

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM
OF THE STATE OF RHODE ISLAND

ACTUARIAL VALUATION AS OF JUNE 30, 1979

Martin E. Segal Company, Inc.
April, 1980

MARTIN E. SEGAL COMPANY
INCORPORATED

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April 8, 1980

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Retirement Board of the Municipal
Employees' Retirement System
State of Rhode Island
198 Dyer Street
Providence, Rhode Island 02903

Dear Members of the Board:

We are pleased to submit herewith our Actuarial Valuation of the Municipal Employees' Retirement System as of June 30, 1979.

Our report analyzes the actuarial status of the System, and projects the cost requirements for the Board to certify to each municipality for the fiscal year beginning July 1, 1981.

We received a great deal of help from State employees in obtaining the information which forms the basis of this report. Most important, Mr. Joseph G. Iannelli, Executive Director; Mr. John F. Sullivan, Assistant Director; and Mr. Carlo Mencucci, Senior Accountant, were available whenever needed to answer any questions and provide any information requested. Indeed, the material they provided on their own initiative anticipated many of our needs.

For convenience, this report is divided into the following sections:

- I. SUMMARY
- II. EMPLOYEE DATA
- III. RETIREE DATA
- IV. RETIREMENT FUND
- V. ACTUARIAL ASSUMPTIONS AND METHODS
- VI. RESULTS OF VALUATION

Following the report, we have attached our actuarial certificate detailing the cost factors, assumptions, and plan of benefits used for the valuation.

We will be pleased to meet with you to discuss this report at your convenience.

Sincerely yours,

MARTIN E. SEGAL COMPANY, INCORPORATED

By Sherman B. Lieberman
Sherman B. Lieberman, F.S.A., M.A.A.A.
Actuary

By Sherman G. Sass
Sherman G. Sass
Senior Vice President

SBL/kmj

I. SUMMARY

Benefit Provisions

The Municipal Employees' Retirement System of Rhode Island covers employees of the many municipalities, housing authorities and water districts which have elected to participate. There is one plan for general employees and a second optional plan for police and firemen*. General employees contribute 6 per cent of their annual earnings; those police and firemen under the optional program contribute 7 per cent.

The System generally provides unreduced benefits of 2 per cent of earnings. Such benefits are available to members at least age 58 with 10 years of service or after 30 years at any age. Police and firemen may retire at age 55 if they have 10 years of service or after 25 years at any age. Benefits are based on the average of the highest 3 consecutive years' earnings.

The plan also provides non-service-connected disability and vested benefits after 7 and 10 years of service, respectively; service-connected disability pensions with no minimum service requirement; widow's benefits for service-connected death; and certain lump sum death benefits.

More detail can be found in the actuarial certificate following this report.

Employee Data

We received data on 3,707 active general employees and 292 police and firemen as of June 30, 1979, who were participating in the system. The average salary was \$9,500 for general employees and \$13,600 for police and firemen. On the average, the general employees were age 47½ and had 9 years of service; police and firemen were age 39½ with 10 years of service.

*Throughout this report "general employees" means participants under the regular program and "police and firemen" means participants under the optional program.

Retiree Data

We received data on 1,096 pensioners and 17 beneficiaries as of June 30, 1979. The pensioners' average monthly benefit was \$211. Of all the pensioners on the rolls, ten per cent had retired in the year ended June 30, 1979.

Retirement Fund

As of June 30, 1979, the Fund had assets of \$56.1 million available as an offset to the actuarial liabilities for future benefits.

Actuarial Valuation

Our valuation was prepared as of June 30, 1979. Our calculations were based on what we believe are reasonable assumptions as to expected future experience. The assumptions are the same as those used in our previous actuarial valuation. We used the "entry age normal cost" method of funding, which spreads the cost of each employee's pension as a level percentage of his earnings from date of hire to retirement.

The employer normal cost* for general employees is \$1.6 million. This is 4.4 per cent of the payroll of participating general employees. The employer normal cost for police and firemen is \$0.3 million or 8.2 per cent of payroll.

For general employees, the actuarial liability* (for benefits earned before July 1, 1979) is \$67.9 million of which \$22.5 million represents the liability to those already receiving pensions. The unfunded actuarial liability at the end of the year is \$18.4 million after accounting for assets of \$49.5 million. For police and firemen,

*Please refer to the "Actuarial Assumptions and Methods" section of the report for definitions of these terms.

the actuarial liability is \$9.3 million of which \$2.4 million is for those receiving pensions. The unfunded actuarial liability stands at \$2.7 million after accounting for police and fire assets of \$6.7 million.

The value of the System's vested benefits is \$75 million. Thus the assets are short of this amount by \$19 million.

Based on the normal cost plus 25 year amortization of each municipality's unfunded actuarial liability, the annual employer cost as of June 30, 1979 adjusted for payment on December 31, 1979 is \$3.8 million (10.7 per cent of covered payroll) for general employees and \$0.6 million (14.7 per cent of covered payroll) for police and firemen. These amounts are in addition to the required employee contributions.

II. EMPLOYEE DATA

We received data on 3,707 general employees and 292 police and firemen participating in the System on June 30, 1979. The data included age, service, sex, and salary for each of them. The average salary of the participants was \$9,500 for general employees and \$13,600 for police and firemen.

Tables 1A and 1B give detailed age, service and average salary data on general employees and police and firemen, respectively. In preparing these tables, we assumed an annual salary of \$8,000 for the employees for whom earnings were missing.

Tables 2A and 2B summarize certain basis statistics on active general employees and police and firemen. Table 2C gives active employee statistical data separately for each participating municipality. As we continue to receive data on an automated basis, we will be able to show year by year changes in this basic employee data.

Overall, the data was usable as received. We recommend that the Board continue to pursue its program of storing all basic information on participants on computer files.

Table 1A
Number and Average Salaries of Employees in Active Service
as of June 30, 1979
By Age and By Years of Service
GENERAL EMPLOYEE*

Age	Total	Years of service										35 and over	Unknown
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 and over	Unknown			
Total	3,707 \$ 9,500	1,211 \$ 8,700	1,237 \$ 9,400	740 \$ 9,700	243 \$ 11,100	136 \$ 10,800	81 \$ 12,300	20 \$ 12,700	32 \$ 12,300	7 \$ 12,900			
Under 20	13 \$ 7,900	12 \$ 7,600	--	--	--	--	--	--	--	--	--	1 \$ 11,900	
20 - 24	140 7,900	123 7,700	17 \$ 8,800	--	--	--	--	--	--	--	--	--	
25 - 29	313 9,700	168 9,600	118 9,700	24 \$ 10,500	--	--	--	--	--	3 11,300	--	--	
30 - 34	259 10,300	121 9,300	100 11,100	32 11,700	6 \$ 9,800	--	--	--	--	--	--	--	
35 - 39	298 9,400	138 8,100	100 10,000	45 11,000	11 12,300	1 \$ 9,400	--	--	--	--	--	3 14,900	
40 - 44	373 9,400	144 7,800	121 9,100	65 11,500	26 12,400	13 11,800	4 \$ 12,100	--	--	--	--	--	
45 - 49	486 9,100	141 8,800	178 8,400	127 9,400	22 11,800	12 12,300	6 12,100	--	--	--	--	--	
50 - 54	649 9,600	166 9,100	221 8,600	147 9,300	55 12,100	28 11,600	21 14,300	9 \$ 11,300	2 \$ 12,300	--	--	--	
55 - 59	653 9,600	137 9,000	200 9,400	176 9,200	62 10,100	38 10,100	24 11,900	5 14,500	11 13,700	--	--	--	
60 - 64	393 9,800	47 9,100	130 9,900	98 8,900	47 9,800	33 10,800	19 10,800	4 14,700	15 11,400	--	--	--	
65 and over	112 10,000	8 8,700	44 9,400	25 10,100	14 11,600	11 8,900	7 12,300	2 10,300	1 17,000	--	--	--	
Unknown	18 9,900	6 10,800	8 8,900	1 11,100	--	--	--	--	3 10,000	--	--	--	

Table 1B
 Number and Average Salaries of Employees in Active Service
 as of June 30, 1979
 By Age and By Years of Service
 POLICE AND FIREMEN

Age	Total	Years of service								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 and over	Unknown
Total	292 \$13,600	63 \$11,900	112 \$13,000	61 \$14,400	27 \$15,200	19 \$17,500	7 \$16,900	1 \$12,300	1 \$12,500	1 \$13,200
20 - 24	14 \$11,500	14 \$11,500	--	--	--	--	--	--	--	--
25 - 29	48 12,100	23 11,400	24 \$12,700	--	--	--	--	--	--	1 \$13,200
30 - 34	60 13,300	11 12,800	37 13,100	12 \$14,200	--	--	--	--	--	--
35 - 39	59 13,900	3 13,300	26 13,200	24 14,400	6 \$15,900	--	--	--	--	--
40 - 44	25 14,100	1 8,700	7 12,100	9 14,100	7 15,800	1 \$20,900	--	--	--	--
45 - 49	30 15,200	1 8,600	6 14,200	7 14,100	7 14,100	9 18,300	--	--	--	--
50 - 54	26 14,800	2 18,400	6 12,300	6 16,300	5 13,900	4 17,100	3 \$13,400	--	--	--
55 - 59	16 15,800	1 9,200	5 13,400	--	1 20,300	4 16,300	4 19,500	1 \$12,300	--	--
60 - 64	6 12,700	1 6,500	1 9,000	2 16,600	1 15,500	1 12,300	--	--	--	--
65 and over	6 12,300	5 12,800	--	1 10,000	--	--	--	--	--	--
Unknown	2 12,400	1 12,300	--	--	--	--	--	--	1 \$12,500	--

RHODE ISLAND MUNICIPAL ERS

Table 2A
 Statistical Data on Active Employees
 On June 30, 1979 and 1978
 GENERAL EMPLOYEES

	June 30, 1979	June 30, 1978
Number of covered employees	3,707	3,847
Total annual salary	\$35,245,200	\$34,108,000
Average annual salary	\$9,500	\$8,900
Average age	47½	47
Average years of service	9	8½
Number eligible for service retirement	426	413
Number vested but not eligible to retire	826	751

RHODE ISLAND MUNICIPAL ERS

Table 2B

Statistical Data on Active Employees
On June 30, 1979 and 1978

POLICE AND FIREMEN

	June 30, 1979	June 30, 1978
Number of covered employees	292	281
Total annual salary	\$3,980,800	\$3,593,800
Average annual salary	\$13,600	\$12,800
Average age	39½	39½
Average years of service	10	9½
Number eligible for service retirement	23	20
Number vested but not eligible to retire	93	80

RHODE ISLAND MUNICIPAL ERS

Table 2C
Statistical Data on Active Employees on June 30, 1979
by Municipality

Municipality	Number	Average age	Average service	Average salary
<u>General Employees</u>				
01 Barrington	160	48½	9½	\$ 8,300
02 Bristol	107	48	12	10,000
03 Burrillville	90	49	8	7,300
07 Cranston	528	49	10	9,200
09 E. Greenwich	107	47½	8	7,900
10 E. Providence	282	47½	10½	11,700
14* Hopkinton	17	45½	6	7,900
15 Jamestown	29	46	10	9,800
16 Johnston	182	49	9	8,600
21 Newport	267	44	10	10,200
23 N. Kingstown	149	46	8½	10,000
24 N. Providence	154	47	8	7,600
25 N. Smithfield	73	50	7½	7,800
26 Pawtucket	652	46½	8½	10,300
30 Scituate	56	51½	9	7,000
31 Smithfield	108	48½	6	8,200
32 S. Kingstown	160	42	5	9,100
33 Tiverton	67	48½	7½	8,700
34 Warren	61	48	9	8,200
36 Westerly	10	46½	11	15,600
39 Woonsocket	357	47½	9½	9,800
51 Cranston Housing	10	50½	8½	11,000
52 E. Providence Housing	10	55	9	12,000
53 Pawtucket Housing	36	52	10	12,800
56 Cumberland Housing	6	41	5½	12,300
57 Lincoln Housing	4	48	10½	12,400
59 Bristol Housing	4	45½	5½	12,300
Burrillville Housing	2	58½	8½	9,900
65 Burrillville Housing	3	47½	2½	9,600
66 N. Providence Housing	3	52	8½	10,500
67 E. Smithfield Water	3	52	8½	12,000
68 Greenville Water	2	41	6½	10,000
71 Warren Housing	2	53½	5	9,800
72 Johnston Housing	3	56	11	10,900
79 Coventry Housing	5	52	5½	8,000
80 S. Kingstown Housing	1	58½	1½	11,700
<u>Police and Fire</u>				
50 E. Greenwich Fire	11	49	12	18,700
54 E. Greenwich Police	25	37½	8½	12,900
55 N. Kingstown P & F	86	40	9½	14,900
58 N. Providence P & F	13	45	7½	11,900
60 Barrington P & F	57	39	13	13,200
62 Warren Police	19	38½	9	12,500
63 S. Kingstown P & F	36	35	9	13,500
64 Primrose Volunteer Fire	4	46½	4½	9,000
73 Scituate Police	14	35	9	11,800
76 No. Smithfield Police	11	34	10	11,700
77 Tiverton Fire	16	43	9½	12,700

**1 2/3% Plan"

RHODE ISLAND MUNICIPAL ERS

III. RETIREE DATA

The data on retired members and beneficiaries included age, sex, monthly benefits, retirement date, option, and type of pension.

The following are significant statistics on the retired group as of June 30, 1979 and 1978:

	<u>June 30, 1979</u>	<u>June 30, 1978</u>
Pensioners:		
Number	1,096	1,008
Average age	69½	69
Average monthly benefit	\$211	\$204
Beneficiaries:		
Number	17	18
Average age	62½	61½
Average monthly benefit	\$247	\$244

Table 3 gives distributions of the 111 pensions awarded in the current year by type of pension and amount. Table 4 does the same for age at retirement.

Table 5 gives distributions for all pensions in force at the end of the fiscal year by type and amount. Table 6 does the same by age.

Table 7 has statistical data on pensioners and beneficiaries by municipality.

The data on retirees was reasonably good for retired employees. However, it was inadequate to be certain that beneficiaries were classified correctly.

The data on terminated employees with vested rights was not adequate to calculate a cost for them.

We recommend that this information be maintained by this system so that it can be incorporated in the next review.

Table 3

Pensions Awarded in the Year Ended June 30, 1979
By Type and By Monthly Amount

Monthly amount	Total	Type of pension		
		Service	Ordinary Disability	Accidental Disability
Total	111	102	6	3
Under \$50	3	3	--	--
\$ 50 - \$ 99	11	11	--	--
100 - 149	11	11	--	--
150 - 199	33	27	6	--
200 - 249	13	13	--	--
250 - 299	4	4	--	--
300 - 349	8	8	--	1
350 - 399	9	8	--	1
400 - 449	4	4	--	--
450 - 499	3	2	--	1
500 - 599	7	6	--	1
700 - 799	3	3	--	--
800 - 899	1	1	--	--
900 - 999	1	1	--	--

Table 4

Pensions Awarded in the Year Ended June 30, 1979
By Type and By Age on Effective Date

Age on Effective Date	Total	Type of pension		
		Service	Ordinary Disability	Accidental Disability
Total	111	102	6	3
40 - 44	1	--	--	1
45 - 49	1	--	--	1
50	1	1	--	--
53	1	1	--	--
55	1	--	1	--
56	2	--	1	1
57	1	1	--	--
58	15	15	--	--
59	1	1	--	--
60	7	6	1	--
61	7	6	1	--
62	27	27	--	--
63	2	2	--	--
64	11	10	1	--
65	17	16	1	--
66	5	5	--	--
67	3	3	--	--
68	4	4	--	--
69	1	1	--	--
70	3	3	--	--

RHODE ISLAND MUNICIPAL ERS

Table 5

Pensions in Force on June 30, 1979
By Type and By Monthly Amount

Monthly Amount	Total	Type of pension			
		Service	Ordinary Disability	Accidental Disability	Beneficiary
Total	1,113	996	68	32	17
Under \$50	62	55	5	1	1
\$ 50 - \$ 99	193	184	8	1	--
100 - 149	230	211	17	1	1
150 - 199	205	180	23	1	1
200 - 249	120	102	9	1	8
250 - 299	63	60	2	--	1
300 - 349	70	58	2	7	3
350 - 399	43	35	1	6	1
400 - 449	31	27	--	3	1
450 - 499	32	27	1	4	--
500 - 599	29	24	--	5	--
600 - 699	13	12	--	1	--
700 - 799	10	10	--	--	--
800 - 899	6	5	--	1	--
900 - 999	4	4	--	--	--
1,000 - 1,099	2	2	--	--	--

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Table 6

Pensions in Force on June 30, 1979
By Type and By Age

Age on June 30, 1979	Total	Type of pension			
		Service	Ordinary Disability	Accidental Disability	Beneficiary
Total	1,113	996	68	32	17
25 - 29	1	--	1	1	--
30 - 34	2	--	1	1	--
35 - 39	3	--	1	1	1
40 - 44	8	--	3	4	1
45 - 49	13	1	9	2	1
50 - 54	16	5	4	5	2
55 - 59	61	39	13	6	3
60 - 64	198	175	16	5	2
65 - 69	309	294	11	3	1
70 - 74	243	234	6	2	1
75 - 79	170	162	3	2	3
80 - 84	66	63	1	--	2
85 - 89	20	20	--	--	--
90 - 94	3	3	--	--	--

RHODE ISLAND MUNICIPAL ERS

Table 7
Pensioner and Beneficiary Statistical Data as of June 30, 1979
by Municipality

Municipality	Number	Average Age	Average Monthly Benefit
<u>General Employees</u>			
01 Barrington	49	66½	\$229
02 Bristol	26	69½	185
03 Burrillville	6	63½	139
07 Cranston	191	70½	185
09 E. Greenwich	12	65	246
10 E. Providence	115	69	231
14* Hopkinton	7	73½	194
15 Jamestown	6	74	124
16 Johnston	12	68	192
21 Newport	86	68½	271
23 N. Kingstown	36	70	166
24 N. Providence	38	70	175
25 N. Smithfield	13	71½	100
26 Pawtucket	224	70½	194
30 Scituate	20	72	216
31 Smithfield	22	66½	200
32 S. Kingstown	29	68	196
33 Tiverton	16	73	165
34 Warren	24	69	191
36 Westerly	5	65	586
39 Woonsocket	115	69	182
51 Cranston Housing	--	--	--
52 E. Providence Housing	1	68½	185
53 Pawtucket Housing	9	72½	189
56 Cumberland Housing	--	--	--
57 Lincoln Housing	--	--	--
59 Bristol Housing	--	--	--
65 Burrillville Housing	--	--	--
66 N. Providence Housing	--	--	--
67 E. Smithfield Water	1	64½	206
68 Greenville Water	1	60½	261
71 Warren Housing	--	--	--
72 Johnston Housing	--	--	--
79 Coventry Housing	--	--	--
80 S. Kingstown Housing	--	--	--
<u>Police and Fire</u>			
50 E. Greenwich Fire	--	--	--
54 E. Greenwich Police	6	64½	280
55 N. Kingstown P & F	13	63	438
58 N. Providence P & F	5	58½	336
60 Barrington P & F	12	58	452
62 Warren Police	6	58½	441
63 S. Kingstown P & F	4	59	363
64 Primrose Volunteer Fire	--	--	--
73 Scituate Police	--	--	--
76 N. Smithfield Police	1	65½	725
77 Tiverton Fire	2	68½	565

*1 2/3% Plan"

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IV. RETIREMENT FUND

The State maintains the Municipal Employees' Retirement Fund. The Retirement Board provided us with financial statements as of June 30, 1979.

The Fund receives all member and employer contributions. The assets are invested by the State Investment Commission, with the income being added to the Fund and available for reinvestment.

Payments out of the Fund are primarily for refunds of employee contributions, lump sum death benefits, and pension payments. Contribution refunds occur when an employee terminates employment and elects to take a refund, or when he dies after retirement without having received payments from the Fund equal to his total contributions.

Table 8 gives a summary of income and expenditures for the year ended June 30, 1979.

At June 30, 1979, assets totalled \$56.1 million. Table 9 gives a breakdown of the assets. About 70 per cent of the fund was invested in fixed income securities such as bonds and notes.

The financial statements indicate that 88 per cent of the assets relate to general employees, and 12 per cent are for police and firemen. There is also a small unallocated reserve for unclaimed benefits. Table 10 shows the allocation of assets in detail.

Table 8

Summary Statement of Income and Expenses
For Year Ended June 30, 1979

Employer contributions	\$4,978,892	
Member contributions	<u>2,488,519</u>	
Total contributions		\$7,467,411
Net miscellaneous items		(18,920)
Investment income:		
Dividends	\$ 829,498	
Interest	2,907,313	
Sale of Options	16,952	
Capital gains and (losses)	<u>(89,179)</u>	
Net investment income		<u>3,664,584</u>
Total income available for benefit payments		\$11,113,075
Benefit payments:		
Pension benefits		\$2,844,969
Death benefits		92,400
Contribution refunds		<u>1,662,394</u>
Total benefit payments		<u>4,599,763</u>
Excess of income over expenses		<u>\$ 6,513,311</u>

Note: Detail figures may not add to totals shown because of rounding.

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Table 9

Assets as of June 30, 1979

Cash		\$ 295,156
Accrued interest receivable		698,636
Investments		
Government bonds	\$13,391,180	
Corporate bonds	18,432,200	
Common and preferred stocks	16,291,571	
Certificates of deposit	4,300,000	
Commercial Paper	3,091,836	
(Less) Unamortized premiums and discounts	<u>(361,195)</u>	<u>55,145,592</u>
Total assets		<u>\$56,139,384</u>

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Table 10

Allocation of Assets by Plan
as of June 30, 1979

General Employees:		
Retirement reserves	\$34,161,794	
Employer reserves	3,084,764	
Member reserves	<u>12,232,436</u>	
Total General Employees reserves		\$49,478,993
Police and Fire:		
Retirement reserves	\$ 4,249,838	
Employer reserves	635,843	
Member reserves	<u>1,770,141</u>	
Total Police and Fire reserves		6,655,822
Unallocated:		
Unclaimed benefit reserve		<u>4,569</u>
Total assets		<u>\$56,139,384</u>

Note: Detail figures may not add to totals because of rounding.

RHODE ISLAND MUNICIPAL ERS

V. ACTUARIAL ASSUMPTIONS AND METHODS

The actual cost of a pension plan consists of the benefit payments and administrative expenses less any investment earnings. An actuarial cost method aims to budget this cost so as to establish a reasonable relationship between employer pension contributions and the employee services that give rise to the pension obligations. The result is an employer contribution which anticipates future costs. A fund accumulates which earns investment income, thus reducing the ultimate cost.

Calculating the appropriate contribution requires that projections, and therefore assumptions, be made as to future experience. Some items, such as mortality rates, can be predicted fairly accurately. Others, such as future salary increases, are, of course, subject to considerable variation. It will be useful to identify the assumptions used, particularly since broad questions of fiscal policy are implicit in certain of the assumptions. These assumptions are the same as those used in our previous actuarial valuation.

Mortality Rates

We assumed that mortality rates would conform with the 1971 Group Annuity Mortality Table. This is a recently published table of pension plan mortality, and we believe it will be a reasonable basis for experience under the System. It is one of the tables in general use in valuing pension plans in the United States. Table 11 gives some life expectancies after retirement.

Salary Projections

The System provides benefits that are based on the three highest consecutive years' salary for each employee. To assume that each employee's salary will be the same in the three years before retirement as it is today would seriously underestimate the System's cost. Accordingly, we use a salary projection to anticipate future increases in earnings. Additionally, it is appropriate to compute pension normal costs which are level

as a percentage of payroll rather than level as a dollar amount, and a salary projection is also used for this purpose. If the costs were calculated as a level dollar amount for an individual, the cost might be a high per cent of his pay when he was young and a lower per cent of his higher salary at a later age. By use of a salary projection, the contribution for an individual, all other things remaining the same, tends to stay at the same percentage over the years.

How to project future salaries is a major policy question. To what extent should one seek to anticipate, through present contributions, the full impact on pension costs of future salary changes?

For purposes of our cost determination, we have made a moderate allowance for general salary increases in the future. We also reflect salary increases as the result of longevity and promotions. The scale has relatively greater increases at the younger ages to correspond with salary schedules. The salary scale factors are:

<u>Age</u>	<u>Present Salary as a % of Age 65 Salary</u>	<u>Annual Increases (Rate %)</u>
20	17.45	4.84
25	22.07	4.75
30	27.76	4.59
35	34.62	4.39
40	42.68	4.08
45	51.76	3.72
50	61.77	3.45
55	72.98	3.33
60	86.08	3.16

As will appear, the problem of salary projection has a parallel in the question of choosing an assumption as to future investment yield and the two are somewhat interrelated.

Termination Rates

In any employee group, many employees will terminate and receive less than full benefits. Employees terminating with less than ten years of active service, for example, receive only a refund of their contributions. The termination assumption anticipates the release of municipal funds that may have been accumulated for such people, thus resulting in a reduced ongoing cost.

We assumed that terminations each year from all causes except retirement would be as follows:

<u>General Employees (Rate %)</u>				
<u>Age</u>	<u>Death*</u>	<u>Disability</u>	<u>Withdrawal</u>	<u>Total*</u>
20	.05	.06	21.20	21.31
25	.06	.09	15.80	15.95
30	.08	.11	11.60	11.79
35	.11	.15	8.40	8.66
40	.16	.22	6.20	6.58
45	.29	.36	4.20	4.85
50	.53	.61	2.60	3.73
55	.85	1.01	--	1.86
60	1.31	--	--	1.31

15% of the above disability rates are service-connected.

<u>Optional Police and Fire (Rate %)</u>				
<u>Age</u>	<u>Death*</u>	<u>Disability</u>	<u>Withdrawal</u>	<u>Total*</u>
20	.05	.12	--	.17
25	.06	.17	--	.23
30	.08	.22	--	.30
35	.11	.29	--	.41
40	.16	.44	--	.60
45	.29	.72	--	1.01
50	.53	1.21	--	1.74
55	.85	--	--	.85

50% of the above disability rates are service-connected.

*Rates shown are for men, rates for women are slightly lower.
NOTE: Detail figures may not add to totals shown because of rounding.

Retirement Ages

The System provides unreduced benefits as early as age 58 for general employees and 55 for police and firemen. Long service employees may get unreduced or reduced benefits at even younger ages. In the absence of experience data, we have assumed general employees will retire at age 65, or completion of 10 years of service if later. Police and firemen retirements are assumed to occur when the officer is both age 60 and has 10 years of service. In any case where the employee already meets these assumed conditions of age and service, it is projected that he or she will retire immediately.

Investment Return

Investment return has a major effect on the ultimate cost of a retirement system. In general, if a system is actuarially funded (so that it has a substantial reserve which is earning an investment yield), a yield of 6 per cent - in contrast to a 5 per cent yield - will reduce costs by 16-20 per cent.

An assumption must be made concerning future yields. It must be a rate that will be valid for the long-run that is, not only for money invested today or next year, but also for money invested 10 and 20 years from now.

We selected an investment return assumption of 6 1/2 per cent per year for our calculation. This assumption takes account of probable moderate long-term inflation but is not tied directly to the higher rates currently available.

Funding Method

We have used the "entry age normal cost method of funding." This method spreads the cost of the benefits to be provided to an individual as a level percentage of his pay from his date of employment to his

assumed date of retirement. The normal cost for the entire system is equal to the sum of the normal costs for all participants. In a rough sense, it can be visualized as the cost of benefits earned during the current year.

The actuarial liability represents the amount by which the future normal costs fall short of meeting the cost of future benefit payments. It can also be viewed, roughly, as the value of benefits accrued for service prior to the valuation date.

Overall Actuarial Basis

We believe that our assumptions, taken as a whole, are reasonable. To the extent that actual experience is better or worse than assumed, gains or losses will develop, with appropriate decreases or increases in future costs.

Missing Data

It was also necessary to make certain "non-actuarial" assumptions where data was missing or incomplete. In all cases, we assumed such individuals had the same characteristics as other participants, taking into account the known characteristics (e.g. male members age 37 with unknown service were assumed to have the same service distribution as male members age 37 with known service).

Table 11
Expected Number of Years of Life
Remaining at Specified Ages

Age	Male	Female
55	22.7	28.0
56	21.9	27.1
57	21.1	26.2
58	20.3	25.3
59	19.5	24.4
60	18.8	23.5
61	18.0	22.6
62	17.3	21.8
63	16.5	20.9
64	15.8	20.1
65	15.1	19.2
66	14.4	18.4
67	13.8	17.6
68	13.1	16.8
69	12.5	16.0
70	11.9	15.3
71	11.3	14.5
72	10.8	13.8
73	10.3	13.1
74	9.7	12.4
75	9.2	11.7

1971 Group Annuity Mortality Table.

VI. RESULTS OF VALUATION

General Employees

The costs for general employees as of June 30, 1979, developed as follows:

Item	Amount	% of Payroll
(1) Participating payroll	\$35,245,200	--
(2) Employer normal cost	1,565,800	4.4%
(3) Unfunded actuarial liability	18,375,300	--
(4) Amortization of unfunded actuarial liability	2,075,400	5.9
(5) Total annual cost if paid July 1, 1979 = (2) + (4)	3,641,200	10.3
(6) Total annual cost if paid in December = (5) plus ½ year interest	3,759,500	10.7

The calculations as completed assume that the employer contribution will be paid into the retirement fund at the beginning of each year, and will start to earn interest from that date. In fact, the money is deposited in December. Thus about half a year's interest is lost, and the contribution must be increased to reflect this. Line 6, above, includes this adjustment.

Police and Firemen

The costs for police and firemen as of June 30, 1979, developed as follows:

Item	Amount	% of Payroll
(1) Participating payroll	\$3,980,800	--
(2) Employer normal cost	327,300	8.2%
(3) Unfunded actuarial liability	2,687,300	--
(4) Amortization of unfunded actuarial liability		
(5) Total annual cost if paid July 1, 1979 = (2) + (4)	240,000	6.0
(6) Total annual cost if paid in December + (5) plus ½ year interest	567,300	14.2
	585,700	14.7

The calculations as completed assume that the employer contribution will be paid into the retirement fund at the beginning of each year, and will start to earn interest from that date. In fact, the money is deposited in December. Thus about half a year's interest is lost, and the contribution must be increased to reflect this. Line 6, above, includes this adjustment.

Comments on Results

The costs reported above are for the System as a whole. The principal cost factors for each municipality are shown in Table 12. (The total of the unfunded actuarial liabilities on Table 12 exceeds the total shown above because some municipalities have assets in excess of their actuarial liabilities — that is, they are "overfunded." Table 12 shows zero balances for these municipalities, but for the System as a whole the overfunding of these municipalities reduces the unfunded actuarial liability.)

The amortization shown on line 4 is the total of the amortization requirements for the individual municipalities over a period of 25 years from the date the municipality joined the System. The earliest membership date is 1957; those original groups have three years remaining on their amortization program. Other groups have more years left. On a dollar-weighted basis, the remaining amortization period is about 12 years for general employees and 18 years for police and firemen. That is, the total amortization payment reported above would pay off the total unfunded actuarial liability over that period of time.

Looking at the total cost figures compared to the previous year, it can be seen that for general employees, costs dropped by 0.3 per cent of payroll (from 10.6 per cent to 10.3 per cent). The normal cost percentage remained stable at 4.4 per cent and there was a small decrease in the amortization pay-

ment when expressed as a per cent of payroll (from 6.2 per cent to 5.9 per cent). Because the amortization payments are calculated as level dollar payments, they will tend to decrease as a percentage of a rising payroll from year to year. The dollar-weighted aggregate amortization period declined by one year for the general employee group.

For police and firemen costs dropped by 0.4 per cent of payroll (from 14.6 per cent to 14.2 per cent). The normal cost percentage decreased slightly (from 8.3 per cent to 8.2 per cent), and the amortization payment as a per cent of payroll declined by 0.3 per cent (from 6.3 per cent to 6.0 per cent). The same primary reason for this change as indicated above applies to the police and fire group. The dollar-weighted aggregate amortization period declined by two years for this group.

Table 13 shows the recommended rates for each participating municipality. These rates are to be effective for the year beginning July 1, 1981. The total rates are broken down into normal cost and past service amortization components. For comparison, the 1980 and 1979 recommended total rates are also shown. In addition, the recommended remaining amortization periods for each municipality are presented. For the year beginning July 1, 1981, the rate for Tiverton (code 33) reflects the adoption of the "2% Plan." There were no new entering groups as of June 30, 1979.

Value of Vested Benefits

In private pension plans, it is customary for the actuary to provide the "value of vested benefits." This figure is used by accountants in preparing financial statements, both as a disclosure item and as a factor in determining the pension expense charge, in accordance with Opinion No. 8 of the Accounting Principles Board of the American Institute of Certified Public Accountants, "Accounting for the Cost of Pension Plans." While we recognize that the System may not be covered by this Opinion, a brief discussion of this subject may be helpful.

The "value of vested benefits" represents the single premium value under the plan's investment income and mortality assumptions of all benefits to present and former employees which do not have future employment by the employee as a required condition for their receipt. Thus it includes the present value of an immediate or deferred pension for all pensioners, beneficiaries, vested former employees, and active participants with at least ten years of service. For active employees with less than ten years of service, only the accumulated employee contributions are included, since that is all such employees would receive if they had no further employment.

For the Municipal Employees' Retirement System, the value of vested benefits is as follows:

	<u>General Employees</u>	<u>Police and Firemen</u>
Active members	\$45,210,400	\$4,710,700
Retired members	<u>22,528,000</u>	<u>2,395,500</u>
Total value of vested benefits	\$67,738,400	\$7,106,200
Assets	<u>49,479,000</u>	<u>6,655,800</u>
Unfunded value of vested benefits	<u>\$18,259,400</u>	<u>\$ 450,400</u>

Table 12 includes the unfunded vested benefits for each municipality.

Overall Status of System

Although the costs for some municipalities differ substantially from those reported last year, annual valuations will tend to minimize the magnitude of experience fluctuations from year to year. We recommended the continuation of this practice and look forward to working with the Retirement Board in this effort.

Table 12
Actuarial Cost Factors as of June 30, 1979
by Municipality

Municipality	Year Joined	Employer Normal Cost	Unfunded Actuarial Liability	Unfunded Vested Benefits
General Employees				
01 Barrington	1957	\$ 61,900	\$ 909,600	\$1,042,500
02 Bristol	1957	48,800	152,600	201,300
03 Burrillville	1968	32,800	309,900	396,300
07 Cranston	1963	217,100	3,251,600	3,424,800
09 E. Greenwich	1957	40,400	--	--
10 E. Providence	1961	130,200	1,628,800	1,560,200
14* Hopkinton	1969	4,900	49,900	28,600
15 Jamestown	1964	12,200	--	--
16 Johnston	1968	79,200	323,700	8,500
21 Newport	1966	86,200	2,255,800	2,629,500
23 N. Kingstown	1957	63,500	--	--
24 N. Providence	1961	57,800	755,400	715,100
25 N. Smithfield	1964	34,000	--	--
26 Pawtucket	1962	286,200	5,142,500	5,199,900
30 Scituate	1967	19,700	366,200	317,600
31 Smithfield	1959	49,200	290,000	240,200
32 S. Kingstown	1957	65,700	--	--
33 Tiverton	1964	32,600	364,000	413,700
34 Warren	1957	24,800	214,500	222,400
36 Westerly	1976	4,700	508,500	513,600
39 Woonsocket	1962	157,000	1,843,800	1,900,300
51 Cranston Housing	1968	5,600	--	--
52 E. Providence Housing	1968	8,800	46,900	40,400
53 Pawtucket Housing	1968	22,800	19,100	20,000
56 Cumberland Housing	1969	2,800	8,100	--
57 Lincoln Housing	1969	2,100	--	8,500
59 Bristol Housing	1970	2,300	--	--
65 Burrillville Housing	1972	1,600	11,300	13,300
66 N. Providence Housing	1973	1,900	--	--
67 E. Smithfield Water	1973	1,600	37,800	64,700
68 Greenville Water	1973	900	33,700	29,300
71 Warren Housing	1975	1,000	--	--
72 Johnston Housing	1976	2,200	49,600	59,300
79 Coventry Housing	1977	2,500	31,100	20,100
80 S. Kingstown Housing	1977	800	--	--
Police and Fire				
50 E. Greenwich Fire	1967	22,300	161,100	74,900
54 E. Greenwich Police	1968	27,300	250,100	83,300
55 N. Kingstown P & F	1968	102,800	780,600	39,400
58 N. Providence P & F	1968	17,700	177,300	72,500
60 Barrington P & F	1970	58,300	587,600	124,800
62 Warren Police	1970	18,900	345,800	235,800
63 S. Kingstown P & F	1971	35,400	234,400	--
64 Primrose Volunteer Fire	1972	4,100	--	--
73 Scituate Police	1976	12,500	--	--
76 N. Smithfield Police	1977	8,700	--	--
77 Tiverton Fire	1977	19,600	38,800	--
			161,100	63,700

*"1 2/3% Plan"

RHODE ISLAND MUNICIPAL ERS

Table 13
Rhode Island Municipal Employees Retirement System
Recommended Contribution Rates

Municipality	YEAR BEGINNING JULY 1, 1981				TOTAL RATE YEAR BEGINNING JULY 1	
	Normal Cost	Past Service	Total Rate	Amortization Period	1980	1979
General Employees						
01 Barrington	4.79%	8.60%	13.39%	11	12.82%	12.28%
02 Bristol	4.70	5.21	9.91	3	10.88	9.55
03 Burrillville	5.13	5.06	10.19	14	11.49	9.08
07 Cranston	4.59	8.40	12.99	11	11.81	12.10
09 E. Greenwich	4.93	--	4.93	3	6.87	11.28
10 E. Providence	4.07	8.71	12.78	7	13.21	11.55
14* Hopkinton	3.78	3.84	7.62	15	8.77	9.37
15 Jamestown	4.43	--	4.43	10	7.92	7.07
16 Johnston	5.25	2.22	7.47	14	7.58	7.93
21 Newport	3.28	6.86	10.14	23	11.35	11.42
23 N. Kingstown	4.42	--	4.42	3	6.04	8.32
24 N. Providence	5.11	5.33	10.44	23	10.17	9.89
25 N. Smithfield	6.15	--	6.15	10	6.61	6.20
26 Pawtucket	4.42	6.33	10.75	23	11.25	10.87
30 Scituate	5.18	10.04	15.22	14	17.31	17.54
31 Smithfield	5.74	5.23	10.97	8	12.44	9.62
32 S. Kingstown	4.67	--	4.67	3	4.83	4.97
33 Tiverton	5.77	8.41	14.18	10	15.36	6.20
34 Warren	5.09	7.53	12.62	7	11.83	13.10
36 Westerly	3.11	26.91	30.02	23	33.14	29.34
39 Woonsocket	4.63	8.36	12.99	8	12.68	12.84
51 Cranston Housing	5.29	--	5.29	14	5.58	5.71
52 E. Providence Housing	7.57	4.17	11.74	14	12.17	8.55
53 Pawtucket Housing	5.10	0.44	5.54	14	7.30	8.13
56 Cumberland Housing	3.92	1.11	5.03	15	4.89	3.82
57 Lincoln Housing	4.43	--	4.43	15	6.37	6.06
59 Bristol Housing	4.86	--	4.86	16	5.03	5.38
65 Burrillville Housing	8.34	4.79	13.13	23	12.02	12.14
66 N. Providence Housing	6.94	--	6.94	23	9.36	8.05
67 E. Smithfield Water	5.25	9.67	14.92	23	15.51	24.34
68 Greenville Water	3.87	11.55	15.42	23	17.79	15.19
71 Warren Housing	5.10	--	5.10	21	5.49	5.49
72 Johnston Housing	6.93	12.58	19.51	23	19.41	19.44
79 Coventry Housing	6.48	6.59	13.07	23	12.77	--
80 So. Kingstown Housing	6.84	--	6.84	23	6.80	--
Police and Fire						
0 E. Greenwich Fire	11.19	6.46	17.65	23	17.42	17.61
54 E. Greenwich Police	8.62	6.38	15.00	23	16.70	18.13
55 N. Kingstown P&F	8.26	5.50	13.76	19	13.90	13.97
58 N. Providence P&F	11.78	11.82	23.60	15	25.82	13.93
60 Barrington P&F	7.97	6.42	14.39	23	14.01	15.71
62 Warren Police	8.20	11.96	20.16	23	21.49	15.20
63 S. Kingstown P&F	7.52	6.48	14.00	10	14.53	13.95
64 Primrose Volunteer Fire	11.73	--	11.73	18	11.23	10.70
73 Scituate Police	7.80	--	7.80	22	8.30	7.83
76 N. Smithfield Police	7.00	2.50	9.50	23	10.33	--
77 Tiverton Fire	9.95	6.57	16.52	23	17.10	--

*"1 2/3% Plan"

RHODE ISLAND MUNICIPAL ERS

MARTIN E. SEGAL COMPANY
INCORPORATED

607 BOYLSTON STREET • BOSTON, MASS. 02116 • (617) 262-0550

April 8, 1980

ATLANTA
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NEW YORK
PHOENIX
SAN FRANCISCO
WASHINGTON, D.C.
TORONTO

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF RHODE ISLAND

CERTIFICATE OF ACTUARIAL VALUATION

This is to certify that we have prepared an actuarial valuation of the plan as of June 30, 1979.

The certificate contains the following attached exhibits:

EXHIBIT I - Actuarial Cost for Year Beginning July 1, 1979

A. General employees

B. Police and firemen

EXHIBIT II - Actuarial Assumptions and Funding Method

EXHIBIT III - Summary of Plan Provisions

To the best of my knowledge the information supplied in this actuarial valuation is complete and accurate (except as noted in Exhibit I) and in my opinion the assumptions used in the aggregate (a) are reasonably related to the experience of the plan and to reasonable expectations and (b) represent my best estimate of anticipated experience under the plan.

MARTIN E. SEGAL COMPANY

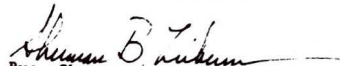

By: Sherman B. Lieberman, F.S.A., M.A.A.A.
Actuary

EXHIBIT I

ACTUARIAL COST FOR YEAR BEGINNING JULY 1, 1979

A. GENERAL EMPLOYEES

The valuation was made with respect to the following data supplied to us by the Retirement Board:

- a. 3,707 active participants (including 1,252 fully vested) with total annual salaries of \$35,245,200
- b. 1,064 pensioners (including 6 beneficiaries of deceased pensioners and active employees)

The cost factors as of the valuation date are as follows:

1. Total normal cost	\$ 3,680,500
2. Projected employee contributions	2,114,700
3. Employer normal cost	1,565,800
4. Actuarial liability - total	67,854,300
Active employees	\$45,326,300
Pensioners (including beneficiaries of deceased pensioners and active employees)	22,528,000
5. Assets	49,479,000
6. Unfunded actuarial liability	18,375,300

Liability for accrued vested benefits: \$67,738,400.

Note: Included are 25 active employees unknown as to age, service, or both. Status of beneficiaries was unclear. No data was provided on terminated vested employees, if any.

EXHIBIT I

ACTUARIAL COST FOR YEAR BEGINNING JULY 1, 1979

B. POLICE AND FIREMEN

The valuation was made with respect to the following data supplied to us by the Retirement Board:

- a. 292 active participants (including 116 fully vested) with total annual salaries of \$3,980,800
- b. 49 pensioners (including 11 beneficiaries of deceased pensioners and active employees)

The cost factors as of the valuation date are as follows:

1. Total normal cost	\$ 605,900
2. Projected employee contributions	278,600
3. Employer normal cost	327,300
4. Actuarial liability - total	9,343,100
Active employees	\$6,947,600
Pensioners (including beneficiaries of deceased pensioners and active employees)	2,395,500
5. Assets	6,655,800
6. Unfunded actuarial liability	2,687,300

Liability for accrued vested benefits: \$7,106,200

Note: Included are 3 active employees unknown as to age, service, or both. Status of beneficiaries was unclear. No data was provided on terminated vested employees, if any.

EXHIBIT II

ACTUARIAL ASSUMPTIONS AND FUNDING METHOD

Mortality rates -- 1971 Group Annuity Mortality Table

Disability mortality before age 65 -- Age 65 mortality under stipulated table.

Termination rates before retirement:

<u>General Employees (Rate %)</u>				
<u>Age</u>	<u>Death*</u>	<u>Disability</u>	<u>Withdrawal</u>	<u>Total*</u>
20	.05	.06	21.20	21.31
25	.06	.09	15.80	15.95
30	.08	.11	11.60	11.79
35	.11	.15	8.40	8.66
40	.16	.22	6.20	6.58
45	.29	.36	4.20	4.85
50	.53	.61	2.60	3.73
55	.85	1.01	--	1.86
60	1.31	--	--	1.31

15% of the above disability rates are service-connected.

<u>Optional Police and Fire (Rate %)</u>				
<u>Age</u>	<u>Death*</u>	<u>Disability</u>	<u>Withdrawal</u>	<u>Total*</u>
20	.05	.12	--	.17
25	.06	.17	--	.23
30	.08	.22	--	.30
35	.11	.29	--	.41
40	.16	.44	--	.60
45	.29	.72	--	1.01
50	.53	1.21	--	1.74
55	.85	--	--	.85

50% of the above disability rates are service-connected.

*Rates shown are for men: rates for women are slightly lower.

NOTE: Detail figures may not add to totals shown because of rounding.

Salary scale:

<u>Age</u>	<u>Present salary as a percent of salary at 65</u>	<u>Annual increase (Rate %)</u>
20	17.45	4.84
25	22.07	4.75
30	27.76	4.59
35	34.62	4.39
40	42.68	4.08
45	51.76	3.72
50	61.77	3.45
55	72.98	3.33
60	86.08	3.16

Includes allowance for inflation of 3% per year.

Unknown characteristics of employees: Same as those exhibited by employees with known characteristics. Unknown salary is assumed to be \$8,000.
 Retirement age -- General Employees: 65, or completion of service requirement if later. Optional Police and Fire: 60, or completion of service requirement if later.
 Percent married -- Social Security awards during 1972
 Net investment return -- 6½%
 Valuation of assets -- At amortized book value for bonds and at cost for stocks.
 Funding method -- Entry age normal cost

EXHIBIT III

SUMMARY OF PLAN PROVISIONS

Service pension

	<u>General Employees</u>		<u>Police and Firemen</u>	
Age requirement	58	None	55	None
	or		or	
Service requirement:	10 yrs.	30 yrs.	10 yrs.	25 yrs.

Amount: 2%* of final average salary per year of service to a maximum of 75%. Final average salary is defined as the average of compensation earned during the highest 3 consecutive years prior to termination. Retirement is mandatory at age 70. For police and firemen, mandatory retirement is at age 65.

Early retirement (police and firemen only)

Age requirement: 50
 Service requirement: 20 years
 Amount: Regular pension accrued, reduced by 6% for each year of age less than 55.

Disability

Non-occupational:

Age requirement: None
 Service requirement: 7 years
 Amount: 1 2/3 % of final average salary at disability per year of service (but not less than 25%), payable immediately.
 Maximum 50% of final average salary for police and firemen.

Occupational:

Age requirement: None
 Service requirement: None
 Amount: 66 2/3% of final salary, payable immediately.

Vesting

Age requirement: None
 Service requirement: 10 years
 Amount: Regular pension accrued, payable at age 58

Pre-retirement death benefits

Lump sum benefit:

Age requirement: None
 Service requirement: None
 Amount: (a) \$400 per year of service to a maximum of \$8,000 and with a minimum of \$2,000.
 (b) Refund of employee contributions.

*1 2/3% for Hopkinton

Spouse's benefit (applicable only if elected by employee):

Age requirement: 60 or 55
Service requirement: 10 yrs. or 20 yrs.

Amount: Benefit employee would have received had he retired the day before he died and elected the joint and survivor option.

Police and firemen's survivor's benefit:

Age requirement: None
Service requirement: None
Amount: 30% of final average salary to the spouse plus 10% to each child under age 18

Occupational death benefit:

Age requirement: None
Service requirement: None
Amount: (a) 50% of salary to spouse or children under age 18, less workmen's compensation. Police and fire also receive 10% for each child under 18 to a maximum of 66 2/3%.
(b) Refund of employee contributions.

Financial Statements

Post-retirement death benefits

Lump sum benefit:

- (a) 100% of employee contributions, less benefits paid.
- (b) Pre-retirement death benefit, reduced 25% per year of retirement, but not less than \$2,000.

Police and firemen's survivors benefit:

Same as pre-retirement

Employee contribution rate:

6% for general employees, 7% for police and firemen, until 75% benefit is accrued.

Available options:

Joint and survivor with 50% or 100% continued to the beneficiary after the death of the employee.

Comparative Financial Balance Sheet

June 30

<u>Assets</u>	<u>1979</u>	<u>1978</u>
Cash	\$ 295,146	\$ 313,397
Cash	10	10
Accrued Interest Receivable	698,636	619,237
Investments (At Amortized Book Value for Bonds and Cost of Stocks)	<u>55,145,592</u>	<u>48,693,429</u>
Total Assets	<u>\$ 56,139,384</u>	<u>\$ 49,626,073</u>
 <u>Liabilities & Reserves</u>		
<u>Current Liabilities</u>		
Unclaimed Benefits	\$ 4,569	\$ 2,454
 <u>Reserves-General Employees</u>		
Members Contribution	12,232,436	11,183,636
Employers Accumulation	3,084,763	2,550,362
Retirement	<u>34,161,794</u>	<u>29,551,369</u>
Total Reserves-General Employees	<u>49,478,993</u>	<u>43,285,367</u>
 <u>Reserves-Police & Fire</u>		
Members Contribution	1,770,141	1,741,089
Employers Accumulation	635,843	791,188
Retirement	<u>4,249,838</u>	<u>3,805,975</u>
Total Reserves-Police & Fire	<u>\$ 6,655,822</u>	<u>\$ 6,338,252</u>
Total Liabilities & Reserves	<u>\$ 56,139,384</u>	<u>\$ 49,626,073</u>

Analysis of Revenue & Expenditures

Fiscal Year Ended - June 30, 1979

<u>REVENUES</u>	General Employees Amount	%	Police & Fire Amount	%	Total
Members Contributions	\$2,211,630	22.41	\$ 276,889	21.59	\$ 2,488,519
Employers Contributions	4,424,367	44.82	554,525	43.23	4,978,892
Investment Earnings	3,214,354	32.57	450,230	35.10	3,664,584
Other	<u>20,076</u>	<u>00.20</u>	<u>1,008</u>	<u>00.08</u>	<u>21,084</u>
Total Revenues	<u>\$9,870,427</u>	<u>100.00</u>	<u>\$1,282,652</u>	<u>100.00</u>	<u>\$11,153,079</u>
 <u>EXPENDITURES</u>					
Monthly Pensions	\$2,491,034	25.23	\$ 218,222	17.01	\$ 2,709,256
Survivor Benefits			37,539	02.93	37,539
Death Retirement Allowances	188,574	01.92	2,000	00.16	190,574
Refunds of Contributions	935,251	09.48	727,143	56.69	1,662,394
Other	<u>40,005</u>	<u>00.40</u>			<u>40,005</u>
Total Expenditures	<u>\$3,654,864</u>	<u>37.03</u>	<u>\$ 984,904</u>	<u>76.79</u>	<u>\$ 4,639,768</u>
Excess Revenues over Expenditures to Reserves	\$6,215,563	62.97	\$ 297,748	23.21	\$ 6,513,311

Distribution of Excess Revenue

<u>UNCLAIMED BENEFITS</u>	\$ 2,114
 <u>GENERAL EMPLOYEES</u>	
Members Contribution Reserve	1,675,737
Employees Accumulated Reserve	3,896,285
Retirement Reserve	<u>641,427</u>
 <u>POLICE & FIRE</u>	
Member Contribution Reserve	65,447
Employers Accumulated Reserve	38,823
Retirement Reserve	<u>193,478</u>
Total Distribution	<u>\$ 6,513,311</u>

Analysis of Investment Income

Fiscal Year Ended - June 30, 1979

Investment Income - Interest		\$ 2,847,172
Add:		
Accrued Interest June 30, 1979	\$ 698,636	
Accrued Interest July 1, 1978	<u>619,237</u>	
	79,399	
Discounts Amortized	<u>31,149</u>	
<u>Total Additions</u>		<u>110,548</u>
Total		\$ 2,957,720
Less:		
Accrued Interest Purchased	\$ 45,871	
Premiums Amortized	<u>4,536</u>	
<u>Total Deductions</u>		<u>50,407</u>
Net Interest Earned		\$ 2,907,313
Dividends	\$ 829,498	
Sale of Options - Net	<u>16,952</u>	
Total Earned on Investments		\$ 3,753,763
Capital Loss		<u>(89,179)</u>
Total Investment Income		<u>\$ 3,664,584</u>

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM
OF THE STATE OF RHODE ISLAND

Reserve Accounts - Allocation of Fund Balances
June 30, 1979

<u>General Employees</u>	<u>Code</u>	<u>Members Reserves</u>	<u>Employers Reserves</u>	<u>Retirement Reserves</u>
Barrington	01	509,078.56	(255,802.78)	1,990,470.91
Bristol	02	395,213.97	597,140.08	961,777.60
Burrillville	03	202,257.75	213,145.94	287,451.21
Cranston	07	1,906,494.51	532,156.31	5,177,501.94
East Greenwich	09	291,874.05	427,028.20	731,375.62
East Providence	10	1,216,105.85	8,195.19	4,475,247.33
Hopkinton	14	37,851.20	33,758.22	85,442.24
Jamestown	15	103,609.66	175,853.66	182,182.74
Johnston	16	492,895.13	775,192.76	728,901.51
Newport	21	1,030,090.09	(423,090.60)	3,389,419.06
North Kingstown	23	584,150.54	559,341.69	1,358,667.10
North Providence	24	374,682.40	35,087.66	925,827.02
North Smithfield	25	190,692.19	278,637.36	393,215.82
Pawtucket	26	2,275,365.33	(1,057,714.24)	5,982,499.64
Scituate	30	140,524.22	35,552.18	346,985.93
Smithfield	31	254,716.36	145,209.04	738,117.66
South Kingstown	32	313,141.19	230,263.89	1,243,418.00
Tiverton	33	177,401.38	37,443.57	374,931.86
Warren	34	202,993.96	153,897.05	584,254.64
Westerly	36	21,929.79	(296,616.73)	344,883.14
Woonsocket	39	1,156,282.20	224,808.70	3,369,754.74
Cranston Housing Authority	51	46,229.30	92,754.21	47,126.83
East Prov. Housing Authority	52	43,560.06	62,761.14	57,348.28
Pawtucket Housing Authority	53	169,796.76	410,286.52	273,260.86
Cumberland Housing Authority	56	18,260.25	17,606.93	10,558.00
Lincoln Housing Authority	57	29,373.06	26,823.23	16,326.72
Bristol Housing Authority	59	11,873.60	26,172.00	13,610.06
Burrillville Housing Authority	65	6,665.75	7,638.19	3,771.49
No. Prov., Housing Authority	66	4,207.91	9,745.51	3,752.01
E. Smithfield Water District	67	6,643.67	(2,953.62)	25,324.68
Greenville Water District	68	4,420.76	(25,131.67)	33,756.70
Warren Housing Authority	71	4,065.58	9,708.35	1,906.94
Johnston Housing Authority	72	5,192.90	11,318.77	1,710.33
Coventry Housing Authority	79	3,882.55	6,471.28	770.58
So. Kingstown Housing Authority	80	913.32	2,075.67	244.64
Total		12,232,435.80	3,084,763.66	34,161,793.83
<u>Police & Fire</u>				
East Greenwich Fire District	50	88,749.66	165,152.67	82,471.90
East Greenwich Police Department	54	137,315.51	40,428.90	262,438.49
No. Kingstown Police Department	55	535,542.45	347,885.44	1,144,294.39
No. Prov. Police & Fire Dept.	58	68,518.90	(313,872.94)	472,018.83
Barrington Police	60	429,105.11	75,857.20	1,155,806.16
Smithfield Police & Fire	61	-0-	-0-	-0-
Warren Police Department	62	106,496.32	(174,876.81)	455,121.53
So. Kingstown Police & Fire	63	193,695.05	193,329.80	333,659.16
Primrose Volunteer Fire	64	17,869.80	35,731.86	13,879.41
Scituate Police	73	60,798.49	150,014.68	47,271.74
North Smithfield Police	76	58,852.60	62,392.98	117,287.69
Tiverton Fire Department	77	73,196.96	53,799.31	165,589.20
Police & Fire Total		1,770,140.85	635,843.09	4,249,838.50

MUNICIPAL EMPLOYEES' RETIREMENTS
Average Balance - Distribution of Earnings
Fiscal Year Ended - June 30, 1979

<u>General Employees</u>	<u>Code</u>	<u>Total all Reserves</u>	<u>Average</u>	<u>%</u>	<u>Distribution of Earnings</u>
Barrington	01	4,144,031.57	2,072,015.79	4.058	148,708.81
Bristol	02	3,508,490.73	1,754,245.37	3.436	125,915.10
Burrillville	03	1,358,660.98	679,330.49	1.331	48,775.61
Cranston	07	13,802,897.92	6,901,448.96	13.520	495,451.72
East Greenwich	09	2,592,788.86	1,296,394.43	2.540	93,080.43
East Providence	10	10,417,984.09	5,208,992.05	10.204	373,934.13
Hopkinton	14	279,077.22	139,538.61	.273	10,004.32
Jamestown	15	833,359.29	416,679.65	.816	29,903.00
Johnston	16	3,489,389.11	1,744,694.56	3.418	125,255.48
Newport	21	7,306,395.36	3,653,197.68	7.157	262,274.26
North Kingstown	23	4,505,834.02	2,252,917.01	4.413	161,718.08
North Providence	24	2,449,729.80	1,224,864.90	2.399	87,913.37
North Smithfield	25	1,539,715.10	769,857.55	1.508	55,261.93
Pawtucket	26	12,741,826.31	6,370,913.16	12.481	457,376.70
Scituate	30	943,608.50	471,804.25	.924	33,860.76
Smithfield	31	2,061,398.19	1,030,699.09	2.019	73,987.95
South Kingstown	32	3,253,075.87	1,626,537.93	3.186	116,753.64
Tiverton	33	1,341,234.59	670,617.29	1.314	48,152.63
Warren	34	1,716,049.76	858,024.88	1.681	61,601.66
Westerly	36	120,318.08	60,159.04	.118	4,324.20
Woonsocket	39	8,511,463.79	4,255,731.89	8.337	305,516.34
Cranston Housing	51	328,954.43	164,477.22	.322	11,799.95
East Providence Housing	52	288,989.06	144,494.53	.283	10,370.77
Pawtucket Housing	53	1,505,741.26	752,870.63	1.475	54,052.60
Cumberland Housing	56	79,459.53	39,729.77	.078	2,858.37
Lincoln Housing	57	126,113.13	63,056.56	.124	4,544.08
Bristol Housing	59	89,426.54	44,713.27	.088	3,224.83
Burrillville Housing	65	32,730.64	16,365.32	.032	1,172.66
North Providence Housing	66	33,701.08	16,850.54	.033	1,209.31
East Smithfield Water	67	49,111.29	24,555.64	.048	1,759.00
Greenville Water	68	24,066.38	12,033.19	.024	879.50
Warren Housing	71	25,499.12	12,749.56	.025	916.14
Johnston Housing	72	28,321.72	14,160.86	.028	1,026.08
Coventry Housing	79	15,918.97	7,959.48	.016	586.33
South Kingstown Housing	80	4,645.67	2,322.83	.005	183.22
Total		89,550,007.96	44,775,003.98	87.714	3,214,352.96
Police & Fire					
East Greenwich Fire Dept.	50	587,456.62	293,728.31	.575	21,071.36
East Greenwich Police Dept.	54	785,581.68	392,790.84	.769	28,180.65
No. Kingstown Police Dept.	55	3,619,088.31	1,809,544.16	3.545	129,909.49
No. Prov. Police & Fire	58	1,063,016.01	531,508.00	1.041	38,148.32
Barrington Police Dept.	60	3,000,088.54	1,500,044.27	2.939	107,702.12
Warren Police Department	62	703,654.55	351,827.28	.689	25,248.98
So. Kingstown Police & Fire	63	1,274,154.47	637,077.23	1.248	45,734.00
Primrose Volunteer Fire	64	117,465.23	58,732.62	.115	4,214.27
Scituate Police Department	73	449,877.20	224,938.60	.441	16,160.81
No. Smithfield Police Dept.	76	426,756.59	213,378.29	.418	15,317.96
Tiverton Fire Department	77	516,703.46	258,351.73	.506	18,542.79
Total		12,543,842.66	6,271,921.33	12.286	450,230.75
Grand Total		102,093,850.62	51,046,925.31	100.000	3,664,583.71