

Public School Retirement System of Missouri

Actuarial Valuation
as of June 30, 2011





October 19, 2011

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

Dear Members of the Board:

Pursuant to the engagement letter dated October 27, 2008, between PricewaterhouseCoopers LLP ("PwC") and the Public School Retirement System of Missouri ("PSRS"), we have completed the June 30, 2011 PSRS valuation, based upon the data supplied by PSRS and the benefit provisions currently defined by law.

This valuation provides data on the funding status of PSRS. This valuation is based on the provisions of PSRS in effect as of June 30, 2011, 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 accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and actuarial cost methods used in this valuation have been approved by the Board and are summarized in Appendix E.

This report is intended solely for the use and benefit of PSRS and the Board, and not for reliance by any other person, or for any other purpose. This report was not intended or written to be used, and it cannot be used, for the purpose of avoiding U.S. federal, state or local tax penalties. This includes penalties that may apply if the transaction that is the subject of this document is found to lack economic substance or fails to satisfy any other similar rule of law.

The undersigned actuaries are members of the Society of Actuaries and the American Academy of Actuaries, are Enrolled Actuaries, and meet the "General Qualification Standards of Public Statement of Actuarial Opinion in the United States" relating to pension plans. To the best of our knowledge, the individuals involved in this engagement have no relationship that may impair or appear to impair the objectivity of our work.

Respectfully submitted,

PricewaterhouseCoopers LLP

A handwritten signature in black ink that reads "Sheldon A. Gamzon".

Sheldon Gamzon, FSA, EA, MAAA
Principal

A handwritten signature in black ink that reads "Brandon A. Robertson".

Brandon Robertson, ASA, EA, MAAA
Director

TABLE OF CONTENTS

Page	
	<i>Summary of the Valuation</i>
1	Purposes of the Actuarial Valuation
1	Report Highlights
3	Membership Characteristics
5	Actuarial Assumptions and Methods
5	Experience During FY 2011
6	PSRS Benefits
6	Asset Information
6	Funding Status
7	GASB Disclosure
7	Funding Process
	<i>Appendix A Membership Data</i>
8	Table 1 – Number, Average Age-Service-Salary, and Total Payroll of Active Members
9	Table 2 – Employee Distribution by Age and Years of Service
10	Table 3 – Salary Distribution, Employees in Active Service
11	Table 4 – Salary Increase Rates by Service Group
12	Table 5 – History of System’s Growth, Active and Inactive Membership
13	Table 6 – Pensions in Force on June 30, 2011 by Type and Monthly Amount
14	Table 7 – Pensions in Force on June 30, 2011 by Type and Age
15	Table 8 – Cost of Living Increases to Retired Members
16	Table 9 – Analysis of Retired Membership by Type of Benefit
17	Table 10 – History of System’s Growth, Service Retired
18	Table 11 – History of System’s Growth, Disability Retired
	<i>Appendix B Asset Information</i>
19	Table 12 – Market Value of Assets, Balance Sheet
20	Table 13 – Statement of Revenue and Expenses, Market Value Reconciliation
21	Table 14 – Growth of Cash Flow
22	Table 15 – Development of the Actuarial Value of Assets
23	Table 16 – History of System’s Reserve Funds
	<i>Appendix C Actuarial Determinations</i>
24	Table 17 – Ten Year Historical Summary
25	Table 18 – Determination of Normal Cost
26	Table 19 – Determination of the Unfunded Actuarial Accrued Liability
27	Table 20 – GASB 25 Exhibits
28	Table 21 – Unfunded Actuarial Accrued Liability and Required Contribution Rate
29	Table 22 – Analysis of Actuarial Gains/Losses
	<i>Appendix D Additional Membership Data</i>
30	Table 23 – Schedule of Active Member Valuation Data
31	Table 24 – Solvency Test
32	Table 25 – Schedule of Retirees and Beneficiaries Added and Removed
33	Table 26 – Schedule of Retirees by Type and Average New Retiree Statistics
34	<i>Appendix E Actuarial Assumptions and Methods</i>
42	<i>Appendix F Summary of Benefit Provisions of PSRS</i>

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, 2011.

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 within 30 years, and if different, the contribution for the fiscal year ending June 30, 2013, 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 along with comparable values from the prior valuation report:

	<u>June 30, 2010</u>	<u>June 30, 2011</u>
	<u>(\$ in Millions)</u>	
Summary of Results		
(1) Present Value of Future Benefits for:		
(a) Active Members	\$ 25,986.0	\$ 21,720.1
(b) Retired Members	20,532.0	20,023.7
(c) Inactive Members	<u>476.7</u>	<u>447.9</u>
(d) Total	\$ 46,994.7	\$ 42,191.7
(2) Present Value of Future Normal Costs	<u>9,761.1</u>	<u>7,808.3</u>
(3) Actuarial Accrued Liability: (1) – (2)	\$ 37,233.6	\$ 34,383.4
(4) Actuarial Value of Assets	<u>28,931.3</u>	<u>29,387.5</u>
(5) Unfunded Actuarial Accrued Liability: (3) – (4)	\$ 8,302.3	\$ 4,995.9
(6) Normal Cost Rate	21.97%	19.16%
(7) Unfunded Actuarial Accrued Liability Rate	<u>9.37%</u>	<u>6.94%</u>
(8) Benchmark Contribution Rate for Following Fiscal Year	31.34%	26.10%
(9) Current Contribution Rate, Member + Employer	28.00%	29.00%
(10) Recommended Contribution Rate for Fiscal Year End 2012 and 2013	29.00%	29.00%

Highlights of Report	<u>June 30, 2010</u>	<u>June 30, 2011</u>
(1) Actuarial Accrued Liability Funding Ratio:		
(a) Actuarial Value of Assets (millions)	\$ 28,931.3	\$ 29,387.5
(b) Actuarial Accrued Liability (millions)	37,233.6	34,383.4
(c) Funding Ratio: (a) / (b)	77.7%	85.5%
(2) Active Members:		
(a) Number:		
Male	17,776	17,541
Female	<u>61,480</u>	<u>60,167</u>
Total	79,256	77,708
(b) Compensation for Fiscal Year (millions):		
Male	\$ 1,108.5	\$ 1,080.1
Female	<u>3,385.4</u>	<u>3,258.9</u>
Total	\$ 4,493.9	\$ 4,339.0
(c) Average Age:		
Male	42.1	42.1
Female	42.4	42.4
Total	42.3	42.3
(d) Average Service:		
Male	11.2	11.3
Female	11.3	11.5
Total	11.3	11.5
(e) Average Compensation for Fiscal Year:		
Male	\$ 62,356	\$ 61,578
Female	\$ 55,065	\$ 54,163
Total	\$ 56,701	\$ 55,837
(f) Average Amount of Assets per Active Member (based on actuarial value):	\$ 82,303	\$ 114,754
(3) Retired Members and Beneficiaries:		
(a) Number Service Retired:		
Life Annuities	21,934	22,974
Options	<u>19,595</u>	<u>20,805</u>
Total	41,529	43,779
(b) Number Disability Retired:	722	763
(c) Number Survivors, Beneficiaries:	<u>3,381</u>	<u>3,523</u>
(d) Total Persons Receiving Benefits:	45,632	48,065
(e) Average Monthly Pension Being Paid at Valuation Date for New Service Retired, Including Options:	\$ 2,944	\$ 3,084
(f) Average Amount of Assets per Service Retired (based on actuarial value):	\$ 471,331	\$ 435,265
(g) Average Amount of Assets per New Service Retired (based on actuarial value):	\$ 532,182	\$ 503,469

MEMBERSHIP CHARACTERISTICS

Active and Inactive Membership

A total of 92,099 active and inactive members of PSRS are included in the 2011 actuarial valuation.

Active members	77,708
Inactive members ¹	<u>14,391</u>
Total active and inactive members	92,099

Between the 2010 and 2011 actuarial valuations, the number of active employees decreased by 1,548 or 2.0% and the average annual salary decreased by 1.5% to \$55,837.

Summary of Changes in Membership

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Active and Inactive Members 6/30/2010	19,803	70,612	90,415
Additions:			
New Memberships	1,070	3,325	4,395
Terminated Members Reinstated	<u>31</u>	<u>36</u>	<u>67</u>
Total Additions	1,101	3,361	4,462
Decreases:			
Service Retirements	646	2,466	3,112
Disability Retirements	16	58	74
Withdrawals	477	1,407	1,884
Deaths	41	64	105
Other Terminations	76	335	411
Reciprocity	<u>0</u>	<u>3</u>	<u>3</u>
Total Decreases	1,256	4,333	5,589
Adjustments ²	<u>(2)</u>	<u>2</u>	<u>0</u>
Active and Inactive Members 6/30/2011	19,646	69,642	89,288
Additional Members Valued ¹	<u>595</u>	<u>2,216</u>	<u>2,811</u>
Total Valuation Membership at 6/30/2011 (includes Inactive Members)	20,241	71,858	92,099

¹ Gender was corrected for one member.

² Includes members who had terminated employment but were yet to be cashed out as of the valuation date.

Benefit Recipients

On June 30, 2011, PSRS was paying benefits to 47,914 retired members, beneficiaries and survivors. In addition, 151 members had benefits that were on hold due to returning to work. The headcount for current benefit recipients for valuation purposes increased 5.3% from 45,632 on June 30, 2010, to 48,065 on June 30, 2011. The June 30, 2011 headcount consists of 43,779 service retirees, 763 disability retirees, and 3,523 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 2010-2011 year were as follows:

	<u>Service Retirements</u>	<u>Disability Retirements</u>	<u>Beneficiaries</u>	<u>Total</u>
Retired Members 6/30/2010	41,464	721	3,282	45,467
Additions:				
New Retirees/Beneficiaries	3,122	75	339	3,536
Benefits Taken Off Hold	<u>23</u>	<u>1</u>	<u>8</u>	<u>32</u>
Total Additions	3,145	76	347	3,568
Decreases:				
Died During Year	871	32	150	1,053
Benefits Placed On Hold	<u>20</u>	<u>4</u>	<u>44</u>	<u>68</u>
Total Decreases	<u>891</u>	<u>36</u>	<u>194</u>	<u>1,121</u>
Retired Members 6/30/2011	43,718	761	3,435	47,914
Additional Members Valued ¹	<u>61</u>	<u>2</u>	<u>88</u>	<u>151</u>
Total Valuation Membership at 6/30/2011	19,444	763	3,523	48,065

¹ Includes retired members with benefits on hold that earned additional retirement benefits.

As of June 30, 2011, the average monthly benefit payable to service retirees was \$3,178 compared to \$3,169 as of June 30, 2010. These averages and the amounts shown in the tables that follow include all post-retirement benefit increases.

ACTUARIAL ASSUMPTIONS AND METHODS

Since the prior valuation, an experience study was completed in order to review, and modify as needed, the actuarial assumptions and methods. The assumptions and methods used in the June 30, 2011 valuation are described in Appendix E.

EXPERIENCE DURING FY 2011

Overall, the system experienced a net actuarial gain of \$3,707.8 million.

The total net actuarial gain for the year ending June 30, 2011, is shown below and is broken out further in Table 22:

	<u>(\$ in millions)</u>
1. Actuarial (Gain)/Loss on Assets (at actuarial value)	\$1,156.3
2. Actuarial (Gain)/Loss on Liabilities Due to Legislative Changes	0.0
3. Actuarial (Gain)/Loss on Liabilities Due to Assumption Changes	(4,580.6)
4. Actuarial (Gain)/Loss on Unfunded Liabilities Due to Reinstated and Purchased Service	15.7
5. Actuarial (Gain)/Loss on Liabilities Due to 2.00% Actual COLA in 2012 vs. 3.25% expected	(369.0)
6. Actuarial (Gain)/Loss on Liabilities Due to Salary, Demographic, and Other Experience	<u>69.8</u>
7. Total Actuarial (Gain)/Loss (Sum 1-6)	\$ (3,707.8)

For the plan year ending June 30, 2011, the funds experienced an asset loss of \$1,156.3 million; based on actuarial value of assets. The use of the five year smoothing method to determine the actuarial value of assets recognizes 20% of the total gain or loss for each of the preceding five years.

There is a 2.00% COLA increase scheduled for January 1, 2012. This produced a gain of \$369.0 million. The reinstatement of forfeited service generated loss of approximately \$10.2 million. The purchase of service other than reinstated service generated a loss of approximately \$5.5 million.

The actuarial gains shown above were partially offset by a loss on contributions since the total payroll for Fiscal 2011 was less than expected and the percent of payroll contributed was less than the benchmark rate.

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 2011 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 \$23.8 billion at the end of FY 2010 to \$28.1 billion at the end of FY 2011. The actuarial value of assets increased from \$28.9 billion at the end of FY 2010 to \$29.4 billion at the end of FY 2011. Actuarial value of assets exceeds the market value by \$1.3 billion.

Based on the actuarial value, the assets of the fund returned about 4.0% which compares to the market value return of 21.8%. The difference is due to the recognition of investment losses from prior years 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, which 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 benefit liability measure that ties most closely to the funding strategy is the Actuarial Accrued Liability (“AAL”).

Using the actuarial (smoothed) value of assets, the PSRS actuarial accrued liability funding ratio decreased from 79.9% at June 30, 2009 to 77.7% at June 30, 2010, and then increased to 85.5% as of June 30, 2011.

Using the market value of assets, the PSRS actuarial accrued liability funding ratio increased from 59.9% at June 30, 2009 to 63.8% at June 30, 2010, and further increased to 81.7% as of June 30, 2011.

GASB DISCLOSURE

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

This information is presented in draft form for review by the System's auditor. Please let us know if there are any changes so that we may maintain consistency with the System's financial statements.

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.

In the 2007 session of the Legislature, it was determined that the unfunded actuarial accrued liabilities associated with benefit changes shall be amortized over a twenty-year period. This provision has had no impact on the contribution requirements of the Plan.

During Fiscal 2011, the Board adopted a funding policy, which identified a number of goals and actions that Board would take to stabilize the contribution rate and improve the funded position of the plan. The funding policy is presented in Appendix E.

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				
	2007	2008	2009	2010	2011
Number	17,477	17,653	17,883	17,776	17,541
Average Age	42.2	42.1	42.0	42.1	42.1
Average Years of Service	11.3	11.1	11.0	11.2	11.3
Average Annual Salary	\$ 56,842	\$ 59,016	\$ 61,452	\$ 62,356	\$ 61,578
Total Payroll (000's)	\$ 993,422	\$ 1,041,812	\$ 1,098,939	\$ 1,108,444	\$ 1,080,134

Female

Item	Actuarial Valuation as of June 30				
	2007	2008	2009	2010	2011
Number	59,644	60,783	61,452	61,480	60,167
Average Age	42.3	42.3	42.2	42.4	42.4
Average Years of Service	11.1	11.0	11.1	11.3	11.5
Average Annual Salary	\$ 50,085	\$ 52,113	\$ 54,359	\$ 55,065	\$ 54,163
Total Payroll (000's)	\$ 2,987,276	\$ 3,167,605	\$ 3,340,442	\$ 3,385,421	\$ 3,258,842

Total

Item	Actuarial Valuation as of June 30				
	2007	2008	2009	2010	2011
Number	77,121	78,436	79,335	79,256	77,708
Average Age	42.3	42.2	42.2	42.3	42.3
Average Years of Service	11.1	11.1	11.1	11.3	11.5
Average Annual Salary	\$ 51,616	\$ 53,667	\$ 55,957	\$ 56,701	\$ 55,837
Total Payroll (000's)	\$ 3,980,698	\$ 4,209,417	\$ 4,439,381	\$ 4,493,865	\$ 4,338,976

Table 2

**Employee Distribution by Age and Years of Service
June 30, 2011**

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over	
Under 25	1,220	0	0	0	0	0	0	1,220
25-29	7,318	2,498	0	0	0	0	0	9,816
30-34	3,070	6,815	1,935	1	0	0	0	11,821
35-39	1,985	2,745	5,130	1,274	0	0	0	11,134
40-44	1,685	2,106	2,785	3,751	872	3	0	11,202
45-49	1,209	1,715	1,904	1,711	2,410	930	10	9,889
50-54	869	1,322	1,689	1,662	1,447	2,023	717	9,729
55-59	654	917	1,366	1,512	1,437	804	914	7,604
60-64	355	581	747	905	759	469	406	4,222
65 & Over	110	171	192	197	153	120	128	1,071
Total	18,475	18,870	15,748	11,013	7,078	4,349	2,175	77,708

Table 3
Salary Distribution
Employees in Active Service
on June 30, 2011

Annual Salary	Number	Percent
Under \$20,000	1,825	2.3%
\$20,000-24,499	950	1.2%
\$25,000-29,999	1,015	1.3%
\$30,000-34,999	2,840	3.7%
\$35,000-39,999	7,548	9.7%
\$40,000-44,999	10,799	13.9%
\$45,000-49,999	11,427	14.6%
\$50,000-54,999	9,665	12.4%
\$55,000-59,999	7,611	9.8%
\$60,000-64,999	5,936	7.6%
\$65,000-69,999	4,509	5.8%
\$70,000-74,999	3,404	4.4%
\$75,000-79,999	2,665	3.4%
\$80,000-84,999	2,090	2.7%
\$85,000-89,999	1,853	2.4%
\$90,000-94,999	1,076	1.4%
\$95,000-99,999	715	0.9%
\$100,000 & Over	<u>1,780</u>	<u>2.4%</u>
Total	77,708	100.0%

Table 4

**Salary Increase Rates by Service Group
Employees in Both 2010 and 2011 Actuarial Valuations**

Service as of June 30, 2011	Number	Average Percent Increase In Salary	
		Expected	Actual
Under 5	12,430	8.2%	1.7%
5-9	17,879	7.0%	0.9%
10-14	15,234	5.8%	-0.1%
15-19	10,836	5.0%	-0.3%
20 & Over	<u>13,530</u>	<u>5.0%</u>	<u>-0.3%</u>
Total	69,909	6.3%	0.3%

Table 5**History of System's Growth
Active and Inactive Membership**

<u>June 30</u>	<u>Active Females</u>	<u>Active Males</u>	<u>Inactives</u>	<u>Total</u>
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
2007	59,644	17,477	11,607	88,728
2008	60,783	17,653	11,580	90,016
2009	61,452	17,883	11,995	91,330
2010	61,480	17,776	11,616	90,872
2011	60,167	17,541	14,391	92,099

Table 6

**Pensions in Force on June 30, 2011
by Type and Monthly Amount**

Monthly Amount	Service	Disability	Beneficiary	Survivor	Total
Less than \$500	1,280	4	118	236	1,638
\$500 - 999	2,447	39	365	505	3,356
\$1,000 - 1,499	2,635	138	442	3	3,218
\$1,500 - 1,999	3,360	229	379	0	3,968
\$2,000 - 2,499	4,729	168	334	0	5,231
\$2,500 - 2,999	5,864	110	325	0	6,299
\$3,000 - 3,499	6,043	53	256	0	6,352
\$3,500 - 3,999	5,366	14	201	0	5,581
\$4,000 - 4,499	4,274	5	141	0	4,420
\$4,500 - 4,999	3,016	1	79	0	3,096
\$5,000 - 5,499	1,950	0	63	0	2,013
\$5,500 - 5,999	1,083	2	38	0	1,123
\$6,000 & Over	<u>1,732</u>	<u>0</u>	<u>38</u>	<u>0</u>	<u>1,770</u>
Total	43,779	763	2,779	744	48,065

Table 7

**Pensions in Force on June 30, 2011
by Type and Age**

Age	Service	Disability	Beneficiary	Survivor	Total
Under 55	960	187	205	344	1,696
55-59	5,283	157	127	40	5,607
60-64	11,511	164	276	80	12,031
65-69	9,733	97	332	69	10,231
70-74	6,134	51	367	57	6,609
75-79	4,113	35	458	54	4,660
80-84	3,016	39	460	51	3,566
85-89	1,700	18	346	22	2,086
90 & Over	<u>1,329</u>	<u>15</u>	<u>208</u>	<u>27</u>	<u>1,579</u>
Total	43,779	763	2,779	744	48,065

Table 8

**Cost of Living Increases to Retired Members
June 30, 2011**

Retirement In	Effective Date of First COLA	First COLA Percentage Increase	Total Increases Through January 2011	January 2012 Increase	Total Increases Through January 2012	Number of Retired Members at 06/30/2011¹
1986 & Earlier	Various	Various	80.00%	0.00%	80.00%	2,983
1987	Jan. 1991	4.00%	75.39%	2.00%	78.90%	556
1988	Jan. 1992	4.70%	68.64%	2.00%	72.01%	696
1989	Jan. 1993	3.10%	61.05%	2.00%	64.27%	623
1990	Jan. 1994	3.00%	56.23%	2.00%	59.35%	758
1991	Jan. 1995	2.50%	51.68%	2.00%	54.71%	827
1992	Jan. 1996	3.00%	47.97%	2.00%	50.93%	967
1993	Jan. 1997	2.80%	43.66%	2.00%	46.53%	842
1994	Jan. 1998	2.30%	39.73%	2.00%	42.52%	957
1995	Jan. 1999	1.70%	36.59%	2.00%	39.32%	1,164
1996	Jan. 2000	2.00%	34.30%	2.00%	36.99%	1,608
1997	Jan. 2001	3.70%	31.68%	2.00%	34.31%	1,561
1998	Jan. 2002	3.30%	26.98%	2.00%	29.52%	1,797
1999-2001 ²	Jan. 2003	1.10%	22.93%	2.00%	25.39%	2,234
2000-2002 ³	Jan. 2004	2.10%	21.59%	2.00%	24.02%	6,436
2003	Jan. 2005	3.30%	19.08%	2.00%	21.46%	2,309
2004	Jan. 2006	2.50%	15.29%	2.00%	17.60%	2,582
2005	Jan. 2007	4.30%	12.48%	2.00%	14.73%	2,401
2006	Jan. 2008	2.70%	7.84%	2.00%	10.00%	2,336
2007	Jan. 2009	5.00%	5.00%	2.00%	7.10%	2,491
2008	Jan. 2010	0.00%	0.00%	2.00%	2.00%	2,695
2009	Jan. 2011	0.00%	0.00%	2.00%	2.00%	2,257
2010	Jan. 2012	2.00%		2.00%	2.00%	3,176
2011	Jan. 2013					<u>286</u>
Total						44,542

¹ Includes Service Retirees and Disabled Retirees as of June 30, 2011.

² Includes all retirements in 1999 and, because of legislation in 2000 and 2001, all persons retiring between July 1, 2000 and December 31, 2000, and between July 1, 2001 and December 31, 2001.

³ Includes all retirements in 2002 and, because of legislation in 2000 and 2001, all persons retiring between January 1, 2000 and June 30, 2000, and between January 1, 2001 and June 30, 2001.

Table 9

**Analysis of Retired Membership by Type of Benefit
(Dollar Amounts in Millions)
June 30, 2011**

Type of Benefit	Number	Annual Benefit	Total Liability
Service Retirees			
Options 1 & 10 (Life Only)	22,974	\$835.0	\$8,613.6
Options 2 & 21 (100% J&S with Pop-Up)	11,760	463.6	6,025.4
Option 3 & 31 (75% J&S with Pop-Up)	2,382	102.8	1,313.9
Option 4 & 41 (50% J&S with Pop-Up)	4,348	180.7	2,170.8
Option 5 (10 Years Certain & Life)	1,154	43.6	512.8
Option 6 (5 Years Certain & Life)	267	10.3	120.4
Option 20 (100% J&S)	659	24.8	228.2
Option 30 (75% J&S)	20	1.1	11.8
Option 40 (50% J&S)	<u>215</u>	<u>8.1</u>	<u>58.6</u>
Total	43,779	\$1,670.0	\$19,055.5
Disability Retirees	763	\$18.6	\$177.2
Beneficiaries	2,779	\$78.4	\$679.4
Survivors	744	\$4.8	\$40.2

Note: Excludes retirees that have returned to teaching and tax sheltered annuity amounts.

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
1987	11,684	3,810	15,494	\$10,099,084	\$651.81	\$1,123/Mo.
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	20,075	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
2007	24,534	11,723	36,257	105,963,764	2,922.57	2,995
2008	25,921	12,124	38,045	114,530,602	3,010.40	2,945
2009	27,469	12,490	39,959	126,498,482	3,165.71	3,140
2010	28,749	12,780	41,529	131,593,123	3,168.70	2,944
2011	30,637	13,142	43,779	139,163,479	3,178.77	3,084

Notes: Excludes retirees that have returned to teaching and tax sheltered annuity amounts. Headcounts and pension amounts shown are based on data as of June 30, 2011.

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
1987	413	143	556	\$323,649	\$582.10	\$884/Mo.
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
2007	539	144	683	1,259,273	1,843.74	1,704
2008	556	135	691	1,308,987	1,894.34	2,069
2009	565	133	698	1,388,870	1,989.78	2,147
2010	583	139	722	1,446,371	2,003.28	2,103
2011	617	146	763	1,548,152	2,029.03	2,336

Notes: Excludes retirees that have returned to teaching and tax sheltered annuity amounts. Headcounts and pension amounts shown are based on data as of June 30, 2011.

APPENDIX B
ASSET INFORMATION

Table 12

**Market Value of Assets
Balance Sheet**

	June 30, 2010	June 30, 2011
Assets:		
Cash	\$ 66,485,831	\$ 71,609,074
Contribution Receivable	165,734,636	158,732,569
Accrued Interest and Dividends	200,889,746	64,224,855
Investments	23,542,430,166	29,863,543,284
Trades Pending	2,207,873,715	1,927,700,680
Other Assets	1,867,902	825,840
Capital Assets	11,675,148	14,765,165
Due from PEERS	<u>676,848</u>	<u>506,898</u>
Total	\$ 26,197,633,992	\$ 32,101,908,365
Liabilities:		
Accounts Payable	\$ 13,872,161	\$ 16,164,933
Employer-Pay Liability	774,277	880,287
Interest Payable	153,321	1,105,026
Trades Pending	2,367,710,681	3,956,370,759
Net OPEB Obligation	327,660	453,808
Other Liabilities	59,054,420	26,752,053
Due to PEERS	<u>0</u>	<u>0</u>
Total	\$ 2,441,892,520	\$ 4,001,726,866
Net Assets	\$ 23,755,741,472	\$ 28,100,181,499

Table 13

**Statement of Revenue and Expenses
Market Value Reconciliation for Fiscal Year Ended June 30, 2011**

Operating Revenues	Amount
Contributions:	
Employers	\$ 594,732,137
Members	<u>638,356,963</u>
Total Contributions	1,233,089,100
Net Investment Income:	
Interest	204,957,337
Dividends	168,003,701
Net Income from Security Lending Activities	<u>37,898,365</u>
Total Investment Income	410,859,403
Investment Return	
Net Capital Appreciation / (Depreciation)	4,669,441,873
Investment Expenses	<u>(61,782,811)</u>
Total Investment Return	4,607,659,062
Other Income	930,065
Total Operating Revenues	6,252,537,630
Operating Expenses	
Benefit Payments	1,845,619,830
Refunds to Members	53,638,650
Administrative Expenses	8,835,641
Other Expenses	<u>3,482</u>
Total Operating Expenses	1,908,097,603
Excess of Revenues over Expenses	\$ 4,344,440,027
Fund Balance, June 30, 2010	<u>23,755,741,472</u>
Fund Balance, June 30, 2011	\$ 28,100,181,499

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			
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
2007	986,380	(1,424,573)	(7,113)	(1,431,686)	(445,306)	3,980,698	36.0
2008	1,094,052	(1,549,275)	(8,074)	(1,557,349)	(463,297)	4,209,417	37.0
2009	1,163,037	(1,698,016)	(10,135)	(1,708,151)	(545,114)	4,439,381	38.5
2010	1,230,959	(1,777,864)	(10,430)	(1,788,294)	(557,335)	4,493,865	39.8
2011	1,233,089	(1,899,259)	(8,839)	(1,908,098)	(675,009)	4,338,976	44.0

Table 15

Development of the Actuarial Value of Assets

1. Actuarial Value of Assets June 30, 2010		\$ 28,931,330,978
2. Activity for FY 2011		
a. Contributions	\$ 1,233,089,100	
b. Benefits and Expenses	<u>(1,908,097,603)</u>	
c. Net Cash Flow	(675,008,503)	
3. Expected Returns	2,287,506,138	
4. Assets Before Allocation of G/L (1+2+3)		30,543,826,613
5. Actual Returns for 2011	5,018,518,465	
6. Excess Returns for 2011 (5-3)	2,713,012,327	
7. Recognized Excess Returns		
2011	546,202,465	
2010	87,847,872	
2009	(1,515,933,789)	
2008	(706,215,201)	
2007	<u>431,756,469</u>	
Total		<u>(1,156,342,184)</u>
8. Actuarial Value of Assets June 30, 2011		\$ 29,387,486,429

Table 16

History of System's Reserve Funds

June 30	Accumulated Employee Contributions¹	General Reserves Contributed by Employers	Total Funds²
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
2007	5,787,676,526	21,261,327,912	27,049,004,438
2008	6,155,590,056	22,595,651,138	28,751,241,194
2009	6,299,066,807	22,527,007,920	28,826,074,727
2010	6,506,802,623	22,424,528,355	28,931,330,978
2011	6,571,916,083	22,815,570,346	29,387,486,429

¹ Accumulated employee contributions for active and inactive members only.

² Prior to 1994, book value. After 1993, five-year smoothing of actual returns less expected returns on the prior year actuarial value of assets.

APPENDIX C
ACTUARIAL DETERMINATIONS

Table 17

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

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Active Members	73,673	74,347	73,797	73,850	75,540	77,121	78,436	79,335	79,256	77,708
Retired Members	30,865	32,249	34,230	36,321	38,110	39,828	41,738	43,902	45,632	48,065
Actuarial Assets	\$22,236,105	\$20,047,982	\$21,501,572	\$23,049,441	\$24,801,644	\$27,049,004	\$28,751,241	\$28,826,075	\$28,931,331	\$29,387,486
UAAL	\$1,097,832	\$4,671,468	\$4,723,688	\$4,832,072	\$5,235,486	\$5,347,718	\$5,739,211	\$7,234,046	\$8,302,271	\$4,995,944
Benefit Payments and Refunds	\$(892,214)	\$(958,924)	\$(1,060,758)	\$(1,186,924)	\$(1,297,233)	\$(1,424,573)	\$(1,549,275)	\$(1,698,016)	\$(1,777,864)	\$(1,899,259)
Accumulated Members' Contributions	\$4,354,507	\$4,687,227	\$4,954,080	\$5,119,055	\$5,453,906	\$5,787,667	\$6,155,590	\$6,299,067	\$6,506,803	\$6,571,916
APV of Retirees' Benefits	\$10,589,546	\$11,387,543	\$12,625,925	\$13,976,901	\$15,371,279	\$17,059,613	\$18,548,552	\$19,745,129	\$20,532,011	\$20,023,701

Table 18

**Determination of Normal Cost
for the 2011 - 2012 Plan Year**

	Dollar (mid-year)¹	Rate²
Active Members		
Retirement Benefits	\$ 731,648,626	16.86%
Termination Benefits	75,456,278	1.74%
Death Benefits	13,398,725	0.31%
Disability Benefits	<u>10,697,459</u>	<u>0.25%</u>
Total Normal Cost	\$ 831,201,088	19.16%
Estimated Employee Payroll	\$4,338,975,912	
Employee Contribution Rate	14.50%	
Estimated Employee Contributions	<u>629,151,507</u>	
Employer Normal Cost (mid-year) (Total Normal Cost less Employee Contributions)	\$ 202,049,581	

¹ Normal cost amounts include a 2.00% load for anticipated losses on service purchases.

² Normal cost rate determined mid-year using an expected payroll of \$4,338,975,912.

Table 19

**Determination of the Unfunded Actuarial Accrued Liability
June 30, 2011**

Actives Members:

Service Retirement	\$ 13,962,874,566
Death Benefits	133,560,868
Disability Benefits	73,773,534
Termination Benefits	(273,931,192)
State Members	15,587,062
Inactives	<u>447,864,738</u>
Total for Active and Inactives Members	\$ 14,359,729,576

Pay Status Members:

Service Retirees	\$ 19,055,450,501
Disability Retirees	177,188,558
Beneficiaries and Survivors	719,525,190
Tax-sheltered Annuitants	618,704
Death Benefit	<u>70,918,046</u>
Total for Pay Status Members	\$ 20,023,700,999

Total Actuarial Accrued Liability \$ 34,383,430,575

Actuarial Value of Assets 29,387,486,429

Total Unfunded Actuarial Accrued Liability \$ 4,995,944,146

Table 20

GASB 25 Exhibits

Schedule of Funding Progress
(\$ in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/2002	\$ 22,236,105	\$23,333,937	\$1,097,832	95.3%	\$3,213,461	34.2%
6/30/2003	20,047,982	24,719,450	4,671,468	81.1%	3,373,058	138.5%
6/30/2004	21,501,572	26,225,259	4,723,687	82.0%	3,408,230	138.6%
6/30/2005	23,049,441	27,881,513	4,832,072	82.7%	3,540,649	136.5%
6/30/2006	24,801,644	30,037,130	5,235,486	82.6%	3,775,752	138.7%
6/30/2007	27,049,004	32,396,723	5,347,719	83.5%	3,980,698	134.3%
6/30/2008	28,751,241	34,490,452	5,739,211	83.4%	4,209,417	136.3%
6/30/2009	28,826,075	36,060,121	7,234,046	79.9%	4,439,381	162.9%
6/30/2010	28,931,331	37,233,602	8,302,271	77.7%	4,493,865	184.7%
6/30/2011	29,387,486	34,383,430	4,995,944	85.5%	4,338,976	115.1%

Schedule of Employer Contributions

Fiscal Year Ending	Annual Required Contribution	Employer Contribution	Percentage Contributed
6/30/2002	340,000,556	340,000,556	100.0%
6/30/2003	376,659,713	355,979,027	94.5%
6/30/2004	475,400,520	359,762,556	75.7%
6/30/2005	593,328,374	389,415,997	65.6%
6/30/2006	608,134,319	429,578,911	70.6%
6/30/2007	644,969,214	472,216,630	73.2%
6/30/2008	656,347,298	521,241,501	79.4%
6/30/2009	669,643,988	563,454,487	84.1%
6/30/2010	737,381,187	594,326,122	80.6%
6/30/2011 ¹	684,366,766	594,732,137	86.9%

¹ Annual Required Contribution determined by applying the benchmark contribution rate (30.11%), net of the employee contribution rate (14.00%), to the estimated payroll (4,248,086,693) on which contributions were made.

Notes in Trend Data

Information:

Valuation Date
Actuarial Cost Method
Amortization Method

Asset Valuation Method

Data

6/30/2011
Entry Age Normal
Level Percent for 30 Years, Open Prior to June 30, 2011,
Closed Beginning June 30, 2011
5-Year Smoothing of Actual Returns
Less Expected Returns on Actuarial Value,
Marked to Market as of June 30, 2003

Actuarial

Investment rate of return
Projected salary increases
Cost-of-living adjustments

8.00%
4.00% - 10.00%
2.00%

Table 21

**Unfunded Actuarial Accrued Liability
June 30, 2011**

	<u>Amount</u>
(1) Present Value of Future Benefits for:	
Active Members	\$ 21,703,753,808
State Members	16,348,681
Service Retirees	19,055,450,501
Disability Retirees	177,188,558
Tax-sheltered Annuitants	618,704
Beneficiaries and Survivors	719,525,190
Death Benefits	70,918,046
Inactive Members	<u>447,864,738</u>
Total	\$ 42,191,668,226
(2) Present Value of Future Normal Costs	<u>7,808,237,651</u>
(3) Actuarial Accrued Liability ((1)-(2))	\$ 34,383,430,575
(4) Actuarial Value of Assets	<u>29,387,486,429</u>
(5) Unfunded Actuarial Accrued Liability ((3)-(4))	\$ 4,995,944,146

**Required Contribution Rate and Amortization of Unfunded Liability
for the Fiscal Year Ending 2013**

	<u>Percentage of Payroll</u>
(1) Normal Cost Rate ¹	19.16%
(2) Unfunded Actuarial Accrued Liability Rate	<u>6.94%</u>
(3) Benchmark Contribution Rate - Normal Cost Plus a Rate to fund UAAL over 30 Years ² [(1)+(2)]	26.10%
(4) Total Contribution Rate, Member + Employer, for Fiscal Year 2012	29.00%
(5) Recommended Total Contribution Rate, Member + Employer, for Fiscal Year 2013	29.00%

¹ Normal cost rate was determined at mid-year using an expected payroll of \$4,338,975,912.

² Contribution rate to amortize the UAAL was determined using expected payroll of \$4,338,975,912. The benchmark contribution shown here has been adjusted for the 20-year amortization of unfunded liabilities due to changes in the benefit provisions, as amended in the 2007 legislative session. This resulted in an increase in UAAL of \$32,833,000 as of June 30, 2007.

Table 22

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

	<u>Amount</u>
1. Unfunded Actuarial Liability as of June 30, 2010	\$ 8,302,271
2. Normal Cost for 2011 Plan Year (Mid-year)	987,255
3. Contribution Expected to be Received During Year (Benchmark Rate)	(1,408,377)
4. Interest to Year End @ 8.00% on 1., 2., and 3.	<u>647,337</u>
5. Expected Unfunded Actuarial Liability as of June 30, 2011	\$ 8,528,486
6. Contribution Shortfall	175,288
7. Actuarial (Gain)/Loss During the Year	
a. From Investment	1,156,342
b. From Actuarial Liabilities Due to Legislative Changes	0
c. From Actuarial Liabilities Due to Assumption Changes	(4,580,597)
d. From Unfunded Actuarial Liabilities Due to Reinstated Service	10,203
e. From Unfunded Actuarial Liabilities Due to Other Purchased Service	5,521
f. From Actuarial Liabilities Due to Actual vs. Expected COLA ¹	(368,953)
g. From Actuarial Liabilities Due to Actual vs. Expected Salary Changes	(808,463)
h. From Actuarial Liabilities Due to Demographic Experience ²	815,448
i. From Actuarial Liabilities Due to Other ³	<u>62,669</u>
j. Total	(3,707,830)
8. Actual Unfunded Actuarial Liability as of June 30, 2011	\$ 4,995,944

¹ For COLA granted January 1, 2012 (2.00%).

² Includes Actuarial Liabilities for new members and data corrections.

³ Includes administrative and other expenses.

APPENDIX D
ADDITIONAL MEMBERSHIP DATA

Table 23**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
6/30/1992	57,711	\$ 1,809,458	\$ 31,354	1.9%	42.2	12.2
6/30/1993	58,493	1,867,948	31,935	1.9%	42.3	12.3
6/30/1994	60,595	1,996,908	32,955	3.2%	42.5	12.3
6/30/1995	62,854	2,137,134	34,002	3.2%	42.5	12.3
6/30/1996	64,624	2,283,994	35,343	3.9%	42.6	12.3
6/30/1997	66,456	2,427,429	36,527	3.3%	42.5	12.1
6/30/1998	68,709	2,577,594	37,514	2.7%	42.5	11.9
6/30/1999	70,092	2,690,353	38,383	2.3%	42.5	11.7
6/30/2000	71,706	2,836,062	39,581	3.1%	42.5	11.6
6/30/2001	72,688	2,982,051	41,025	3.7%	42.4	11.3
6/30/2002	73,673	3,213,461	43,618	6.3%	42.3	11.2
6/30/2003	74,347	3,373,058	45,369	4.0%	42.4	11.3
6/30/2004	73,797	3,408,230	46,184	1.8%	42.5	11.4
6/30/2005	73,850	3,540,649	47,944	3.8%	42.5	11.4
6/30/2006	75,540	3,775,752	49,983	4.3%	42.4	11.2
6/30/2007	77,121	3,980,698	51,616	3.3%	42.3	11.1
6/30/2008	78,436	4,209,417	53,667	4.0%	42.2	11.1
6/30/2009	79,335	4,439,381	55,957	4.3%	42.2	11.1
6/30/2010	79,256	4,493,865	56,701	1.3%	42.3	11.3
6/30/2011	77,708	4,338,976	55,837	-1.5%	42.3	11.5

Table 24

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

Actuarial Valuation Date	Actuarial Accrued Liability				Percentage of Actuarial Liabilities Covered by Net Assets for:		
	Member Contributions (1)	Current Retirees & Beneficiaries (2)	Active & Inactive Members Employer Financed Portion (3)	Net Assets Available for Benefits	(1)	(2)	(3)
6/30/1996	3,098,448	4,265,851	4,867,447	11,510,625	100.0%	100.0%	85.2%
6/30/1997	3,312,090	4,553,628	4,583,460	13,099,219	100.0%	100.0%	114.2%
6/30/1998	3,541,459	5,523,768	5,405,822	14,979,358	100.0%	100.0%	109.4%
6/30/1999	3,765,854	6,602,915	5,305,210	17,209,870	100.0%	100.0%	129.0%
6/30/2000	3,976,059	7,801,845	6,501,209	19,437,223	100.0%	100.0%	117.8%
6/30/2001	4,129,191	9,504,921	7,648,091	21,146,294	100.0%	100.0%	98.2%
6/30/2002	4,354,507	10,589,546	8,389,885	22,236,105	100.0%	100.0%	86.9%
6/30/2003	4,687,227	11,387,543	8,644,680	20,047,982	100.0%	100.0%	46.0%
6/30/2004	4,954,080	12,625,925	8,645,254	21,501,572	100.0%	100.0%	45.4%
6/30/2005	5,119,055	13,976,901	8,785,557	23,049,441	100.0%	100.0%	45.0%
6/30/2006	5,453,906	15,371,279	9,211,945	24,801,644	100.0%	100.0%	43.2%
6/30/2007	5,787,667	17,059,613	9,549,443	27,049,004	100.0%	100.0%	44.0%
6/30/2008	6,174,718	18,548,552	9,767,182	28,751,241	100.0%	100.0%	41.2%
6/30/2009	6,299,067	19,745,129	10,015,925	28,826,075	100.0%	100.0%	27.8%
6/30/2010	6,506,803	20,532,011	10,194,788	28,931,331	100.0%	100.0%	18.6%
6/30/2011	6,571,916	20,023,701	7,787,813	29,387,486	100.0%	100.0%	35.8%

Table 25

Schedule of Retirees and Beneficiaries Added to
and Removed From Valuation Head Count

Actuarial Valuation Date	Service Retirees			Disability Retirees			Beneficiaries		
	Added	Removed	End of Year	Added	Removed	End of Year	Added	Removed	End of Year
6/30/1992	1,119	599	17,903	33	43	545	N/A	N/A	N/A
6/30/1993	1,269	554	18,618	45	30	560	110	63	1,259
6/30/1994	1,021	676	18,963	35	39	556	130	63	1,326
6/30/1995	1,141	680	19,424	34	32	558	152	66	1,412
6/30/1996	1,344	693	20,075	44	35	567	150	72	1,490
6/30/1997	1,797	732	21,140	30	31	566	170	74	1,586
6/30/1998	1,757	728	22,169	27	32	561	187	82	1,691
6/30/1999	1,965	748	23,386	41	33	569	182	82	1,791
6/30/2000	2,136	763	24,759	43	32	580	187	79	1,899
6/30/2001	2,639	759	26,639	45	29	596	189	89	1,999
6/30/2002	2,262	773	28,128	42	41	597	248	107	2,140
6/30/2003	2,078	783	29,423	37	30	604	197	115	2,222
6/30/2004	2,458	829	31,052	54	28	630	482	156	2,548
6/30/2005	2,639	690	33,001	59	25	664	236	128	2,656
6/30/2006	2,441	811	34,631	41	34	671	279	127	2,808
6/30/2007	2,396	770	36,257	41	29	683	241	161	2,888
6/30/2008	2,596	808	38,045	45	37	691	289	175	3,002
6/30/2009	2,711	797	39,959	39	32	698	382	139	3,245
6/30/2010	2,443	873	41,529	49	25	722	297	161	3,381
6/30/2011	3,141	891	43,779	77	36	763	336	194	3,523

Table 26

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

Actuarial Valuation Date	Service Retirees		Disability		Beneficiaries and Survivors	
	Number	Benefits	Number	Benefits	Number	Benefits
6/30/1997	21,140	377,172	566	7,520	1,586	15,874
6/30/1998	22,169	454,512	561	8,349	1,691	20,048
6/30/1999	23,386	542,071	569	9,338	1,793	29,625
6/30/2000	24,759	623,827	580	10,088	1,899	30,843
6/30/2001	26,639	737,218	596	11,154	1,999	36,769
6/30/2002	28,128	737,218	597	11,590	2,140	40,743
6/30/2003	29,423	876,196	604	11,853	2,222	43,449
6/30/2004	31,052	962,086	630	12,747	2,548	48,846
6/30/2005	33,001	1,067,743	664	13,823	2,656	54,186
6/30/2006	34,631	1,159,522	671	14,369	2,808	58,240
6/30/2007	36,257	1,271,565	683	15,111	2,888	63,065
6/30/2008	38,045	1,374,367	691	15,708	3,002	66,325
6/30/2009	39,959	1,517,982	698	16,666	3,245	74,047
6/30/2010	41,529	1,579,117	722	17,356	3,381	78,627
6/30/2011	43,779	1,669,962	763	18,578	3,523	83,160

Average New Retiree Statistics

Actuarial Valuation Date	Regular Retirement Benefit	% Increase From Previous Year	Age	Creditable Service
6/30/1997	2,005.00	(8)	56.4	N/A
6/30/1998	2,300.19	15	57.1	N/A
6/30/1999	2,488.36	8	57.0	N/A
6/30/2000	2,683.72	8	57.0	25.6
6/30/2001	2,775.17	3	56.7	26.5
6/30/2002	2,834.93	2	56.6	26.5
6/30/2003	2,845.98	0	56.8	26.0
6/30/2004	2,973.46	4	56.8	26.2
6/30/2005	2,919.10	(2)	58.0	25.7
6/30/2006	2,945.79	1	58.3	25.4
6/30/2007	2,994.71	2	58.4	25.4
6/30/2008	2,944.63	(2)	58.8	24.5
6/30/2009	3,140.34	7	59.0	25.2
6/30/2010	2,943.84	(6)	59.5	23.4
6/30/2011	3,083.84	5	59.6	23.8

APPENDIX E
ACTUARIAL ASSUMPTIONS AND METHODS

STATEMENT OF FUNDING POLICY

In order to establish long-term, consistent methods in the funding of the System, the Board of Trustees has adopted a 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. The benchmark contribution shown has been adjusted for the 20 year amortization of unfunded liabilities due to changes in benefit provisions as amended in the 2007 legislative session. However, this amendment had no impact on the final contribution rates.
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 by smoothing investments gains and losses 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.

It is the Board's intent to maintain a contribution rate of 29.00% until the unfunded actuarial accrued liability is fully amortized.

The actuarial assumptions and methods used in this valuation were selected and approved by the Board. In general, the methods provide orderly funding of all benefits being accrued, as well as unfunded past-service benefit liabilities, over a period of thirty years. However, the smoothing method employed in determining the Actuarial Value of Assets may accelerate or lengthen the effective funding period, depending on whether gains or losses are experienced. In our opinion, the actuarial methods are reasonable for the purposes of this valuation. A summary of the actuarial assumptions and methods is provided on the following pages.

ACTUARIAL ASSUMPTIONS
(ADOPTED FOR USE WITH THE JUNE 30, 2011 VALUATION)

Inflation

Inflation is assumed to be 2.50% per annum.

Payroll Growth

Total payroll growth is assumed to be 3.50% per annum, consisting of 2.50% inflation, 0.50% additional inflation due to the inclusion of health care costs in pension earnings, and 0.50% of real wage growth.

Individual Salary Growth

Salaries are assumed to increase each year with general inflation of 2.50%, plus health care inflation of 0.50% (since health care costs are included in pension earnings), plus a longevity adjustment that accounts for merit, promotion, and other real wage growth.

<u>Service</u>	<u>General Inflation</u>	<u>Health Care Inflation</u>	<u>Longevity</u>	<u>Total Increase</u>
0	2.50%	0.50%	7.00%	10.00%
1-4	2.50%	0.50%	4.00%	7.00%
5	2.50%	0.50%	3.80%	6.80%
6	2.50%	0.50%	3.60%	6.60%
7	2.50%	0.50%	3.40%	6.40%
8	2.50%	0.50%	3.20%	6.20%
9	2.50%	0.50%	3.00%	6.00%
10	2.50%	0.50%	2.80%	5.80%
11	2.50%	0.50%	2.60%	5.60%
12	2.50%	0.50%	2.40%	5.40%
13	2.50%	0.50%	2.20%	5.20%
14	2.50%	0.50%	2.00%	5.00%
15	2.50%	0.50%	2.00%	5.00%
16	2.50%	0.50%	1.90%	4.90%
17	2.50%	0.50%	1.90%	4.90%
18	2.50%	0.50%	1.80%	4.80%
19	2.50%	0.50%	1.80%	4.80%
20	2.50%	0.50%	1.70%	4.70%
21	2.50%	0.50%	1.70%	4.70%
22	2.50%	0.50%	1.60%	4.60%
23	2.50%	0.50%	1.60%	4.60%
24	2.50%	0.50%	1.50%	4.50%
25	2.50%	0.50%	1.50%	4.50%
26	2.50%	0.50%	1.40%	4.40%
27	2.50%	0.50%	1.30%	4.30%
28	2.50%	0.50%	1.20%	4.20%
29	2.50%	0.50%	1.10%	4.10%
30+	2.50%	0.50%	1.00%	4.00%

Investment Return

It is assumed that investments of the System will return a yield of 8.00% per annum, net of system expenses (investment and administrative).

Cost of Living Adjustments

The cost of living adjustment assumed in the valuation is 2.00% per year, based on the current policy of the Board to grant a 2.00% COLA whenever annual inflation, as measured by the CPI-U index for a fiscal year, increases between 0.00% and 5.00%.

The COLA 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, or the dependent parent death benefit. The total lifetime COLA cannot exceed 80% of the original benefit. Future COLAs for current benefit recipients reflect actual cumulative adjustments granted at the time of valuation.

Mortality Rates

Mortality Rates for active members are based on the RP 2000 Mortality Table, set back one year for males and six years for females, then projected to 2016 using Scale AA. Illustrative rates per 1,000 members at various ages are as follows:

Active Member Mortality

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.244	0.131
30	0.380	0.171
40	0.898	0.342
50	1.492	0.782
60	4.593	2.237
70	15.549	7.955

Mortality Rates for non-disabled retirees and beneficiaries are based on the RP 2000 Mortality Table, set back one year for both males and females, then projected to 2016 using Scale AA. Illustrative rates per 1,000 members at various ages are as follows:

Service Retiree, Beneficiary and Survivor Mortality

<u>Age</u>	<u>Male</u>	<u>Female</u>
40	0.898	0.509
50	1.492	1.178
60	4.593	4.099
70	15.549	13.715
80	49.322	37.094
90	156.083	113.562
100	324.963	227.712
110	400.000	351.544

Mortality Rates for disabled retirees are based on the RP 2000 Disabled Retiree Mortality Table. Illustrative rates per 1,000 members at various ages are as follows:

Disability Retiree Mortality

<u>Age</u>	<u>Male</u>	<u>Female</u>
40	22.571	7.450
50	28.975	11.535
60	42.042	21.839
70	62.583	37.635
80	109.372	72.312
90	183.408	140.049
100	344.556	237.467
110	400.000	364.617

Retirement Rates

Prior to July 1, 2014, retirement is assumed in accordance with the following rates per 1,000 eligible members:

Active Member Retirement Prior to July 1, 2013

<u>Age</u>	<u>Service</u>											
	<u><=20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>>=31</u>
<50	0	0	0	0	0	50	50	50	50	50	200	400
50	0	0	0	0	0	50	50	50	50	50	200	400
51	0	0	0	0	0	50	50	50	50	200	200	400
52	0	0	0	0	0	50	50	50	200	200	200	400
53	0	0	0	0	0	50	50	300	200	200	200	400
54	0	0	0	0	0	50	300	200	200	200	200	400
55	50	50	50	50	50	400	200	200	200	200	200	400
56	50	50	50	50	400	200	200	200	200	200	200	400
57	50	50	50	400	200	200	200	200	200	200	200	400
58	50	50	400	200	200	200	200	200	200	200	200	400
59	50	400	200	200	200	200	200	200	200	200	200	400
60	150	150	150	150	150	200	200	200	200	200	200	400
61	150	150	150	150	150	200	200	200	200	200	200	400
62	150	150	150	150	150	200	200	200	200	200	200	400
63	150	150	150	150	150	200	200	200	200	200	200	400
64	150	150	150	150	150	200	200	200	200	200	200	400
65	250	250	250	250	250	400	400	400	400	400	400	400
66	250	250	250	250	250	300	300	300	300	300	300	400
67	250	250	250	250	250	300	300	300	300	300	300	400
68	250	250	250	250	250	300	300	300	300	300	300	400
69	250	250	250	250	250	300	300	300	300	300	300	400
>70	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

After June 30, 2013, retirement is assumed in accordance with the following rates per 1,000 eligible members:

Active Member Retirement After to June 30, 2014

Age	Service											
	<=20	21	22	23	24	25	26	27	28	29	30	>=31
<50	0	0	0	0	0	0	0	0	0	0	450	450
50	0	0	0	0	0	0	0	0	0	0	450	450
51	0	0	0	0	0	0	0	0	0	200	450	450
52	0	0	0	0	0	0	0	0	200	200	450	450
53	0	0	0	0	0	0	0	300	200	200	450	450
54	0	0	0	0	0	0	300	200	200	200	450	450
55	50	50	50	50	50	400	200	200	200	200	450	450
56	50	50	50	50	400	200	200	200	200	200	450	450
57	50	50	50	400	200	200	200	200	200	200	450	450
58	50	50	400	200	200	200	200	200	200	200	450	450
59	50	400	200	200	200	200	200	200	200	200	450	450
60	150	150	150	150	150	200	200	200	200	200	450	450
61	150	150	150	150	150	200	200	200	200	200	450	450
62	150	150	150	150	150	200	200	200	200	200	450	450
63	150	150	150	150	150	200	200	200	200	200	450	450
64	150	150	150	150	150	200	200	200	200	200	450	450
65	250	250	250	250	250	400	400	400	400	400	450	450
66	250	250	250	250	250	300	300	300	300	300	450	450
67	250	250	250	250	250	300	300	300	300	300	450	450
68	250	250	250	250	250	300	300	300	300	300	450	450
69	250	250	250	250	250	300	300	300	300	300	450	450
>70	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

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:

Active Member Withdrawal

Years of Service	Rate
0	190.0
1	105.0
2	85.0
3	73.0
4	62.0
5	52.0
10	23.0
15	12.0
20	5.0
25+	0.0

Refund of Contributions

It is assumed that 88% of those leaving after earning 5 years of service leave their contributions in the fund and receive a vested benefit. The remaining 12% are assumed to take an immediate refund of their contributions, thus forfeiting their vested retirement benefit. If the present value of the deferred benefit is less than the member account balance, the member's account balance is valued.

It is assumed that 100% of those leaving prior to earning 5 years of service will take an immediate refund of their contributions.

Disability Rates

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

Active Member Disability	
Age	Rates
25	0.017
30	0.080
35	0.160
40	0.320
45	0.610
50	0.960
55	1.310

Interest on Member Accounts

2.00% per annum.

Service Purchases

A 2.00% load is added to the Normal Cost to account for anticipated losses resulting from service purchases and reinstatements.

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 8.00% per annum.

Dependent Assumptions

80% of male members and 70% of female members are assumed to be married.

Beneficiaries are assumed to be of the opposite sex from the member.

Male and Female members are assumed to be 4 years older than their beneficiary.

Joint and Survivor Election

To recognize the subsidy present in the joint and survivor reduction factors calculated without provision for cost-of-living adjustments, the active member costs resulting from all decrements except disability and refunds were loaded by 0.4%.

Survivor Benefits

All active members under age 50 are assumed to have 2 dependent children. Each child is assumed to receive payments of \$860 per month for 18 years if the member is under age 32, and grading down to 0 years if the member is age 50.

Return of Unused Member Account Balance

Under the single life annuity payment option, any unused balance of contributions and interest in the member account balance at the time of death is paid in a lump sum to a designated beneficiary. This benefit is approximated with a 5-year certain benefit.

Missing/Incomplete Data

Members without a date of birth provided are assumed to be 30 years old. Pensionable pay for members who did not earn service during the past year is assumed to be the greater of the current year's salary, the previous year's salary and \$10,000. Pensionable pay for other active members is assumed to be the greater of annualized pay and \$10,000.

Assumption Changes Since the Prior Valuation

An experience study was performed since the prior valuation. As a result of the experience study, the following assumptions have been changed:

- Inflation
- Payroll Growth
- Individual Salary Growth
- Cost of Living Adjustments ¹
- Mortality
- Retirement
- Refund of Contributions
- Disability
- Service Purchases
- Dependent Assumptions
- Survivor Benefits

¹ Assumption was changed to be consistent with the Board's policy concerning COLAs.

ACTUARIAL METHODS
(ADOPTED FOR USE WITH THE JUNE 30, 2011 VALUATION)

Actuarial Cost Method

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

Asset Valuation Method

The Actuarial Value of Assets is a smoothed value of assets. 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.

Amortization of Unfunded Actuarial Accrued Liability

Gains and losses occurring from census experience different than assumed and assumption changes are amortized over a 30-year period as a level percent of payroll. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 30-year period. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

Increases or decrease in the Actuarial Accrued Liability caused by changes in the benefit provisions are amortized over 20 years, as determined in the 2007 session of the Legislature.

Method Changes Since the Prior Valuation

The method for amortizing the unfunded Actuarial Accrued Liability was changed from an a rolling 30-year method to the closed 30-year method described above.

APPENDIX F
SUMMARY OF BENEFIT PROVISIONS OF PSRS

MEMBER CONTRIBUTIONS

Members pay half the total PSRS contribution rate. For fiscal year 2011, the current total PSRS contribution rate is 29.00% of pay.

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, 2013 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. A minimum benefit applies for Members with at least 15 years of Creditable Service and varies from \$600/month at 15 years of Creditable Service to \$1,200/month at 30 years of Creditable Service. Benefits are also subject to maximum equal to 100% of the Member's final average salary at the time of retirement.

Compensation

All regular earnings as an employee of a PSRS-covered employer. Compensation or salary includes, but is not limited to, payments for extra duties, overtime payments, career ladder payments, payments for overloads (e.g. extra hours taught) and additional courses, and employer-paid medical, dental and vision insurance premiums for the member.

Final Average Salary

Average monthly salary over the Member's three highest consecutive years of service. Effective August 28, 2007, the maximum increase in the annual compensation for the final average salary shall not exceed ten percent.

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%), term certain (60 or 120 months) and life thereafter, and partial lump sum option (PLSO).

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, 2013 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

The Board has established a policy of providing a 2.00% COLA for years in which the CPI increases between 0.00% and 5.00%. If the CPI increase is greater than 5.00%, the Board will provide a COLA of 5.00%. If the CPI decreases, no COLA is provided.

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.