Employees' Retirement System of Rhode Island

ACTUARIAL VALUATION

June 30, 2004

GABRIEL, ROEDER, SMITH & COMPANY

GABRIEL, ROEDER, SMITH & COMPANY
Consultants & Actuaries

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September 14, 2005

Retirement Board
40 Fountain Street, First Floor
Providence, RI 02903-1854

Dear Members of the Board:

Subject: Actuarial Valuation of ERSRI as of June 30, 2004

This is the June 30, 2004 actuarial valuation of the Employees' Retirement System of Rhode Island (ERSRI), which covers state employees and teachers. This report describes the current actuarial condition of ERSRI, determines recommended employer contribution rates, and analyzes changes in these contribution rates. Valuations are prepared annually, as of June 30, the last day of the ERSRI plan year. Not covered in this report are the Municipal Employees' Retirement System, the State Police Retirement Benefits Trust, the Judicial Retirement Benefits Trust, and the Teachers Survivors Plan, even though assets for ERSRI and these other programs are commingled for investment purposes.

Under Rhode Island General Laws, the employer contribution rates for state employees and for teachers are certified annually by the State of Rhode Island Retirement Board. These rates are determined actuarially, based on the plan provisions in effect as of the valuation date, the actuarial assumptions adopted by the Board, and the methodology set forth in the statutes. The Board's current policy is that the contribution rates determined by a given actuarial valuation become effective two years after the valuation date. For example, the rates determined by this June 30, 2004 actuarial valuation will be applicable for the year beginning July 1, 2006 and ending June 30, 2007.

Financing objectives

The actuarial cost method and the amortization periods are set by statute. Contribution rates and liabilities are computed using the Entry Age actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. The normal cost rate is determined as a percent of pay. The employer normal cost is the difference between this and the member contribution rate. The amortization rate is determined as a level percent of pay. It is the amount required to amortize the unfunded actuarial accrued liability over a closed period (30 years as of June 30, 1999). The amortization rate is adjusted for the two-year deferral in contribution rates. Separate employer contribution rates are determined for state employees and for teachers.

Benefit provisions

The benefit provisions for new members hired in the future and for current members who have less than 10 years of contributory service as of June 30, 2005 were modified since the prior valuation by the adoption of Article 7, SUB A.

The following is a summary of the changes:

- New retirement eligibility requirements:
    - Unreduced retirement available at age 59 & 29 years of service
    - Unreduced retirement available at age 65 and 10 years of service
    - Actuarially reduced retirement available at age 55 and 20 years of service
- New formula:
    - New benefit multipliers producing 75% accrual after 38 years of service
- New COLA amount:
    - CPI-related, maximum of 3.00%
    - COLA for disabled retirees unchanged (3.00% fixed)
- New COLA start date:
    - Third anniversary of retirement
    - No change for disabled retirees
- Elimination of SRA-Plus option (Social Security Option)

The benefit provisions for all other members, including current active members who have at least ten years of contributory service as of June 30, 2005, inactive vested members who have more than ten years of contributory service, and all current retirees were unchanged.

The benefit provisions are summarized in Appendix B, and a more-detailed description of the changes can be found in the Discussion section of the report on page 7.

Because of the benefit changes, the June 30, 2003 valuation results were restated. This report shows the original June 30, 2003 results as well as the restated results under Article 7, SUB A for comparison purposes.

Even though the new provisions of Article 7, SUB A were not in effect as of the valuation date, they were recognized in the valuation because they will be in effect by the time the contribution rate determined by this valuation is effective (i.e., by July 1, 2006).

Progress toward realization of financing objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. For the state employees, the funded ratio decreased to 59.6% compared to the original 2003 funded ratio of 65.5% and a restated (SUB A) funded ratio of 64.5%. For teachers the ratio is 59.3% (decreased from 64.9% last year and 64.2% as restated under SUB A).

The change in the benefit provisions decreased the contribution rates for both state employees and teachers. The state employees' rate decreased from 16.96% to 14.84% and the teachers' rate decreased from 20.01% to 16.47%.

For the June 30, 2004 valuation, the employer contribution rate increased for state employees, from the restated 14.84% to 18.40%, and for teachers, from the restated 16.47% to 19.64%. The change was principally due to the recognition of deferred asset losses from prior valuations.

Another factor affecting the employer contribution rate for state employees was the decrease in covered payroll. When covered payroll does not grow at the assumed 3.75%, the amount of dollars available to spread the amortization payment of the unfunded liability over decreases. Therefore the amortization payment as a percentage of pay increases.

An analysis of the changes in the employer contribution rates appears on Table 10.

Assumptions and methods

All assumptions and methods are described in Appendix A and are unchanged from the last valuation, except that the application of the retirement rates were modified, where necessary, due to the new retirement eligibility provisions under Article 7, SUB A. The actuarial assumptions were approved by the Board on August 11, 2004 for teachers and September 8, 2004 for state employees. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ERSRI.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations are intended to provide information for rational decision making.

The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in GASB 25.

Data

The System's staff supplied data for retired, active and inactive members as of June 30, 2004. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data. The System's staff also supplied asset data as of June 30, 2004.

Certification

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of Rhode Island state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The undersigned are independent actuaries. Both are Members of the Society of Actuaries and Members of the American Academy of Actuaries, they both meet the Qualifications Standards of the American Academy of Actuaries, and they are experienced in performing valuations for large public retirement systems.

Sincerely,
Gabriel, Roeder, Smith & Company

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Executive Summary (State Employees)

Item	2004	2003 (Sub A)	2003 (Valuation)
Membership			
• Number of:			
- Active members	12,957	13,281	13,281
- Retirees and beneficiaries	9,674	9,398	9,398
- Inactive members	2,158	1,876	1,876
- Total	24,789	24,555	24,555
• Payroll supplied by ERSRI	$ 575,574,300	$ 575,919,807	$ 575,919,807
Contribution rates			
• Member	8.75%	8.75%	8.75%
• Employer	18.40%	14.84%	16.96%
Assets			
• Market value	$2,068,012,733	$1,811,009,064	$1,811,009,064
• Actuarial value	2,202,900,345	2,267,673,016	2,267,673,016
• Return on market value	18.7%	2.6%	2.6%
• Return on actuarial value	0.4%	-0.8%	-0.8%
• Employer contribution	$ 55,699,588	$ 45,141,250	$ 45,141,250
• Ratio of actuarial value to market value	106.5%	125.2%	125.2%
Actuarial Information			
• Employer normal cost %	1.42%	1.37%	3.83%
• Unamortized actuarial accrued liability (UAAL)	$1,491,887,473	$1,249,679,015	$1,194,035,145
• Amortization rate	16.98%	13.47%	13.13%
• Funding period	25 years	26 years	26 years
• GASB funded ratio	59.6%	64.5%	65.5%
Projected employer contribution			
• Fiscal year ending June 30,	2007	2006	2006
• Projected payroll (millions)	$ 652.4	$ 652.4	$ 652.4
• Projected employer contribution (millions)	120.0	96.8	110.6

Executive Summary (Teachers)

Item	2004	2003 (Sub A)	2003 (Valuation)
Membership			
• Number of:			
- Active members	14,556	14,410	14,410
- Retirees and beneficiaries	8,179	7,704	7,704
- Inactive members	1,836	1,404	1,404
- Total	24,571	23,518	23,518
• Payroll supplied by ERSRI	$ 810,064,092	$ 781,718,751	$ 781,718,751
Contribution rates			
• Member	9.50%	9.50%	9.50%
• Employer	19.64%	16.47%	20.01%
• State share	8.02%	6.75%	8.17%
• Local employer share	11.62%	9.72%	11.84%
Assets			
• Market value	$3,131,927,525	$2,729,820,882	$2,729,820,882
• Actuarial value	3,340,527,073	3,427,685,554	3,427,685,554
• Return on market value	18.7%	2.6%	2.6%
• Return on actuarial value	0.4%	-0.8%	-0.8%
• Employer contribution (state & local)	$ 115,715,178	$ 93,747,429	$ 93,747,429
• Ratio of actuarial value to market value	106.7%	125.6%	125.6%
Actuarial Information			
• Employer normal cost %	1.59%	1.54%	5.09%
• Unamortized actuarial accrued liability (UAAL)	$2,293,668,362	$1,913,941,862	$1,857,247,595
• Amortization percentage	18.05%	14.93%	14.92%
• Funding period	25 years	26 years	26 years
• GASB funded ratio	59.3%	64.2%	64.9%
Projected employer contribution			
• Fiscal year ending June 30,	2007	2006	2006
• Projected payroll (millions)	$ 932.7	$ 898.4	$ 898.4
• Projected employer contribution (millions)	183.2	148.0	179.8
• State share (millions)	74.8	60.6	73.4
• Local employer share (millions)	108.4	87.4	106.4

Contribution Rates

The employer contribution rates for ERSRI are determined actuarially. Separate rates are determined for State Employees and for Teachers. The rates determined in this valuation become effective two years after the valuation date, i.e., as of July 1, 2006.

The rate consists of two pieces: the normal cost rate and the amortization rate. The normal cost rate is the Entry Age Normal cost as a percent of pay. The amortization rate is the unfunded actuarial liability amortized over 25 years as a level percent of pay.

For the Teachers, the State of Rhode Island pays 40% of the rate, adjusted so that the State pays the entire amortization charge for the 1990/91 and 1991/92 deferrals, and the town or city employing the teacher pays the balance.

	Local	State	Total
Amortization for FY 91 and 92 deferrals	0.00%	0.27%	0.27%
Normal cost and all other amortizations	11.62%	7.75%	19.37%
Total	11.62%	8.02%	19.64%

Five towns or cities—Burrillville, East Greenwich, Little Compton, New Shoreham, and North Smithfield—did not participate in the 1990 early retirement window for teachers, and an adjusted contribution rate is charged for these:

	Local	State	Total
Amortization for FY 91 and 92 deferrals	0.00%	0.27%	0.27%
Normal cost and all other amortizations	10.96%	7.30%	18.26%
Total	10.96%	7.57%	18.53%

Financial Data and Experience

Assets for ERSRI are held in trust and are commingled with those of several other plans and programs for investment purposes. The State Treasurer is responsible for setting the asset allocation policy and for investing the funds. The ERSRI assets are then allocated by the system's staff among State Employees, Teachers, and the Teachers' Survivor Benefits Plan.

Table 5 shows the net plan assets for ERSRI in total, and it shows the breakdown between State Employees, Teachers and the Teachers' Survivor Benefit Plan. Table 6 shows a reconciliation of the assets for State Employees and Teachers between the previous valuation and this valuation. Table 8 shows the distribution of investments by category—68% of assets are held in equities—and Table 9 shows a historical summary of the return rates. As can be seen, the net market value rate of return was 18.7% for the year ended June 30, 2004, and the return on an actuarial asset value basis was 0.4%.

The System's staff provided all of the financial information used in this report.

Member Data

The ERSRI staff supplied member data as of June 30, 2004. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall. Information provided for active members includes: name, an identification number, sex, a code indicating whether the member was active or inactive, a code indicating employee type (state employee or teacher), date of birth, service, salary, date of last contribution, and accumulated member contributions without interest. For retired members, data includes: name, an identification number, sex, date of birth, date of retirement, amount of benefit, the amount of adjustment after age 62 for anyone electing the Social Security option, a code indicating the option elected and the type of retiree (service retiree, disabled retiree, beneficiary), and if applicable, the joint pensioner's date of birth and sex.

Tables 11A and 11B show the number of members by category (active, inactive, retired, etc.). Table 12 shows a historical summary of active member statistics, and Tables 13A and 13B show the distribution of active members by age and service.

The total payroll shown on the statistical tables is the amount that was supplied by ERSRI. For the cost calculations, the pays were adjusted in accordance with the actuarial assumptions to reflect one year's salary increase.

Benefit Provisions

Appendix B includes a summary of the benefit provisions for ERSRI. There are no ancillary benefits—e.g., cost of living benefits—that are currently provided by a source independent of ERSRI but that might be deemed an ERSRI liability if continued beyond the availability of funding by the current funding source.

The benefit provisions for members hired in the future and for current members who have less than 10 years of contributory service as of June 30, 2005 were modified since the prior valuation by the adoption of Article 7, SUB A.

Retirement Eligibility

Under ERSRI statutes, a state employee or teacher may retire with an unreduced benefit if that member meets one of the following criteria: (a) age 60 or greater with at least ten years of service credit, or (b) any age with at least 28 years of service credit.

Under Substitute A, the eligibility requirements for unreduced retirement are modified. Members in the affected group now need to meet one of the following conditions to retire with an unreduced benefit: (a) age 65 or greater with at least 10 years of service credit or (b) age 59 or greater with at least 29 years of service credit.

In addition, a provision has been added which will allow a member in the affected group to retire with a reduced benefit after attaining age 55 with at least 20 years of service credit. The benefit is calculated in the same manner as the unreduced benefit, but is reduced on an actuarial basis for each year the member's age at retirement is less than 65.

The retirement eligibly conditions for correctional officers, MHRH nurses, and legislators were not changed.

Retirement Benefit Formula

Under ERSRI statutes, when a state employee or teacher retires, the benefit payable is a percentage of the final average compensation of the member. This percentage depends on the member's years of service at retirement.

Substitute A decreased the multipliers used to determine the percentage of final average compensation, as shown on the table below:

Accruals for Each Year of Service		
Service Years	Current	Substitute A
01 – 10	1.70%	1.60%
11 – 20	1.90%	1.80%
21 – 25	3.00%	2.00%
26 – 30	3.00%	2.25%
31 – 34	3.00%	2.50%
35	2.00%	2.50%
36-37	NA	2.50%
38	NA	2.25%
Maximum Percentage	80.00%	75.00%

This formula change applies to all teachers and most state employees, including MHRH nurses, covered by ERSRI. However, legislators and correctional officers would retain their special formulas.

Cost of Living Adjustments (COLAs)

At this time, members who enter payment status receive compounded annual increases in their retirement benefit. The amount of the increase is currently a fixed 3% per year, unrelated to changes in the Consumer Price Index (CPI). The first increase is paid in January of the year in which the member reaches the third anniversary of retirement.

Article 7, SUB A changes the amount of these increases for members in the affected group from a flat 3.00% increase to an increase that depends on the change in the CPI for all Urban Consumers, as published by the Bureau of Labor Statistics (CPI-U). The increase is equal to the year-to-year change in the CPI-U as of the prior September. This increase is limited to 3.00% in any year.

Article 7, SUB A also delays the first COLA increase for affected members until the third anniversary of the member's retirement. COLA increases are given throughout the year, rather than always on January 1. This change results in an additional six-month delay, on average, before the member will receive the first COLA.

Although correctional officers and legislators are unaffected by the formula change and the new retirement eligibility requirements, and although MHRH nurses are unaffected by the retirement eligibility changes, all three groups are subject to the new COLA provisions if they are in the affected group. Members who retire under disability are not affected by the COLA changes, regardless of their service or when they become a member.

These changes do not apply to current retirees or members who have at least 10 years of contributory service as of June 30, 2005. Further, the changes to the COLA do not apply to members who retire in the future with a disability retirement benefit. These members are "grandfathered," and will receive their future COLAs under the current rules.

Elimination of SRA-Plus Option

Members in the affected group will no longer be able to choose the SRA+ option at retirement.

Actuarial Methods and Assumptions

Appendix A includes a summary of the actuarial assumptions and methods used in this valuation. Costs are determined using the Entry Age Normal actuarial cost method. This method was adopted effective June 30, 1999.

The method used to determine the actuarial value of assets is the five-year smoothed market method. This technique is further described in Section III of Appendix A. The development of the actuarial value of assets utilizing this method is shown on Tables 7A and 7B.

All assumptions and methods are described in Appendix A and are unchanged from the last valuation, except that the application of the retirement rates were modified, where necessary, due to the new retirement eligibility provisions under Article 7, SUB A. The actuarial assumptions were approved by the Board on August 11, 2004 for teachers and September 8, 2004 for state employees. We believe the assumptions are internally consistent and are reasonable, based on the actual experience of ERSRI.

GASB 25 and Funding Progress

Accounting requirements for ERSRI are set by Governmental Accounting Standards Board Statement No. 25 (GASB 25). Table 3 shows a historical summary of the funded ratios and other information for ERSRI. Table 4 shows other information needed in connection with disclosure under GASB 25.

GASB 25 requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed. The ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the UAAL. This amortization payment must be computed using a funding period no greater than 30 years. Further, the amortization payment included in the ARC may be computed as a level amount, or it may be computed as an amount that increases with payroll. However, if payments are computed on a level-percent of payroll approach, the payroll growth assumption may not anticipate future membership growth.

For ERSRI, the calculated contribution rates from Tables 1A and 1B are the ARCs for State Employees and Teachers, respectively. The amortization period was established as 30 years as of June 30, 1999, and there are 25 years remaining as of June 30, 2004. The period and amortization method comply with the requirements of GASB 25. The payroll growth rate used in the amortization calculations does not include any allowance for membership growth.

Development of Contribution Rate (State Employees)

		June 30, 2004 (1)	June 30, 2003 (Sub A) (2)	June 30, 2003 (Valuation) (3)
1.	Compensation			
	(a) Supplied by ERSRI	$ 575,574,300	$ 575,919,807	$ 575,919,807
	(b) Adjusted for one-year's pay increase	606,087,585	606,102,182	606,102,182
2.	Actuarial accrued liability	3,694,787,818	3,517,352,031	3,461,708,161
3.	Actuarial value of assets	2,202,900,345	2,267,673,016	2,267,673,016
4.	Unamortized accrued actuarial liability (UAAL) (2 - 3)	1,491,887,473	1,249,679,015	1,194,035,145
5.	Remaining amortization period at valuation date	25	26	26
6.	Contribution effective for fiscal year ending:	June 30, 2007	June 30, 2006	June 30, 2006
7.	Payroll projected for two-year delay	652,396,464	652,412,176	652,412,176
8.	Amortization of UAAL	110,765,306	87,862,159	85,666,560
9.	Normal cost			
	(a) Total normal cost rate	10.17%	10.12%	12.58%
	(b) Employee contribution rate	8.75%	8.75%	8.75%
	(c) Employer normal cost rate (a - b)	1.42%	1.37%	3.83%
10.	Employer contribution rate as percent of payroll			
	(a) Employer normal cost rate	1.42%	1.37%	3.83%
	(b) Amortization payments (8 / 7)	16.98%	13.47%	13.13%
	(c) Total (a + b)	18.40%	14.84%	16.96%
11.	Estimated employer contribution amount (7 * 10(c))	$ 120,040,949	$ 96,817,967	$ 110,649,105

Development of Contribution Rate (Teachers)

		June 30, 2004	June 30, 2003 (Sub A)	June 30, 2003 (Valuation)
		(1)	(2)	(3)
1.	Compensation			
	(a) Supplied by ERSRI	$ 810,064,092	$ 781,718,751	$ 781,718,751
	(b) Adjusted for one-year's pay increase	866,532,598	834,642,391	834,642,391
2.	Actuarial accrued liability	5,634,195,435	5,341,627,416	5,284,933,149
3.	Actuarial value of assets	3,340,527,073	3,427,685,554	3,427,685,554
4.	Unamortized accrued actuarial liability (UAAL) (2 - 3)	2,293,668,362	1,913,941,862	1,857,247,595
5.	Remaining amortization period at valuation date	25	26	26
6.	Contribution effective for fiscal year ending:	June 30, 2007	June 30, 2006	June 30, 2006
7.	Payroll projected for two-year delay	932,741,105	898,414,286	898,414,286
8.	Amortization of UAAL	168,372,938	134,096,890	134,020,108
9.	Normal cost			
	(a) Total normal cost rate	11.09%	11.04%	14.59%
	(b) Employee contribution rate	9.50%	9.50%	9.50%
	(c) Employer normal cost rate (a - b)	1.59%	1.54%	5.09%
10.	Employer contribution rate as percent of payroll			
	(a) Employer normal cost rate	1.59%	1.54%	5.09%
	(b) Amortization payments (8 / 7)	18.05%	14.93%	14.92%
	(c) Total (a + b)	19.64%	16.47%	20.01%
11.	Estimated employer contribution amount (7 * 10(c))	$ 183,190,353	$ 147,968,833	$ 179,772,699

Actuarial Present Value of Future Benefits (State Employees)

	June 30, 2004 (1)	June 30, 2003 (Sub A) (2)	June 30, 2003 (Valuation) (3)
1. Active members			
a. Service retirement benefits	$ 2,090,231,160	$ 2,117,146,118	$ 2,168,659,336
b. Deferred termination benefits	90,960,067	93,048,263	99,154,389
c. Refunds	12,134,984	11,186,121	11,926,175
d. Pre-retirement death benefits	95,619,688	96,724,932	98,674,560
e. Disability retirement benefits	68,935,795	69,319,657	66,555,266
f. Total	$ 2,357,881,694	$ 2,387,425,091	$ 2,444,969,726
2. Retired members			
a. Service retirements	$ 1,541,063,945	$ 1,364,433,186	$ 1,364,433,186
b. Disability retirements	98,713,250	89,909,046	89,909,046
c. Beneficiaries	124,491,906	115,799,064	115,799,064
d. Post-retirement death benefit	14,558,000	14,268,000	14,268,000
e. Total	$ 1,778,827,101	$ 1,584,409,296	$ 1,584,409,296
3. Inactive members	$ 49,899,601	$ 29,721,609	$ 29,721,609
4. Total actuarial present value of future benefits	$ 4,186,608,396	$ 4,001,555,996	$ 4,059,100,631

Actuarial Present Value of Future Benefits (Teachers)

	June 30, 2004	June 30, 2003 (Sub A)	June 30, 2003 (Valuation)
	(1)	(2)	(3)
1. Active members			
a. Service retirement benefits	$ 3,029,631,171	$ 3,047,067,218	$ 3,233,062,822
b. Deferred termination benefits	147,495,698	136,909,635	139,092,817
c. Refunds	18,900,448	17,486,464	17,486,464
d. Pre-retirement death benefits	74,117,349	70,593,110	73,271,971
e. Disability retirement benefits	45,300,974	41,237,857	35,868,952
f. Total	$ 3,315,445,640	$ 3,313,294,284	$ 3,498,783,026
2. Retired members			
a. Service retirements	$ 3,081,070,455	$ 2,752,221,710	$ 2,752,221,710
b. Disability retirements	53,143,223	49,012,736	49,012,736
c. Beneficiaries	71,217,200	66,228,869	66,228,869
d. Post-retirement death benefit	9,877,000	9,409,000	9,409,000
e. Total	$ 3,215,307,878	$ 2,876,872,315	$ 2,876,872,315
3. Inactive members	$ 45,059,277	$ 25,446,613	$ 25,446,613
4. Total actuarial present value of future benefits	$ 6,575,812,795	$ 6,215,613,212	$ 6,401,101,954

TABLE 3

Schedule of Funding Progress
(As required by GASB #25)

Valuation Date (1)	Actuarial Value of Assets (AVA) (2)	Actuarial Accrued Liability (3)	Unfunded Actuarial Accrued Liability (UAAL) (3)-(2) (4)	Funded Ratio (2)/(3) (5)	Annual Covered Payroll (6)	UAAL as % of Payroll (4)/(6) (7)
State Employees						
June 30, 1999	2,201,890,748	2,607,397,329	405,506,581	84.4%	494,815,513	82.0%
June 30, 2000	2,345,319,663	2,874,905,547	529,585,884	81.6%	517,632,152	102.3%
June 30, 2001	2,406,278,029	3,089,247,738	682,969,709	77.9%	539,015,218	126.7%
June 30, 2002	2,353,855,871	3,284,126,961	930,271,090	71.7%	586,888,745	158.5%
June 30, 2003	2,267,673,016	3,461,708,161	1,194,035,145	65.5%	606,102,182	197.0%
June 30, 2003 [1]	2,267,673,016	3,517,352,031	1,249,679,015	64.5%	606,102,182	206.2%
June 30, 2004	2,202,900,345	3,694,787,818	1,491,887,473	59.6%	606,087,585	246.2%
Teachers						
June 30, 1999	3,259,015,814	3,967,529,172	708,513,358	82.1%	673,484,467	105.2%
June 30, 2000	3,514,399,312	4,359,881,262	845,481,950	80.6%	703,201,056	105.2%
June 30, 2001	3,619,863,426	4,679,288,010	1,059,424,584	77.4%	748,460,527	120.2%
June 30, 2002	3,553,823,995	4,857,003,061	1,303,179,066	73.2%	792,015,577	164.5%
June 30, 2003	3,427,685,554	5,284,933,149	1,857,247,595	64.9%	834,642,391	222.5%
June 30, 2003 [1]	3,427,685,554	5,341,627,416	1,913,941,862	64.2%	834,642,391	229.3%
June 30, 2004	3,340,527,073	5,634,195,435	2,293,668,362	59.3%	866,532,598	264.7%

[1] Restated June 30, 2003 actuarial value after adopting the amendment of Article 7, Substitute A

Notes to Required Supplementary Information
(as required by GASB #25)

Item (1)	State Employees (2)	Teachers (3)
Valuation date	June 30, 2004	June 30, 2004
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level percentage, closed	Level percentage, closed
Remaining amortization period	25 years	25 years
Asset valuation method	5-Yr Smoothed Market	5-Yr Smoothed Market
Actuarial assumptions:		
Investment rate of return *	8.25%	8.25%
Projected salary increase *	4.50% to 8.25%	4.50% to 17.00%
* Includes inflation at:	3.00%	3.00%
Cost of living adjustment - Schedule A	3.00%	3.00%
Cost of living adjustment - Schedule B	2.50%	2.50%

Schedule A members are those who have at least 10 years of contributing service as of June 30, 2005; Schedule B members are all others.

Plan Net Assets
(Assets at Market or Fair Value)

Item	June 30, 2004	June 30, 2003
(1)	(2)	(3)
A. Total ERSRI assets		
1. Cash and cash equivalents	$ 8,558,698	$ 2,597,708
2. Receivables:		
a. Transfers receivable	$ 1,255,196	$ 2,472,280
b. Member and employer contributions	24,791,198	19,472,668
c. Due from state for teachers	18,428,459	14,872,584
d. Net investment income and other	3,483,015	2,945,486
e. Total receivables	$ 47,957,868	$ 39,763,018
3. Investments		
a. Short-term investment fund	$ -	$ -
b. Pooled trust	5,327,151,706	4,639,657,474
c. Plan specific investments	22,629,221	22,850,413
d. Invested securities lending collateral	696,928,405	503,989,579
e. Total	$ 6,046,709,332	$ 5,166,497,466
4. Total property and equipment	$ 12,630,925	$ 13,395,782
5. Total assets	$ 6,115,856,823	$ 5,222,253,974
6. Liabilities		
a. Cash overdraft	$ -	$ -
b. Transfers payable	23,581,764	12,203,528
c. Accounts and vouchers payable	6,443,172	3,808,097
d. Securities lending liability	696,928,405	503,989,579
e. Total liabilities	$ 726,953,341	$ 520,001,204
7. Total market value of assets available for benefits (Item 4 - Item 5)	$ 5,388,903,482	$ 4,702,252,770
B. Breakdown		
1. State employees	$ 2,068,012,733	$ 1,811,009,064
2. Teachers	3,131,927,525	2,729,820,882
3. Teachers' survivors benefits	188,963,222	161,422,824
4. Total	$ 5,388,903,480	$ 4,702,252,770

Reconciliation of Plan Net Assets

Item	Year Ending 06/30/2004 State Employees	Teachers
(1)	(2)	(3)
1. Market value of assets at beginning of year	$ 1,811,009,064	$ 2,729,820,882
Current year prior period adjustments	-	(10,316) *
Adjusted market value of assets at BOY	$ 1,811,009,064	$ 2,729,810,566
2. Contributions		
a. Members	$ 50,752,433	$ 77,958,905
b. State	55,699,588	45,039,279
c. Local employers	-	70,675,899
d. Reimbursement of Supplemental Pensions	186,298	838,534
e. Service purchases	745,173	4,861,556
f. Total	$ 107,383,492	$ 199,374,173
3. Investment earnings, net of investment and administrative expenses	$ 331,591,419	$ 502,176,631
4. Expenditures for the year		
a. Benefit payments	$ (126,874,546)	$ (226,902,233)
b. Cost-of-living adjustments	(42,215,341)	(49,925,883)
c. Death benefits	(2,140,800)	(1,023,800)
d. Social security supplements	(6,977,333)	(18,358,608)
e. Supplemental pensions	(187,608)	(847,751)
f. Refunds	(3,576,559)	(2,375,683)
g. Total expenditures	$ (181,972,187)	$ (299,433,958)
5. Transfers and other adjustments	$ 945	$ 113
6. Market value of assets at end of year	$ 2,068,012,733	$ 3,131,927,525

* Retroactive adjustment during FY 2004 to Teacher Survivor Benefits Fund

Development of Actuarial Value of Assets (State Employees)

		Year Ending June 30, 2004
1.	Market value of assets at beginning of year	$ 1,811,009,064
2.	Net new investments	
	a. Contributions	$ 107,383,492
	b. Benefits paid	(178,395,628)
	c. Refunds	(3,576,559)
	d. Subtotal	(74,588,695)
3.	Market value of assets at end of year	$ 2,068,012,733
4.	Net earnings (3-1-2) (includes misc revenues)	$ 331,592,364
5.	Assumed investment return rate	8.25%
6.	Expected return	$ 146,331,464
7.	Excess return (4-6)	$ 185,260,900

8. Excess return on assets as of 06/30/2004:

Period End (1)	Excess Return (2)	Percent Deferred (3)	Deferred Amount (4)
June 30, 2001	$ (446,257,659)	20%	$ (89,251,532)
June 30, 2002	(333,597,038)	40%	(133,438,815)
June 30, 2003	(100,676,641)	60%	(60,405,985)
June 30, 2004	185,260,900	80%	148,208,720
			$ (134,887,612)

9.	Actuarial value of assets as of June 30, 2004 (Item 3 - Item 8)	$ 2,202,900,345
10.	Ratio of actuarial value to market value	106.5%

Development of Actuarial Value of Assets (Teachers)

		Year Ending June 30, 2004
1.	Market value of assets at beginning of year	$ 2,729,810,566
2.	Net new investments	
	a. Contributions	$ 199,374,173
	b. Benefits paid	(297,058,275)
	c. Refunds	(2,375,683)
	d. Subtotal	(100,059,785)
3.	Market value of assets at end of year	$ 3,131,927,525
4.	Net earnings (3-1-2) (includes misc revenues)	$ 502,176,744
5.	Assumed investment return rate	8.25%
6.	Expected return	$ 221,081,906
7.	Excess return (4-6)	$ 281,094,838

8. Expected return on assets as of 06/30/2004:

Period End (1)	Excess Return (2)	Percent Deferred (3)	Deferred Amount (4)
June 30, 2001	$ (684,125,258)	20%	$ (136,825,052)
June 30, 2002	(514,349,794)	40%	(205,739,918)
June 30, 2003	(151,517,413)	60%	(90,910,448)
June 30, 2004	281,094,838	80%	224,875,870
			$ (208,599,548)

9.	Actuarial value of assets as of June 30, 2004 (Item 3 - Item 8)	$ 3,340,527,073
10.	Ratio of actuarial value to market value	106.7%

Distribution of Assets at Market Value
(Percentage of Total Investments)

Item (1)	June 30, 2004 (2)	June 30, 2003 (3)
Cash & cash equivalents	1.9%	3.2%
U.S. government & agency securities	14.2%	12.0%
Corporate bonds & notes	9.7%	13.4%
Foreign bonds	0.5%	1.0%
U.S. equity securities	53.9%	43.9%
Foreign equity securities	14.1%	21.1%
Emerging markets equity	0.0%	0.0%
Real estate, venture capital, other	5.7%	5.4%
Total investments	100.0%	100.0%

History of Investment Return Rates

Year Ending June 30 of	Market	Actuarial
(1)	(2)	(3)
1995	17.0%	10.2%
1996	13.7%	13.7%
1997	19.1%	19.1%
1998	16.1%	16.5%
1999	10.1%	14.7%
2000	9.1%	8.8%
2001	(11.0%)	4.9%
2002	(8.4%)	0.9%
2003	2.6%	(0.8%)
2004	18.7%	0.4%

Analysis of Change in Employer Cost

Basis (1)	State Employees (2)	Teachers (3)
1. Employer fiscal 2006 cost	16.96%	20.01%
2. Sub A employer fiscal 2006 cost	14.84%	16.47%
3. Impact of changes, gains and losses		
a. Salary (gain)/loss	(0.54%)	(0.18%)
b. Investment experience (gain)/loss	2.18%	2.32%
c. Non-salary liability experience (gain)/loss	1.92%	1.03%
d. Changes in assumptions	0.00%	0.00%
e. Total	3.56%	3.17%
4. Employer fiscal 2007 cost	18.40%	19.64%

Membership Data (State Employees)

	June 30, 2004 (1)	June 30, 2003 (2)
1. Active members		
a. Number	12,957	13,281
b. Number vested	8,519	8,925
c. Total payroll supplied by ERSRI	$ 575,574,300	$ 575,919,807
d. Average salary	44,422	43,364
e. Average age	47.6	47.8
f. Average service	14.6	14.8
2. Inactive members		
a. Number	2,158	1,876
3. Service retirees		
a. Number	7,956	7,728
b. Total annual benefits	$ 158,434,050	$ 141,888,640
c. Average annual benefit	19,914	18,360
d. Average age	73.0	73.4
4. Disabled retirees		
a. Number	646	638
b. Total annual benefits	$ 9,555,557	$ 8,736,196
c. Average annual benefit	14,792	13,693
d. Average age	62.1	62.5
5. Beneficiaries and spouses		
a. Number	1,072	1,032
b. Total annual benefits	$ 14,057,050	$ 12,882,285
c. Average annual benefit	13,113	12,483
d. Average age	75.4	74.9

Membership Data (Teachers)

	June 30, 2004 (1)	June 30, 2003 (2)
1. Active members		
a. Number	14,556	14,410
b. Number vested	7,001	7,387
c. Total payroll supplied by ERSRI	$ 810,064,092	$ 781,718,751
d. Average salary	55,652	54,248
e. Average age	43.7	44.2
f. Average service	12.0	12.7
2. Inactive members		
a. Number	1,836	1,404
3. Service retirees		
a. Number	7,570	7,131
b. Total annual benefits	$ 249,644,514	$ 255,829,530
c. Average annual benefit	32,978	35,876
d. Average age	67.1	67.3
4. Disabled retirees		
a. Number	232	220
b. Total annual benefits	$ 5,374,861	$ 4,940,819
c. Average annual benefit	23,168	22,458
d. Average age	63.2	63.2
5. Beneficiaries and spouses		
a. Number	377	353
b. Total annual benefits	$ 6,965,801	$ 6,465,097
c. Average annual benefit	18,477	18,315
d. Average age	70.0	69.7

Historical Summary of Active Member Data

Valuation as of June 30,	Active Members		Covered Payroll		Average Salary		Average Age	Average Service
	Number	Percent Increase	Amount in $ Millions	Percent Increase	$ Amount	Percent Increase		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
State Employees								
1998	13,105	1.9%	458	7.6%	34,963	5.6%	46.4	14.4
1999	13,369	2.0%	476	3.9%	35,606	1.8%	46.4	14.4
2000	13,305	(0.5%)	499	4.8%	37,510	5.3%	46.7	14.4
2001	13,594	2.2%	521	4.4%	38,321	2.2%	46.9	14.5
2002	13,795	1.5%	563	8.1%	40,812	6.5%	47.4	14.3
2003	13,281	(3.7%)	576	2.3%	43,364	6.3%	47.8	14.8
2004	12,957	(2.4%)	576	(0.1%)	44,422	2.4%	47.6	14.6
Teachers								
1998	12,883	1.6%	598	4.4%	46,453	2.8%	45.0	14.9
1999	13,282	3.1%	633	5.7%	47,642	2.6%	45.0	14.6
2000	13,607	2.4%	659	4.0%	48,402	1.6%	44.7	14.0
2001	14,092	3.6%	697	5.9%	49,491	2.3%	44.4	13.3
2002	14,710	4.4%	735	5.4%	49,986	1.0%	44.4	12.5
2003	14,410	(2.0%)	782	6.3%	54,248	8.5%	44.2	12.7
2004	14,556	1.0%	810	3.6%	55,652	2.6%	43.7	12.0

Distribution of Active Members by Age and by Years of Service (State Employees)
As of 06/30/2004

Attained Age	Years of Credited Service: 0 Count & Avg. Comp.	1 Count & Avg. Comp.	2 Count & Avg. Comp.	3 Count & Avg. Comp.	4 Count & Avg. Comp.	5-9 Count & Avg. Comp.	10-14 Count & Avg. Comp.	15-19 Count & Avg. Comp.	20-24 Count & Avg. Comp.	25-29 Count & Avg. Comp.	30-34 Count & Avg. Comp.	35 & Over Count & Avg. Comp.	Total Count & Avg. Comp.
Under 25	35 $28,650	21 $27,009	11 $23,600	7 $27,718	6 $26,961	1 $31,240	0 $0	0 $0	0 $0	0 $0	0 $0	0 $0	81 $27,365
25-29	69 $32,980	54 $33,323	65 $34,329	94 $34,048	62 $33,855	69 $38,152	0 $0	0 $0	0 $0	0 $0	0 $0	0 $0	413 $34,476
30-34	338 $27,930	149 $35,421	130 $35,180	112 $35,689	106 $38,177	257 $40,149	77 $40,060	3 $31,950	0 $0	0 $0	0 $0	0 $0	1,172 $34,841
35-39	77 $27,935	53 $36,325	67 $37,270	93 $37,571	102 $36,820	316 $42,199	441 $43,906	174 $41,804	8 $39,834	0 $0	0 $0	0 $0	1,331 $40,656
40-44	68 $27,904	56 $35,637	72 $38,646	100 $38,430	85 $38,924	268 $42,519	427 $43,817	501 $47,562	227 $45,879	14 $43,364	0 $0	0 $0	1,818 $43,334
45-49	55 $34,782	47 $40,524	68 $34,903	77 $38,104	82 $38,923	283 $42,695	415 $44,336	496 $48,955	436 $50,674	344 $47,043	17 $45,439	0 $0	2,320 $45,745
50-54	42 $34,205	41 $39,703	44 $36,106	65 $35,761	74 $32,351	229 $43,335	331 $46,553	391 $48,526	357 $50,298	518 $53,541	232 $51,520	7 $64,337	2,331 $47,950
55-59	18 $32,825	18 $41,278	32 $41,269	36 $40,274	45 $36,495	169 $40,836	295 $41,686	348 $45,901	312 $50,655	339 $55,555	283 $62,652	43 $55,450	1,938 $49,366
60-64	8 $43,633	6 $40,348	18 $37,092	10 $36,264	20 $34,616	81 $43,939	161 $42,949	204 $43,166	212 $47,753	160 $52,030	92 $57,334	37 $62,823	1,009 $47,216
65 & Over	5 $26,685	4 $65,924	0 $0	3 $19,020	6 $44,233	31 $42,185	91 $40,037	132 $41,869	92 $43,467	96 $46,670	53 $47,887	31 $63,290	544 $44,442
Total	715 $29,637	449 $36,406	507 $36,083	597 $36,611	588 $36,662	1,704 $41,952	2,238 $43,709	2,249 $46,581	1,644 $49,094	1,471 $51,776	677 $56,526	118 $60,348	12,957 $44,422

Distribution of Active Members by Age and by Years of Service (Teachers)
As of 06/30/2004

	Years of Credited Service												
Attained Age	0 Count & Avg. Comp.	1 Count & Avg. Comp.	2 Count & Avg. Comp.	3 Count & Avg. Comp.	4 Count & Avg. Comp.	5-9 Count & Avg. Comp.	10-14 Count & Avg. Comp.	15-19 Count & Avg. Comp.	20-24 Count & Avg. Comp.	25-29 Count & Avg. Comp.	30-34 Count & Avg. Comp.	35 & Over Count & Avg. Comp.	Total Count & Avg. Comp.
Under 25	10	37	43	0	1	0	0	0	0	0	0	0	91
	$32,750	$31,350	$34,794	$0	$46,072	$0	$0	$0	$0	$0	$0	$0	$33,293
25-29	32	121	216	237	244	243	0	0	0	0	0	0	1,093
	$35,509	$33,090	$36,818	$38,835	$41,475	$45,711	$0	$0	$0	$0	$0	$0	$39,821
30-34	122	584	352	241	282	1,018	117	0	0	0	0	0	2,716
	$33,898	$35,564	$41,036	$42,780	$43,891	$50,413	$60,730	$0	$0	$0	$0	$0	$44,353
35-39	8	53	102	121	108	723	595	103	0	0	0	0	1,813
	$38,037	$37,274	$42,296	$44,733	$46,861	$53,204	$62,041	$63,116	$0	$0	$0	$0	$54,578
40-44	9	52	82	102	109	426	410	358	33	1	0	0	1,582
	$39,915	$37,433	$40,106	$45,756	$47,999	$54,657	$62,011	$63,526	$64,384	$66,870	$0	$0	$56,344
45-49	8	43	76	90	111	447	398	351	234	129	0	0	1,887
	$43,758	$39,490	$42,320	$44,788	$49,733	$55,488	$62,658	$65,499	$65,458	$65,475	$0	$0	$58,988
50-54	7	23	39	61	85	375	530	439	268	552	402	0	2,781
	$36,745	$38,428	$45,515	$50,670	$52,919	$57,373	$63,486	$64,464	$64,834	$66,184	$67,319	$0	$62,905
55-59	5	14	35	28	35	194	274	310	222	230	486	74	1,907
	$29,347	$49,681	$53,510	$55,542	$58,559	$59,879	$64,096	$64,568	$65,902	$66,533	$68,066	$71,769	$64,939
60-64	1	4	9	13	15	58	99	109	63	79	54	46	550
	$29,265	$39,362	$54,931	$59,910	$59,460	$63,175	$66,515	$64,075	$65,529	$67,274	$68,976	$69,284	$65,345
65 & Over	1	0	4	2	1	11	20	22	19	21	15	20	136
	$54,181	$0	$65,532	$50,638	$64,206	$61,370	$62,076	$62,737	$65,341	$64,114	$65,443	$79,340	$65,698
Total	203	931	958	895	991	3,495	2,443	1,692	839	1,012	957	140	14,556
	$34,977	$35,757	$40,832	$43,744	$46,277	$53,348	$62,799	$64,370	$65,337	$66,216	$67,762	$72,034	$55,652

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

I. Valuation Date

The valuation date is June 30th of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

II. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial liability.

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 8.25 percent), of each participant's expected benefit payable at retirement or death is determined, based on his age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The employer contributions required to support the benefits of the Plan are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.

3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his anticipated covered service, would be required in addition to the contributions of the participant to meet the cost of all benefits payable on his behalf. The normal cost

is determined using the plan provisions applicable to members becoming participants after June 30, 2005.

4. The unfunded accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from June 30, 1999.

The contribution rate determined by this valuation will not be effective until two years later, and the determination of the rate reflects this deferral. It is assumed that there will be no change in the employer normal cost rate due to the deferral, and it is assumed that payments are made monthly throughout the year.

III. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

IV. Actuarial Assumptions

A. Economic Assumptions

1. Investment return: 8.25% per year, compounded annually, composed of an assumed 3.00% inflation rate and a 5.25% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.

2. Salary increase rate: A service-related component shown below, plus a 3.00% inflation component, plus a 1.50% general increase, as follows:

State Employees		
Years of Service	Service-related Component	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.50% General Increase Rate
(1)	(2)	(3)
0	3.75%	8.25%
1	3.50%	8.00%
2	3.25%	7.75%
3	3.00%	7.50%
4	2.75%	7.25%
5	2.50%	7.00%
6	1.75%	6.25%
7	1.50%	6.00%
8	1.25%	5.75%
9	1.00%	5.50%
10	0.75%	5.25%
11	0.75%	5.25%
12	0.50%	5.00%
13	0.25%	4.75%
14	0.25%	4.75%
15 or more	0.00%	4.50%

Teachers		
Years of Service	Service-related Component	Total Annual Rate of Increase Including 3.00% Inflation Component and 1.50% General Increase Rate
(1)	(2)	(3)
0	12.50%	17.00%
1	12.50%	17.00%
2	6.75%	11.25%
3	5.75%	10.25%
4	5.50%	10.00%
5	5.00%	9.50%
6	4.50%	9.00%
7	4.25%	8.75%
8	4.00%	8.50%
9	3.00%	7.50%
10	1.25%	5.75%
11 or more	0.00%	4.50%

Salary increases are assumed to occur once a year, on July 1. Therefore the pay used for the period between the valuation date and the first anniversary of the valuation date is equal to the reported pay for the prior year, annualized if necessary, and then increased by the salary increase assumption.

3. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.75% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

B. Demographic Assumptions

1. Mortality rates (for active and retired members)

   a. Healthy males – Based on the 1994 Group Annuity Mortality Tables for males. Rates for teachers are set back one year, while rates for all state employees are set forward one year.

   b. Healthy females – Based on the 1994 Group Annuity Mortality Tables for females.

c. Disabled males – 65% of the PBGC Table Va for disabled males eligible for Social Security disability benefits

d. Disabled females - 100% of the PBGC Table VIa for disabled females eligible for Social Security disability benefits.

Sample rates are shown below:

	Expected Deaths per 100 Lives				
Age	Healthy Males (Non-Teachers)	Healthy Males (Teachers)	Healthy Females	Disabled Males	Disabled Females
(1)	(2)	(3)	(4)	(5)	(6)
25	0.07	0.06	0.03	3.14	2.63
30	0.08	0.08	0.04	2.35	2.37
35	0.09	0.08	0.05	1.81	2.14
40	0.12	0.10	0.07	1.83	2.09
45	0.17	0.15	0.10	2.09	2.24
50	0.29	0.23	0.14	2.49	2.57
55	0.49	0.40	0.23	3.13	2.95
60	0.90	0.71	0.44	3.92	3.31
65	1.62	1.29	0.86	4.41	3.70
70	2.60	2.17	1.37	4.80	4.11
75	4.09	3.41	2.27	5.47	4.92
80	6.86	5.59	3.94	7.33	7.46

2. Disability rates: Sample rates are shown below. Ordinary disability rates are not applied to members eligible for retirement.

	Expected Disabilities per 1,000 Lives							
Age	State Ordinary Males	State Accidental Males	State Ordinary Females	State Accidental Females	Teachers Ordinary Males	Teachers Accidental Males	Teachers Ordinary Females	Teachers Accidental Females
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
25	0.32	0.20	0.45	0.09	0.15	0.08	0.16	0.04
30	0.39	0.25	0.55	0.11	0.18	0.10	0.20	0.04
35	0.53	0.34	0.75	0.15	0.24	0.13	0.27	0.06
40	0.77	0.50	1.10	0.22	0.36	0.19	0.40	0.09
45	1.26	0.81	1.80	0.36	0.59	0.32	0.66	0.14
50	2.14	1.37	3.05	0.61	0.99	0.54	1.12	0.24
55	3.54	2.27	5.05	1.01	1.65	0.89	1.85	0.40
60	4.94	3.17	7.05	1.41	2.30	1.24	2.58	0.56
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3. Termination rates (for causes other than death, disability or retirement) are a function of the member's sex, age and service. Termination rates are not applied to members eligible for retirement. Rates at selected ages are shown:

	Active Male Members - State Employees										
	Years of Service										
Attained Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.1373	0.1331	0.1271	0.1200	0.1105	0.1000	0.0880	0.0809	0.0778	0.0792	0.0613
25	0.1321	0.1208	0.1107	0.1017	0.0925	0.0837	0.0741	0.0681	0.0649	0.0644	0.0504
30	0.1293	0.1065	0.0894	0.0771	0.0681	0.0613	0.0552	0.0509	0.0474	0.0443	0.0356
35	0.1311	0.0989	0.0759	0.0607	0.0514	0.0459	0.0422	0.0392	0.0358	0.0314	0.0259
40	0.1370	0.0964	0.0681	0.0501	0.0401	0.0353	0.0332	0.0313	0.0283	0.0234	0.0198
45	0.1470	0.0993	0.0665	0.0457	0.0346	0.0299	0.0286	0.0276	0.0252	0.0207	0.0172
50	0.1609	0.1079	0.0713	0.0478	0.0351	0.0297	0.0286	0.0281	0.0267	0.0236	0.0180
55	0.1784	0.1221	0.0827	0.0565	0.0418	0.0351	0.0332	0.0330	0.0330	0.0325	0.0223
60	0.1960	0.1392	0.0985	0.0702	0.0534	0.0447	0.0414	0.0414	0.0431	0.0463	0.0000
65	0.2484	0.1870	0.1412	0.1066	0.0843	0.0710	0.0644	0.0642	0.0689	0.0797	0.0000

3. Termination rates (continued):

	Active Female Members - State Employees										
	Years of Service										
Attained Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.1355	0.1232	0.1163	0.1131	0.1100	0.1061	0.1012	0.0933	0.0860	0.0784	0.0755
25	0.1230	0.1091	0.1003	0.0955	0.0919	0.0884	0.0845	0.0784	0.0725	0.0658	0.0617
30	0.1079	0.0910	0.0793	0.0719	0.0673	0.0643	0.0616	0.0579	0.0537	0.0484	0.0426
35	0.0982	0.0791	0.0653	0.0562	0.0509	0.0480	0.0459	0.0435	0.0404	0.0360	0.0295
40	0.0923	0.0717	0.0563	0.0460	0.0401	0.0370	0.0350	0.0332	0.0306	0.0268	0.0205
45	0.0900	0.0687	0.0527	0.0418	0.0353	0.0316	0.0292	0.0272	0.0246	0.0211	0.0156
50	0.0908	0.0701	0.0545	0.0436	0.0365	0.0320	0.0287	0.0258	0.0225	0.0187	0.0147
55	0.0945	0.0757	0.0615	0.0514	0.0438	0.0382	0.0334	0.0289	0.0243	0.0197	0.0176
60	0.0993	0.0838	0.0722	0.0636	0.0558	0.0488	0.0423	0.0358	0.0293	0.0232	0.0000
65	0.1220	0.1107	0.1029	0.0963	0.0873	0.0773	0.0670	0.0563	0.0454	0.0354	0.0000

	Active Male Members - Teachers										
	Years of Service										
Attained Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.1294	0.0739	0.0439	0.0281	0.0178	0.0131	0.0118	0.0122	0.0183	0.0385	0.0675
25	0.1115	0.0669	0.0408	0.0259	0.0162	0.0115	0.0100	0.0102	0.0149	0.0300	0.0528
30	0.0915	0.0606	0.0391	0.0247	0.0155	0.0106	0.0086	0.0082	0.0107	0.0187	0.0328
35	0.0850	0.0609	0.0414	0.0269	0.0175	0.0120	0.0093	0.0084	0.0092	0.0124	0.0200
40	0.0892	0.0670	0.0473	0.0321	0.0218	0.0154	0.0119	0.0102	0.0096	0.0096	0.0123
45	0.1040	0.0791	0.0573	0.0403	0.0286	0.0209	0.0163	0.0138	0.0122	0.0105	0.0098
50	0.1290	0.0974	0.0715	0.0517	0.0378	0.0285	0.0224	0.0190	0.0168	0.0152	0.0127
55	0.1641	0.1220	0.0901	0.0664	0.0495	0.0381	0.0302	0.0259	0.0234	0.0238	0.0209
60	0.2046	0.1497	0.1106	0.0825	0.0622	0.0485	0.0388	0.0335	0.0313	0.0352	0.0000
65	0.2973	0.2135	0.1576	0.1186	0.0901	0.0711	0.0570	0.0498	0.0485	0.0600	0.0000

3. Termination rates (continued):

	Active Female Members - Teachers										
	Years of Service										
Attained Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.0774	0.0813	0.0751	0.0689	0.0672	0.0692	0.0745	0.0785	0.0719	0.0680	0.0569
25	0.0744	0.0715	0.0641	0.0583	0.0567	0.0584	0.0625	0.0653	0.0602	0.0563	0.0473
30	0.0738	0.0607	0.0505	0.0445	0.0425	0.0435	0.0458	0.0469	0.0437	0.0401	0.0339
35	0.0776	0.0570	0.0435	0.0360	0.0329	0.0329	0.0338	0.0338	0.0319	0.0286	0.0243
40	0.0858	0.0589	0.0415	0.0314	0.0266	0.0251	0.0247	0.0241	0.0231	0.0203	0.0172
45	0.0989	0.0667	0.0447	0.0311	0.0237	0.0204	0.0189	0.0180	0.0174	0.0153	0.0129
50	0.1174	0.0804	0.0534	0.0353	0.0246	0.0190	0.0163	0.0151	0.0147	0.0138	0.0114
55	0.1415	0.1003	0.0678	0.0442	0.0293	0.0208	0.0167	0.0153	0.0150	0.0157	0.0131
60	0.1676	0.1234	0.0857	0.0563	0.0369	0.0252	0.0197	0.0182	0.0177	0.0206	0.0000
65	0.2307	0.1780	0.1280	0.0860	0.0571	0.0389	0.0306	0.0286	0.0279	0.0349	0.0000

4. Retirement rates: Separate male and female rates, based on age. Sample rates are below:

	Expected Retirements per 100 Lives			
	State Employees		Teachers	
Age	Males	Females	Males	Females
(1)	(2)	(3)	(4)	(5)
45	12	13	10	5
46	12	13	10	6
47	12	13	10	7
48	12	13	10	8
49	12	13	10	10
50	12	13	16	12
51	12	13	18	14
52	12	13	20	16
53	12	13	22	18
54	12	13	24	20
55	12	16	26	22
56	15	16	28	24
57	16	16	30	26
58	17	16	33	28
59	18	16	36	30
60	15	14	25	30
61	10	15	20	15
62	25	20	25	25
63	20	20	20	20
64	15	20	15	25
65	20	25	25	35
66	20	20	20	25
67	15	20	20	25
68	15	20	20	25
69	15	20	20	25
70	100	100	100	100

C. Other Assumptions

1. Percent married: 100% of employees are assumed to be married.

2. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.

3. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.

4. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.

5. Recovery from disability: None assumed.

6. Remarriage: It is asssumed that no surviving spouse will remarry and there will be no children's benefit.

7. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.

8. Retirement rates for members without 10 years of contributory service as of June 30, 2005: The reitrement rates under item B.4. above were developed based on the provisions applicable to members retiring before June 30, 2004. They are applicable to members who have at least ten years of contributory service by June 30, 2005. In applying the rates to other members, if eligibility for unreduced retirement is delayed when compared to old provisions, the percentage of the member expected to retire at each age is accumulated and applied in the first year the member is eligible under the new provisions. This same approach is used in computing the normal cost.

   Retirement rates were also set for all members eligible for reduced retirement, whether state employees or teachers, whether males or females, as follows:

Probability of Reduced Retirement	
Retirement Age	Probability
55-58	0%
59	1%
60	2%
61	2%
62	2%
63	3%
64	4%

9. Administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.

10. Inactive members: Liabilities for inactive members are approximated as a multiple of their member contribution account balances. For nonvested inactive members, the multiple is one. For vested inactive members, the multiple is eight for members with 25 or more years of service, three for members age 45 or older, and one for other vested members younger than age 45.

11. Decrement timing: For all state employees, decrements are assumed to occur at the middle of the year. For teachers the retirement and termination decrements are assumed to occur at the beginning of the year, while death and disability are assumed to occur at the middle of the year.

D. Participant Data

Participant data was supplied on electronic files. There were separate files for (i) active and inactive members, and (ii) members and beneficiaries receiving benefits.

The data for an active members included birthdate, sex, service, salary and employee contribution account balance. For retired members and beneficiaries, the data included date of birth, sex, spouse's date of birth (where applicable), amount of monthly benefit, date of retirement, and a form of payment code.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date. This salary was adjusted by the salary increase rate for one year.

Assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

Summary of Benefit Provisions

1. Effective Date and Authority: The Employees' Retirement System of Rhode Island (ERSRI) became effective on July 1, 1936 for state employees and on July 1, 1949 for teachers. Benefits for state employees are described in Rhode Island General Laws, Title 36, Chapter 36-10, and benefits for teachers are described in Rhode Island General Laws, Title 16, Chapter 16-16.

2. Plan Year: A twelve-month period ending June 30th.

3. Administration: ERSRI is administered by the State of Rhode Island Retirement Board. However, the State Treasurer is responsible for the investment of the trust assets, including the establishment of the asset allocation policy.

4. Type of Plan: ERSRI is a qualified governmental defined benefit retirement plan. Separate contribution rates are determined for state employees and for teachers. For Governmental Accounting Standards Board purposes, it is a cost-sharing multiple employer plan.

5. Eligibility: Most Rhode Island state employees and certified public school teachers participate in ERSRI. Certain employees of the Airport Corporation, the Economic Development Corporation, and the Narragansett Bay Commission participate in the plan as though they were state employees. State police officers, state judges, and teachers and administrators in the public colleges and universities are covered by their own separate systems, and are therefore excluded. Certain elected state officials are excluded unless they make an election to join ERSRI. Superintendents, principals, business agents and other administrators participate as teachers. Non-certified public school employees, such as teacher's aides, janitors, secretaries, and bus drivers, cannot participate in ERSRI, although they may be covered by the Municipal Employees Retirement System (MERS) or a separate plan maintained by the town or city. Eligible employees become members at their date of employment.

6. Employee Contributions: State employees generally contribute 8.75% of their salary per year, although members of the General Assembly who elect to participate contribute 30.00% of salary per year. Teachers contribute 9.50% per year. The state "picks up" the members' contributions for its employees under the provisions of Internal Revenue Code (IRC) Section 414(h). At their option, the city or town employing a teacher may also pick up their members' contributions.

7. Salary: Salary includes the member's base earnings plus any payments under a regular longevity or incentive plan. Salary excludes overtime, unused sick and vacation leave, severance pay, and other extraordinary compensation. Certain amounts that are excluded from taxable wages, such as amounts sheltered under a Section 125 plan or amounts picked up by the employer under IRC Section 414(h), are not excluded from salary.

8. Employer Contributions: For state employees, the state contributes an actuarially determined percentage of the member's salary. For teachers, the state contributes 40% of the employer contribution rate and the city, town or other local employer contributes the remaining 60%. (This basic 40-60 split is further adjusted, since the state bears the cost of repaying certain amounts taken from the trust in the early 1990's.) Contributions determined in a given actuarial valuation go into effect two years after the actuarial valuation.

   In fiscal years beginning after June 30, 2005, if the State's contribution on behalf of state employees decreases, the State shall appropriate an additional amount to the retirement trust. Such amount shall be equal to 20% of any decrease in expected contributions.

9. Service: Employees receive credit for service while a member. In addition, a member may purchase credit for certain periods, such as time spent teaching at a public school in another state, by making an additional contribution to purchase the additional service. Special rules and limits govern the purchase of additional service and the contribution required.

10. Final Average Compensation (FAC): The average of the member's highest three consecutive annual salaries. Monthly benefits are based on one-twelfth of this amount.

11. Retirement

a. Eligibility:

- All members with 10 or more years of contributory service as of June 30, 2005 are eligible for retirement on or after age 60 if they have credit for 10 years of service, or at any age if they have credit for 28 years of service.
- Members with less than 10 years of contributory service as of June 30, 2005 are eligible for retirement on or after age 65 if they have credit for 10 years of service, or on or after age 59 if they have credit for 29 years of service. In addition, a member who attains age 55 with at least 20 years of service credit may retire with an actuarially reduced retirement benefit. The reduction is based on the difference between 65 and the member's age at retirement.
- Correctional officers are also eligible for retirement if they have reached age 50 and have credit for 20 years of service. Certain nurses (RNs employed by MHRH) are eligible to retire at age 50 with 25 years of service. Members of the General Assembly who elect to participate are eligible for retirement if they have reached age 55 and have credit for 8 years of service, or at any age if they have credit for 20 years of service.

b. Monthly Benefit: For most state employees and for all teachers, the retirement benefit is a percentage of the member's monthly FAC. This percentage is a function of the member's service, determined using the following schedules:

- For members with at least 10 years of contributory service as of June 30, 2005:

For Service In:	Years	Benefit Percentage Earned
The first 10 years of service	1 – 10	1.7% per year
The next 10 years of service	11 – 20	1.9% per year
The next 14 years of service	21 – 34	3.0% per year
The next 1 year of service	35	2.0% per year

The maximum benefit is 80% of FAC.

- For members with less than 10 years of contributory service as of June 30, 2005:

For Service In:	Years	Benefit Percentage Earned
The first 10 years of service	1 – 10	1.6% per year
The next 10 years of service	11 – 20	1.8% per year
The next 5 years of service	21 – 25	2.0% per year
The next 5 years of service	26 – 30	2.25% per year
The next 14 years of service	31 – 37	2.50% per year
The next 1 year of service	38	2.25% per year

The maximum benefit is 75% of FAC.

- MHRH nurses receive a benefit determined under the appropriate formula above.

- Correctional Officers receive a benefit computed under a different formula:

For Service In:	Years	Benefit Percentage Earned
The first 30 years of service	1 – 30	2.0% per year
The next 1 year of service	31	6.0% per year
The next 1 year of service	32	5.0% per year
The next 1 year of service	33	4.0% per year
The next 1 year of service	34	3.0% per year
The next 14 years of service	35	2.0% per year

The maximum benefit for correctional officers is 80% of FAC.

- Members of the General Assembly who elect to participate receive $50 per month for each year of service, up to a maximum benefit of $1,000 per month, i.e., a maximum of 20 years of service.

c. Payment Form: Benefits are paid as a monthly life annuity. Optional forms of payment are available; see Item 16 below.

d. Death benefit: After retirement, death benefits are based on the form of annuity elected. If no option is elected, i.e., if payments are made as a life annuity, there is a minimum death benefit equal to the sum of the member's contributions without interest, less the sum of the monthly benefit payments made before the member's death. In addition, a lump-sum death benefit is payable upon the death of any retired member, regardless of option elected. This lump sum is equal to a percentage of the lump-sum death benefit that was available to the member at the time of retirement. The percentage is 100% in the first year of retirement, 75% in the second year, 50% in the third year, and 25% in the fourth and subsequent years of retirement. However, in no event will the lump sum death benefit be less than $4,000.

12. <u>Disability Retirement</u>

a. Eligibility: A member is eligible provided he/she has credit for at least five years of service or if the disability is work-related.

b. Ordinary Disability Benefit: The benefit payable under the retirement formula, using FAC and service at the time of disability, but not less than 10 years of service.

c. Occupational Disability Benefit: An annual annuity equal to two-thirds of salary at the time of disability.

d. Payment Form: The disability benefit commences immediately upon the member's retirement. Benefits cease upon recovery or reemployment. Disability benefits are payable as a monthly life annuity with a guarantee that, at the member's death, the sum of the member's contributions plus interest as of the date of retirement will be paid in a lump-sum to the member's beneficiary. All alternative forms of payment except for the Social Security Option are permitted in the case of disability retirement.

13. <u>Deferred Termination Benefit</u>

a. Eligibility: A member with at least ten years of service (eight years for members of the general Assembly) is vested. A vested member who does not withdraw his/her contributions from the fund is eligible for a deferred termination benefit.

b. Monthly Benefit: The monthly benefit is based on the retirement formula described above. Both FAC and service are determined at the time the member leaves active employment. Benefits may commence when the member has met the requirements for a retirement benefit.

c. Payment Form: The same as for Retirement above.

d. Death Benefit before retirement: A member who dies after leaving active service but before retiring is entitled to receive a benefit as described below in item 15.

e. Death Benefit after Retirement: The same as for Retirement above.

14. Withdrawal (Refund) Benefit

a. Eligibility: All members leaving covered employment with less than ten years of service are eligible. Optionally, vested members (those with ten or more years of service) may withdraw their accumulated contributions in lieu of the deferred benefits otherwise due.

b. Benefit: The member who withdraws receives a lump-sum payment equal to the sum of his/her employee contributions. No interest is credited on these contributions.

15. Death Benefit of Active or Inactive Members

a. Eligibility: Death must have occurred while an active or an inactive, non-retired member.

b. Basic Benefit: Upon the death of a nonvested member, or upon the death of an inactive, vested member, or upon the death of an active, unmarried member, a refund of the member's contributions (without interest) is paid. Upon the death of a vested, married, active member, the spouse may elect (i) the refund benefit described above, or (ii) a life annuity paid to the spouse or beneficiary. The amount of the annuity is equal to the amount which would have been paid had the member retired at the time of his death and elected the Joint and 100% Survivor option. If the member was not eligible for retirement, the annuity benefit is reduced 6% per year from the date at which the member would have been eligible had he or she remained in service.

c. Lump-sum Benefit: $800 per year of service, with a maximum benefit of $16,000 and a minimum of $4,000. This benefit is only available to active members.

d. Accidental Duty-related Death Benefit: If a member dies as the result of an accident while in the course of his or her duties, in lieu of the above benefits the member's spouse may elect to receive (i) a refund of all contributions made (including interest), and (ii) an annual life annuity equal to 50% of the member's salary at the time of death. The annuity benefit stops when the spouse remarries or dies, although it may be continued to any children under age 18 or to any dependent parents.

16. Optional Forms of Payment: In addition to a life annuity, ERSRI offers members these optional forms of payment on an actuarially equivalent basis:

a. Option 1 (Joint and 100% Survivor) - A life annuity payable while either the participant or his beneficiary is alive.

b. Option 2 (Joint and 50% Survivor) - A life annuity payable to the member while both the member and beneficiary are alive, reducing to 50% of this amount if the member predeceases the beneficiary.

c. Social Security Option – An annuity paid at one amount prior to age 62, and at a reduced amount after age 62, designed to provide a level total income when combined with the member's age 62 Social Security benefit. Benefits cease upon the member's death. This option is only available for members with at least 10 years of contributory service as of June 30, 2005.

Actuarial equivalence is based on tables adopted by the Employees' Retirement Board.

17. Post-retirement Benefit Increase:

a. For members with at least 10 years of contributory service as of June 30, 2005, and for all members receiving a disability retirement benefit: Members receive a 3.00% compound increase in their retirement benefit each year, beginning in January of the year in which the member reaches the third anniversary of retirement. This increase is not a function of actual increases in the cost of living.

b. For members with less than 10 years of contributory service as of June 30, 2005 (other than disability retirements): Members receive a compound increase in their retirement benefit each year equal to the increase in the CPI, effective on each anniversary date beginning on the third anniversary of retirement. This increase is limited to 3.00%.