

# Memorandum

MARTIN E. SEGAL COMPANY  
INCORPORATED

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Date \_\_\_\_\_

January 18, 1971

from Martin E. Segal Company, Inc. re Connecticut State Employees'  
Retirement System Report  
to Co-Chairman Harry S. Burke, State Senator Representatives of  
Co-Chairman Richard J. Duda, State Representative Martin E. Segal Company, Inc.:  
Public Personnel and Military Affairs Committee Dr. John P. Mackin, V.P.  
Thomas D. Levy, FSA  
Mr. Louis J. Zebedeo, V.P.  
Meeting - January 19, 1971

Gentlemen:

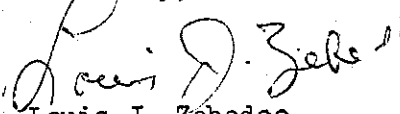
Attached herewith is that section of the Connecticut State Employees' Retirement System Actuarial Review captioned:

I. Summary and Recommendations

It is expected that this portion of the aforementioned report will be useful in our discussion, for it focuses on those important areas detailed and exhibited in the full report.

We look forward to our discussion.

Sincerely,



Louis J. Zebedeo  
Vice President

LJZ:ri

## I. SUMMARY AND RECOMMENDATIONS

### Benefit Provisions

The Connecticut State Employees' Retirement System covers most State employees except judges, State's attorneys, and those teachers electing coverage under the Teachers Retirement System. There are two levels of benefits -- Part B, providing benefits coordinated with Social Security, and Part C, providing maximum benefits. Employees contribute 5% of their annual earnings, except that Part B members contribute only 2% on earnings covered under Social Security (currently \$7,800).

The System provides unreduced benefits of 2% per year of service. Such benefits are available to men at least age 55 with 25 years service or age 65 with 10 years service. Women may take their benefits 5 years younger than men. State police can retire at age 47 if they have 20 years service, at 50% of salary plus 2% for each year of service over 20. Benefits are based on the highest 3 years' earnings. After retirement, cost of living increases are provided up to 6% per biennium.

The plan also provides disability and vesting benefits after 10 years of service.

### Present Retirement Fund

The State Employees Retirement Fund consists of employee contributions, some State contributions, and investment income. From this fund are paid a portion of each pension and returns of employee contributions. As of December 31, 1969, the Fund totalled \$40.7 million, of which 1.1% was in cash, 93.2% was in bonds, and 5.7% was in stocks. It is our understanding that this amount is less than the accumulated contributions from members of the System as of that date.

### Employee Data

We received data on 42,958 active employees as of December 31, 1969. Of these, 27,158 were men and 15,800 were women. On the average, employees were age  $43\frac{1}{2}$  and had 10 years of service. The average salary was \$8,067 (\$9,073 for men and \$6,589 for women).

Over 10% of the employees were hired after age 45. This is a high percentage compared to private industry, but not compared to public employment. This contributes to a relatively high pension cost.

### Retiree Data

We received data on 6,296 pensioners and beneficiaries as of December 31, 1969. Their average monthly pension was \$255. (\$291 for men and \$216 for women.) About 44% of all present pensioners retired in the last five years. Because of salary increases, recent retirees receive substantially higher pensions than those who retired some time ago. On the average, both men and women have been retiring at about age 62.

### Actuarial Valuation

Our valuation was prepared as of December 31, 1969. Our calculations were based on what we feel are reasonable assumptions as to mortality, disability, terminations from employment, and retirement ages. For salary projections, we used a scale reflecting the State's salary schedules. We assumed that investment yield over the long term would be 4%.

To show the effect of general increases, we did an alternative calculation assuming 3% per year general salary increases, 3% per year cost of living increases in pensions, and a 7% investment yield. We used the "entry age normal cost method of funding", which spreads the cost of each employee's pension as a level percentage of his earnings from date of hire to retirement.

The normal cost\* (or current service cost) to the State is \$21.4 million. This is 8.5% of the payroll of participating employees with at least one year of service; it is 6.9% of the total payroll for all State Employees.

If we assume 3% general salary increases, 3% pensioner increases, and 7% investment yield, the normal cost rises to \$23.2 million.

The past service liability\* (for benefits earned before 1970) is \$753 million, of which \$249 million represents the liability to those already receiving pensions. The unfunded liability accrued to the end of 1969 was about \$712 million. (This is not a deficit, in the usual accounting sense, but rather is a figure calculated so as to be a basis for determining an appropriate pension contribution.)

### Financing the System

The State Employees Retirement System is financed essentially on a pay-as-you-go basis. Part of the benefit payments are met out of the Retirement Fund, which consists largely of accumulated employee contributions. The major part is met out of year-to-year appropriations by the State.

The appropriation in fiscal 1969-71 was about \$27 million for the two year period. An actuarial projection establishes that by 1990 the required appropriation will be at least six times higher, that is, at least \$186 million.

Pay-as-you-go financing is bound to increase rapidly over a long period of years. One of the problems is that rapidly increasing cost may ultimately arouse resistance to further increases and therefore prompt a search for ways to avoid fulfilling the benefit promises. Pay-as-you-go postpones to a future generation the cost of pensions accruing for employees who provide services to the present generation.

Actuarial funding has these advantages:

1. It provides a greater security to the employees by levelling costs as well as by accumulating reserves that guarantee the payment of benefits for a prolonged period even if contributions are curtailed or prove deficient in some future year.
2. It reduces cost by securing substantial investment income on the reserves that will accumulate.

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\* Please refer to the "Actuarial Valuation" section of the report for definitions of these terms.

3. It links benefit changes to their long-term cost, so that employees, State officials and legislators, and the public generally can appreciate the cost implications of future enactments.

These considerations have generally been persuasive. Massachusetts is the only other state with a pay-as-you-go state retirement system.

The most economical funding would be a massive grant to the Retirement System in the immediate future, made possible by borrowing funds, either directly or by giving the System State bonds which it could sell. There is bound to be a substantial differential between the cost to the State of borrowing funds and the yield which the Retirement System could earn by investing such funds in corporate securities and mortgages. This differential would represent net income that would drastically reduce the inevitable cost of the retirement plans.

Concededly, this proposal is novel and it is subject to misunderstanding. Consequently, an alternative is proposed.

We recommend that legislation be enacted to require actuarial funding keyed to the payment of "normal cost" ("current service costs") plus amortization of the unfunded accrued liability ("past service costs") over a period of 40 years.

If this were to be launched full blown, it would require an appropriation of 18% of covered payroll. So large an increase in the appropriation may pose too great a fiscal problem for the State at this time. Consequently, we recommend as one possibility a graduated introduction over the next 11 years to the full 40-year amortization schedule. This would call for payment of the actuarially calculated normal cost of the System plus payments with respect to the unfunded past service liability as follows:

<u>Future fiscal year</u>	<u>Percentage to be paid of full 40-year amortization</u>
First	0%
Second	10
Third	20
Fourth	30
Fifth	40
Sixth	50
Seventh	60
Eighth	70
Ninth	80
Tenth	90
Eleventh	100

This schedule will begin the full 40-year period with the 11th year. The goal of full funding would therefore be set for the 50th year.

Under this graduated schedule, the appropriation for the first two years would be somewhat higher than the appropriations required under the present pay-as-you-go system. The estimate for that would require \$23 million the first year and \$27 million the second, compared to \$17 million and \$20 million with continuation of pay-as-you-go. Thereafter, the graduated amortization schedule would increasingly require greater contributions than under pay-as-you-go.

Ultimately, however, because the actuarial funding contribution results in the accumulation of reserves that are invested, the appropriations required will prove to be significantly less than the appropriations that will be forced on the State on a pay-as-you-go basis.

If even the \$6 million and \$7 million increases in the first two years seem beyond the State's current financial means, we propose one other alternative, which starts more modestly than the above schedule. It consists of contributions of the following percentages of normal cost plus 40 year amortization:

<u>Future fiscal year</u>	<u>Percentage to be paid of normal cost plus full 40-year amortization</u>
First	30%
Second	35
Third	40
Fourth	45
Fifth	50
Sixth	55
Seventh	60
Eighth	65
Ninth	70
Tenth	75
Eleventh	80
Twelfth	85
Thirteenth	90
Fourteenth	95
Fifteenth	100

*Current Request*  
 GF 13,100 M  
 Hwy F 4,300 M  
 17,400 M

On this basis, the appropriation is \$17 million the first year and \$20 million the second -- the same as for the present system.

While graduating the impact on the State budget, these schedules of funding would serve to link changes in the System to their ultimate cost implications.

To pursue this concept further, we recommend that legislation be enacted to require that every bill affecting retirement benefits be accompanied by an actuarial estimate of cost based on normal cost plus 40-year amortization of the added unfunded accrued liability.

#### Portability

It is a desirable objective for public employees within the State of Connecticut to be able to shift from one public employment to another without damaging their ultimate pension rights. Present law makes inadequate provision to that end through incomplete arrangements for purchases of service in the new system to which an employee may transfer. Present arrangements are inequitable and will eventually result in anomalies, including situations in which an employee who is presumably protected actually loses benefits as a result of a change in employer.

We recommend legislation to provide full protection of pension rights for employees who transfer from one State, municipality, or school district employment to another. We recommend that this take the form of provisions in each plan to recognize the other types of Connecticut public employment toward eligibility for benefits; the benefit amount for a particular plan still being calculated solely on the basis of credit for employment directly under that plan. Each plan would, however, recognize the ultimate 3-year final average salary of the employee based on all Connecticut public employment.

Present provisions for the purchase of credit for out-of-state employment would not be disturbed.

These provisions for reciprocal recognition of credit for purposes of eligibility should, in our opinion, apply to the individual municipal plans as well.

#### Uniformity and Consolidation

It is natural to consider whether it would be desirable for the three state plans - State Employees, Teachers and Municipal Employees - to have uniform benefits and whether there would be advantages to a consolidation of the Systems. Three separable aspects are involved: (1) benefit uniformity; (2) consolidation

of administration; and (3) merger of funding. Uniformity of benefits would be a far-reaching step that might amount to incorporating the most liberal features of each plan. They are so widely different that the step would be expensive. Unless and until possible whipsawing of benefit changes makes the creation of an integrated plan urgent, we suggest that such a far-reaching step does not warrant consideration.

Merger of funds would not serve any useful purpose; it would only use the funding of one system to help strengthen the reserves of the other systems but with no net gain overall.

Consolidation of administration would in the absence of a single retirement law have minimum advantage and it is therefore not recommended.



Table 13-A

Projected Costs Based on Contribution  
of a Graduated Increasing Normal  
Cost and Past Service Payment\*

<u>Calendar Year</u>	<u>Contribution</u>	<u>Contribution Pay-As-You-Go</u>
1971	\$16,800,400	\$16,287,400
1972	20,166,100	18,688,900
1973	23,651,400	21,748,000
1974	27,235,600	25,133,500
1975	30,896,800	28,403,300
1976	34,611,100	29,778,200
1977	38,353,700	31,084,100
1978	42,098,600	32,388,500
1979	45,819,100	33,439,900
1980	49,488,100	34,666,700
1981	53,078,600	35,921,900
1982	56,563,600	37,365,500
1983	59,917,100	38,833,700
1984	63,113,400	40,169,600
1985 and thereafter	66,128,900	**

\*These costs are illustrative based on salaries and data as of December 31, 1969. They do not take into account increases in total salaries or pensions after that date.

\*\*Continues to increase in the future.

\* Projected Pay - As - You - Go Costs

Year	Total	State's Share
1970	\$ 21,938,400	\$ 14,260,000
1971	25,459,600	17,312,500
1972	29,289,800	20,502,900
1973	33,735,800	24,627,100
1974	39,179,000	29,384,300
1975	45,720,500	34,290,400
1976	49,486,300	37,114,700
1977	53,331,500	39,998,600
1978	57,368,000	43,026,000
1979	61,156,300	45,867,200
1980	65,456,300	49,099,000
1981	70,053,500	52,540,100
1982	75,263,100	56,447,300
1983	80,795,700	60,596,800
1984	86,289,300	64,717,000
1985	92,273,400	69,205,100
1986	98,598,300	73,948,700
1987	105,124,800	78,843,600
1988	111,341,000	83,505,800
1989	117,913,500	88,435,100
1990	124,393,300	93,295,000

\*Assumes 3% annual general salary increases and 3% annual post-retirement pension increases.