

THE WYATT COMPANY
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STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

REPORT FROM THE
ACTUARY AS OF JUNE 30, 1991

January 8, 1992

Wyatt

Wyatt

January 8, 1992

State Teachers' Retirement Board
State of Connecticut
165 Capitol Avenue
Hartford, CT 06106

**Re: Report from the Actuary on the State Teachers'
Retirement System as of June 30, 1991**

Dear Members of the Board:

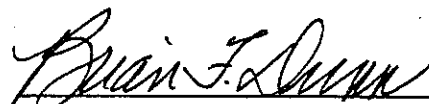
In accordance with your instructions, we have developed the contribution requirement for the State of Connecticut for the fiscal year ending June 30, 1993 and have estimated the actuarial present value of benefits as of June 30, 1991. Our results reflect a change in the salary scale assumption as approved by the Board at its November meeting.

Under the supervision and direction of the undersigned, The Wyatt Company has reviewed the census data for Members of the System as of June 30, 1991. The results shown in this report have been based on this data, on the financial data provided by the State Treasurer's Office and the Board, and on the results of our June 30, 1990 actuarial valuation of the System.

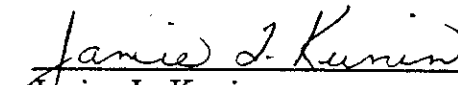
We will be pleased to respond to any questions which may arise in connection with this report.

Respectfully submitted,

THE WYATT COMPANY



Brian F. Dunn
Actuary


Janice L. Kunin
Actuarial Associate

ams.001

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

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**STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM**

PURPOSE AND SCOPE

This report has been prepared by The Wyatt Company to:

- Confirm to the State Teachers' Retirement Board the contribution requirement for the State under Public Act 79-436 (as amended) for the fiscal year ending June 30, 1993; and
- Provide information about the financial status of the System, including measures of the extent to which benefits have been funded.

As mentioned in the Certification Letter, the Board decided to forgo a formal actuarial valuation of the System as of June 30, 1991. In addition, the Board's actuary recommended and the Board adopted a new salary scale assumption which better reflects the progression of teachers' salaries. Therefore, this year's results were based on the June 30, 1990 valuation results, including modifications to accommodate the new salary scale.

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL ACTUARIAL RESULTS

A. Contribution Requirement

In accordance with the instructions of the State Teachers' Retirement Board, no formal actuarial valuation of the System was conducted as of June 30, 1991. The State contribution requirement for the fiscal year ending June 30, 1993 was determined on the basis of the results of the June 30, 1990 actuarial valuation of the System including a modification of the salary scale assumption.

Contribution Requirement for the Fiscal Year Ending June 30, 1993	\$ 299,589,000
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This result was based on the assumption that the State contribution for the fiscal year ending June 30, 1992 would be \$140,060,000. If, as has been proposed, the State contribution were only \$70,030,000 for the fiscal year ending June 30, 1992, the above contribution requirement would increase to \$302,705,000.

B. Funded Status of the System

The following table shows the book value and the market value of assets and the *estimated* actuarial value of credited projected benefits as of June 30, 1991. The actuarial present value of credited projected benefits was estimated on the basis of Members' service as of the valuation date with salary projected to retirement using the revised actuarial assumptions. Funded ratios were calculated by dividing asset values by the actuarial present value.

1. Actuarial Present Value of Credited Projected Benefits	\$ 7,408,412,000
2. Market Value of Assets	\$ 4,952,089,000
3. Funded Ratio on a Market Value Basis	66.8%
4. Book Value of Assets	\$ 4,316,750,000
5. Funded Ratio on a Book Value Basis	58.3%

**STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM
COMPARISON OF PRINCIPAL ACTUARIAL RESULTS**

Following is a summary of the principal actuarial results for the current year and for the prior year:

	<u>Actuarial Results as of</u>	
	<u>June 30, 1990</u>	<u>June 30, 1991</u>
A. <u>Summary of Data</u>		
1. Number of Members		
a. Active	39,969	39,818
b. Terminated Vested and Inactive	1,905	1,907
c. Retired and Beneficiaries	13,804	14,413
d. Survivors and Dependents	<u>502</u>	<u>522</u>
	56,180	56,660
2. Characteristics of Active Members		
a. Total Compensation	\$ 1,663,765,000	\$ 1,792,500,000
b. Average Annual Compensation	\$ 41,626	\$ 45,017
c. Average Age	44.5	44.8
d. Average Service	14.9	15.2
B. <u>Summary of Costs</u>		
1. Normal Cost		
a. Amount	\$ 126,755,000	\$ 127,422,000
b. As a Percent of Covered Compensation	7.6%	7.1%
2. Actuarial Accrued Liability	\$ 8,221,679,000	\$ 8,152,657,000
3. Valuation Assets	\$ 4,260,808,000	\$ 4,692,007,000
4. Unfunded Actuarial Accrued Liability	\$ 3,960,871,000	\$ 3,460,650,000
5. State Contribution Requirement for Fiscal Year Ending 6/30/92 and 6/30/93, Respectively	\$ 308,724,000	\$ 299,589,000*
		\$ 302,705,000**
C. <u>Assets and Actuarial Present Values</u>		
1. Assets		
a. Book Value	\$ 4,049,820,000	\$ 4,316,750,000
b. Actuarial Value	\$ 4,260,808,000	\$ 4,692,007,000
c. Market Value	\$ 4,789,238,000	\$ 4,952,089,000
2. Actuarial Present Value of Credited Projected Benefits		
a. Member Contributions	\$ 1,396,710,000	\$ 1,520,314,000
b. Retired Members, Beneficiaries, Survivors, Dependents, and Other Inactive Teachers	2,359,947,000	2,433,987,000
c. Other Members	<u>3,668,501,000</u>	<u>3,454,111,000</u>
d. Total	\$ 7,425,158,000	\$ 7,408,412,000

* If State contributes \$140,060,000 for FYE 6/30/92.

** If State contributes \$70,030,000 for FYE 6/30/92.

**STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM**

**DEVELOPMENT OF THE NORMAL COST
AND THE UNFUNDED ACTUARIAL ACCRUED LIABILITY**

In accordance with the instructions of the State Teachers' Retirement Board, no actuarial valuation of the System was conducted as of June 30, 1991. Furthermore, the Board adopted a new salary scale to reflect increases in teachers' pay more accurately.

Therefore, the June 30, 1990 normal cost was re-determined as a percent of pay on the basis of the revised salary scale assumption. The re-determined normal cost rate of 7.1% of teachers' payroll was assumed to remain in effect as of June 30, 1991.

After the June 30, 1990 actuarial accrued liability was also re-determined using the new salary scale assumption, this value was projected forward to estimate the June 30, 1991 actuarial accrued liability.

A. Normal Cost

1. Normal Cost as a Percent of Annual Compensation from Prior Valuation (based on revised salary scale)	7.1%
2. Annual Compensation of Active Teachers	\$ 1,792,500,000
3. Normal Cost as of July 1, 1991: Item 1 x Item 2	\$ 127,422,000

B. Unfunded Actuarial Accrued Liability

1. Estimated Actuarial Accrued Liability Based on Prior Valuation	\$ 8,152,657,000
2. Actuarial Value of Assets	<u>4,692,007,000</u>
3. Unfunded Actuarial Accrued Liability: Item 1 - Item 2	\$ 3,460,650,000

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

DEVELOPMENT OF THE STATE CONTRIBUTION REQUIREMENT
FOR THE FISCAL YEAR ENDING JUNE 30, 1993

After a detailed review of the Member census as of June 30, 1991, we developed the State contribution requirement for the fiscal year ending June 30, 1993 using the principal results of our June 30, 1990 actuarial valuation of the System, with adjustments made to reflect a change in the salary scale assumption approved by the Board.

Based on a July 1, 1991 normal cost of \$127,422,000 and an actuarial accrued liability of \$8,152,657,000, the formal development of the State contribution requirement of \$299,589,000 for the fiscal year ending June 30, 1993 appears on the next page. This development assumes that the actual State contribution for the fiscal year ending June 30, 1992 would be \$140,060,000. If the actual contribution turns out to be \$70,030,000, the State contribution requirement for the fiscal year ending June 30, 1993 would be \$302,705,000.

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

DEVELOPMENT OF THE STATE CONTRIBUTION REQUIREMENT
FOR THE FISCAL YEAR ENDING JUNE 30, 1993

	Provisions in Effect June 30, 1980	Public Act 82-91	Public Act 87-381	Total
1. Unfunded Actuarial Accrued Liability as of 6/30/91	\$ 3,427,940,000	\$ 31,066,000	\$ 1,644,000	\$ 3,460,650,000
2. Normal Cost as of 7/1/91	127,422,000	0	0	127,422,000
3. Interest at 8.5% on (Item 1 + Item 2)	302,206,000	2,641,000	140,000	304,987,000
4. State Contributions	(138,048,000)	(1,923,000)	(89,000)	(140,060,000)
5. Interest to End of Year on Item 4	<u>(7,259,000)</u>	<u>(101,000)</u>	<u>(5,000)</u>	<u>(7,365,000)</u>
6. Expected Unfunded Actuarial Accrued Liability as of 6/30/92	\$ 3,712,261,000	\$ 31,683,000	\$ 1,690,000	\$ 3,745,634,000
7. Level Percent Amortization Payment (40/21/26 Years)	152,237,000	1,969,000	90,000	154,296,000
8. Estimated Normal Cost as of 7/1/92	<u>136,342,000</u>	<u>0</u>	<u>0</u>	<u>136,342,000</u>
9. Total: Item 7 + Item 8	\$ 288,579,000	\$ 1,969,000	\$ 90,000	\$ 290,638,000
10. 100% of Item 9 for Provisions in Effect 6/30/80; 100% of Item 9 for Subsequent Amendments	\$ 288,579,000	\$ 1,969,000	\$ 90,000	\$ 290,638,000
11. State Contribution Requirement: Item 10 Adjusted with Interest for Payment Quarterly in Advance	\$ 297,466,000	\$ 2,030,000	\$ 93,000	\$ 299,589,000

STATE OF CONNECTICUT
 STATE TEACHERS' RETIREMENT SYSTEM
PROJECTED CONTRIBUTIONS BASED ON THE JUNE 30, 1991
ACTUARIAL RESULTS

The following tables contain projections of the State contribution requirements under two alternative assumptions regarding the future growth of teachers' salaries.

For the purpose of these illustrations, we have developed 40-year projections based on aggregate salary increases of 6% and 8% per year, assuming the number of active teachers will remain at 39,818. Results shown for 1980 - 1991 (which correspond to contributions for fiscal years 1982 - 1993) are based on actual results for the System. Results shown for the projection period from 1992 to 2032 (which correspond to contributions for fiscal years from 1994 to 2034) are based on estimates of future results.

Each line of the tables contains the normal cost and unfunded actuarial accrued liability as of a particular valuation date followed by contribution information related to the appropriate fiscal year. The full contribution amount and the required contribution amount under PA 79-436 (as amended) are included both as a dollar figure and as a percentage of the historical or estimated future teachers' payroll, as applicable.

For example, the June 30, 1989 valuation generated a normal cost of \$127,787,000 and an unfunded actuarial accrued liability of \$4,343,412,000. Together, those results were used in calculating both the full contribution of \$337,934,000 and the required contribution of \$304,331,000 for the fiscal year ending June 30, 1991. The above contribution requirements represent 20.3% and 18.3%, respectively, of the teachers' payroll of \$1,663,765,000 for the fiscal year ending June 30, 1990.

The following differences exist between the required contributions as recommended by the Board and as shown on the tables and the actual contribution amounts appropriated to the System:

<u>Fiscal Year</u> <u>Ending June 30,</u>	<u>Required</u> <u>Contribution</u>	<u>Actual</u> <u>Contribution</u>
1989	\$302,917,000	\$282,917,000
1990	\$348,639,000	\$321,639,000
1991	\$304,331,000	\$156,638,000
1992	\$308,724,000	*

For consistency with other numbers shown, the tables contain the required amounts but the projections take the actual amounts into consideration.

* At the time this report was written, the State had contributed \$70,030,000 for the fiscal year ending June 30, 1992. The projections are based on the assumption that an additional contribution of \$70,030,000 would be made.

**STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM**

Table 1

PROJECTED CONTRIBUTIONS BASED ON THE ACTUARIAL RESULTS AS OF JUNE 30, 1991
(in thousands of dollars)

Teachers' Payroll is Assumed to Increase 6% per Annum Starting July 1, 1991

<u>Actuarial Results as of June 30.</u>		<u>Contribution Amounts for the Fiscal Year Ending June 30.</u>						
<u>Normal Cost</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Full Contribution</u>	<u>Percent of Payroll</u>	<u>Funding Percent</u>	<u>Required Contribution</u>	<u>Percent of Payroll</u>	<u>Teachers' Payroll for Fiscal Year</u>	
1980	\$61,032	\$1,818,569	29.6%	35%	\$75,927	10.3%	1980-81 \$734,100	
1981	64,694	2,055,025	31.0%	40%	96,798	12.6%	1981-82 769,500	
1982	69,601	2,284,380	33.1%	45%	120,163	14.5%	1982-83 825,888	
1983	73,777	2,410,980	32.7%	50%	145,959	16.5%	1983-84 886,409	
1984	107,293	3,261,067	27.6%	65%	175,312	18.0%	1984-85 975,248	
1985	117,505	3,500,185	27.3%	70%	203,987	19.2%	1985-86 1,065,077	
1986	132,310	3,818,585	26.9%	75%	241,563	20.2%	1986-87 1,193,463	
1987	151,005	4,611,656	27.6%	80%	302,917	22.1%	1987-88 1,369,950	
1988	173,335	4,788,106	26.6%	85%	348,639	22.6%	1988-89 1,540,789	
1989	127,787	4,343,412	20.3%	90%	304,331	18.3%	1989-90 1,663,765	
1990	126,755	3,960,871	18.1%	95%	308,724	17.2%	1990-91 1,792,500	
1991	127,422	3,460,650	15.8%	100%	299,589	15.8%	1991-92 1,900,050	
1992	136,342	3,745,634	15.7%	100%	316,769	15.7%	1992-93 2,014,053	
1993	144,523	3,896,601	15.7%	100%	334,936	15.7%	1993-94 2,134,896	
1994	153,194	4,051,194	15.6%	100%	354,146	15.6%	1994-95 2,262,990	
1995	162,386	4,209,213	15.6%	100%	374,462	15.6%	1995-96 2,398,769	
1996	172,129	4,370,417	15.6%	100%	395,946	15.6%	1996-97 2,542,695	
1997	182,457	4,534,510	15.5%	100%	418,663	15.5%	1997-98 2,695,257	
2002	244,167	5,383,773	15.3%	100%	553,407	15.3%	2002-03 3,606,862	
2007	326,750	6,220,413	15.2%	100%	731,622	15.2%	2007-08 4,826,795	
2012	437,265	6,902,906	14.9%	100%	961,117	14.9%	2012-13 6,459,341	
2017	585,159	7,209,174	14.7%	100%	1,270,704	14.7%	2017-18 8,644,055	
2022	783,075	6,709,720	14.5%	100%	1,680,750	14.5%	2022-23 11,567,695	
2027	1,047,932	4,691,521	14.4%	100%	2,223,424	14.4%	2027-28 15,480,185	
2032	1,402,368	0	7.4%	100%	1,532,290	7.4%	2032-33 20,715,980	

Table 2

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

PROJECTED CONTRIBUTIONS BASED ON THE ACTUARIAL RESULTS AS OF JUNE 30, 1991
(in thousands of dollars)

Teachers' Payroll is Assumed to Increase 8% per Annum Starting July 1, 1991

Actuarial Results as of June 30,	Contribution Amounts for the Fiscal Year Ending June 30,									
	Normal Cost	Unfunded Actuarial Accrued Liability	Full Contribution	Percent of Payroll	Funding Percent	Required Contribution	Percent of Payroll	Teachers' Payroll for Fiscal Year		
1980	\$61,032	\$1,818,569	\$216,933	29.6%	35%	\$75,927	10.3%	1980-81	\$734,100	
1981	64,694	2,055,025	238,861	31.0%	40%	96,798	12.6%	1981-82	769,500	
1982	69,601	2,284,380	273,348	33.1%	45%	120,163	14.5%	1982-83	825,888	
1983	73,777	2,410,980	289,579	32.7%	50%	145,959	16.5%	1983-84	886,409	
1984	107,293	3,261,067	269,102	27.6%	65%	175,312	18.0%	1984-85	975,248	
1985	117,505	3,500,185	290,771	27.3%	70%	203,987	19.2%	1985-86	1,065,077	
1986	132,310	3,818,585	321,551	26.9%	75%	241,563	20.2%	1986-87	1,193,463	
1987	151,005	4,611,656	378,216	27.6%	80%	302,917	22.1%	1987-88	1,369,950	
1988	173,335	4,788,106	409,844	26.6%	85%	348,639	22.6%	1988-89	1,540,789	
1989	127,787	4,343,412	337,934	20.3%	90%	304,331	18.3%	1989-90	1,663,765	
1990	126,755	3,960,871	324,866	18.1%	95%	308,724	17.2%	1990-91	1,792,500	
1991	127,422	3,460,650	299,589	15.5%	100%	299,589	15.5%	1991-92	1,935,900	
1992	136,342	3,819,879	326,268	15.6%	100%	326,268	15.6%	1992-93	2,090,772	
1993	147,249	4,052,651	351,641	15.6%	100%	351,641	15.6%	1993-94	2,258,034	
1994	159,029	4,297,046	378,990	15.5%	100%	378,990	15.5%	1994-95	2,438,677	
1995	171,751	4,553,305	408,469	15.5%	100%	408,469	15.5%	1995-96	2,633,771	
1996	185,491	4,821,616	440,244	15.5%	100%	440,244	15.5%	1996-97	2,844,473	
1997	200,330	5,102,107	474,494	15.4%	100%	474,494	15.4%	1997-98	3,072,031	
2002	294,350	6,685,694	690,164	15.3%	100%	690,164	15.3%	2002-03	4,513,821	
2007	432,497	8,529,397	1,004,012	15.1%	100%	1,004,012	15.1%	2007-08	6,632,284	
2012	635,481	10,458,782	1,454,534	14.9%	100%	1,454,534	14.9%	2012-13	9,745,001	
2017	933,730	12,063,733	2,117,097	14.8%	100%	2,117,097	14.8%	2017-18	14,318,604	
2022	1,371,954	12,396,807	3,082,326	14.7%	100%	3,082,326	14.7%	2022-23	21,038,727	
2027	2,015,850	9,570,179	4,487,991	14.5%	100%	4,487,991	14.5%	2027-28	30,912,792	
2032	2,961,944	0	3,297,417	7.3%	100%	3,297,417	7.3%	2032-33	45,421,033	



**STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM
THE FUNDED STATUS OF THE SYSTEM**

As noted in the Summary of Principal Actuarial Results, we have compared the market value of assets with the actuarial present value of credited projected benefits to obtain one measure of how the System is meeting its obligation to fund benefits payable to its Members.

The actuarial present value of credited projected benefits was based on Members' service as of the valuation date and upon salary projected to retirement. In attempting to compare the current results with those of prior years, it is crucial to keep in mind that the actuarial basis of the calculations has been changed from time to time. Therefore, the actuarial present value of benefits as of June 30, 1989 (and as of June 30, 1991) is not comparable to results from prior years. The increase in the funded ratio to 58.3% and the decrease of the unfunded ratio to 191.7% are primarily due to changes in the measurement scale (i.e., the actuarial assumptions).

Fiscal Year Ending June 30	Market Value of Assets	Actuarial Present Value of Benefits	Funded Ratio	Unfunded Actuarial Present Value of Benefits	Annual Compensation	Unfunded Ratio
1980	\$ 1,049,306,000	\$ 2,603,702,000	40.3%	\$ 1,554,396,000	\$ 692,547,000	224.4%
1982	1,154,963,000	3,244,804,000	35.6%	2,089,841,000	769,500,000	271.6%
1984	1,696,074,000	4,398,687,000	38.6%	2,702,613,000	886,409,000	304.9%
1985	2,157,914,000	4,882,540,000	44.2%	2,724,626,000	975,248,000	279.4%
1986	2,728,837,000	5,305,841,000	51.4%	2,577,004,000	1,065,077,000	242.0%
1987	3,188,223,000	6,293,712,000	50.7%	3,105,489,000	1,193,463,000	260.2%
1988	3,422,467,000	6,856,672,000	49.9%	3,434,205,000	1,369,950,000	250.7%
1989	4,136,564,000	7,090,175,000	58.3%	2,953,611,000	1,540,789,000	191.7%
1990	4,789,238,000	7,425,158,000	64.5%	2,635,920,000	1,663,765,000	158.4%
1991	4,952,089,000	7,408,412,000	66.8%	2,456,323,000	1,792,500,000	137.0%

Analysis of the funded ratio over time indicates how the System is meeting its obligation to fund benefits. Generally, the greater this ratio, the stronger and more well-funded the System.

We have also compared the unfunded actuarial present value of credited projected benefits with annual compensation to remove the effects of inflation and to aid in the analysis of the System's progress in accumulating sufficient assets to pay benefits when due. Generally, the smaller the unfunded percentage, the stronger the System.

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

RECONCILIATION OF THE MARKET VALUE OF ASSETS

A. Reconciliation

1. Market Value of Assets as of July 1, 1990	\$ 4,789,238,000
2. Contributions (from State and Members)	254,968,000
3. Benefit Payments:	
a. Pension Payments	(240,128,000)
b. Refund of Member Contributions	(7,862,000)
c. Survivorship Benefits	(3,132,000)
4. Net Investment Income	<u>159,005,000</u>
5. Market Value of Assets as of June 30, 1991	\$ 4,952,089,000

B. Net Rate of Return on the Market Value of Assets 3.3%

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

Exhibit 6

DEVELOPMENT OF THE ACTUARIAL VALUATION ASSETS

In order to reduce potential volatility in the market value of the System's assets, a smoothing technique is used to develop an actuarial value of assets. This value is then used to determine the unfunded actuarial accrued liability.

To develop the actuarial value of assets as of June 30, 1991, the actuarial value of assets as of July 1, 1990 was increased by contributions to the System and reduced by benefit payments made to former Members and their Beneficiaries. These amounts were then adjusted with interest to the end of the year, using the expected rate of return on assets. Effective with the June 30, 1989 actuarial valuation, the expected rate of return is assumed to be the same as the discount rate used to determine costs and liabilities. The resulting figure represents the expected actuarial value of assets, provided the assumed rate of return will be realized.

The expected actuarial value of assets at year end was then compared with the market value of assets as of June 30, 1991 and 20% of the difference was recognized. The resulting value would have been further adjusted if it had been less than 80% or greater than 120% of the market value of assets.

1. Actuarial Value of Assets as of July 1, 1990	\$4,260,808,000
2. Contributions	254,968,000
3. Benefit Payments	251,122,000
4. Net Transactions: Item 2 - Item 3	3,846,000
5. Expected Rate of Return	8.5%
6. Expected Investment Return: Item 5 x (Item 1 + ½ Item 4)	362,332,000
7. Expected Actuarial Value of Assets as of June 30, 1991: Item 1 + Item 4 + Item 6	4,626,986,000
8. Market Value of Assets as of June 30, 1991	4,952,089,000
9. Adjustment: 20% of the Difference between Item 8 and Item 7	65,021,000
10. Preliminary Actuarial Value of Assets as of June 30, 1991: Item 7 + Item 9	4,692,007,000
11. Limiting Values:	
a. 80% of Item 8	3,961,671,000
b. 120% of Item 8	5,942,507,000
12. Actuarial Value of Assets as of June 30, 1991: Item 10, but not less than Item 11.a. or greater than Item 11.b.	\$4,692,007,000

**STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM**

CENSUS DATA FOR MEMBERS IN THE SYSTEM

We were provided with census data on each active teacher who was in the System as of June 30, 1991. The data included name, sex, date of birth, service, salary, and the Member's contributions. Pertinent data was also provided for each retiree, beneficiary, survivor, and dependent as of June 30, 1991, including name, sex, date of birth, date of retirement, amount and form of monthly benefit, and beneficiary information, where applicable. In addition, we received data on former teachers who were no longer active in the System.

The table below gives a comparison of certain characteristics of Members in the System between this year and last year.

	<u>June 30, 1990</u>	<u>June 30, 1991</u>
1. Active Teachers		
a. Number	39,969	39,818
b. Average Age	44.5	44.8
c. Average Service	14.9	15.2
d. Average Annual Compensation	\$ 41,626	\$ 45,017
2. Terminated Vested Teachers		
a. Number	652	584
b. Average Monthly Deferred Benefit	\$ 465	\$ 460
3. Survivors and Dependents		
a. Number	502	522
b. Average Monthly Benefit	\$ 268	\$ 261
4. Retired Teachers and Beneficiaries		
a. Number	13,804	14,413
b. Average Monthly Benefit	\$ 1,399	\$ 1,524

Chart 1

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 1991
(ALL MEMBERS)

AGE NRST BIRTHDAY AT VAL DATE	NUMBER OF ACTIVE MEMBERS COMPLETED YEARS OF SERVICE																	Total				
	0	1	2	3	4	5	9	10	14	15	19	20	24	25	29	30	34		35	39	Over 39	
20 - 24	32	172	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	257
25 - 29	99	376	344	396	381	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2062
30 - 34	31	207	194	297	357	1448	394	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2928
35 - 39	56	234	240	262	279	1083	2111	819	0	0	0	0	0	0	0	0	0	0	0	0	0	5084
40 - 44	84	286	303	368	422	1346	1319	3205	2097	0	0	0	0	0	0	0	0	0	0	0	0	9430
45 - 49	37	134	173	246	298	1134	1004	1220	3364	1233	0	0	0	0	0	0	0	0	0	0	0	8843
50 - 54	8	43	44	86	107	490	571	658	1041	1625	547	0	0	0	0	0	0	0	0	0	0	5220
55 - 59	5	20	16	35	38	161	300	511	742	696	1041	156	0	0	0	0	0	0	0	0	0	3721
60 - 61	1	2	1	9	14	38	49	126	217	168	204	135	2	0	0	0	0	0	0	0	0	966
62 - 64	0	2	2	2	2	25	48	104	198	150	132	110	25	0	0	0	0	0	0	0	0	800
65 - 69	0	0	1	0	0	13	18	65	92	79	53	50	55	0	0	0	0	0	0	0	0	426
70 & up	0	0	0	0	0	0	4	13	14	17	15	6	12	0	0	0	0	0	0	0	0	81
Total	353	1476	1371	1701	1898	6204	5818	6721	7765	3968	1992	457	94	0	0	0	0	0	0	0	0	39818

Chart 2

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

AGE AND SERVICE DISTRIBUTION AS OF JUNE 30, 1991
(ALL MEMBERS)

AGE NRST BIRTHDAY AT VAL DATE	AVERAGE ANNUAL SALARY COMPLETED YEARS OF SERVICE																Total					
	0	1	2	3	4	5	9	10	14	15	19	20	24	25	29	30		34	35	39	Over 39	
20 - 24	19589	25366	27509	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25089
25 - 29	21046	26732	28485	29686	30751	32445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29352
30 - 34	20205	28880	31165	32119	32666	34594	38352	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33830
35 - 39	23701	30920	32576	34439	36086	37552	42378	47641	0	0	0	0	0	0	0	0	0	0	0	0	0	40247
40 - 44	23616	32690	34451	35612	38598	39493	45181	49578	50722	0	0	0	0	0	0	0	0	0	0	0	0	45512
45 - 49	23615	34997	35062	36210	38131	39986	45916	50225	51649	52686	0	0	0	0	0	0	0	0	0	0	0	47872
50 - 54	30875	40323	38529	39215	39325	41712	45593	49899	51661	53237	54695	0	0	0	0	0	0	0	0	0	0	49956
55 - 59	32279	41696	41597	41431	42316	40761	46769	49449	51040	52238	54821	55500	0	0	0	0	0	0	0	0	0	51205
60 - 61	30867	38969	34335	33106	43848	42476	45879	50325	51873	51882	53925	57803	53134	0	0	0	0	0	0	0	0	51906
62 - 64	0	51359	40756	53902	50472	39653	47512	49331	51981	52326	52843	55949	57653	51884	0	0	0	0	0	0	0	51884
65 - 69	0	0	39149	0	0	42720	46365	50462	50608	52102	53004	57189	57518	52378	0	0	0	0	0	0	0	52378
70 & up	0	0	0	0	0	0	46607	51095	45302	47921	54110	50834	55434	50388	0	0	0	0	0	0	0	50388
Total	22552	30091	32196	33838	35631	37805	43980	49503	51333	52753	54510	56412	57195	45017	0	0	0	0	0	0	0	45017

STATE OF CONNECTICUT
STATE TEACHERS' RETIREMENT SYSTEM

OUTLINE OF THE PRINCIPAL PROVISIONS OF THE SYSTEM

Outlined below are the principal provisions of the System which were reflected in the results shown in this report.

1. Covered Employees

Any teacher, principal, superintendent or supervisor engaged in service of public schools, plus professional employees at State schools of higher education if they choose to be covered.

2. Salary

Amount paid to a teacher as specified in a contract of employment excluding amounts paid for extra duty assignments, coaching, unused sick time, unused vacation or terminal pay.

3. Average Annual Salary

Average of annual salary received during three years of highest salary.

4. Credited Service

One month for each month of service as a teacher in Connecticut public schools, maximum 10 months for each school year. Ten months of credited service constitutes one year of Credited Service. Certain other types of teaching service, State employment, or war-time military service may be purchased at retirement, if the Member pays one-half of the cost.

5. Normal Retirement

Eligibility: Age 60 and 20 years of Credited Service in Connecticut or 35 years of Credited Service including at least 25 years of service in Connecticut.

Benefit: 2% times years of Credited Service times Average Annual Salary (maximum percent is 75%)

plus

any additional amounts derived from the accumulation of 6th percent contributions made prior to July 1, 1989 and voluntary contributions by the teacher.

Minimum Benefit: Effective January 1, 1988, Public Act 87-381 provides a minimum monthly retirement benefit of \$800 to teachers who retire under the Normal Retirement provisions and who complete at least 25 years of full time Connecticut service at retirement.

6. Early Retirement

Eligibility: At any age after the completion of 25 years of Credited Service including 20 years of Connecticut service or at or after age 55 and the completion of 20 years of Credited Service including 15 years of Connecticut service, with the last 5 years in Connecticut.

Benefit: Reduced normal retirement benefit. The early retirement factors currently in effect are 6% per year for the first five years by which early retirement precedes the minimum normal retirement age and 4% per year for the next five years by which early retirement precedes the minimum normal retirement age.

7. Proratable Retirement

Eligibility: Age 60 and 10 years of Credited Service with the last 5 years in Connecticut.

Benefit: 2% less .1% for each year less than 20 years times years of Credited Service in Connecticut plus 1% times years of additional Credited Service times Average Annual Salary.

8. Disability Retirement

Eligibility: Disability prior to age 60 and after 5 years of Credited Service in Connecticut if not incurred in the performance of duty and without regard to service if incurred in the performance of duty.

Benefit: Lesser of:

- 3% times Credited Service to date of disability times Average Annual Salary;
- 1-2/3% times Credited Service projected to age 60 times Average Annual Salary;
- 50% times Average Annual Salary.

Not less than 15% times Average Annual Salary.

9. Termination of Employment

With less than 5 years of Credited Service: Return of 5% contributions with interest.

With 5 or more years of Credited Service: Return of 5% contributions with interest and 1% contributions made prior to July 1, 1989 without interest.

With 10 or more years of Credited Service: 100% vested. Member may elect return of all contributions plus interest on 5% contributions in lieu of vested benefit.

10. Pre-Retirement Death Benefits

A lump sum plus one of the following: survivor's benefit, return of all contributions with interest, surviving spouse's benefit, or automatic surviving spouse's benefit.

- Lump Sum: \$1,000 for the first 5 years of Connecticut service plus \$200 per year thereafter. Maximum benefit: \$2,000.
- Survivor's Benefit: \$300 per month to a surviving spouse or dependent former spouse (receiving child support), or to a dependent parent over age 65 if there is no surviving spouse or dependent child, or to a legal guardian if there is no surviving spouse, dependent former spouse, or dependent parent. \$200 per month to a single dependent child under age 18 or over 18 if disabled. \$300 per month divided equally among two or more such children in a family.
- Accumulated contributions with interest plus dependent children's benefits as described in the "Survivor's Benefit" paragraph.
- Surviving Spouse's Benefit: the 50% co-participant option plus dependent children's benefits as described in the "Survivor's Benefit" paragraph.
- Automatic Surviving Spouse's Benefit: Prefiled co-participant option with the percent continued chosen from 33-1/3%, 50%, 66-2/3%, 75%, or 100%.

11. Form of Annuity

Normal: Partial Refund Option - 75% of total benefit is paid as a life annuity. If 25% of the benefits paid prior to death do not exceed the Member's 5% contributions plus interest frozen at the date of benefit commencement, the difference is paid to his beneficiary.

Optional Forms: 5-, 10-, 20-, or 25-year certain and life. 33-1/3%, 50%, 66-2/3%, 75%, or 100% co-participant annuity (if co-participant dies first, benefit reverts to unreduced amount).

12. Cost-of-Living Allowance

Pension benefit adjustments are made in accordance with increases in the Consumer Price Index, with a minimum of 3% and a maximum of 5% per annum.

13. Teachers' Required Contribution

Each teacher is required to contribute 6% of annual salary. Effective July 1, 1989, the total of all 6th percent contributions made after June 30, 1989 will be used for health insurance for retired teachers, except for the first \$500,000 of such total.

14. State Contribution

The State's contribution requirement to fund the balance of the liability for benefits with annual contributions (currently paid in installments at the beginning of each quarter) is determined in accordance with Section 10-183(z) (which reflects Public Act 79-436 as amended).

