

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

Post-It® Fax Note	7671	Date	10/24/95	# of pages	17
To	Nancy Shearns	From	Steve Weinberger		
Co./Dept.	OPM	Co.			
Phone #		Phone #	566-5639		
Fax #	566-6295	Fax #	566-3071		

## PRELIMINARY 1995 VALUATION RESULTS CONNECTICUT STATE EMPLOYEE RETIREMENT SYSTEM

### ANALYSIS OF RESULTS

- System membership has grown 4% over last year. The total membership is 84,208 versus 80,907 last year. Of the 3,301 additional participants, 1,351 are represented by new Tier II Hazardous Duty members.
- Total annual compensation is up 9.3% over last year largely due to the additional new members. Average compensation on a total group basis grew from \$40,295 last year to \$42,115 this year (4.5% growth). The growth rate in average compensation was the largest for Tier I Plan B (5.6%) and Tier II All Others (6.7%). The two hazardous duty groups had the lowest growth in average compensation (2.8%).
- Asset performance was favorable for FY94-95. On a market value basis, the performance was about 13%. On a smoothed basis, before recognition of the Memorandum of Agreement, the approximate rate of return was 8.4%. The new asset smoothing method in the Memorandum of Agreement adds \$415,486,706 to the Actuarial Value of Assets, so that the actuarial value equals the market value. In the absence of this agreement, there would be a small asset loss of \$3,254,255.
- ① There is an accrued contribution for FY94-95 of \$60,972,796, which represents the difference between the contribution actually received of \$290,801,000 and the certified contribution of \$351,773,796.
- Normal cost percentages for all groups show no surprises. The average normal cost percentage is 8.43%, down slightly from 8.47% last year. The normal cost for FY96-97 is \$217 million.
- Total System Liabilities are now at \$7.755 billion compared to \$7.329 billion last year. \$250 million of the \$426 million change is due to a growth in active liability, the remaining \$176 million is represented by the inactive members.
- The reconciliation of the unfunded liability yields an asset loss of \$3.3 million and a liability gain of \$57.3 million. We will provide a breakdown of the liability gain by source at our meeting on Wednesday.
- The Employer contribution before reflecting the SEBAC agreement is \$493 million. Because SEBAC limits the past service cost to \$152 million, the contribution after SEBAC is \$369 million.

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**Table of Contents**

I.	Reconciliation of Members.....	1
II.	Summary of Active Membership Data.....	3
III.	Summary of Retired Membership Data.....	4
IV.	Development of Actuarial Value of Assets.....	5
V.	Development of Asset Gain/Loss.....	6
VI.	Normal Cost Percentages.....	8
VII.	System Liabilities.....	9
VIII.	Reconciliation of Unfunded Actuarial Liability.....	10
IX.	System Contributions.....	11
X.	Summary of Assumptions.....	13



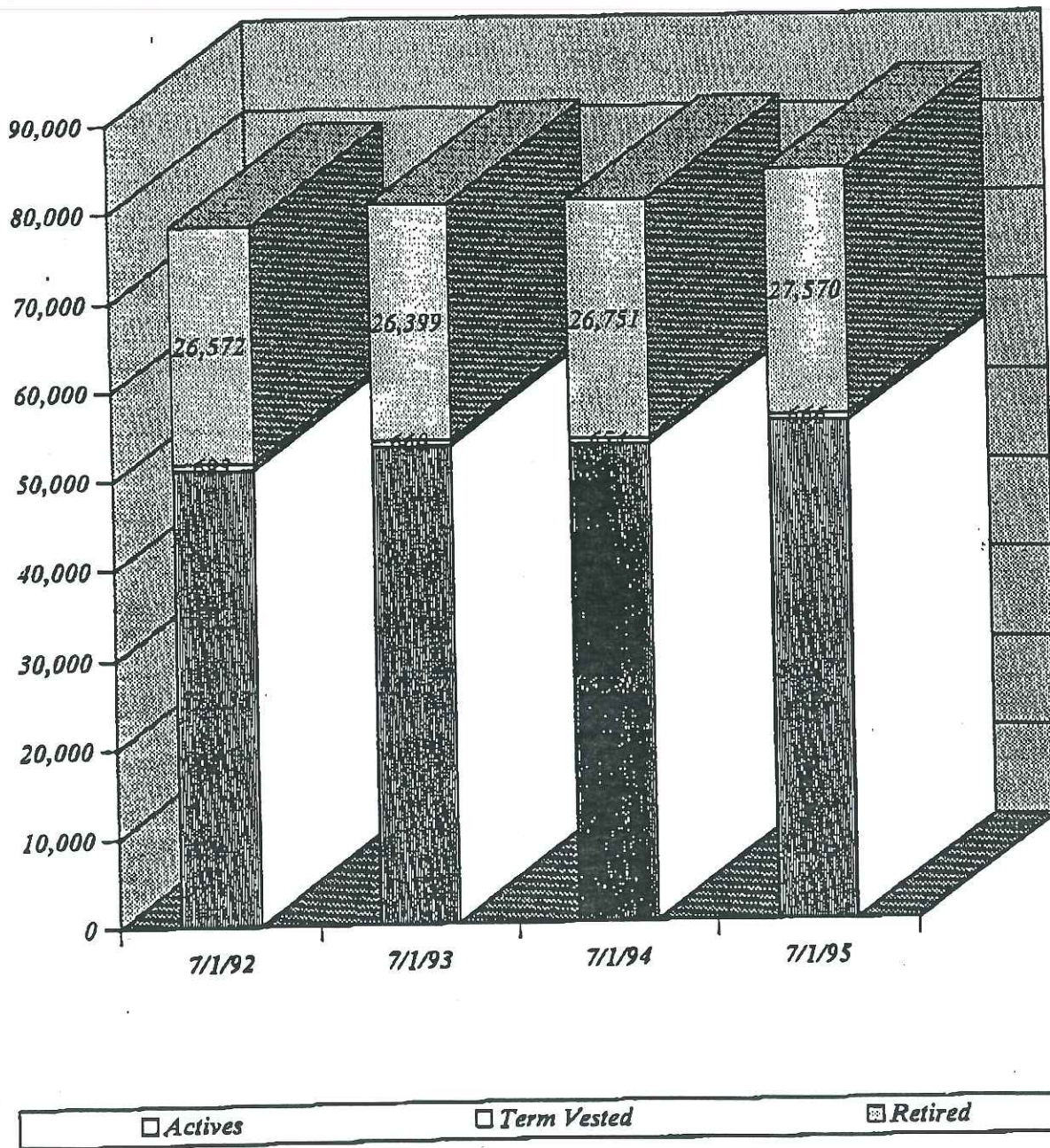
**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**I. Reconciliation of Members**

	Active Members	Deferred Vested Members	Retired Members	Total
Total Members as of July 1, 1994	53,502	654	26,751	80,907
New Terminated Vested	(32)	32	0	0
New Retired	(1,098)	(54)	1,152	0
New Disabled	(120)	0	120	0
Other Withdrawal	(3,002)	0	0	(3,002)
Died (no Beneficiary)	0	0	(925)	(925)
Died (with beneficiary)	(1)	0	1	0
Rehired from Inactive Status	18	(15)	(3)	0
New Active Members	6,705	0	0	6,705
*Other	0	49	474	523
Total Members as of July 1, 1995	55,972	666	27,570	84,208
* Includes:				
New Deferred Vested and Retired Members who were not matched with prior year's data, perhaps due to data corrections.				

# PRELIMINARY 1995 VALUATION RESULTS CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

## System Members





**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**II. Summary of Active Membership Data**

	7/1/94	7/1/95	Percent Change
<b>Number of Members</b>			
Tier I Hazardous Duty	1,967	1,890	- 3.9%
Tier I Plan B	17,806	17,103	- 3.9%
Tier I Plan C	1,387	1,249	- 9.9%
Tier II Hazardous Duty	5,855	7,206	+23.1%
Tier II Others	<u>26,487</u>	<u>28,524</u>	+ 7.7%
<b>Total</b>	<b>53,502</b>	<b>55,972</b>	<b>+ 4.6%</b>
<b>Total Annual Compensation (Millions)</b>			
Tier I Hazardous Duty	108.5	107.3	- 1.1%
Tier I Plan B	877.6	890.5	+ 1.5%
Tier I Plan C	60.7	57.2	- 5.8%
Tier II Hazardous Duty	239.6	303.1	+26.5%
Tier II Others	<u>869.4</u>	<u>999.2</u>	+14.9%
<b>Total</b>	<b>2,155.9</b>	<b>2,357.3</b>	<b>+ 9.3%</b>
<b>Average Compensation</b>			
Tier I Hazardous Duty	55,178	56,759	+ 2.9%
Tier I Plan B	49,288	52,066	+ 5.6%
Tier I Plan C	43,728	45,775	+ 4.7%
Tier II Hazardous Duty	40,930	42,064	+ 2.8%
Tier II Others	32,824	35,030	+ 6.7%
<b>Total</b>	<b>40,295</b>	<b>42,115</b>	<b>+ 4.5%</b>
<b>Average Age</b>			
Tier I Hazardous Duty	43.5	44.0	+ 1.1%
Tier I Plan B	47.1	47.6	+ 1.1%
Tier I Plan C	52.6	52.2	- 0.8%
Tier II Hazardous Duty	34.7	35.3	+ 1.7%
Tier II Others	39.5	40.0	+ 1.3%
<b>Total</b>	<b>42.0</b>	<b>42.1</b>	<b>+ 0.2%</b>
<b>Average Service</b>			
Tier I Hazardous Duty	16.0	16.1	+ 0.6%
Tier I Plan B	18.0	18.4	+ 2.2%
Tier I Plan C	18.3	18.7	+ 2.2%
Tier II Hazardous Duty	3.9	3.9	0.0%
Tier II Others	5.8	6.1	+ 5.2%
<b>Total</b>	<b>10.4</b>	<b>10.3</b>	<b>- 1.0%</b>

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**III. Summary of Retired Membership Data**

	7/1/94	7/1/95	Percent Change
<b>Retirees</b>			
Number	26,751	27,570	+3.1%
Total Annual Benefit (000s)	\$373,087	\$395,879	+6.1%
Average Annual Benefit	14,359	14,359	0.0%
<b>Terminated Vested</b>			
Number	654	666	+1.8%

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**IV. Development of Actuarial Value of Assets**

Plan Year Ending	Realized Gain/Losses	Change in Unrealized Gain/Losses	Total Gains/Losses
6/30/95	\$4,672,238	\$346,880,314	\$351,552,552
6/30/94	10,676,524	620,866	\$11,297,390
6/30/93	24,188,054	236,815,252	\$261,003,306
6/30/92	42,882,763	72,441,760	115,324,523
The Actuarial Value of Assets as of June 30, 1995 is derived as follows:			
(1) Market Value of Assets as of June 30, 1995			\$4,624,722,528
(2) Five-Year Gains and Losses Not Yet Recognized			
80% of FY 95		281,242,041	
60% of FY 94		6,778,434	
40% of FY 93		104,401,322	
20% of FY 92		<u>23,064,905</u>	
			4,15,486,702
(3) 20% of (1)			924,944,506
(4) Preliminary Actuarial Value of Assets as of June 30, 1995: (1) - (2), within (1) +/- (3)			4,209,235,826
(5) Effect of Memorandum of Agreement			415,486,702
(6) Revised Actuarial Value of Assets as of June 30, 1995 (4) + (5)			4,624,722,528
(7) Accrued Contribution for FY94-95			60,972,796
(8) Actuarial Value of Assets as of June 30, 1995 (6) + (7)			\$4,685,695,324



**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**V. Development of Asset Gain/Loss**

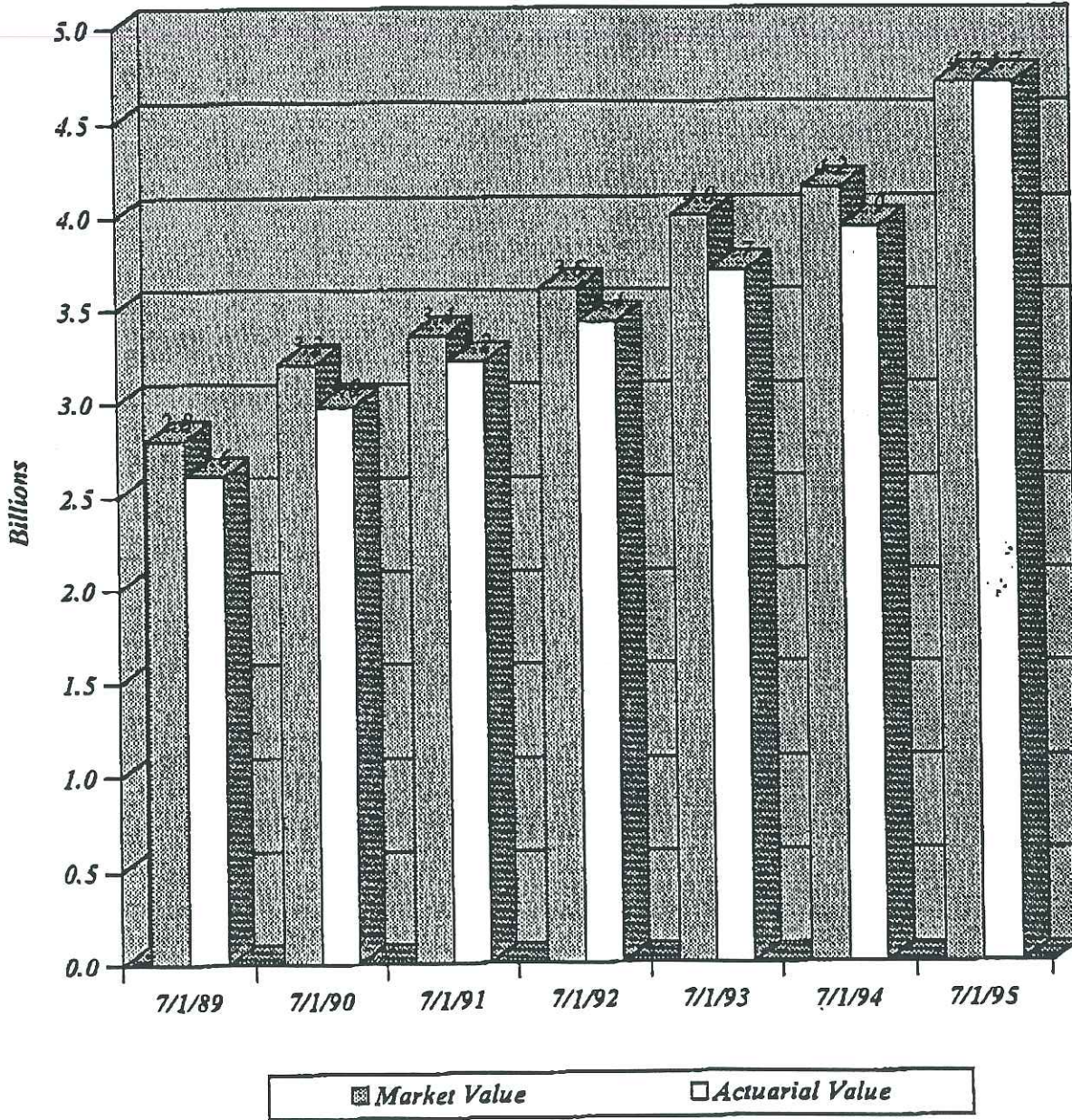
	Market Value of Assets	Actuarial Value of Assets
(1) Value of Assets as of July 1, 1994	\$4,150,379,946	\$3,944,521,448
(2) Contributions (Employer & Employee)	326,323,628	326,323,628
(3) Benefit Payments and Refunds during FY94-95	391,150,922	391,150,922
(4) Expected Investment Income at 8 1/2% on (1) through (3)	350,293,899	332,795,927
(5) Actual Investment Income	539,169,876	329,541,672
(6) Expected Value of Assets as of June 30, 1995: (1) + (2) - (3) + (4)	4,435,846,551	4,212,490,081
(7) Actual Value of Assets as of June 30, 1995: (1) + (2) - (3) + (5)	4,624,722,528	4,209,235,826
(8) Assets Gain/(Loss): (7) - (6)	188,875,977	(3,254,255)
(9) Effect of Memorandum of Agreement	0	415,486,706
(10) Final Assets as of June 30, 1995: (7) + (9)	4,624,722,528	4,624,722,528
(11) Accrued Contribution for FY94-95	60,972,796	60,972,796
(12) Value of Assets as of June 30, 1995 including Accrued Contribution: (10) + (11)	4,685,695,324	4,685,695,324
(13) Approximate Effective Yield Represented by Actual Investment Income	13.09%	8.42%

Note: The rate shown here is a rough estimate of the return on plan assets used in the valuation. It assumes all transactions occur in the middle of the period. This rate may therefore not be the same as the yield on the plan's invested assets.



# PRELIMINARY 1995 VALUATION RESULTS CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

*System Assets*





PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

VI. Normal Cost Percentages

	1990	1991	1992	1993	1994	1995
<b>Tier I</b>						
Hazardous Duty	18.8737%	17.9397%	18.3565%	22.6277%	16.5805%	16.9794%
Plan B	10.6310%	10.4280%	10.4638%	9.5823%	9.8117%	10.0536%
Plan C	7.6448%	9.9627%	9.5261%	9.4761%	9.6759%	9.4632%
<b>Tier II</b>						
Hazardous Duty	12.2340%	10.2468%	10.9393%	18.2802%	9.4258%	9.5497%
All Others	5.1166%	5.1892%	5.6637%	5.5835%	5.7485%	5.9098%
<b>Total</b>	9.1602%	8.8303%	8.9634%	9.4519%	8.4672%	8.4282%



**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**VII. System Liabilities**

	1994	1995
(1) Liability for Active Members		
(a) Tier I Hazardous Duty	\$ 407,704,392	\$ 408,591,196
(b) Tier I Plan B	2,096,007,655	2,204,566,084
(c) Tier I Plan C	170,016,203	162,601,712
(d) Tier II Hazardous Duty	196,238,302	256,743,600
(e) Tier II All Others	<u>380,635,824</u>	<u>468,751,427</u>
(f) Total Liability for Active Members	3,250,602,376	3,501,254,019
(2) Liability for Deferred Vested Members	32,951,832	40,208,864
(3) Liability for Retired Members	4,045,626,976	4,213,855,290
(4) Total System Liability	7,329,181,184	7,755,318,173

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**VIII. Reconciliation of Unfunded Actuarial Liability**

Unfunded Actuarial Liability 7/1/94	\$3,384,659,736
● Interest on beginning UAL	287,696,078
● Employer Normal Cost for FY94-95	221,273,796
● Interest on Employer Normal Cost	8,493,595
● FY 94-95 Employer Contribution actually made	(290,801,000)
● Accrued Contribution for FY94-95	(60,972,796)
● Interest on Employer contribution for FY94-95	(11,162,396)
● Asset (gain)/loss	3,254,255
● Effect of Memorandum of Agreement	(415,486,702)
● Liability (gain)/loss (balancing item)	(57,331,717)
<del>Actual</del> Unfunded Actuarial Liability 7/1/95	\$3,069,622,849

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

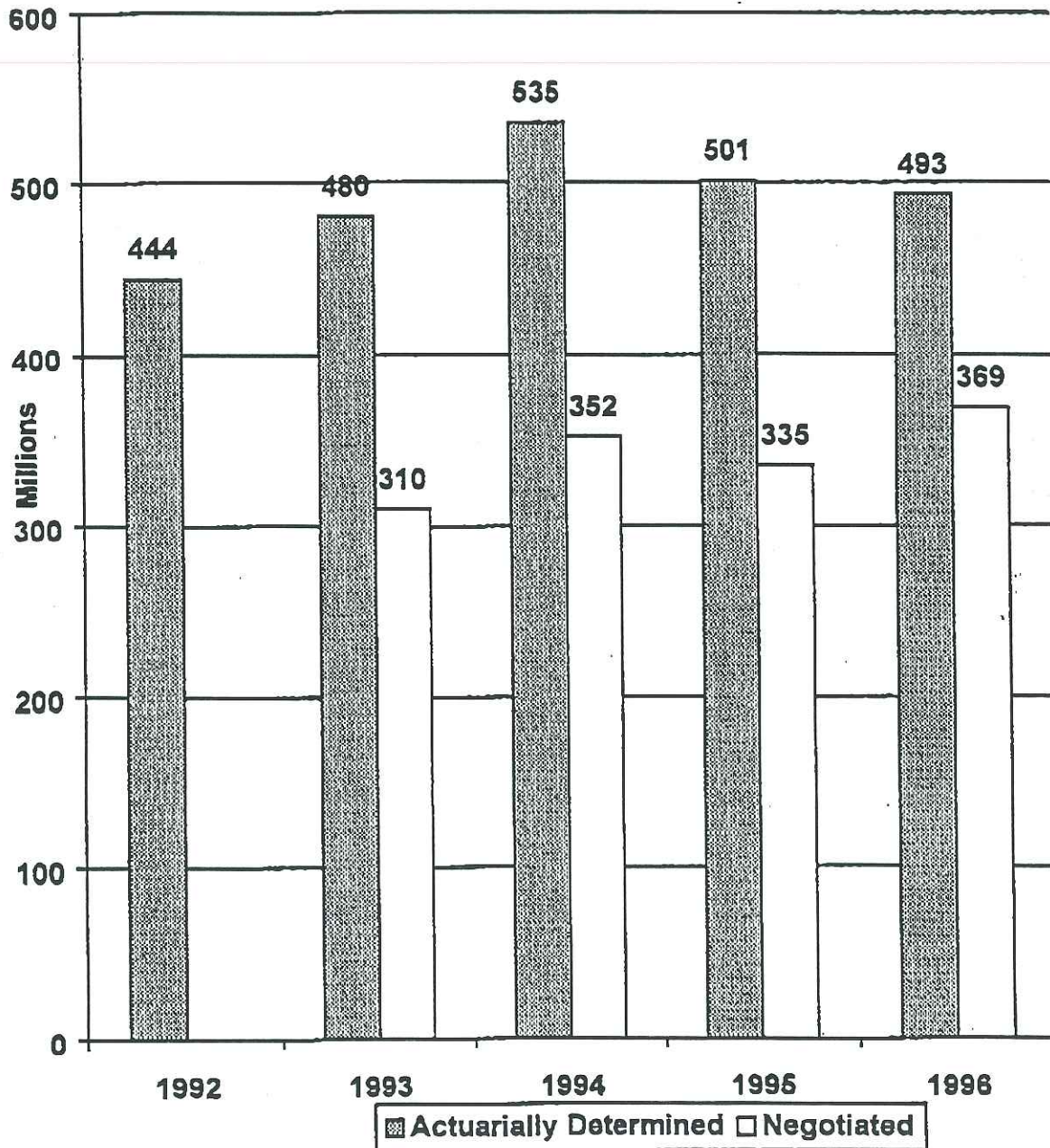
**IX. System Contributions**

(1)	Total System Liability	\$7,755,318,173
(2)	Actuarial Value of Assets	4,685,695,324
(3)	Unfunded Actuarial Liability as of July 1, 1995	3,069,622,849
(4)	Projected Unfunded Actuarial Liability as of June 30, 1996	3,186,828,307
(5)	Past Service Cost	275,475,813
(6)	Employer Normal Cost	217,073,029
(7)	Total System Contribution (before SEBAC)	492,548,842
(8)	Past Service Cost per SEBAC	152,000,000
(9)	Total System Contribution (after SEBAC)	369,073,029
(10)	Impact of SEBAC	123,475,813



**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**Employer Contribution (Dollars)**



**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

**X. Summary of Assumptions**

Interest Rate	8 1/2%				
Salary Scale	Varies by service as follows:				
		Years			Rate
		0			14.00
		1			12.00
		2			10.00
		3			9.00
		4			8.20
		5			7.50
		10			5.45
		15			4.45
		20			3.75
		25			3.25
Mortality	1983 Group Annuitant Mortality Male and Female Tables.				
Turnover	Three year select and ultimate rates as shown below for non-hazardous duty males; the same table with rates increased by a factor of 10% for females and decreased by a factor of 60% for hazardous duty employees.				
	<u>Years of Participation</u>				
	<u>Age</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3+</u>
	20	30	30	20	10
	25	17	15	10	8
	30	15	11	8	5
	35	13	10	8	3
	40	10	9	7	3
	45	3	8	6	2
	50	3	6	4	2
	55	2	4	2	0
	60	0	0	0	0
Retirement	One year select and ultimate rates separately for hazardous and non-hazardous duty employees.				
		<u>Hazardous</u>		<u>Non-Hazardous</u>	
	<u>Age</u>	<u>0</u>	<u>1+</u>	<u>0</u>	<u>1+</u>
	47	40	30	0	0
	50	40	30	0	0
	55	60	30	20	0
	60	80	50	20	15
	62	100	100	40	40
	65	100	100	80	60
	70	100	100	100	100

**PRELIMINARY 1995 VALUATION RESULTS  
CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM**

Disability	The current table of rates increased by a factor of 1.2 for hazardous duty employees and decreased by a factor of .5 for non-hazardous duty employees.		
	<u>Age</u>	<u>Hazardous Duty</u>	<u>All Others</u>
	20	.90	.38
	25	1.02	.43
	30	1.16	.49
	35	1.43	.61
	40	2.04	.85
	45	3.35	1.40
	50	6.11	2.55
	55	11.10	4.63
	60	17.30	7.21
Disabled Mortality	50% of 1965 Railroad Retirement Board Disabled Mortality Table.		