

INTERIM ACTUARIAL VALUATION

*CONNECTICUT STATE EMPLOYEES
RETIREMENT SYSTEM*

AT JUNE 30, 2001

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
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December 17, 2001

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

Re: Connecticut State Employees Retirement System
June 30, 2001 Interim Actuarial Valuation

Members of the Commission:

At your request, we have made an interim actuarial valuation of the Connecticut State Employees Retirement System (SERS) as of June 30, 2001. 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 and liabilities are found in Sections II and III, respectively. The Appendices contain information regarding SERS membership, an outline of the benefit provisions, and a description of the actuarial methods and assumptions employed in this valuation.

The actuarially determined contribution for the fiscal year beginning July 1, 2002 is \$425,902,474. This contribution was developed from the June 30, 2000 actuarial valuation and is not changed as a result of this interim valuation.

Respectfully submitted,

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

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Principal and Consulting Actuary

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SECTION I

EXECUTIVE SUMMARY

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

PURPOSE OF REPORT

Starting with the June 30, 1998 valuation, complete actuarial valuations are performed only every other year. This report presents the results of the June 30, 2001 interim actuarial valuation of the Connecticut State Employees Retirement System (SERS). The primary purposes for performing the valuation are:

- to disclose asset and liability measures as of June 30, 2001; and
- to analyze and report on trends in SERS assets and liabilities over the past several years.

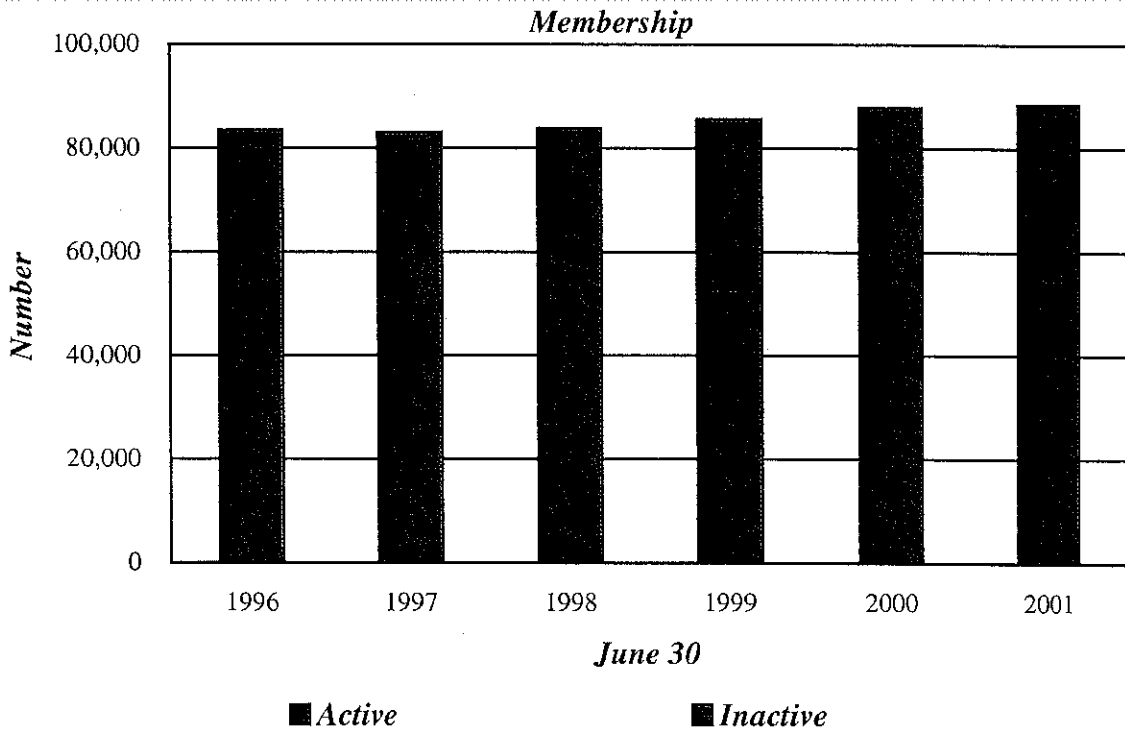
ORGANIZATION OF THE EXECUTIVE SUMMARY

The executive summary contains the following information:

- ***Major Findings...*** shows graphically, key results for several years.
- ***Discussion of Results...*** highlights the major events influencing this valuation.

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

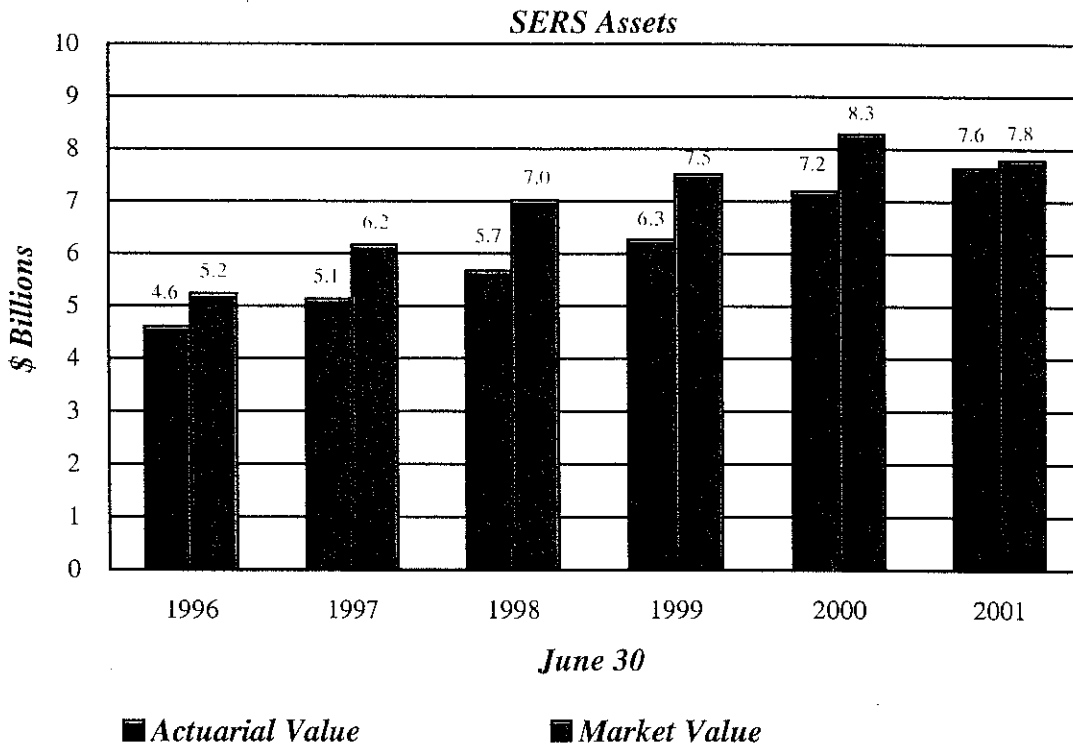
MAJOR FINDINGS



SERS membership grew modestly since the last valuation. Overall, there are 251 additional active members and 407 more inactive members.

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

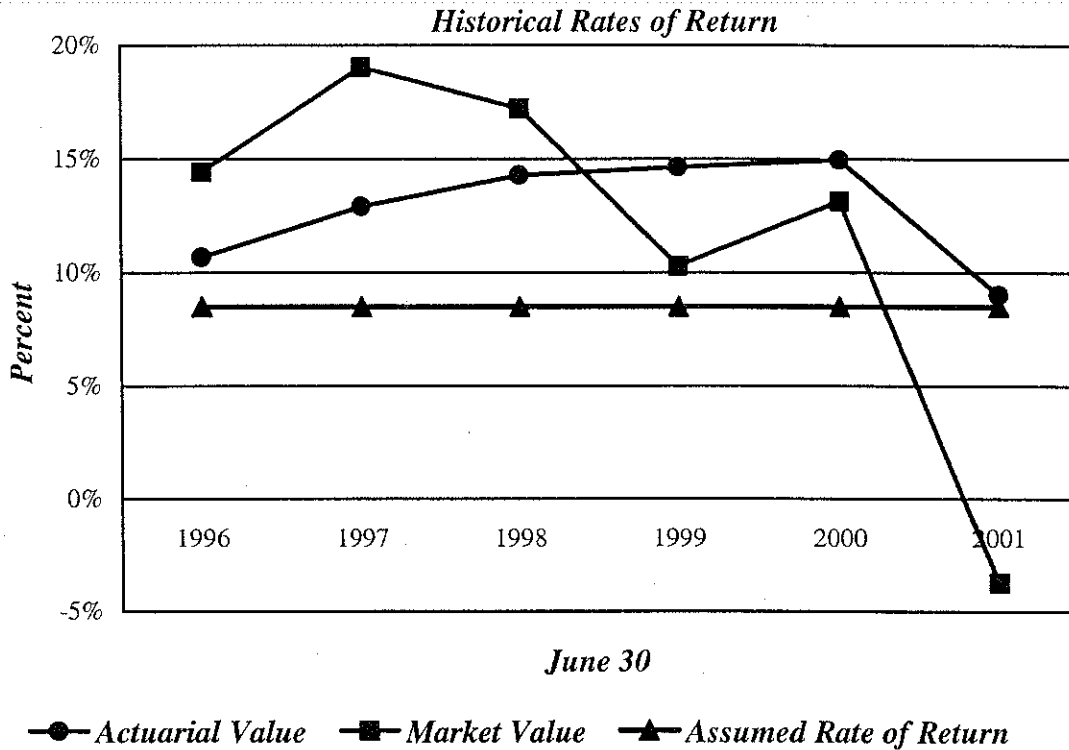
MAJOR FINDINGS



The SERS assets have grown over the years due to investment results and continued funding. The rate of return on a Market Value for the past fiscal year was -3.7%, reflecting difficult market conditions. This ended a run of several years of double-digit returns.

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

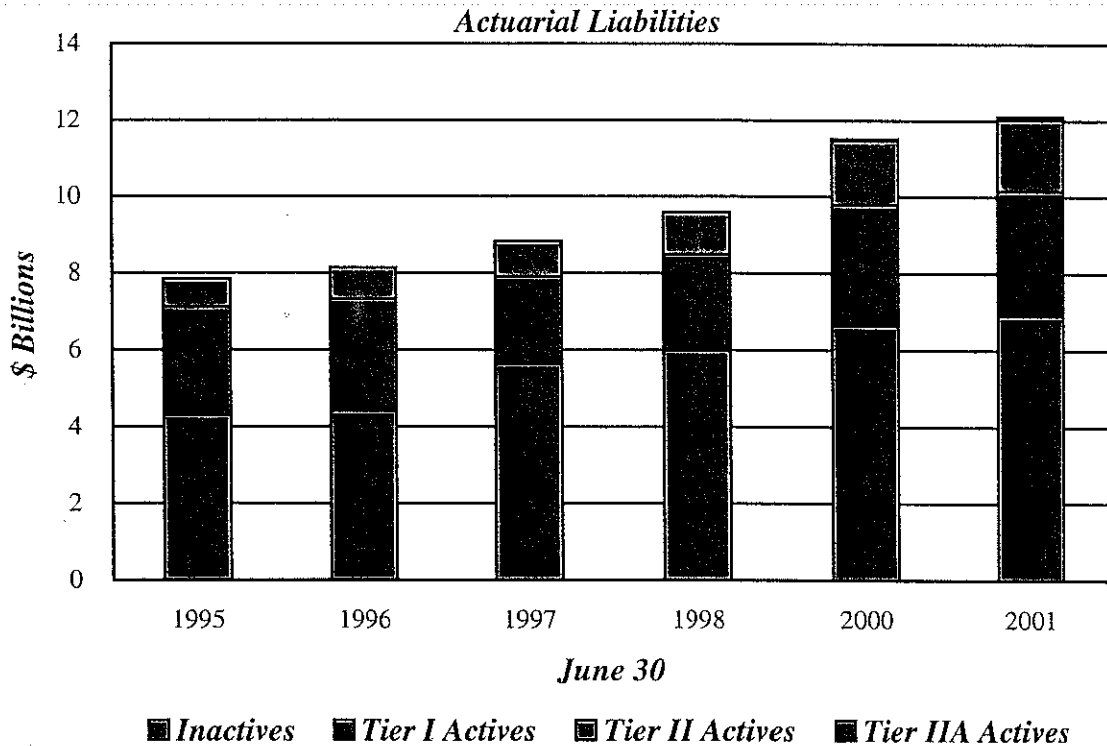
MAJOR FINDINGS



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). During the past year, the market value rate was negative, reflecting the very poor market conditions during that period.

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

MAJOR FINDINGS

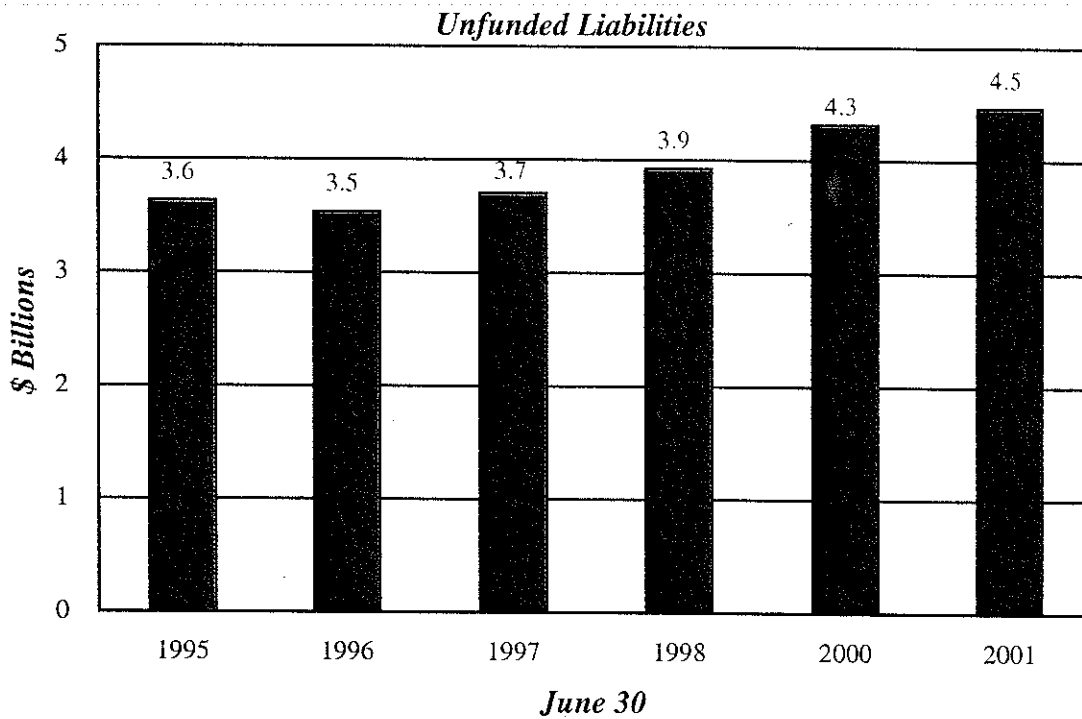


This graph shows the Actuarial Liability by group. The growth in inactive liability from 1996 to 1997 reflects the impact of the 1997 early retirement incentive program.

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

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

MAJOR FINDINGS

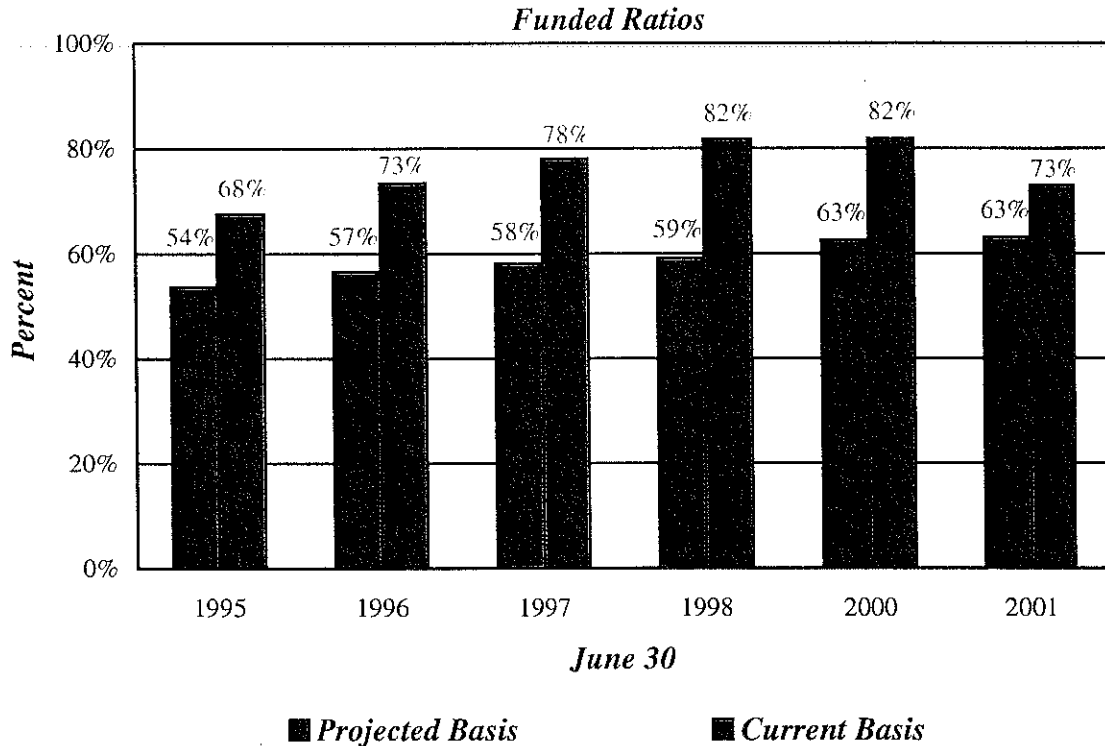


Unfunded actuarial liabilities have increased with this valuation. This pattern is a normal outgrowth of the method of paying off this liability: a number of years of increase followed by a gradual decline.

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

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY

MAJOR FINDINGS



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. The drop as of June 30, 2001 reflects the decrease in the Market Value of Assets.

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

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

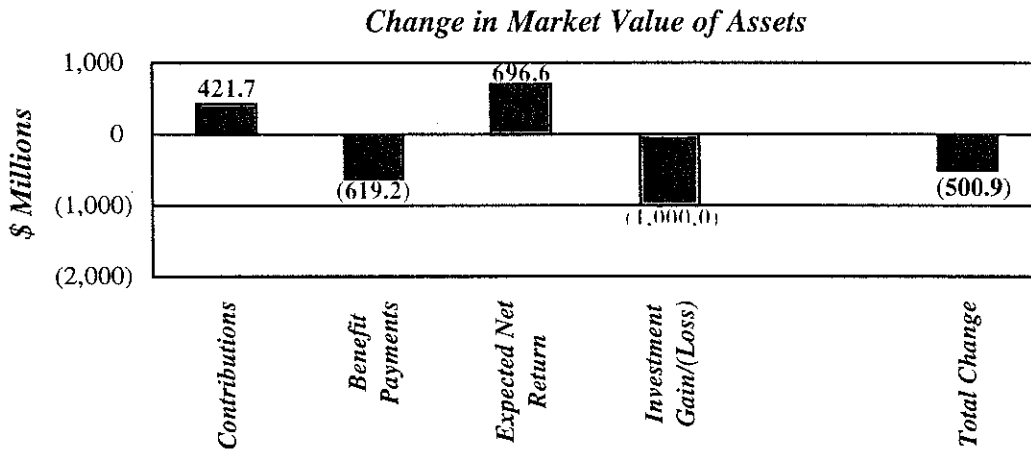
DISCUSSION OF RESULTS

In this section of the Executive Summary, we will discuss the significant events impacting the June 30, 2001 interim actuarial valuation.

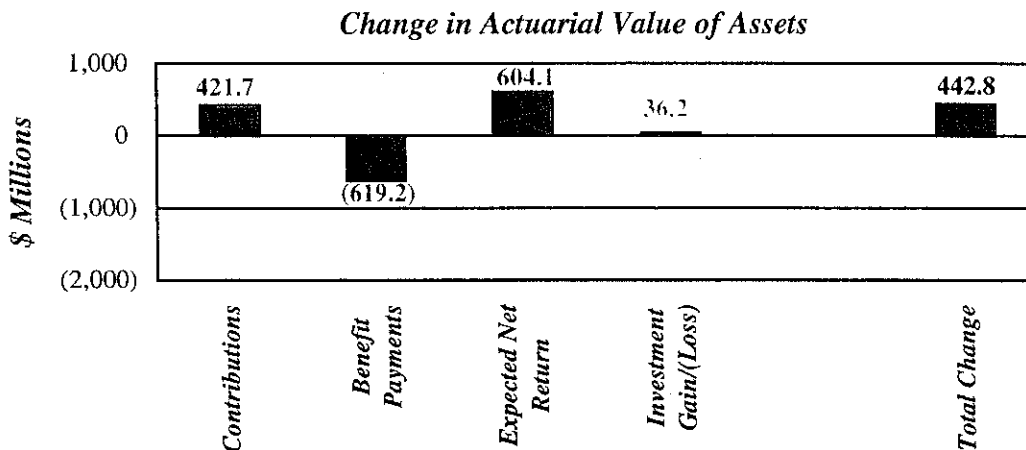
I. Investment Experience

The investment performance was poor during the past year. The actual return was -3.7% on a market value basis compared to 13.1% for the prior fiscal year. On a smoothed actuarial basis, the rate was 9.0% compared to 15.0% for the prior valuation, reflecting continuing recognition of previous years' market gains. The assumed rate is 8.5%.

Between June 30, 2000 and June 30, 2001, the market value of assets changed by -\$500.9 million. This change was attributable to the following:



During the same period, the actuarial value of assets (measured on a five year smoothing basis) changed by \$442.8 million:



More details on SERS assets are presented in Section II of this report.

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

DISCUSSION OF RESULTS

II. Membership

System membership has grown during the past year:

	<i>Deferred</i>					<i>Total Members</i>
	<i>Active</i>	<i>Vested</i>	<i>Retired</i>	<i>Disabled</i>	<i>Benefic.</i>	
Count on June 30, 2000	54,616	1,137	27,605	1,626	2,870	87,854
Left System	(2,699)	(12)	(962)	(162)	(115)	(3,950)
Terminated Vested	(155)	155	0	0	0	0
Retired	(834)	(49)	884	0	0	1
Disabled	(53)	0	(95)	148	0	0
Died w/beneficiary	(9)	0	(333)	0	342	0
Rehired	13	(12)	(1)	0	0	0
New	3,988	151	99	17	352	4,607
Count on June 30, 2001	54,867	1,370	27,197	1,629	3,449	88,512

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:

	<i>Tier I</i>	<i>Tier II</i>	<i>Tier IIA</i>	<i>Total</i>
Count on June 30, 1998	15,086	33,408	2,889	51,383
<i>percentage of total</i>	29%	65%	6%	
Count on June 30, 1999	14,501	31,959	6,378	52,838
<i>percentage of total</i>	27%	61%	12%	
Count on June 30, 2000	14,087	30,691	9,838	54,616
<i>percentage of total</i>	26%	56%	18%	
Count on June 30, 2001	13,476	29,543	11,848	54,867
<i>percentage of total</i>	25%	53%	22%	

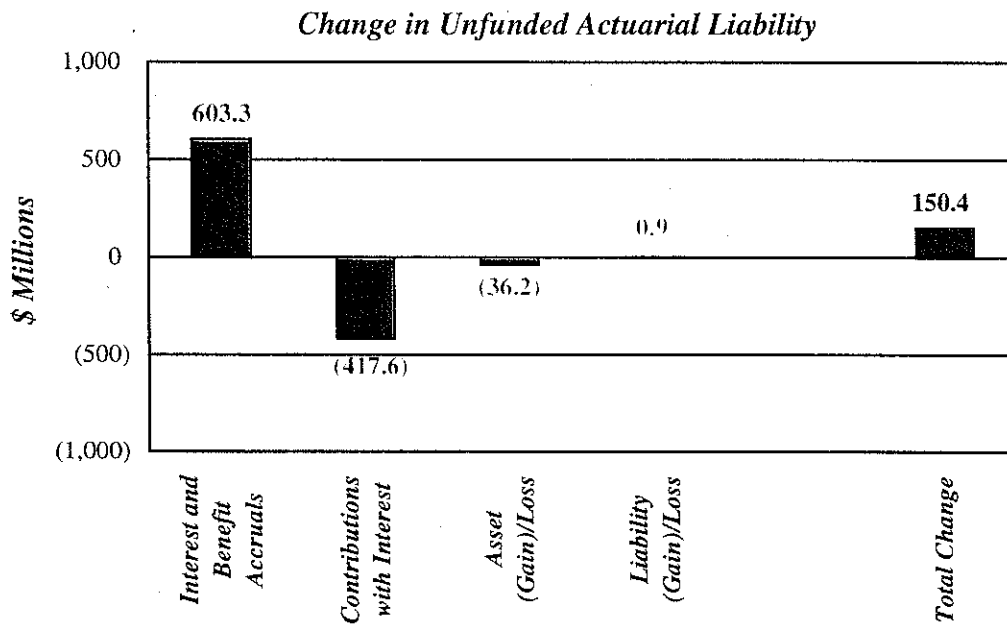
More information on SERS membership can be found in Appendix A.

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
EXECUTIVE SUMMARY**

DISCUSSION OF RESULTS

III. Unfunded Actuarial Liability

The unfunded actuarial liability is the shortfall between SERS projected liabilities and assets. Since the last actuarial valuation, the unfunded actuarial liability increased from \$4.3 billion to \$4.5 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 2000 to 2001:



The very small liability loss indicates that, on average, our actuarial assumptions were a good indicator of actual experience during 2000-01.

SECTION II

SERS ASSETS

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
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 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, 2001.

<u>Table</u>	<u>Contents</u>
II-1	Market Value - Summary of Fund Transactions
II-2	Market Value - Breakdown on Valuation Date
II-3	Development of Actuarial Value of Assets
II-4	Development of Asset Gain/(Loss)

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SERS ASSETS**

TABLE II-1

*Market Value of Assets
Summary of Fund Transactions*

	<i>July 1, 1999 to June 30, 2000</i>	<i>July 1, 2000 to June 30, 2001</i>
<i>Market Value as of July 1</i>	\$7,519,733,915	\$8,284,499,079
<i>Contributions</i>		
State	240,583,331	289,128,616
Federal	145,925,437	86,494,566
Fringe Benefit Transfers	(43,748,438)	0
Employee	43,782,742	46,088,785
Total	386,543,072	421,711,967
<i>Investment Income Net of Expenses</i>		
Interest & Dividends	286,673,510	276,669,027
Realized Gains	299,651,657	(2,140,298)
Change in Unrealized Gains	388,495,390	(577,599,050)
Expenses	(265,326)	(340,513)
Total	974,555,231	(303,410,834)
<i>Disbursements</i>		
Benefit Payments	592,649,264	614,117,205
Employee Refunds	3,683,875	5,057,268
Total	596,333,139	619,174,473
<i>Market Value as of June 30</i>	8,284,499,079	7,783,625,739
<i>Approximate Net Rate of Return</i>	13.14%	-3.71%

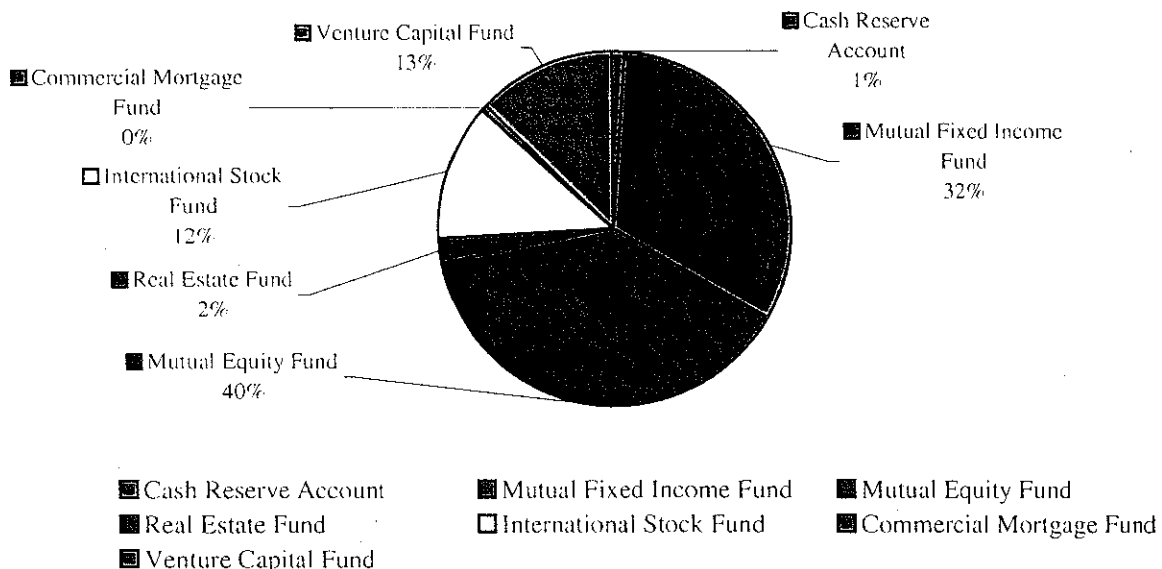
**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SERS ASSETS**

TABLE II-2

*Market Value of Assets
Breakdown on June 30, 2001*

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

	<i>Amount</i>	<i>% of Total</i>
Cash	(\$1,500,258)	-0.02%
Accrued Interest	0	0.00%
Investments:		
Cash Reserve Account	88,677,819	1.14%
Mutual Fixed Income Fund	2,511,375,138	32.26%
Mutual Equity Fund	3,001,235,931	38.57%
Real Estate Fund	183,200,454	2.35%
International Stock Fund	964,685,436	12.39%
Commercial Mortgage Fund	38,867,643	0.50%
Venture Capital Fund	997,083,576	12.81%
Connecticut Programs Fund	0	0.00%
 Total Market Value as of June 30, 2001	 7,783,625,739	 100.00%



CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SERS ASSETS

TABLE II-3

Development of Actuarial Value of Assets

	<i>Market Value</i>	<i>Actuarial Value</i>
1. Value on July 1, 2000	\$8,284,499,079	\$7,196,039,538
2. Contributions during 2000-01	421,711,967	421,711,967
3. Benefit Payments during 2000-01	619,174,473	619,174,473
4. Expected Investment Income on (1)+(2)-(3)	696,602,824	604,083,762
5. Expected Value on June 30, 2001: (1)+(2)-(3)+(4)	8,783,639,397	7,602,660,794
6. Market Value on June 30, 2001	7,783,625,739	N/A
7. Market Value - Actuarial Value on June 30, 2001	N/A	180,964,945
8. Preliminary Actuarial Value: (5) + 20% of (7)	N/A	7,638,853,783
9. Final Value on June 30, 2001: (8) within +/- 20% of Market Value		7,638,853,784

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SERS ASSETS**

TABLE II-4

Development of Asset Gain/(Loss)

	<i>Market Value</i>	<i>Actuarial Value</i>
1. Value on July 1, 2000	\$8,284,499,079	\$7,196,039,538
2. Contributions during 2000-01	421,711,967	421,711,967
3. Benefit Payments during 2000-01	619,174,473	619,174,473
4. Expected Investment Income on (1)+(2)-(3)	696,602,824	604,083,762
5. Expected Value on June 30, 2001: (1)+(2)-(3)+(4)	8,783,639,397	7,602,660,794
6. Actual Investment Income	(303,410,834)	640,276,752
7. Asset Gain/Loss: (6) - (4)	(1,000,013,658)	36,192,990
8. Rate of Return as of June 30, 2001	-3.71%	9.02%
9. Rate of Return as of June 30, 2000	13.14%	14.97%
10. Change	-16.85%	-5.95%

SECTION III

SERS LIABILITIES

*CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
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. A more detailed description of this method can be found in Appendix C.

<u>Table</u>	<u>Contents</u>
III-1	SERS Liabilities on Valuation Date

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SERS LIABILITIES**

TABLE III-1

SERS Liabilities on Valuation Date

	<u>June 30, 2000</u>	<u>June 30, 2001</u>
<i>Tier I Actives</i>		
Hazardous Duty	\$436,212,671	\$420,534,167
Plan B	2,569,689,643	2,682,458,583
Plan C	143,428,013	147,180,639
<i>Total</i>	<u>3,149,330,327</u>	<u>3,250,173,389</u>
<i>Tier II Actives</i>		
Hazardous Duty	640,307,597	720,779,237
All Others	1,039,423,122	1,153,522,215
<i>Total</i>	<u>1,679,730,719</u>	<u>1,874,301,452</u>
<i>Tier IIA Actives</i>		
Hazardous Duty	17,056,369	30,243,989
All Others	29,493,801	50,259,622
<i>Total</i>	<u>46,550,170</u>	<u>80,503,611</u>
<i>Total Actives</i>	4,875,611,216	5,204,978,452
<i>Retirees</i>		
Pre-1980	500,980,489	459,051,303
1980-1997 Fixed COLA	5,694,884,504	5,654,138,639
1997+ Variable COLA	349,077,134	661,196,383
<i>Total</i>	<u>6,544,942,127</u>	<u>6,774,386,325</u>
<i>Deferred Vesteds</i>	91,601,549	126,001,630
<i>Total Actuarial Liability</i>	11,512,154,892	12,105,366,407
<i>Actuarial Value of Assets</i>	7,196,039,538	7,638,853,784
<i>Unfunded Actuarial Liability</i>	4,316,115,354	4,466,512,623

APPENDIX A

SUMMARY STATISTICS ON SERS MEMBERSHIP

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

<u>Table</u>	<u>Contents</u>
A-1	Detail of Active Membership Data by Plan
A-2	Summary of Inactive Membership Data

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY STATISTICS ON SERS MEMBERSHIP

TABLE A-1a

Detail of Active Membership Data by Plan

	<u>June 30, 2000</u>	<u>June 30, 2001</u>
<i>Number of Members</i>		
Tier I Hazardous Duty	1,243	1,120
Tier I Plan B	12,149	11,695
Tier I Plan C	695	661
Tier II Hazardous Duty	6,896	6,764
Tier II Others	23,795	22,779
Tier IIA Hazardous Duty	1,567	1,986
Tier IIA Others	8,271	9,862
Total	<u>54,616</u>	<u>54,867</u>
<i>Total Annual Compensation (\$ Millions)</i>		
Tier I Hazardous Duty	\$83.3	\$76.1
Tier I Plan B	748.5	736.5
Tier I Plan C	39.0	37.7
Tier II Hazardous Duty	357.1	355.3
Tier II Others	1,109.5	1,107.7
Tier IIA Hazardous Duty	58.9	81.1
Tier IIA Others	255.7	332.2
Total	<u>2,652.0</u>	<u>2,726.6</u>
<i>Average Compensation</i>		
Tier I Hazardous Duty	\$66,977	\$67,937
Tier I Plan B	61,611	62,980
Tier I Plan C	56,083	57,105
Tier II Hazardous Duty	51,778	52,526
Tier II Others	46,627	48,630
Tier IIA Hazardous Duty	37,607	40,843
Tier IIA Others	30,912	33,682
Total	48,555	49,696

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY STATISTICS ON SERS MEMBERSHIP

TABLE A-1b

Detail of Active Membership Data by Plan

	<u>June 30, 2000</u>	<u>June 30, 2001</u>
<i>Average Age</i>		
Tier I Hazardous Duty	47.5	48.3
Tier I Plan B	50.0	50.8
Tier I Plan C	53.0	53.6
Tier II Hazardous Duty	39.3	40.2
Tier II Others	44.0	44.9
Tier IIA Hazardous Duty	32.8	33.7
Tier IIA Others	37.7	38.4
Total	43.7	44.2
<i>Average Service</i>		
Tier I Hazardous Duty	20.0	20.9
Tier I Plan B	22.4	23.3
Tier I Plan C	23.1	24.0
Tier II Hazardous Duty	9.1	10.2
Tier II Others	10.3	11.3
Tier IIA Hazardous Duty	1.3	2.0
Tier IIA Others	1.4	1.9
Total	11.7	12.1

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY STATISTICS ON SERS MEMBERSHIP

TABLE A-2

Summary of Inactive Membership Data

	<u>June 30, 2000</u>	<u>June 30, 2001</u>
<i>Retired Pre-1980</i>		
Number	5,869	5,410
Total Annual Benefits (\$ 000s)	\$69,277	\$66,400
Average Annual Benefit	11,804	12,274
<i>Retired 1980-1997, Fixed COLA</i>		
Number	24,760	24,345
Total Annual Benefits (\$ 000s)	\$501,184	\$508,490
Average Annual Benefit	20,242	20,887
<i>Retired 1997+, Variable COLA</i>		
Number	1,472	2,520
Total Annual Benefits (\$ 000s)	\$27,074	\$50,848
Average Annual Benefit	18,393	20,178
<i>Total Retired Members</i>		
Number	32,101	32,275
Total Annual Benefits (\$ 000s)	\$597,536	\$625,737
Average Annual Benefit	18,614	19,388
<i>Terminated Vested Members</i>		
Number	1,137	1,370
Total Annual Benefits (\$ 000s)	\$10,749	\$14,692
Average Annual Benefit	9,454	10,724

APPENDIX B

SUMMARY OF PLAN PROVISIONS

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF PLAN PROVISIONS**

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.

Tier IIA: 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.

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. 5-192i] and Tier IIA: 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.

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF PLAN PROVISIONS

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] and Tier IIA: 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] and Tier IIA: 1⅓% 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 1⅝% 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] and Tier IIA: 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).

**CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF PLAN PROVISIONS**

5. **Deferred Retirement**

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

Tier II [Sec. 5-192l] and Tier IIA: 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] and Tier IIA: 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. **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.

Tier IIA - All other 2% of earnings.

Tier IIA - Hazardous Duty 5% of earnings.

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF PLAN PROVISIONS

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.

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. **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% 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%).

Tier II [Sec. 5-192r] and Tier IIA: 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.

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM
SUMMARY OF PLAN PROVISIONS

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 $1\frac{2}{3}\%$ times service to 65). If disability occurs prior to age 60 and is due to service, benefit equals $1\frac{2}{3}\%$ 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.

Tier II [5-192p] and Tier IIA: Prior to age 65 and due to service or after 10 years of service, benefit is $1\frac{1}{3}\%$ 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

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

Tier II [Sec. 5-192q] and Tier IIA: 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

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.

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

B. Actuarial Assumptions

<i>Salary Scale</i>	<u><i>Years of Service</i></u>	<u><i>Rate</i></u>
	0	15.00
	1	15.00
	2	10.00
	3	7.00
	4	6.50
	5	6.00
	10	5.50
	15	4.25
	20	4.25
	25	4.25
 <i>COLA</i>	 <u><i>Group</i></u>	 <u><i>Rate</i></u>
	Pre July 1, 1980 Retirees	3.75
	1980 – 1997 Retirees	3.00
	Post July 1, 1997 Retirees	2.75
 <i>Payroll Growth Rate</i>	 5.00%	
 <i>Disabled Mortality</i>	Males	80% of PBGC Disabled Mortality with Social Security for Males
	Females	60% of PBGC Disabled Mortality with Social Security for Females
 <i>Healthy Mortality</i>	 1994 Group Annuity Mortality Table	
 <i>Percent Married</i>	 80%	
 <i>Disability</i>	 <i>Service</i>	Hazardous employees 0.07% at all ages Other employees 0.02% at all ages
	 <i>Non-service</i>	 25% of United Auto Workers Disability Table

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

B. Actuarial Assumptions (continued)

Turnover

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

<u>Age</u>	<u>Years of Participation</u>					
	<u>0-1</u>	<u>2</u>	<u>3-4</u>	<u>5</u>	<u>6-9</u>	<u>10+</u>
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

<u>Hazardous employees</u>	<u>Age</u>	<u>First Year Eligible</u>	<u>All Other Ages</u>
		Thru 44	25
	45-48	25	20
	49-53	10	20
	54-55	10	25
	56-59	10	40
	60-69	25	40
	70	100	100

<u>Other employees</u>	<u>Age</u>	<u>Reduced Benefits</u>	<u>Unreduced Benefits</u>	
		55	17.5	
	56-60	15.0	15.0	12.5
	61	25.0	25.0	15.0
	62	40.0	30.0	30.0
	63	35.0	35.0	25.0
	64	45.0	45.0	25.0
	65	65.0	65.0	40.0
	66-69	60.0	65.0	40.0
	70	100.0	100.0	100.0