Report of the Actuary

EMPLOYEES' RETIREMENT SYSTEM
OF THE STATE OF RHODE ISLAND

Actuarial Valuation as of June 30, 1982

Martin E. Segal Company, Inc.
January, 1983

MARTIN E. SEGAL COMPANY

607 BOYLSTON STREET
BOSTON, MASSACHUSETTS 02116
(617) 262-0550

January 28, 1983

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

Dear Members of the Board:

We are pleased to submit herewith our Actuarial Valuation of the Employees' Retirement System of the State of Rhode Island as of June 30, 1982.

Our report analyzes the actuarial status of the System, and projects the cost requirements for the Board to certify to the Legislature.

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, Principal 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:

ATLANTA / BOSTON / CHICAGO / CLEVELAND / DENVER / HARTFORD / HOUSTON / LOS ANGELES
NEW ORLEANS / NEW YORK / PHOENIX / SAN FRANCISCO / WASHINGTON, D.C. / TORONTO

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,

MARTIN E. SEGAL COMPANY, INCORPORATED

By Sherman G. Sass
Senior Vice President

By Joseph C. Demty, A.S.A., M.A.A.A.
Actuary

I. SUMMARY

Benefit Provisions

The Employees' Retirement System of the State of Rhode Island covers most State employees. Legislators and elected officials may become members on an optional basis. State college teachers may elect coverage under the T.I.A.A. program. Effective July 1, 1982, State employees contribute 6* per cent of their annual earnings; Teachers contribute 7* per cent.

The System provides unreduced benefits of 1.7 per cent of earnings for the first ten years of service; 1.9 per cent for the next ten years; and 2.4 per cent per year of service over 20 years up to a maximum of 80 per cent of earnings for all years of service. Such benefits are available to members at least age 55 with 30 years of service or age 60 with 10 years of service, or after 35 years at any age. State correctional officers may retire at age 50 if they have 20 years of service, at 2 per cent for each year of service. Benefits are based on the average of the highest three consecutive years' earnings. After the third anniversary of retirement, "cost-of-living increases" amounting to 3 per cent per year of the original award are provided, independent of actual changes in the Consumer Price Index. Beginning January 1, 1981, the cost-of-living increases are computed at the rate of 3 per cent compounded annually.

The Plan also provides non-service-connected disability and vested benefits after five and ten 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.

*These rates are scheduled to increase by 0.5 per cent on July 1, 1985.

Employee Data

We received data on 15,738 active State Employees and 10,133 Teachers as of June 30, 1982 who were participating in the System. On the average, the State Employees were age 43½ and had 9½ years of service; Teachers were age 41 with 13 years of service.

Retiree Data

We received data on 4,901 State Employee pensioners and 182 beneficiaries as of June 30, 1982. The pensioners' average monthly benefit was $391. There were 2,934 retired Teachers and 66 beneficiaries; the average monthly benefit was $790 for the pensioners. The benefit amounts include an adjustment for the cost-of-living provision. Of all the pensioners on the rolls, 7 per cent had retired in the year ended June 30, 1982.

Retirement Fund

As of June 30, 1982, the assets of the Retirement Fund, including Teachers Survivors Reserves, amounted to $543 million. These assets are available as an offset to the actuarial liabilities for future benefits.

Actuarial Valuation

Our valuation was prepared as of June 30, 1982. Our calculations were based on reasonable assumptions as to expected future experience and are the same as those used in our previous actuarial valuation. We used the "entry age normal cost" method, which spreads the cost of each employee's projected pension as a level percentage of his earnings from date of hire to assumed retirement.

The employer normal cost* for State Employees is $12.2 million. This represents 5.0 per cent of the reported payroll of participating State Employees as of June 30, 1982. The employer normal cost for Teachers is $9.0 million or 3.9 per cent of reported participating payroll.

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

For State Employees, the actuarial accrued liability* (for benefits earned before July 1, 1982) is $677 million, of which $258 million represents the liability to those already receiving pensions. The unfunded actuarial accrued liability at the end of the year is $394 million. For Teachers, the actuarial accrued liability is $842 million, of which $289 million is for those receiving pensions. The unfunded actuarial accrued liability stands at $606 million.

The value of the System's vested benefits is $1.20 billion. Thus the assets are short of this amount by $686 million (excluding assets allocable to the Teachers Survivors program).

For the fiscal year 1983-84, the State's statutory funding schedule, as amended effective July 1, 1979, calls for a contribution of 95 per cent of the State's normal cost and 85 per cent of the interest on the unfunded actuarial accrued liability. This amounts to 12.5 per cent of the projected 1983-84 payroll of $278 million for State Employees and 16.2 per cent of projected payroll of $262 million for Teachers. (Half of the cost for Teachers is paid for by the municipalities.) Beginning July 1, 1982 the employee contribution rates increased by ½ per cent. These increases are recognized in the rate per cents above. According to the statute as amended, the percentages of normal cost and interest on the unfunded liability required to be contributed are scheduled to increase until fiscal 1985-86 and then in later years the full normal cost and amortization of unfunded liabilities will be required.

*See note on page 2.

II. EMPLOYEE DATA

We received data on 15,738 State Employees and 10,133 Teachers participating in the System on June 30, 1982. The data included age, service, sex, and salary for each participant. The average salary of the participants was $15,600 for State Employees (see Note below), and $22,800 for Teachers. The data included 287 Correctional Officers and 133 Legislators.

Tables 1A and 1B give detailed age, service and average salary data on State Employees and Teachers, respectively. In preparing these tables, we assumed an annual salary of $10,000 for the State Employees for whom earnings were missing, and a $15,000 annual salary was imputed for Teachers with unknown compensation.

Tables 2A and 2B summarize certain basic statistics on active State Employees and Teachers and compare them to those of the previous year. During the year, average salary for State Employees increased by 7.6 per cent while Teachers' average salary increased by 12.0 per cent (see Note below). Aggregate payroll increased by 2.0 per cent for State Employees and by 4.2 per cent for Teachers.

Overall, the data was in good condition. We recommend that the Board continue its practice of storing all basic participant information on computer files.

NOTE: Based on inspection of sample data, it was determined that reported salaries represented a higher pay period. Accordingly, for State Employees, we adjusted salaries by ratios determined from the sampling process together with other known information.

Table 1A

Number and Average Salaries of Employees in Active Service
as of June 30, 1982
by Age and by Years of Service

STATE EMPLOYEES

Age	Total	Years of service								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 and over	Unknown
Total	15,738 $15,600	5,419 $13,700	4,579 $15,200	2,917 $15,900	1,299 $18,100	762 $19,600	388 $20,800	222 $21,700	109 $22,300	43 $13,000
Under 20	56 $11,600	56 $11,600	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
20 - 24	933 12,100	823 12,100	109 $12,100	-- --	-- --	-- --	-- --	-- --	-- --	1 $12,600
25 - 29	2,006 13,700	1,132 13,700	794 13,700	78 $13,500	-- --	-- --	-- --	-- --	-- --	2 13,900
30 - 34	2,162 15,800	843 14,800	867 16,500	423 16,300	29 $15,300	-- --	-- --	-- --	-- --	-- --
35 - 39	1,784 16,800	639 14,900	566 17,300	419 18,600	141 18,500	15 $17,500	-- --	-- --	-- --	4 12,900
40 - 44	1,392 16,700	442 14,600	391 16,100	285 17,500	177 20,400	83 19,700	14 $17,600	-- --	-- --	-- --
45 - 49	1,488 16,200	428 13,700	400 15,500	298 15,900	163 19,600	130 20,700	53 19,900	15 $19,200	-- --	1 30,500
50 - 54	1,869 16,000	432 13,400	493 15,000	419 15,100	203 18,600	158 21,000	94 20,600	57 19,500	10 $18,100	3 22,600
55 - 59	2,127 16,000	367 14,200	517 14,400	530 14,600	292 17,200	192 19,100	124 22,200	72 22,600	32 19,600	1 24,900
60 - 64	1,431 15,900	185 13,900	338 14,200	367 14,400	220 16,300	142 18,400	74 20,500	59 23,300	43 22,700	3 28,300
65 and over	395 16,800	12 13,200	97 13,900	98 14,600	74 17,300	42 18,600	29 19,800	19 21,600	24 26,700	-- --
Unknown	95 4,800	60 2,500	7 6,800	-- --	-- --	-- --	-- --	-- --	-- --	28 9,300

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Table 1B

Number and Average Salaries of Employees in Active Service
as of June 30, 1982
by Age and by Years of Service

TEACHERS

Age	Total	Years of service								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 and over	Unknown
Total	10,133 $22,800	1,339 $17,500	2,185 $21,800	3,449 $23,800	1,429 $24,300	870 $25,000	429 $26,100	231 $26,500	72 $25,900	129 $18,400
Under 20	7 $23,700	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	7 $23,700
20 - 24	85 12,900	79 $12,600	2 $20,800	-- --	-- --	-- --	-- --	-- --	-- --	4 15,300
25 - 29	765 16,600	502 15,700	242 18,700	1 $23,500	-- --	-- --	-- --	-- --	-- --	20 14,000
30 - 34	2,477 22,000	301 17,900	1,157 21,800	997 23,400	3 $22,400	-- --	-- --	-- --	-- --	19 20,300
35 - 39	2,302 23,300	208 19,300	329 22,900	1,386 23,900	360 24,000	3 $23,300	-- --	-- --	-- --	16 20,600
40 - 44	1,344 23,900	122 20,500	192 22,400	372 24,200	476 24,700	169 25,300	-- --	-- --	-- --	13 21,500
45 - 49	1,017 24,500	50 21,000	109 23,000	234 23,600	217 24,800	311 25,700	95 $25,600	1 $21,700	-- --	-- --
50 - 54	964 24,800	34 21,900	74 22,800	250 23,900	146 24,300	173 24,800	198 26,600	78 26,600	11 $26,100	-- --
55 - 59	715 24,500	20 20,000	58 23,300	133 23,900	142 23,100	129 24,200	86 26,500	112 26,700	31 26,200	4 24,000
60 - 64	308 24,200	4 23,100	9 21,400	51 23,600	70 24,100	73 23,800	44 24,400	32 26,200	24 25,900	1 24,900
65 and over	52 23,900	2 19,300	1 21,400	9 24,300	12 23,200	12 24,100	4 23,700	7 24,200	5 26,200	-- --
Unknown	97 18,500	17 15,700	12 20,800	16 23,400	3 22,400	-- --	2 23,300	1 21,000	1 17,000	45 16,700

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Table 2A

Statistical Data on Active State Employees
on June 30, 1982 and 1981

	June 30, 1982	June 30, 1981
Number of covered employees	15,738	16,501
Total annual salary	$244,813,800	$240,040,100
Average annual salary	$15,600	$14,500
Average age	43½	43
Average years of service	9½	8½
Number eligible for service retirement	1,377	1,330
Number vested but not eligible to retire	4,320	3,945

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See note in text on salary data

Table 2B

Statistical Data on Active Teachers
on June 30, 1982 and 1981

	June 30, 1982	June 30, 1981
Number of covered employees	10,133	10,893
Total annual salary	$231,043,000	$221,684,500
Average annual salary	$22,800	$20,400
Average age	41	40½
Average years of service	13	12½
Number eligible for service retirement	599	659
Number vested but not eligible to retire	5,881	5,733

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III. RETIREE DATA

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

The following are significant statistics on the retired group:

	State Employees	Teachers
Pensioners:		
Number	4,901	2,934
Average age	70½	72½
Average monthly benefit	$391	$790
Beneficiaries:		
Number	182	66
Average age	76	76
Average monthly benefit	$382	$602

Table 3A gives distributions of the 430 new State Employee pensions in the current year by type of pension and amount. Table 4A does the same for age at retirement. Tables 3B and 4B are similar for the 170 new Teacher pensions.

Tables 5A and 5B give distributions for all pensions in force at the end of the fiscal year by type and amount. Tables 6A and 6B do the same by age.

Overall, the data on retirees was quite good. A minor problem, which has no impact on cost, is that some beneficiaries may not be classified as such.

The data on terminated employees with vested rights to a deferred benefit did not include enough information to calculate the total cost for them. We did, however, again this year, include a cost equal to their accumulated employee contributions. We again recommend that information regarding terminated vested employees be maintained by the System so that it can be incorporated in future valuations and reflected in the costs.

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Table 3A

Pensions Awarded in the Year Ended June 30, 1982
by Type and by Monthly Amount

STATE EMPLOYEES

Monthly amount	Total	Type of pension				
		Service	Ordinary Disability	Accidental Disability	Legislator	Beneficiary
Total	430	386	31	3	5	5
Under $50	1	1	--	--	--	--
$ 50 - 99	16	15	1	--	--	--
100 - 149	22	19	2	1	--	--
150 - 199	58	48	10	--	--	--
200 - 249	47	38	8	--	1	--
250 - 299	39	35	1	--	2	1
300 - 349	37	34	1	1	1	--
350 - 399	16	13	2	--	1	--
400 - 449	23	21	1	1	--	--
450 - 499	24	23	1	--	--	--
500 - 599	20	17	1	--	--	2
600 - 699	25	23	2	--	--	--
700 - 799	21	20	1	--	--	--
800 - 899	17	16	--	--	--	1
900 - 999	9	9	--	--	--	--
1,000 - 1,099	7	7	--	--	--	--
1,100 - 1,199	8	8	--	--	--	--
1,200 - 1,299	6	6	--	--	--	--
1,300 - 1,399	5	5	--	--	--	--
1,400 - 1,499	8	7	--	--	--	1
1,500 - 1,999	14	14	--	--	--	--
2,000 - 2,499	3	3	--	--	--	--
2,500 - 2,999	3	3	--	--	--	--
3,000 - 3,499	1	1	--	--	--	--

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Table 3B

Pensions Awarded in the Year Ended June 30, 1982
by Type and by Monthly Amount

TEACHERS

Monthly Amount	Total	Type of Pension			
		Service	Ordinary Disability	Accidental Disability	Beneficiary
Total	170	161	7	1	1
100 - 149	1	1	--	--	--
150 - 199	1	1	--	--	--
200 - 249	4	4	--	--	--
250 - 299	3	3	--	--	--
300 - 349	6	6	--	--	--
350 - 399	2	2	--	--	--
400 - 449	3	2	1	--	--
450 - 499	4	4	--	--	--
500 - 599	8	8	--	--	--
600 - 699	13	13	--	--	--
700 - 799	16	15	1	--	--
800 - 899	10	6	3	--	1
900 - 999	19	18	1	--	--
1,000 - 1,099	21	20	1	--	--
1,100 - 1,199	17	17	--	--	--
1,200 - 1,299	11	11	--	--	--
1,300 - 1,399	12	11	--	1	--
1,400 - 1,499	6	6	--	--	--
1,500 - 1,999	8	8	--	--	--
2,000 - 2,499	4	4	--	--	--
3,000 - 3,499	1	1	--	--	--

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Table 4A

Pensions Awarded in the Year Ended June 30, 1982
by Type and by Age on Effective Date

STATE EMPLOYEES

Age on Effective date	Total		Type of pension				
			Service	Ordinary Disability	Accidental Disability	Legislator	Beneficiary
Total		430	386	31	3	5	5
30 - 34		1	--	1	--	--	--
35 - 39		1	--	1	--	--	--
40 - 44		1	--	1	--	--	--
45 - 49		8	--	6	2	--	--
51		2	--	1	--	--	1
52	12	1	--	1	--	--	--
53		5	2	2	1	--	--
54		4	1	2	--	--	1
55		12	7	--	--	5	--
56		3	3	--	--	--	--
57	38	7	5	2	--	--	--
58		6	3	3	--	--	--
59		10	4	5	--	--	1
60		47	46	1	--	--	--
61		34	33	1	--	--	--
62	223	60	58	1	--	--	1
63		43	42	1	--	--	--
64		39	38	1	--	--	--
65		52	51	1	--	--	--
66		23	23	--	--	--	--
67	121	19	19	--	--	--	--
68		8	8	--	--	--	--
69		19	18	--	--	--	1
70 and over		25	25	--	--	--	--

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Table 4B

Pensions Awarded in the Year Ended June 30, 1982
by Type and by Age on Effective Date

TEACHERS

Age on Effective date	Total		Type of pension			
			Service	Ordinary Disability	Accidental Disability	Beneficiary
Total		170	161	7	1	1
40 - 44		1	--	1	--	--
45 - 49		2	--	1	--	1
53		1	--	1	--	--
54	15	2	--	2	--	--
55		12	12	--	--	--
56		4	3	1	--	--
57	25	7	7	--	--	--
58		5	5	--	--	--
59		9	8	1	--	--
60		32	31	--	1	--
61		19	19	--	--	--
62	90	22	22	--	--	--
63		11	11	--	--	--
64		6	6	--	--	--
65		12	12	--	--	--
66		6	6	--	--	--
67	33	5	5	--	--	--
68		5	5	--	--	--
69		5	5	--	--	--
70 and over		4	4	--	--	--

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Table 5A

Pensions in Force on June 30, 1982
by Type and by Monthly Amount

STATE EMPLOYEES

Monthly amount	Total	Type of pension				
		Service	Ordinary Disability	Accidental Disability	Legislator	Beneficiary
Total	5,083	4,300	388	88	125	182
Under $50	53	41	1	9	--	2
$ 50 - 99	328	284	25	8	--	11
100 - 149	730	668	43	9	--	10
150 - 199	689	571	96	5	--	17
200 - 249	547	429	85	8	6	19
250 - 299	435	350	37	5	20	23
300 - 349	346	287	29	3	11	16
350 - 399	250	203	15	3	14	15
400 - 449	235	195	11	5	12	12
450 - 499	208	163	12	9	12	12
500 - 599	340	264	10	8	38	20
600 - 699	221	186	14	6	7	8
700 - 799	154	135	8	5	2	4
800 - 899	110	101	--	3	1	5
900 - 999	85	78	1	--	2	4
1,000 - 1,099	80	78	--	1	--	1
1,100 - 1,199	60	57	1	--	--	2
1,200 - 1,299	56	55	--	1	--	--
1,300 - 1,399	31	31	--	--	--	--
1,400 - 1,499	36	35	--	--	--	1
1,500 - 1,999	64	64	--	--	--	--
2,000 - 2,499	16	16	--	--	--	--
2,500 - 2,999	8	8	--	--	--	--
3,000 - 3,499	1	1	--	--	--	--

Table 5B

Pensions in Force on June 30, 1982
by Type and by Monthly Amount
TEACHERS

Monthly amount	Total	Type of pension			
		Service	Ordinary Disability	Accidental Disability	Beneficiary
Total	3,000	2,826	95	13	66
Under $50	1	1	--	--	--
$ 50 - 99	8	8	--	--	--
100 - 149	22	22	--	--	--
150 - 199	36	33	1	--	2
200 - 249	62	60	2	--	--
250 - 299	74	64	5	--	5
300 - 349	102	82	12	--	8
350 - 399	109	98	7	--	4
400 - 449	110	95	13	--	2
450 - 499	95	81	8	--	6
500 - 599	252	224	13	1	14
600 - 699	296	284	10	--	2
700 - 799	436	419	8	--	9
800 - 899	338	326	7	1	4
900 - 999	345	334	6	1	4
1,000 - 1,099	259	249	3	6	1
1,100 - 1,199	156	153	--	2	1
1,200 - 1,299	119	115	--	1	3
1,300 - 1,399	75	73	--	1	1
1,400 - 1,499	35	35	--	--	--
1,500 - 1,999	59	59	--	--	--
2,000 - 2,499	8	8	--	--	--
2,500 - 2,999	2	2	--	--	--
3,000 - 3,499	1	1	--	--	--

Table 6A

Pensions in Force on June 30, 1982
by Type and by Age

STATE EMPLOYEES

Age on June 30, 1982	Total	Type of pension				
		Service	Ordinary Disability	Accidental Disability	Legislator	Beneficiary
Total	5,083	4,300	388	88	125	182
25 - 29	2	--	2	--	--	--
30 - 34	5	--	3	1	--	1
35 - 39	10	--	7	3	--	--
40 - 44	7	--	4	2	1	--
45 - 49	30	1	19	7	1	2
50 - 54	64	8	34	14	3	5
55 - 59	196	75	77	14	19	11
60 - 64	763	611	99	16	24	13
65 - 69	1,404	1,263	80	12	30	19
70 - 74	1,239	1,144	46	15	16	18
75 - 79	765	706	13	3	15	28
80 - 84	395	342	3	1	9	40
85 - 89	147	111	--	--	6	30
90 - 94	43	31	--	--	1	11
95 - 99	10	6	--	--	--	4
100 - 104	3	2	1	--	--	--

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Table 6B

Pensions in Force on June 30, 1982
by Type and by Age

TEACHERS

Age on June 30, 1982	Total	Type of pension			
		Service	Ordinary Disability	Accidental Disability	Beneficiary
Total	3,000	2,826	95	13	66
35 - 39	2	--	1	--	1
40 - 44	7	--	4	2	1
45 - 49	5	--	3	--	2
50 - 54	16	2	11	2	1
55 - 59	89	63	19	1	6
60 - 64	425	396	21	6	2
65 - 69	575	558	11	2	4
70 - 74	750	736	10	--	4
75 - 79	614	593	5	--	16
80 - 84	280	262	4	--	14
85 - 89	166	151	6	--	9
90 - 94	56	52	--	--	4
95 - 99	13	11	--	--	2
100 - 104	2	2	--	--	--

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IV. RETIREMENT FUND

The State maintains the Employees' Retirement Fund. The Retirement Board provided us with financial statements as of June 30, 1982.

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 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 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 7 gives a summary of income and expenditures for the years ended June 30, 1982 and 1981.

At June 30, 1982 assets totalled approximately $543 million. Table 8 shows the composition of the assets and compares them to those of the previous year. About 72 per cent of the Fund was invested in fixed income securities such as bonds and notes.

The financial statements indicate that 52 per cent of the assets relate to State Employees, 43 per cent are for Teachers, and 5 per cent relate to Teachers Survivors benefits. There is also a small unallocated reserve for unclaimed benefits. Table 9 shows the allocation of assets in detail for 1982 and 1981.

Table 7

Summary Statement of Income and Expenses
For the Years Ended June 30, 1982 and 1981

	1982		1981	
Employer contributions	$57,216,108		$43,856,481	
Member Contributions	29,071,481		28,023,891	
Total contributions	$86,287,588		$71,880,371	
Less: Administration expenses	5		--	
Net contribution income		$86,287,583		$71,880,371
Net miscellaneous items		145,699		154,382
Investment income:				
Dividends	$ 8,108,168		$ 6,855,415	
Interest	39,935,687		31,707,401	
Capital gains and losses	442,649		1,052,387	
Net investment income		48,486,504		39,615,203
Total income available for benefit payments		$134,919,787		$111,649,956
Benefits payments:				
Pension benefits	$49,850,309		$44,848,637	
Death benefits	1,138,648		1,086,856	
Contribution refunds	4,235,260		3,071,930	
Total benefit payments		55,224,217		49,017,423
Excess of income over expenses		$79,695,570		$62,632,533

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

RHODE ISLAND ERS

Table 8

Assets as of June 30, 1982 and 1981

	1982		1981	
Cash				
Accrued interest receivable		$1,261,334		$ (2,372,007)
Investments		8,758,967		6,610,655
Government bonds	$195,827,588		$153,282,442	
Corporate bonds	128,448,333		130,536,867	
Common and preferred stocks	139,923,147		105,236,539	
Certificates of deposit and repurchase agreements	31,948,553		41,900,000	
Commercial paper	42,894,516		32,818,686	
(Less)Unamortized premiums and discounts	(5,843,515)	533,198,620	(4,489,831)	459,284,704
Total assets		$543,218,922		$463,523,352

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

Table 9

Allocation of Assets by Plan
as of June 30, 1982 and 1981

	1982		1981	
State Employees:				
Employer reserves	$199,973,353		$167,585,727	
Member reserves	82,628,251		74,855,754	
Total State Employees reserves		$282,601,604		$242,441,481
Teachers:				
Employer reserves	$122,238,642		$ 95,334,380	
Member reserves	113,536,024		103,586,726	
Total Teacher reserves		235,774,666		198,921,106
Teachers Survivors:				
Employer reserves	$ 18,466,479		$ 16,161,641	
Member reserves	6,287,524		5,923,105	
Total Teachers Survivors reserves		24,754,002		22,084,746
Unallocated:				
Unclaimed benefit reserve		88,650		76,019
Total assets		$543,218,922		$463,523,352

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

V. ACTUARIAL ASSUMPTIONS AND COST METHOD

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 obligation. The result is an employer contribution which anticipates future payments. 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 the June 30, 1981 study.

Mortality Rates

We assumed that mortality rates would conform with the 1971 Group Annuity Mortality Table. This is the most commonly used table of pension plan mortality, and we believe it is a reasonable basis for estimating experience under the System. Table 10 gives some life expectancies determined from this table.

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 understate 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 cost were calculated as a level dollar amount for an individual, the cost might be a high per cent of his pay when he is young and a lower per cent of his higher salary at a later age. By the 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 the State's salary schedules. The salary scale factors are:

Age	Present Salary as a % of Age 65 Salary	Annual Increases (Rate %)
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 State and Town 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 would be as follows:

State Employees (Rate %)

Age	Death*	Disability	Withdrawal	Total*
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.

Teachers (Rate %)

Age	Death*	Disability	Withdrawal	Total*
20	.05	.06	12.39	12.50
25	.06	.09	9.70	9.85
30	.08	.11	7.50	7.69
35	.11	.15	5.66	5.92
40	.16	.22	4.14	4.52
45	.29	.36	2.75	3.41
50	.53	.61	1.35	2.49
55	.85	1.01	--	1.86
60	1.31	--	--	1.31

15% 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 due to rounding.

Retirement Ages

The System provides unreduced benefits as early as age 55 for general employees and age 50 for State Correctional Officers. We have assumed State Employees will retire at age 64, or upon the completion of ten years of service if later. Teacher retirements are assumed to occur when the teacher has attained age 63 and has completed ten or more years of service. In any case where the employee already meets these assumed conditions of age and service, it is assumed that he or she will retire immediately.

Post-Retirement Increases

Following the third anniversary of retirement, cost-of-living increases are regularly provided to pensioners. Our calculations assumed 3 percent annual benefit increases as provided by Statute. Cost-of-living increases are now "compounded" from year to year. With this valuation we took into account the adjustment effective January 1, 1983.

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 reserve which is earning substantial investment income, a yield of 6 per cent - in contrast to a 5 per cent yield - could reduce annual 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 40 or more 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.

Actuarial Cost Method

We have used the "entry age normal" actuarial cost method. 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 accrued 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, actuarial gains or losses will develop, with corresponding decreases or increases in future costs.

Missing Data

It was 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 10

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

State Employees

The costs for State Employees as of June 30, 1982 developed as follows:

	Item	Amount	% of Payroll
(1)	Participating payroll	$244,813,800	--
(2)	Employer normal cost	12,232,700	5.0%
(3)	Unfunded actuarial liability	394,178,000	--
(4)	Interest on unfunded actuarial liability	24,057,900	9.8
(5)	Total annual cost payable July 1, 1982 -- Interest only = (2) + (4)	36,290,600	14.8
(6)	Total annual cost payable monthly = (5) plus ½ year interest -- Interest only	37,470,000	15.3

The funding statute calls for the State to contribute 95 per cent of the projected normal cost plus 85 per cent of the interest on the unfunded actuarial accrued liability (as of June 30, 1982) for the 1983-84 fiscal year. Based on this requirement and a projected participating payroll of $278,000,000, the 1983-84 employer contribution "rate per cent" for State Employees is 12.5 per cent of payroll, developed below.

	Item	Amount	% of Projected Payroll
(7)	Projected 1983-84 participating payroll	$278,000,000	--
(8)	1983-84 employer normal cost = 4.9967% x (7)	13,890,800	5.0%
(9)	Required contribution payable July 1, 1982 = .95 x (8) + .85 x (4)	33,645,500	12.1
(10)	Required contribution payable monthly = (9) plus ½ year interest	34,739,000	12.5

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 monthly. Thus about half a year's interest is lost, and the contribution must be increased to reflect this. Lines 6 and 10, on the previous page, include this adjustment.

The "full cost" of the System's benefits (Line 6) is 15.3 per cent of payroll, slightly less than the 15.6 per cent for the previous year.

Teachers

The costs for Teachers as of June 30, 1982 developed as follows:

	Item	Amount	% of Payroll
(1)	Participating payroll	$231,043,000	--
(2)	Employer normal cost	9,022,300	3.9%
(3)	Unfunded actuarial liability	606,263,400	--
(4)	Interest on unfunded actuarial liability	37,002,100	16.0
(5)	Total annual cost payable July 1, 1982 -- Interest only = (2) + (4)	46,024,400	19.9
(6)	Total annual cost payable monthly (5) plus ½ year interest -- interest only	47,520,200	20.6

Applying the funding statute to the Teachers' costs and a projected participating payroll of $262,312,500 gives a contribution "rate per cent" requirement for fiscal 1983-84 of 16.2 per cent. Half of this rate (8.1%), is payable by the State and half by the municipalities. The "rate per cent" is developed below:

	Item	Amount	% of Participating Payroll
(7)	Projected 1983-84 participating payroll	$262,312,500	--
(8)	1983-84 employer normal cost = 3.9050% x (7)	10,243,300	3.9%
(9)	Required contribution payable July 1, 1982 = .95 x (8) + .85 x (4)	41,182,900	15.7
(10)	Required contribution payable monthly = (9) plus ½ year interest	42,521,300	16.2

The calculations as completed assume that the employer contributions will be paid into the retirement fund at the beginning of each fiscal year and will start to earn interest from that date. In fact, the money will be deposited monthly. Thus about a half a year's interest is lost, and the contribution must be increased to reflect this. Lines 6 and 10, above, include this adjustment.

The "full cost" is 20.6 per cent of payroll which compares to 21.4 per cent for the previous year.

We believe that the funding program as set forth in the state statute is a reasonable basis for funding the Rhode Island Teachers Retirement System. If the statutory funding program is followed without change, the System will be fully funded -- that is, the assets will equal the actuarial liability on June 30, 2016. In the interim, the assets are projected to be sufficient at all times to meet the cash requirements for projected benefit payments.

Teachers Survivors

Because we do not have data on dependents of teachers, it is not possible to do an analysis of the Teachers Survivor program. However, in the past, we attempted to estimate the actuarial position based on "high cost" assumptions. For example, we assumed 25 per cent of teachers would be unmarried at death in active service, 10 per cent would be married but childless, and 65 per cent would be married with children (two children, one born when the wife was age 23, and the other at 32). On this rough basis, the assets appear to be sufficient to fully cover the actuarial liabilities. The normal cost is estimated to be between $110 and $125 per person -- well below the $192 combined annual employer-employee contribution (each pays 1 per cent of the first $9,600 of salary).

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 provision for penion expense, 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 State may not be covered by this Opinion, a brief discussion of this subject may be helpful.

The "value of vested benefits" represents the single sum 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, and active participants with at least ten years of service. For active employees with less than ten years of service and inactive vested employees, only the accumulated employee contributions are included.

For the Employees' Retirement System, the value of vested benefits as of June 30, 1982 is as follows:

	State Employees	Teachers
Active members	$318,491,300	$330,670,100
Inactive members	3,735,900	4,769,300
Retired members	258,170,600	288,739,100
Total value of vested benefits	$580,397,800	$624,178,500
Assets	282,601,600	235,774,700
Unfunded value of vested benefits	$297,796,200	$388,403,800

Overall Status of System

Legislation in January, 1979 effectively returned the System to its former statutory funding schedule beginning with the 1979-80 fiscal year. (Actually, the accelerated funding provided for by the General Assembly in 1978 was never used as the basis for determining contributions as its effective date was deferred for one year to July 1, 1979, by which date the further revision of the law superseded it.)

Under the funding law as amended, the Employers will not begin to pay the full normal cost and an amortization payment until the fiscal year beginning July 1, 1986. Thus, for fiscal 1983-84, as reported earlier, the employer cost is 95 per cent of the normal cost and 85 per cent of the interest payment on the unfunded actuarial accrued liability. The scheduled percentages are:

Fiscal year beginning on July 1	Normal cost	Interest on unfunded liability
1983	95%	85%
1984	100%	95%
1985 and thereafter	100%	100%

As the funding law currently exists, beginning with the fiscal year starting July 1, 1986, the statutory contribution will comprise the normal cost, amortization of the June 30, 1985 unfunded liability based on the sum-of-the-digits method over 30 years, and interest on the unfunded actuarial accrued liability.

* * * * * *

APPENDIX

MODEL FORM SUMMARY STATEMENT RE CITY AND TOWN PARTICIPATION IN TEACHERS' RETIREMENT SYSTEM FOR PURPOSES OF FINANCIAL STATEMENTS AND REPORTS, MUNICIPAL BOND REGISTRATION STATEMENTS, ETC.

The (city) (town) of ______________ provides retirement benefits to its public school teachers through its participation in the Rhode Island Retirement System, a statutory, mandatory, state-wide, multi-employer retirement system which first covered Rhode Island teachers on July 1, 1949. This System is administered as a unified state-wide system by the State Retirement Board, the composition of which is set forth in the pertinent state statute. The assets are held in the custody of the State Treasurer as an undivided single fund.

The actuarial costs of the retirement benefits are partially funded by employee contributions of 7 per cent of pay increasing to 7 1/2 per cent July 1, 1985. The net employer actuarial costs are determined annually by the actuary and as provided by statute are certified by the Retirement Board to the Department of Administration as a rate per cent of payroll, payable one half by the State of Rhode Island and one half by the (city) (town). The statute provides for increasing graduated percentages of the annual normal cost and interest on the unfunded liability until the year beginning July 1, 1986 when the full normal cost and amortization payments on a 30-year schedule are required. For the year beginning July 1, 1983, 95 per cent of the normal cost and 85 per cent of the interest on the unfunded liability are the required levels of actuarial funding.

Actuarial valuations prepared by Martin E. Segal Company, applying the entry age normal cost method, assuming 6 1/2 per cent interest return on invested assets and applying assumed rates of salary progression, allowance for post-retirement increases and other actuarial assumptions--all as set forth in the published annual reports of the Retirement Board--reveal the following comparative highlights of the last three years for the Teachers' System as a whole:

	Year Beginning July 1,		
	1980	1981	1982
Active participants	11,177	10,893	10,133
Pensioners and beneficiaries	2,885	2,928	3,000
Inactive participants*	N.A.	1,496	1,270
Liability for accrued vested benefits	$532,210,000	$588,177,100	$624,178,500
Net Assets	170,242,900	198,921,100	235,774,700

*First included in 1981

	Year Ended June 30,		
	1980	1981	1982
Employer contributions	$18,858,156	$23,601,692	$30,810,280
Member contributions	13,298,198	14,614,575	14,419,664
Total contributions	$32,156,354	$38,216,267	$45,229,944
Net miscellaneous income	51,994	29,122	37,569
Investment income	13,625,215	16,919,653	20,941,314
Total income available for benefit payments	$45,833,563	$55,165,043	$66,208,827
Benefit payments	24,973,191	26,486,814	29,355,267
Excess of income over expenses	$20,860,372	$28,678,229	$36,853,560

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

Actuarial costs and liabilities, as shown in the summary presentation, are determined in the aggregate for the Teachers System. Accordingly, employer contributions are first determined in the aggregate for all participating employers in this multi-employer system; are then expressed as a rate per cent of the aggregate participating payroll; and one half this rate per cent is then promulgated to each participating employer as the actuarial cost factor to be applied to its participating payroll (the remaining one half of the employer cost is contributed by the State). Employer contributions by the (city) (town) of ________________ for each of the last three years (together with the amount for the current year, based on the promulgated rate percent of 8.1 per cent) are as follows:

	Year Ending June 30,			
	1980	1981	1982	1983 (est.)
Participating payroll				
Employer contributions				

With respect to the Teachers Retirement System, Martin E. Segal Company, independent actuaries advising the Retirement Board have stated on January 1983:

"We believe that the funding program set forth in the state statute is a reasonable basis for funding the Rhode Island Teachers Retirement System. If the statutory funding program is followed without change, the System will be fully funded--that is, the assets will equal the actuarial liability on June 30, 2016. In the interim the assets are projected to be sufficient at all times to meet the cash requirements for projected benefit payments."

According to the statutory funding schedule, the contributions required each year of the (city) (town) of ____________ and the State, will increase as the System moves toward the funding of the full annual cost. Ultimately, however, because the actuarial funding results in the accumulation of reserves that are invested, the required appropriation will be significantly less than would be required if this System were on a pay-as-you-go basis.

MARTIN E. SEGAL COMPANY

607 BOYLSTON STREET
BOSTON, MASSACHUSETTS 02116
(617) 262-0550

January 28, 1983

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, 1982.

The certificate contains the following attached exhibits:

EXHIBIT I - Actuarial Cost for Year Beginning July 1, 1982

A. State Employees

B. Teachers

EXHIBIT II - Actuarial Assumptions and Cost 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, INCORPORATED

Joseph C. Demty

By: Joseph C. Demty, A.S.A., M.A.A.A.
Actuary

EXHIBIT I

ACTUARIAL COST FOR YEAR BEGINNING JULY 1, 1982

A. STATE EMPLOYEES

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

a. 15,738 active participants (including 5,697 fully vested) with total annual salaries of $244,813,800

b. 1,538 inactive participants

c. 5,083 pensioners (including 182 beneficiaries of deceased pensioners and active employees)

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

1.	Total normal cost		$ 26,921,500
2.	Projected employee contributions		14,688,800
3.	Employer normal cost		12,232,700
4.	Actuarial liability - total		676,779,600
	Active employees	$414,873,100	
	Inactive employees	3,735,900	
	Pensioners (including beneficiaries of deceased pensioners and active employees)	258,170,600	
5.	Assets		282,601,600
6.	Unfunded actuarial liability		394,178,000

Liability for accrued vest benefits: $580,397,800

Note: Included are 110 active employees unknown as to age, service, or both. Status of beneficiaries was unclear. The liability included for inactive employees is the sum of their accumulated contributions.

EXHIBIT I

ACTUARIAL COST FOR YEAR BEGINNING JULY 1, 1982

B. TEACHERS

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

a. 10,133 active participants (including 6,480 fully vested) with total annual salaries of $231,043,000
b. 1,270 inactive participants
c. 3,000 pensioners (including 66 beneficiaries of deceased pensioners and active employees)

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

1.	Total normal cost		$ 25,195,300
2.	Project employee contributions		16,173,000
3.	Employer normal cost		9,022,300
4.	Actuarial liability - total		842,038,100
	Active employees	$548,529,700	
	Inactive employees	4,769,300	
	Pensioners (including beneficiaries of deceased pensioners and active employees)	288,739,100	
5.	Assets		235,774,700
6.	Unfunded actuarial liability		606,263,400

Liability for accrued vested benefits: $624,178,500

Note: Included are 181 active employees unknown as to age, service, or both. Status of beneficiaries was unclear. The liability included for inactive employees is the sum of their accumulated contributions.

EXHIBIT II

ACTUARIAL ASSUMPTIONS AND COST METHOD

Mortality rates -- 1971 Group Annuity Mortality Table

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

Termination rates before retirement:

State Employees (Rate %)

Age	Death*	Disability	Withdrawal	Total*
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.

Teachers (Rate %)

Age	Death*	Disability	Withdrawal	Total*
20	.05	.06	12.39	12.50
25	.06	.09	9.70	9.85
30	.08	.11	7.50	7.69
35	.11	.15	5.66	5.92
40	.16	.22	4.14	4.52
45	.29	.36	2.75	3.41
50	.53	.61	1.35	2.49
55	.85	1.01	--	1.86
60	1.31	--	--	1.31

15% 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 due to rounding.

Salary scale:

Age	Present salary as a percent of salary at 65	Annual increase (Rate %)
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 $10,000 for State Employees and $15,000 for Teachers.

Retirement age -- State Employees: 64, or completion of service requirement if later. Teachers: 63, or completion of service requirement if later.

Post-retirement increases -- 3% compounded annually

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

Actuarial cost method -- Entry age normal cost

EXHIBIT III

SUMMARY OF PLAN PROVISIONS

Service pension

	General Employees			Correctional Officers	Legislators	
Age requirement:	60	or 55	or None	50	55	or None
Service requirement:	10 yrs.	30 yrs.	35 yrs.	20 yrs.	8 yrs.	20 yrs.

Amount: 1.7% of final average salary up to 10 years of service plus 1.9% per year for the next 10 years of service plus 2.4% for each additional year of service to a maximum of 80%. Final average salary is defined as the average of compensation earned during the highest 3 consecutive years prior to termination. Correctional officers receive 2% of final average salary per year of service. Legislators receive $300 per year of service to a maximum of $6,000. Retirement is mandatory at age 70 except for elected officials. For correctional officers, mandatory retirement is the later of age 55 and the completion of 20 years of service.

Early retirement

Age requirement: None
Service requirement: 30 years
Amount: Regular pension accrued, reduced by 6% for each year of age less than 55.

Disability

Non-occupational:

Age requirement: None
Service requirement: 5 years
Amount: Regular pension based on service accrued and final average salary at disability, payable immediately. The minimum retirement percentage is 17%, regardless of service.

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 60.

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.

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

Age requirement:	60	or 50	Legislators: none
Service requirement:	10 yrs.	20 yrs.	8 years

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

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.
(b) Refund of employee contributions.

Post-retirement death benefit

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.

Employee contribution rate:

Date	State Employees	Teachers	Legislators
Prior to 7/1/79	5 %	6 %	30%
7/1/79 - 6/30/82	5½	6½	30
7/1/82 - 6/30/85	6	7	30
7/1/85 and later	6½	7½	30

Available options:

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

Post-retirement cost-of-living increases:

3% of current amount, compounded, to pensioners and beneficiaries following the third anniversary of retirement.