

*ACTUARIAL VALUATION*  
*CONNECTICUT STATE EMPLOYEES*  
*RETIREMENT SYSTEM*

*AT JUNE 30, 1995*

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM  
ACTUARIAL VALUATION**

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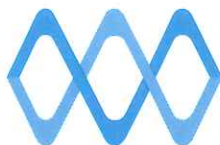
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November 14, 1995

State of Connecticut  
State Employees Retirement Commission  
55 Elm Street  
Hartford, CT 06106

Re: Connecticut State Employees Retirement System

Members of the Commission:

At your request, we have made an actuarial valuation of the Connecticut State Employees Retirement System (SERS) as of June 30, 1995. The results of the valuation are contained in the following report.

Section I contains an Executive Summary in which we present the principal results of this valuation. Details regarding SERS assets, liabilities, and costs are found in Sections II, III, and IV, respectively. Section V contains the disclosure information required by GASB #5. The Appendices contain information regarding SERS membership, an outline of the benefit provisions, a description of the actuarial methods and assumptions employed in this valuation, details on the Actuarial Surplus as of June 30, 1995, and Entry Age Normal Results.

As developed in Section IV, the actuarially determined contribution for the fiscal year beginning July 1, 1996, including Federal reimbursements, is \$542,780,936. In accordance with the provisions of collectively negotiated agreements (SEBAC III and the Memorandum of Agreement), \$193,550,224 of this amount will not be paid. The negotiated contribution is \$349,230,712.

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Connecticut State Employees Retirement System  
Page 2

In our opinion, this report fairly presents the financial and actuarial position of the Connecticut State Employees Retirement System at June 30, 1995. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices set forth by the American Academy of Actuaries.

Respectfully submitted,

MILLIMAN & ROBERTSON, INC.



Althea A. Schwartz, F.S.A.  
Consulting Actuary

*SECTION I*

*EXECUTIVE SUMMARY*

## *SECTION I*

### *EXECUTIVE SUMMARY*

#### *PURPOSE OF REPORT*

This report presents the results of the June 30, 1995 actuarial valuation of the Connecticut State Employees Retirement System (SERS). The primary purposes for performing the valuation are:

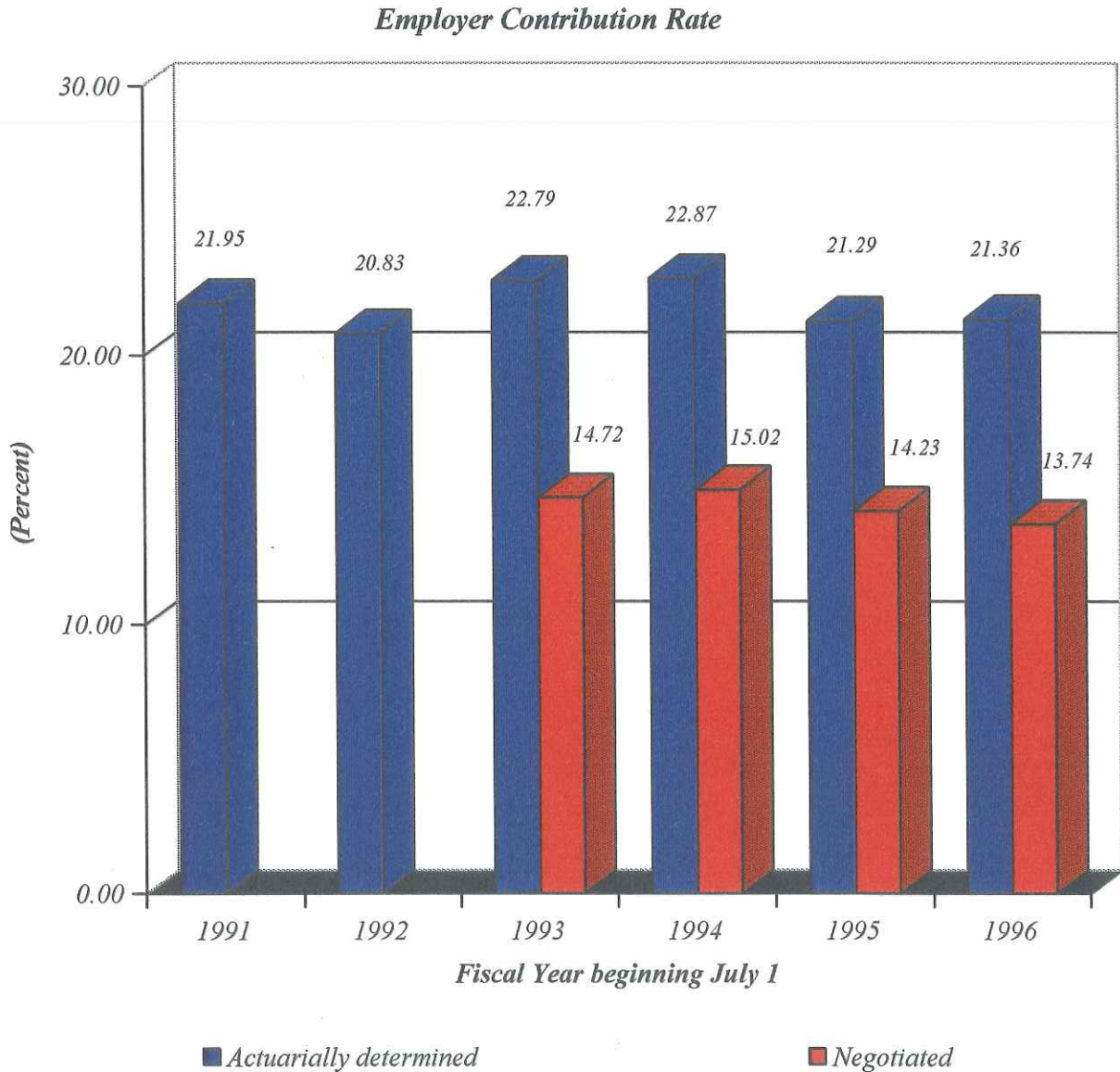
- ✓ to determine the contributions to be paid by the Employer for the Fiscal Year beginning July 1, 1996
- ✓ to disclose asset and liability measures as of June 30, 1995, and
- ✓ to analyze and report on trends in SERS contributions, assets, and liabilities over the past several years.

#### *ORGANIZATION OF THE EXECUTIVE SUMMARY*

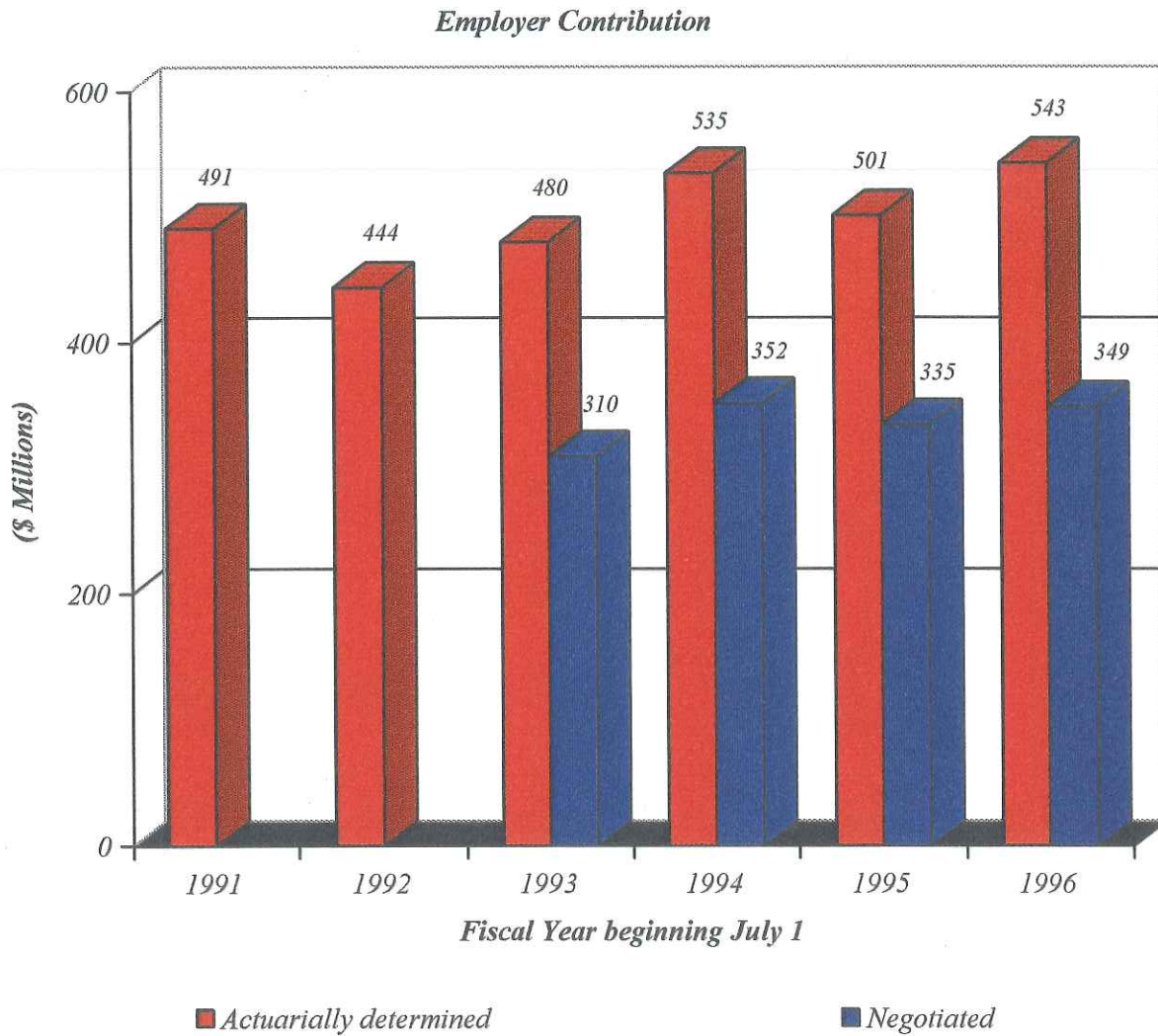
- *Major Findings...* shows graphically, key results for each of the last six actuarial valuations.
- *SERS Experience July 1, 1994 to June 30, 1995...* highlights the major events influencing this valuation.
- *SERS Contribution...* compares this year's contribution to last year's and analyzes the change.
- *Principal Results...* contains a summary of comparative statistics for the June 30, 1994 and the June 30, 1995 valuations.

## MAJOR FINDINGS

The major findings of the 1995 valuation are summarized and compared in the following charts:

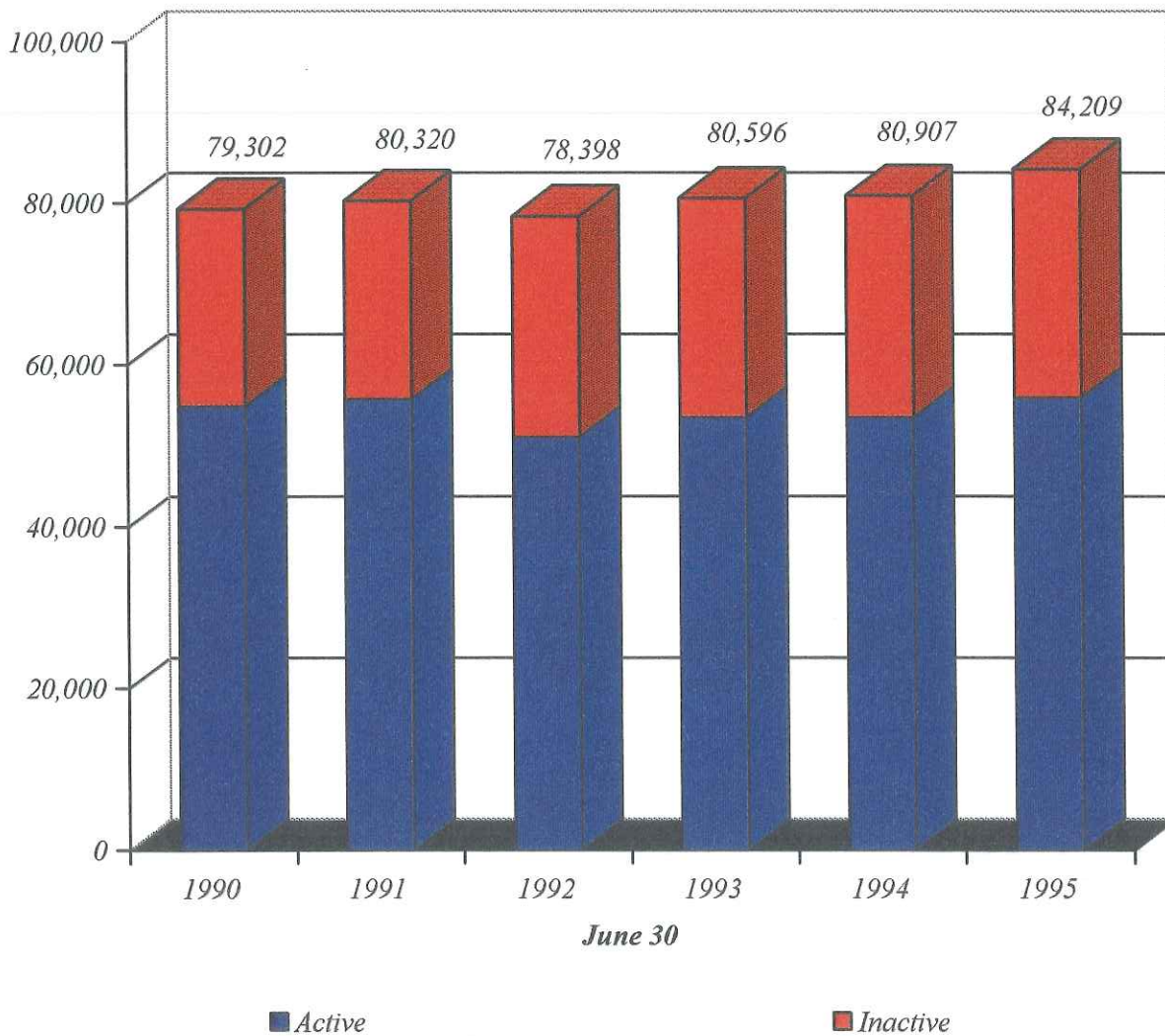


The bar graph depicts the actuarially determined Employer's contribution rate and, since 1993, the rate reflecting negotiated changes. As actuarially determined, the Employer's contribution rate has been relatively level. For 1996, the negotiated rate is lower than for prior years due to a reduction in the unfunded liability payment per the Memorandum of Agreement.



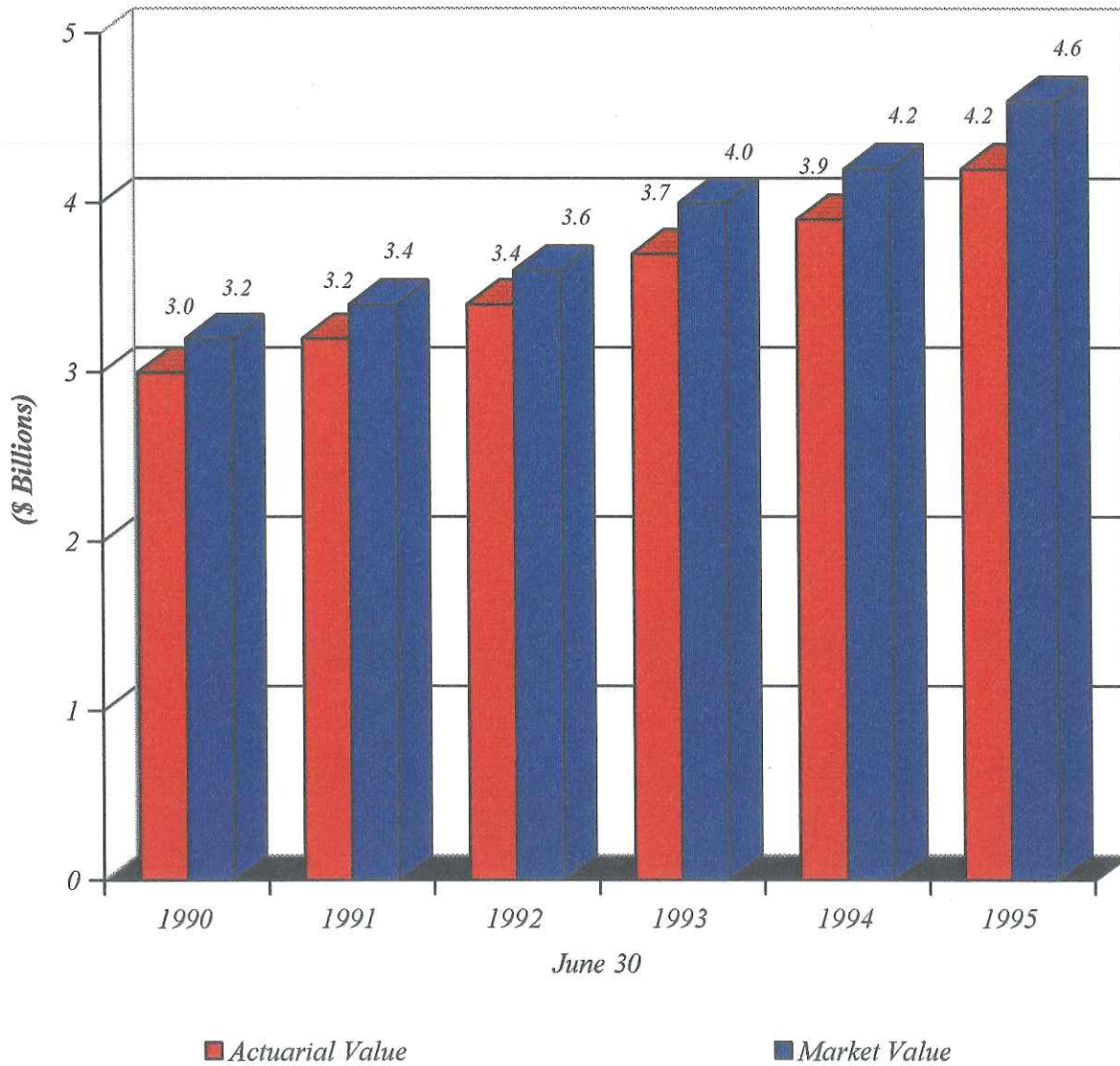
*The dollar amount of the Employer's contribution equals the contribution rate shown on the prior table times the projected payroll. For 1996, the actuarially determined dollar amount went up primarily due to growth in membership. The negotiated contribution amount represents the normal cost payment plus a specified past service payment.*



**Membership**

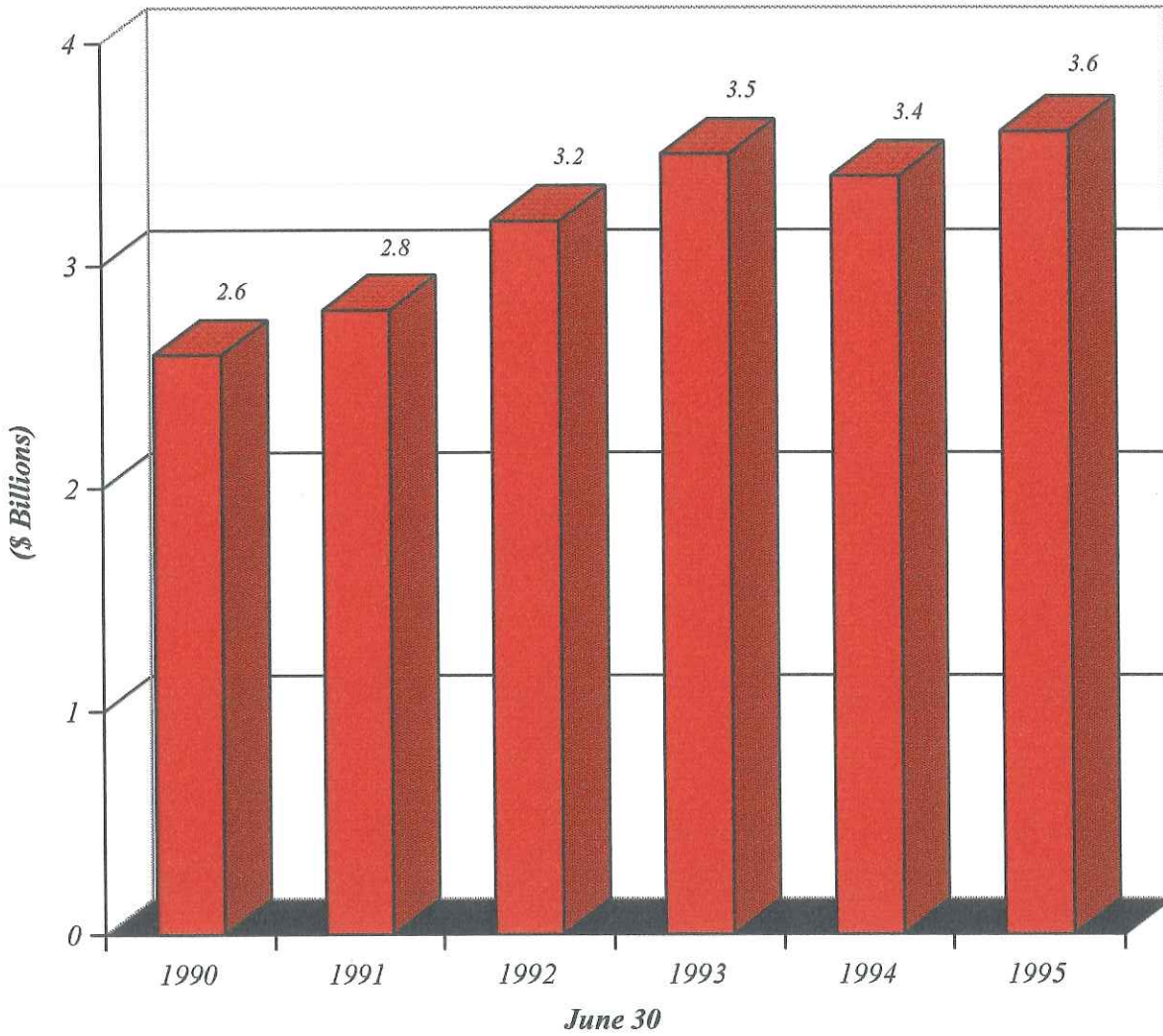
*SERS membership has grown 4% (3,302 more members than last year). The active membership is now approaching the levels before the 1989 ERIP, with the hazardous duty group having the largest growth in membership on a percentage basis. The inactive membership is 3% higher than last year.*

## SERS Assets



*The SERS's assets have grown as expected in recent years due to investment results and positive cashflow. The rate of return on a Market Value basis for the past year exceeded 13%.*

*Unfunded Liabilities*



*Unfunded actuarial liabilities have increased again this valuation after a slight drop last year. The negotiated contribution was not large enough to offset the growth in the liabilities due to interest and benefit accruals.*

**SERS EXPERIENCE JULY 1, 1994 TO JUNE 30, 1995**

Overall, SERS experience was somewhat unfavorable during the valuation period. The normal cost as a percent of pay increased from 8.36% to 8.45%. The pay base also increased as a result of new members and pay increases, bringing the normal cost up 9%, from \$197 million for FY 95-96 to \$215 million for FY 96-97.

The unfunded actuarial liability, the shortfall between SERS assets and liabilities, increased this year from \$3.4 billion to \$3.6 billion. The reasons are discussed on page 9 of this report.

The following circumstances also contributed to the results shown in this report:

- Agreements negotiated between the State of Connecticut and the State Employees Bargaining Agent Coalition included provisions with funding implications:
  - ◆ The past service contribution for FY 96-97 is set at \$152 million instead of the actuarially determined amount of \$327.9 million.
  - ◆ The Memorandum of Agreement further reduces the negotiated past service payment. Per the Agreement, the difference of \$415,486,702 between the market value of assets and the actuarial value as of June 30, 1995 is amortized on a level percent of pay basis over 36 years. The resulting amount, \$17.6 million, reduces the negotiated past service payment from \$152 million to \$134.4 million.
- The negotiated contribution for FY 94-95 was \$351,773,796. The appropriated amount for the same period was \$290,801,000, resulting in a contribution shortfall of \$60,972,796.
- The investment performance was strong during the past year. The actual return was 13.1% on a market value basis compared to 4.5% for the prior valuation. On a smoothed actuarial basis, the rate was 8.4% compared to 7.4% for the prior valuation. The assumed rate is 8.5%.
- System membership has grown 4% over the past year. The total membership is 84,209 versus 80,907 last year. More than half of the 2,471 net new active participants are new Tier II Hazardous Duty members. More information on SERS membership can be found in Appendix A.

Comparison of Results

The following pages detail the impact of the factors discussed above on SERS Assets and Unfunded Liabilities.

*Assets*

Between June 30, 1994 and June 30, 1995, the actuarial value of assets (measured on a five year smoothing basis) increased by \$264.7 million. This change was attributable to the following:

	<u>(\$ million)</u>
Actuarial Value of Assets, 7/1/94	\$3,944.5
Change in Assets	
• Employer and Member Contributions	326.3
• Benefits Paid	(391.1)
• Expected Total Net Return on Investments	332.8
• Investment Gain/(Loss)	(3.3)
Total Changes	264.7
Actuarial Value of Assets, 7/1/95	\$4,209.2

The expected total return on investments shown above is based on an assumed rate of return of 8.5%. However, the actual investment earnings of \$329.5 million (an effective rate of 8.42% on the actuarial value of assets), results in a small actuarial loss of \$3.3 million. More details on SERS assets are presented in Section II of this report.

**Unfunded Liabilities**

During the past year, the unfunded actuarial liability increased from \$3.4 billion to \$3.6 billion. Each year the unfunded liability is increased because of interest and expected benefit accruals and is decreased by contributions made to the fund. Asset and liability gains and losses also impact the unfunded liability.

The following table shows the development of the unfunded actuarial liability from 1994 to 1995:

	<u>(\$ million)</u>
Unfunded Actuarial Liability, 7/1/94	\$3,384.7
Source of Change in Unfunded Liability	
· Interest and Expected Benefit Accruals	517.4
· Expected Contribution with Interest for FY 94-95	(555.9)
· Negotiated Contribution Shortfall with Interest for FY 94-95	190.6
· Appropriated Contribution Shortfall with Interest for FY 94-95	63.3
· Asset Loss	3.3
· Liability Loss	<u>25.6</u>
Total Changes	244.3
Unfunded Actuarial Liability, 7/1/95	\$3,629.0

The liability loss of \$25.6 million is small (0.3%) when compared to the total SERS liability of \$7,838.2 million. It is attributable to the difference between actual and expected experience with respect to the number of retirements, employment terminations, disabilities, deaths, salary increases, and new employees. We have made a detailed analysis of the experience to determine the particular amount each component contributed to the total liability loss. The results are discussed on the following page.

**Unfunded Liabilities - Components of the Liability Gain/(Loss)****Active Decrements****\$13.8 million**

The System experienced a net gain of \$13.8 million from active decrements. The gains and losses that fall under this heading represent the impact on the liability of members who were active employees last year but are not this year. Members leaving the System fall into four categories - terminations, retirements, deaths, and disabilities. This gain is primarily attributable to almost 1,000 more members leaving the System than predicted by the actuarial assumptions.

**Other Active Sources of Gain/(Loss)****\$(61.6 million)**

The loss from other active sources was \$61.6 million. The breakdown of the liability gain/(loss) included in this category are:

	<u>Gain/(Loss)</u>
• Changes in the data, purchases and movement between the plans	1.3 million
• Salary increases less than expected	13.5 million
• Liability for new members who have credit for prior service	(77.4) million
• Active members who have returned from inactive service	1.0 million

**Inactive Sources of Gain/(Loss)****\$22.2 million**

The net gain to the System from inactive sources was \$22.2 million. This inactive gain is a result of offsetting events:

- Gains occurred because the cost of living adjustment was less than expected and there were data changes that had a favorable impact on the System.
- Losses occurred because there were many new retirees or beneficiaries who could not be identified in our data for the prior valuation as either actives or inactive. These members were either out on Workers Compensation last year and have now retired from state service or are beneficiaries who could not be matched with a deceased participant due to inadequate identification numbers. The losses for this group are offset in part by gains for inactive members who have died.

**SERS CONTRIBUTIONS**

SERS contributions projected to the Fiscal Year beginning July 1, 1996 are \$349.2 million. The table below compares the prior year's contribution to this year's and identifies the components of change.

	<u>(\$ Million)</u>
Contribution Actuarially Determined for FY 1995-96	\$501.1
· 1994-95 Appropriations Shortfall	5.9
· 1995-96 Negotiated Contribution Shortfall	14.9
· Increase due to Payroll Growth and Changes in Membership Profile	18.2
· Asset Losses for 1994-95	0.3
· Liability Losses for 1994-95	2.4
Contribution before Negotiated Adjustments for FY 1996-97	542.8
· Negotiated Adjustment to Past Service Cost	(176.0)
· Memorandum of Agreement Adjustment to Past Service Cost	(17.6)
Contribution for FY 1996-97	\$349.2

**Actuarial Surplus**

There is no actuarial surplus as defined in Section 5-162h(b) of the Statute. The details of the test are shown in Appendix D.

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In concluding this executive summary, we present on the following page comparative statistics and actuarial information on both the June 30, 1994 and June 30, 1995 valuations.



**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM  
PRINCIPAL RESULTS**

	<i>June 30, 1994</i>	<i>June 30, 1995</i>	<i>% Chg</i>
<b><i>SERS Membership</i></b>			
1. Active Membership			
- Number of Participants	53,502	55,973	4.62
- Payroll	\$2,155,860,555	\$2,325,786,999	7.88
- Average Pay	\$40,295	\$41,552	3.12
2. Inactive Membership			
- Number of Vested			
Deferred Members	654	666	1.83
- Number of Retired Members	26,751	27,570	3.06
- Annual Retired Members			
Benefits	\$373,087,478	\$395,878,744	6.11
- Average Annual Retired			
Member Benefit	\$13,946	\$14,359	2.95
<b><i>Assets and Liabilities</i></b>			
1. Assets			
- Market Value	4,150,379,946	4,624,722,528	11.43
- Actuarial Value	3,944,521,448	4,209,235,826	6.71
2. Liabilities			
- Retired and Deferred Vested	4,078,578,808	4,299,645,231	5.42
- Active Members	3,250,602,376	3,538,565,574	8.86
- Total Liability	7,329,181,184	7,838,210,805	6.95
- Unfunded Liability	3,384,659,736	3,628,974,979	7.22
<b><i>Employer Contributions</i></b>			
1. Contributions as a Percent of			
Projected Payroll			
- Normal Cost	8.36%	8.45%	1.08
- Unfunded Liability	5.87% <sup>(a)</sup>	5.29% <sup>(b)</sup>	(9.88)
- Total Contribution %	14.23%	13.74%	(3.44)
2. Contribution Dollars Projected			
to the following FY			
- Normal Cost	\$196,711,972	\$214,843,727	9.22
- Unfunded Liability	138,400,000 <sup>(a)</sup>	134,386,985 <sup>(b)</sup>	(2.90)
- Total Employer Contribution	335,111,972	349,230,712	4.21

(a) Reflects negotiated agreement to fund \$138,400,000 in Past Service Cost, including ERIP.

(b) Reflects negotiated agreement to fund \$152,000,000 in Past Service Cost, including ERIP, less \$17,613,015 per Memorandum of Agreement

**SECTION II**

***SERS ASSETS***

## *SECTION II*

### *SERS ASSETS*

In this section we present the values assigned to the assets held by SERS. These assets are valued on two different bases: the actuarial value and the market value.

#### *Actuarial Value of Assets*

For purposes of determining ongoing costs, the recognition of gains and losses are spread over five years. The resulting value is called the actuarial value of assets and is further adjusted as necessary so that the final actuarial value is within 20% (plus or minus) of the market value of assets.

#### *Market Value of Assets*

For certain accounting statement purposes, SERS assets are valued at current market rates. These values represent the "snapshot" or "cash-out" value of SERS assets as of the valuation date. In addition, the market value of assets provides a reference point to compare to current accrued liabilities.

The following tables present information regarding the actuarial and market values of SERS assets as of June 30, 1995.

<u><i>Table</i></u>	<u><i>Contents</i></u>
II-1	Market Value - Summary of Fund Transactions
II-2	Market Value - Breakdown on June 30, 1995
II-3	Actuarial Value of Assets
II-4	Development of Asset Gain/Loss
II-5	Historical Summary (Actuarial and Market)

TABLE II-1

*Market Value of Assets  
Summary of Fund Transactions*

Market Value as of July 1, 1994		\$4,150,379,946
 <u>Contributions</u>		
State	\$206,663,000	
Federal	84,138,000	
Employee	<u>35,522,628</u>	
		\$ 326,323,628
 <u>Investment Income</u>		
Interest and Dividends	\$187,788,816	
Realized Gains	4,672,238	
Change in Unrealized Gains	<u>346,880,314</u>	
		\$ 539,341,368
 <u>Disbursements</u>		
Benefit Payments	\$388,887,756	
Employee Refunds	2,263,166	
Expenses	<u>171,492</u> *	
		\$ 391,322,414
Market Value as of June 30, 1995		\$4,624,722,528
Rate of Return as of June 30, 1995		13.10%
Rate of Return as of June 30, 1994		<u>4.51%</u>
Change		Up 8.59%

TABLE II-2*Market Value of Assets  
Breakdown on June 30, 1995*

The following is the Market Value of the State Employees Retirement Fund assets as reported to us by the Retirement Division:

	<u>Amount</u>	<u>% of Total</u>
Cash	\$ (6,173,129)	-0.13%
Accrued Interest	0	0.00%
Investments:		
Cash Reserve Account	227,717,986	4.92%
Mutual Fixed Income Fund	881,438,390	19.06%
Mutual Equity Fund	1,773,008,987	38.34%
Residential Mortgage Fund	18,987,018	0.41%
Real Estate Fund	407,930,535	8.82%
International Stock Fund	727,284,571	15.73%
International Bond Fund	291,595,671	6.31%
Commercial Mortgage Fund	177,218,563	3.83%
Venture Capital Fund	85,512,738	1.85%
Connecticut Programs Fund	<u>40,201,198</u>	<u>0.87%</u>
Total Market Value of Assets as of June 30, 1995	\$4,624,722,528	100.00%

TABLE II-3

## Actuarial Value of Assets

<u>Ending</u>	<u>Realized Gains/Losses</u>	<u>Change in Unrealized Gains/Losses</u>	<u>Total Gains/Losses</u>
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

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	23,064,905	
			\$415,486,702
3.	20% of (1)		924,944,506
4.	Actuarial Value of Assets as of June 30, 1995: (1)-(2), within (1) +/- (3)		\$4,209,235,826
5.	Market Value of Assets		\$4,624,722,528
6.	Memorandum of Agreement Adjustment Base: (5)-(4)		\$415,486,702
7.	Rate of Return as of June 30, 1995		8.42%
8.	Rate of Return as of June 30, 1994		7.39%
9.	Change		Up 1.03%

TABLE II-4*Development of Asset Gain/Loss*

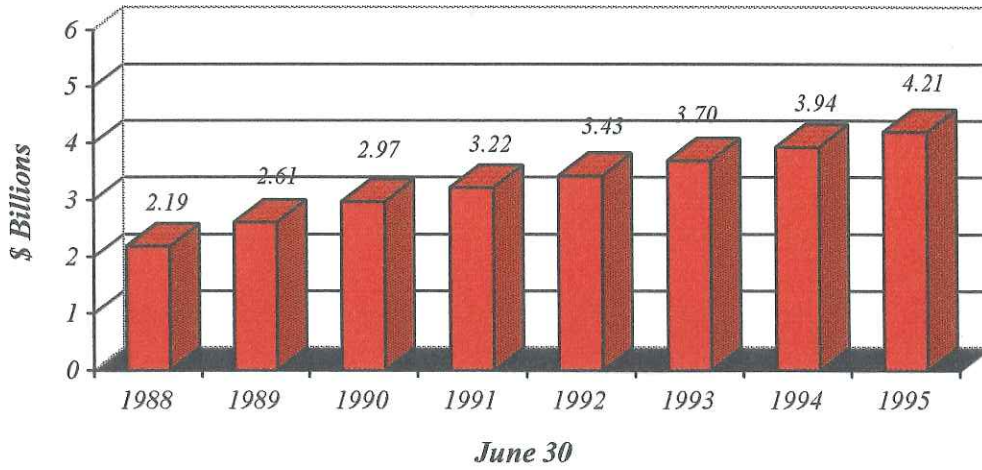
	<i>Market Value of Assets</i>	<i>Actuarial Value of Assets</i>
1. Value of Assets as of July 1, 1994	\$4,150,379,946	\$3,944,521,448
2. Contributions	326,323,628	326,323,628
3. Benefit Payments and Refunds paid during 1994-95	391,150,922	391,150,922
4. Expected Net Investment Income at 8½% on (1) through (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. Asset Gain/(Loss): (7)-(6)	188,875,977	(3,254,255)
9. Approximate Effective Yield Represented by Actual Investment Income	13.10%	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 earned on the plan's invested assets.*

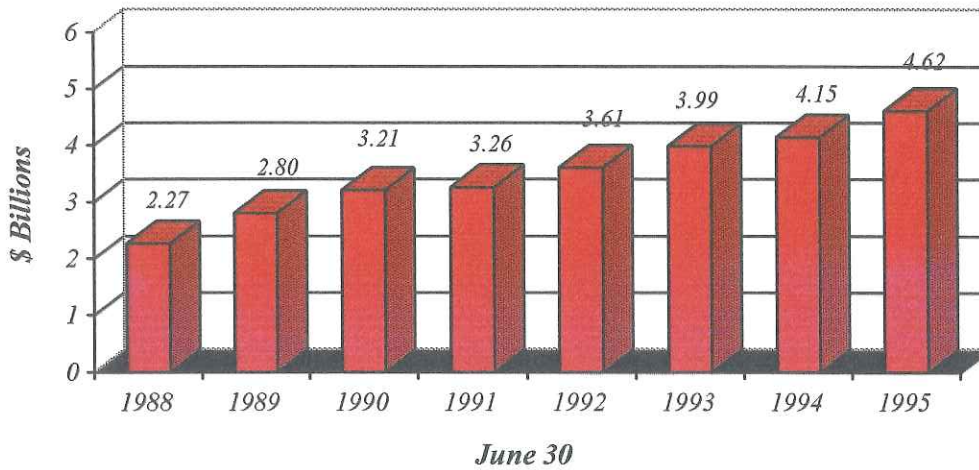
TABLE II-5

Historical Summary of System Assets

Actuarial Value



Market Value





*SECTION III*

*SERS LIABILITIES*

***SECTION III***

***SERS LIABILITIES***

In this section we present values assigned to the liabilities of SERS and then compare these liabilities to SERS assets.

The actuarial funding method used to determine SERS costs is based on the Projected Unit Credit method. This method is also used to determine the Projected Benefit Obligation (PBO) required by the Government Accounting Standards (GASB). A more detailed description of this method can be found in Appendix C.

The tables in this section present SERS liabilities as follows:

<b><i><u>Table</u></i></b>	<b><i><u>Contents</u></i></b>
III-1	SERS Liabilities
III-2	Active Liabilities by Tier and Plan
III-3	Historical Summary of Unfunded Actuarial Liabilities

*TABLE III-1**SERS Liabilities*

	<u>June 30, 1994</u>	<u>June 30, 1995</u>
1. Liability for Retired Members	\$4,045,626,976	\$4,259,436,367
2. Liability for Deferred Vested Members	<u>32,951,832</u>	<u>40,208,864</u>
3. Total Inactive Liability	\$4,078,578,808	\$4,299,645,231
4. Active Members Actuarial Liability	<u>3,250,602,376</u>	<u>3,538,565,574</u>
5. Total SERS Actuarial Liability	\$7,329,181,184	\$7,838,210,805
6. Actuarial Value of Assets	3,944,521,448	4,209,235,826
7. Total SERS Unfunded Actuarial Liability	<u>\$3,384,659,736</u>	<u>\$3,628,974,979</u>

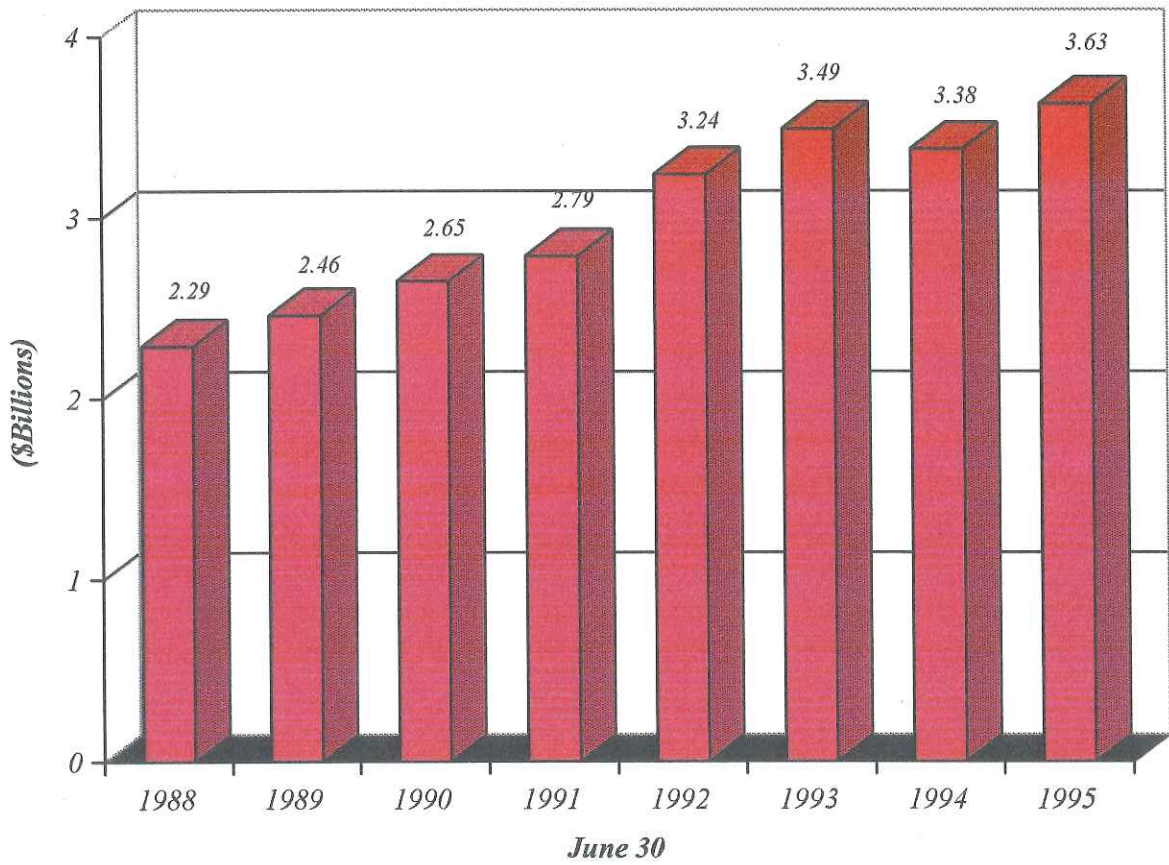
TABLE III-2*Active Liabilities by Tier and Plan*

	<i>ACTUARIAL LIABILITY</i>	
	<i>June 30, 1994</i>	<i>June 30, 1995</i>
<hr/> <b>TIER I</b> <hr/>		
Hazardous Duty	\$ 407,704,392	\$ 416,460,701
Plan B	2,096,007,655	2,225,891,582
Plan C	<u>170,016,203</u>	<u>164,221,428</u>
<b>Total</b>	\$2,673,728,250	\$2,806,573,711
<hr/> <b>TIER II</b> <hr/>		
Hazardous Duty	\$ 196,238,302	\$ 260,974,143
All Others	<u>380,635,824</u>	<u>471,017,720</u>
<b>Total</b>	\$ 576,874,126	\$ 731,991,863
<hr/> <b>GRAND TOTAL</b> <hr/>	\$3,250,602,376	\$3,538,565,574

TABLE III-3

*Historical Summary of  
Unfunded Actuarial Liabilities*

*Unfunded Actuarial Liability*



*SECTION IV*

*SERS CONTRIBUTIONS*

*SECTION IV*

*SERS CONTRIBUTIONS*

In this section we present the contributions required of the Employer in the upcoming fiscal year. Due to the timing of both the actuarial valuation process and the Employer's budget cycle, valuation results each June 30 must be projected to the following fiscal year in order to determine the Employer's required contribution.

In the following pages we present information on SERS contributions as follows:

<u><i>Table</i></u>	<u><i>Contents</i></u>
IV-1	Projected Unit Credit Normal Cost Projections
IV-2	Projected Unit Credit Unfunded Liability
IV-3	Projected Unit Credit Total Costs
IV-4	Comparison of Normal Cost Rates

**SECTION IV**

**SERS CONTRIBUTIONS**

TABLE IV-1

**Projected Unit Credit Normal Cost Projections**

	<b>07-01-95 NORMAL COST</b>	<b>07-01-95 EARNINGS</b>	<b>NORMAL COST %</b>	<b>07-01-96 PROJECTED EARNINGS</b>	<b>07-01-96 PROJECTED NORMAL COST</b>
<i>TIER I</i>					
Hazardous Duty	\$ 18,127,793	\$ 106,282,244	17.0563%	\$ 109,895,841	\$ 18,744,164
Plan B	88,334,193	873,518,299	10.1125%	903,217,921	91,337,912
Plan C	<u>5,364,587</u>	<u>56,084,412</u>	9.5652%	<u>57,991,282</u>	<u>5,546,982</u>
Total	\$111,826,573	\$1,035,884,955		\$1,071,105,044	\$ 115,629,058
<i>TIER II</i>					
Hazardous Duty	\$ 28,885,364	\$ 300,224,868	9.6212%	335,508,326	\$ 32,279,927
All Others	<u>58,381,601</u>	<u>989,677,176</u>	5.8991%	<u>1,134,660,228</u>	<u>66,934,742</u>
Total	\$ 87,266,965	\$1,289,902,045	6.77	\$1,470,168,554	\$ 99,214,669

SERS Normal Cost Projected to July 1, 1996: \$214,843,727

SERS Projected Earnings at July 1, 1996: \$2,541,273,598

SERS Projected Normal Cost % at July 1, 1996: 8.45%



TABLE IV-2*Projected Unit Credit Unfunded Liability*

1.	Unfunded Actuarial Liability as of July 1, 1995	\$3,628,974,979
2.	One Year's Interest at 8½%	308,462,873
3.	Employer Normal Cost (FY 1995-96)	196,711,972
4.	Employee Normal Cost (Expected Employee Contributions)	38,837,133
5.	Interest on Total Normal Cost [(3)+(4)]	9,041,552
6.	State Payments	(250,973,972)
7.	Expected Federal Payments	(84,138,000)
8.	Expected Employee Contributions	(38,837,133)
9.	Interest on Total Contributions [(6)+(7)+(8)]	(14,354,036)
10.	Unfunded Actuarial Liability as of July 1, 1996	\$3,793,725,368

TABLE IV-3*Projected Unit Credit Total Costs*

1.	Unfunded Actuarial Liability as of July 1, 1996	\$3,793,725,368
2.	Amortization Period	36 Years
3.	Amortization Payment	327,937,209
4.	Employer Normal Cost	214,843,727
5.	Total Employer Cost for Fiscal Year beginning July 1, 1996: (3)+(4)	\$ 542,780,936
6.	Projected Payroll	2,541,273,598
7.	Total Employer Cost %: (5)/(6)	21.36%
8.	Negotiated Amortization Payment	152,000,000
9.	Memorandum of Agreement Adjustment	17,613,015
10.	Total Negotiated Contribution: (4)+(8)-(9)	\$349,230,712
11.	Negotiated Employer Cost %: (10)/(6)	13.74%

TABLE IV-4*Comparison of Normal Cost Rates*

	VALUATION DATE	
	JULY 1, 1994	JULY 1, 1995
<hr/> <b>TIER I</b> <hr/>		
Hazardous Duty	16.58%	17.06%
Plan B	9.81%	10.11%
Plan C	9.68%	9.57%
<b>Total</b>	10.51%	10.80%
<hr/> <b>TIER II</b> <hr/>		
Hazardous Duty	9.43%	9.62%
All Others	5.75%	5.90%
<b>Total</b>	6.53%	6.75%
<b>GRAND TOTAL</b>	8.36%	8.45%

**SECTION V**

***GASB #5 ACCOUNTING INFORMATION***

## *SECTION V*

### *GASB #5 INFORMATION*

Government Accounting Standards Board Statement No. 5, "Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Government Employers", requires that SERS disclose certain information on an annual basis regarding the funding of SERS. In this section we present this information. Additional information regarding SERS Assets, a Summary of Plan Provisions and the Actuarial Method and Assumptions can be found in Section II and Appendices B and C, respectively.

The following tables present the information required for compliance with GASB #5:

<u><i>Table</i></u>	<u><i>Contents</i></u>
V-1	Summary of Membership
V-2	Standardized Measures
V-3	Historical Contribution Information
V-4	Historical Analysis of Funding Progress

#### *Background Information*

The Connecticut State Employee Retirement System was created by the State of Connecticut to provide defined benefit pensions to its employees. SERS is described in Chapter 66, State Employees Retirement Act, in Sections 5-152 to 5-192 to Title 5 of the General Statutes of Connecticut.

The Employer's funding policy has been to contribute each year an amount equal to the normal cost plus an amount representing amortization of the unfunded actuarial liability over thirty years (ending June 30, 2022), less amounts reimbursed by the Federal Government. Per SEBAC II Agreement, as of June 30, 1992, the unfunded actuarial liability will be amortized over forty years (ending June 30, 2032). Per negotiations the past service payment is at a specified amount for FY 93-94, FY 94-95, FY 95-96 and FY 96-97 instead of the amortized amount discussed above. The actuarial assumptions used to calculate the figures reported herein are the same as those used to calculate the contribution level.

TABLE V-1*Summary Of Membership*

	<u>June 30, 1994</u>	<u>June 30, 1995</u>
Current employees:		
<i>Vested:</i>		
Hazardous Duty	2,178	2,557
Plan B	17,020	16,531
Plan C	1,342	1,214
Tier II	<u>3,404</u>	<u>5,837</u>
Total	23,944	26,139
<i>Not yet vested:</i>		
Hazardous Duty	5,644	6,540
Plan B	786	572
Plan C	45	35
Tier II	<u>23,083</u>	<u>22,687</u>
Total	29,558	29,834
Total current employees	53,502	55,973
Retirees and beneficiaries currently receiving benefits:	26,751	27,570
Terminated employees entitled to benefits but not yet receiving them:	654	666
Total Members	<u>80,907</u>	<u>84,209</u>

TABLE V-2*Standardized Measures*

	<u>June 30, 1994</u>	<u>June 30, 1995</u>
<i>Pension Benefit Obligation</i>		
Retired Members	\$4,045,626,976	\$4,259,436,367
Terminated Vested Members	32,951,832	40,208,864
Active Members		
Accumulated employee contributions with interest	334,066,488	363,656,581
Employer-financed vested portion	2,462,341,453	2,701,057,842
Employer-financed non-vested portion	<u>454,194,435</u>	<u>473,851,151</u>
Total	\$3,250,602,376	\$3,538,565,574
 <i>Total SERS Obligation</i>	 <u>\$7,329,181,184</u>	 <u>\$7,838,210,805</u>
 <i>Market Value of Assets</i>	 <u>4,150,379,946</u>	 <u>4,624,722,528</u>
 <i>Unfunded Pension Benefit Obligation</i>	 \$3,178,801,238	 \$3,213,488,277

TABLE V-3

Historical Contribution Information

	FISCAL YEAR <u>1989-1990</u>	FISCAL YEAR <u>1990-1991</u>	FISCAL YEAR <u>1991-1992</u>	FISCAL YEAR <u>1992-1993</u>	FISCAL YEAR <u>1993-1994</u>	FISCAL YEAR <u>1994-1995</u>	FISCAL YEAR <u>1995-1996</u>	FISCAL YEAR <u>1996-1997</u>
Employer Normal Cost	\$137,531,541	\$179,549,626	\$180,005,022	\$191,019,008	\$188,906,351	\$221,273,796	\$196,711,972	\$214,843,727
Past Service Cost	258,836,930	218,467,282	251,231,824 <sup>(b)</sup>	256,780,845 <sup>(b)</sup>	121,300,000 <sup>(c)</sup>	130,500,000 <sup>(c)</sup>	138,400,000 <sup>(c)</sup>	134,386,985 <sup>(c)</sup>
Total Employer Cost	\$396,368,471	\$398,016,908 <sup>(a)</sup>	\$431,236,846	\$447,799,853	\$310,206,351	\$351,773,796	\$335,111,972	\$349,230,712
Total Employer Cost as a percent of payroll	23.07%	20.77%	21.95%	20.70%	14.72%	15.02%	14.23%	13.74%
Employee Contributions	\$29,198,019	\$33,809,953	\$33,169,806	\$32,916,991	\$35,753,968	\$35,522,628	N/A	N/A
Employer Contributions	288,368,471	263,818,607	250,324,285	290,827,685	310,206,351	290,801,000	N/A	N/A
Total Contributions	\$317,566,490	\$297,628,560	\$283,494,091	\$323,744,676	\$345,960,319	\$326,323,628	N/A	N/A

*Handwritten notes:*  
 9/13/7  
 288,368,471  
 of 53,003,916  
 ONTARIO  
 INCENTIVE  
 BONUS

- (a) Includes an additional contribution of \$10,241,000 (\$3,381,000 Normal Cost + \$6,860,000 Past Service Cost) needed to fund benefit improvements resulting from negotiations with the State Employees Bargaining Agent Coalition.
- (b) Includes \$11,858,652 payment of Retirement Incentive Bonus.
- (c) Negotiated Past Service Cost.



## SECTION V

## GASB #5 INFORMATION

TABLE V-4

Historical Analysis of Funding Progress  
(millions)

(1) FISCAL YEAR	(2) PENSION BENEFIT OBLIGATION	(3) PERCENTAGE FUNDED (1)/(2)	(4) UNFUNDED OBLIGATION (2)-(1)	(5) ANNUAL COVERED PAYROLL	(6) UNFUNDED OBLIGATION % OF PAY (4)/(5)
1988 - 1989	\$2,273.2	50.0%	\$2,277.5	\$1,583.0	143.9%
1989 - 1990	2,798.9	55.2%	2,272.6	1,759.5	129.2%
1990 - 1991	3,212.8	57.1%	2,411.9	1,802.8	133.8%
1991 - 1992	3,361.6	55.9%	2,648.1	1,983.6	133.5%
1992 - 1993	3,606.0	54.1%	3,062.7	1,931.4	158.6%
1993 - 1994	3,995.0	55.6%	3,194.8	2,144.8	149.0%
1994 - 1995	4,150.4	56.6%	3,178.8	2,155.9	147.4%
1995 - 1996	4,624.7	59.0%	3,213.5	2,325.8	138.2%

\* Market Value

APPENDIX A

*SUMMARY STATISTICS ON SERS MEMBERSHIP*

*APPENDIX A*

*SUMMARY STATISTICS ON SERS MEMBERSHIP*

<u>Table</u>	<u>Contents</u>
A-1	Summary of Active Membership Data
A-2	Detail of Active Membership Data by Plan
A-3	Summary of Inactive Membership Data
A-4	Analysis by Age and Service - Tier I - Hazardous Duty
A-5	Analysis by Age and Service - Tier I - Plan B
A-6	Analysis by Age and Service - Tier I - Plan C
A-7	Analysis by Age and Service - Tier II - Hazardous Duty
A-8	Analysis by Age and Service - Tier II - All Others
A-9	Analysis of Retired Members by Retirement Year
A-10	Analysis of Retired Members by Current Age

TABLE A-1*Summary of Active Membership Data*

We received data on a total of 56,208 eligible active members, including employees of State Aided Institutions. Of the active records submitted to us, 235 (.42%) were rejected due to missing or invalid dates of birth and/or hire. Cost calculations were not revised to reflect these records. The following analysis compares this data with the July 1, 1994 data (see Table A-4 for distribution by age and service).

	<i>7/1/94</i>	<i>7/1/95</i>	<i>Change</i>	<i>Percent Change</i>
Total Employees	53,502	55,973	2,471	4.6%
Total Earnings (millions)	\$2,155.9	\$2,325.8	\$169.9	7.9%
Average Earnings	\$40,295	\$41,552	\$1,257	3.1%

Earnings figures as of July 1 are actual amounts paid during the previous July 1 to June 30 period, adjusted for anticipated increases and merit adjustments through the end of FY 95-96; new entrant earnings are annualized.

These figures are broken down by Plan on the following page.

TABLE A-2

## Detail of Active Membership Data by Plan

	7/1/94	7/1/95	Percent Change
<b><u>Number of Members</u></b>			
Tier I Hazardous Duty	1,967	1,891	- 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%
Total	53,502	55,973	+ 4.6%
<b><u>Total Annual Compensation (Millions)</u></b>			
Tier I Hazardous Duty	108.5	106.3	-2.0%
Tier I Plan B	877.6	873.5	-0.5%
Tier I Plan C	60.7	56.1	-7.6%
Tier II Hazardous Duty	239.6	300.2	+25.3%
Tier II Others	<u>869.4</u>	<u>989.7</u>	+13.8%
Total	2,155.9	2,325.8	+7.9%
<b><u>Average Compensation</u></b>			
Tier I Hazardous Duty	55,178	56,204	+1.9%
Tier I Plan B	49,288	51,074	+3.6%
Tier I Plan C	43,728	44,903	+2.7%
Tier II Hazardous Duty	40,930	41,663	+1.8%
Tier II Others	32,824	34,696	+5.7%
Total	40,295	41,552	+3.1%
<b><u>Average Age</u></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%
Total	42.0	42.1	+ 0.2%
<b><u>Average Service</u></b>			
Tier I Hazardous Duty	16.0	16.5	+3.1%
Tier I Plan B	18.0	18.8	+4.4%
Tier I Plan C	18.3	19.1	+4.4%
Tier II Hazardous Duty	3.9	3.9	+0.0%
Tier II Others	5.8	6.2	+6.9%
Total	10.4	10.5	+1.0%

TABLE A-3*Summary of Inactive Membership Data*

	<i>7/1/94</i>	<i>7/1/95</i>	<i>Percent Change</i>
<i>Retirees and Beneficiaries</i>			
Number	26,751	27,570	3.1%
Total Annual Benefit (000s)	\$373,087	\$395,879	6.1%
Average Annual Benefit	13,947	14,359	3.0%
<i>Terminated Vested</i>			
Number	654	666	1.8%

TABLE A-4

## Analysis by Age and Service - Tier I - Hazardous Duty - Active Members

Age	Years of Service												All Years		
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up				
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	2	5	57	6	0	0	0	0	0	0	0	0	0	0	70
35 to 39	5	24	272	121	5	0	0	0	0	0	0	0	0	0	427
40 to 44	14	15	166	291	124	1	0	0	0	0	0	0	0	0	611
45 to 49	10	14	80	134	152	57	0	0	0	0	0	0	0	0	447
50 to 54	4	5	35	52	56	44	11	0	0	0	0	0	0	0	207
55 to 59	1	5	23	20	18	6	9	3	0	0	0	0	0	0	85
60 to 64	0	3	7	19	7	0	1	0	0	0	0	0	0	0	37
65 & Up	0	0	3	3	1	0	0	0	0	0	0	0	0	0	7
Totals	36	71	643	646	363	108	21	3	0	0	0	0	0	0	1,891

## Average Salaries

Age	Average Salaries												All Years		
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up				
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	50,682	48,489	50,683	58,459	0	0	0	0	0	0	0	0	0	0	51,193
35 to 39	49,673	53,553	52,791	55,660	52,676	0	0	0	0	0	0	0	0	0	53,609
40 to 44	50,169	47,182	53,284	58,279	62,266	49,509	0	0	0	0	0	0	0	0	57,259
45 to 49	46,103	49,647	51,639	55,289	63,024	59,555	0	0	0	0	0	0	0	0	57,428
50 to 54	38,313	49,017	49,547	56,314	58,339	63,028	65,447	0	0	0	0	0	0	0	57,106
55 to 59	31,780	53,047	55,857	54,648	52,864	65,692	76,446	61,804	0	0	0	0	0	0	57,574
60 to 64	0	49,684	49,791	52,812	66,712	0	63,472	0	0	0	0	0	0	0	54,905
65 & Up	0	0	60,836	52,336	66,569	0	0	0	0	0	0	0	0	0	58,012
Totals	47,171	50,562	52,526	56,711	61,477	61,217	70,067	61,804	0	0	0	0	0	0	56,204

TABLE A-5

Analysis by Age and Service - Plan B - Active Members

Age	Years of Service													All Years	
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up				
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
30 to 34	14	11	411	100	0	0	0	0	0	0	0	0	0	0	536
35 to 39	47	56	974	1,209	53	0	0	0	0	0	0	0	0	0	2,339
40 to 44	68	96	731	1,797	784	67	0	0	0	0	0	0	0	0	3,543
45 to 49	56	74	587	1,302	1,144	671	52	0	0	0	0	0	0	0	3,886
50 to 54	37	62	469	919	729	885	470	41	0	0	0	0	0	0	3,612
55 to 59	11	19	271	531	339	400	245	73	2	0	0	0	0	0	1,891
60 to 64	5	10	145	289	173	157	102	49	9	1	0	0	0	0	940
65 & Up	2	5	57	98	66	65	28	21	11	2	0	0	0	0	355
Totals	240	333	3,646	6,245	3,288	2,245	897	184	22	3	0	0	0	0	17,103

Age	Average Salaries													All Years	
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up				
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	42,435	0	0	0	0	0	0	0	0	0	0	0	42,435
30 to 34	29,887	34,416	37,309	35,951	0	0	0	0	0	0	0	0	0	0	36,802
35 to 39	35,541	39,463	43,723	41,659	42,535	0	0	0	0	0	0	0	0	0	42,363
40 to 44	36,851	43,229	47,648	49,280	49,342	46,791	0	0	0	0	0	0	0	0	48,507
45 to 49	52,198	46,813	48,858	51,802	57,281	54,118	50,170	0	0	0	0	0	0	0	53,259
50 to 54	46,806	46,596	47,114	49,615	55,183	62,293	56,212	48,779	0	0	0	0	0	0	54,289
55 to 59	40,366	53,265	44,454	49,262	53,566	67,208	67,416	66,039	44,564	0	0	0	0	0	56,124
60 to 64	47,950	39,577	44,380	47,896	58,174	61,731	75,053	74,180	58,674	46,627	0	0	0	0	55,886
65 & Up	54,732	54,126	39,274	49,030	63,205	72,333	71,625	85,590	73,850	85,646	0	0	0	0	59,390
Totals	42,658	44,354	45,060	48,097	54,468	60,514	61,545	66,592	64,980	72,639	0	0	0	0	51,074



TABLE A-6

Analysis by Age and Service - Plan C - Active Members

Age	Years of Service											All Years	
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up		
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	10	5	0	0	0	0	0	0	0	0	15
35 to 39	2	3	36	48	4	0	0	0	0	0	0	0	93
40 to 44	2	4	30	100	35	7	0	0	0	0	0	0	178
45 to 49	3	4	35	58	63	39	2	0	0	0	0	0	204
50 to 54	4	2	37	77	60	56	10	0	0	0	0	0	246
55 to 59	2	4	39	79	48	28	14	1	0	0	0	0	215
60 to 64	2	2	31	76	45	23	7	8	3	0	0	0	197
65 & Up	0	1	11	29	22	21	8	2	3	2	2	2	101
Totals	15	20	229	472	277	174	41	11	6	2	2	2	1,249

Age	Average Salaries											All Years	
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up		
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	42,691	38,192	0	0	0	0	0	0	0	0	41,191
35 to 39	33,503	22,440	40,439	40,189	35,281	0	0	0	0	0	0	0	39,358
40 to 44	35,492	36,012	41,419	43,430	43,175	37,070	0	0	0	0	0	0	42,535
45 to 49	27,194	62,970	43,867	43,895	45,229	42,441	45,752	0	0	0	0	0	44,171
50 to 54	28,150	32,847	42,171	44,853	52,187	48,394	37,487	0	0	0	0	0	46,376
55 to 59	39,441	33,444	36,830	40,784	48,943	44,497	61,838	34,331	0	0	0	0	43,564
60 to 64	89,458	32,072	44,253	42,240	49,614	59,073	52,890	57,819	66,198	0	0	0	47,959
65 & Up	0	36,043	34,174	50,627	42,482	64,514	55,573	29,506	50,308	62,372	26,435	26,435	49,521
Totals	39,331	38,145	41,070	43,142	47,471	49,334	52,364	50,536	58,253	62,372	26,435	26,435	44,903

APPENDIX A

SUMMARY STATISTICS ON SERS MEMBERSHIP

TABLE A-7

Analysis by Age and Service - Tier II - Hazardous Duty - Active Members

Age	Years of Service											All Years		
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up			
Under 20	1	0	0	0	0	0	0	0	0	0	0	0	0	1
20 to 24	340	12	0	0	0	0	0	0	0	0	0	0	0	352
25 to 29	1,154	562	16	0	0	0	0	0	0	0	0	0	0	1,732
30 to 34	768	1,016	196	3	0	0	0	0	0	0	0	0	0	1,983
35 to 39	488	552	194	8	0	0	0	0	0	0	0	0	0	1,242
40 to 44	332	288	127	16	1	0	0	0	0	0	0	0	0	764
45 to 49	240	236	96	2	3	0	0	0	0	0	0	0	0	577
50 to 54	121	124	45	3	1	5	0	0	0	0	0	0	0	301
55 to 59	55	72	28	1	0	0	0	0	0	0	0	0	0	156
60 to 64	18	40	16	0	0	0	0	0	0	0	0	0	0	74
65 & Up	6	9	6	3	0	0	0	0	0	0	0	0	0	24
Totals	3,523	2,911	724	36	5	5	2	0	0	0	0	0	0	7,206

Age	Average Salaries											All Years		
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up			
Under 20	16,673	0	0	0	0	0	0	0	0	0	0	0	0	16,673
20 to 24	32,578	34,321	0	0	0	0	0	0	0	0	0	0	0	32,637
25 to 29	36,911	42,775	45,464	0	0	0	0	0	0	0	0	0	0	38,893
30 to 34	37,883	46,168	49,101	44,424	0	0	0	0	0	0	0	0	0	43,247
35 to 39	39,583	45,349	48,256	41,879	0	0	0	0	0	0	0	0	0	43,515
40 to 44	38,600	45,405	49,380	45,483	58,986	0	0	0	0	0	0	0	0	43,128
45 to 49	37,018	44,897	46,742	36,374	56,274	0	0	0	0	0	0	0	0	41,956
50 to 54	37,394	44,926	47,363	47,224	38,734	49,549	39,762	0	0	0	0	0	0	42,307
55 to 59	41,467	47,414	44,579	38,702	0	0	0	0	0	0	0	0	0	44,753
60 to 64	51,296	46,488	49,416	0	0	0	0	0	0	0	0	0	0	48,291
65 & Up	39,832	41,590	58,971	46,068	0	0	0	0	0	0	0	0	0	46,055
Totals	37,402	45,098	48,336	44,093	53,308	49,549	39,762	0	0	0	0	0	0	41,663

TABLE A-8

## Analysis by Age and Service - Tier II - All Others - Active Members

Age	Years of Service											All Years		
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up			
Under 20	108	0	0	0	0	0	0	0	0	0	0	0	0	108
20 to 24	857	51	0	0	0	0	0	0	0	0	0	0	0	908
25 to 29	2,077	1,515	120	0	0	0	0	0	0	0	0	0	0	3,712
30 to 34	1,735	2,863	984	17	0	0	0	0	0	0	0	0	0	5,599
35 to 39	1,362	2,261	1,082	49	2	0	0	0	0	0	0	0	0	4,756
40 to 44	1,223	1,880	924	46	21	8	0	0	0	0	0	0	0	4,102
45 to 49	1,112	1,645	858	53	47	40	0	0	0	0	0	0	0	3,755
50 to 54	712	1,219	589	31	24	20	3	0	0	0	0	0	0	2,598
55 to 59	384	758	376	22	11	11	1	0	0	0	0	0	0	1,563
60 to 64	213	448	246	20	6	6	2	0	0	0	0	0	0	941
65 & Up	107	229	132	10	2	1	0	1	0	0	0	0	0	482
Totals	9,890	12,869	5,311	248	113	86	6	1	0	0	0	0	0	28,524

Age	Average Salaries											All Years		
	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 & Up			
Under 20	3,962	0	0	0	0	0	0	0	0	0	0	0	0	3,962
20 to 24	18,228	22,362	0	0	0	0	0	0	0	0	0	0	0	18,460
25 to 29	27,894	32,000	34,314	0	0	0	0	0	0	0	0	0	0	29,778
30 to 34	30,809	36,948	38,414	23,460	0	0	0	0	0	0	0	0	0	35,262
35 to 39	28,902	37,482	42,019	32,444	25,425	0	0	0	0	0	0	0	0	36,000
40 to 44	31,007	38,562	42,760	39,237	40,568	43,020	0	0	0	0	0	0	0	37,282
45 to 49	29,399	38,208	43,543	40,145	52,831	52,929	0	0	0	0	0	0	0	37,186
50 to 54	30,559	37,247	40,777	62,233	46,726	54,986	53,896	0	0	0	0	0	0	36,756
55 to 59	32,310	36,703	39,973	36,263	52,442	49,138	2,594	0	0	0	0	0	0	36,581
60 to 64	30,063	34,423	40,100	33,325	38,953	43,769	40,679	0	0	0	0	0	0	34,999
65 & Up	23,187	32,964	35,140	36,179	11,051	50,581	0	38,713	0	0	0	0	0	31,414
Totals	28,359	36,653	41,010	39,018	47,256	51,334	40,940	38,713	0	0	0	0	0	34,696

APPENDIX A

SUMMARY STATISTICS ON SERS MEMBERSHIP

TABLE A-9

Analysis of Retired Members and Beneficiaries by Retirement Year

Retirement Year	NUMBER				AVERAGE BENEFITS				
	Service Retirement	Service Connected Disability	Non-Service Connected Disability	Hazardous Duty Retirement	Service Retirement	Service Connected Disability	Non-Service Connected Disability	Hazardous Duty Retirement	Other
pre 1966	332	39	54	13	8,428.85	5,900.80	6,157.51	9,168.05	6,690.72
1967	71	3	10	0	6,999.57	4,818.07	7,891.70	0.00	6,887.85
1968	111	10	6	0	8,566.15	7,415.25	6,044.53	0.00	6,405.81
1969	171	11	14	1	8,824.26	8,030.49	8,344.35	14,271.24	8,198.10
1970	178	8	34	2	10,286.75	8,332.89	8,503.22	11,936.21	8,314.72
1971	259	13	43	6	11,625.00	9,038.04	8,069.71	14,279.30	8,705.67
1972	340	19	43	15	11,600.88	9,583.58	9,476.87	14,981.49	8,878.40
1973	403	23	47	21	11,551.94	11,284.88	9,754.55	16,901.65	8,546.07
1974	346	18	24	17	10,617.06	10,099.69	9,278.36	20,004.01	9,125.44
1975	584	40	42	17	11,331.01	10,720.20	8,921.54	19,518.96	8,153.33
1976	644	12	35	18	10,312.66	9,792.93	8,947.14	18,324.82	7,606.90
1977	512	9	21	11	9,783.11	8,204.78	8,631.90	17,758.35	7,319.91
1978	603	7	30	20	9,394.85	8,636.05	7,189.58	19,425.17	6,510.80
1979	1,158	10	32	40	10,015.81	10,626.75	7,668.23	19,464.75	6,522.29
1980	744	16	28	25	8,825.66	7,161.59	6,431.42	18,601.92	6,582.88
1981	607	23	23	48	9,634.83	8,799.71	6,822.04	17,540.04	8,886.48
1982	520	14	19	32	9,978.63	10,442.83	9,188.12	19,242.01	8,176.80
1983	555	13	32	39	11,608.16	11,120.61	9,877.11	20,366.60	8,464.24
1984	705	34	30	55	12,013.10	10,886.30	10,701.60	20,568.26	8,712.72
1985	807	31	32	64	12,934.15	10,928.65	12,373.34	22,363.18	9,712.43
1986	902	43	37	49	14,806.50	10,734.11	13,282.75	26,202.88	8,037.87
1987	887	33	42	76	15,425.71	12,956.29	11,084.64	25,282.87	9,106.54
1988	1,045	45	34	94	16,270.29	14,005.92	10,601.22	26,023.42	9,899.64
1989	3,009	51	29	253	16,827.63	14,674.91	12,675.20	30,215.74	12,170.41
1990	245	11	13	88	15,395.18	14,443.83	11,401.79	28,516.48	10,676.56
1991	555	11	37	85	19,411.47	15,484.57	16,913.71	30,273.59	13,170.44
1992	2,590	15	29	250	23,088.13	13,291.24	19,075.96	33,375.23	12,421.85
1993	305	11	33	79	10,866.64	21,941.91	14,879.29	27,115.36	11,048.76
1994	725	13	34	146	16,337.33	18,117.58	18,864.62	28,397.15	11,397.35
1995	769	0	14	104	16,755.21	0.00	27,411.43	30,795.00	12,819.40
Totals	20,682	586	901	1,668	3,733				

TABLE A-10

## Analysis of Retired Members and Beneficiaries by Current Age

Current Age	NUMBER										AVERAGE BENEFIT					
	Service Retirement	Service Connected Disability	Non-Service Connected Disability	Hazardous Duty Retirement	Other	Service Retirement	Service Connected Disability	Non-Service Connected Disability	Hazardous Duty Retirement	Other	Service Retirement	Service Connected Disability	Non-Service Connected Disability	Hazardous Duty Retirement	Other	
Less than 40	2	15	10	0	140	11,145	10,589	10,062	0	11,224	0	0	0	0	11,224	
40 to 44	0	28	25	43	88	0	13,262	12,235	25,675	16,657	25,675	12,235	25,675	16,657	16,657	
45 to 49	1	54	50	232	150	19,214	14,791	18,541	29,916	16,090	29,916	18,541	29,916	16,090	16,090	
50 to 54	7	79	71	326	196	26,310	14,920	16,703	31,210	16,027	31,210	16,703	31,210	16,027	16,027	
55 to 59	1,426	89	111	318	539	23,079	13,539	13,710	28,639	10,557	28,639	13,710	28,639	10,557	10,557	
60 to 64	2,752	101	133	288	660	19,855	10,509	11,980	26,355	9,595	26,355	11,980	26,355	9,595	9,595	
65 to 69	4,527	80	150	232	556	15,732	8,888	8,413	23,013	8,102	23,013	8,413	23,013	8,102	8,102	
70 to 74	4,550	62	126	143	473	13,375	7,328	7,901	20,527	8,269	20,527	7,901	20,527	8,269	8,269	
75 to 79	3,517	38	96	58	396	11,192	8,002	7,639	17,900	7,908	17,900	7,639	17,900	7,908	7,908	
80 to 84	2,290	24	67	19	263	10,209	8,666	8,895	16,587	8,146	16,587	8,895	16,587	8,146	8,146	
85 to 89	1,120	12	42	8	168	10,252	9,057	8,083	16,048	8,398	16,048	8,083	16,048	8,398	8,398	
90 to 94	382	4	18	1	76	9,555	7,835	6,542	7,062	7,818	7,062	6,542	7,062	7,818	7,818	
95 to 99	98	0	2	0	17	6,618	0	7,010	0	5,959	0	7,010	0	5,959	5,959	
100 and over	10	0	0	0	11	4,158	0	0	0	7,939	0	0	0	7,939	7,939	
<b>Final Totals</b>	<b>20,682</b>	<b>586</b>	<b>901</b>	<b>1,668</b>	<b>3,733</b>	<b>14,429</b>	<b>11,248</b>	<b>10,758</b>	<b>26,786</b>	<b>9,777</b>	<b>26,786</b>	<b>10,758</b>	<b>26,786</b>	<b>9,777</b>	<b>9,777</b>	

*APPENDIX B*

*SUMMARY OF PLAN PROVISIONS*

**APPENDIX B**

**SUMMARY OF PLAN PROVISIONS**

**CONNECTICUT STATE EMPLOYEES  
RETIREMENT SYSTEM**

*Established September 1, 1939*

**1. Membership**

Tier I [Sec. 5-160]: Each state employee appointed to classified service shall become a member on the first day of the pay period following permanent appointment.

Each officer elected by the people and each appointee of such officer exempt from classified service may elect to become a member, effective on the first day of the pay period following receipt of such election.

Each other state employee exempt from classified service shall become a member on the first day of the pay period following six months of employment.

Except as noted below employees hired prior to January 1, 1984 could elect (no later than January 2, 1984) to be covered under either Plan B or Plan C. Employees under contracts with Union Independent and CSEA unions hired prior to October 1, 1982 had until October 1, 1984 to make such election.

Tier II [Sec. 5-192e]: Tier II consists of employees first joining the retirement system on or after January 1, 1984 plus employees hired between July 1, 1982 and January 1, 1984 who elected Tier II. Each state employee becomes a member on the first day of employment.

**2. Normal Retirement Eligibility**

Tier I - Hazardous Duty [Sec. 5-173]: 20 years of service.

Tier I - Plans B and C [Sec. 5-162]: Age 55 and 25 years of service, age 60 and 10 years of service, or age 70.

Tier II [Sec. 5-192l]: Age 62 and 10 years of service (effective July 1, 1992) or age 60 and 25 years of service or age 70 and 5 years of service, except hazardous duty members may retire after 20 years.

### 3. Normal Retirement Benefit

Tier I - Hazardous Duty [Sec. 5-173]: 50% of Final Average Earnings plus 2% for each year in excess of 20.

Tier I Plan B [Sec. 5-162]: Same as Plan C up to age 65; thereafter 1% of Final Average Earnings up to \$4,800 plus 2% of Final Average Earnings in excess of \$4,800 times years, reduced for retirement prior to age 65 with less than 25 years. Minimum benefit with 25 years, \$300 per month.

Tier I Plan C [Sec. 5-162]: 2% of Final Average Earnings times years of service, reduced for retirement prior to age 65 with less than 25 years. Minimum with 25 years, \$300 per month.

Tier II Hazardous Duty Members [Sec. 5-192n]: 2½% of Final Average Earnings times up to 20 years of service plus 2% of Final Average Earnings times years of service in excess of 20 years, if any. Minimum with 25 years, \$300 per month (or less if retirement before July 1, 1987).

Tier II All Other [Sec. 5-192l]: 1% of Final Average Earnings plus ½% of Final Average Earnings in excess of the year's breakpoint\*, times up to 35 years of service from October 1, 1982 plus 1% of Final Average Earnings times years of service in excess of 35 years, if any. Minimum with 25 years, \$300 per month (or less if retirement before July 1, 1987).

\* \$10,700 increased by 6% each year after 1982, rounded to the nearest \$100, but not greater than Social Security Covered Compensation.

### 4. Early Retirement

Tier I - Hazardous Duty: None.

Tier I [Sec. 5-162]: Age 55 and 10 years of service; Normal Retirement Benefit reduced actuarially for retirement prior to age 60.

Tier II [Sec. 5-192m]: Age 55 and 10 years of service; Normal Retirement Benefit reduced ¼% (effective July 1, 1991) for each month prior to age 65; Minimum benefit with 25 years, \$300 per month (or less if retirement prior to July 1, 1987).



5. Deferred Retirement

Tier I [Sec. 5-162]: May be deferred but not beyond age 70.

Tier II [Sec. 5-192l]: May be deferred but not beyond age 70. Benefit is based on salary and service to actual retirement.

6. Vesting

Tier I [Sec. 5-166]: Ten years of service; actuarially reduced benefit payable at age 55; in addition employees are always fully vested in their own contributions (after January 1, 1983, Tier I, contributions with 5% interest from January 1, 1982).

Tier I - Hazardous Duty [Sec. 5-173(f)]: As above.

Tier II [Sec. 5-192o]: Ten years of service or age 70 and 5 years; benefit payable at Normal Retirement Age or early retirement benefit payable at age 55; minimum benefit with 25 years, payable after age 55, \$300 per month (or less if retirement before July 1, 1987).

7. Member Contributions

Tier I - Hazardous Duty [Sec. 5-161]: 4% of earnings up to Social Security Taxable Wage Base plus 5% above that level.

Tier I - Plan B [Sec. 5-161]: 2% of earnings up to Social Security Taxable Wage Base plus 5% above that level.

Tier I - Plan C [Sec. 5-161]: 5% of earnings.

Tier II - All Other [Sec. 5-192u]: None.

Tier II - Hazardous Duty [Sec. 5-192u]: 4% of earnings

**8. Cost of Living**

[Sec. 5-162b, 5-162d]: Annual adjustment each July 1 of up to 5% for retirements prior to July 1, 1980; 3% for retirements after July 1, 1980. For members (or beneficiaries) not covered by Social Security and age 62 and over, the maximum increase is 6%. If an actuarial surplus (as defined in the law) exists, the Commission may further increase retired benefits.

**9. Death Benefits**

Tier I - State Police [Sec. 5-146]: Survivor benefits to spouse of \$670 per month plus \$300 to a surviving dependent child (or \$700 to surviving dependent children).

Tier I [Sec. 5-165a]: If eligible for early or normal retirement, spouse benefit equal to 50% of average of Life Benefit and 50% J&S benefit member would have received. If not eligible to retire but 25 years, same benefit calculated as though age 55 using service and earnings at death.

[Sec. 5-168]: If not eligible for retirement, return of contributions (after October 1, 1982, Tier I, with interest from January 1, 1982 at 5%).

Tier II [Sec. 5-192r]: If eligible for early or normal retirement, spouse benefit equal to 50% of member's benefit under a 50% J&S. If not eligible to retire but 25 years, same benefit calculated as though age 55 using service and earnings at death.

[Sec. 5-192t]: If death is due to employment, a spouse with dependent children under 18 will be paid \$7,500 in not less than 60 installments while living and not remarried; also \$20 per month per child under 18. If no children under 18, spouse [or dependent parent(s), if no spouse] will be paid \$4,000 in not less than 60 installments.

**10. Disability Benefits**

Tier I [Sec. 5-142, 5-169, 5-173]: For non-service disabilities occurring prior to age 60 and after 5 years of service, benefit equals 3% times base salary times years of service (Maximum 1% times service to 65). If disability occurs prior to age 60 and is due to service, benefit equals 1% of salary times service projected to 65 (maximum 30 years) and is payable regardless of length of service. Exception: State Police benefit is accrued benefit if more than 20 years of service. State Police receive an additional benefit of \$360 per month plus \$300 to spouse plus \$300 to a surviving dependent child (or \$700 to surviving dependent children).

Maximum disability benefit is lesser of: 100% of salary less Workers Compensation and Social Security and less non-rehabilitation earnings, or 80% of salary less Workers Compensation and Social Security. Social Security is primary plus family.

Tier II [5-192p]: Prior to age 65 and due to service or after 10 years of service, benefit is 1% of final average earnings, plus ½% of excess earnings times service projected to 65 (maximum 30 years of service to Date of Disability if greater than 30 years). Same maximum as Tier I.

Minimum disability benefit including Workers Compensation and Social Security is 60% of salary.

**11. Optional Forms of Payment**

Tier I [Sec. 5-165]: 50% Qualified Joint and Survivor (Normal Form if married at least 12 months).

Tier II [Sec. 5-192q]: 50% or 100% Joint and Survivor (Normal Form if married at least 12 months). Ten years certain and life. Twenty years certain and life. Life (Normal Form if not married at least 12 months).

**12. Part-Time Employment**

[Sec. 5-162g & Sec. 5-192k]: Service treated as if full-time for eligibility. If consistent part-time for all periods, treat as full-time. If varying schedule or some part-time, some full-time, service and salary proportionately adjusted.

*APPENDIX C*

*ACTUARIAL METHOD AND ASSUMPTIONS*

## APPENDIX C

### ACTUARIAL METHOD AND ASSUMPTIONS

#### A. Funding Method

1. The actuarial valuation method used is the Projected Unit Credit Cost Method. Recommended annual contributions until the accrued liability is completely funded will consist of two pieces: Normal Cost plus a payment towards the Unfunded Accrued Liability.
  - a. The Accrued Liability is determined directly as the present value of benefits accrued to date, where the accrued benefits for each Member is the pro-rata portion (based on service to date) of the projected benefit payable at death, disability, retirement or termination.
  - b. The Normal Cost is then similarly determined as the present value of the portion of the projected benefit attributable to the current year.
2. The Unfunded Accrued Liability is the Accrued Liability less Actuarial Value of Assets.
3. Since the valuation was done as of June 30, 1994, costs have been projected to July 1, 1995 in order to correspond to the fiscal year as follows:
  - a. Normal Costs were determined as a percentage of earnings, by Tier, as of July 1, 1994. Earnings were projected to July 1, 1995, separately for each Tier because of the shifting Tier populations, and the projected earnings were then multiplied by each Tier's normal cost factor.
  - b. The Unfunded Accrued Liability was determined as of June 30, 1994, and brought forward to June 30, 1995 by adding the Normal Cost plus interest and subtracting expected State and Federal contributions, also with interest. This amount was amortized over the 37 years specified in the SEBAC Agreement.
  - c. Normal Cost and Past Service Amortization payments were adjusted to reflect payment in twelve equal installments at the end of each month.

**B. Actuarial Assumptions**

**Mortality:** 1983 Group Annuity Mortality Table.

Service connected deaths are assumed to comprise 20% of total Death for Hazardous Duty employees and 0% for all other employees.

**Investment Return:**

**Salary Scale:** Varies by service as follows:

<u>Years</u>	<u>Rate</u>
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

**Disability:**

***Annual Rate of Disability  
(Per 1,000 Lives)***

<u>Age</u>	<u>Hazardous Duty</u>	<u>All Others</u>
20	.90	.38
25	1.02	.43
30	1.16	.49
35	1.45	.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

Service connected disabilities are assumed to comprise 50% of total Disability for Hazardous Duty employees and 20% for all other employees.

**B. Actuarial Assumptions (cont'd)**

**Social Security Wage  
Base Increases:**

6½% compounded annually.

**Retirement Ages:**

**Hazardous Duty Employees**

<u>Age</u>	<u>First Year Eligible</u>	<u>Thereafter</u>
47	40%	30%
50	40	30
55	60	30
60	80	50
62	100	100
65	100	100
70	100	100

**Non Hazardous Duty Employees**

<u>Age</u>	<u>First Year Eligible</u>	<u>Thereafter</u>
47	0%	0%
50	0	0
55	20	0
60	20	15
62	40	40
65	80	60
70	100	100

***B. Actuarial Assumptions (cont'd)******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% of hazardous duty employees.

<i>Age</i>	<i>Years of Participation</i>			
	<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	5	8	6	2
50	3	6	4	2
55	2	4	2	0
60	0	0	0	0

***Cost of Living  
Increases:***

3% per year for retirees on or after July 1, 1980.  
4½% per year for retirees prior to July 1, 1980.

***Asset Valuation:***

Adjusted market value: assets are written up (or down) by spreading recognition of gains and losses over five years, plus an additional write-up (or write-down) as necessary so that the final adjusted value is within 20% of market value.



APPENDIX D

*ACTUARIAL SURPLUS TEST*

**APPENDIX D**

**ACTUARIAL SURPLUS TEST AS OF JUNE 30, 1995**

Section 5-162h(b) of the General Statutes of Connecticut provides that the Retirement Commission may grant additional cost of living adjustments for retired employees if an actuarial surplus exists. An actuarial surplus is deemed to exist if three criteria are met:

I. **Investment Income:** actual rate of return for the Fiscal Year ending June 30, 1995 must exceed the actuarial assumption of 8.5%.

A.	Market Value of Assets July 1, 1994	\$4,150,379,946
B.	Market Value of Assets June 30, 1995	4,624,722,528
I.	Investment Income for FY 94-95	539,341,368

$$\text{Actual Rate of Return for FY 94 - 95} = \frac{2I}{A+B-I} = 13.10\%$$

Actual Rate of Return of 13.10% is MORE than the assumption of 8.5%, so first criteria is met.

II. **Assets Versus Liabilities:** Market value of assets must exceed 50% of specified liabilities.

A.	Market Value of Assets June 30, 1995	\$4,624,722,528
B.	Specified Liabilities June 30, 1995	
	Liability for Retired Members	4,259,436,367
	Liability for Terminated Vested Members	40,208,864
	Active Member Contributions	297,251,212
	Interest on Active Member Contributions	<u>88,393,558</u>
	Total	\$4,685,290,001
C.	50% of Specified Liabilities	\$2,342,645,001

Market Value of Assets exceeds 50% of Specified Liabilities, so second criteria is met.

III. **Unfunded Liability**: actual unfunded liability must be less than the projected unfunded liability five years from determination date.

A.	Actual Unfunded Liability June 30, 1995	\$3,628,974,979
B.	Projected Unfunded Liability June 30, 2000	1,734,339,000

Actual Unfunded Liability exceeds Projected Unfunded Liability so third criteria is not met and there is no actuarial surplus.

### **Projection of Unfunded Liability**

Section 5-162-h(b)(2) of the General Statutes of Connecticut specifies the means of calculating the Projected Unfunded Liability used in the third criteria of the Actuarial Surplus Test. The Projection reflects the actual unfunded liability as of December 31, 1983 adjusted for changes in actuarial assumptions and cost methods through the determination date. The following Projection reflects the following changes: data correction (June 30, 1987), change in actuarial assumptions (June 30, 1987), change in actuarial cost method (June 30, 1988), change in actuarial assumptions - interest rate only (June 30, 1989), change in actuarial cost method -amortization period only (June 30, 1992), change in actuarial assumptions (June 30, 1993).

<i>Year</i>	<i>(000) June 30 Unfunded Liability</i>	<i>Year</i>	<i>(000) June 30 Unfunded Liability</i>	<i>Year</i>	<i>(000) June 30 Unfunded Liability</i>
1984	2,155,459	2000	1,734,339	2016	1,364,443
1985	2,201,605	2001	1,722,646	2017	1,321,309
1986	2,206,090	2002	1,709,958	2018	1,274,507
1987	2,524,556	2003	1,696,191	2019	1,223,727
1988	1,954,257	2004	1,681,255	2020	1,168,632
1989	1,432,333	2005	1,665,050	2021	1,108,853
1990	1,939,758	2006	1,647,466	2022	1,043,992
1991	1,930,524	2007	1,628,388	2023	973,619
1992	1,920,505	2008	1,607,689	2024	897,265
1993	1,794,192	2009	1,585,229	2025	814,419
1994	1,787,586	2010	1,560,861	2026	724,533
1995	1,780,419	2011	1,534,422	2027	627,005
1996	1,772,643	2012	1,505,736	2028	521,188
1997	1,764,205	2013	1,474,610	2029	406,377
1998	1,755,050	2014	1,440,840	2030	281,377
1999	1,745,116	2015	1,404,198	2031	146,648

APPENDIX E

*ENTRY AGE NORMAL VALUATION RESULTS*

**APPENDIX E**

**ENTRY AGE NORMAL VALUATION RESULTS**

	<i>June 30, 1994</i>	<i>June 30, 1995</i>
<b>A. Current Results</b>		
1. Present Value of Future Benefits		
- Active Members	\$5,586,724,434	\$ 6,067,746,725
- Retired and Beneficiaries	4,045,626,976	4,259,436,367
- Deferred Vested Members	<u>32,951,832</u>	<u>40,208,864</u>
- Total Present Value	\$9,665,303,242	\$10,367,391,956
2. Present Value Future Normal Cost Contributions	1,816,861,532	1,975,246,683
3. Total Actuarial Liability: (1)-(2)	\$7,848,441,710	\$8,392,145,273
4. Actuarial Value of Assets	3,944,521,448	4,209,235,826
5. Unfunded Actuarial Liability: (3)-(4)	\$3,903,920,262	\$4,182,909,447
6. Total Normal Cost	193,590,656	209,745,370
7. Expected Employee Contributions	35,143,546	37,511,139
8. Employer Normal Cost: (6)-(7)	\$ 158,447,110	\$172,234,231
<b>B. Projections to Following Year</b>		
1. Employer Normal Cost	\$ 180,788,820	\$ 196,641,210
2. Unfunded Actuarial Liability	4,041,366,763	4,378,209,904
3. Past Service Cost	347,817,896	378,461,221
4. Total Cost: (1)+(3)	\$ 528,606,716	\$ 575,102,431
5. Total Cost as a Percent of Pay	22.45%	22.63%