

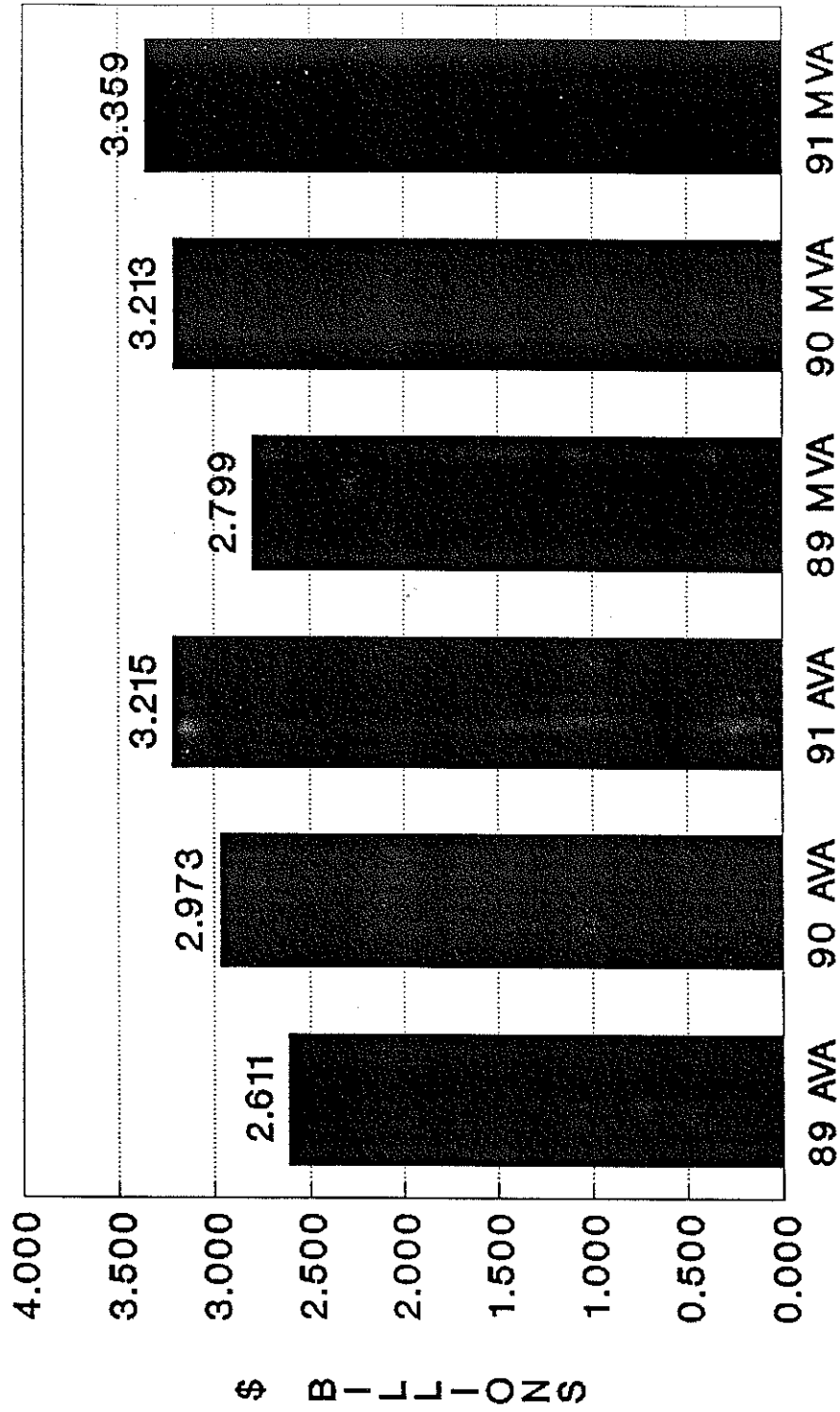
PRELIMINARY 1991 VALUATION RESULTS

CONNECTICUT STATE EMPLOYEES

RETIREMENT SYSTEM

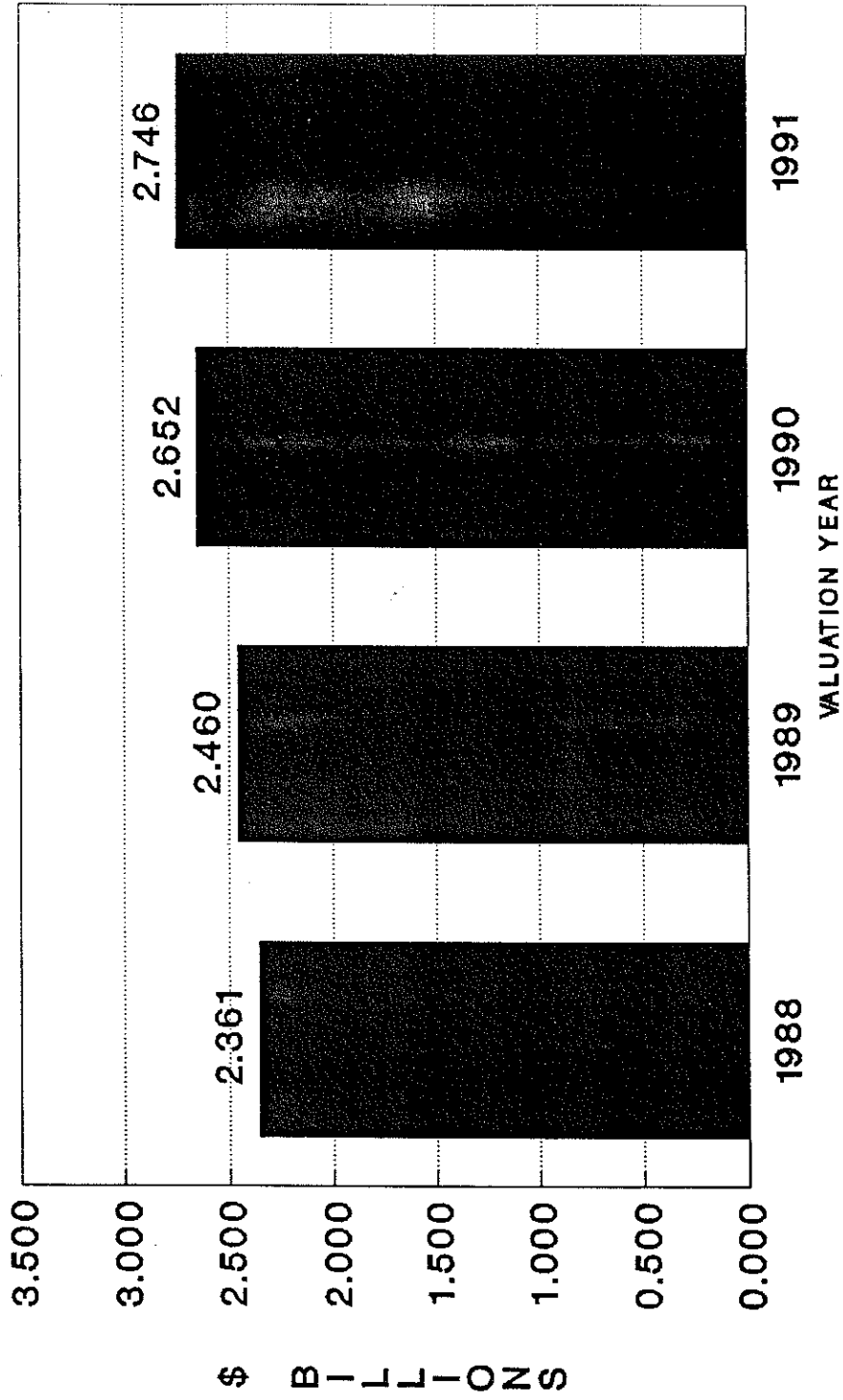
October 16, 1991

CONNECTICUT STATE EMPLOYEES
RETIREMENT SYSTEM
SYSTEM ASSETS



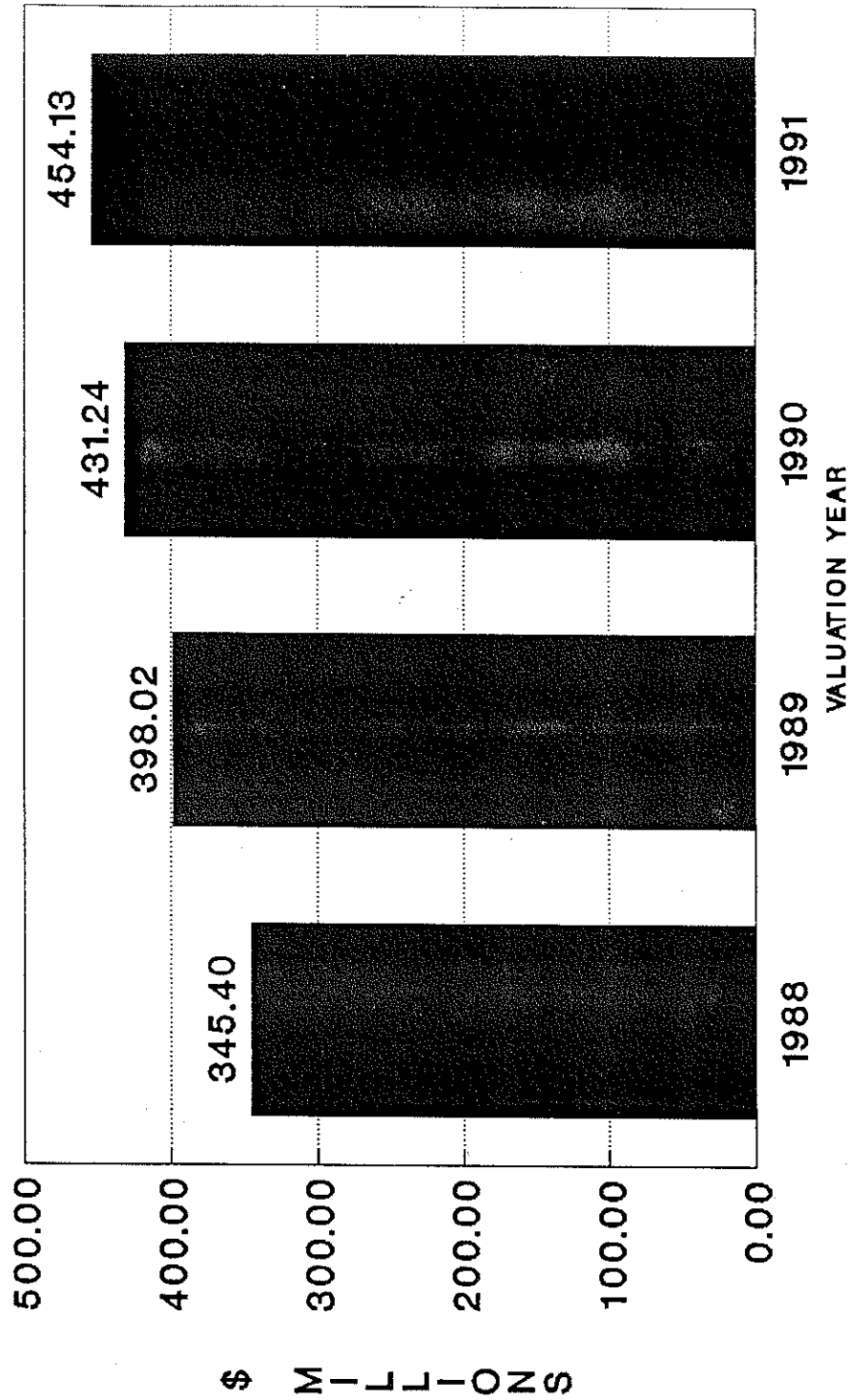
PRELIMINARY 1991 VALUATION RESULTS

CONNECTICUT STATE EMPLOYEES
RETIREMENT SYSTEM
SYSTEM UNFUNDED LIABILITIES



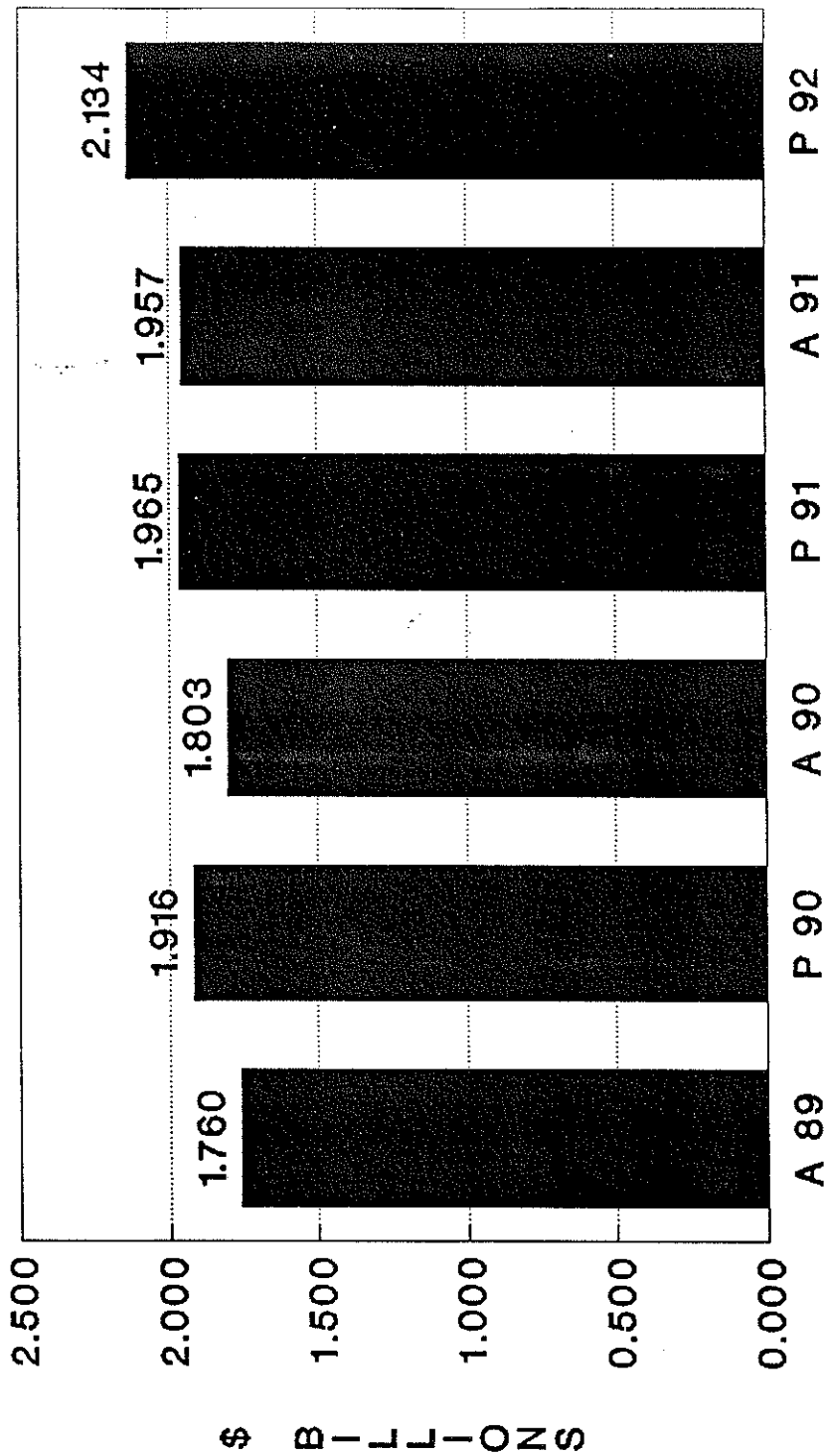
PRELIMINARY 1991 VALUATION RESULTS

CONNECTICUT STATE EMPLOYEES
RETIREMENT SYSTEM
TOTAL COST DOLLARS



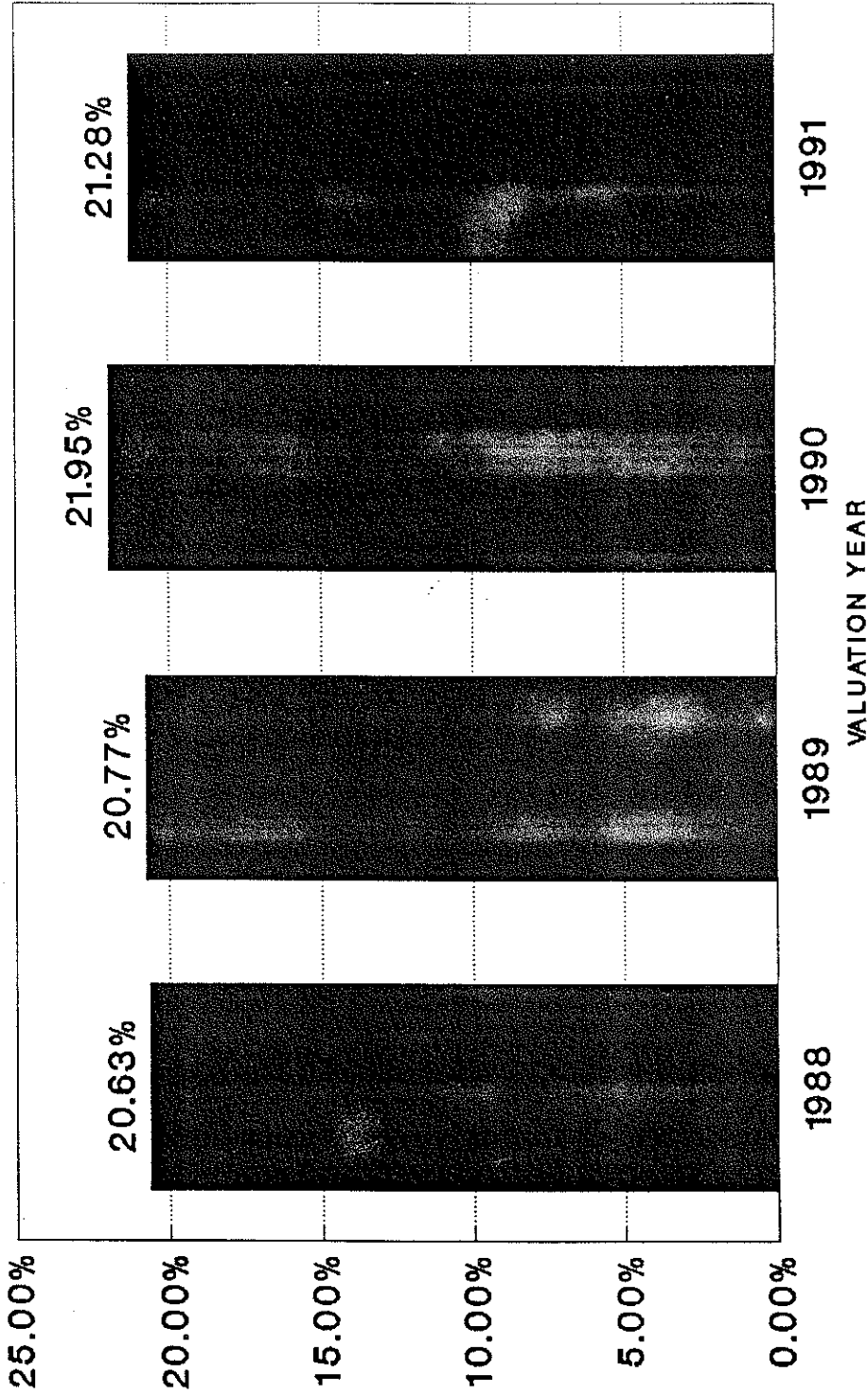
PRELIMINARY 1991 VALUATION RESULTS

CONNECTICUT STATE EMPLOYEES
 RETIREMENT SYSTEM
 TOTAL PAYROLL



A - ACTUAL 6/30 P - PROJECTED 6/30
 PRELIMINARY 1991 VALUATION RESULTS

CONNECTICUT STATE EMPLOYEES
RETIREMENT SYSTEM
TOTAL COST PERCENTAGES



PRELIMINARY 1991 VALUATION RESULTS

PRELIMINARY 1991 VALUATION RESULTS

SUMMARY OF ACTIVE MEMBERSHIP DATA

	7/1/90	7/1/91	CHANGE	PERCENT CHANGE
Number of Members				
Tier I Hazardous Duty	2,211	2,503	+292	+13.2%
Tier I Plan B	23,022	21,782	-1,240	-5.4%
Tier I Plan C	2,348	2,153	-195	-8.3%
Tier II Hazardous Duty	3,077	4,007	+930	+30.2%
Tier II Others	24,268	24,601	+333	+1.4%
Total	54,926	55,046	+120	+0.2%
Total Annual Compensation (millions)				
Tier I Hazardous Duty	97.9	119.4	+21.5	+22.0%
Tier I Plan B	913.5	927.6	+14.1	+1.5%
Tier I Plan C	80.6	79.8	-0.8	-1.0%
Tier II Hazardous Duty	98.7	144.1	+45.4	+46.0%
Tier II Others	612.2	685.7	+73.5	+12.0%
Total	1,802.9	1,956.6	+153.7	+8.5%
Average Compensation				
Tier I Hazardous Duty	44,272	47,687	+3,415	+7.7%
Tier I Plan B	39,678	42,585	+2,907	+7.3%
Tier I Plan C	34,330	37,086	+2,756	+8.0%
Tier II Hazardous Duty	32,064	35,957	+3,893	+12.1%
Tier II Others	25,226	27,874	+2,648	+10.5%
Total	32,823	35,545	+2,722	+8.3%
Average Age				
Tier I Hazardous Duty	41.5	42.2	+.7	+1.7%
Tier I Plan B	45.1	45.9	+.8	+1.8%
Tier I Plan C	52.6	53.1	+.5	+1.0%
Tier II Hazardous Duty	31.9	32.8	+.9	+2.8%
Tier II Others	36.6	37.4	+.8	+2.2%
Total	40.8	41.3	+.5	+1.2%
Average Service				
Tier I Hazardous Duty	14.0	14.5	+.5	+3.6%
Tier I Plan B	14.9	15.8	+.9	+6.0%
Tier I Plan C	15.2	16.1	+.9	+5.9%
Tier II Hazardous Duty	2.8	3.3	+.5	+17.9%
Tier II Others	3.4	4.2	+.8	+23.5%
Total	9.1	9.7	+.6	+6.6%

PRELIMINARY 1991 VALUATION RESULTS

SUMMARY OF RETIRED MEMBERSHIP DATA

	7/1/90	7/1/91	CHANGE	PERCENT CHANGE
Retirees				
Number	23,482	23,779	+ 297	+1.3%
Total Annual Benefit*	\$259,467	\$262,971	+3,504	+1.4%
Average Annual Benefit	11,050	11,059	+9	+0.1%
Terminated Vested				
Number	658	727	+ 69	+10.5%

* 000 omitted

PRELIMINARY 1991 VALUATION RESULTS

SYSTEM CONTRIBUTIONS

System contributions projected to the Fiscal Year beginning July 1, 1992 are \$454.1 million. This exceeds the prior year's projection of \$431.2 million by \$22.9 million.

The sources of this increase are as follows:

Prior year's contribution (projected to 1991)	\$431.2 million
• increase due to expected payroll growth to 1992	16.4
• increase due to asset losses	3.0
• increase due to liability losses and membership profile	7.4
• decrease due to removal of Newington Children's Hospital	(3.9)
Contribution projected to 7/1/92	\$454.1 million

The contribution for the Fiscal Year beginning July 1, 1992 has been calculated using the following assumptions:

- All SERS members receive an 8% salary increase effective July 1, 1991.
- The \$431.2 million contribution for the Fiscal Year beginning July 1, 1991 will be made in its entirety.
- The active employees of Newington Children's Hospital are no longer covered by SERS, effective July 1, 1991. Former employees remain covered by SERS. SERS assets have been reduced by the value of the Newington active employee contributions, accumulated with interest through June 30, 1991. Further adjustments may be necessary but have not been reflected in the above.
- There has been no change in actuarial cost method. In particular, this means that the Unfunded Accrued Liability is amortized over 34 years, as currently required by Statute.
- There has been no change in actuarial assumptions. Under the terms of the Memorandum of Understanding the investment results require an interest rate of 8½%.
- The Early Retirement Incentive Program has been handled in the same manner as last year: we have increased the costs to reflect one year's payments.



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M E M O R A N D U M

Date: October 9, 1991

To: Database Subcommittee

Robert Baus
Peter Blum
Charles Casella
Claude Poulin
Linda Yelmini

From: Althea Schwartz *Althea*

Re: Preliminary 1991 Valuation Results

Enclosed are the preliminary valuation results which we will be discussing at the October 16 meeting. We have prepared the following materials for you:

Graphs showing key results for the past several years

System Assets
System Unfunded Liabilities
Total Cost Dollars
Total Payroll
Total Cost Percentages

Summary of Active Membership Data

Number of Members
Total Annual Compensation
Average Compensation
Average Age
Average Service

Summary of Retired Membership Data

System Contributions

Detailed Results broken down by Plan

1991 Results - Excluding Newington Children's Hospital
1991 Results - Including Newington Children's Hospital
1990 Final Results for comparison

Albany • Atlanta • Boston • Chicago • Cincinnati • Dallas • Denver • Hartford • Houston
Indianapolis • Irvine • Los Angeles • Milwaukee • Minneapolis • New York • Omaha • Philadelphia
Phoenix • Portland • St. Louis • Salt Lake City • San Diego • San Francisco • Seattle • Washington, D.C.

Internationally WOODROW MILLIMAN

Australia • Austria • Belgium • Bermuda • Canada • Channel Islands • Denmark
France • Germany • Ireland • Italy • Mexico • Netherlands • New Zealand • Norway
Philippines • Spain • United Kingdom • United States • West Indies

Perhaps of most interest is the System Contributions exhibit, which explores the change from last year's contribution to this year's preliminary result, and details the assumptions used in the calculation of this year's contribution.

Please let us know if you have any questions.

cc: S. Weinberger
G. Kalwarski

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

1991 RESULTS - Excluding Newington Children's Hospital

	Total System	Tier I Hazardous	Tier I Plan B	Tier I Plan C	Tier II Hazardous	Tier II Others
Actuarial Value of Assets	3,215,454,699	NA	NA	NA	NA	NA
Market Value of Assets	3,359,177,753	NA	NA	NA	NA	NA
Rate of Return on Market Value Basis	3.89%	NA	NA	NA	NA	NA
Rate of Return on Actuarial Value Basis	7.43%	NA	NA	NA	NA	NA
Active Membership	55,046	2,503	21,782	2,153	4,007	24,601
Retired Membership	23,779	NA	NA	NA	NA	NA
Terminated Vested Membership	727	NA	NA	NA	NA	NA
Total Membership	79,552	NA	NA	NA	NA	NA
Payroll as of July 1	1,956,585,318	119,359,821	927,582,119	79,845,441	144,080,426	685,717,511
Payroll Projected to Next June 30	2,133,651,858	123,418,055	959,119,911	82,560,186	164,396,780	804,156,926
Inactive Liability	2,795,890,494	NA	NA	NA	NA	NA
Active Liability (PBO)	3,165,300,164	425,305,685	2,179,551,943	213,732,021	75,677,195	271,033,320
Total Liability	5,961,190,658	NA	NA	NA	NA	NA
Unfunded Liability						
a July 1	2,745,735,959	NA	NA	NA	NA	NA
Projected to Next June 30	2,683,140,411	NA	NA	NA	NA	NA
Normal Cost Dollars (PUC Cost Method)						
a July 1	193,133,966	21,305,244	96,667,633	7,943,083	31,875,759	35,342,247
Projected to Next June 30	208,015,317	22,029,622	99,954,333	8,213,148	36,370,465	41,447,749
Normal Cost as a Percent of Payroll	9.7493%	17.8496%	10.4215%	9.9481%	5.1562%	22.1236%
Total Cost Dollars Projected to Next June 30	454,134,970	NA	NA	NA	NA	NA
Total Cost as a Percent of Payroll	21.2844%	NA	NA	NA	NA	NA

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

1991 RESULTS - Including Newington Children's Hospital

	Total System	Tier I Hazardous	Tier I Plan B	Tier I Plan C	Tier II Hazardous	Tier II Others
Actuarial Value of Assets	3,217,894,417	NA	NA	NA	NA	NA
Market Value of Assets	3,361,617,471	NA	NA	NA	NA	NA
Rate of Return on Market Value Basis	3.89%	NA	NA	NA	NA	NA
Rate of Return on Actuarial Value Basis	7.43%	NA	NA	NA	NA	NA
Active Membership	55,814	2,503	21,980	2,187	4,007	25,137
Retired Membership	23,779	NA	NA	NA	NA	NA
Terminated Vested Membership	727	NA	NA	NA	NA	NA
Total Membership	80,320	NA	NA	NA	NA	NA
Payroll as of July 1	1,983,608,942	119,359,821	936,328,933	80,924,806	144,080,426	702,914,956
Payroll Projected to Next June 30	2,163,215,713	123,418,055	968,164,117	83,676,249	164,396,780	823,560,512
Inactive Liability	2,795,890,494	NA	NA	NA	NA	NA
Active Liability (P80)	3,190,932,051	425,305,685	2,196,594,427	217,010,628	75,677,195	276,344,116
Total Liability	5,986,822,545	NA	NA	NA	NA	NA
Unfunded Liability						
@ July 1	2,768,928,128	NA	NA	NA	NA	NA
Projected to Next June 30	2,708,303,914	NA	NA	NA	NA	NA
Normal Cost Dollars (PUC Cost Method)						
@ July 1	194,757,765	21,305,244	97,435,813	8,047,912	31,875,759	36,093,037
Projected to Next June 30	209,759,222	22,029,622	100,748,631	8,321,541	36,370,465	42,288,963
Normal Cost as a Percent of Payroll	9.6966%	17.8496%	10.4062%	9.9449%	5.1369%	22.1236%
Total Cost Dollars Projected to Next June 30	458,075,863	NA	NA	NA	NA	NA
Total Cost as a Percent of Payroll	21.1757%	NA	NA	NA	NA	NA

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

1990 FINAL RESULTS

	Total System	Tier I Hazardous	Tier I Plan B	Tier I Plan C	Tier II Hazardous	Tier II Others
Actuarial Value of Assets	2,972,748,082	NA	NA	NA	NA	NA
Market Value of Assets	3,212,789,521	NA	NA	NA	NA	NA
Rate of Return on Market Value Basis	10.29%	NA	NA	NA	NA	NA
Rate of Return on Actuarial Value Basis	9.04%	NA	NA	NA	NA	NA
Active Membership	54,926	2,211	23,022	2,348	3,077	24,268
Retired Membership	23,718	NA	NA	NA	NA	NA
Terminated Vested Membership	658	NA	NA	NA	NA	NA
Total Membership	79,302	NA	NA	NA	NA	NA
Payroll as of July 1	1,802,808,993	97,885,744	913,477,780	80,605,902	98,661,140	612,178,427
Payroll Projected to Next June 30	1,965,072,397	101,213,859	944,536,025	83,346,503	113,372,598	722,603,412
Inactive Liability	2,657,370,442	NA	NA	NA	NA	NA
Active Liability (PBO)	2,967,291,638	354,300,569	2,117,923,258	215,632,864	58,950,927	220,484,020
Total Liability	5,624,662,080	NA	NA	NA	NA	NA
Unfunded Liability @ July 1	2,651,913,998	NA	NA	NA	NA	NA
Projected to Next June 30	2,755,995,241	NA	NA	NA	NA	NA
Normal Cost Dollars (PUC Cost Method) @ July 1	165,141,332	18,474,615	97,111,832	6,162,178	12,070,159	31,322,548
Projected to Next June 30	180,005,022	9,271,415	86,521,610	7,634,726	10,385,183	66,192,088
Normal Cost as a Percent of Payroll	9.1602%	18.8737%	10.6310%	7.6448%	12.2340%	5.1211%
Total Cost Dollars Projected to Next June 30	431,236,846	NA	NA	NA	NA	NA
Total Cost as a Percent of Payroll	21.9451%	NA	NA	NA	NA	NA