### ACTUARIAL VALUATION

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#### CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

AT JUNE 30, 2002

MILLIMAN USA

# CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM TABLE OF CONTENTS

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В	Summary of Plan Provisions
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November 12, 2002

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

Re: Connecticut State Employees Retirement System June 30, 2002 Actuarial Valuation

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, 2002. 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 #25. 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, and details on the Actuarial Surplus as of June 30, 2002.

As developed in Section IV, the actuarially determined contribution for the fiscal year beginning July 1, 2003 is \$491,603,159. For the fiscal year beginning July 1, 2004, the actuarially determined contribution is \$523,001,697.

Respectfully submitted,

lthea Schward

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

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Rebecca A. Sielman, F.S.A. Principal and Consulting Actuary

# SECTION I

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### EXECUTIVE SUMMARY

We have performed an actuarial valuation of the Connecticut State Employees Retirement System as of June 30, 2002 to determine the contributions for the Fiscal Years beginning July 1, 2003 and July 1, 2004. The results of this valuation, along with supporting data, are set forth in the following report. Appendix B describes the principal provisions of the System upon which the valuation is based.

In preparing this report, we relied on employee census data and financial information as of the valuation date, furnished by the State of Connecticut. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The calculations reported herein have been made on a basis consistent with our understanding of ERISA and the related sections of the tax code. Additional determinations may be needed for purposes other than meeting funding requirements, such as judging benefit security at plan termination or meeting employer accounting requirements.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices. We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations or would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. Actual experience will not conform exactly to the assumptions made for this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

This report may not be used for purposes other than those listed on the following page without Milliman's prior written consent. If this report is distributed to other parties, we request that it be copied in its entirety, including this section.

MILLIMAN USA, INC.

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Althea Schwart

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

November 12, 2002

Rebecca A. Sielman, F.S.A. Principal and Consulting Actuary

#### PURPOSE OF REPORT

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This report presents the results of the June 30, 2002 actuarial valuation of the Connecticut State Employees Retirement System (SERS). The primary purposes for performing the valuation are:

- to determine the Employer contribution for the Fiscal Year beginning July 1, 2003;
- to determine the Employer contribution for the Fiscal Year beginning July 1, 2004;
- to disclose asset and liability measures as of June 30, 2002; and
- to analyze and report on trends in SERS contributions, assets, and liabilities over the past several years.

#### ORGANIZATION OF THE EXECUTIVE SUMMARY

Starting with the June 30, 1998 valuation, complete actuarial valuations are performed only every other year. Membership and asset information was collected as of June 30, 2001 and has been shown where appropriate in this report for informational purposes.

The executive summary contains the following information:

- *Major Findings...* shows graphically, key results for each of the last six years.
- *Discussion of Results...* highlights the major events influencing this valuation.
- *Principal Results...* contains a summary of comparative statistics for the current and prior valuations.

#### **MAJOR FINDINGS**

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



The bar graph depicts the Employer's contribution rates. The Normal Cost rate has remained relatively level, but the Amortization Payment of the Unfunded Liability has increased as poor

investment returns have caused the Unfunded Liability to grow.

# **MAJOR FINDINGS**



The dollar amount of the Employer's contribution equals the contribution rate shown on the prior table multiplied by the projected payroll. The increases shown for FY 03-04 and 04-05 are in large measure attributable to investment losses.

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### **MAJOR FINDINGS**

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SERS membership has remained steady since the last valuation. There were 3,400 new members who entered the Tier IIA group within the past fiscal year. Overall, there are almost 600 fewer active members than the last valuation, and just 200 more inactive members.

### **MAJOR FINDINGS**

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- Actuarial Value – Market Value – Assumed Rate of Return

This graph shows the historical rates of return on a market value basis, the impact of "smoothing" (the rates shown on an actuarial value basis), and the "benchmark" (our assumed 8.5% rate of return).

**MAJOR FINDINGS** 

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The rate of return on a Market Value basis for the past fiscal year was (6.61)%. Although there were double-digit returns in 6 straight fiscal years, the last two fiscal years have seen negative returns. Because of this steep decline, the Actuarial Value is now larger than the Market Value.

#### MAJOR FINDINGS

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This graph shows the Actuarial Liability by group. No value is shown above for 1999 since a complete actuarial valuation was not performed as of that date. The split of the overall Actuarial Liability between Inactive and Active members has held relatively constant over the years, although there have been noticeable shifts from Active to Inactive following early retirement incentive programs.

#### **MAJOR FINDINGS**

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Unfunded actuarial liabilities have increased with this valuation. We expect some increase as a normal outgrowth of the method of paying off this liability: a number of years of increase followed by a gradual decline. The remainder of the increase is largely attributable to investment losses.

No value is shown above for 1999 since a complete actuarial valuation was not performed as of that date.

## **MAJOR FINDINGS**

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The System's Funded Ratio tracks the relationship between the System's assets and liabilities. The Employer's contribution is based on projected liabilities (the Actuarial Liability) and smoothed assets (the Actuarial Value of Assets); the **Funded Ratio - Projected Basis** tracks these amounts and indicates the progress that has been made over the years in funding the System's long-term obligations.

The **Funded Ratio - Current Basis** looks at the SERS liability for benefits already earned (the Present Value of Accrued Benefits) compared to the assets currently available (the Market Value of Assets). This ratio indicates the System's ability to fund current benefits.

No value is shown above for 1999 since a complete actuarial valuation was not performed as of that date.

#### DISCUSSION OF RESULTS

In this section of the Executive Summary, we will discuss the significant events impacting the June 30, 2002 actuarial valuation.

#### I. Investment Experience

The investment performance was diappointing during the past year. The actual return was (-6.61)% on a market value basis compared to (-3.71)% for the prior fiscal year. On a smoothed actuarial basis, the rate was 5.8% compared to 9.0% for the prior valuation, reflecting continuing recognition of earlier years' market gains, tempered with the negative returns from the past two years. The assumed rate is 8.5%.

Between June 30, 2001 and June 30, 2002, the actuarial value of assets (measured on a five year smoothing basis) increased by \$254.7 million. This change was attributable to the following:



The expected total return on investments shown above is based on an assumed rate of return of 8.50%. However, the recognized investment earnings of \$440.9 million over the year resulted in a actuarial loss of \$(201.2) million. More details on SERS assets are presented in Section II of this report.

#### DISCUSSION OF RESULTS

#### II. Membership

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System membership has remained steady over the past year:

	Active	Deferred Vested	Retired	Disabled	Benefic.	Total Members
Count on June 30, 2001	54,867	1,370	27,197	1,629	3,449	88,512
Left System	(3,137)	(13)	(927)	(72)	(510)	(4,659)
Terminated Vested	(114)	114	0	0	0	0
Retired	(896)	(85)	982	(1)	0	0
Disabled	(172)	0	(950)	1,122	0	0
Died w/beneficiary	(9)	0	0	0	9	0
Rehired	18	(18)	0	0	0	0
New	3,730	128	106	39	281	4,284
<i>Count on June 30, 2002</i>	54,287	1,496	26,408	2,717	3,229	88,137

As expected, we have seen a shift in the active population from the closed Tier I and Tier II groups, with new employees entering the new Tier IIA group:

	Tier I	Tier II	Tier IIA	Total
Count on June 30, 2000	14,087	30,691	9,838	54,616
percentage of total	26%	56%	18%	
Count on June 30, 2001	13,476	29,543	11,848	54,867
percentage of total	24%	54%	22%	
Count on June 30, 2002	12,639	28,096	13,552	54,287
percentage of total	23%	52%	25%	

More information on SERS membership can be found in Appendix A.

#### DISCUSSION OF RESULTS

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#### III. Unfunded Actuarial Liability

The unfunded actuarial liability is the shortfall between SERS projected liabilities and assets. Since June 30, 2001, the unfunded actuarial liability increased from \$4.5 billion to \$4.9 billion. Each year the unfunded liability increases because of interest and expected benefit accruals and decreases by contributions made to the fund. Asset and liability gains and losses also impact the unfunded liability, as do plan changes and experience. The following chart shows the development of the unfunded actuarial liability from 2001 to 2002:



The liability loss of \$52.6 million over the past year period is modest (0.4%) when compared to the total SERS liability of \$12,806.1 million. It is attributable to the difference between actual and expected experience with respect to the number of retirements, employment terminations, disabilities and deaths. Salary increases and new employees also contribute to experience gains and losses.

#### DISCUSSION OF RESULTS

#### **IV. SERS Contributions**

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The primary purpose of our actuarial valuation is to take the asset and membership information discussed on the previous pages, apply our actuarial methods and assumptions, and determine a contribution amount that will continue the System on a sound funding basis. The resulting contributions for the two fiscal years in the coming biennial budget cycle are:

	Fiscal Year		
(\$ millions)	July 1, 2003 to June 30, 2004	July 1, 2004 to June 30, 2005	
Employer Normal Cost	\$271.9	\$280.9	
Net Amortization Payment Towards Unfunded Actuarial Liability	219.7	242.1	
Total Employer Cost	491.6	523.0	
Total Employer Cost as a Percent of Payroll	16.42%	16.63%	

More details on the development of the contributions can be found in Section IV.

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	June 30, 2000	<i>June 30, 2001</i>	<i>June 30, 2002</i>
SERS Membership			
Active Membership			
Number of Active Members	54,616	54,867	54,287
Payroll (\$millions)	\$2,652.0	\$2,726.6	\$2,852.1
Average Pay	48,555	49,696	52,539
Inactive Membership			
Number of Inactive Members	33,238	33,645	33,850
Annual Retired Members' Benefits (\$millions)	\$597.5	\$625.7	\$655.1
Average Annual Retired Members' Benefits	18,614	19,388	20,248
Assets and Liabilities (\$ millions)			
Assets			
Market Value	\$8 284 5	\$7 783 6	\$7 088 9
Actuarial Value	7 196 0	7 638 9	7 893 7
	7,120.0	7,050.5	7,055.7
Liabilities			
Active Members	4,875.6	5,205.0	5,633.5
Inactive Members	6,636.5	6,900.4	7,172.6
Total Actuarial Liability	11,512.2	12,105.4	12,806.1
Unfunded Actuarial Liability	4,316.1	4,466.5	4,912.4
Employer Contributions			
First fiscal year in budget cycle	FY 2001-02		FY 2003-04
Normal Cost	\$254,856,678		\$271,856,543
Amortization Payment of Unfunded Liability	<u>160,635,921</u>		<u>219,746,616</u>
Total Employer Contribution	415,492,599		491,603,159
Total Contribution as a Percent of Payroll	14.92%		16.42%
Second fiscal year in budget cycle	FY 2002-03		FY 2004-05
Normal Cost	\$265,853,449		\$280,857,803
Amortization Payment of Unfunded Liability	160,049,025		242,143,894
Total Employer Contribution	425,902,474		523,001,697
Total Contribution as a Percent of Payroll	14.57%		16.63%

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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

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For purposes of determining ongoing costs, the recognition of gains and losses is 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

The Market Value of Assets represents 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, 2002.

<u>Table</u>	<u>Contents</u>
II-1	Market Value - Summary of Fund Transactions
П-2	Market Value - Breakdown on Valuation Date
П-3	Development of Actuarial Value of Assets
Ш-4	Development of Asset Gain/(Loss)
П-5	Projection of Assets to Next Two Fiscal Years

# TABLE II-1

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# Market Value of Assets Summary of Fund Transactions

	July 1, 2000	July 1, 2001
	to	to
	June 30, 2001	June 30, 2002
Market Value as of July 1	\$8,284,499,079	\$7,783,625,739
Contributions		
State	289,128,616	321,203,059
Federal	86,494,566	94,289,540
Fringe Benefit Transfers	0	0
Employee	46,088,785	49,577,375
Total	421,711,967	465,069,974
Investment Income Net of Expenses		
Interest & Dividends	276,669,027	271,445,717
Realized Gains	(2,140,298)	1,341,884
Change in Unrealized Gains	(577,599,050)	(781,112,866)
Expenses	(340,513)	(271,967)
Total	(303,410,834)	(508,597,232)
Disbursements		
Benefit Payments	614,117,205	645,951,309
Employee Refunds	5,057,268	5,249,760
Total	619,174,473	651,201,069
Market Value as of June 30	7,783,625,739	7,088,897,412
Approximate Net Rate of Return	-3.71%	-6.61%

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#### TABLE II-2

### Market Value of Assets Breakdown on June 30, 2002

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

	Amount	% of Total
Cash	(\$1,611,584)	-0.02%
Accrued Interest	(\$1,511,501)	0.00%
Investments:		
Cash Reserve Account	145,879,960	2.06%
Mutual Fixed Income Fund	2,476,160,338	34.93%
Mutual Equity Fund	2,524,497,173	35.60%
Real Estate Fund	181,346,385	2.56%
International Stock Fund	858,264,653	12.11%
Commercial Mortgage Fund	28,142,768	0.40%
Venture Capital Fund	876,217,719	12.36%
Total Market Value as of June 30, 2002	7,088,897,412	100.00%



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# TABLE II-3

### Development of Actuarial Value of Assets

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	Market Value	Actuarial Value
1. Value on July 1, 2001	\$7,783,625,739	\$7,638,853,784
2. Contributions during 2001-02	465,069,974	465,069,974
3. Benefit Payments during 2001-02	651,201,070	651,201,070
4. Expected Investment Income on (1) through (3)*	654,463,546	642,157,930
5. Expected Value on June 30, 2002: (1)+(2)-(3)+(4)	8,251,958,189	8,094,880,618
6. Market Value on June 30, 2002	7,088,897,412	N/A
7. Market Value - Actuarial Value on June 30, 2002	N/A	(1,005,983,206)
8. Preliminary Actuarial Value: $(5) + 20\%$ of $(7)$	N/A	7,893,683,977
<ul><li>9. Final Value on June 30, 2002:</li><li>(8) within +/- 20% of Market Value</li></ul>		7,893,683,977

\* Interest on benefits and contributions is credited on a monthly basis.

# TABLE II-4

# Development of Asset Gain/(Loss)

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	Market Value	Actuarial Value
1. Value on July 1, 2001	\$7,783,625,739	\$7,638,853,784
2. Contributions during 2001-02	465,069,974	465,069,974
3. Benefit Payments during 2001-02	651,201,070	651,201,070
4. Expected Investment Income on (1) through (3)*	654,463,546	642,157,930
5. Expected Value on June 30, 2002: (1)+(2)-(3)+(4)	8,251,958,189	8,094,880,618
6. Actual Investment Income	(508,597,231)	440,961,289
7. Asset Gain/Loss: (6) - (4)	(1,163,060,777)	(201,196,641)
8. Rate of Return as of June 30, 2002	-6.61%	5.84%
9. Rate of Return as of June 30, 2001	-3.71%	9.02%
10. Change	-2.90%	-3.18%

\* Interest on benefits and contributions is credited on a monthly basis.

# TABLE II-5

### Projection of Assets to Next Two Fiscal Years

	Market Value	Actuarial Value
1. Value on June 30, 2002	\$7,088,897,412	\$7,893,683,977
2. Expected Contributions during 2002-03	472,312,037	472,312,037
3. Expected Benefit Payments during 2002-03	672,919,499	672,919,499
4. Expected Investment Income on (1) through (3)*	594,855,962	663,262,820
5. Expected Value on June 30, 2003: (1)+(2)-(3)+(4)	7,483,145,912	8,356,339,335
6. Market Value - Actuarial Value on June 30, 2003	N/A	(873,193,423)
7. Preliminary Actuarial Value: (5) + 20% of (6)	N/A	8,181,700,650
<ul><li>8. Final Value on June 30, 2003:</li><li>(7) within +/- 20% of Market Value</li></ul>	7,483,145,912	8,181,700,650
9. Expected Contributions during 2003-04	541,817,208	541,817,208
10. Expected Benefit Payments during 2003-04	714,934,550	714,934,550
11. Expected Investment Income on (8) through (10)*	629,422,293	688,799,445
12. Expected Value on June 30, 2004: (8)+(9)-(10)+(11)	7,939,450,863	8,697,382,753
13. Market Value - Actuarial Value as of June 30, 2004	N/A	(757,931,890)
14. Preliminary Actuarial Value: (12) + 20% of (13)	N/A	8,545,796,375
<ul><li>15. Final Value on June 30, 2004:</li><li>(14) within +/- 20% of Market Value</li></ul>	7,939,450,863	8,545,796,375

\* Interest on benefits and contributions is credited on a monthly basis.

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Section III

# SERS LIABILITIES

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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. A more detailed description of this method can be found in Appendix C.

The tables in this section present SERS liabilities as follows:

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<u>Table</u>	Contents
III-1	SERS Liabilities on Valuation Date
Ш-2	Projection of Liabilities to Next Two Fiscal Years

# TABLE III-1

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# SERS Liabilities on Valuation Date

	June 30, 2000	June 30, 2001	June 30, 2002
Tier I Actives			
Hazardous Duty	\$436,212,671	\$420,534,167	\$397,745,951
Plan B	2,569,689,643	2,682,458,583	2,809,912,639
Plan C	143,428,013	147,180,639	151,860,367
Total	3,149,330,327	3,250,173,389	3,359,518,957
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Her H Acuves	(40 207 507	700 770 007	040 417 102
Hazardous Duty	640,307,597	120,779,237	849,417,103
All Others	1,039,423,122	1,153,522,215	1,305,025,543
Total	1,679,730,719	1,874,301,452	2,154,442,646
Tier IIA Actives			
Hazardous Duty	17.056.369	30.243.989	46.392.204
All Others	29.493.801	50.259.622	73.129.987
Total	46,550,170	80,503,611	119,522,191
Total Actives	4,875,611,216	5,204,978,452	5,633,483,794
Retirees			
Pre-1980	500,980,489	459,051,303	413,936,953
1980-1997 Fixed COLA	5,694,884,504	5,654,138,639	5,542,842,696
1997+ Variable COLA	349,077,134	661,196,383	1,073,364,890
Total	6,544,942,127	6,774,386,325	7,030,144,539
Deferred Vesteds	91,601,549	126,001,630	142,487,141
Total Actuarial Liability	11,512,154,892	12,105,366,407	12,806,115,474

# TABLE III-2

# Projection of Liabilities to Next Two Fiscal Years

	June 30, 2003	June 30, 2004
Tier I Actives		
Hazardous Duty	\$350,633,395	\$301,137,731
Plan B	2,824,439,873	2,854,194,616
Plan C	138,923,478	134,519,121
Total	3,313,996,746	3,289,851,468
Tier II Actives		
Hazardous Duty	978,297,209	1,119,112,884
All Others	1,394,755,458	1,493,357,802
Total	2,373,052,667	2,612,470,686
Tier IIA Actives		
Hazardous Duty	66,078,090	91,868,358
All Others	105,791,447	149,402,904
Total	171,869,537	241,271,262
Total Actives	5,858,918,950	6,143,593,416
Retirees		
Pre-1980	387,326,712	360,803,460
1980-1997 Fixed COLA	5,476,366,649	5,399,006,698
1997+ Variable COLA	1,572,618,717	2,071,142,054
Total	7,436,312,078	7,830,952,212
Deferred Vesteds	175,144,957	211,153,501
Total Actuarial Liability	13,470,375,985	14,185,699,129

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# SECTION IV

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# 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 must be projected to the following two fiscal years in the biennial budget cycle in order to determine the Employer's required contribution.

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

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<u>Table</u>	<u>Contents</u>
IV-1	Projected Unit Credit Normal Cost on the Valuation Date
IV-2	Projection of Normal Cost to Next Two Fiscal Years
IV-3	Projected Unit Credit Total Costs for First Fiscal Year
IV-4	Projected Unit Credit Total Costs for Second Fiscal Year

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#### TABLE IV-1

# Projected Unit Credit Normal Cost on Valuation Date (Net of Employee Contributions)

	June 30, 2000	June 30, 2002
Normal Cost in Dollars		
Tier I Hazardous Duty	\$15,013,357	\$11,827,124
Tier I Plan B	87,421,114	89,685,678
Tier I Plan C	3,557,648	3,481,022
Tier II Hazardous Duty	46,230,241	53,684,716
Tier II All Others	80,009,538	88,045,807
Tier IIA Hazardous Duty	3,933,716	7,239,892
Tier IIA All Others	5,443,678	9,341,772
Total	241,609,292	263,306,011
Normal Cost as a Percent of Payroll		
Tier I Hazardous Duty	18.03%	17.10%
Tier I Plan B	11.68%	12.21%
Tier I Plan C	9.13%	9.42%
Tier II Hazardous Duty	12.95%	14.45%
Tier II All Others	7.21%	7.77%
Tier IIA Hazardous Duty	6.68%	6.93%
Tier IIA All Others	2.13%	2.32%
Total	9.11%	9.23%

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# TABLE IV-2

# Projection of Normal Cost to Next Two Fiscal Years

	June 30, 2003	June 30, 2004
Normal Cost in Dollars		
Tier I Hazardous Duty	\$9,811,545	\$7,996,547
Tier I Plan B	88,319,010	86,684,070
Tier I Plan C	3,294,914	3,117,710
Tier II Hazardous Duty	58,217,017	62,520,469
Tier II All Others	89,194,391	90,150,275
Tier IIA Hazardous Duty	9,392,610	11,807,513
Tier IIA All Others	13,627,056	18,581,219
Total	271,856,543	280,857,803
Normal Cost as a Percent of Payroll		
Tier I Hazardous Duty	16.48%	15.94%
Tier I Plan B	12.56%	12.82%
Tier I Plan C	10.12%	10.33%
Tier II Hazardous Duty	15.24%	15.93%
Tier II All Others	8.05%	8.28%
Tier IIA Hazardous Duty	7.17%	7.45%
Tier IIA All Others	2.35%	2.48%
Total	9.08%	8.93%

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# TABLE IV-3

# Projected Unit Credit Total Costs For Fiscal Year 2003-04

1.	Actuarial Liability as of June 30, 2003	\$13,470,375,985
2.	Actuarial Value of Assets as of June 30, 2003	8,181,700,650
3.	Unfunded Actuarial Liability as of June 30, 2003: (1) - (2)	5,288,675,335
4.	Amortization Period	29 Years
5.	Amortization Payment Towards Unfunded Actuarial Liability	290,512,660
6.	SEBAC IV Asset Adjustment Amortization Payment	(29,333,914)
7.	SEBAC V Asset Adjustment Amortization Payment	(41,432,130)
8.	Net Amortization Payment: $(5) + (6) + (7)$	219,746,616
9.	Employer Normal Cost (Net of Employee Contributions)	271,856,543
10.	Total Employer Cost for Fiscal Year 2003-04: (8) + (9)	491,603,159
11.	Projected Payroll	2,994,758,047
12.	Total Employer Cost Percent: (10)/(11)	16.42%

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# TABLE IV-4

# Projected Unit Credit Total Costs For Fiscal Year 2004-05

1.	Actuarial Liability as of June 30, 2004	\$14,185,699,129
2.	Actuarial Value of Assets as of June 30, 2004	8,545,796,375
3.	Unfunded Actuarial Liability as of June 30, 2004: (1) - (2)	5,639,902,754
4.	Amortization Period	28 Years
5.	Amortization Payment Towards Unfunded Actuarial Liability	316,448,241
6.	SEBAC IV Asset Adjustment Amortization Payment	(30,800,610)
7.	SEBAC V Asset Adjustment Amortization Payment	(43,503,737)
8.	Net Amortization Payment: $(5) + (6) + (7)$	242,143,894
9.	Employer Normal Cost	280,857,803
10.	Total Employer Cost for Fiscal Year 2004-05: $(8) + (9)$	523,001,697
11.	Projected Payroll	3,144,531,772
12.	Total Employer Cost Percent: (10) / (11)	16.63%

# SECTION V

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### GASB ACCOUNTING INFORMATION

Government Accounting Standards Board Statement No. 25 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 by GASB #25:

<u>Table</u>	<u>Contents</u>
V-1	Statement of Plan Net Assets
V-2	Statement of Changes in Plan Net Assets
V-3	Schedule of Funding Progress
V-4	Schedule of Employer Contributions
V-5	Summary of Membership

#### **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 of 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. Pursuant to a collectively bargained 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 determined as a level percent of payroll. The actuarial assumptions used to calculate the figures reported herein are the same as those used to calculate the contribution level.

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# TABLE V-1

# Statement of Plan Net Assets

	June 30, 2001	June 30, 2002
Cash	\$ (1,500,258.07)	\$ (1,611,584.36)
Accrued Interest	0.00	0.00
Cash Reserve Account	88,677,819.04	145,879,959.91
Mutual Fixed Income Fund	2,511,375,138.59	2,476,160,337.91
Mutual Equity Fund	3,001,235,930.85	2,524,497,172.62
Real Estate Fund	183,200,454.26	181,346,384.96
International Stock Fund	964,685,435.63	858,264,652.92
Commercial Mortgage Fund	38,867,642.63	28,142,768.12
Venture Capital Fund	997,083,576.47	876,217,719.60
Connecticut Programs Fund	0.00	0.00
Total Assets	7,783,625,739.40	7,088,897,411.68
Liabilities	0.00	0.00
Net assets held in trust for pension benefits	7,783,625,739.40	7,088,897,411.68

### TABLE V-2

# Statement of Changes in Plan Net Assets

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July 1, 2000   July 1, 2000   July 1, 2000     Io   to   to     June 30, 2001   June 30, 2002     Additions   June 30, 2001   June 30, 2002     Additions   \$289,128,616   \$321,203,059     Federal   \$6,494,566   94,289,540     Fringe Benefit Transfers   0   0     Employee   46,088,785   49,577,375     Total Net Contributions   421,711,967   465,069,974     Net Investment Income   (179,770,982)   (271,967)     Interest & Dividends   276,669,027   271,445,717     Net Appreciation/(Depreciation)   (579,739,348)   (779,770,982)     Expenses   (340,513)   (271,967)     Total Investment Income   (303,410,834)   (508,597,232)     Total Additions   118,301,133   (43,527,258)     Deductions   5,057,268   5,249,760     Total Deductions   619,174,473   651,201,069     Net Increase   (500,873,340)   (694,728,327)     Net assets held in trust for pension benefits   8,284,499,079   7,783,625,73		Lub. 1 2000	Int. 1 2001
Io   Io   Io     June 30, 2001   June 30, 2002     Additions     Contributions     State   \$289,128,616   \$321,203,059     Federal   86,494,566   94,289,540     Fringe Benefit Transfers   0   0     Employee   46,088,785   49,577,375     Total Net Contributions   421,711,967   465,069,974     Net Investment Income   1   1     Interest & Dividends   276,669,027   271,445,717     Net Appreciation/(Depreciation)   (579,739,348)   (779,770,982)     Expenses   (340,513)   (271,967)     Total Investment Income   (303,410,834)   (508,597,232)     Total Additions   118,301,133   (43,527,258)     Deductions   5,057,268   5,249,760     Total Deductions   614,117,205   645,951,309     Employee Refunds   5,057,268   5,249,760     Total Deductions   619,174,473   651,201,069     Net Increase   (500,873,340)   (694,728,327)     Net assets held in trust for pens		July 1, 2000	July 1, 2001
June 30, 2001   June 30, 2001     Additions     Contributions     State   \$289,128,616   \$321,203,059     Federal   86,494,566   94,289,540     Fringe Benefit Transfers   0   0     Employee   46,088,785   49,577,375     Total Net Contributions   421,711,967   465,069,974     Net Investment Income   1   1   1     Interest & Dividends   276,669,027   271,445,717     Net Appreciation/(Depreciation)   (579,739,348)   (779,770,982)     Expenses   (340,513)   (271,967)     Total Investment Income   (303,410,834)   (508,597,232)     Total Additions   118,301,133   (43,527,258)     Deductions   614,117,205   645,951,309     Employce Refunds   5,057,268   5,249,760     Total Deductions   619,174,473   651,201,069     Net Increase   (500,873,340)   (694,728,327)     Net assets held in trust for pension benefits   8,284,499,079   7,783,625,739     End of year   7,783,625,739		10 1	10 Luna 20, 2002
Additions   Contributions   State \$289,128,616 \$321,203,059   Federal 86,494,566 94,289,540   Fringe Benefit Transfers 0 0   Employee 46,088,785 49,577,375   Total Net Contributions 421,711,967 465,069,974   Net Investment Income 1 1   Interest & Dividends 276,669,027 271,445,717   Net Appreciation/(Depreciation) (579,739,348) (779,770,982)   Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 614,117,205 645,951,309   Employce Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412		June 30, 2001	June 30, 2002
Contributions     State   \$289,128,616   \$321,203,059     Federal   86,494,566   94,289,540     Fringe Benefit Transfers   0   0     Employee   46,088,785   49,577,375     Total Net Contributions   421,711,967   465,069,974     Net Investment Income   1   1   1     Interest & Dividends   276,669,027   271,445,717     Net Appreciation/(Depreciation)   (579,739,348)   (779,770,982)     Expenses   (340,513)   (271,967)     Total Investment Income   (303,410,834)   (508,597,232)     Total Additions   118,301,133   (43,527,258)     Deductions   118,301,133   (43,527,258)     Deductions   614,117,205   645,951,309     Employee Refunds   5,057,268   5,249,760     Total Deductions   619,174,473   651,201,069     Net Increase   (500,873,340)   (694,728,327)     Net assets held in trust for pension benefits   8,284,499,079   7,783,625,739     End of year   7,783,625,739   7,088,897,412 <td>Additions</td> <td></td> <td></td>	Additions		
State\$289,128,616\$321,203,059Federal $86,494,566$ $94,289,540$ Fringe Benefit Transfers00Employee $46,088,785$ $49,577,375$ Total Net Contributions $421,711,967$ $465,069,974$ Net Investment IncomeInterest & Dividends $276,669,027$ $271,445,717$ Net Appreciation/(Depreciation) $(579,739,348)$ $(779,770,982)$ Expenses $(340,513)$ $(271,967)$ Total Investment Income $(303,410,834)$ $(508,597,232)$ Total Additions $118,301,133$ $(43,527,258)$ Deductions $5,057,268$ $5,249,760$ Employee Refunds $5,057,268$ $5,249,760$ Total Deductions $619,174,473$ $651,201,069$ Net Increase $(500,873,340)$ $(694,728,327)$ Net assets held in trust for pension benefits $8,284,499,079$ $7,783,625,739$ Beginning of year $8,284,499,079$ $7,783,625,739$ End of year $7,783,625,739$ $7,088,897,412$	Contributions		
Federal 86,494,566 94,289,540   Fringe Benefit Transfers 0 0   Employee 46,088,785 49,577,375   Total Net Contributions 421,711,967 465,069,974   Net Investment Income   Interest & Dividends 276,669,027 271,445,717   Net Appreciation/(Depreciation) (579,739,348) (779,770,982)   Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions   Benefit Payments 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   Beginning of year 8,284,499,079 7,783,625,739 7,088,897,412	State	\$289,128,616	\$321,203,059
Fringe Benefit Transfers00Employee $46,088,785$ $49,577,375$ Total Net Contributions $421,711,967$ $465,069,974$ Net Investment Income $1111,967$ $465,069,974$ Interest & Dividends $276,669,027$ $271,445,717$ Net Appreciation/(Depreciation) $(579,739,348)$ $(779,770,982)$ Expenses $(340,513)$ $(271,967)$ Total Investment Income $(303,410,834)$ $(508,597,232)$ Total Additions $118,301,133$ $(43,527,258)$ Deductions $5,057,268$ $5,249,760$ Total Deductions $614,117,205$ $645,951,309$ Employee Refunds $5,057,268$ $5,249,760$ Total Deductions $619,174,473$ $651,201,069$ Net Increase $(500,873,340)$ $(694,728,327)$ Net assets held in trust for pension benefits $8,284,499,079$ $7,783,625,739$ Beginning of year $8,284,499,079$ $7,783,625,739$ End of year $7,783,625,739$ $7,088,897,412$	Federal	86,494,566	94,289,540
Employee 46,088,785 49,577,375   Total Net Contributions 421,711,967 465,069,974   Net Investment Income 1 1 1   Interest & Dividends 276,669,027 271,445,717   Net Appreciation/(Depreciation) (579,739,348) (779,770,982)   Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 5,057,268 5,249,760   Total Deductions 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Fringe Benefit Transfers	0	0
Total Net Contributions 421,711,967 465,069,974   Net Investment Income Interest & Dividends 276,669,027 271,445,717   Net Appreciation/(Depreciation) (579,739,348) (779,770,982)   Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 8,284,499,079 7,783,625,739 7,088,897,412	Employee	46,088,785	49,577,375
Net Investment Income   276,669,027   271,445,717     Interest & Dividends   276,669,027   271,445,717     Net Appreciation/(Depreciation)   (579,739,348)   (779,770,982)     Expenses   (340,513)   (271,967)     Total Investment Income   (303,410,834)   (508,597,232)     Total Additions   118,301,133   (43,527,258)     Deductions   Employee Refunds   5,057,268   5,249,760     Total Deductions   614,117,205   645,951,309   5,249,760     Net Increase   (500,873,340)   (694,728,327)   0     Net assets held in trust for pension benefits   8,284,499,079   7,783,625,739     End of year   8,284,499,079   7,783,625,739   7,088,897,412	Total Net Contributions	421,711,967	465,069,974
Interest & Dividends 276,669,027 271,445,717   Net Appreciation/(Depreciation) (579,739,348) (779,770,982)   Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Net Investment Income		
Net Appreciation/(Depreciation) (579,739,348) (779,770,982)   Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Interest & Dividends	276,669,027	271,445,717
Expenses (340,513) (271,967)   Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Net Appreciation/(Depreciation)	(579,739,348)	(779,770,982)
Total Investment Income (303,410,834) (508,597,232)   Total Additions 118,301,133 (43,527,258)   Deductions 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Expenses	(340,513)	(271,967)
Total Additions 118,301,133 (43,527,258)   Deductions Benefit Payments 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Total Investment Income	(303,410,834)	(508,597,232)
Deductions   614,117,205   645,951,309   5,249,760   5,249,760   651,201,069   651,201,069   651,201,069   651,201,069   8,284,499,079   7,783,625,739   7,783,625,739   7,088,897,412   651,201,069   8,284,499,079   7,783,625,739   7,088,897,412   7,783,625,739   7,088,897,412   7,783,625,739   7,088,897,412   7,783,625,739   7,088,897,412   7,783,625,739   7,088,897,412   7,783,625,739   7,088,897,412	Total Additions	118,301,133	(43,527,258)
Benefit Payments 614,117,205 645,951,309   Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Deductions		
Employee Refunds 5,057,268 5,249,760   Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   End of year 7,783,625,739 7,088,897,412	Benefit Payments	614,117,205	645,951,309
Total Deductions 619,174,473 651,201,069   Net Increase (500,873,340) (694,728,327)   Net assets held in trust for pension benefits 8,284,499,079 7,783,625,739   Beginning of year 8,284,499,079 7,783,625,739   End of year 7,088,897,412	Employee Refunds	5,057,268	5,249,760
Net Increase   (500,873,340)   (694,728,327)     Net assets held in trust for pension benefits   8,284,499,079   7,783,625,739     Beginning of year   8,284,499,079   7,088,897,412	Total Deductions	619,174,473	651,201,069
Net assets held in trust for pension benefits     Beginning of year   8,284,499,079   7,783,625,739     End of year   7,783,625,739   7,088,897,412	Net Increase	(500,873,340)	(694,728,327)
Beginning of year8,284,499,0797,783,625,739End of year7,783,625,7397,088,897,412	Net assets held in trust for pension benefits		
End of year7,783,625,7397,088,897,412	Beginning of year	8,284,499,079	7,783,625,739
	End of year	7,783,625,739	7,088,897,412

### TABLE V-3

Schedule of Funding Progress

	(1)	(2)	(3)	(4)	(5)	(6) UAAL as a
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (2) - (1)	Funded Ratio (1) / (2)	Covered Payroll	Percentage of Covered Payroll [(2) - (1)] / (5)
T 20 1001	\$2,207,050,05 <i>(</i>	ф <u>с 000 сод 10</u> с	<b>\$2,554,520,120</b>	50 (Q)M		1.41.01.07
June 30, 1991	\$3,207,958,056	\$5,982,687,195	\$2,774,729,139	53.62%	\$1,956,585,318	141.81%
June 30, 1992	3,425,886,181	6,668,685,334	3,242,799,153	51.37%	1,931,381,254	167.90%
June 30, 1993	3,696,176,885	7,189,740,494	3,493,563,609	51.41%	2,144,793,466	162.89%
June 30, 1994	3,944,521,448	7,329,181,184	3,384,659,736	53.82%	2,155,860,555	157.00%
June 30, 1995	4,209,235,826	7,838,210,805	3,628,974,979	53.70%	2,325,787,000	156.03%
June 30, 1996	4,604,227,717	8,138,610,053	3,534,382,336	56.57%	2,385,532,750	148.16%
June 30, 1997	5,130,967,057	8,833,202,804	3,702,235,747	58.09%	2,225,185,096	166.38%
June 30, 1998	5,669,865,527	9,592,407,736	3,922,542,209	59.11%	2,338,957,445	167.70%
June 30, 2000	7,196,039,538	11,512,154,892	4,316,115,354	62.51%	2,651,892,121	162.76%
June 30, 2001	7,638,853,783	12,105,366,407	4,466,512,624	63.10%	2,784,495,788	160.41%
June 30, 2002	7,893,683,977	12,806,115,474	4,912,431,497	61.64%	2,852,165,564	172.24%

No values are shown above for June 30, 1999 since an actuarial valuation was not performed as of that date.

### TABLE V-4

# Schedule of Employer Contributions

Fiscal Year	Annual		
Ending	Required	Actual	Percent
June 30	Contribution	Contribution	Funded
1991	\$398,016,908	\$263,818,607	66.28%
1992	431,236,846	250,324,285	58.05%
1993	444,243,379	290,827,685	65.47%
1994	310,206,351	310,206,351	100.00%
1995	351,773,796	290,801,000	82.67%
1996	335,111,972	335,111,971	100.00%
1997	349,230,712	348,920,134	99.91%
1998	334,846,361	334,513,820	99.90%
1999	315,561,785	315,561,785	100.00%
2000	342,760,331	342,760,330	100.00%
2001	354,208,031	375,623,183	106.05%
2002	415,492,599	415,492,599	100.00%

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# TABLE V-5

# Summary of Membership

	June 30, 2000	June 30, 2001	June 30, 2002
Current Employees with Vested Benefits		n in de la serie de la seri	
Tier I, Hazardous Duty	1,202	1,084	930
Tier I, Plan B	11,739	11,350	10,764
Tier I, Plan C	678	648	594
Tier II, Hazardous Duty	6,294	6,408	6,472
Tier II, Other	21,087	21,143	20,606
Tier IIA, Hazardous Duty	11	20	163
Tier IIA, Other	122	158	904
Total	41,133	40,811	40,433
Current Employees Not Yet Vested			
Tier I, Hazardous Duty	41	36	30
Tier I, Plan B	410	345	309
Tier I, Plan C	17	13	12
Tier II, Hazardous Duty	602	356	136
Tier II, Other	2,708	1,636	882
Tier IIA, Hazardous Duty	1,556	1,966	2,299
Tier IIA, Other	8,149	9,704	10,186
Total	13,483	14,056	13,854
Total Current Employees	54,616	54,867	54,287
Former Employees Currently Receiving Benefi	ts 5,869	5,410	4,931
Retired Pre-1980	24,760	24,345	23,687
Retired 1980-1997, Fixed COLA	1,472	2,520	3,736
Retired 1997+, Variable COLA	32,101	32,275	32,354
Total			
Former Employees Entitled to Future Benefits	1,137	1,370	1,496
Total Former Employees	33,238	33,645	33,850
Total Members	87,854	88,512	88,137

# APPENDIX A

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# SUMMARY STATISTICS ON SERS MEMBERSHIP

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#### TABLE A-1

#### Summary of Active Membership Data

We received data on a total of 54,468 eligible active members for our June 30, 2002 valuation. Of the active records submitted to us, 181 (0.3%) 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 prior years' data.

	June 30, 2000	June 30, 2001	June 30, 2002
Total Employees	54,616	54,867	54,287
Total Earnings (\$ millions)	\$2,652.0	\$2,726.6	\$2,852.1
Average Earnings	\$48,555	\$49,696	\$52,539

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 effective on the valuation date; new entrant earnings are annualized. Earnings for FY 1999-00 have been adjusted downward to remove the 27th paycheck paid during that period because the higher actual earnings are not an appropriate basis for projecting future earnings.

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

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# TABLE A-2a

# Detail of Active Membership Data by Plan

	June 30, 2000	June 30, 2001	June 30, 2002
Number of Members			
Tier I Hazardous Duty	1,243	1,120	960
Tier I Plan B	12,149	11,695	11,073
Tier I Plan C	695	661	606
Tier II Hazardous Duty	6,896	6,764	6,608
Tier II Others	23,795	22,779	21,488
Tier IIA Hazardous Duty	1,567	1,986	2,462
Tier IIA Others	8,271	9,862	11,090
Total	54,616	54,867	54,287
Total Annual Compensation (\$ Millior	ıs)		
Tier I Hazardous Duty	\$83.3	\$76.1	\$69.1
Tier I Plan B	748.5	736.5	734.3
Tier I Plan C	39.0	37.7	37.0
Tier II Hazardous Duty	357.1	355.3	371.5
Tier II Others	1,109.5	1,107.7	1,132.7
Tier IIA Hazardous Duty	58.9	81.1	104.5
Tier IIA Others	255.7	332.2	403.0
Total	2,652.0	2,726.6	2,852.1
Average Compensation			
Tier I Hazardous Duty	\$66,977	\$67.937	\$72.043
Tier I Plan B	61.611	62,980	66,313
Tier I Plan C	56.083	57.105	61.003
Tier II Hazardous Duty	51.778	52,526	56.230
Tier II Others	46,627	48,630	52,712
Tier IIA Hazardous Duty	37,607	40,843	42,462
Tier IIA Others	30,912	33,682	36,336
Total	48,555	49,696	52,539

# TABLE A-2b

### Detail of Active Membership Data by Plan

	June 30, 2000	June 30, 2001	June 30, 2002
Average Age			
Tier I Hazardous Duty	47.5	48.3	48.9
Tier I Plan B	50.0	50.8	51.4
Tier I Plan C	53.0	53.6	54.1
Tier II Hazardous Duty	39.3	40.2	41.1
Tier II Others	44.0	44.9	45.7
Tier IIA Hazardous Duty	32.8	33.7	34.5
Tier IIA Others	37.7	38.4	39.0
Total	43.7	44.2	44.6
Average Service			
Tier I Hazardous Duty	20.0	20.9	21.6
Tier I Plan B	22.4	23.3	24.0
Tier I Plan C	23.1	24.0	24.9
Tier II Hazardous Duty	9.1	10.2	11.1
Tier II Others	10.3	11.3	12.3
Tier IIA Hazardous Duty	1.3	2.0	2.5
Tier IIA Others	1.4	1.9	2.4
Total	11.7	12.1	12.4

# TABLE A-3

# Summary of Inactive Membership Data

	June 30, 2000	June 30, 2001	June 30, 2002
Refired Pre-1980	5.0.00	<b>5</b> 410	4.021
Number	5,869	5,410	4,931
Total Annual Benefits (\$ 000s)	\$69,277	\$66,400	\$61,327
Average Annual Benefit	11,804	12,274	12,437
Retired 1980-1997, Fixed COLA			
Number	24,760	24,345	23,687
Total Annual Benefits (\$ 000s)	\$501,184	\$508,490	\$510,754
Average Annual Benefit	20,242	20,887	21,563
Retired 1997+, Variable COLA			
Number	1,472	2,520	3,736
Total Annual Benefits (\$ 000s)	\$27,074	\$50,848	\$83,020
Average Annual Benefit	18,393	20,178	22,222
Total Retired Members			
Number	32.101	32,275	32,354
Total Annual Benefits (\$ 000s)	\$597.536	\$625.737	\$655,101
Average Annual Benefit	18,614	19,388	20,248
Terminated Vested Members			
Number	1.137	1,370	1,496
Total Annual Benefits (\$ 000s)	\$10.749	\$14.692	\$16.644
Average Annual Benefit	9.454	10.724	11.126
	2,101	10,727	11,120

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### TABLE A-4

#### Reconciliation of Changes in Membership

	Active Members	Deferred Vested Members	Retired Members	Disabled Members	Beneficiaries	Total Members
Count as of June 30, 2001	54,867	1,370	27,197	1,629	3,449	88,512
Changed status within System						
to active status	18	(18)	0	0	0	0
to deferred vested status	(114)	114	0	0	0	0
to retired status	(896)	(85)	982	(1)	0	0
to disabled status	(172)	0	(950)	1,122	0	0
to beneficiary status	(9)	0	0	0	9	0
Left System	(3,137)	(13)	(927)	(72)	(510)	(4,659)
Entered System	3,730	128	106	39	281	4,284
Count as of June 30, 2002	54,287	1,496	26,408	2,717	3,229	88,137

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#### TABLE A-5

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

				Num	ber of Members	5				
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	1	4	10	2	0	0	0	0	17
40 to 44	1	6	5	78	117	3	0	0	0	210
45 to 49	1	6	7	80	185	70	0	0	0	349
50 to 54	2	8	8	27	84	78	20	0	0	227
55 to 59	1	1	5	13	40	22	24	2	0	108
60 to 64	1	0	0	.11	8	5	3	5	1	34
65 & Up	0	2	0	. 1	8	3	0	0	1	15
Totals	6	24	29	220	444	181	47	7	2	960

	Average Salaries									
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	C
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	75,404	63,351	63,664	59,215	0	0	0	0	63,757
40 to 44	18,401	57,437	52,744	69,544	71,399	68,676	0	0	0	69,576
45 to 49	46,592	70,734	73,956	70,724	73,757	82,335	0	0	0	74,656
50 to 54	64,188	60,501	69,409	71,266	69,722	74,286	83,154	0	0	72,272
55 to 59	85,002	49,767	62,222	58,651	63,884	81,905	83,668	89,578	0	71,785
60 to 64	40,478	0	0	57,774	51,579	58,823	81,895	78,316	85,161	61,917
65 & Up	0	57,156	0	72,186	77,756	79,277	0	0	101,612	76,533
Totals	53,142	62,188	65,558	68,697	71,089	77,887	83,336	81,534	93,387	72,043

# TABLE A-6

### Analysis of Active Members by Age and Service - Tier I Plan B

	Number of Members									
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0 ·	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	3	6	5	91	45	0	0	0	0	150
40 to 44	22	21	30	334	866	76	0	0	0	1,349
45 to 49	35	66	86	309	1,426	885	39	0	0	2,846
50 to 54	36	64	72	258	1,034	1,372	528	73	0	3,437
55 to 59	13	24	51	144	638	589	547	158	8	2,172
60 to 64	5	12	8	73	273	169	161	104	15	820
65 & Up	0	3	2	23	78	70	40	53	30	299
Totals	114	196	254	1,232	4,360	3,161	1,315	388	53	11,073

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	Average Salaries									
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	37,856	49,553	52,089	51,788	50,428	0	0	0	0	51,022
40 to 44	42,622	51,879	48,705	60,016	54,694	57,253	0	0	0	55,782
45 to 49	49,407	52,722	55,362	62,902	63,495	62,763	63,130	0	0	62,529
50 to 54	50,684	63,861	62,732	63,769	66,902	70,689	69,741	64,847	0	68,257
55 to 59	61,968	63,960	67,123	60,622	65,029	72,864	81,730	75,419	71,351	71,866
60 to 64	103,250	47,085	58,304	59,795	61,115	70,684	88,112	91,245	67,470	72,232
65 & Up	0	96,120	45,516	64,355	68,292	73,522	82,620	94,930	94,556	78,614
Totals	51,991	57,867	58,977	61,057	62,581	68,614	77,173	80,337	83,387	66,313

### CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM SUMMARY STATISTICS ON SERS MEMBERSHIP

#### TABLE A-7

#### Analysis of Active Members by Age and Service - Tier I Plan C

INUMBER OF INTEMPERS										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	· 0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	.0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	3	4	0	0	0	0	7
40 to 44	1	2	0	6	30	3	0	0	0	42
45 to 49	0	2	3	11	63	40	2	0	0	121
50 to 54	0	2	3	14	54	62	36	2	0	173
55 to 59	0	3	0	11	37	37	37	9	0	134
60 to 64	0	1	3	6	26	10	16	5	0	67
65 & Up	1	1	0	4	14	19	12	7	4	62
Totals	2	11	9	55	228	171	103	23	4	606

Number of Members

Average Salaries										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	. 0	0
35 to 39	0	0	0	69,283	52,303	0	0	0	0	59,580
40 to 44	63,354	56,805	0	48,024	53,285	46,450	0	0	0	52,453
45 to 49	0	45,265	51,982	68,395	56,763	56,454	62,155	0	0	57,499
50 to 54	0	33,903	53,027	53,590	57,759	61,522	52,927	52,365	0	57,345
55 to 59	0	48,249	0	49,524	57,504	63,689	64,690	53,726	0	60,080
60 to 64	0	62,736	61,138	66,447	59,059	78,782	78,922	86,964	0	69,638
65 & Up	78,442	89,569	0	60,237	67,407	77,058	76,794	84,912	105,172	76,667
Totals	70,898	51,727	55,382	57,872	57,499	63,277	64,150	70,325	105,172	61,003

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#### TABLE A-8

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

Number of Members										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	1	0	0	0	0	0	0	0	0	1
25 to 29	18	135	0	0	0	0	0	0	0	153
30 to 34	40	793	397	5	0	0	0	0	0	1,235
35 to 39	26	616	940	335	2	0	0	0	0	1,919
40 to 44	16	397	533	425	14	0	0	0	0	1,385
45 to 49	13	250	307	251	15	2	0	0	0	838
50 to 54	14	160	227	132	20	1	0	0	0	554
55 to 59	6	103	157	84	13	1	3	1	0	368
60 to 64	1	38	52	32	. 3	1	0	- 1	0	128
65 & Up	2	8	8	8	1	0	0	0	0	27
Totals	137	2,500	2,621	1,272	68	5	3	2	0	6,608

Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	27,043	0	0	0	0	0	0	0	0	27,043
25 to 29	41,127	47,920	0	0	0	0	0	0	0	47,121
30 to 34	45,925	51,587	54,502	54,959	0	0	0	0	0	52,354
35 to 39	52,591	51,644	57,436	64,939	70,074	0	0	0	0	56,834
40 to 44	84,711	51,237	56,013	64,161	62,115	0	0	0	0	57,538
45 to 49	57,353	53,400	57,730	61,472	66,552	89,106	0	0	0	57,786
50 to 54	45,364	56,104	56,523	62,819	62,609	63,217	0	0	0	57,852
55 to 59	44,230	52,291	60,029	59,509	67,637	76,375	82,104	10,771	0	57,846
60 to 64	15,047	61,063	58,559	61,795	59,221	52,929	0	69,717	0	59,830
65 & Up	12,796	46,331	65,889	62,176	76,861	0	0	0	0	55,467
Totals	51,196	51,974	56,861	63,281	64,618	74,146	82,104	40,244	0	56,230

#### TABLE A-9

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

Number of Members										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	24	3	0	0	0	0	0	0	0	27
25 to 29	69	181	13	0	0	0	0	0	0	263
30 to 34	152	1,120	581	102	0	0	0	0	0	1,955
35 to 39	158	1,096	1,538	1,327	13	0	0	0	0	4,132
40 to 44	132	907	1,365	1,709	81	2	0	0	0	4,196
45 to 49	130	792	1,130	1,447	83	13	2	0	0	3,597
50 to 54	103	746	986	1,217	80	20	40	2	0	3,194
55 to 59	62	513	815	898	76	14	38	3	0	2,419
60 to 64	35	271	401	453	33	7	9	0	0	1,209
65 & Up	24	123	158	168	19	2	2	0	0	496
Totals	889	5,752	6,987	7,321	385	58	91	5	0	21,488

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#### Average Salaries

Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	28,280	32,894	0	0	0	0	0	0	0	28,793
25 to 29	38,732	41,161	37,939	0	0	0	0	0	0	40,364
30 to 34	45,046	49,141	45,367	43,133	0	0	0	0	0	47,388
35 to 39	44,192	50,343	51,852	51,655	50,388	0	0	0	0	51,091
40 to 44	41,112	49,679	52,193	57,089	55,271	53,462	0	0	0	53,355
45 to 49	44,783	50,649	53,565	57,974	58,671	71,712	42,551	0	0	54,556
50 to 54	47,250	51,428	55,103	58,584	64,214	72,881	65,075	59,117	0	55,785
55 to 59	36,103	49,334	54,081	57,014	66,039	81,602	76,369	75,739	0	54,614
60 to 64	40,236	47,481	51,425	54,761	56,179	61,951	68,862	0	0	51,788
65 & Up	30,574	44,024	47,862	55,071	66,390	30,617	116,251	0	0	49,431
Totals	42,381	49,529	52,235	56,134	60,450	71,278	70,795	69,090	0	52,712

### TABLE A-10

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

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Number of Members										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	89	0	0	0	0	0	0	0	0	89
25 to 29	680	34	0	0	0	0	0	0	0	714
30 to 34	661	63	1	0	0	0	0	0	0	725
35 to 39	348	27	1	0	0	0	0	0	0	376
40 to 44	212	13	0	0	0	0	0	0	0	225
45 to 49	137	9	1	0	0	0	0	0	0	147
50 to 54	93	7	1	0	0	0	0	0	0	101
55 to 59	53	1	0	0	0	0	0	0	0	54
60 to 64	20	2	0	0	0	0	0	0	0	22
65 & Up	8	0	0	0	0	- 1	0	0	0	9
Totals	2,301	156	4	0	0	1	0	0	0	2,462

Number of Members

Average Salaries										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	0	0	0	0	0	0	0	0	0	0
20 to 24	35,217	0	0	0	0	0	0	0	0	35,217
25 to 29	40,324	50,017	0	0	0	0	0	0	0	40,786
30 to 34	42,606	50,166	51,894	0	0	0	0	0	0	43,275
35 to 39	41,079	48,843	55,336	0	0	0	0	0	0	41,675
40 to 44	44,019	45,220	0	0	0	0	0	0	0	44,089
45 to 49	45,654	47,283	58,783	0	0	0	0	0	0	45,843
50 to 54	46,512	45,834	72,567	0	0	0	0	0	0	46,723
55 to 59	44,058	41,285	0	0	0	0	0	0	0	44,006
60 to 64	38,486	129,130	0	0	0	0	0	0	0	46,727
65 & Up	38,753	0	0	0	0	149,086	0	0	0	51,012
Totals	41,869	50,087	59,645	0	0	149,086	0	0	0	42,462

#### TABLE A-11

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

Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	111	0	0	0	0	0	0	0	0	111
20 to 24	749	8	0	0	0	0	0	0	0	757
25 to 29	1,657	90	0	0	0	0	0	0	0	1,747
30 to 34	1,666	141	4	0	0	0	0	0	0	1,811
35 to 39	1,520	138	2	2	0	0	0	0	0	1,662
40 to 44	1,439	128	1	1	2	0	0	0	0	1,571
45 to 49	1,133	105	2	1	0	0	0	0	0	1,241
50 to 54	893	107	3	0	0	1	0	0	0	1,004
55 to 59	614	59	1	0	0	0	0	0	0	674
60 to 64	305	26	1	0	0	0	0	0	0	332
65 & Up	169	8	3	0	0	0	0	0	0	180
Totals	10,256	810	17	4	2	1	0	0	0	11,090

Average Salaries										
Age \ Service	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	All Years
Under 20	20,479	0	0	0	0	0	0	0	0	20,479
20 to 24	24,679	26,969	0	0	0	0	0	0	0	24,704
25 to 29	35,244	40,292	0	0	0	0	0	0	0	35,504
30 to 34	36,326	44,772	39,680	0	0	0	0	0	0	36,991
35 to 39	36,338	40,034	71,231	28,267	0	0	0	0	0	36,677
40 to 44	37,306	45,141	21,588	60,323	46,222	0	0	0	0	37,960
45 to 49	38,055	45,140	24,438	16,362	0	0	0	0	0	38,615
50 to 54	39,861	46,675	56,330	0	0	51,758	0	0	0	40,648
55 to 59	38,211	41,389	34,615	0	0	0	0	0	0	38,484
60 to 64	36,334	44,587	21,068	0	0	0	0	0	0	36,934
65 & Up	29,883	37,404	32,668	0	0	0	0	0	0	30,264
Totals	35,774	43,323	40,843	33,305	46,222	51,758	0	0	0	36,336

#### TABLE A-12

# Analysis of Retired Members and Beneficiaries by Current Age

		NU	MBER			AVERAGE BENEFIT					
		Service	Non-Service	Hazardous			Service	Non-Service	Hazardous		
Current	Service	Connected	Connected	Duty		Service	Connected	Connected	Duty		
Age	Retirement	Disability	Disability	Retirement	Other	<u>Retirement</u>	Disability	Disability	Retirement	Other	
Under 40	0	101	30	3	159	0	21,422	20,355	35,377	11,153	
40 to 44	0	139	76	90	74	0	20,983	20,709	35,808	15,456	
45 to 49	4	145	133	310	99	25,637	20,603	22,103	35,924	19,604	
50 to 54	283	183	237	486	374	34,079	20,794	25,267	39,590	15,858	
55 to 59	2,360	190	206	444	878	29,005	19,888	23,054	40,527	13,611	
60 to 64	3,347	158	201	339	728	26,209	17,993	18,450	36,160	11,343	
65 to 69	3,982	136	187	282	805	22,924	13,522	15,586	31,453	10,438	
70 to 74	4,418	91	134	188	718	19,666	10,920	11,313	28,682	10,611	
75 to 79	3,729	46	78	113	643	16,945	9,039	9,870	25,763	11,385	
80 to 84	2,385	23	50	33	480	14,253	8,861	10,560	22,446	9,901	
85 to 89	1,204	14	21	8	239	13,114	11,971	11,407	16,878	10,462	
90 to 94	382	3	11	3	82	12,393	7,779	7,896	21,727	10,614	
95 and up	67	1	4	1	16	11,881	8,437	7,292	10,733	10,621	
Totals	22,161	1,230	1,368	2,300	5,295	20,874	18,005	18,753	35,688	11,829	

# APPENDIX **B**

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## SUMMARY OF PLAN PROVISIONS

#### Established September 1, 1939

#### 1. <u>Membership</u>

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<u>*Tier I [Sec. 5-160]:*</u> 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.

<u>*Tier II [Sec. 5-192e]:*</u> 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.

<u>*Tier IIA:*</u> Tier IIA consists of employees first joining the retirement system on or after July 1, 1997.

#### 2. Normal Retirement Eligibility

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

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

<u>*Tier II [Sec. 5-1921] and Tier IIA:*</u> 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

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

<u>*Tier I Plan B [Sec. 5-162]:*</u> 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.

<u>*Tier I Plan C [Sec. 5-162]:*</u> 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.

<u>Tier II Hazardous Duty Members [Sec. 5-192n] and Tier IIA</u>: 2<sup>1</sup>/<sub>2</sub>% 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).

<u>Tier II All Other [Sec. 5-1921] and Tier IIA:</u>  $1^{1}_{3}\%$  of Final Average Earnings plus  $\frac{1}{2}\%$  of Final Average Earnings in excess of the year's breakpoint\*, times up to 35 years of service from October 1, 1982 plus  $1^{5}_{18}\%$  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. <u>Early Retirement</u>

Tier I - Hazardous Duty: None.

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

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

#### 5. <u>Deferred Retirement</u>

*<u>Tier I [Sec. 5-162]</u>*: May be deferred but not beyond age 70.

<u>*Tier II [Sec. 5-1921] and Tier IIA:*</u> May be deferred but not beyond age 70. Benefit is based on salary and service to actual retirement.

#### 6. <u>Vesting</u>

<u>*Tier I [Sec. 5-166]:*</u> 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.

<u>*Tier II [Sec. 5-1920] and Tier IIA:*</u> Effective July 1, 1997, five 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. <u>Member Contributions</u>

<u> Tier I - Hazardous Duty [Sec. 5-161]</u>	4% of earnings up to Social Security Taxable Wage Base plus 5% above that level.
<u> Tier I - Plan B [Sec. 5-161]</u>	2% of earnings up to Social Security Taxable Wage Base plus 5% above that level.
<u> Tier I - Plan C [Sec. 5-161]</u>	5% of earnings.
<u> Tier II - All Other [Sec. 5-192u]</u>	None.
<u> Tier II - Hazardous Duty [Sec. 5-192u]</u>	4% of earnings.
<u> Fier I – All other</u>	2% of earnings.
<u> Tier IIA – Hazardous Duty</u>	5% of earnings.

#### 8. <u>Cost of Living</u>

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[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.

For employees retiring after June 30, 1999, the annual adjustment will be 60% of the increase in the CPI up to 6% and 75% of the increase in the CPI over 6%. This adjustment will be no less than 2.5% and no greater than 6%. Employees retiring between July 1, 1997 and June 30, 1999 will have the irrevocable choice between this formula and a fixed 3% annual adjustment.

*Tier IIA:* An employee must have at least ten years of actual state service or directly make the transition into retirement in order to be eligible for annual adjustments.

#### 9. <u>Death Benefits</u>

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

<u>*Tier I [Sec. 5-165a]:*</u> If eligible for early or normal retirement, spouse benefit equal to 50% of average of Life Benefit and 50% Joint & Survivor Benefit the 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%).

<u>*Tier II [Sec. 5-192r] and Tier IIA:*</u> If eligible for early or normal retirement, spouse benefit equal to 50% of member's benefit under a 50% Joint & Survivor Annuity. 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

<u>*Tier I [Sec. 5-142, 5-169, 5-173]:*</u> 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  $1^2/_3$ % times service to 65). If disability occurs prior to age 60 and is due to service, benefit equals  $1^2/_3$ % 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.

<u>*Tier II* [5-192p] and *Tier IIA*</u>: Prior to age 65 and due to service or after 10 years of service, benefit is  $1^{1}/_{3}\%$  of final average earnings, plus  $\frac{1}{2}\%$  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

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

<u>*Tier II [Sec. 5-192q] and Tier IIA:*</u> 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. <u>Part-Time Employment</u>

[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.

# <u>Appendix C</u>

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### ACTUARIAL METHOD AND ASSUMPTIONS

### CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM ACTUARIAL METHODS AND ASSUMPTIONS

### A. Funding Method

The actuarial valuation method used is the *Projected Unit Credit Cost Method*. Recommended annual contributions until the actuarial liability is completely funded will consist of two pieces: Normal Cost plus a payment towards the Unfunded Actuarial Liability.

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. The Normal Cost is then similarly determined as the present value of the portion of the *projected* benefit attributable to the current year.

The Actuarial Value of Assets is determined by first projecting the Actuarial Value forward from the beginning of the prior fiscal year based on the actual cash flow during the fiscal year and the assumed interest rate. The difference between this expected actuarial value and the actual market value is recognized over a five year period, subject to the Actuarial Value remaining within +/- 20% of the Market Value.

The Unfunded Actuarial Liability is the Actuarial Liability less the Actuarial Value of Assets.

These elements are projected from June 30, 2002 to June 30, 2003 as follows:

- ➤ The actuarial assumptions are used to project changes in the membership from June 30, 2002 to June 30, 2003. A demographic profile of new members is constructed based on the demographic profile of employees hired in the 2001-2002 fiscal year, such that the total active member population remains constant in number and the total payroll increases according to the payroll growth assumption. From this constructed hypothetical population, the projected Normal Cost and projected Actuarial Liability as of June 30, 2003 is determined.
- The Market Value of Assets is similarly projected forward from June 30, 2002 to June 30, 2003, and is used to determine the projected Actuarial Value of Assets as of June 30, 2003.
- The Unfunded Accrued Liability as of June 30, 2003 is then determined as the difference between the Actuarial Liability and Actuarial Value of Assets projected to that date. This amount is amortized over the 29 years remaining in the amortization schedule, with the amortization payment calculated on a level percent of payroll basis.
- ➢ The Normal Cost and Past Service Amortization payment amounts are adjusted to reflect payment in twelve equal installments at the end of each month.

The methodology described above is repeated in order to project costs to June 30, 2004 for the second year in the biennial budget cycle.

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# CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM ACTUARIAL METHODS AND ASSUMPTIONS

# B. Actuarial Assumptions

Salary Scale	YEARS OF SERVICE		Rate	
	0		15.00	
		1	15.00	
	2		10.00	
		3	7.00 6.50 6.00 5.50	
		4		
		5		
	1	0		
	1	5	4.25	
	2	0	4.25	
	2	5	4.25	
COLA	Group	2	<u>Rate</u>	
	Pre July 1, 198	80 Retirees	3.75	
	1980 – 1997 I	Retirees	3.00	
	Post July 1, 1	997 Retirees	2.75	
Payroll Growth Rate	5.00%			
Disabled Mortality	Males	80% of PBGC Disabled Mortality with Social Security for Males		
	Females	60% of PBGC Disab Social Security for Fe	led Mortality with emales	
Healthy Mortality	1994 Group A	1994 Group Annuity Mortality Table		
Percent Married	80%			
Disability	Service	Hazardous employees	0.07% at all ages	
		Other employees	0.02% at all ages	
	Non-service	vice 25% of United Auto Workers Disability		

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# CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM ACTUARIAL METHODS AND ASSUMPTIONS

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Ten year select and ultimate rates as shown below for nonhazardous employees; the same table with rates multiplied by a factor of 40% for hazardous employees.

Age	Years of Participation					
	0-1	2	3-4	5	6-9	10+
20	40	30	20	15	5	5.0
25	30	20	10	8	5	5.0
30	25	20	10	8	5	4.2
35	25	20	10	8	5	3.0
40	25	20	10	8	5	2.6
45	25	20	10	8	5	2.0
50	25	20	10	8	5	1.2
55	25	20	10	8	5	0.0
60	25	20	10	8	5	0.0

Retirement

es	<u>Age</u>	<u>First Year Eligible</u>	All Other Ages
ye	Thru 44	25	15
hld	45-48	25	20
en	49-53	10	20
sno	54-55	10	25
rdc	56-59	10	40
nζt	60-69	25	40
$H_{i}$	70	100	100

	Age	<u>First Ye</u>	ar Eligible	All Other Ages	
		Reduced <u>Benefits</u>	Unreduced <u>Benefits</u>		
5	55	17.5	15.0	12.5	
vee	56-60	15.0	15.0	12.5	
Cold	61	25.0	25.0	15.0	
łwi	62	40.0	30.0	30.0	
er (	63	35.0	35.0	25.0	
)th	64	45.0	45.0	25.0	
0	65	65.0	65.0	40.0	
	66-69	60.0	65.0	40.0	
	70	100.0	100.0	100.0	

# <u>Appendix D</u>

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#### ACTUARIAL SURPLUS TEST

### CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM ACTUARIAL SURPLUS TEST AS OF JUNE 30, 2002

#### APPENDIX D

#### Actuarial Surplus Test as of June 30, 2002

Section 5-162(h) 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:* The actual rate of return for the Fiscal Year ending on the determination date must exceed the actuarial interest rate assumption.

Market Value of Assets on June 30, 2001 (A)	\$7,783,625,739
Market Value of Assets on June 30, 2002 (B)	7,088,897,412
Investment Income for FY 2001-02 (I)	(508,597,231)
Actual Rate of Return for FY 2001-02: 2I / (A + B - I)	-6.61%
Actuarial Interest Rate Assumption	8.50%

Actual return of -6.61% is less than assumed 8.50%, so the first criterion is not met and

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

Market Value of Assets on June 30, 2002	\$7,088,897,412
Specified Liabilities on June 30, 2002	
Liability for Retired Members	7,030,144,539
Liability for Terminated Vested Members	142,487,141
Active Member Contributions with Interest	558,549,017
Total	7,731,180,697
50% of Specified Liabilities	3,865,590,349

Market Value exceeds 50% of specified liabilities, so the second criterion is met.

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

Actual Unfunded Liability on June 30, 2002	\$4,912,431,497
Projected Unfunded Liability on June 30, 2007 (see page D-2)	2,692,205,000

Actual Unfunded Liability is not less than Projected Unfunded Liability so the third criterion is not met and there is no actuarial surplus.

#### CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM ACTUARIAL SURPLUS TEST AS OF JUNE 30, 2002

#### <u>APPENDIX D</u>

#### Actuarial Surplus Test as of June 30, 2002 - 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 criterion 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. No provision is made in the Statute for reflecting the impact of plan changes. The projection below 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); change in actuarial cost method - level percent amortization (June 30, 1997); change in actuarial methods and assumptions (June 30, 2000).

 	(\$000) June 30		(\$000) June 30		(\$000) June 30
Year	Unfunded Liability	Year	Unfunded Liability	Year	Unfunded Liability
		2002		2017	<b>#2</b> 0 45 005
1987	\$2,524,556	2002	\$2,360,589	2017	\$3,045,305
1988	1,954,257	2003	2,429,273	2018	3,029,807
1989	1,432,333	2004	2,497,197	2019	2,999,274
1990	1,939,758	2005	2,563,966	2020	2,951,743
1991	1,930,524	2006	2,629,135	2021	2,885,049
1992	1,920,505	2007	2,692,205	2022	2,796,806
1993	1,794,192	2008	2,752,616	2023	2,684,388
1994	1,787,586	2009	2,809,741	2024	2,544,908
1995	1,780,419	2010	2,862,879	2025	2,375,189
1996	1,772,643	2011	2,911,249	2026	2,171,741
1997	1,764,205	2012	2,953,982	2027	1,930,734
1998	1,835,087	2013	2,990,111	2028	1,647,961
1999	1,907,249	2014	3,018,563	2029	1,318,808
2000	2,222,296	2015	3,038,148	2030	938,216
2001	2,291,494	2016	3,047,548	2031	500,639
				2032	0