
**THE REPORT OF THE
JUNE 30, 2006, ACTUARIAL VALUATION
OF THE
PUBLIC SCHOOL RETIREMENT SYSTEM
OF MISSOURI**

GRS

Gabriel Roeder Smith & Company

October 20, 2006

Board of Trustees
Public School Retirement System of Missouri
3210 West Truman Boulevard
Jefferson City, MO 65109

Dear Members of the Board:

We are pleased to present the report of the actuarial valuation of the Public School Retirement System of Missouri ("PSRS") as of June 30, 2006.

This valuation provides data on the funding status of PSRS. The results of the valuation show that the current contribution level will no longer fund the current benefits of PSRS within the framework of your funding policy.

This valuation is based on the provisions of PSRS in effect as of June 30, 2006, data on the PSRS membership and information on the asset value of the trust fund. All member data and asset information were provided by PSRS staff. While certain checks for reasonableness were performed, the data was used unaudited.

The actuarial assumptions and actuarial cost method used in this valuation are those recommended in the experience review presented to the Board and adopted by the Board at its meeting on August 14, 2006.

To the best of our knowledge, this actuarial statement is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practice.

Respectfully submitted,

Gabriel, Roeder, Smith & Company



Norman S. Losk, F.S.A.
Senior Consultant



William B. Fornia, F.S.A.
Senior Consultant



Alex Rivera, F.S.A.
Senior Consultant

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SUMMARY OF THE VALUATION



Purposes of the Actuarial Valuation

At your request we have performed the actuarial valuation of the Public School Retirement System of Missouri ("PSRS") as of June 30, 2006.

The purposes of an actuarial valuation are as follows:

- To determine the funding status of PSRS as of the valuation date,
- To determine the contribution rate which would provide for the normal cost of the system plus an amount which will amortize the unfunded actuarial accrued liability over 30 years, and if different, the contribution for the fiscal year ending June 30, 2008, under the statute. and
- To provide accounting and other data required by PSRS.

Report Highlights

The key results of the valuation are summarized in the following table and compared to comparable values from the prior valuation report:

	June 30, 2005	June 30, 2006
	(\$ in Millions)	
A. Summary of Results		
(1) Present Value of Future Benefits for:		
(a) Active Members	\$20,447.9	\$22,069.8
(b) Retired members	\$13,976.9	\$15,371.3
(c) Inactive Members and Other Liabilities	<u>\$349.9</u>	<u>\$382.0</u>
(d) Total	\$34,774.7	\$37,823.1
(2) Present Value of Future Normal Costs	\$6,893.2	\$7,786.0
(3) Actuarial Accrued Liability: (1) – (2)	\$27,881.5	\$30,037.1
(4) Actuarial Value of Assets	\$23,049.4	\$24,801.6
(5) Unfunded Actuarial Accrued Liability: (3) – (4)	\$4,832.1	\$5,235.5
(6) Total Contribution Rate, Member + Employer	23.00%	24.00%
(7) Normal Cost Rate	21.05%	21.55%
(8) Approximate Rate Available for Unfunded Actuarial Accrued Liability: (6) – (7)	1.95%	2.45%
(9) 30-Year Contribution Rate	27.78%	28.39%
(10) Recommended Contribution Fiscal Year End 2008 Based on Statutes	24.00%	25.00%

	<u>June 30, 2005</u>	<u>June 30, 2006</u>
B. Highlights of Report		
(1) Actuarial Accrued Liability Funding Ratio:		
(a) Actuarial Value of Assets	\$23,049.4	\$24,801.6
(b) Actuarial Accrued Liability	27,881.5	30,037.1
(c) Funding Ratio: (a) / (b)	82.7%	82.6%
(2) Active Members:		
(a) Number:		
Male	16,876	17,169
Female	<u>56,974</u>	<u>58,371</u>
Total	73,850	75,540
(b) Total Compensation for Fiscal Year (for Active Members at end of year):		
Male	\$898.5	\$947.5
Female	<u>2,642.2</u>	<u>2,828.3</u>
Total	\$3,540.6	\$3,775.8
(c) Average Age:		
Male	42.5	42.3
Female	<u>42.5</u>	<u>42.4</u>
Total	42.5	42.4
(d) Average Service:		
Male	11.6	11.5
Female	<u>11.3</u>	<u>11.1</u>
Total	11.4	11.2
(e) Average Compensation for Fiscal Year (not in millions):		
Male	\$53,240	\$55,186
Female	<u>46,375</u>	<u>48,453</u>
Total	\$47,944	\$49,983
(f) Average Amount of Assets per Active Member (based on actuarial value, not in millions)	\$118,112	\$119,782
(3) Retired Members and Beneficiaries		
(a) Number Service Retired:		
Life Annuities	17,442	18,010
Options	<u>15,559</u>	<u>16,621</u>
Total	33,001	34,631
(b) Number Disability Retired	664	671
(c) Number Survivors, Beneficiaries	<u>2,656</u>	<u>2,808</u>
(d) Total Persons Receiving Benefits	36,321	38,110
(e) Average Monthly Pension Being Paid at Valuation Date for New Service Retired, Including Options (not in millions)	\$2,919	\$2,946
(f) Average Amount of Assets per Retired Member (based on actuarial value, not in millions)	\$384,816	\$403,340
(g) Average Amount of Assets per New Service Retired (based on actuarial value, not in millions)	\$516,384	\$546,032

Membership Characteristics

ACTIVE AND INACTIVE MEMBERSHIP

A total of 87,293 active and inactive members of PSRS are included in this 2006 actuarial valuation.

Active members	75,540
Inactive members	<u>11,753</u>
Total active and inactive members	87,293

Between the 2005 and 2006 actuarial valuations, the number of active employees increased by 1,690 or 2.3%. The average annual salaries of employees increased by 4.3% to \$49,983.

Summary of Changes in Membership

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Active and Inactive Members 7/1/2005	19,111	66,431	85,542
New Membership 7/1/2005 to 6/30/2006	<u>1,452</u>	<u>5,029</u>	<u>6,481</u>
Total Membership Before Decreases	20,563	71,460	92,023
Decreases:			
Service Retirements	626	1,801	2,427
Disability Retirements	6	35	41
Withdrawals	444	1,288	1,732
Deaths	16	40	56
Other Terminations	79	372	451
Previous Memberships Voided	7	16	23
Reciprocity	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal	1,178	3,552	4,730
Net membership 6/30/2006 (includes Inactive Members)	19,385	67,908	87,293

Benefit Recipients

On June 30, 2006, PSRS was paying benefits to a total of 38,110 retired members, beneficiaries and survivors. The total number of benefit recipients increased 4.9% from 36,321 on June 30, 2005. The benefit recipients were comprised of 34,631 service retirees, 671 disability retirees, and 2,808 beneficiaries and survivors.

There are two classes of retired members – members retired because of service and members retired because of disability.

The changes among the retired group of members during the 2005-2006 year were as follows:

	<u>Service Retirements</u>	<u>Disability Retirements</u>	<u>Beneficiaries</u>	<u>Total</u>
Retired Members, July 1, 2005	33,001	664	2,656	36,321
Added During Year	2,433	41	273	2,747
Died During Year	(776)	(29)	(84)	(889)
Resumed Retirement During Year	8	0	6	14
Resumed Employment During Year	(35)	(5)	(43)	(83)
Retired Members, June 30, 2006	34,631	671	2,808	38,110

As of June 30, 2006, the average monthly benefit payable to service retirees was \$2,790 compared to \$2,696 as of June 30, 2005. These average benefit amounts and the amounts shown in the tables that follow include all post-retirement benefit increases.

Actuarial Assumptions and Methods

The actuarial cost method and assumptions used in this valuation are those recommended in the Experience Study for the Years June 30, 2000, through June 30, 2005, and adopted by the Board at its meeting on August 14, 2006. This set of assumptions and methods is described in Appendix E. The change in assumptions and methods increased the actuarial liabilities by \$429.8 million.

Experience During FY 2006

Overall the system experienced a net actuarial loss of about \$225.5 million.

The total net actuarial loss for the year ending June 30, 2006, is shown below:

	<u>(\$ in millions)</u>
1. Actuarial (Gain) or Loss on Assets (at actuarial value)	(\$294.2)
2. Actuarial (Gain) or Loss on Liabilities Due to 2.5% actual COLA vs. 3.5% expected	(\$122.5)
3. Actuarial (Gain) or Loss on Liabilities Due to Reinstated Service	\$127.0
4. Actuarial (Gain) or Loss on Liabilities Due to Assumption Changes	\$429.8
5. Actuarial (Gain) or Loss on Liabilities Due to Demographic Experience	\$85.4
6. Total Actuarial (Gain) or Loss (Sum 1-5)	<u>\$225.5</u>

For the plan year ending June 30, 2006, the funds experienced an asset gain of \$294.2 million. The use of the five year smoothing method to determine the actuarial value of assets recognizes 20% of the total gain for the year.

The system's liabilities increased by \$429.8 million due to the adoption of the new assumptions. COLA increases were less than expected producing a gain of \$122.5 million. The purchase of service and reinstatement of forfeited service generated a liability loss of approximately \$127.0 million that was offset by member contributions of \$77.2 million resulting in a net increase in the unfunded actuarial liability of \$49.8 million.

PSRS Benefits

A summary of the current benefit provisions appears in Appendix F. There were no changes to the benefit provisions of PSRS during the 2006 session of the Legislature, which impact the results of this valuation.

Asset Information

The market value of the assets of the fund, which are available for benefits, has increased from \$23.7 billion at the end of FY 2005 to \$25.6 billion at the end of FY 2006. Due to the smoothing process used in the determination of the actuarial value of assets, the actuarial value of assets increased from \$23.0 billion to about \$24.8 billion.

Based on the actuarial value, the assets of the fund returned about 9.29% which compares to the market value return of 9.49%. The difference is due to the deferral of investment gains from the current year's return under the asset smoothing method.

The detailed determinations of asset values utilized in this valuation and asset growth in the last year are set forth in Appendix B.

Funding Status

The funding status of PSRS is measured by the Funding Ratio. The Funding Ratio is the ratio of the assets available for benefits to a benefit liability measure for the System. While there are several such measures that could be appropriately used, the measure that ties most closely to your funding plan is the Actuarial Accrued Liability (“AAL”).

The PSRS actuarial accrued liability funding ratio increased from 82.0% at June 30, 2004 to 82.7% at June 30, 2005, and decreased to 82.6% as of June 30, 2006.

GASB Disclosure

PSRS produces its accounting statements under the terms of GASB Statement Number 25. In Table 20, you will find Required Supplemental Information mandated by that statement.

Funding Process

In the 2003 session of the Legislature the funding provisions of PSRS were amended. The following changes were adopted:

1. The limitation on the total contribution rate (22% of pay) was eliminated.
2. Contribution rates will now be established by actuarial valuation.
3. The annual increase in the total contribution rate may not exceed 1% of pay.

As a result, the total contribution rate for the 2008 fiscal year may not increase by more than 1% of pay over the rate for the current fiscal year.

APPENDICES



APPENDIX A

MEMBERSHIP DATA



Table 1**Number, Average Age-Service-Salary, and Total Payroll
of Active Members Included in Actuarial Valuations****Male**

Item	Actuarial Valuation as of June 30				
	2002	2003	2004	2005	2006
Number	17,353	17,379	17,007	16,876	17,169
Average Age	42.7	42.7	42.6	42.5	42.3
Average Years of Service	11.9	11.7	11.7	11.6	11.5
Average Annual Salary	\$48,866	\$50,464	\$51,377	\$53,240	\$55,186
Total Payroll (000's)	\$847,977	\$877,009	\$873,765	\$898,481	\$947,484

Female

Item	Actuarial Valuation as of June 30				
	2002	2003	2004	2005	2006
Number	56,320	56,968	56,790	56,974	58,371
Average Age	42.2	42.4	42.5	42.5	42.4
Average Years of Service	11.0	11.1	11.3	11.3	11.1
Average Annual Salary	\$42,001	\$43,815	\$44,629	\$46,375	\$48,453
Total Payroll (000's)	\$2,365,484	\$2,496,049	\$2,534,465	\$2,642,168	\$2,828,267

Total

Item	Actuarial Valuation as of June 30				
	2002	2003	2004	2005	2006
Number	73,673	74,347	73,797	73,850	75,540
Average Age	42.3	42.4	42.5	42.5	42.4
Average Years of Service	11.2	11.3	11.4	11.4	11.2
Average Annual Salary	\$43,618	\$45,369	\$46,184	\$47,944	\$49,983
Total Payroll (000's)	\$3,213,461	\$3,373,058	\$3,408,230	\$3,540,649	\$3,775,752

Table 2**Employee Distribution by Age and Years of Service
June 30, 2006**

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
20-24	1,656	1	0	0	0	0	0	1,657
25-29	8,044	2,190	0	0	0	0	0	10,234
30-34	3,295	5,985	1,147	0	0	0	0	10,427
35-39	2,263	3,080	3,982	752	0	0	0	10,077
40-44	1,847	2,107	1,863	2,516	840	3	0	9,176
45-49	1,573	1,979	1,802	1,616	2,299	1,069	6	10,344
50-54	1,158	1,732	1,819	1,694	1,482	2,601	959	11,445
55-59	862	1,215	1,397	1,528	1,439	1,053	1,105	8,599
60-64	321	496	444	533	482	323	359	2,958
65 & Over	80	105	76	88	103	72	99	623
Total	21,099	18,890	12,530	8,727	6,645	5,121	2,528	75,540

Table 3

**Salary Distribution
Employees in Active Service
on June 30, 2006**

Annual Salary	Number	Percent
Under \$20,000	1,734	2.3%
\$20,000-24,499	949	1.2%
\$25,000-29,999	2,016	2.7%
\$30,000-34,999	6,231	8.2%
\$35,000-39,999	11,108	14.7%
\$40,000-44,999	12,214	16.2%
\$45,000-49,999	10,778	14.3%
\$50,000-54,999	8,199	10.8%
\$55,000-59,999	6,172	8.2%
\$60,000 & Over	<u>16,139</u>	<u>21.4%</u>
Total	75,540	100.0%

Table 4

**Salary Increase Rates by Service Group
Employees in Both 2005 & 2006 Actuarial Valuations**

Service in 2005	Number	Percent Increase In Average Salary	
		Expected	Actual
1-4	17,107	8.2%	10.6%
5-9	17,494	7.0%	8.3%
10-14	11,450	5.8%	7.1%
15-19	8,621	5.0%	5.9%
20 & Over	<u>12,374</u>	<u>5.0%</u>	<u>5.1%</u>
Total	67,046	6.5%	7.8%

Table 5

**History of System's Growth
Active and Inactive Membership**

<u>June 30</u>	<u>Females</u>	<u>Males</u>	<u>Inactives</u>	<u>Total</u>
1985	36,056	18,407	3,005	57,468
1986	36,693	18,221	3,035	57,949
1987	37,639	18,159	3,141	58,939
1988	37,911	16,117	3,537	57,565
1989	39,021	16,177	3,543	58,741
1990	39,802	16,086	3,773	59,661
1991	40,882	16,026	4,067	60,975
1992	41,853	15,858	4,335	62,046
1993	42,825	15,668	4,705	63,198
1994	44,714	15,881	5,009	65,604
1995	46,681	16,173	5,328	68,182
1996	48,184	16,440	5,894	70,518
1997	49,800	16,656	6,373	72,829
1998	51,706	17,003	6,799	75,508
1999	52,895	17,197	7,278	77,370
2000	54,439	17,267	7,739	79,445
2001	55,405	17,283	8,930	81,618
2002	56,320	17,353	9,376	83,049
2003	56,968	17,379	10,331	84,678
2004	56,790	17,007	11,674	85,471
2005	56,974	16,876	11,692	85,542
2006	58,371	17,169	11,753	87,293

Table 6

**Pensions in Force on June 30, 2006
by Type and Monthly Amount**

Monthly Amount	Service	Disability	Beneficiary	Survivor	Total
Less than \$500	1,006	4	115	223	1,348
\$500 - 999	1,945	58	356	398	2,757
\$1,000 - 1,499	2,643	182	425	0	3,250
\$1,500 - 1,999	4,203	205	349	0	4,757
\$2,000 - 2,499	5,228	129	300	0	5,657
\$2,500 - 2,999	5,280	67	219	0	5,566
\$3,000 - 3,499	4,790	17	172	0	4,979
\$3,500 & Over	<u>9,536</u>	<u>9</u>	<u>251</u>	<u>0</u>	<u>9,796</u>
Total	34,631	671	2,187	621	38,110

Table 7

**Pensions in Force on June 30, 2006
by Type and Age**

<u>Age</u>	<u>Service</u>	<u>Disability</u>	<u>Beneficiary</u>	<u>Survivor</u>	<u>Total</u>
Under 55	1,734	186	147	318	2,385
55-59	6,844	156	153	17	7,170
60-64	7,451	95	208	54	7,808
65-69	5,836	67	263	60	6,226
70-74	4,351	54	339	44	4,788
75-79	3,442	53	382	46	3,923
80-84	2,223	26	357	30	2,636
85-89	1,564	20	201	26	1,811
90 & Over	<u>1,186</u>	<u>14</u>	<u>137</u>	<u>26</u>	<u>1,363</u>
Total	34,631	671	2,187	621	38,110

Table 8**Cost of Living Increases to Retired Members
June 30, 2006**

Retirement In	First Increase Effective Date	First Percentage Increase	Total Increases Through January 2006	January 2007 Increase	Total Increases Through January 2007	Number of Retired Members at 6/30/2006
1982 & Earlier	Various	Various	80.00%	0.00%	80.00%	2,934
1983	Jan. 1987	1.70%	76.83%	1.79%	80.00%	434
1984	Jan. 1988	3.70%	74.25%	3.30%	80.00%	497
1985	Jan. 1989	4.00%	68.32%	4.30%	75.56%	583
1986	Jan. 1990	4.00%	62.16%	4.30%	69.13%	678
1987	Jan. 1991	4.00%	55.92%	4.30%	62.63%	690
1988	Jan. 1992	4.70%	49.92%	4.30%	56.37%	835
1989	Jan. 1993	3.10%	43.20%	4.30%	49.35%	736
1990	Jan. 1994	3.00%	38.89%	4.30%	44.87%	895
1991	Jan. 1995	2.50%	34.85%	4.30%	40.65%	948
1992	Jan. 1996	3.00%	31.55%	4.30%	37.21%	1,105
1993	Jan. 1997	2.80%	27.66%	4.30%	33.15%	926
1994	Jan. 1998	2.30%	24.25%	4.30%	29.59%	1,053
1995	Jan. 1999	1.70%	21.45%	4.30%	26.67%	1,257
1996	Jan. 2000	2.00%	19.41%	4.30%	24.55%	1,679
1997	Jan. 2001	3.70%	17.08%	4.30%	22.11%	1,657
1998	Jan. 2002	3.30%	12.91%	4.30%	17.76%	1,870
1999-2001 ^a	Jan. 2003	1.10%	9.30%	4.30%	13.99%	6,876
2002 ^b	Jan. 2004	2.10%	8.11%	4.30%	12.75%	2,028
2003	Jan. 2005	3.30%	5.88%	4.30%	10.44%	2,364
2004	Jan. 2006	2.50%	2.50%	4.30%	6.91%	2,620
2005	Jan. 2007	4.30%		4.30%	4.30%	2,449
2006						188
Total						35,302

^a Includes all retirements in 1999, and, because of legislation in 2000 and 2001, all persons retiring after June 30 of each of those years.

^b Includes all retirements in 2002 and, because of legislation in 2000 and 2001, all persons retiring before July 1 of each of those years.

Table 9

**Analysis of Retired Membership by Type of Benefit
(Dollar Amounts in Millions)
June 30, 2006**

Type of Benefit	Number	Annual Benefit	Total Liability
Service Retirees			
Options 1 & 10 (Life Only)	18,010	561.6	6,526.4
Options 2 & 21 (100% J&S with Pop-Up)	9,135	327.3	4,614.4
Option 3 & 31 (75% J&S with Pop-Up)	1,667	66.2	954.9
Option 4 & 41(50% J&S with Pop-Up)	3,483	127.4	1,674.0
Option 5 (10 Years Certain & Life)	704	25.6	354.3
Option 6 (5 Years Certain & Life)	162	5.5	75.4
Option 20 (100% J & S)	1,002	31.8	315.5
Option 30 (75% J & S)	24	1.1	14.2
Option 40 (50% J & S)	<u>444</u>	<u>13.0</u>	<u>98.9</u>
 Total	 34,631	 \$1,159.5	 \$14,628.0
 Disability Retirees	 671	 \$14.4	 \$132.9
 Beneficiaries of Retiree Deaths	 2,187	 \$52.5	 \$512.5
 Survivors of Active Deaths	 621	 \$5.7	 \$27.7

Note: Excludes retirees returned to teaching and additional deposit annuities.

Table 10**History of System's Growth
Service Retired**

June 30	Females	Males	Total Retired	Total Monthly Pensions	Average Monthly Pension	Average New Pension Granted
1985	11,307	3,227	14,534	\$8,153,600	\$561.00	\$900 Mo.
1986	11,488	3,476	14,964	9,026,630	603.22	994
1987	11,684	3,810	15,494	10,099,084	651.81	1,123
1988	11,857	4,054	15,911	11,202,662	704.08	1,191
1989	12,117	4,345	16,462	12,412,178	753.99	1,142
1990	12,288	4,591	16,879	13,926,237	825.06	1,338
1991	12,500	4,883	17,383	15,535,235	893.70	1,442
1992	12,695	5,208	17,903	17,748,286	991.36	1,555
1993	13,071	5,547	18,618	19,647,453	1,055.29	1,549
1994	13,166	5,797	18,963	21,564,088	1,137.17	1,673
1995	13,343	6,081	19,424	23,563,044	1,213.09	1,898
1996	13,658	6,417	20,275	27,698,314	1,379.74	2,007
1997	14,716	6,424	21,140	31,431,017	1,486.80	2,005
1998	14,805	7,364	22,169	37,876,023	1,708.51	2,300
1999	15,551	7,835	23,386	45,132,257	1,929.88	2,488
2000	16,360	8,399	24,759	51,928,849	2,097.37	2,684
2001	17,584	9,055	26,639	61,434,862	2,306.20	2,775
2002	18,598	9,530	28,128	67,894,473	2,413.77	2,835
2003	19,440	9,983	29,423	73,017,878	2,481.66	2,846
2004	20,592	10,460	31,052	80,173,849	2,581.92	2,973
2005	22,056	10,945	33,001	88,978,551	2,696.24	2,919
2006	23,302	11,329	34,631	96,626,872	2,790.18	2,946

Notes: Excludes retirees returned to teaching. Counts and amounts reported as being paid at valuation date, including options.

Table 11**History of System's Growth
Disability Retired**

June 30	Females	Males	Total Retired	Total Monthly Pensions	Average Monthly Pension	Average New Pension Granted
1985	406	143	549	\$291,619	\$531.18	\$834 Mo.
1986	412	139	551	309,378	561.48	916
1987	413	143	556	323,649	582.10	884
1988	400	142	542	339,710	626.77	1,096
1989	394	149	543	362,423	667.45	1,088
1990	396	156	552	394,564	714.79	1,061
1991	402	153	555	420,031	756.81	1,257
1992	391	154	545	449,376	824.54	1,144
1993	400	160	560	484,265	864.76	1,178
1994	392	164	556	511,353	919.70	1,281
1995	395	163	558	533,106	955.39	1,377
1996	407	160	567	605,823	1,068.47	1,424
1997	413	153	566	626,626	1,107.11	1,366
1998	413	148	561	695,710	1,240.12	1,483
1999	424	145	569	776,500	1,364.67	1,740
2000	439	141	580	837,745	1,444.39	1,550
2001	456	140	596	929,492	1,559.55	1,728
2002	461	136	597	965,816	1,617.78	1,846
2003	466	138	604	987,727	1,635.31	1,672
2004	489	141	630	1,062,279	1,686.16	1,849
2005	517	147	664	1,151,931	1,734.84	1,690
2006	527	144	671	1,197,398	1,784.50	2,189

Notes: Excludes retirees returned to teaching. Counts and amounts reported as being paid at valuation date, including options.

APPENDIX B
ASSET INFORMATION



Table 12**Market Value of Assets
Balance Sheet**

	<u>June 30, 2005</u>	<u>June 30, 2006</u>
Assets:		
Cash	\$ 54,804,070	\$ 45,707,391
Contribution Receivable	136,516,507	140,577,696
Accrued Interest and Dividends	93,723,362	88,574,543
Investments	24,033,220,055	25,824,074,259
Trades Pending	3,855,746,975	2,812,218,210
Other Assets	385,394	280,659
Capital Assets	11,004,095	11,850,531
Due from NTRS	191,749	691,452
Total	<u>\$ 28,185,592,207</u>	<u>\$ 28,923,974,741</u>
Liabilities:		
Accounts Payable	\$ 11,640,821	\$ 20,420,200
Employer-Pay Liability	231,641	501,417
Interest Payable	1,948,815	5,473,445
Trades Pending	4,432,914,634	3,294,051,028
Other Liabilities	-	-
Total	<u>\$ 4,446,735,911</u>	<u>\$ 3,320,446,090</u>
Net Assets	\$ 23,738,856,296	\$ 25,603,528,651

Table 13

**Statement of Revenue and Expenses
Market Value Reconciliation For Fiscal Year Ended June 30, 2006**

Operating Revenues	Amount
<i>Contributions:</i>	
Employers	\$ 429,578,911
Members	<u>502,980,175</u>
Total Contributions	932,559,086
<i>Net Investment Income:</i>	
Interest	355,126,589
Dividends	249,055,732
Net Income from Security Lending Activities	<u>12,050,552</u>
Total Investment Income	616,232,873
Net Capital Appreciation (Depreciation)	1,668,827,642
Less: Investment Expenses	<u>(49,224,397)</u>
Total Investment Return	2,235,836,118
<i>Other Income</i>	<u>263,907</u>
Total Operating Revenues	<u><u>3,168,659,111</u></u>
Operating Expenses	
Benefit Payments	1,260,838,465
Refunds to Members	36,394,064
Administrative Expenses	6,750,205
Other Expense	<u>4,022</u>
Total Operating Expenses	<u><u>1,303,986,756</u></u>
Excess of Revenues over Expenses	1,864,672,355
Fund Balance, June 30, 2005	<u>23,738,856,296</u>
Fund Balance, June 30, 2006	<u><u>25,603,528,651</u></u>

Table 14

**Growth of Cash Flow
(In Thousands)**

Year Ending June 30	Contributions for the Year	Payments During the Year			External Cash Flow for the Year	Covered Payroll	Payments as Percent of Covered Payroll
		Benefit Payments and Refund of Contributions	Expenses	Total			
1986	244,906	(139,297)	(1,780)	(141,077)	103,829	1,319,801	10.7
1987	264,224	(150,138)	(2,120)	(152,258)	111,966	1,429,429	10.7
1988	293,698	(266,431)	(2,377)	(268,808)	24,890	1,446,485	18.6
1989	309,266	(180,012)	(3,357)	(183,369)	125,897	1,556,775	11.8
1990	328,173	(215,429)	(3,850)	(219,279)	108,894	1,652,719	13.3
1991	345,827	(229,330)	(4,800)	(234,130)	111,697	1,750,191	13.4
1992	359,208	(245,365)	(5,583)	(250,948)	108,260	1,809,458	13.9
1993	370,317	(270,529)	(6,556)	(277,085)	93,232	1,867,948	14.8
1994	397,622	(290,636)	(7,623)	(298,259)	99,363	1,996,908	14.9
1995	433,990	(320,343)	(9,760)	(330,103)	103,887	2,137,134	15.4
1996	488,484	(372,954)	(12,468)	(385,422)	103,062	2,283,994	16.9
1997	516,694	(426,029)	(3,867)	(429,896)	86,798	2,427,429	17.7
1998	562,350	(471,259)	(2,827)	(474,086)	88,264	2,577,594	18.4
1999	589,882	(565,662)	(3,141)	(568,803)	21,079	2,690,007	21.1
2000	624,524	(675,079)	(3,712)	(678,791)	(54,267)	2,836,065	23.9
2001	658,801	(784,938)	(4,009)	(788,947)	(130,146)	2,982,051	26.5
2002	696,685	(892,214)	(4,486)	(896,700)	(200,015)	3,213,461	27.9
2003	734,413	(958,924)	(4,676)	(963,600)	(229,187)	3,373,058	28.6
2004	765,377	(1,060,758)	(5,274)	(1,066,032)	(300,655)	3,408,230	31.3
2005	821,916	(1,186,924)	(5,614)	(1,192,538)	(370,622)	3,540,649	33.7
2006	932,559	(1,297,233)	(6,754)	(1,303,987)	(371,428)	3,775,752	34.5

Table 15

Development of the Actuarial Value of Assets

1. Valuation Assets June 30, 2005		\$ 23,049,440,502
2. Activity for FY 2006		
a. Contributions	\$ 932,559,086	
b. Benefits and Expenses	<u>(1,303,986,756)</u>	
c. Net Cash Flow	(371,427,670)	
3. Expected Returns	1,829,383,952	
4. Assets Before Allocation of G/L (1+2+3)		24,507,396,784
5. Actual Returns for 2006	2,236,100,025	
6. Excess Returns for 2006 (5-3)	406,716,073	
7. Recognized Excess Returns		
2006	81,343,215	
2005	50,702,395	
2004	162,202,071	
2003	-	
2002	-	
Total		<u>294,247,681</u>
8. Actuarial Value of Assets June 30, 2006		\$ 24,801,644,465

Table 16**History of System's Reserve Funds**

June 30	Accumulated Employee Contributions	General Reserves Contributed by Employers	Total Funds
1985	\$1,074,474,872	\$1,779,172,019	\$2,853,646,891
1986	1,199,080,656	2,073,456,154	3,272,536,810
1987	1,333,786,497	2,415,732,721	3,749,519,218
1988	1,427,755,173	2,745,290,213	4,173,045,386
1989	1,605,331,167	3,164,741,308	4,770,072,475
1990	1,780,289,109	3,625,499,691	5,405,788,800
1991	1,983,630,527	4,095,234,736	6,078,865,263
1992	2,191,277,064	4,663,290,911	6,854,567,975
1993	2,384,406,117	5,378,325,303	7,762,731,420
1994	2,616,067,465	6,561,002,730	9,177,070,195
1995	2,856,389,033	7,336,694,489	10,193,083,522
1996	3,098,447,617	8,412,177,685	11,510,625,302
1997	3,312,090,156	9,787,128,615	13,099,218,771
1998	3,541,459,187	11,437,899,111	14,979,358,298
1999	3,765,853,678	13,444,016,205	17,209,869,883
2000	3,976,059,124	15,461,163,652	19,437,222,776
2001	4,129,190,609	17,017,103,699	21,146,294,308
2002	4,354,506,588	17,881,598,628	22,236,105,216
2003	4,687,227,277	15,360,754,260	20,047,981,537
2004	4,954,079,813	16,547,491,808	21,501,571,620
2005	5,119,054,776	17,930,385,726	23,049,440,502
2006	5,453,906,342	19,347,738,123	24,801,644,465

Book Value prior to 1994, five-year average of adjusted market values after 1993.

APPENDIX C
ACTUARIAL DETERMINATIONS



Table 17**Ten Year Historical Summary
(All Dollar Figures in Thousands)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Active Members	66,456	68,709	70,092	71,706	72,688	73,673	74,347	73,797	73,850	75,540
Retired Members	22,730	23,955	25,339	27,238	29,234	30,865	32,249	34,230	36,321	38,110
Actuarial Assets	\$13,099,219	\$14,979,358	\$17,209,870	\$19,437,223	\$21,146,294	\$22,236,105	\$20,047,982	\$21,501,572	\$23,049,441	\$24,801,644
UAAL	(\$650,041)	(\$508,309)	(\$836,726)	(\$1,158,110)	\$135,909	\$1,097,832	\$4,671,468	\$4,723,688	\$4,832,072	\$5,235,486
Benefit Payments And Refunds	(\$425,848)	(\$474,087)	(\$568,803)	(\$675,079)	(\$784,938)	(\$892,214)	(\$958,924)	(\$1,060,758)	(\$1,186,924)	(\$1,297,233)
Accumulated Members' Contributions	\$3,312,090	\$3,541,459	\$3,765,854	\$3,976,059	\$4,129,191	\$4,354,507	\$4,687,227	\$4,954,080	\$5,119,055	\$5,453,906
APV of Retirees' Benefits	\$4,553,628	\$5,523,768	\$6,603,148	\$7,801,845	\$9,504,921	\$10,589,546	\$11,387,543	\$12,625,925	\$13,976,901	\$15,371,279

Table 18

**Determination of Normal Cost
June 30, 2006
For the 2006 - 2007 Plan Year**

	<u>Dollar</u>	<u>Rate</u>
Active Members		
Retirement Benefits	\$721,709,307	19.46%
Termination Benefits	60,945,760	1.64%
Death Benefits	8,713,107	0.23%
Disability Benefits	8,182,241	0.22%
Total Normal Cost	\$799,550,415	21.55%
Estimated Employee Contributions	445,138,468	
Employer Normal Cost (Total Normal Cost less Employee Contributions)	\$354,411,947	

Table 19

**Determination of the Unfunded Actuarial Accrued Liability
June 30, 2006**

Actives Members:

Service Retirement	\$14,269,747,328
Death Benefits	88,012,296
Disability Benefits	67,634,249
Termination Benefits	(141,524,624)
Inactives	<u>381,982,601</u>
Total for Active and Inactives Members	\$14,665,851,850

Pay Status Members:

Service Retirees	\$14,644,979,112
Disability Retirees	132,922,630
Survivors	540,242,157
Tax-sheltered Annuitants	1,081,659
Death Benefit	<u>52,053,079</u>
Total for Pay Status Members	\$15,371,278,637

Total Actuarial Accrued Liability \$30,037,130,487

Actuarial Value of Assets \$24,801,644,465

Total Unfunded Actuarial Accrued Liability \$5,235,486,022

Table 20

**Schedule of Funding Progress
(\$ in Thousands)**

Actuarial Valuation Date	Value of Assets (a)	Actuarial Accrued			Covered Payroll (c)	UAAAL as a Percentage of Covered Payroll ((b-a)/c)
		Liability (AAL) Entry Age (b)	Unfunded AAL (UAAAL) (b-a)	Funded Ratio (a/b)		
06/30/1997	\$ 13,099,219	\$ 12,449,178	\$ (650,041)	105.2%	\$ 2,427,429	-26.8%
06/30/1998	14,979,358	14,471,049	(508,309)	103.5%	2,577,594	-19.7%
06/30/1999	17,209,870	16,373,144	(836,726)	105.1%	2,690,007	-31.1%
06/30/2000	19,437,223	18,279,113	(1,158,110)	106.3%	2,836,062	-40.8%
06/30/2001	21,146,294	21,282,203	135,909	99.4%	2,982,051	4.6%
06/30/2002	22,236,105	23,333,937	1,097,832	95.3%	3,213,461	34.2%
06/30/2003	20,047,982	24,719,450	4,671,468	81.1%	3,373,058	138.5%
06/30/2004	21,501,572	26,225,259	4,723,687	82.0%	3,408,230	138.6%
06/30/2005	23,049,441	27,881,513	4,832,072	82.7%	3,540,649	136.5%
06/30/2006	24,801,644	30,037,130	5,235,486	82.6%	3,775,752	138.7%

Schedule of Employer Contributions

Actuarial Valuation Date	Annual Required Contribution	Employer Contribution	Percentage Contributed
06/30/1997	\$ 251,957,622	\$ 251,957,622	100.0%
06/30/1998	273,125,719	273,125,719	100.0%
06/30/1999	287,698,736	287,698,736	100.0%
06/30/2000	304,944,352	304,944,352	100.0%
06/30/2001	324,525,673	324,525,673	100.0%
06/30/2002	340,000,556	340,000,556	100.0%
06/30/2003	376,659,713	355,979,027	94.5%
06/30/2004	475,400,520	359,762,556	75.7%
06/30/2005	593,328,374	389,415,997	65.6%
06/30/2006	608,134,319	429,578,911	70.6%

Notes in Trend Data

Information:

Valuation Date
Actuarial Cost Method
Amortization Method
Remaining Amortization Period
Asset Valuation Method

Data

06/30/2006
Entry Age Normal
Level Percent, Open
30
5-Year Smoothed Market
Marked to Market as of June 30, 2003

Actuarial

Investment rate of return 8.0%
Projected salary increases 5.0% - 10.25%
Cost-of-living adjustments 3.25%

Table 22

**GASB
Pension Cost Summary**

Fiscal Year Ending	Annual Pension Cost	Total Employer Contribution	Net Pension Obligation
06/30/2002	\$340,000,556	\$340,000,556	\$0
06/30/2003	376,659,713	355,979,027	20,680,686
06/30/2004	476,034,975	359,762,556	136,953,105
06/30/2005	597,529,908	389,415,997	345,067,016
06/30/2006	618,720,504	429,578,911	534,208,609

Table 23

**Calculation of Unfunded Actuarial Accrued Liability
June 30, 2006**

	<u>Amount</u>
(1) Present Value of Future Benefits for:	
Active Members	\$22,069,801,395
Service Retirees	14,644,979,112
Disability Retirees	132,922,630
Tax-sheltered Annuitants	1,081,659
Survivors	540,242,157
Death Benefits	52,053,079
Inactive Members	381,982,601
Total	<u>37,823,062,633</u>
(2) Present Value of Future Normal Costs	7,785,932,146
(3) Actuarial Accrued Liability ((1)-(2))	30,037,130,487
(4) Actuarial Value of Assets	24,801,644,465
(5) Unfunded Actuarial Accrued Liability ((3)-(4))	\$5,235,486,022

**Required Contribution Rate & Amortization of Unfunded Liability
for the Fiscal Year Ending 2007**

	<u>Percentage of Payroll</u>
(1) Total Contribution Rate, Member + Employer	24.00%
(2) Normal Cost Rate	21.55%
(3) Approximate Rate Available for Unfunded Actuarial Accrued Liability ((1)-(2))	2.45%
(4) Benchmark Contribution Rate - Normal Cost Plus a Rate to fund UAAL over 30 Years	28.39%

Table 24

**Analysis of Actuarial Gains and Losses
(\$ in 000's)**

	<u>Amount</u>
1. Unfunded Actuarial Liability as of June 30, 2005	\$ 4,832,072
2. Normal Cost for 2006 Plan Year	731,821
3. Contribution Received During Year	(932,559)
4. Interest to Year End @ 8.00% on 1., 2., and 3.	378,690
5. Expected Unfunded Actuarial Liability as of June 30, 2006	5,010,025
6. Actuarial (Gain)/Loss During the Year	
a. From Investment	(294,247)
b. From Actuarial Liabilities Due to Actual vs. Expected COLA	(122,468)
c. From Actuarial Liabilities Due to Reinstated Service	126,972
d. From Actuarial Liabilities Due to Assumption Changes	429,821
e. From Actuarial Liabilities Due to Demographic Experience	85,383
f. Total	<u>\$ 225,461</u>
7. Actuarial Unfunded Actuarial Liability as of June 30, 2006	\$ 5,235,486

APPENDIX D

ADDITIONAL DATA



Table 25**Schedule of Active Member Valuation Data**

Actuarial Valuation Date	Number of Members	Covered Annual Payroll (000)	Average Annual Salary	% Increase in Average Salary	Average Attained Age	Average Years of Service
06/30/1991	56,908	\$1,750,191	\$30,755	4.0%	42.0	12.1
06/30/1992	57,711	1,809,458	31,354	1.9%	42.2	12.2
06/30/1993	58,493	1,867,948	31,935	1.9%	42.3	12.3
06/30/1994	60,595	1,996,908	32,955	3.2%	42.5	12.3
06/30/1995	62,854	2,137,134	34,002	3.2%	42.5	12.3
06/30/1996	64,624	2,283,994	35,343	3.9%	42.6	12.3
06/30/1997	66,456	2,427,429	36,527	3.3%	42.5	12.1
06/30/1998	68,709	2,577,594	37,514	2.7%	42.5	11.9
06/30/1999	70,092	2,690,353	38,383	2.3%	42.5	11.7
06/30/2000	71,706	2,836,062	39,581	3.1%	42.5	11.6
06/30/2001	72,688	2,982,051	41,025	3.7%	42.4	11.3
06/30/2002	73,673	3,213,461	43,618	6.3%	42.3	11.2
06/30/2003	74,347	3,373,058	45,369	4.0%	42.4	11.3
06/30/2004	73,797	3,408,230	46,184	1.8%	42.5	11.4
06/30/2005	73,850	3,540,649	47,944	3.8%	42.5	11.4
06/30/2006	75,540	3,775,752	49,983	4.3%	42.4	11.2

Table 26

**Solvency Test
(\$ in 000's)**

Actuarial Valuation Date	Actuarial Accrued Liability			Net Assets Available for Benefits	Percentage of Actuarial Liabilities Covered by Net Assets for:		
	Member Contributions (1)	Current Retirees & Beneficiaries (2)	Active & Inactive Members Employer Financed Portion (3)		(1)	(2)	(3)
06/30/1993	2,384,406	2,980,210	3,591,872	7,787,379	100.0%	100.0%	67.5%
06/30/1994	2,616,067	3,206,061	4,147,631	9,177,070	100.0%	100.0%	80.9%
06/30/1995	2,856,389	3,705,807	4,419,626	10,193,084	100.0%	100.0%	82.2%
06/30/1996	3,098,448	4,265,851	4,867,447	11,510,625	100.0%	100.0%	85.2%
06/30/1997	3,312,090	4,553,628	4,583,460	13,099,219	100.0%	100.0%	114.2%
06/30/1998	3,541,459	5,523,768	5,405,822	14,979,358	100.0%	100.0%	109.4%
06/30/1999	3,765,854	6,602,915	5,305,210	17,209,870	100.0%	100.0%	129.0%
06/30/2000	3,976,059	7,801,845	6,501,209	19,437,223	100.0%	100.0%	117.8%
06/30/2001	4,129,191	9,504,921	7,648,091	21,146,294	100.0%	100.0%	98.2%
06/30/2002	4,354,507	10,589,546	8,389,885	22,236,105	100.0%	100.0%	86.9%
06/30/2003	4,687,227	11,387,543	8,644,680	20,047,982	100.0%	100.0%	46.0%
06/30/2004	4,954,080	12,625,925	8,645,254	21,501,572	100.0%	100.0%	45.4%
06/30/2005	5,119,055	13,976,901	8,785,557	23,049,441	100.0%	100.0%	45.0%
06/30/2006	5,453,906	15,371,279	9,211,945	24,801,644	100.0%	100.0%	43.2%

Table 27

**Schedule of Retirees and Beneficiaries Added to
and Removed From Retirement Rolls**

Actuarial Valuation Date	Service Retirees			Disability Retirees			Beneficiaries		
	Added to Rolls	Removed from Rolls	Rolls End of Year	Added to Rolls	Removed from Rolls	Rolls End of Year	Added to Rolls	Removed from Rolls	Rolls End of Year
06/30/1990	949	532	16,879	37	28	552	N/A	N/A	N/A
06/30/1991	1,067	563	17,383	28	25	555	N/A	N/A	N/A
06/30/1992	1,119	599	17,903	33	43	545	N/A	N/A	N/A
06/30/1993	1,269	554	18,618	45	30	560	110	63	1,259
06/30/1994	1,021	676	18,963	35	39	556	130	63	1,326
06/30/1995	1,141	680	19,424	34	32	558	152	66	1,412
06/30/1996	1,344	693	20,075	44	35	567	150	72	1,490
06/30/1997	1,797	732	21,140	30	31	566	170	74	1,586
06/30/1998	1,757	728	22,169	27	32	561	187	82	1,691
06/30/1999	1,965	748	23,386	41	33	569	182	82	1,791
06/30/2000	2,136	763	24,759	43	32	580	187	79	1,899
06/30/2001	2,639	759	26,639	45	29	596	189	89	1,999
06/30/2002	2,262	773	28,128	42	41	597	248	107	2,140
06/30/2003	2,078	783	29,423	37	30	604	197	115	2,222
06/30/2004	2,458	829	31,052	54	28	630	482	156	2,548
06/30/2005	2,639	690	33,001	59	25	664	236	128	2,656
06/30/2006	2,441	811	34,631	41	34	671	279	127	2,808

Table 28

Schedule of Retirees by Type
(\$ in 000's)

Actuarial Valuation Date	Service Retirees		Disability Retirees		Beneficiaries	
	Number	Benefits	Number	Benefits	Number	Benefits
06/30/1992	17,903	210,379	545	5,392	1,262	8,149
06/30/1993	18,618	234,933	560	5,826	1,303	9,299
06/30/1994	18,963	254,957	556	6,102	1,372	10,373
06/30/1995	19,424	281,897	558	6,427	1,412	11,821
06/30/1996	20,075	329,115	567	7,180	1,490	13,403
06/30/1997	21,140	377,172	566	7,520	1,586	15,874
06/30/1998	22,169	454,512	561	8,349	1,691	20,048
06/30/1999	23,386	542,071	569	9,338	1,793	29,625
06/30/2000	24,759	623,827	580	10,088	1,899	30,843
06/30/2001	26,639	737,218	596	11,154	1,999	36,769
06/30/2002	28,128	737,218	597	11,590	2,140	40,743
06/30/2003	29,423	876,196	604	11,853	2,222	43,449
06/30/2004	31,052	962,086	630	12,747	2,548	48,846
06/30/2005	33,001	1,067,743	664	13,823	2,656	54,186
06/30/2006	34,631	1,159,522	671	14,369	2,808	58,240

Average New Retiree Statistics

Actuarial Valuation Date	Regular Retirement Benefit	% Increase From Previous Year	Age	Creditable Service
06/30/1992	1,716.78	(3)	59.3	27.8
06/30/1993	1,854.29	8	59.0	26.8
06/30/1994	2,096.35	13	58.8	27.8
06/30/1995	2,013.36	(4)	58.7	26.8
06/30/1996	2,182.88	8	56.3	27.8
06/30/1997	2,005.00	(8)	56.4	N/A
06/30/1998	2,300.19	15	57.1	N/A
06/30/1999	2,488.36	8	57.0	N/A
06/30/2000	2,683.72	8	57.0	25.6
06/30/2001	2,775.17	3	56.7	26.5
06/30/2002	2,834.93	2	56.6	26.5
06/30/2003	2,845.98	0	56.8	26.0
06/30/2004	2,973.46	4	56.8	26.2
06/30/2005	2,919.10	(2)	58.0	25.7
06/30/2006	2,945.79	1	58.3	25.4

APPENDIX E
ACTUARIAL METHODS AND ASSUMPTIONS



Statement of Funding Policy

In order to establish long-term, consistent methods in the funding of the System, the Board of Trustees has adopted this statement of its funding policy. The funding of the System shall be carried out in such a way that the burden of paying retirement costs shall be shared equitably by present and succeeding generations of members and taxpayers. To this end, the following principles shall apply:

1. The Board of Trustees shall adopt actuarial assumptions, each of which individually represents a reasonable long-term estimate of anticipated experience under the System, derived from experience studies conducted every fifth year.
2. The actuarial funding method used shall be the Entry Age Normal Method with normal costs calculated as a percentage of payroll.
3. It shall be the general objective to maintain an amortization period of 30 years or less in the funding of the Unfunded Actuarial Accrued Liability. Whenever a change is made in the System's benefit and contribution rate structures, the amortization period for the System after this change should not exceed 30 years initially.
4. If an escalation in future payroll is assumed in determining the amortization payments toward the Unfunded Actuarial Accrued Liability, then the annual rate of such escalation shall not exceed the expected rate of expansion in total System payroll based upon the actuarial assumptions.
5. Assets used in the actuarial valuation shall be valued using adjusted market values averaged over a period of five years.
6. Annual actuarial valuations shall be made of the System's assets and liabilities. The contribution rate shall be established based on the results of these valuations.

Actuarial Assumptions

(Adopted for use with the June 30, 2006, Valuation)

Investment Return

It is assumed that investments of the System will return, on average, a yield of 8% per annum compound, net of system expenses (investment and administrative).

Salary and Payroll Increases

Salaries are assumed to increase each year at the rate of 5%. Longevity adjustments are made for those with less than 15 years of service, as follows:

<u>Service</u>	<u>Longevity Adjustment</u>	<u>Total Increase</u>
0	5.25%	10.25%
1	4.25	9.25
2	2.75	7.75
3	2.75	7.75
4	2.75	7.75
5	2.50	7.50
6	2.25	7.25
7	2.00	7.00
8	1.75	6.75
9	1.50	6.50
10	1.25	6.25
11	1.00	6.00
12	0.75	5.75
13	0.50	5.50
14	0.25	5.25
15 & Over	0.00	5.00

Total covered payroll of the entire membership is assumed to increase 5.0% per year in the future.

Mortality Rates

Mortality Rates for non-disabled retirees are based on the 1994 Group Annuity Mortality Table with male ages set back three years and female ages set back three years. Mortality for active members are based on the following percentages of retiree mortality:

Male	70%
Female	65%

Illustrative rates per 1,000 members at various ages are as follows:

Service Retired Members, Beneficiaries and Survivors

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.430	0.262
30	0.727	0.302
40	0.891	0.551
50	1.899	1.112
60	5.581	2.919
70	18.034	10.764
80	45.171	28.366
90	115.671	84.023
100	268.815	219.655
110	441.935	424.846

Disability Retirees, Male and Female

<u>Age</u>	<u>Rate</u>
40	24.075
50	26.175
60	31.500
70	44.625
80	76.650
90	173.276
100	507.128

Withdrawal Rates

Termination of membership prior to eligibility for retirement from all causes other than death, disability or retirement is assumed in accordance with the following illustrative rates per 1,000 members:

Years of Service	Rate
0	190.0
1	105.0
2	85.0
3	73.0
4	62.0
5	52.0
10	23.5
15	12.0
20	5.0

It is assumed that 70% of those leaving after earning 5 years of service leave their contributions in the fund and receive a vested benefit.

Disability Rates

Retirement for disability prior to age 60 is assumed in accordance with the following illustrative rates per 1,000 eligible members:

Age	Rates
30	0.090
35	0.130
40	0.280
45	0.505
50	0.780
55	1.535

Retirement Rates

Retirement is assumed in accordance with the following rates per 1,000 eligible members:

Age	Service							
	<25 ²	25	26	27	28	29	30	31+
<50 ¹		40	40	40	40	40	350	300
50 ¹		40	40	40	40	40	490	300
51 ¹		40	40	40	40	490	350	300
52 ¹		40	40	40	490	240	350	300
53 ¹		40	40	490	240	240	350	300
54 ¹		40	490	240	240	240	350	300
55	25	450	200	200	200	200	350	300
56	25	200	200	200	200	200	350	300
57	25	200	200	200	200	200	350	300
58	25	200	200	200	200	200	350	300
59	25	200	200	200	200	200	350	300
60	200	200	200	200	200	200	350	300
61	200	200	200	200	200	200	350	300
62	200	200	200	200	200	200	350	300
63	200	200	200	200	200	200	350	300
64	200	200	200	200	200	200	350	300
65	300	300	300	300	300	300	350	300
66	200	200	200	200	200	200	350	300
67	200	200	200	200	200	200	350	300
68	200	200	200	200	200	200	350	300
69	200	200	200	200	200	200	350	300
70+	1000	1000	1000	1000	1000	1000	1000	1000

¹ Rates for members with less than 30 years of service and not eligible for the Rule of 80 are applicable from 1999-2008.

² Rates for members who are younger than 60 are for early (age reduced) retirement.

Rates for participants whose service is less than 25 who meet the Rule of 80 are 45 percent in the first year of eligibility and 20 percent thereafter.

Interest on Member Accounts

6% per year

Service Purchases

Incremental service credits attributable to the purchase of service are not valued until all payments for the purchase of service have been made.

Rehire Liability

Inactive member liability is carried until a series of five one-year breaks in service.

Cost of Living Adjustments

The cost of living adjustment assumed in the valuation is 3.25% per year, and applies to service retirements and beneficiary annuities. The COLA does not apply to the benefits for in-service death payable to spouses (where the spouse is over age 60), and does not apply to the spouse with children pre-retirement death benefit, the dependent children pre-retirement death benefit, nor the dependent parent death benefit. The total lifetime COLA cannot exceed 80% of the original benefit.

Asset Valuation Method

The Actuarial Value of Assets is based on a five-year average of adjusted market value returns. The actuarial value for a year is computed by taking the actuarial value at June 30 of the prior year, subtracting all expenses (including benefit payments), and adding contributions and expected investment return at 8% of actuarial value of assets. The difference between the actual returns at market value for the year and expected returns is determined. Twenty percent (20%) of that difference is added to the actuarial value along with corresponding amounts from each of the prior four years. The Actuarial Value of Assets was reset to market value at June 30, 2003.

Provisions for Expenses

There is no specific provision for expenses. The implicit assumption is that administrative expenses are paid from investment income in excess of 8% per annum.

Beneficiaries

The percentage of males and females that are assumed to be married or to have eligible dependent beneficiaries varies by age and sex. Beneficiaries are assumed to be of the opposite sex from the member. Female beneficiaries are assumed to be 3 years younger than the member, and male beneficiaries are assumed to be 3 years older than the member.

Terminations

Thirty percent (30%) of all active members who terminate for reasons other than death, disability or retirement are assumed to take of refund of their member account balance. The other seventy percent (70%) are expected to elect a termination benefit deferred to age 60. The same approach is used to value vested, inactive members.

APPENDIX F
SUMMARY OF BENEFIT PROVISIONS OF
PSRS

Member Contributions

Half the total PSRS contribution rate. The current total PSRS contribution rate is 24% of pay and may increase 1% each year.

Normal (Unreduced) Retirement

ELIGIBILITY

Attainment of age 60 with at least five years of Creditable Service, or
Completion of 30 years of Creditable Service at any age, or
Age plus Creditable Service is at least 80.

BENEFIT

2.5% of Final Average Salary for each year of Membership Service. Members retiring before July 1, 2008 with at least 31 years of service will receive a benefit based on 2.55%. A year of Prior Service is the equivalent of 0.6 year of Membership Service.

FINAL AVERAGE SALARY

Average monthly salary over the Member's three highest consecutive years of service.

MEMBERSHIP SERVICE

Service while a participating member of PSRS. Service is measured each year in relation to full contract salary for that year.

PRIOR SERVICE

Service in a covered position prior to July 1, 1946.

CREDITABLE SERVICE

Membership service plus any service rendered prior to PSRS inception.

NORMAL FORM OF BENEFIT

Single Life Annuity

Additional options available include joint and survivor (50%, 75%, or 100%) and term certain (60 or 120 months) and life thereafter.

Early (Age Reduced) Retirement

ELIGIBILITY

Attainment of age 55 and under age 60 with at least five years of creditable service.

BENEFIT

Normal retirement benefit accrued to the date of early retirement, actuarially reduced from age 60.

Special Normal Retirement – Under Modified Formula

ELIGIBILITY

Retirement on or before July 1, 2008 at an age under 55 and with at least 25 years of creditable service but not eligible for the Rule of 80.

BENEFIT

Based on a percentage of final average salary per year of creditable service. Percentages are as follows:

<u>Years of Service</u>	<u>Benefit Percentage</u>
25-25.9	2.20%
26-26.9	2.25
27-27.9	2.30
28-28.9	2.35
29-29.9	2.40

POST-RETIREMENT DEATH BENEFIT

Regardless of the form of benefit selected, a lump sum benefit of \$5,000 is paid at the death of the retiree.

COLA Adjustments

In any year in which the Board determines that the CPI has increased, the Board may provide for annual increases in the current benefit of up to 5%. For any member retiring on or after July 1, 2001 such adjustments commence in the second January after commencement of benefits. The total of such increases may not exceed 80% of the original benefit for any member.

Disability Benefits

DEFINITION OF DISABILITY

Incapacitation for performance of gainful employment after completion of five years of creditable service and before age 60.

BENEFIT

Lifetime benefit equal to 90% of accrued normal retirement benefit. This benefit level is subject to a minimum of 50% salary in the last full year of membership but not greater than the member's accrued normal retirement benefit assuming continuous employment to age 60 at current pay. COLA adjustments similar to those provided retirees are provided on this benefit.

FORM OF BENEFIT

If eligible, surviving designated spouse or dependent child or parent may elect a monthly survivor benefit.

Vesting

ELIGIBILITY

Accrual of five years of creditable service.

BENEFIT

Accrued normal retirement benefit payable at earliest retirement age based on service at date of termination. Benefit is based on formula in effect at commencement of benefit.

Death / Survivor Benefits

REFUND

Refund of accumulated member contributions with interest

DEPENDENT BASED SURVIVOR BENEFITS

In lieu of the refund, survivors of a member with at least 2 years of service at death may elect the following survivor benefit package:

1. Spouse who was married to the deceased member for at least three years and with no dependent children – up to \$860 / month payable after spouse age 60 (immediately if spouse is disabled) and prior to remarriage.
2. Spouse with dependent children
 - a. Up to \$860 per month payable to spouse with at least one dependent child under age 18.
 - b. Up to an additional \$430 per month payable for each child under age 18. Benefits continue to the spouse after the child reaches age 18, up to age 24, if the child is a full time student.
 - c. Family maximum - \$2,160 per month.
3. If no surviving spouse, each eligible child receives up to \$720 per month payable as in 2.b. above, subject to a family maximum of \$2,160.
4. If no surviving spouse or children, a benefit of up to \$720 is payable to a dependent parent over age 65, subject to a maximum of \$1,440.

No COLA adjustments apply to this benefit.

RETIREMENT BASED SURVIVOR BENEFITS

In lieu of the benefits described above, if the member has at least 5 years of membership service at date of death, the designated spouse may receive a survivor benefit based on 100% J & S equivalent of the benefit accrued to date of death. The benefit may commence:

1. immediately if member is eligible to retire at date of death, or
2. at a future retirement date of the deceased member.

The benefit may be reduced for early commencement if the deceased member would not have been eligible for unreduced retirement at that date based on service to date of death.

COLA adjustments similar to those provided retirees are provided on these benefits.