THE WYATT COMPANY 1055 Washington Boulevard Stamford, Connecticut 06901 (203) 356-1220

STATE OF CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM

REPORT FROM THE ACTUARY AS OF JUNE 30, 1991

January 8, 1992

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

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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.



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

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.

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

COMPARISON OF PRINCIPAL ACTUARIAL RESULTS

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

			,
			Results as of
A	C CD.	<u>June 30, 1990</u>	<u>June 30, 1991</u>
A.	Summary of Data		
	 Number of Members Active 	20.000	20.010
	b. Terminated Vested and Inactive	39,969	39,818
	c. Retired and Beneficiaries	1,905	1,907
	d. Survivors and Dependents	13,804 502	14,413
	or our more and Dependents	56,180	<u> </u>
	2. Characteristics of Active Members	50,100	50,000
	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
	_		
В.	Summary of Costs		
	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.	Assets and Actuarial Present Values		
	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,	Ψ 1,070,710,000	Ψ 1,520,517,000
	Survivors, Dependents, and		
	Other Inactive Teachers	2,359,947,000	2,433,987,000
	c. Other Members	3,668,501,000	3,454,111,000
	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.		

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)	7.19	%
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	
В. <u>U</u>	nfunded 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	



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.

Exhibit 2 (continued)

STATE OF CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM

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

		ᅱ	Provisions in Effect June 30, 1980	₹I	Public Act 82-91	Pul Act 8	Public Act 87-381		Total
. -i	Unfunded Actuarial Accrued Liability as of 6/30/91	↔	3,427,940,000	69	\$ 31,066,000	\$ 1,6	\$ 1,644,000	\$ 3,	\$ 3,460,650,000
2.	Normal Cost as of 7/1/91		127,422,000		0		0		127,422,000
ო	Interest at 8.5% on (Item 1 + Item 2)		302,206,000		2,641,000	Ä	140,000		304,987,000
4.	State Contributions		(138,048,000)	_	(1,923,000)	٣	(89,000)		(140,060,000)
5.	Interest to End of Year on Item 4	l	(7,259,000)		(101,000)		(5,000)		(7,365,000)
·9	Expected Unfunded Actuarial Accrued Liability as of 6/30/92	⇔	3,712,261,000	€3	\$ 31,683,000	\$ 1,690,000	00006	⇔	\$ 3,745,634,000
7	Level Percent Amortization Payment (40/21/26 Years)		152,237,000		1,969,000	•	90,000		154,296,000
∞:	Estimated Normal Cost as of 7/1/92	ſ	136,342,000		0		9		136,432,000
٥,	Total: Item 7 + Item 8	€>	288,579,000	Ø	1,969,000	65	000,000	€3	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	69	1,969,000	€7	90,000	69	290,638,000
11.	State Contribution Requirement: Item 10 Adjusted with Interest for Payment Quarterly in Advance	6 9	297,466,000	↔	2,030,000	€>	93,000	69	299,589,000

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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:

Fiscal Year Ending June 30,	Required Contribution	Actual Contribution
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.



Table 1

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 6% per Annum Starting July 1, 1991

Actuarial Results as of June 30,

Contribution Amounts for the Fiscal Year Ending June 30.

	Normal	Unfunded Actuarial		Full	Percent of	Funding	Required	Percent of	Teacher	Teachers' Payroll
	Cost	Accrued Liability		Contribution	Payroll	Percent	Contribution	Payroll	for Fi	for Fiscal Year
1980	\$61,032	\$1,818,569	1982	\$216,933	29.6%	35%	\$75,927	10.3%	1980-81	\$734,100
1981	64,694	2,055,025	1983	238,861	31.0%	40%	96,798	12.6%	198182	769,500
1982	69,601	2,284,380	1984	273,348	33.1%	45%	120,163	14.5%	1982-83	825,888
1983	73,777	2,410,980	1985	289,579	32.7%	20%	145,959	16.5%	1983-84	886,409
1984	107,293	3,261,067	1986	269,102	27.6%	65%	175,312	18.0%	1984-85	975,248
1985	117,505	3,500,185	1987	290,771	27.3%	70%	203,987	19.2%	1985-86	1,065,077
1986	132,310	3,818,585	1988	321,551	26.9%	75%	241,563	20.2%	1986-87	1,193,463
1987	151,005	4,611,656	1989	378,216	27.6%	80%	302,917	22.1%	198788	1,369,950
1988	173,335	4,788,106	1990	409,844	26.6%	85%	348,639	22.6%	1988-89	1,540,789
1989	127,787	4,343,412	1991	337,934	20.3%	%06	304,331	18.3%	1989~90	1,663,765
1990	126,755	3,960,871	1992	324,866	18.1%	95%	308,724	17.2%	1990-91	1,792,500
1991	127,422	3,460,650	1993	299,589	15.8%	100%	299,589	15.8%	199192	1,900,050
1992	136,342	3,745,634	1994	316,769	15.7%	100%	316,769	15.7%	1992-93	2,014,053
1993	144,523	3,896,601	1995	334,936	15.7%	100%	334,936	15.7%	1993-94	2,134,896
1994	153,194	4,051,194	1996	354,146	15.6%	100%	354,146	15.6%	1994-95	2,262,990
1995	162,386	4,209,213	1997	374,462	15.6%	100%	374,462	15.6%	1995-96	2,398,769
1996	172,129	4,370,417	1998	395,946	15.6%	100%	395,946	15.6%	1996-97	2,542,695
1997	182,457	4,534,510	1999	418,663	15.5%	100%	418,663	15.5%	1997-98	2,695,257
2002	244,167	5,383,773	2004	553,407	15.3%	100%	553,407	15.3%	2002-03	3,606,862
2007	326,750	6,220,413	2009	731,622	15.2%	100%	731,622	15.2%	2007-08	4,826,795
2012	437,265	6,902,906	2014	961,117	14.9%	100%	961,117	14.9%	2012-13	6,459,341
2017	585, 159	7,209,174	2019	1,270,704	14.7%	100%	1,270,704	14.7%	2017-18	8,644,055
2022	783,075	6,709,720	2024	1,680,750	14.5%	100%	1,680,750	14.5%	2022-23	11,567,695
2027	1,047,932	4,691,521	2029	2,223,424	14.4%	100%	2,223,424	14.4%	2027-28	15,480,185
2032	1,402,368	0	2034	1,532,290	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

Act	uarial Resul	Actuarial Results as of June 30,			Contribution	Amounts fo	Contribution Amounts for the Fiscal Year Ending June 30	ear Ending Ju	ne 30,	
	Normal	Unfunded Actuarial		Full	Percent of	Funding	Required	Percent of	Teacher	Teachers' Payroll
	Cost	Accrued Liability		Contribution	Payroll	Percent	Contribution	Payroll	for Fi	for Fiscal Year
1980	\$61,032	\$1,818,569	1982	\$216,933	29.6%	35%	\$75,927	10.3%	1980-81	\$734,100
1981	64,694	2,055,025	1983	238,861	31.0%	40%	96,798	12.6%	1981-82	769,500
1982	69,601	2,284,380	1984	273,348	33.1%	45%	120,163	14.5%	1982-83	825,888
1983	73,777	2,410,980	1985	289,573	32.7%	20%	145,959	16.5%	1983-84	886,409
1984	107,293	3,261,067	1986	269,102	27.6%	65%	175,312	18.0%	1984-85	975,248
1985	117,505	3,500,185	1987	290,771	27.3%	70%	203,987	19.2%	1985~86	1,065,077
1986	132,310	3,818,585	1988	321,551	26.9%	75%	241,563	20.2%	1986-87	1,193,463
1987	151,005	4,611,656	1989	378,216	27.6%	80%	302,917	22.1%	1987-88	1,369,950
1988	173,335	4,788,106	1990	409,844	26.6%	85%	348,639	22.6%	1988-89	1,540,789
1989	127,787	4,343,412	1991	337,934	20.3%	% 06	304,331	18.3%	198990	1,663,765
1990	126,755	3,960,871	1992	324,866	18.1%	82%	308,724	17.2%	1990-91	1,792,500
1991	127,422		1993	299,589	15.5%	100%	299,589	15.5%	199192	1,935,900
1992	136,342	3,819,879	1994	326,268	15.6%	100%	326,268	15.6%	1992-93	2,090,772
1993	147,249		1995	351,641	15.6%	100%	351,641	15.6%	1993-94	2,258,034
1994	159,029		1996	378,990	15.5%	100%	378,990	15.5%	1994-95	2,438,677
1995	171,751		1997	408,469	15.5%	100%	408,469	15.5%	1995-96	2,633,771
1996	185,491	4,821,616	1998	440,244	15.5%	100%	440,244	15.5%	1996-97	2,844,473
1997	200,330	5,102,107	1999	474,494	15.4%	100%	474,494	15.4%	1997-98	3,072,031
2002	294,350	6,685,694	2004	690,164	15.3%	100%	690,164	15.3%	2002-03	4,513,821
2007	432,497		2009	1,004,012	15.1%	100%	1,004,012	15.1%	2007-08	6,632,284
2012	635,481	10,458,782	2014	1,454,534	14.9%	100%	1,454,534	14.9%	2012-13	9,745,001
2017	933,730	12,063,733	2019	2,117,097	14.8%	100%	2,117,097	14.8%	2017-18	14,318,604
2022	1,371,954		2024	3,082,326	14.7%	100%	3,082,326	14.7%	2022-23	21,038,727
2027	2,015,850	9,570,179	2029	4,487,991	14.5%	100%	4,487,991	14.5%	2027-28	30,912,792
2032	2,961,944	Ö	2034	3,297,417	7.3%	100%	3,297,417	7.3%	2032-33	45,421,033



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 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 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 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)

	Unfunded	Ratio	224.4%	271.6%	304.9%	279.4%	242.0%	260.2%	250.7%	191.7%	158.4%	137.0%
	Annual	Compensation	692,547,000	769,500,000	886,409,000	975,248,000	1,065,077,000	1,193,463,000	1,369,950,000	1,540,789,000	1,663,765,000	1,792,500,000
			6/3									
Unfunded	ctuarial Present	Value of Benefits	1,554,396,000	2,089,841,000	2,702,613,000	2,724,626,000	2,577,004,000	3,105,489,000	3,434,205,000	2,953,611,000	2,635,920,000	2,456,323,000
	¥	<i>></i>	€3									
	Funded	Ratio	40.3%	35.6%	38.6%	44.2%	51.4%	50.7%	49.9%	58.3%	64.5%	%8.99
Actuarial	Present Value	of Benefits	2,603,702,000	3,244,804,000	4,398,687,000	4,882,540,000	5,305,841,000	6,293,712,000	6,856,672,000	7,090,175,000	7,425,158,000	7,408,412,000
			69									
	Market Value	of Assets	1,049,306,000	1,154,963,000	1,696,074,000	2,157,914,000	2,728,837,000	3,188,223,000	3,422,467,000	4,136,564,000	4,789,238,000	4,952,089,000
			69									
Fiscal Year	Ending	June 30	1980	1982	1984	1985	1986	1987	1988	1989	1990	1991

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 wellfunded 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.



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 b. Refund of Member Contributions c. Survivorship Benefits	(240,128,000) (7,862,000) (3,132,000)
4.	Net Investment Income	159,005,000
5.	Market Value of Assets as of June 30, 1991	\$ 4,952,089,000
Ne	et Rate of Return on the Market Value of Assets	3.3%

\$4,692,007,000

STATE OF CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM

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 b. 120% of Item 8	3,961,671,000 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	A 1 400 500 500

than Item 11.b.

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.

1.	Active Teachers	June 30, 1990	June 30, 1991
	a. Numberb. Average Agec. Average Serviced. Average Annual Compensation	39,969 44.5 14.9 \$ 41,626	39,818 44.8 15.2 \$ 45,017
2.	Terminated Vested Teachers		
	a. Numberb. Average Monthly Deferred Benefit	652 fit \$ 465	\$ 460
3.	Survivors and Dependents		
	a. Numberb. Average Monthly Benefit	502 \$ 268	\$ 261
4.	Retired Teachers and Beneficiaries		
	a. Numberb. Average Monthly Benefit	13,804 \$ 1,399	14,413 \$ 1,524

STATE TEACHERS' RETIREMENT SYSTEM STATE OF CONNECTICUT

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

AGE NRST BIRTHDAY AT VAL DATE

COMPLETED YEARS OF SERVICE

NUMBER OF ACTIVE MEMBERS

	4 5 - 9	9 10 - 14 15 - 19	- 1	20 - 24 25 -	29 30 - 34 35	25 - 29 30 - 34 35 - 39 Over 39	Total
0 0	6	0	0	0	Ö	0	0 257
381 466	"	0	0	0 0	0	0	0 2062
357 1448		394	0	0 0	0	0	0 2928
279 1083 21		2111	819	0 0	0	0	5084
422 1346 13		1319	3205 2097	97 0	0	0	0 9430
298 1134 10		1004	1220 3364	64 1233	0	0	0 8843
107 490 5		571	658 1041	41 1625	547	0	0 5220
38 161 3		300	511 7	742 696	1041	156	0 3721
14 38		49	126 2.	217 168	204	135	2 966
. 2 25		84	104 15	198 150	132	110 2	25 800
0 13		18	65	92 79	53	50 5	55 426
0	_	4	13	14 17	15	6 1	12 81
1898 6204 58		5818	6721 7765	3968	1992	457 9	94 39818

STATE TEACHERS' RETIREMENT SYSTEM STATE OF CONNECTICUT

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

AGE NRST BIRTHDAY AT VAL DATE

COMPLETED YEARS OF SERVICE

AVERAGE ANNUAL SALARY

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

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. <u>Covered Employees</u>

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. <u>Disability Retirement</u>

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).