records included	42,450	20,863	4,100	67,413
Other members included	1,246 <sup>(1)</sup>	0	1,141 <sup>(4)</sup>	2,387
Total valued	43,696	20,863	5,241	69,800
Number deleted	80 <sup>(2)</sup>	12,308 <sup>(3)</sup>	10 <sup>(5)</sup>	12,395
Number added	1,246	0	1,141	2,387

<sup>(1)</sup> Members who have not completed applications.

<sup>(2)</sup> 3 not yet eligible to participate.

4 members were on the vested tape. They were assumed to be vested terminations.

73 members were on the retired tape. They were assumed to be receiving payments.

<sup>(3)</sup> 12,308 people were marked as deaths without a beneficiary receiving a payment.

<sup>(4)</sup> Assumed deferred vesteds.

<sup>(5)</sup> 10 were on the retired tape as receiving payments.



## Actuarial Basis

### A. 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 plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily the annual contribution to the plan 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 plan 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 plan.

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 plan 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 Plan Benefit (FASB #35)**

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

## Actuarial Basis

### B. 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 plan 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 Plan valuation rate plus net cash flow adjusted for interest (at the same rate) to the end of the previous plan 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 plan year;
- the difference between the expected actuarial asset value and the market value is the investment gain or loss for the previous plan year;
- the (final) actuarial asset value is the preliminary value plus 20% of the investment gains and losses for each of the five previous plan years, but in no case more than 120% of the market value or less than 80% of the market value.

## Actuarial Basis

### C. Valuation Procedures

No actuarial accrued liability 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 had not occurred as of the valuation date.

The wages used in the projection of benefits and liabilities were considered earnings for the year ending June 30, 2001 increased by the salary scale to develop expected earnings for the current valuation year. Earnings were 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 were determined using actual pay history provided for valuation purposes.

No benefits were projected to be greater than the dollar and compensation limitation required by the Internal Revenue Code Section 415 for governmental plans.

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

Liability is included for 1,141 members who appear to be deferred vested, but who were 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 plan administrator when the actual benefit and status have been finalized.

There are 1,246 "Members Without Applications." These members are contributing to the plan but have not yet filled out an enrollment application. For these Members, amounts were added to the active liability and normal cost based on the average liability and normal cost for a new Member. They were assigned the average compensation for new Members, or \$17,151 per year. Additional compensation of  $1,246 \times \$17,151 = \$21,245,920$  was 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 was increased by 2.0% to account for the liability for the pop-up provision of the payment option.

A liability was 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 plan 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**

**D. Actuarial Assumptions**

**Economic Assumptions**

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

2. Earnings Progression Sample rates below (midpoint of range shown):

Attained Age	Inflation	Merit	% Increase
20-25	3.0	5.0	8.0
25-30	3.0	4.0	7.0
30-35	3.0	2.7	5.7
35-40	3.0	2.1	5.1
40-45	3.0	1.8	4.8
45-50	3.0	1.4	4.4
50-55	3.0	1.1	4.1
55-60	3.0	1.1	4.1
60-65	3.0	1.1	4.1
65+	3.0	1.1	4.1

3. COLA Assumption  
 ▪ Monthly Benefits 2% per year (two-thirds of the inflation assumption)  
 ▪ Medical Supplement No increases assumed

4. Projection of 401(a)(17) compensation limit Projected with inflation at 3%.

## Actuarial Basis

### D. Actuarial Assumptions

#### Demographic Assumptions

##### 1. Retirement Age

– Elected and Non-elected Members

#### Annual Rates of Retirement Per 100 Eligible Members

<u>Attained Age</u>	<u>Those Eligible for Rule of 80 or 90</u>	<u>Those Not Eligible for Rule of 80 or 90</u>
50	6	N/A
51	7	N/A
52	8	N/A
53	8.5	N/A
54	9	N/A
55	9.5	7
56	10	6
57	11	7
58	12	7
59	13	7
60	14	9
61	20	15
62	40	40
63	22	22
64	25	25
65	40	40
66	25	25
67	23	23
68	22	22
69	21	21
70	100	100

## Actuarial Basis

### D. Actuarial Assumptions

#### Demographic Assumptions

- Department of Corrections Members

Attained Age	Annual Rates of Retirement Per 100 Eligible Members		
	<u>Prior</u> More Than 20 Years of Service	Less Than 20 Years of Service	<u>Current</u> Less Than 20 Years of Service
50	6	N/A	N/A
51	7	N/A	N/A
52	8	N/A	N/A
53	8.5	N/A	N/A
54	9	N/A	N/A
55	9.5	7	7
56	10	6	6
57	11	7	7
58	12	7	7
59	13	7	7
60	14	9	9
61	20	15	15
62	40	40	40
63	22	22	22
64	25	25	25
65	40	40	40
66	25	25	25
67	23	23	23
68	22	22	22
69	21	21	21
70	100	100	100

**Actuarial Basis**

**D. Actuarial Assumptions**

2. Mortality Rates

Active participants and nondisabled pensioners

1983 Group Annuity Mortality Table.

Disabled pensioners

1983 Group Annuity Mortality Table set forward 10 years for disabled experience.

3. Disability Rates

Graduated rates.

Disabled Rates per 100 Members

<u>Attained Age</u>	<u>Male</u>	<u>Female</u>
20	.01	.01
30	.03	.03
40	.10	.10
50	.34	.25
60	.68	.50

4. Withdrawal Rates

Graded select and ultimate rates.

Annual Rate Per 100 Members

<u>Attained Age</u>	<u>Ultimate</u>
20	12.04
30	8.01
40	5.34
50	3.62
60	1.75

5. Marital Status

Percentage married

Males: 85%; Females: 85%.

Age difference

Males are assumed to be four years older than spouses.

6. Line of Duty Deaths for Department of Corrections Members

None assumed.

## Actuarial Basis

### Other Assumptions

Assumed Age of Commencement for  
Deferred Benefits

Age 62 for non-elected members, Age 60 for  
elected members.

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.



**Summary Of Plan Provisions**

**Effective Date:** The plan became effective January 1, 1964. The plan year is July 1 to June 30.

**Administration:** The plan 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 plan.

**Employees Included:** All permanent employees of the State of Oklahoma, legislated agencies, and any other employer such as county, county hospital, city, or trust in which a municipality is the primary beneficiary, are eligible to join if:

- the employee is not eligible for or participating in another state retirement system, 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).

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

**Employee and Employer Contributions:**

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 Section 4.3. Local government employees contribute from 3.5% to 8.5% of pay, depending on the rate chosen by their employers.

Effective July 1, 1994, all contribution amounts are based on the maximum contribution level in effect for the year. Members do not have the option of choosing to contribute on earnings above \$25,000.

Employee contributions on compensation between \$25,000 and \$40,000 made between January 1, 1987 and July 1, 1994 were transferred into another qualified plan on July 31, 2000. The transfer included interest of 7.5% compounded annually.

## Summary Of Plan Provisions

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

Year	State Employee Contributions for Pay Between \$25,000 and Cap			Applicable Salary Cap
	Employer Contribution	Employee Contribution	Total Contribution	
1994-1995	11.5% <sup>(1)</sup>	3.5% <sup>(2)</sup>	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+	10.0%	3.5%	13.5%	No Cap

<sup>(1)</sup> For 1994-1995, the Employer contribution was 11.5% for pay between \$25,000 and \$40,000. No employer contributions were paid for pay between \$40,000 and \$50,000.

<sup>(2)</sup> For 1994-1995, the employee contribution was 3.5% for pay between \$25,000 and \$40,000 and 10% for pay between \$40,000 and \$50,000.

### 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 active wartime military service (maximum 5 years credit) 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.

## Summary Of Plan Provisions

### 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 March 1, 1979. Active wartime military service is credited, without making contributions, provided the contribution accumulation is not withdrawn. Active and retired Members are credited with additional participating service based on their accumulated contributions prior to June 30, 1977 (if not withdrawn prior to retirement), according to the following:

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

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

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.

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.

## Summary Of Plan Provisions

### 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.

### **Considered Compensation:**

The Member's basic salary and wages including 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 three highest years 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 Members hired prior to July 1, 1995, the minimum final average compensation is \$13,800. For Members hired on or after July 1, 1995, no minimum is applied until the Member has fifteen (15) years of service. For Members with between fifteen (15) and twenty (20) years of service, the minimum final average compensation is \$6,900. For Members with more than twenty (20) years of service, the minimum is \$13,800.

### **Normal Retirement Date:**

Normal retirement is the earliest of: first day of the month coinciding with or next following the 62nd birthday; or, the first day of the month coinciding with or following the date at which the sum of a Member's age and number of years of credited service total eighty (80) if the Member was hired prior to July 1, 1992 or following the date at which the sum of Member's age and number of years of credited service total ninety (90) if the Member was hired after July 1, 1992. Members employed after July 1, 1982 must complete at least 6 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 officials' 60th birth date or the first day of the month coinciding with or following the date at which the sum of the Members' age and years of credited service total eighty (80).

**Summary Of Plan Provisions**

**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.

The benefit payable monthly for life to elected officials for each year of elected service is the greater of 1) the preceding benefit, or 2) the benefit calculated using highest annual compensation up to the maximum applicable limit times credited service multiplied by the following applicable percentage:

<u>% of Highest Annual Compensation</u>	<u>Alternate Formula if Vested on July 1, 1980</u>	<u>% of Compensation Contributed</u>
1.9%	\$12.50	4.5%
2.5	20.00	6.0
3.0	25.00	7.5
3.4	27.50	8.5
3.6	30.00	9.0
4.0	40.00	10.0

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.

**Summary Of Plan Provisions**

**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:

<u>Elected Officials</u>		<u>Other Members</u>	
<u>Age</u>	<u>Percentage</u>	<u>Age</u>	<u>Percentage</u>
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 federal Social Security disability benefits within one year of 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.

**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 salary history 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. A Member with 10 or more years of service also has the option of reduced benefits at early retirement age.

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

A limited additional retirement benefit of \$200 per month is payable up to the total of excess contributions paid by the Member.

## Summary Of Plan Provisions

### **Pre-Retirement Death Benefit:**

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

The eligible spouse of a deceased elected official with at least six (6) years of elected service and married at least thirty months immediately preceding death will 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.

### **Form of Payments:**

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:

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.

## Summary Of Plan Provisions

### Post-Retirement

#### Medical Insurance Premium:

Effective July 1, 2000, 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 for Members receiving retirement benefits.

#### Expenses:

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

### Department of Corrections

#### Benefits:

Members of the Department of Corrections who are classified as a Correctional Officer or a Probation and Parole Officer have the retirement eligibility requirements, contribution rates and benefit formula described below.

The normal retirement age is 20 years of service as a Correctional or Probation and Parole Officer. 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.

Special Surviving Spouse and Child benefits for correctional officers or probation and parole officers killed or mortally wounded during the performance of duty after January 1, 2000 are equal to 2.5% of final average monthly compensation multiplied by the greater of the member's actual service or 20 years.

Contributions for Correctional or Probation and Parole members 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%	
	<u>First 20 Years of 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%