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SECTION I - SUMMARY OF THE VALUATION

Contribution Requirements

The contribution rates for fiscal year 1993-1994 for each unit in the Municipal Retirement System are set out in Section IV. The rates are split into the normal cost percentage and the past service cost percentage, and for comparison the rates for fiscal years 1991-1992 and 1992-1993 are also shown.

The aggregate employer normal cost for the general employees of all units is \$1.43 million. This represents 1.42% of total general employees payroll. The previous year percentage was 4.0% of payroll. The reduction is mainly due to the revision to the salary growth assumption.

The past service cost for general employees (the annual amount required to pay off the unfunded liabilities) has increased from 1.6% in the previous year to 2.37%. A major component of this increase is due to the increase in liabilities caused by more retirements than anticipated for a number of the units. The large number of retirements can be attributed to many units participating in the 1990 early retirement incentive program. Other factors affecting this result include an investment return for the period marginally less than assumed, a change to the salary growth assumption, and certain participant data corrections.

The combined employer normal cost for police and fire departments is \$0.65 million. This represents 3.93% of police and fire payroll, a reduction from 8% last year. As above, the reduction is mainly due to the change to the salary growth assumption.

The past service cost for police and fire departments in aggregate (the annual amount required to pay off the unfunded liabilities) has decreased from 1.7% last year to 1.53%. There are several factors causing this change with the most predominant factor being the change to the salary growth assumptions.

Please refer to Section IV for a more detailed discussion of these results.

SECTION I - SUMMARY OF THE VALUATION (Cont'd)

Funded Status

Of the 53 municipalities covering general employees, 30 had unfunded liabilities. Many of these units were recent participants in the System with prior service credits to fund. The total unfunded liability on the valuation date for these units was \$19,259,600.

Of the 32 police and fire departments, 16 had unfunded liabilities. As above most of the units with unfunded liabilities were recent participants in the System with prior service credits to fund. The total unfunded liability for this group on the valuation date was \$2,808,300.

The value of the System's vested benefits for both general employees and policemen and firemen is approximately \$211.8 million. Assets at market value on June 30, 1991 exceeded this amount by \$62.7 million. Last year assets exceeded vested benefit liabilities by \$65.3 million. Because each unit is individually evaluated the surplus plan assets from one unit may not be used to offset the unfunded liabilities from another unit.

Section IV and Exhibit II provide details for each unit and also show vested liabilities and benefit obligations for disclosure as required by Governmental Accounting Standards Board Statement No. 5.

Assets of the Retirement System

As of June 30, 1991 the value of assets for the general employee units was \$238.0 million and for police and fire units it was \$36.5 million. Section III shows an income statement and provides a breakdown of the investments of the System into investment categories.

SECTION I - SUMMARY OF THE VALUATION (Cont'd)

The table below provides a summary for recent plan years of certain key statistics of the performance and transactions of the retirement fund:

	<u>7/1/90 to 6/30/91</u>	<u>7/1/89 to 6/30/90</u>	<u>7/1/88 to 6/30/89</u>
Investment yield	7.36%	8.33%	17.37%
Value of Reserves at end of period	\$ 274,565,600	\$ 255,038,300	\$ 232,237,200
Total Contributions	16,995,000	15,267,800	13,484,900
Investment Income	<u>18,243,400</u>	<u>19,478,200</u>	<u>33,759,900</u>
Total Income	35,238,400	34,746,000	47,244,800
Total Benefit Payments	\$ 15,780,400	\$ 11,957,400	\$ 10,854,500

The investment yields should be compared with the assumed return of 8%. The total benefit payments have grown at a faster rate in recent years than the contributions to the plan. However the total income to the fund including investment income still exceeds the benefit outgo.

Actuarial Method and Assumptions

Exhibit IV describes the actuarial method adopted to calculate the contribution rates for each unit and also describes the actuarial assumptions utilized.

For the June 30, 1991 valuation the Retirement Board approved a change to the salary growth assumption. The assumption used in previous years incorporated an age-related scale of salary increments and was replaced by an assumed salary growth rate of 4.5% per year. The financial effect of the change is discussed in Section IV.

SECTION I - SUMMARY OF THE VALUATION (Cont'd)

Participant Data

Section II discusses the participant data in detail and Exhibit III provides charts showing key statistics for each unit's participant data.

We received the participant data from the Retirement System. There were 5,191 current active participants in the general employee units and 624 police and firemen. Although both these counts represent increases from the previous year, there were a considerable number of retirements during the past year. The increase is explained by new units participating in the System. The number of current retirees reported was 2,562, up from 2,289 in the previous year.

New Units in the Retirement System

The following units have been included in the valuation of the Municipal Retirement System for the first time as of June 30, 1991:

	<u>Unit</u>	<u>Date of Entry</u>
3005	Charlestown	1/1/90
3044	Southern RI Collaborative	1/1/90
3096	Central Falls Housing	7/1/90
3098	Lime Rock Administrative	7/1/90
3100	Bristol/Warren Schools	7/1/92
4042	Valley Falls Fire	7/1/90
4046	Lime Rock Fire	7/1/90
4047	North Smithfield Fire	7/1/90
4061	Barrington Fire	7/1/92
4094	Bristol Fire	7/1/90
4095	Cumberland Fire	7/1/90
4098	Coventry Fire	7/1/90
4099	Berkley Fire	7/1/90
4100	Tiogue Fire	7/1/90
4101	North Cumberland	7/1/90
4102	Central Coventry Fire	7/1/90
4103	Hopkins Hill Fire	7/1/90
4104	Hope Valley Fire	7/1/91

SECTION I - SUMMARY OF THE VALUATION (Cont'd)

The Bristol/Warren Schools district unit was created by merging the school department employees of the Bristol and Warren units together. Reserves were transferred to meet benefits accrued to date. The Barrington Fire unit was created by splitting the personnel and assets of the Barrington Police and Fire unit.

Plan Benefits

Plan provisions are summarized in Exhibit V. In the valuation results, Section IV, we have listed which units have adopted a COLA benefit or the 20 year police and fire plan.

There were no further benefit changes reported for this valuation except that the Woonsocket Fire department elected a COLA with an effective date from January 1, 1993.

If certain units for which separate costing have already been done reach a decision to adopt a new benefit structure, the contribution rates incorporated in this report will be altered accordingly.

Smoothed Contribution Rate

No units were eligible for the smoothed contribution rate option for the 1992-1993 fiscal year. Exhibit IV describes the smoothed contribution rate option.

The following units are eligible to elect the option for the 1993-1994 fiscal year.

	<u>Unit</u>	<u>Contribution Rate</u>	<u>Smoothed Contribution Rate</u>
3004	Central Falls	15.57%	14.94%
3010	East Providence	12.19%	10.55%
3036	Westerly	73.93%	46.77%
3045	Coventry Lighting District	76.95%	31.60%
3057	Lincoln Housing	10.41%	8.35%
3068	Greenville Water	14.87%	4.46%
3096	Central Falls Housing	26.87%	14.60%

SECTION II - EMPLOYEE DATA

Active Employees

The pertinent information for active employees as of June 30, 1991, can be summarized as follows:

	<u>General Employees</u>		<u>Policemen and Firemen</u>	
	<u>June 30, 1991</u>	<u>June 30, 1990</u>	<u>June 30, 1991</u>	<u>June 30, 1990</u>
Number of Covered Employees	5,191	5,162	624	527
Average Annual Salary	\$19,500	\$19,000	\$26,600	\$27,200
Average Age (years)	45.9	46.5	34.4	35.0
Average Service (years)	8.7	9.0	8.0	9.0
Number of Vested Employees	1,816	2,024	175	179
Number of Employees Eligible for Retirement	570	700	49	58

When compared to last year a shift in the demographic profile of the active population can be seen. The average annual salary for general employees rose slightly. This represents an increase of 2.6% compared to a 4.9% average increase from June 1989 to June 1990. The average salary for an active policeman or fireman dropped by 2.2% from \$27,200 to \$26,600. The factors contributing to this decline included the addition of new police and fire units to the System whose average salaries are lower than continuing members. In addition retirements, turnover, and pay raises for continuing members lower than assumed contributed to the decline. The large number of retirements during the past year and the entrance of new units to the retirement system contributed to the decreases in average age and in average service.

SECTION II - Employee Data (Cont'd)

Missing data was estimated by using an average for employees with similar available data. For example, a person missing a date of hire, would be given an estimated date of hire based on his date of birth. Active employees missing salaries were given the average salary of all employees who had no data missing. For active general employees there were 280 missing salaries, 30 missing dates of birth, and 53 missing dates of hire. For policemen and firemen there were approximately 34 missing salaries and 4 missing hire dates. The impact varies depending on the individual unit and the data missing from that unit.

Tables 1A and 1B provide a distribution of employees by age and service for general employees and police and firemen, respectively.

Retirees and Beneficiaries

The data provided for retirees and beneficiaries included dates of hire and retirement, sex, monthly benefit, type of benefit, and payment option. The more significant statistics for retirees and beneficiaries are summarized as follows:

	<u>June 30, 1991</u>	<u>June 30, 1990</u>
Pensioners		
Number	2,449	2,186
Average Age	69.0	70.0
Average Monthly Benefit	\$ 492	\$ 411
Beneficiaries		
Number	113	103
Average Age	66.5	67.0
Average Monthly Benefit	\$ 372	\$ 351

SECTION II - Employee Data (Cont'd)

The sizable increase in the average monthly benefit, and the decrease in the average age of pensioners can be attributed in large part to the characteristics of the 319 new pensioners who retired in the 1990-1991 plan year. The average new pensioner was 60.8 years of age and had a monthly benefit of \$997. The increase in average monthly benefits can also be partly attributable to increases caused by cost of living adjustments.

Table 2 shows distributions for pensions in payment status as of June 30, 1991 by age and pension type. This table also indicates total monthly pension payments by age, average payments by age, and total monthly payments by type.

Exhibit III shows a summary of key data statistics for each municipality as of June 30, 1991 and June 30, 1990.

Table 1A - Distribution of Municipal General Employees in Active Service

Years of Service and Average Annual Earnings

<u>Age</u>	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40+</u>	<u>Total</u>
0-19	1 \$17,774									1 \$17,774
20-24	130 17,598	3 17,808								133 17,603
25-29	270 18,868	68 21,327	3 19,391							341 19,363
30-34	268 18,131	111 20,623	67 23,115	3 20,405						449 19,506
35-39	310 17,007	159 20,766	105 24,205	68 21,609	8 22,955	1 17,455				651 19,640
40-44	346 17,995	198 19,453	108 23,264	76 25,078	49 26,978	1 42,206				778 20,386
45-49	270 17,451	318 17,403	97 31,776	77 23,133	41 26,102	15 29,025	3 27,734			821 19,157
50-54	180 18,242	133 19,752	161 18,751	106 19,589	47 23,045	19 27,722	6 23,667	1 24,865		653 19,575
55-59	161 18,176	128 19,145	125 20,799	102 21,477	82 20,447	38 19,237	6 22,279	3 29,518		645 19,841
60-64	101 17,477	102 17,585	109 20,206	80 18,851	62 19,692	25 21,164	14 17,147	1 24,000		494 18,792
65-69	27 15,765	27 17,530	28 19,698	40 20,708	34 20,176	14 15,773	3 18,374		1 45,669	174 18,888
70-74	7 15,775	2 5,983	8 22,487	5 17,624	14 20,307	7 10,352	2 14,349			45 17,241
75+	4 13,947			1 22,568		1 21,351				6 16,618
TOTAL	2,075 \$17,849	1,249 \$19,085	811 \$21,364	558 \$21,384	337 \$22,335	121 \$21,459	34 \$20,081	5 \$27,484	1 \$45,669	5,191 \$19,480

Table 1B - Distribution of Policemen and Firemen in Active Service

Years of Service and Average Annual Earnings

Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19	1 \$19,240									1 \$19,240
20-24	63 23,304	4 22,956								67 23,284
25-29	122 24,392	33 26,722								155 24,888
30-34	64 24,150	58 27,602	22 28,570	1 25,942						145 26,214
35-39	17 21,093	41 27,511	28 28,396	14 32,893	1 31,407					101 27,461
40-44	7 22,693	8 28,297	11 26,165	18 31,389	13 30,044					57 28,572
45-49	4 29,524	11 26,895	4 30,454	14 29,522	16 30,561	4 38,716				53 30,055
50-54	3 29,934	1 27,560	2 39,881	3 30,780	12 29,119	2 32,322	1 29,467			24 30,542
55-59	3 25,311	1 36,750	2 32,513	1 5,400	5 29,028	2 33,083		1 38,976		15 28,893
60-64	1 28,000	1 40,517				1 27,482				3 32,000
65-69					1 30,000	2 30,000				3 30,000
70-74										0
75+										0
TOTAL	285 \$23,993	158 \$27,403	69 \$28,668	51 \$30,637	48 \$29,907	11 \$33,923	1 \$29,467	1 \$38,976	0	624 \$26,579

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Table 2 - Distribution of Retirees and Beneficiaries

Number of Pensioners and Total Monthly Pensions Paid by Age

Age	Pension Type				Total by Age	Percent of Pensioners/ Average Pension
	Service Retirements	Beneficiaries	Accidental Disabilities	Ordinary Disabilities		
< 30	0	1	0	0	1	0.04%
	\$ 0	\$ 290	\$ 0	\$ 0	\$ 290	\$ 290
30-39	0	2	2	4	8	0.31%
	0	1,074	2,555	1,770	5,398	675
40-49	28	5	5	14	52	2.03%
	40,779	3,423	4,198	5,059	53,459	1,028
50-54	33	5	10	12	60	2.34%
	57,008	2,832	7,106	3,287	70,232	1,171
55-59	94	14	8	25	141	5.50%
	100,371	5,227	6,948	7,476	120,023	851
60-64	394	14	11	24	443	17.29%
	281,837	5,429	9,252	7,275	303,794	686
65-69	661	26	11	22	720	28.10%
	320,896	10,060	7,321	5,620	343,897	633
70-74	506	21	4	12	543	21.19%
	189,807	5,834	1,971	2,252	199,864	368
75-79	309	16	3	4	332	12.96%
	86,235	4,533	1,097	701	92,565	279
80-84	164	8	1	1	174	6.79%
	40,091	3,266	382	95	43,834	252
85-89	66	1	1	2	69	2.69%
	11,010	69	335	51	11,464	166
90-94	15	0	0	1	16	0.62%
	2,366	0	0	52	2,419	151
95+	3	0	0	0	3	0.12%
	398	0	0	0	398	133
Total	2,273	113	56	120	2,562	
	\$ 1,130,799	\$ 42,036	\$ 51,165	\$ 33,638	\$ 1,247,638	\$ 487

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SECTION III - PLAN ASSETS

The Fund receives all member and employer contributions. The assets are invested by the State Investment Commission, with the investment earnings being added to the Fund and available for reinvestment. Payments from the Fund are primarily for refunds of employee contributions, lump sum death benefits, and pension payments.

Contribution refunds occur when an employee terminates employment before completing 10 years of service and elects to take a refund, or when he or she dies after retirement without having received payments from the Fund equal to his or her total contributions.

During fiscal 1991 the investment earnings represented 7.36% of the average assets of the Fund during the fiscal year. The yield for the previous fiscal year was 8.33%.

Table 3 provides a summary of income and expenses for the years ended June 30, 1991 and 1990. For the plan year ended June 30, 1991 the Municipal Employees' Retirement Fund showed a net increase of \$19,527,156 from \$255,038,482 to \$274,565,638.

Table 4 provides a distribution of the assets by category of investment. As of June 30, 1991, the Fund was comprised of 43.9% equities, 43.6% fixed income securities, with the balance, 12.5%, held in cash, short term paper, and other highly liquid assets.

The financial statements indicate that 87% of the assets are allocated to general employees and 13% are for police and firemen. There is also a small unallocated reserve for unclaimed benefits. Table 5 shows the allocation of assets in detail.

The value of assets utilized in the valuation to assess the contribution rates, called the actuarial asset value, is equal to the market value of assets held by the fund at the valuation date.

Table 3
Summary Statement of Income and Expenses

	1991	1990
Employer contributions	\$ 9,556,174	\$ 8,360,137
Member contributions	<u>7,438,860</u>	<u>6,907,680</u>
Total contributions	\$16,995,034	\$15,267,817
Net miscellaneous items	69,150	12,674
Investment income:		
Dividends	\$ 4,769,066	\$ 4,798,265
Interest	12,666,894	11,099,821
Capital gains	1,432,728	3,314,761
Net transfers less expenses	<u>(625,297)</u>	<u>265,385</u>
Net investment income	<u>18,243,391</u>	<u>19,478,232</u>
Total income available for benefit payments	\$35,307,575	\$34,758,723
Benefit payments:		
Pension benefits	\$15,094,511	\$11,140,311
Death benefits	121,600	163,200
Contribution refunds	<u>564,308</u>	<u>653,895</u>
Total benefit payments	<u>15,780,419</u>	<u>11,957,406</u>
Excess of income over expenses	<u>\$19,527,156</u>	<u>\$22,801,317</u>

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

Table 4
Plan Assets as of the Valuation Date

	1991	1990
Cash	\$ 2,521,316	\$ (299,628)
Accrued interest receivable	2,451,575	2,249,549
Investments:		
STIF	\$ 26,352,000	\$ 17,064,000
Fixed income	119,774,127	96,058,191
Equities	120,466,621	133,976,370
Short term paper	<u>3,000,000</u>	<u>5,990,000</u>
	<u>269,592,748</u>	<u>253,088,561</u>
Total assets	\$ <u>274,565,638</u>	\$ <u>255,038,482</u>

Note: Figures may not add to totals due to rounding. Numbers in brackets represent negative amounts.

Table 5
Allocation of Assets by Plan

	1991	1990
General Employees:		
Retirement reserves	\$ 237,040,435	\$ 200,637,124
Employer reserves	(34,696,824)	(12,460,429)
Member reserves	<u>35,637,037</u>	<u>34,144,961</u>
Total General Employee Reserves	\$ 237,980,648	\$ 222,321,656
Police and Fire:		
Retirement reserves	\$ 34,823,602	\$ 26,638,433
Employer reserves	(3,975,867)	808,335
Member reserves	<u>5,698,162</u>	<u>5,231,165</u>
Total Police and Fire Reserves	36,545,897	32,677,933
Unallocated:		
Unclaimed benefit reserve	<u>39,093</u>	<u>38,893</u>
Total Assets	\$ <u>274,565,638</u>	\$ <u>255,038,482</u>

Note: Numbers in brackets represent negative amounts.

SECTION IV - RESULTS OF THE VALUATION

The table below sets out the results of the valuation in the aggregate.

General Employees

The costs for general employees as of June 30, 1991 developed as follows:

<u>Item</u>	<u>Amount</u>	<u>% of 1991 Payroll</u>	<u>1990</u>
1. Participating payroll	\$ 101,146,700	---	
2. Employer normal cost	1,433,600	1.42%	4.0%
3. Amortization of unfunded actuarial liability	2,398,800	2.37%	1.6%
4. Total annual cost if paid July 1, 1990 = 2. + 3.	3,832,400	3.79%	5.6%
5. Total annual cost payable monthly = 5. plus 1/2 year interest	3,985,700	3.94%	5.8%

Police and Fire

The costs for police and fire as of June 30, 1991 developed as follows:

<u>Item</u>	<u>Amount</u>	<u>% of 1991 Payroll</u>	<u>1990</u>
1. Participating payroll	\$ 16,585,200	---	
2. Employer normal cost	649,900	3.92%	8.0%
3. Amortization of unfunded actuarial liability	253,700	1.53%	1.7%
4. Total annual cost if paid July 1, 1990 = 2. + 3.	903,600	5.45%	9.7%
5. Total annual cost payable monthly = 5. plus 1/2 year interest	939,700	5.67%	10.1%

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

SECTION IV - RESULTS OF THE VALUATION (Cont'd)

The reduction seen in the employer normal cost is mainly due to the change to the salary growth assumption. The effect of the decrease has been leveraged by the employee contributions. The total normal cost for general employees equals 1.42% employer plus employee contributions to give a total of approximately 7.5% of payroll. The comparable figure last year was 10.0% of payroll. The effect of the salary scale change has therefore reduced costs by 25%.

Similarly for police and fire departments, the total normal cost is approximately 12.0% (4% employer plus 8% employee) of payroll compared to 16.0% last year (assuming on average an employee contribution rate of 8.0%). The salary scale change causes a 25% drop in the normal cost.

The funding method calculates a normal cost which remains level as a percentage of payroll over each participant's working life. The normal cost percentage for the whole System will remain stable if the average age at entry remains stable. Despite the number of retirements during the last year and the introduction of new units to the System, the average age at entry has remained stable. Both the average age and the average service completed by the active participants have reduced by similar amounts. Therefore the changes to the participant data due to turnover, new entrants and retirements have had no impact on the normal cost percentage.

There were large numbers of retirements with participants entitled to unreduced benefits at ages earlier than assumed. As a result, liabilities increased more than expected.

Exhibit I shows that the total unfunded liability for general employees was \$19,259,600 and for policemen and firemen it was \$2,808,300. These figures equal the sum of the individual municipalities unfunded liabilities with negative unfunded liabilities (i.e. overfunded) for certain units set equal to zero.

SECTION IV - RESULTS OF THE VALUATION (Cont'd)

Table 6 shows the normal cost and past service cost for each unit and also the employer costs produced by the previous two actuarial valuations.

Table 7 shows each unit's reserves, accrued liabilities, vested liabilities and amortization period.

Exhibit I shows that in aggregate the assets cover the value of vested liabilities. However there are a number of units which have large unfunded vested liabilities such as Central Falls and East Providence.

As mentioned above certain units experienced large numbers of retirements during the last year. In most of these cases the contribution rates did not follow the trend of reducing costs, in fact the rates increased. For example, East Providence is a relatively large unit and the substantial increase to liabilities has caused the employer's cost to double since last year.

GASB Disclosure Information

Exhibit II provides the pension benefit obligation amounts required for disclosure by the Governmental Accounting Standards Board (GASB) Statement No. 5. Liabilities are shown in the aggregate and for each unit separately.

For plan years beginning after December 15, 1986, the Retirement System is subject to the disclosure requirements of Statement No. 5 of the Governmental Accounting Standards Board (GASB).

SECTION IV - RESULTS OF THE VALUATION (Cont'd)

The Statement requires the calculation of a standardized measure called the "pension benefit obligation" which is independent of the actuarial funding method. This amount is the actuarial present value of projected benefits prorated by service credited to date. It differs from the "value of vested benefits" due to:

- future salary increases,
- inclusion of non-vested benefit, and
- proration of benefits over projected service.

For the entire Retirement System, the "pension benefit obligation" as of June 30, 1991 has been determined to be \$253,386,800. Approximately 46% of this amount is attributable to benefits on behalf of active employees with the balance 54% attributable to the benefits of pensioners and inactive employees not yet receiving benefits. The large swing in liability from active participants to the retiree group reflects the recent number of retirements experienced by the System.

Table 6 - Recommended Employer Contribution Rates

MUNICIPALITY		YEAR BEGINNING JULY 1, 1993			Total Rates for the Years Beginning	
		NORMAL COST	PAST SERVICE	TOTAL RATE	July 1, 1992	July 1, 1991
General Employees						
1	Barrington	2.01%	0.00%	2.01%	3.72%	3.72%
2	Bristol	0.86%	0.00%	0.86%	4.04%	5.72%
3	Burrillville	3.81%	4.21%	8.02%	11.78%	12.60%
4	Central Falls	0.87%	14.70%	15.57%	12.94%	12.01%
5	Charlestown	0.89%	9.06%	9.95%	8.25%	8.25%
7	Cranston	1.74%	0.00%	1.74%	4.42%	5.42%
8	Cumberland	3.88%	2.91%	6.79%	10.31%	10.76%
9	East Greenwich	1.91%	0.00%	1.91%	3.81%	3.79%
10	East Providence	2.81%	9.38%	12.19%	6.10%	5.65%
11	Exeter/West Greenwich	3.83%	0.00%	3.83%	9.39%	9.21%
12	Foster	1.80%	5.56%	7.36%	8.16%	8.55%
13	Glocester	3.41%	0.00%	3.41%	6.29%	6.75%
14	Hopkinton	1.72%	0.00%	1.72%	3.85%	4.49%
15	Jamestown	0.77%	0.29%	1.06%	3.68%	3.89%
16	Johnston	2.18%	0.00%	2.18%	3.94%	3.96%
21	Newport	0.68%	7.49%	8.17%	12.71%	12.19%
22	New Shoreham	1.63%	3.88%	5.51%	4.26%	4.92%
23	North Kingstown	1.87%	1.13%	3.00%	3.53%	3.61%
24	North Providence	1.72%	0.89%	2.61%	3.89%	3.53%
25	North Smithfield	3.03%	0.00%	3.03%	4.67%	4.78%
26	Pawtucket	1.34%	1.29%	2.63%	4.84%	6.03%
29	Richmond	3.48%	3.50%	6.98%	9.26%	9.57%
30	Scituate	2.49%	3.90%	6.39%	9.10%	7.29%
31	Smithfield	2.69%	0.00%	2.69%	4.31%	4.47%
32	South Kingstown	1.37%	0.00%	1.37%	3.42%	3.38%
33	Tiverton	3.34%	0.00%	3.34%	4.74%	4.92%
34	Warren	2.11%	0.00%	2.11%	4.48%	4.41%
36	Westerly	2.13%	71.80%	73.93%	42.89%	45.32%
37	West Greenwich	4.71%	0.53%	5.24%	17.93%	19.97%
39	Woonsocket	2.25%	0.00%	2.25%	3.98%	3.89%
40	Charlho School Dist.	2.52%	1.81%	4.33%	6.39%	7.96%
41	Foster/Glocester	5.93%	0.45%	6.38%	12.09%	14.76%
44	Southern RI Collaborative	0.00%	0.00%	0.00%	5.62%	5.62%
45	Coventry Lighting Dist.	1.02%	75.93%	76.95%	25.12%	25.12%
46	Hope Valley Fire	6.70%	13.02%	19.72%	26.36%	
51	Cranston Housing	3.72%	0.00%	3.72%	4.70%	4.65%
52	East Providence Housing	4.12%	1.13%	5.25%	5.96%	5.91%
53	Pawtucket Housing	1.44%	0.00%	1.44%	3.38%	3.41%
56	Cumberland Housing	2.62%	2.46%	5.08%	3.10%	3.81%
57	Lincoln Housing	5.92%	4.49%	10.41%	6.35%	6.17%
59	Bristol Housing	2.48%	0.00%	2.48%	4.40%	4.84%
65	Burrillville Housing	3.25%	0.00%	3.25%	4.17%	4.00%
66	North Providence Housing	3.47%	0.00%	3.47%	4.55%	4.29%
67	East Smithfield Water	6.21%	3.24%	9.45%	9.10%	8.86%
68	Greenville Water	0.00%	14.87%	14.87%	2.46%	3.29%
71	Warren Housing	3.89%	0.00%	3.89%	4.69%	4.68%
72	Johnston Housing	3.72%	0.00%	3.72%	5.29%	5.20%
79	Coventry Housing	4.28%	2.31%	6.59%	10.19%	10.76%
83	West Warwick Housing	3.11%	2.16%	5.27%	7.60%	7.77%
84	Smithfield Housing	0.00%	0.08%	0.08%	2.24%	3.97%
96	Central Falls Housing	3.43%	23.44%	26.87%	12.60%	12.60%
98	Lime Rock Administrative Svcs.	0.00%	1.58%	1.58%	1.36%	1.36%
100	Bristol/Warren Schools	3.15%	0.00%	3.15%	3.72%	

Table 6 - Recommended Employer Contribution Rates

MUNICIPALITY		YEAR BEGINNING JULY 1, 1993			Total Rates for the Years Beginning		
		NORMAL COST	PAST SERVICE	TOTAL RATE	July 1, 1992	July 1, 1991	
Police and Fire							
42	Valley Falls Fire	2.80%	17.59%	20.39%	27.56%	27.56%	
46	Lime Rock Fire	1.68%	2.63%	4.31%	8.24%	8.24%	
47	North Smithfield Vol. Fire	D	5.31%	2.07%	7.38%	9.16%	9.16%
50	East Greenwich Fire	D	5.63%	0.00%	5.63%	9.37%	11.15%
54	East Greenwich Police	D	5.73%	0.00%	5.73%	9.09%	13.00%
55	North Kingstown Fire	D	4.60%	2.26%	6.86%	11.34%	10.73%
58	North Providence Police & Fire	D	5.10%	0.00%	5.10%	11.56%	13.06%
60	Barrington Police	3	2.52%	0.00%	2.52%	5.99%	5.95%
61	Barrington Fire	3	3.08%	0.00%	3.08%	5.99%	5.95%
62	Warren Police	D	7.10%	4.77%	11.87%	18.75%	18.26%
63	South Kingstown Police & Fire		2.93%	0.00%	2.93%	6.14%	6.17%
64	Primrose Volunteer Fire	D	5.40%	0.00%	5.40%	9.28%	9.56%
76	North Smithfield Police	D	5.04%	0.00%	5.04%	9.30%	8.54%
77	Tiverton Fire	D	6.06%	0.00%	6.06%	13.72%	10.70%
82	Foster Police	D	4.59%	0.00%	4.59%	9.81%	9.15%
85	Woonsocket Police	C,D	6.24%	0.56%	6.80%	12.04%	11.87%
86	Charlestown Police		4.20%	0.00%	4.20%	9.36%	9.77%
87	Hopkinton Police	D	3.05%	0.00%	3.05%	9.19%	10.01%
88	Glocester Police	D	4.22%	0.00%	4.22%	9.55%	9.61%
89	West Greenwich Police		2.98%	6.47%	9.45%	15.63%	17.72%
90	Burrillville Police	D	9.59%	0.00%	9.59%	14.79%	15.66%
91	Cumberland Police		2.91%	0.00%	2.91%	5.40%	5.41%
92	Washington Fire		3.05%	3.10%	6.15%	10.95%	7.17%
93	Woonsocket Fire	C,D,4	7.48%	1.87%	9.35%	6.76%	4.14%
94	Bristol Fire		6.42%	0.00%	6.42%	11.80%	11.80%
95	Cumberland Hill Fire		3.21%	3.18%	6.39%	12.76%	12.76%
98	Coventry Fire		3.29%	11.03%	14.32%	21.65%	21.65%
99	Berkley Fire		4.50%	7.43%	11.93%	17.97%	17.97%
100	Tiogogue Fire		3.23%	8.02%	11.25%	14.10%	14.10%
101	North Cumberland		2.40%	5.91%	8.31%	11.37%	11.37%
102	Central Coventry Fire		3.02%	8.32%	11.34%	17.20%	17.20%
103	Hopkins Hill Fire		2.61%	0.52%	3.13%	6.02%	6.02%

NOTES

- B - Municipality has adopted COLA Plan B
- C - Municipality has adopted COLA Plan C
- D - Municipality has adopted the "20-year" optional Police & Fire Plan

- 1 - Bristol/Warren Schools formed from Bristol and Warren.
- 2 - These municipalities all had contribution rate increases in excess of 2.00% and may choose to adopt smoothed contributions.
- 3 - Barrington Police and Barrington Fire were previously a single unit.
- 4 - Woonsocket Fire adopted COLA Plan C effective 7/1/92.

Table 7 - Liabilities and Funded Status as of June 30, 1991

MUNICIPALITY		TOTAL RESERVES	TOTAL ACCRUED LIABILITY	VESTED LIABILITY	TOTAL UNFUNDED LIABILITY	UNFUNDED VESTED LIABILITY	AMORTIZATION PERIOD
General Employees							
1 Barrington		\$8,286,574	\$7,480,148	\$5,586,259	\$0	\$0	0
2 Bristol	B,1	5,761,039	4,935,037	3,619,677	0	0	0
3 Burrillville	C	4,951,469	4,875,909	3,158,024	0	0	0
4 Central Falls		295,821	1,811,815	1,274,325	1,515,994	978,504	23
5 Charlestown	C	0	461,183	209,185	461,183	209,185	24
7 Cranston	B	39,585,793	39,088,186	26,351,176	0	0	0
8 Cumberland		4,528,506	5,862,972	3,716,133	1,334,466	0	24
9 East Greenwich		5,748,282	4,826,839	3,339,148	0	0	0
10 East Providence	B	27,740,885	35,732,425	28,496,175	7,991,540	755,290	0
11 Exeter/West Greenwich		770,680	702,559	189,122	0	0	0
12 Foster		587,163	850,511	494,606	263,348	0	15
13 Gloucester		622,629	609,478	273,344	0	0	0
14 Hopkinton		717,833	569,839	347,346	0	0	0
15 Jamestown	C	1,745,088	1,773,419	1,066,854	28,331	0	0
16 Johnston		10,404,009	10,250,052	7,531,401	0	0	0
21 Newport	B	15,100,383	19,033,076	12,829,310	3,932,693	0	11
22 New Shoreham		468,976	634,780	304,604	165,804	0	14
23 North Kingstown		9,343,395	9,871,218	6,683,081	527,823	0	0
24 North Providence		8,002,846	8,329,558	5,612,611	326,712	0	0
25 North Smithfield		3,860,035	2,994,607	2,205,842	0	0	0
26 Pawtucket		31,910,260	32,128,079	23,856,993	217,819	0	11
29 Richmond		175,984	247,270	134,306	71,286	0	13
30 Scituate	B	2,707,880	2,962,372	2,084,907	254,492	0	11
31 Smithfield		6,094,882	5,312,571	3,706,462	0	0	0
32 South Kingstown		7,752,695	7,350,413	3,828,610	0	0	0
33 Tiverton		4,041,051	3,634,603	2,668,631	0	0	0
34 Warren	1	3,179,784	3,114,826	2,715,432	0	0	0
36 Westerly		528,268	1,156,143	1,051,136	627,875	522,868	11
37 West Greenwich		199,094	228,850	132,411	29,756	0	22
39 Woonsocket		21,106,423	19,079,343	14,117,140	0	0	0
40 Charho School Dist.		1,217,552	1,483,734	704,586	266,182	0	15
41 Foster/Glocester		630,861	676,199	308,036	45,338	0	19
44 Southern RI Collaborative		1,032	1,288	0	256	0	24
45 Coventry Lighting Dist.		24,694	367,839	296,713	343,145	272,019	24
46 Hope Valley Fire	C	0	45,182	0	45,182	0	25
51 Cranston Housing		717,216	601,677	433,988	0	0	0
52 East Providence Housing		651,666	672,667	509,626	21,001	0	0
53 Pawtucket Housing		2,766,364	1,936,591	1,505,609	0	0	0
56 Cumberland Housing		410,803	463,391	409,881	52,588	0	0
57 Lincoln Housing	B	435,670	505,348	405,414	69,678	0	0
59 Bristol Housing		377,671	309,628	183,877	0	0	0
65 Burrillville Housing		135,338	65,074	0	0	0	0
66 North Providence Housing		215,828	146,500	76,779	0	0	0
67 East Smithfield Water		105,222	123,841	55,918	18,619	0	0
68 Greenville Water		205,736	333,530	245,188	127,794	39,452	15
71 Warren Housing		226,159	200,420	108,368	0	0	0
72 Johnston Housing		269,440	197,746	157,692	0	0	0
79 Coventry Housing		254,753	274,834	221,620	20,081	0	11
83 West Warwick Housing		222,026	238,737	147,132	16,711	0	15
84 Smithfield Housing		60,244	60,383	53,320	139	0	0
96 Central Falls Housing		295,572	774,277	682,182	478,705	386,610	24
98 Lime Rock Administrative Svcs.		0	5,090	0	5,090	0	0
100 Bristol/Warren Schools	1	2,510,788	2,123,161	1,074,401	0	0	0

Table 7 - Liabilities and Funded Status as of June 30, 1991

MUNICIPALITY		TOTAL RESERVES	TOTAL ACCRUED LIABILITY	VESTED LIABILITY	TOTAL UNFUNDED LIABILITY	UNFUNDED VESTED LIABILITY	AMORTIZATION PERIOD
Police and Fire							
42 Valley Falls Fire		\$0	\$366,507	\$13,711	\$366,507	\$13,711	24
46 Lime Rock Fire		59,259	100,080	716	40,821	0	24
47 North Smithfield Vol. Fire	D	44,247	131,072	5,970	86,825	0	0
50 East Greenwich Fire	D	2,212,695	2,175,241	1,790,415	0	0	0
54 East Greenwich Police	D	2,742,944	2,246,700	1,586,198	0	0	0
55 North Kingstown Fire	D	6,942,836	7,513,178	5,760,691	570,342	0	7
58 North Providence Police & Fire	D	3,594,584	2,947,405	1,166,559	0	0	0
60 Barrington Police	2	2,750,170	2,691,524	2,069,574	0	0	0
61 Barrington Fire	2	3,986,391	3,590,407	2,755,071	0	0	0
62 Warren Police	D	2,051,277	2,085,749	1,443,428	34,472	0	14
63 South Kingstown Police & Fire		4,239,731	3,258,854	2,112,434	0	0	0
64 Primrose Volunteer Fire	D	411,516	238,902	93,750	0	0	0
76 North Smithfield Police	D	1,366,125	1,221,470	682,991	0	0	0
77 Tiverton Fire	D	1,805,863	1,640,716	1,147,973	0	0	0
82 Foster Police	D	348,969	297,988	160,583	0	0	0
85 Woonsocket Police	C,D	1,197,278	1,365,699	219,977	168,421	0	0
86 Charlestown Police		339,512	256,543	83,526	0	0	0
87 Hopkinton Police	D	245,102	162,772	31,381	0	0	0
88 Gloucester Police	D	257,475	177,603	46,243	0	0	0
89 West Greenwich Police		132,187	233,111	81,815	100,924	0	22
90 Burrillville Police	D	906,248	291,370	114,680	0	0	0
91 Cumberland Police		191,256	59,255	443	0	0	0
92 Washington Fire		45,265	100,190	7,838	54,925	0	23
93 Woonsocket Fire	C,D	332,284	714,985	0	382,701	0	23
94 Bristol Fire		5,693	3,505	0	0	0	0
95 Cumberland Hill Fire		161,080	299,857	6,333	138,777	0	0
98 Coventry Fire		65,292	260,444	42,829	195,152	0	24
99 Berkley Fire		27,786	108,882	36,146	81,096	8,360	24
100 Tiogue Fire		0	94,934	0	94,934	0	24
101 North Cumberland		0	274,393	4,733	274,393	4,733	24
102 Central Coventry Fire		0	211,389	0	211,389	0	24
103 Hopkins Hill Fire		0	6,601	0	6,601	0	24

NOTES

- B - Municipality has adopted COLA Plan B
- C - Municipality has adopted COLA Plan C
- D - Municipality has adopted the "20-year" optional Police & Fire Plan

- 1 - Bristol/Warren Schools formed from Bristol and Warren.
- 2 - Barrington Police and Barrington Fire were previously a single unit.

September 16, 1992

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, 1991.

This certificate contains the following attached exhibits:

EXHIBIT I - Actuarial Cost Factors as of June 30, 1991

- A. General employees
- B. Police and firemen

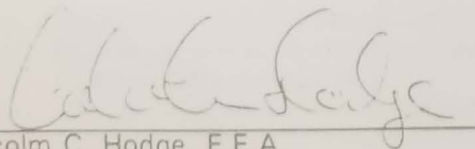
EXHIBIT II - Pension Benefit Obligation

EXHIBIT III - Participant Information

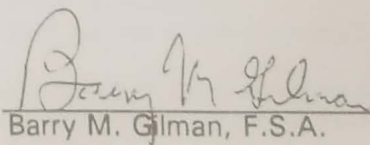
EXHIBIT IV - Actuarial Assumptions and Cost Method

EXHIBIT V - Summary of Plan Provisions

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



Malcolm C. Hodge, F.F.A.
Associate



Barry M. Gilman, F.S.A.
Principal

EXHIBIT I - ACTUARIAL COST FACTORS AS OF JUNE 30, 1991

A. GENERAL EMPLOYEES

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

- a. 5,191 active participants (including 1,816 fully vested) with total annual salaries of \$101,146,700)
- b. 854 inactive participants
- c. 2,416 pensioners (including 86 beneficiaries of deceased pensioners and active employees)

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

1. Total normal cost	\$ 7,933,100
2. Projected employee contributions	6,499,500
3. Employer normal cost	1,433,600
4. Actuarial liability	
Active employees	\$ 126,167,900
Inactive employees	2,194,600 (a)
Pensioners (including beneficiaries of deceased pensioners and active employees)	119,182,300
Total	247,544,800
5. Assets	237,980,600
6. Unfunded actuarial liability	19,259,600 (b)
Liability for accrued vested benefits:	\$ 187,060,800 (c)

- (a) The liability for inactive participants is equal to their outstanding contributions.
- (b) Equal to the sum of the individual municipalities unfunded liabilities with negative unfunded liabilities for certain units set equal to zero.
- (c) The liability for accrued vested benefits is based on the same retirement age assumptions as are costs, following the procedure required by Statement No. 5 of the Governmental Accounting Standards Board.
- (d) Detail figures may not add to totals shown because of rounding.

B. POLICE AND FIRE

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

- a. 624 active participants (including 175 fully vested) with total annual salaries of \$16,585,200)
- b. 23 inactive participants
- c. 146 pensioners (including 27 beneficiaries of deceased pensioners and active employees)

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

1. Total normal cost	\$ 1,952,400
2. Projected employee contributions	1,303,500
3. Employer normal cost	649,900
4. Actuarial liability	
Active employees	\$ 20,280,000
Inactive employees	95,600 (a)
Pensioners (including beneficiaries of deceased pensioners and active employees)	14,805,400
Total	35,181,000
5. Assets	36,545,900
6. Unfunded actuarial liability	2,808,300 (b)
Liability for accrued vested benefits:	\$ 23,939,200 (c)

- (a) The liability for inactive employees is equal to their outstanding contributions.
- (b) Equal to the sum of the individual municipalities unfunded liabilities with negative unfunded liabilities for certain units set equal to zero.
- (c) The liability for accrued vested benefits is based on the same retirement age assumptions as are costs, following the procedure required by Statement No. 5 of the Governmental Accounting Standards Board.
- (d) Detail figures may not add to totals shown because of rounding.

EXHIBIT II - PENSION BENEFIT OBLIGATION

The value of the pension benefit obligation required for disclosure by Statement No. 5 of the Governmental Accounting Standards Board is shown below as of June 30, 1991.

	<u>Pension Benefit Obligation</u>		
	<u>General Employees</u>	<u>Police and Fire</u>	<u>Total</u>
1. Participants currently receiving benefits and terminated employees not yet receiving benefits	\$ 121,347,200	\$ 14,847,100	\$ 136,194,300
2. Current employees			
Accumulated employee contributions	35,637,000	5,698,000	41,335,000
Employer-financed vested	30,076,600	3,394,100	33,470,700
Employer-financed nonvested	<u>34,023,000</u>	<u>8,363,800</u>	<u>42,386,800</u>
3. Total pension benefit obligation	\$ 221,083,800	\$ 32,303,000	\$ 253,386,800

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

Exhibit II - PENSION BENEFIT OBLIGATION (Cont'd)

Pension Benefit Obligation as of June 30, 1991 by Plan

MUNICIPALITY		RETIREE AND INACTIVE LIABILITY	ACCUMULATED EMPLOYEE CONTRIBUTIONS	EMPLOYER FINANCED VESTED	EMPLOYER FINANCED NON-VESTED	TOTAL BENEFIT OBLIGATION
General Employees						
1	Barrington	\$4,120,000	\$1,093,500	\$654,900	\$898,100	\$6,766,500
2	Bristol	2,774,600	662,800	431,000	528,800	4,397,200
3	Burrillville	2,128,900	801,700	604,600	794,700	4,329,900
4	Central Falls	990,400	74,600	242,600	279,500	1,587,100
5	Charlestown	0	0	209,200	169,200	378,400
7	Cranston	15,826,200	6,254,900	6,116,900	5,949,800	34,147,800
8	Cumberland	3,025,200	738,700	578,300	982,000	5,324,200
9	East Greenwich	1,800,500	893,900	987,200	612,100	4,293,700
10	East Providence	23,809,300	3,008,700	2,676,700	3,635,000	33,129,700
11	Exeter/West Greenwich	177,800	153,100	10,900	238,400	580,200
12	Foster	424,300	133,500	8,900	161,800	728,500
13	Glocester	273,300	142,500	0	109,600	525,400
14	Hopkinton	250,000	111,900	41,500	93,700	497,100
15	Jamestown	665,000	280,100	235,500	303,400	1,484,000
16	Johnston	4,454,300	1,494,600	1,995,200	1,324,900	9,269,000
21	Newport	8,463,900	2,672,900	2,177,000	3,099,600	16,413,400
22	New Shoreham	236,500	91,500	31,900	150,100	510,000
23	North Kingstown	5,028,600	1,504,200	812,600	1,369,300	8,714,700
24	North Providence	3,184,000	1,467,200	1,435,600	1,276,100	7,362,900
25	North Smithfield	1,427,600	579,100	441,900	292,400	2,741,000
26	Pawtucket	16,686,200	5,312,600	3,053,700	3,950,000	29,002,500
29	Richmond	108,600	36,100	17,100	51,100	212,900
30	Scituate	1,320,700	426,600	430,800	458,700	2,636,800
31	Smithfield	2,472,400	840,600	677,400	797,500	4,787,900
32	South Kingstown	1,946,200	1,480,700	941,300	1,632,700	6,000,900
33	Tiverton	1,845,800	510,800	516,900	455,400	3,328,900
34	Warren	2,063,400	255,600	444,500	210,200	2,973,700
36	Westerly	860,500	87,800	117,900	56,000	1,122,200
37	West Greenwich	132,400	49,300	0	23,900	205,600
39	Woonsocket	10,203,300	2,553,700	2,204,300	2,388,500	17,349,800
40	Chariho School Dist.	417,100	298,200	198,700	281,200	1,195,200
41	Foster/Glocester	302,000	144,200	0	158,700	604,900
44	Southern RI Collaborative	0	500	0	(100)	400
45	Coventry Lighting Dist.	0	4,600	291,700	41,800	338,100
46	Hope Valley Fire	0	0	0	43,000	43,000
51	Cranston Housing	393,800	84,000	13,000	59,500	550,300
52	East Providence Housing	379,800	77,100	93,500	76,000	626,400
53	Pawtucket Housing	1,250,200	324,400	102,200	91,400	1,768,200
56	Cumberland Housing	379,200	44,200	8,800	7,800	440,000
57	Lincoln Housing	352,300	40,100	37,000	57,900	487,300
59	Bristol Housing	70,200	60,600	60,100	72,000	262,900
65	Burrillville Housing	0	23,500	0	24,000	47,500
66	North Providence Housing	26,500	57,800	15,200	21,300	120,800
67	East Smithfield Water	55,900	20,400	0	39,700	116,000
68	Greenville Water	0	49,100	206,900	39,500	295,500
71	Warren Housing	0	50,900	71,000	49,300	171,200
72	Johnston Housing	148,800	25,800	(9,300)	17,800	183,100
79	Coventry Housing	169,000	32,300	34,700	22,900	258,900
83	West Warwick Housing	104,200	43,400	26,400	32,900	206,900
84	Smithfield Housing	53,300	5,400	0	(1,500)	57,200
96	Central Falls Housing	545,000	9,300	130,400	64,500	749,200
98	Lime Rock Administrative Svcs.	0	0	0	2,000	2,000
100	Bristol/Warren Schools	0	528,000	700,000	528,900	1,756,900

Exhibit II - PENSION BENEFIT OBLIGATION (Cont'd)

Pension Benefit Obligation as of June 30, 1991 by Plan

MUNICIPALITY		RETIREE AND INACTIVE LIABILITY	ACCUMULATED EMPLOYEE CONTRIBUTIONS	EMPLOYER FINANCED VESTED	EMPLOYER FINANCED NON-VESTED	TOTAL BENEFIT OBLIGATION
Police and Fire						
42 Valley Falls Fire		\$0	\$0	\$13,700	\$292,400	\$306,100
46 Lime Rock Fire		0	6,600	(1,100)	71,500	77,000
47 North Smithfield Vol. Fire	D	0	22,600	3,900	75,300	101,800
50 East Greenwich Fire	D	1,696,800	182,500	33,600	191,800	2,104,700
54 East Greenwich Police	D	905,000	367,400	403,900	422,800	2,099,100
55 North Kingstown Fire	D	4,536,500	867,600	593,600	1,081,700	7,079,400
58 North Providence Police & Fire	D	84,600	814,300	654,000	1,164,800	2,717,700
60 Barrington Police	2	1,657,000	346,600	145,600	399,700	2,548,900
61 Barrington Fire	2	2,306,100	469,100	136,100	507,300	3,418,600
62 Warren Police	D	1,010,300	311,300	204,100	408,200	1,933,900
63 South Kingstown Police & Fire		1,177,400	622,800	412,400	764,100	2,976,700
64 Primrose Volunteer Fire	D	27,400	66,000	26,600	84,300	204,300
76 North Smithfield Police	D	422,100	210,500	149,100	355,600	1,137,300
77 Tiverton Fire	D	544,900	276,100	384,800	325,600	1,531,400
82 Foster Police	D	0	83,500	84,900	88,300	256,700
85 Woonsocket Police	C,D	220,000	413,500	0	469,700	1,103,200
86 Charlestown Police		83,500	83,300	0	63,300	230,100
87 Hopkinton Police	D	14,200	74,100	2,900	48,500	139,700
88 Gloucester Police	D	46,200	73,000	0	38,000	157,200
89 West Greenwich Police		0	31,300	61,400	105,300	198,000
90 Burrillville Police	D	114,700	82,400	0	67,100	264,200
91 Cumberland Police		400	40,400	0	6,300	47,100
92 Washington Fire		0	21,200	4,600	54,300	80,100
93 Woonsocket Fire	C,D	0	190,900	0	349,800	540,700
94 Bristol Fire		0	2,000	0	1,900	3,900
95 Cumberland Hill Fire		0	16,300	6,300	227,500	250,100
98 Coventry Fire		0	15,200	37,000	158,800	211,000
99 Berkley Fire		0	7,500	32,000	55,400	94,900
100 Tiogue Fire		0	0	0	79,100	79,100
101 North Cumberland		0	0	4,700	208,500	213,200
102 Central Coventry Fire		0	0	0	191,100	191,100
103 Hopkins Hill Fire		0	0	0	5,800	5,800

NOTES

- B - Municipality has adopted COLA Plan B
- C - Municipality has adopted COLA Plan C
- D - Municipality has adopted the "20-year" optional Police & Fire Plan

- 1 - Bristol/Warren Schools formed from Bristol and Warren.
- 2 - Barrington Police and Barrington Fire were previously a single unit.

EXHIBIT III - PARTICIPANT INFORMATION

Active Employees as of June 30, 1991

Active Employees as of June 30, 1990

MUNICIPALITY	Active Employees as of June 30, 1991				Active Employees as of June 30, 1990				
	NUMBER	AVERAGE AGE	AVERAGE SERVICE	AVERAGE SALARY	NUMBER	AVERAGE AGE	AVERAGE SERVICE	AVERAGE SALARY	
General Employees									
1 Barrington		136	46.8	9.6	\$20,500	141	47.5	10.5	\$20,300
2 Bristol	1	79	42.1	9.3	19,800	117	45.0	10.5	20,100
3 Burrillville		140	46.1	7.0	17,600	145	45.5	6.5	15,900
4 Central Falls		48	41.2	7.9	20,500	46	42.0	10.0	21,000
5 Charlestown		21	37.9	9.3	23,700	-			
7 Cranston		757	45.9	9.7	19,900	747	46.0	9.5	19,100
8 Cumberland		220	47.6	5.6	17,000	229	49.5	8.5	17,300
9 East Greenwich		133	46.3	9.0	18,300	129	46.5	8.5	18,300
10 East Providence		385	46.5	8.4	23,900	394	47.5	10.5	22,000
11 Exeter/West Greenwich		47	44.5	5.3	15,400	34	47.0	9.0	14,400
12 Foster		35	42.1	6.0	15,600	37	43.0	5.5	16,900
13 Gloucester		47	44.0	3.9	16,000	54	43.5	5.0	13,600
14 Hopkinton		22	42.9	6.0	18,300	21	43.0	5.5	18,000
15 Jamestown		41	41.2	8.2	22,900	40	41.5	8.0	21,100
16 Johnston		236	47.8	9.1	17,800	233	49.0	10.5	18,000
21 Newport		302	44.2	10.4	21,800	314	44.5	10.5	20,800
22 New Shoreham		22	42.3	7.3	20,500	15	41.5	8.5	16,700
23 North Kingstown		225	45.0	7.6	20,700	205	44.5	8.5	21,200
24 North Providence		240	46.7	9.3	17,800	232	47.5	9.5	17,400
25 North Smithfield		75	46.9	8.0	18,100	79	47.0	8.5	16,800
26 Pawtucket		637	46.4	10.1	17,900	684	46.5	10.5	18,800
29 Richmond		13	43.6	4.7	19,000	15	41.0	3.0	9,000
30 Scituate		64	47.5	9.5	15,100	62	50.0	11.5	16,100
31 Smithfield		121	47.4	8.1	21,100	120	48.5	9.0	20,700
32 South Kingstown		257	43.3	7.8	20,000	225	43.0	7.5	19,100
33 Tiverton		83	48.6	8.1	18,300	82	50.0	9.5	18,900
34 Warren	1	35	48.4	10.8	17,400	74	50.0	11.0	19,700
36 Westerly		5	55.8	15.0	30,000	9	56.5	16.0	25,500
37 West Greenwich		19	46.4	2.9	16,900	18	48.5	10.5	16,900
39 Woonsocket		370	46.8	8.7	20,600	388	47.0	9.0	19,000
40 Chariho School Dist.		115	41.8	4.7	13,700	108	43.0	4.5	13,900
41 Foster/Glocester		35	49.7	4.7	16,400	34	49.0	8.5	15,100
44 Southern RI Collaborative		1	28.1	1.8	12,800	-			
45 Coventry Lighting Dist.		3	55.3	24.5	29,200	-			
46 Hope Valley Fire		1	55.8	8.9	31,300	-			
51 Cranston Housing		14	46.2	5.6	23,700	15	44.5	5.0	23,700
52 East Providence Housing		10	52.7	8.3	22,700	12	51.0	7.0	20,500
53 Pawtucket Housing		35	42.1	6.3	26,700	38	42.5	6.5	26,700
56 Cumberland Housing		9	44.7	3.8	24,800	13	46.0	6.0	23,500
57 Lincoln Housing		7	48.0	5.6	23,500	7	48.5	8.0	20,500
59 Bristol Housing		8	44.9	8.2	21,300	7	46.5	8.0	21,900
65 Burrillville Housing		2	48.2	9.2	27,200	2	47.0	8.5	25,600
66 North Providence Housing		6	46.6	7.4	22,600	5	47.0	7.0	23,400
67 East Smithfield Water		2	54.8	7.4	32,400	2	54.0	6.5	29,900
68 Greenville Water		4	50.0	13.0	32,000	5	50.5	9.5	24,200
71 Warren Housing		6	55.6	10.2	21,200	6	54.5	9.5	21,200
72 Johnston Housing		3	46.8	6.5	18,200	5	51.0	7.0	18,400
79 Coventry Housing		7	47.7	5.2	19,100	6	46.0	4.5	15,400
83 West Warwick Housing		6	46.4	8.3	22,100	6	44.5	9.5	22,000
84 Smithfield Housing		2	34.3	2.8	18,900	2	33.5	2.0	17,200
96 Central Falls Housing		10	48.3	14.1	23,000	-			
98 Lime Rock Administrative Svcs.		2	29.2	2.8	16,700	-			
100 Bristol/Warren Schools	1	88	48.2	9.2	17,700	-			

EXHIBIT III - PARTICIPANT INFORMATION

Active Employees as of June 30, 1991

Active Employees as of June 30, 1990

MUNICIPALITY	Active Employees as of June 30, 1991				Active Employees as of June 30, 1990			
	NUMBER	AVERAGE AGE	AVERAGE SERVICE	AVERAGE SALARY	NUMBER	AVERAGE AGE	AVERAGE SERVICE	AVERAGE SALARY
Police and Fire								
42 Valley Falls Fire	9	38.3	13.4	\$24,100	-			
46 Lime Rock Fire	5	29.9	8.9	23,200	-			
47 North Smithfield Vol. Fire	9	30.8	4.5	24,400	-			
50 East Greenwich Fire	24	31.9	4.4	25,400	23	24.0	7.0	\$27,400
54 East Greenwich Police	26	38.0	10.4	27,900	18	39.5	13.5	29,400
55 North Kingstown Fire	66	35.0	9.5	27,600	69	39.0	14.0	29,700
58 North Providence Police & Fire	86	35.1	6.9	24,700	92	33.5	6.0	27,800
60 Barrington Police 2	22	36.8	12.3	28,500	59	38.0	13.5	28,000
61 Barrington Fire 2	34	37.4	10.9	27,400	59	38.0	13.5	28,000
62 Warren Police	19	38.7	10.5	31,800	20	37.0	10.5	27,400
63 South Kingstown Police & Fire	43	36.6	11.4	30,700	38	38.0	13.0	30,100
64 Primrose Volunteer Fire	7	33.3	7.6	23,700	8	32.5	6.0	22,900
76 North Smithfield Police	17	36.3	9.5	27,900	18	35.5	7.5	23,000
77 Tiverton Fire	22	40.0	11.0	25,300	18	42.5	13.5	25,500
82 Foster Police	7	36.8	11.3	24,300	7	35.5	10.0	24,700
85 Woonsocket Police	55	28.9	4.4	27,300	45	29.0	5.0	28,700
86 Charlestown Police	13	35.2	5.0	23,800	13	33.5	6.5	23,500
87 Hopkinton Police	9	33.3	4.0	27,000	10	32.5	2.0	23,900
88 Gloucester Police	13	35.2	3.5	23,200	12	37.0	5.5	22,600
89 West Greenwich Police	7	37.2	10.7	25,100	7	36.0	9.5	23,300
90 Burrillville Police	17	38.0	2.8	24,800	18	37.5	10.5	20,800
91 Cumberland Police	12	27.3	2.0	23,900	12	26.5	3.5	23,700
92 Washington Fire	7	31.1	4.9	25,900	6	31.5	4.5	23,700
93 Woonsocket Fire	38	27.9	4.4	28,000	34	27.5	4.0	27,200
94 Bristol Fire	1	41.9	1.0	29,200	-			
95 Cumberland Hill Fire	10	36.0	9.6	26,000	-			
98 Coventry Fire	9	36.2	9.5	27,100	-			
99 Berkley Fire	4	39.1	7.5	26,900	-			
100 Tiogue Fire	6	37.1	7.7	16,900	-			
101 North Cumberland	14	30.1	6.5	26,200	-			
102 Central Coventry Fire	9	30.5	5.6	25,800	-			
103 Hopkins Hill Fire	4	25.2	1.1	18,800	-			

NOTES

- 1 Participants under Bristol/Warren Schools were previously participants under either Bristol or Warren.
- 2 Barrington Police and Barrington Fire were previously a single unit. 1990 data represents this single, combined unit.

EXHIBIT III - PARTICIPANT INFORMATION (Cont'd)

Retirees and Beneficiaries

<u>MUNICIPALITY</u>	<u>NUMBER</u>	<u>AVERAGE AGE</u>	<u>AVERAGE MONTHLY BENEFIT</u>
General Employees			
1 Barrington	103	67.7	\$406
2 Bristol	60	70.5	404
3 Burrillville	42	69.2	491
4 Central Falls	12	61.2	868
5 Charlestown	-		
7 Cranston	338	66.9	403
8 Cumberland	56	66.3	525
9 East Greenwich	50	68.2	366
10 East Providence	255	64.0	748
11 Exeter/West Greenwich	5	64.5	284
12 Foster	7	69.3	558
13 Gloucester	4	64.8	601
14 Hopkinton	8	62.1	291
15 Jamestown	16	68.3	429
16 Johnston	88	68.4	465
21 Newport	151	68.5	457
22 New Shoreham	6	66.1	317
23 North Kingstown	97	67.4	510
24 North Providence	93	66.1	333
25 North Smithfield	43	67.7	316
26 Pawtucket	389	68.5	428
29 Richmond	4	67.7	247
30 Scituate	36	70.7	321
31 Smithfield	58	69.4	441
32 South Kingstown	63	70.7	326
33 Tiverton	45	65.2	382
34 Warren	46	63.0	413
36 Westerly	12	71.3	693
37 West Greenwich	3	69.3	461
39 Woonsocket	245	67.5	420
40 Chariho School Dist.	9	64.7	423
41 Foster/Glocester	5	63.8	614
44 Southern RI Collaborative	-		
45 Coventry Lighting Dist.	-		
46 Hope Valley Fire	-		
51 Cranston Housing	8	72.0	504
52 East Providence Housing	9	71.5	424
53 Pawtucket Housing	25	65.9	499
56 Cumberland Housing	5	61.5	655
57 Lincoln Housing	4	67.8	621
59 Bristol Housing	1	63.8	571
65 Burrillville Housing	-		
66 North Providence Housing	1	73.5	239
67 East Smithfield Water	2	75.8	364
68 Greenville Water	-		
71 Warren Housing	-		
72 Johnston Housing	2	68.9	619
79 Coventry Housing	4	64.9	349
83 West Warwick Housing	1	67.5	945
84 Smithfield Housing	1	67.5	572
96 Central Falls Housing	3	65.4	1450
98 Lime Rock Administrative Svcs.	-		
100 Bristol/Warren Schools	-		

EXHIBIT III - PARTICIPANT INFORMATION (Cont'd)

MUNICIPALITY	Retirees and Beneficiaries		
	NUMBER	AVERAGE AGE	AVERAGE MONTHLY BENEFIT
Police and Fire			
42 Valley Falls Fire	-		
46 Lime Rock Fire	-		
47 North Smithfield Vol. Fire	-		
50 East Greenwich Fire	11	62.4	\$1,275
54 East Greenwich Police	9	66.2	984
55 North Kingstown Fire	36	61.2	1101
58 North Providence Police & Fire	5	68.6	408
60 Barrington Police	16	60.9	937
61 Barrington Fire	24	59.4	922
62 Warren Police	13	62.1	732
63 South Kingstown Police & Fire	13	57.6	813
64 Primrose Volunteer Fire	1	77.1	303
76 North Smithfield Police	4	60.7	991
77 Tiverton Fire	9	63.3	669
82 Foster Police	-		
85 Woonsocket Police	1	34.7	1487
86 Charlestown Police	1	38.5	581
87 Hopkinton Police	-		
88 Gloucester Police	1	55.0	378
89 West Greenwich Police	-		
90 Burrillville Police	1	48.3	834
91 Cumberland Police	-		
92 Washington Fire	-		
93 Woonsocket Fire	-		
94 Bristol Fire	-		
95 Cumberland Hill Fire	-		
98 Coventry Fire	-		
99 Berkley Fire	-		
100 Tiogue Fire	-		
101 North Cumberland	-		
102 Central Coventry Fire	-		
103 Hopkins Hill Fire	-		

EXHIBIT IV - ACTUARIAL METHOD AND ASSUMPTIONS

a. Actuarial Funding Method

Actuarial Funding Method - Entry age normal cost method has been adopted. This method spreads the cost of benefits to be provided to an individual participant as a level percentage of pay from his or her date of employment to the assumed date of retirement.

Due to experience gains and losses or amendments to the benefits, accrued liabilities will not exactly equal the value of assets. The difference between the accrued liabilities and assets is called the unfunded liability. In 1988 the rules regarding amortizing the unfunded liability were changed. Under the new rules the existing unfunded liability in 1988 was amortized over the remainder of a 25 year period which commenced on the date the unit joined the System. Subsequent divergences from the actuarial assumptions are to be funded over the projected future salaries of active members.

Smoothed Contribution Rate - Due to large fluctuations in the contribution rates of certain municipalities, the Retirement Board elected to adopt a procedure which would allow a unit the option of paying a smoothed contribution rate. The smoothed contribution rate equals the previous fiscal year's contribution rate plus the greater of 2% or one eighth of the increase in contribution rate (plus the cost of any benefit improvements).

EXHIBIT IV - ACTUARIAL METHOD AND ASSUMPTIONS (Cont'd)

b. Actuarial Assumptions Concerning Future Events

Mortality - 1971 Group Annuity Mortality Table with Mortality for disabled persons set equal to the age 65 mortality under 1971 Group Annuity Mortality Table.

<u>Age</u>	<u>Sample Rates</u>			
	<u>Mortality</u>		<u>Expected Future Lifetime</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
20	.050%	.026%	55.3 yrs.	61.6 yrs.
25	.062	.035	50.4	56.7
30	.080	.047	45.6	51.8
35	.112	.065	40.8	47.0
40	.163	.094	36.1	42.1
45	.292	.140	31.4	37.4
50	.529	.215	26.9	32.6
55	.852	.326	22.8	28.0
60	1.312	.549	18.8	23.5
65	2.126	.956	15.2	19.3
70	3.611	1.648	11.9	15.3

Investment Return - 8.0%, compounded annually.

Salary Increases - Salaries will increase at a rate of 4.5%, compounded annually.

Retirement Age - Municipal employees are assumed to retire at the later of age 65 or completion of the service requirements. Police and Firemen are assumed to retire at the later of age 60 or completion of the service requirements. For police and fire departments electing the optional plan paying unreduced benefits after 20 years of service, employees are assumed to retire at the later of age 57 and completion of 10 years of service.

Disability - Disability is assumed to occur in accordance with the following table with 15% of disabilities being occupational for municipal employees and 50% of disabilities being occupational for police and firemen.

EXHIBIT IV - ACTUARIAL METHOD AND ASSUMPTIONS (Cont'd)

Disability - Sample Rates

<u>Municipal Employees</u>		<u>Police and Firemen</u>	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.06%	20	.12%
25	.09	25	.17
30	.11	30	.22
35	.15	35	.29
40	.22	40	.44
45	.36	45	.72
50	.61	50	1.21
55	1.01	55	--
60	--	60	--

Withdrawal - Termination of service for reasons other than death, retirement, or disability will be in accordance with the following tables. For police and firemen no withdrawal for reasons other than death, disability, or retirement is assumed.

Sample Withdrawal Rates

<u>Age</u>	<u>Municipal Employees</u>
20	21.20%
25	15.80%
30	11.60%
35	8.40%
40	6.20%
45	4.20%
50	2.60%
55	--
60	--

Cost of Living Adjustments - 3%, not compound, beginning on the January 1st following a participant's retirement if the municipal group elects this optional benefit provision.

EXHIBIT IV - ACTUARIAL METHOD AND ASSUMPTIONS (Cont'd)

Actuarial Value of Assets - The actuarial value of assets is the market value of assets as of June 30, 1991. The market value of assets equals the sum total of a municipal group's employee contributions and employer and retirement reserves.

Estimation of Unknown Employee Characteristics - Missing dates for participants are estimated using a band-type averaging method assigning band grouped average dates to those individuals with missing dates of birth or hire. For example, an employee missing a date of hire is given an estimated date of hire based on the average of known dates of hire for persons in his age band. For Employees who are missing salaries, their salaries are estimated by the average salaries for those employees whose data is complete. For Municipal Employees this is \$21,350 for the salary year July 1, 1990 to June 30, 1991.

EXHIBIT V - SUMMARY OF PLAN PROVISIONS

PLAN NAME

Municipal Employees' Retirement System of the
State of Rhode Island

FINAL AVERAGE SALARY

Final average salary is the three highest consecutive
years of earned salary exclusive of overtime,
bonuses, or severance pay.

NORMAL RETIREMENT

Age and Service Requirements

General Employees may retire with full accrued
benefits at age 58 with 10 years of service or after
30 years of service regardless of age.

Police and Firemen may retire with unreduced
accrued benefits at age 55 with 10 years of service
or after 25 years regardless of age.

Police and Firemen under the Optional Plan may retire
with unreduced accrued benefits at age 55 with 10
years of service or after 20 years of service with no
restriction on age.

Amount of Retirement Benefits

2% of final average salary times service, maximum
benefit is 75% of final average salary.

For the optional 20-year service plan, retirement
benefit is 2.5% of final average salary times service
with a maximum benefit of 75% of final average
salary.

EXHIBIT V - SUMMARY OF PLAN PROVISIONS (Cont'd)

EARLY RETIREMENT

Age and Service Requirement

Early retirement is only available to policemen and firemen under the normal plan.

Amount of Retirement Benefits

Regular pension accrued, reduced by 6% for each year of age less than 55.

DISABILITY BENEFIT

Non-occupational

Service Requirement: 5 years

Amount of Benefit: Regular pension benefit based on service to disability and final average salary at time of disability, payable immediately. The minimum benefit is 20% of final average salary.

Occupational

There is no age or service requirements for the occupational disability benefit.

Amount of Benefit: Two thirds of final salary at time of disability, payable immediately.

VESTING

Employees are vested in their retirement benefits on completion of 10 years of service.

EXHIBIT V - SUMMARY OF PLAN PROVISIONS (Cont'd)

PRE-RETIREMENT DEATH
BENEFITS

Lump Sum Benefit

There are no age or service requirements for this benefit.

Amount of Benefit:

- (a) \$800 per year of service with a minimum of \$4,000 and a maximum of \$16,000, plus
- (b) Refund of employee contributions.

Joint and Survivor Benefit (optional)

Service Requirement: 10 years.

Amount of Benefit: Benefit employee would have received had he/she retired the day before he/she died and chosen the 100% joint and survivor option.

Police and Firemen's Survivor Benefit

There is no age of service requirement for this benefit.

Amount of Benefit:

- (a) 30% of final average salary to spouse plus 10% to each child under age 18, plus
- (b) refund of employee contributions.

EXHIBIT V - SUMMARY OF PLAN PROVISIONS (Cont'd)

PRE-RETIREMENT DEATH
BENEFITS (Cont'd)

Occupational Death Benefit

This benefit has no age or service requirement.

Amount of benefit:

- (a) 50% of salary to spouse or children of employees under age 18, less workmen's compensation. Police and firemen also receive 10% for each child under 18 to a maximum of 66-2/3%.
 - (b) refund of employee contributions.
-

POST-RETIREMENT
DEATH BENEFITS

Lump sum in the amount of:

- (a) 100% of employee contributions less benefits paid, plus
 - (b) Pre-retirement death benefit, reduced 25% per year of retirement, with a minimum of \$4,000.
-

EMPLOYEE CONTRIBUTIONS

Municipal Employees: 6% until maximum benefit (75% of final average salary) is accrued. Increased to 7% with post-retirement cost-of-living increase.

Policemen and Firemen: 7% until maximum benefit (75% of final average salary) is accrued. Increased to 8% with post-retirement cost-of-living increase. Increased by 1% for 20 year service plan.

EXHIBIT V - SUMMARY OF PLAN PROVISIONS (Cont'd)

AVAILABLE BENEFIT OPTIONS Joint and Survivor: Actuarially Equivalent Benefit paying either 100% or 50%, depending on option selected, of retirement benefit to surviving beneficiary.

Social Security: Pays an increased benefit until age 62 and a reduced benefit thereafter to provide a level benefit when Social Security payments are accounted for.

POST-RETIREMENT
COST OF LIVING
ADJUSTMENT

Retirees' benefits are adjusted annually by 3%, not compounded, to allow for increases in cost of living if their municipal group adopts this benefit provision.
