Employees' Retirement System of Rhode Island

ACTUARIAL VALUATION

June 30, 1999

Watson Wyatt
Worldwide

Watson Wyatt
Worldwide

Watson Wyatt & Company
Suite 2400
2121 San Jacinto Street
Dallas, TX 75201-2772
Telephone 214 978 3400
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July 12, 2000

Employees' Retirement System of Rhode Island
40 Fountain Street, First Floor
Providence, RI 02903-1854

Dear Members of the Board:

Subject: Actuarial Valuation as of June 30, 1999

This is the June 30, 1999 actuarial valuation of the Employees' Retirement System of Rhode Island (ERSRI), as it applies to 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, or 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 Employees' 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, 1999 actuarial valuation will be applicable for the year beginning July 1, 2001 and ending June 30, 2002.

Financing objectives and funding policy

The actuarial cost method and the amortization periods are set by statute. The frozen entry age cost method (also called the frozen initial liability method) is mandated. The frozen liability is amortized over a period of 30-years from July 1, 1985. In the case of certain significant changes in plan provisions, assumptions or methodology, a new amortization base is created, and this base is amortized over thirty years from the creation date. More minor changes in provisions, assumptions or methods are included with the existing frozen actuarial liability and amortized over the remaining period. Amortization payments are determined as a level percent of expected payroll. Gains and losses from experience—i.e., from differences between actual experience and the actuarial assumptions—are included in the normal cost.

Progress toward realization of financing objectives

The funded ratio (the ratio of the actuarial value of assets to the frozen 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 increased from 80.6% to 81.6%, while for teachers the ratio increased from 76.2% to 77.4%.

The employer contribution rate increased for state employees, from 7.99% to 8.72%, and for teachers, from 12.01% to 13.18%. The asset gain under the interim 4-year moving average method is completely offset by the return to the smoothing method approved by the Board and incorporating a five year smoothing period. The impact of each item is shown on Table 12.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on June 30, 1999. There were no material changes adopted since the previous actuarial valuation. The benefit provisions are summarized in Appendix B.

Assumptions and methods

The 4-year moving average asset method used in last year's valuation was an interim approach in anticipation of statutory changes to the funding method and amortization period, with an intent to move to the 5-year smoothing method in the 1999 valuation, regardless of the outcome of the legislation. Since the legislation did not pass, this valuation continues to use the same cost method and funding period as used in the 1998 valuation, but changing to a five year smoothing asset method. This smoothing method along with other assumptions and methods are described in Appendix A, and the derivation of the actuarial value of assets using this method is shown on Tables 9A and 9B.

Data

The System's staff supplied member data for retired, active and inactive members as of June 30, 1999. 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, 1999.

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. All are Members of the Society of Actuaries and Members of the American Academy of Actuaries, and all are experienced in performing valuations for large public retirement systems.

Sincerely,

John J. Garrett, ASA, MAAA
Actuary

C. Leonora Kwan, ASA, MAAA
Actuary

W. Michael Carter, FSA, MAAA
Vice President

nlb

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Watson Wyatt
Worldwide

Memo

July 13, 2001

To:	Frank Karpinski, ERSRI	BY E-MAIL
From:	Wilson Lowry	
Subject:	Adjusted Employer Contribution Rates for Teachers, FY 2002	
Cc (By E-mail):	Mike Carter, John Garrett, Leonora Kwan	

At your request we've calculated adjusted state and local employer contribution rates for fiscal 2002. Adjusted rates are shown below, in the same format as the existing 6/30/99 report (with rates determined under the FIL method), and derived from the total contribution rate of 9.95% of pay using the Entry Age Normal method approved by the Retirement Board on Wednesday:

General Employer Rates (TEACHER)

	Local (60%)	State (40%)	Total
Amortization for FY 91 and 92 deferrals	--	0.40%	0.40%
Normal cost and all other amortization	5.73%	3.82%	9.55%
Total	5.73%	4.22%	9.95%

Employer Rates for the 5 towns that opted out of the 1990 early retirement window (TEACHER)

2003, 2009, 2018, 2022, 2025

	Local (60%)	State (40%)	Total
Amortization for FY 91 and 92 deferrals		0.40%	0.40%
Normal cost and all other amortization	4.90%	3.27%	8.17%
Total	4.90%	3.67%	8.57%

This treatment reamortizes the outstanding liability for the deferral and the window over the "restarted" 30-year period as of June 30, 1999. This is consistent with our reading of this year's Entry Age Normal legislation, and with your description of the early 1990s legislation describing funding for the contribution deferral and the early retirement window. It would appear that these allocations are to some extent at the discretion of the actuary, so we should be able to modify the approach for fiscal 2003 before we publish our June 30, 2000 valuation report.

Item	1999	1998
Membership		
• Number of		
– Active members	13,369	13,105
– Retirees and beneficiaries	9,067	9,033
– Inactive members	1,882	1,759
– Total	24,318	23,897
• Payroll supplied by ERSRI	$ 476,020,909	$ 458,188,422
Contribution rates		
• Member	8.75%	8.75%
• State	8.72%	7.99%
Assets		
• Market value	$ 2,228,766,512	$ 2,064,312,134
• Actuarial value	2,201,890,748	2,075,619,320
• Return on market value	10.1%	16.1%
• Return on actuarial value	14.7%	16.5%
• Employer contribution	$ 48,499,917	$ 51,308,885
Actuarial Information		
• Normal cost %	(1.05%)	(1.79%)
• Unfunded frozen accrued liability (UFAL)	$ 497,589,001	$ 500,662,814
• Amortization percentage	9.77%	9.78%
• Funding period	16 years	17 years
• GASB funded ratio	81.6%	80.6%
Projected employer contribution		
• Fiscal year ending June 30	2002	2001
• Projected payroll (millions)	$ 530.1	$ 511.3
• Projected employer contribution (millions)	46.2	40.9

Item	1999	1998
Membership		
• Number of		
– Active members	13,282	12,883
– Retirees and beneficiaries	6,043	5,775
– Inactive members	1,286	1,243
– Total	20,611	19,901
• Payroll supplied by ERSRI	$ 632,777,429	$ 598,458,766
Contribution rates		
• Member	9.50%	9.50%
• Employer	13.18%	12.01%
• State share	5.61%	5.15%
• Local employer share	7.57%	6.86%
Assets		
• Market value	$ 3,303,567,692	$ 3,037,612,690
• Actuarial value	3,259,015,814	3,045,858,851
• Return on market value	10.1%	16.1%
• Return on actuarial value	14.7%	16.5%
• Employer contributions	$ 72,516,012	$ 86,507,774
Actuarial Information		
• Normal cost %	0.16%	(1.31%)
• Unfunded frozen accrued liability (UFAL)	$ 952,042,896	$ 953,863,955
• Amortization percentage	13.02%	13.32%
• Funding period	17 years	18 years
• GASB funded ratio	77.4%	76.2%
Projected employer contribution		
• Fiscal year ending June 30	2002	2001
• Projected payroll (millions)	$ 721.5	$ 681.6
• Projected employer contribution (millions	95.1	81.8
• State share (millions)	40.5	35.1
• Local employer share (millions)	54.6	46.7

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, 2001.

The rate consists of two pieces: the normal cost rate and the amortization rate. Under the Frozen Entry Age actuarial cost method, the actuarial accrued liability determined under the Entry Age cost method as of July 1, 1985, is being amortized over 30 years as a level percent of pay. Certain subsequent changes in provisions or assumptions are also being amortized separately, either over the same period or over a new 30-year period. The sum of these payments, expressed as a percentage of payroll, is the amortization rate. All other liabilities for future benefits are reflected in the normal cost. The normal cost is the percentage of pay which, in combination with the member contributions and current assets, will be needed to fund these other liabilities over the working lifetimes of the current active members.

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

	Local	State	Total
Normal cost	0.10%	0.06%	0.16%
Deferral	0.00%	0.57%	0.57%
Other amortization	7.47%	4.98%	12.45%
Total	7.57%	5.61%	13.18%

2003 2009 2018 2022 2025

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
Normal cost	0.10%	0.06%	0.16%
Deferral	0.00%	0.57%	0.57%
Other amortization	6.28%	4.18%	10.46%
Total	6.38%	4.81%	11.19%

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Financial Data and Experien

Assets for ERSRI are held in trust and are commingled with thos
programs for investment purposes. The State Treasurer is respon
allocation policy and for investing the funds. The ERSRI assets a
staff among State Employees, Teachers, and the Teachers' Surviv

Table 7 shows the net plan assets for ERSRI in total, and it shows
Employees, Teachers and the Teachers' Survivor Benefit Plan. T
the assets for State Employees and Teachers between the previous
Table 10 shows the distribution of investments by category—near
equities—and Table 11 shows a historical summary of the return
all of the financial information used in this report.