



**Connecticut State Teachers'
Retirement System
Report on the Actuarial Valuation
*as of June 30, 2006***

GRS
Gabriel Roeder Smith & Company



November 29, 2006

Board of Trustees
Connecticut State Teachers' Retirement System
21 Grand Street
Hartford, Connecticut 06106

Dear Members of the Board:

Submitted in this report are the results of the June 30, 2006, actuarial valuation of the Connecticut State Teachers' Retirement System.

The necessary statistical data on which the valuation was based was furnished by your Administrator and her Staff. Their efforts and cooperation in furnishing the materials needed for this valuation are acknowledged with appreciation.

There have been no changes in actuarial methods or plan provisions since the last valuation, which was as of June 30, 2004. The actuarial assumptions have changed since the last valuation. The actuarial assumptions used in this actuarial valuation were adopted by the board based on our recommendations contained in our 5-year experience study covering the period July 1, 2001, through June 30, 2005. This report is based only on methods and assumptions adopted by the board.

The computed State Contribution Rate has increased significantly since the last valuation. Although there were favorable investment returns in the last two fiscal years, recognized actuarial losses from prior years caused the assets to increase less than expected. The adoption of the new actuarial assumptions, as well as adverse demographic experience, created significant liability losses. The actuarial experience, adoption of new assumptions, and contributions of less than the annual required contribution in fiscal year 2005 increased the computed State Contribution Rate from 12.50% to 15.28%.

The valuation was completed using generally accepted actuarial principles and in accordance with standards of practice prescribed by the Actuarial Standards Board. To the best of our knowledge, this report is complete and accurate, and the methods and assumptions produced results which are reasonable.

Respectfully submitted,



Larry Langer, ASA, MAAA, EA



Amy Williams, ASA, MAAA

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INTRODUCTION

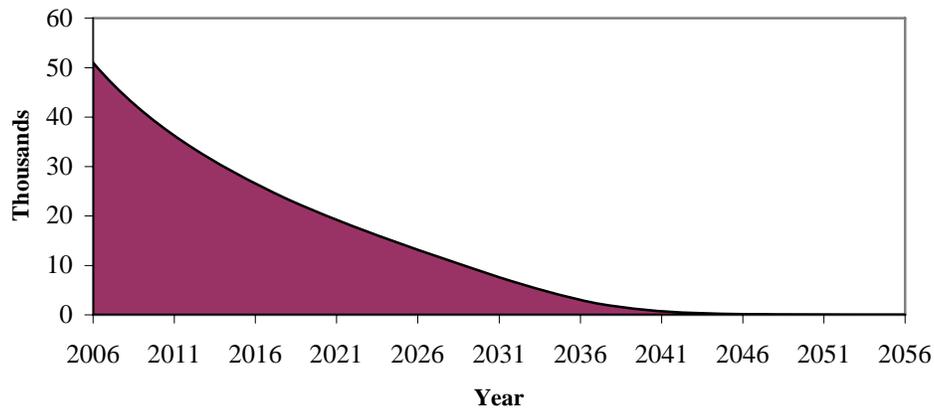


SUMMARY OF KEY VALUATION RESULTS

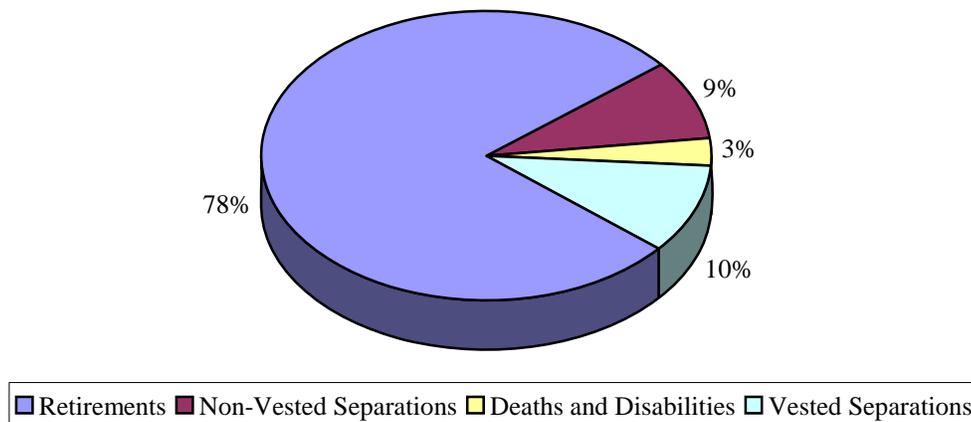
	As of June 30, 2004	As of June 30, 2006
System Members		
Retired Members and Beneficiaries		
Number	24,297	26,695
Annual Payments	\$ 843,682,492	\$ 1,010,782,904
Inactive Members		
Vested	1,250	1,341
Non-Vested	8,294	9,391
Active Members		
Number	49,946	51,015
Annual Payroll	\$ 2,930,833,308	\$ 3,137,684,279
Actuarial Accrued Liabilities		
CLARA Balance	\$ 1,460,197,593	\$ 1,591,025,496
Retired Members and Beneficiaries	7,688,819,834	9,274,542,228
Inactive Members	277,204,346	330,569,529
Active Members	7,104,456,375	7,507,655,642
Total	\$ 16,530,678,148	\$ 18,703,792,895
Actuarial Value of Assets	\$ 11,306,878,529	\$ 11,781,338,002
Unfunded Actuarial Accrued Liability	\$ 5,223,799,619	\$ 6,922,454,893
Funded Ratios		
Including CLARA Balance	68.40%	62.99%
Excluding CLARA Balance	65.34%	59.55%
Computed State Contribution Rate		
Normal Cost	3.01%	2.89%
Unfunded Accrued Liability	9.49%	12.39%
Total	12.50%	15.28%
State Contribution Amount		
For Fiscal Year Ending:		
June 30, 2006	\$396,248,625	N/A
June 30, 2007	\$412,098,570	N/A
June 30, 2008	N/A	\$518,560,263
June 30, 2009	N/A	\$539,302,674

EXPECTED DEVELOPMENT OF PRESENT ACTIVE POPULATION JUNE 30, 2006

Closed Group Population Projection

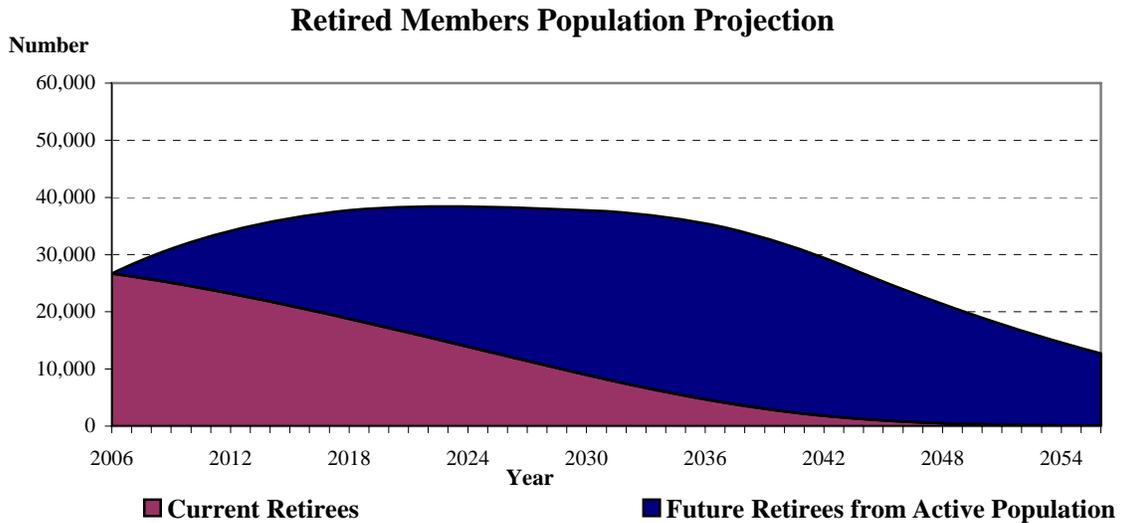


Expected Terminations from Active Employment for Current Active Members



The charts show the expected future development of the present population in simplified terms. The retirement system presently covers 51,015 active members. Eventually, 9% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer-provided benefit. About 88% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, or by retiring from vested deferred status. 3% of the present population is expected to become eligible for death-in-service or disability benefits. Within 11 years, over half of the covered membership is expected to consist of new hires.

POPULATION PROJECTIONS



The projected retired population levels shown in the graph are developed from the current retired population, the addition of new retired members from the active population, and mortality assumptions. The projection indicates that around 2023 the retired population will peak. Note that this graph does not include future retirements of active members that will be hired in the future. If it did, the graph would not be a “hill”, but would plateau around 2023.

SECTION A



Financial Principles

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES

Promises Made and To Be Paid For. As each year is completed, the System in essence hands an “IOU” to each member then acquiring a year of service credit. The “IOU” says: “The Connecticut State Teachers’ Retirement System (CSTRS) owes you one year’s worth of retirement benefits, payments in cash commencing when you qualify for retirement.”

The related *key financial questions* are:

Which generation of taxpayers contributes the money to cover the IOU?

The present taxpayers, who receive the benefit of the member’s present year of service?

Or the future taxpayers, who happen to be in Connecticut at the time the IOU becomes a cash demand?

A sound financial objective for the CSTRS is that this year’s taxpayers contribute the money to cover the IOUs being handed out this year so that ***the employer contribution rate will remain approximately level from generation to generation*** -- our children and our grandchildren will not have to contribute greater percents of payroll than we contribute now.

(There are systems which have ***a design for deferring contributions to future taxpayers***, lured by a lower contribution rate now and putting aside the fact that the contribution rate must then relentlessly grow much greater over decades of time -- consume now, and let your children face higher contribution rates after you retire.)

Translated to actuarial terminology, this level percent-of-payroll objective means that the contribution rate must be at least the following:

Normal Cost (the current value of benefits likely to be paid as a result of members’ service rendered in the current year)

... plus ...

Amortization of Unfunded Actuarial Accrued Liability (the difference between the actuarial accrued liability for service already rendered and current plan assets).

An inevitable byproduct of the level percent-of-payroll design is the accumulation of reserve assets for decades and the income produced when the assets are invested. ***Investment income*** becomes the ***third and (often) the largest contributor*** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Computing Contributions to Support System Benefits. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of ***an actuarial valuation.***

An actuarial valuation has a number of components such as: the rate of investment return which plan assets will earn; the rates of withdrawal of active members who leave covered employment before qualifying for any monthly benefit; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement.

In an actuarial valuation, assumptions must be made as to what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the System can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the accuracy of the various financial assumptions or the skill of the actuary and the precision of the calculations made. The System copes with these continually changing differences by having regular actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continual adjustments in financial position.

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the next page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program), and is thus an *increasing contribution method*; and the *level contribution method* which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

- A. ***Covered Person Data***, furnished by the plan administrator
 - Retired members and beneficiaries now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees

- B. + ***Asset data*** (cash and investments), furnished by the plan administrator

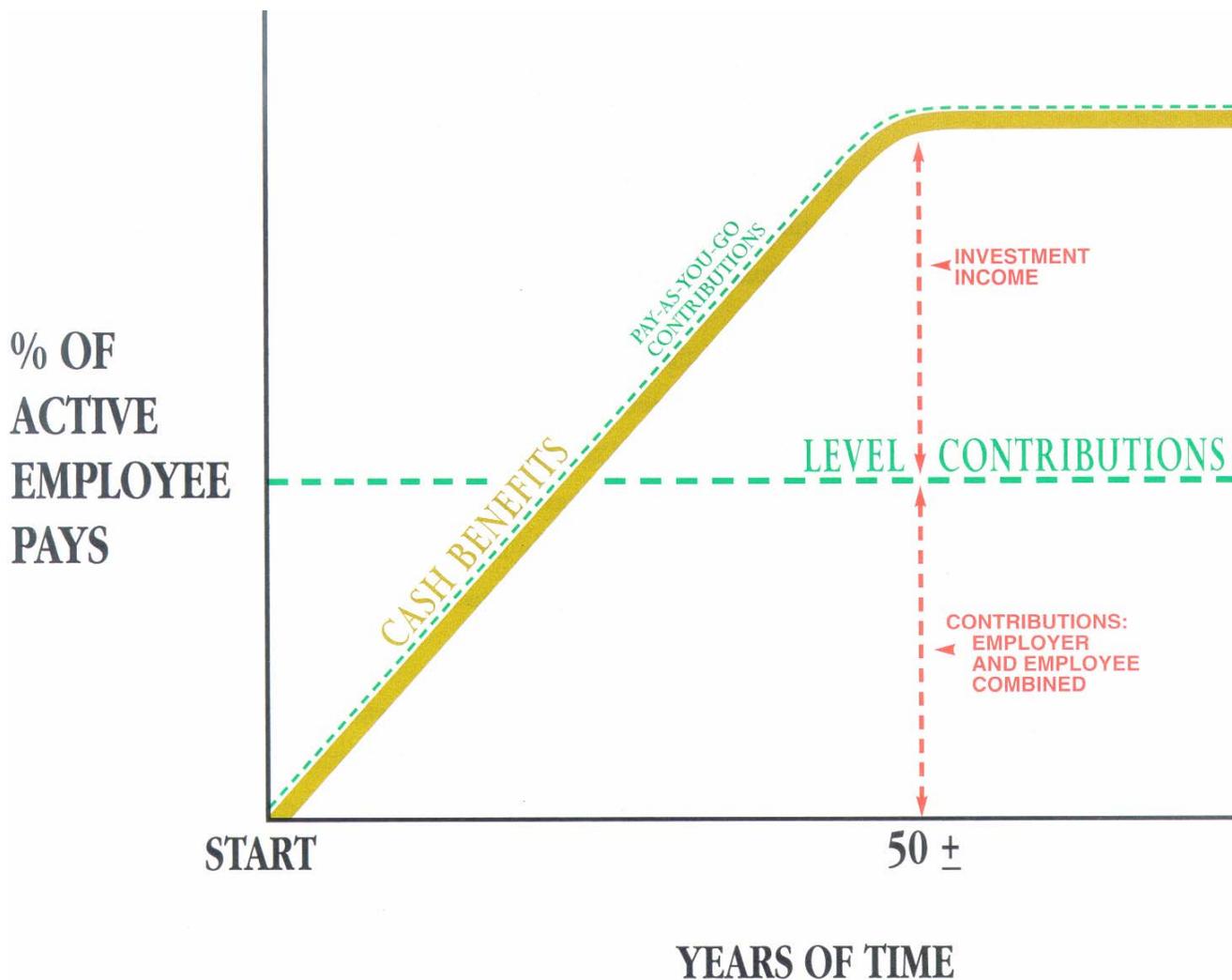
- C. + ***Benefit provisions*** that establish eligibility and amounts of payments to members

- D. + ***Estimates of future experience (actuarial assumptions)***, which are established by the Board of Trustees after consulting with the actuary

- E. + ***The funding method*** for employer contributions (the long-term planned pattern for employer contributions)

- F. + ***Mathematically combining the assumptions, the funding method, and the data***

- G. = Determination of:
 - Plan financial position***, and/or
 - New Employer Contribution Rate***



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

SECTION B



Valuation Results

COMMENTS

COMMENT A: The computed State Contribution Rate has increased significantly since the last valuation as of June 30, 2004, from 12.50% to 15.28%. As can be seen on page 1, the Normal Cost Rate is still similar, but the amortization payment on the Unfunded Actuarial Accrued Liability increased from 9.49% to 12.39%. This increase is primarily due to three main causes. The first is that assets increased less than expected. The second reason is the increase in liability due to the implementation of assumptions recommended in our experience review. The third is unfavorable demographic experience over the prior two years when compared to the previous assumptions.

COMMENT B: For many years, the actual State contributions have fallen short of the calculated contributions. Fiscal year ending June 30, 2006, was the first year in which actual State contributions met the calculated contribution requirements:

Fiscal Year Ending June 30	Calculated State Contribution	Actual State Contribution
2003	\$221,236,492	\$179,823,603
2004	270,544,487	185,348,144
2005	281,366,266	185,348,143
2006	396,248,625	396,248,844

Continuing this trend of making sufficient contributions to the fund will help create a funding situation in which investment returns will be able to keep up with growing benefit payments.

COMMENT C: The development of the actuarial gain or loss on page B-4 shows investments increased \$458.3 million less than expected, and liabilities increased \$817.9 million more than expected. As a result, the unfunded actuarial accrued liability increased \$1,276.2 million more than expected.

COMMENT D: GASB Statements No. 25 and No. 27 state that the net effective amortization period for the Unfunded Actuarial Accrued Liability (UAAL) should not exceed 40 years for plan years through June 30, 2006. Thereafter, the effective amortization period for the UAAL should not exceed 30 years. The computed State Contribution for fiscal year ending June 30, 2007 is not large enough to satisfy the GASB Standards. The GASB compliant contribution amount for fiscal year 2007 is \$425,285,724 compared to the State Contribution of \$412,098,570. The computed State Contributions for fiscal years ending June 30, 2008 and June 30, 2009, are sufficient to meet the GASB standards.

**STATE CONTRIBUTION RATE COMPUTED AS OF JUNE 30, 2006
FOR THE TWO-YEAR PERIOD BEGINNING JULY 1, 2007**

Computed Contributions for	Percents of Active Member Payroll
Normal Cost	
Age and service annuities	7.15 %
Separation benefits	1.41 %
Disability annuities	0.24 %
Death-in-service annuities	0.09 %
Total	8.89 %
 Member Contributions	 6.00 %
 State Normal Cost	 2.89 %
 Unfunded Actuarial Accrued Liabilities:	
Plan in effect 6/30/91 (25 years)	17.09 %
Public Act 82-91 (6 years)	0.14 %
Public Act 87-381 (11 years)	0.01 %
Public Act 92-205 (16 years)	(4.87)%
Public Act 98-251 (21 years)	0.02 %
Total	12.39 %
 State Contribution Rate	 15.28 %

Based on a projected member payroll of \$3,393,719,000 for the 2007-2008 Fiscal Year, the computed State contribution dollar amount for that Fiscal Year is \$518,560,263. Based on a projected member payroll of \$3,529,467,760 for the 2008-2009 Year, the computed State contribution dollar amount for that Fiscal Year is \$539,302,674.

The length of an amortization period is a matter of judgment, not a matter of solving an algebraic equation. No one amortization period is “correct” – there is a range of reasonable judgment. As specified in Chapter 167a, Section 10-183z of the Connecticut General Statutes, the Unfunded Actuarial Accrued Liability (UAAL) resulting from the plan provisions in effect as of June 30, 1991 is to be amortized over a 40-year period, while subsequent changes in the UAAL are to be amortized over 30 years.

However, for fiscal years through June 30, 2006, the Governmental Accounting Standards Board (GASB) Statement No. 25 requires that the net effective amortization period not exceed 40 years. The contribution rate shown above is sufficient to meet this requirement. Effective July 1, 2006 the GASB requirement for the net effective amortization period decreases to 30 years. The computed State contribution amount for the Fiscal Years ending June 30, 2008, and June 30, 2009, appear to be large enough to meet that requirement.

**COMPUTED ACTUARIAL LIABILITIES
AS OF JUNE 30, 2006**

Actuarial Present Value of	(1) Total Present Value	Entry Age Actuarial Cost Method	
		(2) Portion Covered By Future Normal Cost Contributions	(3) Actuarial Accrued Liabilities (1) - (2)
Age and service allowances based on total service likely to be rendered by present active members	\$ 9,322,309,111	\$1,950,385,861	\$ 7,371,920,081
Separation benefits (refunds of contributions, and deferred allowances) likely to be paid present active members	419,715,145	385,296,093	34,419,052
Disability benefits likely to be paid present active members	106,602,793	66,527,234	40,075,559
Death-in-service benefits likely to be paid on behalf of present active members	86,177,478	24,936,528	61,240,950
Contributions due to members not receiving a vested benefit	156,996,092	0	156,996,092
Benefits payable to present retirees and beneficiaries	9,274,542,228	0	9,274,542,228
Deferred benefits payable to members who terminated with vested rights	173,573,437	0	173,573,437
Future Cost-of-Living Adjustments to be paid from the Cost-of-Living Adjustment Reserve Account (CLARA)	1,591,025,496	0	1,591,025,496
Total	\$21,130,938,611	\$2,427,145,716	\$18,703,792,895
Applicable assets including CLARA Balance			<u>11,781,338,002</u>
Unfunded Actuarial Accrued Liability			\$ 6,922,454,893

DEVELOPMENT OF GAINS AND LOSSES

Unfunded Actuarial Accrued Liability, July 1, 2004	\$ 5,223,799,619
Normal Cost - 7/1/04 - 6/30/05	274,630,804
Normal Cost - 7/1/05 - 6/30/06	285,616,036
Contributions - 7/1/04 - 6/30/05	(403,382,496)
Contributions - 7/1/05 - 6/30/06	(653,437,146)
Interest	919,022,755
Expected UAL	5,646,249,573
Actual UAL at June 30, 2006	6,922,454,893
Gain/(Loss) for Two Year Period	\$ (1,276,205,320)

Actuarial Value of Assets, July 1, 2004	\$11,306,878,529
Benefits Paid - 7/1/04 - 6/30/05	(972,618,167)
Benefits Paid - 7/1/05 - 6/30/06	(1,064,136,984)
Contributions - 7/1/04 - 6/30/05	403,382,496
Contributions - 7/1/05 - 6/30/06	653,437,146
Interest	1,912,664,104
Expected Assets	12,239,607,124
Actual Assets at June 30, 2006	11,781,338,002
Asset Gain/(Loss) for Two Year Period	\$ (458,269,122)

Actuarial Accrued Liability, July 1, 2004	\$16,530,678,148
Normal Cost - 7/1/04 - 6/30/05	274,630,804
Normal Cost - 7/1/05 - 6/30/06	285,616,036
Benefits Paid - 7/1/04 - 6/30/05	(972,618,167)
Benefits Paid - 7/1/05 - 6/30/06	(1,064,136,984)
Interest	2,831,686,859
Expected AAL	17,885,856,697
Actual AAL at June 30, 2006	18,703,792,895
Non-Investment Gain/(Loss) for Two Year Period	\$(817,936,198)

DEVELOPMENT OF FUNDING VALUE OF ASSETS

The next two pages show the development of the Funding, or Actuarial, Value of System Assets. Each year, the assumed investment return is fully recognized. Then, to dampen the effects of year-to-year changes in the market value returns, 25% of the difference between the assumed return and the market return is also recognized in a given year. This occurs regardless of whether that difference is positive (a gain) or negative (a loss). One-third of the remaining 75% of the gain or (loss) is recognized over the next three years until the full amount of the gain/(loss) has been recognized.

**DEVELOPMENT OF FUNDING VALUE OF ASSETS
(4 YEAR SMOOTHING)**

Valuation Date June 30	2006	2007	2008	2009
A. Funding Value Beginning of Year	\$11,210,905,948			
B. Market Value End of Year	12,227,994,598			
C. Market Value Beginning of Year	11,392,543,770			
D. Non-Investment Net Cash Flow	(410,699,839)			
E. Investment Return				
E1. Market Total: B-C-D	1,246,150,667			
E2. Assumed Rate	8.50%			
E3. Amount for Immediate Recognition	935,472,262			
E4. Amount for Phased In Recognition: E1-E3	310,678,405			
F. Phased-In Recognition of Investment Return				
F1. Current Year: 0.25 x E4	77,669,601			
F2. First Prior Year	42,856,427	\$ 77,669,601		
F3. Second Prior Year	127,934,944	42,856,427	\$ 77,669,601	
F4. Third Prior Year	(202,801,342)	127,934,944	42,856,427	\$77,669,601
F5. Total Recognized Investment Gain	45,659,630	248,460,972	120,526,028	77,669,601
G. Total Recognized Investment Return: E3+F5	981,131,892			
H. Funding Value End of Year: A+D+G	11,781,338,002			
I. Difference Between Market and Funding Values	446,656,596			
J. Recognized Rate of Return	8.91%			
K. Rate of Return (Market Value Basis)	11.08%			

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (Line E4) are phased in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 3 consecutive years, funding value will become equal to market value.

FUNDING VALUE OF ASSETS – COMPARATIVE STATEMENT

Valuation Date June 30	2003	2004	2005	2006
A. Funding Value Beginning of Year	\$11,961,346,260	\$11,665,804,540	\$11,306,878,529	\$11,210,905,948
B. Market Value End of Year	9,853,283,134	10,853,461,575	11,392,543,770	12,227,994,598
C. Market Value Beginning of Year	10,125,903,606	9,853,283,134	10,853,461,575	11,392,543,770
D. Non-Investment Net Cash Flow	(458,637,448)	(482,642,418)	(569,235,671)	(410,699,839)
E. Investment Return				
E1. Market Total: B-C-D	186,016,976	1,482,820,859	1,108,317,865	1,246,150,667
E2. Assumed Rate	8.50%	8.50%	8.50%	8.50%
E3. Amount for Immediate Recognition	997,222,341	971,081,083	936,892,159	935,472,262
E4. Amount for Phased In Recognition: E1-E3	(811,205,365)	511,739,776	171,425,706	310,678,405
F. Phased-In Recognition of Investment Return				
F1. Current Year: 0.25 x E4	(202,801,341)	127,934,944	42,856,427	77,669,601
F2. First Prior Year	(431,619,101)	(202,801,341)	127,934,944	42,856,427
F3. Second Prior Year	(340,879,178)	(431,619,101)	(202,801,341)	127,934,944
F4. Third Prior Year	141,173,007	(340,879,178)	(431,619,099)	(202,801,342)
F5. Total Recognized Investment Gain	(834,126,613)	(847,364,676)	(463,629,069)	45,659,630
G. Total Recognized Investment Return: E3+F5	163,095,728	123,716,407	473,263,090	981,131,892
H. Funding Value End of Year: A+D+G	11,665,804,540	11,306,878,529	11,210,905,948	11,781,338,002
I. Difference Between Market and Funding Values	(1,812,521,406)	(453,416,954)	181,637,822	446,656,596
J. Recognized Rate of Return	1.39%	1.08%	4.29%	8.91%
K. Rate of Return (Market Value Basis)	2.13%	15.34%	10.49%	11.08%

The market value of the assets of the Retirement System, as of June 30, 2006, was \$12,227,994,598.

Assets	June 30, 2006
Market value of plan assets	\$12,227,994,598
Market value adjustment	<u>(446,656,596)</u>
Funding value of assets prior to adjustment for CLARA Balance	\$11,781,338,002
CLARA Balance	<u>(1,591,025,496)</u>
Net funding value of plan assets	\$ 10,190,312,506

In financing the Retirement System actuarial accrued liabilities, the applicable assets of \$10,190,312,506 were applied as follows:

Account	Assets Applied to		Totals *
	Retiree and Beneficiary Liabilities	Active and Inactive Member Liabilities *	
Computed Actuarial Accrued Liabilities	\$9,274,542,228	\$7,838,225,171	\$17,112,767,399
Valuation Assets	<u>9,274,542,228</u>	<u>915,770,278</u>	<u>10,190,312,506</u>
Unfunded Actuarial Accrued Liabilities	\$ 0	\$6,922,454,893	\$ 6,922,454,893

* Amounts do not include CLARA Balance of \$1,591,025,496.

SECTION C

Employee Census Data and Asset Information

**TOTAL ACTIVE MEMBERS IN VALUATION JUNE 30, 2006
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	3	0	0	0	0	0	0	3	\$ 54,058
20-24	712	1	0	0	0	0	0	713	25,777,758
25-29	4,587	917	2	0	0	0	0	5,506	227,579,478
30-34	2,353	3,478	309	0	0	0	0	6,140	297,268,330
35-39	1,445	2,547	1,859	158	2	0	0	6,011	333,581,462
40-44	1,179	1,366	1,094	1,097	288	1	0	5,025	301,761,201
45-49	1,099	1,321	892	930	1,216	348	2	5,808	368,344,810
50-54	791	1,317	1,155	1,044	996	2,008	779	8,090	559,104,310
55-59	492	860	844	1,169	1,173	1,218	3,520	9,276	686,531,712
60	50	85	99	158	210	196	499	1,297	98,373,927
61	28	55	64	119	165	130	290	851	65,016,418
62	22	43	42	69	93	97	235	601	45,663,070
63	28	42	35	65	74	77	173	494	36,728,185
64	17	26	20	48	75	65	133	384	29,135,625
65	9	15	17	37	47	39	92	256	19,343,874
66	7	15	11	12	28	27	55	155	12,003,080
67	3	1	9	19	11	22	43	108	8,372,723
68	1	9	9	9	11	9	38	86	6,577,766
69	2	4	10	4	7	11	25	63	5,050,572
70 & Over	2	5	6	17	24	15	79	148	11,415,920
Totals	12,830	12,107	6,477	4,955	4,420	4,263	5,963	51,015	\$3,137,684,279

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.0 years
Service: 13.6 years
Annual Pay: \$61,505

**MALE, FEMALE, AND TOTAL MEMBERS IN VALUATION JUNE 30, 2006
BY YEARS OF SERVICE**

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	239	768	1,007	\$ 24,958,103	\$24,785
1	800	2,513	3,313	139,024,680	41,963
2	761	2,343	3,104	136,267,081	43,900
3	638	1,942	2,580	118,391,181	45,888
4	674	2,152	2,826	134,767,146	47,688
5	686	2,153	2,839	142,639,179	50,243
6	708	2,039	2,747	143,240,652	52,144
7	645	1,907	2,552	138,025,807	54,085
8	582	1,545	2,127	120,268,454	56,544
9	486	1,356	1,842	109,493,182	59,443
10	441	1,235	1,676	104,475,717	62,336
11	356	1,096	1,452	93,917,550	64,682
12	295	951	1,246	84,079,573	67,480
13	263	855	1,118	77,798,349	69,587
14	183	802	985	70,150,450	71,219
15 & Up	4,900	14,701	19,601	1,500,187,176	76,536
Totals	12,657	38,358	51,015	\$3,137,684,279	\$61,505

**FORMER ACTIVE MEMBERS AND BENEFICIARIES
IN PAY STATUS BY PLAN CODE**

Number in Each Plan Code

Plan	Retirees and Beneficiaries*	Disabled	Total
A (Life Annuity)	261	6	267
B (100% Cash Refund)	360	4	364
C (Period Certain and Life)	1,353	4	1,357
D (Joint and Survivor)	4,714	0	4,714
N (25% Cash Refund)	19,201	5	19,206
S (Survivor)	446	0	446
W (Disability)	1	340	341
Total	26,336	359	26,695

Monthly Benefits Paid in Each Plan Code

Plan	Retirees and Beneficiaries*	Disabled	Total
A (Life Annuity)	\$ 467,850	\$ 4,943	\$ 472,793
B (100% Cash Refund)	708,373	3,487	711,860
C (Period Certain and Life)	3,397,455	4,837	3,402,292
D (Joint and Survivor)	16,111,011	0	16,111,011
N (25% Cash Refund)	62,575,186	8,170	62,583,356
S (Survivor)	204,466	0	204,466
W (Disability)	300	745,831	746,131
Total	\$83,464,641	\$767,268	\$84,231,909

* *Beneficiaries category includes 446 Surviving Spouses and Dependents combined.*

**RETIREES, BENEFICIARIES, SURVIVING SPOUSES AND DEPENDENTS
BY FISCAL YEAR BENEFITS COMMENCED**

Year Ending	Number	Monthly Annuity	Monthly Pension	Monthly Voluntary	Total	Average
1952	1	\$ 480	\$ 0	\$ 0	\$ 480	\$ 480
1953	1	802	0	0	802	802
1959	2	600	0	0	600	300
1960	3	1,075	0	0	1,075	358
1961	3	2,367	0	0	2,367	789
1962	3	3,976	0	0	3,976	1,325
1963	5	5,607	0	2	5,609	1,122
1964	3	4,655	0	5	4,660	1,553
1965	5	8,279	0	2	8,281	1,656
1966	11	10,333	0	6	10,339	940
1967	8	9,345	0	11	9,356	1,170
1968	19	18,852	0	36	18,888	994
1969	27	32,381	0	89	32,470	1,203
1970	31	40,410	0	75	40,485	1,306
1971	38	48,565	0	116	48,681	1,281
1972	53	83,338	0	238	83,576	1,577
1973	97	162,178	0	554	162,732	1,678
1974	80	137,508	0	350	137,858	1,723
1975	120	215,337	0	674	216,011	1,800
1976	122	228,987	0	755	229,742	1,883
1977	159	283,381	0	1,331	284,712	1,791
1978	190	358,204	0	1,208	359,412	1,892
1979	206	360,604	0	2,513	363,117	1,763
1980	250	454,632	0	3,018	457,650	1,831
1981	279	499,564	0	3,266	502,830	1,802
1982	355	659,986	0	4,966	664,952	1,873
1983	396	765,175	0	4,719	769,894	1,944
1984	402	815,919	0	8,380	824,299	2,050
1985	482	1,043,430	0	12,975	1,056,405	2,192
1986	542	1,242,901	0	23,889	1,266,790	2,337
1987	557	1,329,045	0	27,631	1,356,676	2,436
1988	518	1,263,482	0	25,374	1,288,856	2,488
1989	545	1,452,671	0	30,164	1,482,835	2,721
1990	792	2,368,463	0	52,712	2,421,175	3,057
1991	830	2,544,594	0	43,553	2,588,147	3,118
1992	890	3,008,278	0	49,538	3,057,816	3,436
1993	1,776	6,528,411	0	113,765	6,642,176	3,740
1994	590	1,692,117	0	27,470	1,719,587	2,915
1995	1,009	3,334,039	0	57,280	3,391,319	3,361
1996	981	3,164,359	0	52,690	3,217,049	3,279
1997	990	3,214,222	0	54,503	3,268,725	3,302
1998	1,075	3,471,898	0	51,950	3,523,848	3,278
1999	1,000	3,190,811	0	48,164	3,238,975	3,239
2000	1,544	5,302,771	0	53,216	5,355,987	3,469
2001	1,422	4,743,857	0	53,246	4,797,103	3,373
2002	1,386	4,633,526	0	53,411	4,686,937	3,382
2003	1,585	5,313,989	0	97,617	5,411,606	3,414
2004	1,551	5,406,621	0	99,539	5,506,160	3,550
2005	2,020	7,190,156	0	161,190	7,351,346	3,639
2006	1,741	6,222,396	0	135,141	6,357,537	3,652
TOTAL	26,695	\$82,874,577	\$ 0	\$1,357,332	\$84,231,909	\$3,155

RECONCILIATION OF MARKET VALUE ASSETS

	Asset Reconciliation	
	2004-2005	2005-2006
Net Market Value as of July 1	\$ 10,853,461,575	\$ 11,392,543,770
Additions		
State Contributions	185,348,143	396,248,844
ERIP Contributions	2,456,776	2,802,639
Employee Contributions	215,577,577	254,385,663
Change in Net Appreciation	645,128,221	774,476,353
Interest and Dividends	460,914,313	426,123,626
Gain on Sale of Securities	2,275,332	45,550,687
Total Additions	\$ 1,511,700,362	\$ 1,899,587,812
Deductions		
Benefits (pensions, contribution refunds, reimbursements, and adjustments)	(972,618,167)	(1,064,136,984)
Net Increase	539,082,195	835,450,828
Net Market Value as of June 30*	\$ 11,392,543,770	\$ 12,227,994,598

* Value as reported on State Street statements for the fiscal year end.

COST-OF-LIVING ADJUSTMENT RESERVE ACCOUNT BALANCE AS OF JUNE 30, 2006

Pursuant to PA 92-205, a special reserve account, originally known as the “Excess Earnings Account” was established within the assets for the Teachers' Retirement System. Beginning in 1992, the Account will be charged with the actuarial present value of cost-of-living adjustments to the pensions of any member whose date of retirement is on or after September 1, 1992. In any fiscal year that the rate of investment return exceeds 11.5%, the Account is credited with the dollar amount of investment return in excess of 11.5%. The Account is now referred to as the “Cost-of-Living Adjustment Reserve Account”, or CLARA.

Following is a development of the Cost-of-Living Adjustment Reserve Account from June 30, 2003 to June 30, 2006:

		<u>Eligible</u> <u>Pensioners</u>	<u>Rate of</u> <u>Return</u>
1. CLARA Balance, June 30, 2003	\$ 1,520,170,162		
Actuarial Liability for July 1, 2003 COLA = 1.4%	(54,150,876)	10,382	
Applicable Investment Return for FY 2003	0		2.13%
Actuarial Liability for January 1, 2004 COLA = 1.5%	(5,821,693)	1,335	
2. CLARA Balance, June 30, 2004	1,460,197,593		
Actuarial Liability for July 1, 2004 COLA = 1.5%	(65,953,135)	11,796	
Applicable Investment Return for FY 2004	371,188,614		15.34%
Actuarial Liability for January 1, 2005 COLA = 2.7%	(12,340,873)	1,520	
3. CLARA Balance, June 30, 2005	1,753,092,199		
Actuarial Liability for July 1, 2005 COLA = 2.7%	(138,478,315)	13,467	
Applicable Investment Return for FY 2005	0		10.49%
Actuarial Liability for January 1, 2006 COLA = 4.1%	(23,588,388)	1,803	
4. CLARA Balance, June 30, 2006	\$ 1,591,025,496		

SECTION D



Benefit Summary

SUMMARY OF PROVISIONS

JUNE 30, 2006

Outlined below are the principal provisions of the System which were reflected in the results shown in this report.

1. Covered Employees

Any teacher, principal, superintendent or supervisor engaged in service of public schools, plus professional employees at State schools of higher education if they choose to be covered.

2. Salary

Amount paid to a teacher as specified in a contract of employment excluding amounts paid for extra duty assignments, coaching, unused sick time, unused vacation or terminal pay.

3. Average Annual Salary

Average of annual salary received during three years of highest salary.

4. Credited Service

One month for each month of service as a teacher in Connecticut public schools, maximum 10 months for each school year. Ten months of credited service constitutes one year of Credited Service. Certain other types of teaching service, State employment, or war-time military service may be purchased at retirement, if the Member pays one-half of the cost.

5. Normal Retirement

Eligibility: Age 60 with 20 years of Credited Service in Connecticut or 35 years of Credited Service including at least 25 years of service in Connecticut.

Benefit: 2% times years of Credited Service times Average Annual Salary (maximum percent is 75%)

plus

any additional amounts derived from the accumulation of 6th percent contributions made prior to July 1, 1989 and voluntary contributions by the teacher.

Minimum Benefit: Effective January 1, 1999, Public Act 98-251 provides a minimum monthly retirement benefit of \$1,200 to teachers who retire under the Normal Retirement provisions and who have completed at least 25 years of full time Connecticut service at retirement.

6. Early Retirement

Eligibility: At any age after the completion of 25 years of Credited Service including 20 years of Connecticut service or at or after age 55 and the completion of 20 years of Credited Service including 15 years of Connecticut service, with the last 5 years in Connecticut.

Benefit: Reduced normal retirement benefit. The early retirement factors currently in effect are 6% per year for the first five years by which early retirement precedes the minimum normal retirement age and 4% per year for the next five years by which early retirement precedes the minimum normal retirement age. The Teachers' Retirement Board has adopted new early retirement factors that will apply effective July 1, 1999 to any member who retires on or after that date with at least 30 years of service. The new factors are 3% per year by which early retirement precedes the minimum normal retirement age.

7. Proratable Retirement

Eligibility: Age 60 with 10 years of Credited Service, with the last 5 years in Connecticut.

Benefit: 2% less .1% for each year less than 20 years times years of Credited Service in Connecticut plus 1% times years of additional Credited Service times Average Annual Salary.

8. Disability Retirement

Eligibility: Disability after 5 years of Credited Service in Connecticut if not incurred in the performance of duty and without regard to service if incurred in the performance of duty.

Benefit: 2% times Credited Service to date of disability times Average Annual Salary, but not less than 15% times Average Annual Salary, nor more than 50% of Average Annual Salary. In addition, in no case will a disability benefit under this plan (without regard to any cost-of-living adjustments) plus any initial award of Social Security benefits and workers' compensation exceed the Average Annual Salary.

9. Termination of Employment

With less than 5 years of Credited Service: Return of 6% contributions with interest.

With 5 or more years of Credited Service: Return of 6% contributions with interest and 1% contributions made prior to July 1, 1989 without interest.

With 10 or more years of Credited Service: Member is 100% vested in the accrued benefit based on Credited Service and Average Annual Salary as of the date of termination of covered employment. Member may elect return of all contributions plus interest on 6% contributions in lieu of vested benefit.

10. Pre-Retirement Death Benefits

A lump sum plus one of the following: survivor's benefit, return of all contributions with interest, surviving spouse's benefit, or automatic surviving spouse's benefit.

- Lump Sum: \$1,000 for the first 5 years of Connecticut service plus \$200 per year thereafter. Maximum benefit: \$2,000.
- Survivor's Benefit: For active teachers who die while in service, the family maximum benefit payable to survivors has been increased from \$600 to \$1,500 per month. Each minor child is entitled to \$300 per month. The surviving spouse's benefit will be \$300 per month if the member has 12 or less years of service. For each additional year of service, the surviving spouse's monthly benefit is increased \$25, up to a maximum of \$600.
- Accumulated contributions with interest plus dependent children's benefits as described in the "Survivor's Benefit" paragraph.
- Surviving Spouse's Benefit: the 50% co-participant option plus dependent children's benefits as described in the "Survivor Benefit" paragraph.
- Automatic Surviving Spouse's Benefit: An active member who is eligible for immediate retirement and who has named his or her spouse as primary beneficiary will be automatically covered by a 100% Plan D co-participant option in the event of his or her death prior to retirement.

11. Form of Annuity

Normal: Partial Refund Option - 75% of total benefit is paid as a life annuity. If 25% of the benefits paid prior to death do not exceed the Member's 6% contributions plus interest frozen at the date of benefit commencement, the difference is paid to the Member's beneficiary.

Optional Forms: 5-, 10-, 20-, or 25-year certain and life. 33-1/3%, 50%, 66-2/3%, 75%, or 100% co-participant annuity (if co-participant dies first, benefit reverts to unreduced amount).

12. Cost-of-Living Allowance

For teachers who retired prior to September 1, 1992, pension benefit adjustments are made in accordance with increases in the Consumer Price Index, with a minimum of 3% and a maximum of 5% per annum. Benefit adjustments for teachers who retire on or after September 1, 1992, will be provided through the Cost-of-Living Adjustment Reserve Account. The amount of such adjustments will depend upon the adequacy of the Cost-of-Living Adjustment Reserve Account as well as the investment returns of the Teachers' Retirement Fund.

13. Teachers' Required Contribution

Effective July 1, 1992, each teacher is required to contribute 6% of annual salary for the pension benefit. An additional 1.25% of annual salary is contributed for health insurance of retired teachers, except for the first \$500,000 of such total.

14. State Contribution

The State's contribution requirement to fund the balance of the liability for benefits with annual contributions (currently paid in installments at the beginning of each quarter) is determined in accordance with Section 10-183z (which reflects Public Act 79-436 as amended).

SAMPLE BENEFIT COMPUTATIONS FOR A MEMBER RETIRING JUNE 30, 2006

The data for the sample member is shown below.

A.	<u>\$40,000</u>	Average Annual Salary
B.	<u>32</u>	Total Credited Service (all in Connecticut for the purpose of this example)
C.	<u>60</u>	Age of Retiree
D.	<u>55</u>	Age of Spouse
E.	<u>100%</u>	Percentage of Retirement Allowance to Continue to Spouse after Retiree's Death (Retiree Chooses this Percentage)

The computations that would be made for this case are:

	<u>Annual Amount</u>
F. Formula Benefit: $2\% \times A \times B$	\$25,600
G. Adjustment for Line E election $(1 - .871) \times \$25,600$	<u>3,302</u>
H. Net Annual Benefit Payable	\$22,298

Subject to the availability of funds in the Cost-of-Living Adjustment Reserve Account, this benefit could be increased by a Cost-of-Living adjustment (COLA). The amount of the COLA in a given year depends on the Teachers' Retirement Fund investment returns and the rate of increases in Social Security benefits.

SECTION E

Disclosures Required by GASB Statement No. 25

INFORMATION FOR COMPLIANCE WITH GASB STATEMENT NO. 25

The information in this section of the report is provided to assist the Connecticut Teachers' Retirement System (CTRS) with the requirements of Governmental Accounting Standards Board Statement No. 25 (GAS 25). The GAS 25 requirements include:

1. Schedule of Funding Progress – This provides a six-year history of the following:
 - The actuarial value of plan assets,
 - The actuarial accrued liability,
 - The relationship between the assets and the liability, and
 - The relationship between the unfunded actuarial accrued liability and member payroll.

2. Schedule of Employer Contributions – This provides a history of the State's Annual Required Contribution (ARC) and a comparison of the ARC with the actual contributions made each year by the State.

3. A reconciliation of the changes in the market value of plan assets since the last annual valuation. This appears on page C-5.

4. Summary of Actuarial Methods and Assumptions – This states the assumptions made with regard to rates of return, salary increases, amortization periods and the actuarial cost method used.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2006												
Actuarial cost method	Entry age actuarial cost method using level percent of payroll funding												
Amortization method	Level percent of payroll												
Remaining amortization periods	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Plan in effect 6/30/91</td> <td style="text-align: right;">25 years</td> </tr> <tr> <td>Public Act 82-91</td> <td style="text-align: right;">6 years</td> </tr> <tr> <td>Public Act 87-381</td> <td style="text-align: right;">11 years</td> </tr> <tr> <td>Public Act 92-205</td> <td style="text-align: right;">16 years</td> </tr> <tr> <td>Public Act 98-251</td> <td style="text-align: right;">21 years</td> </tr> <tr> <td colspan="2" style="text-align: center;">(All of these are closed periods.)</td> </tr> </table>	Plan in effect 6/30/91	25 years	Public Act 82-91	6 years	Public Act 87-381	11 years	Public Act 92-205	16 years	Public Act 98-251	21 years	(All of these are closed periods.)	
Plan in effect 6/30/91	25 years												
Public Act 82-91	6 years												
Public Act 87-381	11 years												
Public Act 92-205	16 years												
Public Act 98-251	21 years												
(All of these are closed periods.)													
Asset valuation method	4-year smoothed market												
Actuarial assumptions:													
Investment rate of return*	8.5%												
Projected salary increases*	4.0% - 7.5%												
*Includes wage inflation at	4.0%												
Cost-of-living adjustments for retirements prior to September 1, 1992	3.0%												

Membership of the System consisted of the following at June 30, 2006, the date of the latest actuarial valuation:

	Totals
Retired Members and Beneficiaries Receiving Benefits	26,695
Inactive Members	
Vested	1,341
Non-Vested	9,391
Active Members	51,015
Totals	88,442

SCHEDULE OF FUNDING PROGRESS

(DOLLAR AMOUNTS IN MILLIONS)

Actuarial Valuation Date	Actuarial Value of Assets (a)*	Actuarial Accrued Liability (AAL) - Entry Age (b)*	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
6/30/1994	\$ 5,602.1	\$ 8,222.6	\$2,620.5	68.1%	\$2,030.4	129.1%
6/30/1996	6,648.2	9,626.8	2,978.6	69.1%	2,151.6	138.4%
6/30/1998	7,721.1	10,970.1	3,249.0	70.4%	2,298.9	141.3%
6/30/2000	9,605.9	11,797.6	2,191.7	81.4%	2,501.5	87.6%
6/30/2002	10,387.3	13,679.9	3,292.6	75.9%	2,698.3	122.0%
6/30/2004	9,846.7	15,070.5	5,223.8	65.3%	2,930.8	178.2%
6/30/2006	10,190.3	17,112.8	6,922.5	59.5%	3,137.7	220.6%

* The Actuarial Value of Assets and Entry Age Actuarial Accrued Liabilities exclude the EEA Balance for valuation years 1994 through 2000; the CLARA Balance is excluded for valuation years 2002 through 2006.

Note: Since the State adopted a biennial budgeting process, formal actuarial valuations have only been prepared as of June 30 of even-numbered years.

SCHEDULE OF STATE CONTRIBUTIONS

Fiscal Year Ended June 30	Annual Required Contribution	Actual Contributions	Percent Contributed
1999	\$221,569,693	\$188,334,000	85.0%
2000	240,524,050	204,445,443	85.0%
2001	252,547,880	214,665,698	85.0%
2002	210,701,421	204,511,460	97.1%
2003	221,236,492	179,823,603	81.3%
2004	270,544,487	185,348,144	68.5%
2005	281,366,266	185,348,143	65.9%
2006	396,248,625	396,248,844	100.0%

SECTION F



Actuarial Assumptions, Methods, and Definitions

**SUMMARY OF THE NEW ASSUMPTIONS USED IN THIS ACTUARIAL
VALUATION FOR
THE CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM
ADOPTED BY BOARD OF TRUSTEES IN 2006
AFTER CONSULTING WITH ACTUARY**

Economic Assumptions

The investment return rate used in making the valuation was 8.5% per year, compounded annually (net after administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return is the portion of investment return which is more than the inflation rate. Considering wage inflation recognition of 4.0%, the 8.5% rate translates to an assumed real rate of return of 4.5%. This rate was first used for the ***June 30, 2002***, valuation.

Pay increase assumptions for individual active members are shown on page F-8. Part of the assumption is for a merit and/or seniority increase related to the member's years of service, and the other 4.0% recognizes wage inflation. These rates were first used for the ***June 30, 2006***, valuation.

The Active Member Group size is assumed to remain constant at its present level.

Total active member payroll is assumed to increase 4.0% per year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This rate was first used for the ***June 30, 2002***, valuation.

Members who retired prior to September 1, 1992, are assumed to receive an annual ***Cost-of-Living Adjustment (COLA)*** of 3.0%. Future COLAs for all other retirees will be paid from the CLARA --- at the appropriate time an amount will be transferred out of this Reserve Account to cover the cost of that COLA. Therefore, no assumption is made about annual COLAs for members who retire after August 31, 1992.

Non-Economic Assumptions

The mortality table used to measure non-disabled retired life mortality was the 2000 Retired Pensioners Combined Mortality Table projected forward 19 years using scale AA, with a two-year age setback for males and females. Related values are shown on page F-3. Both the male and female non-disabled retired life mortality were then given a 10-year age set-forward to be used for disabled retiree mortality. Rates for active male and female members are 75 percent of their respective retired

member rates. *Pre-retirement mortality rates* are shown on page F-6. These tables were first used for the *June 30, 2006* valuation.

The probabilities of retirement for members eligible to retire are shown on page F-4. These rates were first used in the *June 30, 2006* valuation.

The probabilities of withdrawal from service are shown for sample ages on page F-5. *Disability rates* are shown on page F-7. The withdrawal and disability rates were first used in the valuation as of *June 30, 2006*, and do not apply to members who are eligible for retirement.

The entry age actuarial cost method with level percent of payroll funding was used in determining the normal cost and actuarial accrued liabilities for the System.

Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce contribution amounts (the total of principal and interest) which are level percent of payroll contributions.

Asset Valuation Method. A market value related asset method is used as described on page B-4. This method was first used in the June 30, 1996 valuation.

The data about persons now covered and about present assets was furnished by the System’s administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

POST-RETIREMENT MORTALITY PROBABILITIES

Age	% Dying Next Year		Age	% Dying Next Year	
	Male	Female		Male	Female
50	0.1369%	0.1015%	81	4.6947%	3.6320%
51	0.1440%	0.1098%	82	5.3179%	4.0147%
52	0.1514%	0.1210%	83	6.0671%	4.4435%
53	0.1701%	0.1363%	84	6.9094%	4.9260%
54	0.1817%	0.1544%	85	7.7020%	5.4696%
55	0.1986%	0.1755%	86	8.7312%	6.0831%
56	0.2177%	0.2003%	87	9.6919%	6.9078%
57	0.2517%	0.2332%	88	10.7454%	7.8529%
58	0.2974%	0.2756%	89	12.1344%	8.9273%
59	0.3388%	0.3162%	90	13.6910%	9.9435%
60	0.3881%	0.3567%	91	15.1302%	11.2543%
61	0.4376%	0.4038%	92	16.9960%	12.4375%
62	0.4966%	0.4596%	93	18.5121%	13.6580%
63	0.5760%	0.5286%	94	20.4586%	14.8872%
64	0.6571%	0.6052%	95	22.0697%	16.4072%
65	0.7659%	0.6953%	96	23.6783%	17.5976%
66	0.8629%	0.7836%	97	25.7507%	18.7249%
67	0.9744%	0.8824%	98	27.3309%	19.7713%
68	1.1237%	0.9959%	99	28.8660%	21.1187%
69	1.2537%	1.1058%	100	30.9359%	21.9730%
70	1.3671%	1.2224%	101	32.3989%	22.7030%
71	1.5149%	1.3510%	102	33.8068%	23.2996%
72	1.6663%	1.5221%	103	35.8628%	24.4834%
73	1.8437%	1.6572%	104	37.1685%	25.4498%
74	2.0471%	1.8432%	105	38.3040%	26.6044%
75	2.2802%	2.0100%	106	39.2003%	27.9055%
76	2.5438%	2.2277%	107	39.7886%	29.3116%
77	2.8943%	2.4128%	108	40.0000%	30.7811%
78	3.2259%	2.6583%	109	40.0000%	32.2725%
79	3.6581%	2.9844%	110	100.0000%	100.0000%
80	4.1439%	3.2898%	Ref	456 1.00 2	457 1.00 2

**PROBABILITIES OF AGE AND SERVICE RETIREMENT
FOR MEMBERS ELIGIBLE TO RETIRE**

Age	% of Active Participants Retiring					
	Unreduced		Proratable		Reduced	
	Male	Female	Male	Female	Male	Female
50	27.5%	15.0%			2.0%	2.0%
51	27.5%	15.0%			2.0%	2.0%
52	27.5%	15.0%			3.0%	4.0%
53	27.5%	15.0%			3.0%	4.5%
54	27.5%	15.0%			5.0%	5.5%
55	38.5%	30.0%			5.0%	7.5%
56	38.5%	30.0%			7.0%	8.5%
57	38.5%	30.0%			10.0%	9.5%
58	38.5%	30.0%			11.0%	10.0%
59	38.5%	30.0%			12.0%	10.0%
60	22.0%	20.0%	6%	5.4%		
61	25.3%	22.5%	6%	7.2%		
62	25.3%	22.5%	15%	9.9%		
63	27.5%	22.5%	10%	7.2%		
64	27.5%	22.5%	10%	7.2%		
65	36.3%	30.0%	20%	13.5%		
66	27.5%	30.0%	20%	10.8%		
67	27.5%	30.0%	20%	13.5%		
68	27.5%	30.0%	20%	10.8%		
69	27.5%	30.0%	35%	10.8%		
70	100.0%	40.0%	35%	10.8%		
71	100.0%	40.0%	35%	10.8%		
72	100.0%	40.0%	35%	10.8%		
73	100.0%	40.0%	35%	10.8%		
74	100.0%	40.0%	35%	18.0%		
75	100.0%	40.0%	40%	18.0%		
76	100.0%	40.0%	40%	18.0%		
77	100.0%	40.0%	40%	18.0%		
78	100.0%	40.0%	40%	18.0%		
79	100.0%	40.0%	40%	18.0%		
80	100.0%	100.0%	40%	18.0%		
Tbl	804	805	806	807	1094	1095
Anch	50	50	60	60	45	45
Mult	1.1	1	1	0.9	1	1

WITHDRAWAL RATES PRIOR TO ELIGIBILITY FOR RETIREMENT

% of Active Participants Withdrawing					
Service-Based Withdrawal			Age-Based Withdrawal		
Service	Male	Female	Age	Male	Female
0-1	0.1400	0.1200	25	0.0120	0.0350
1-2	0.0850	0.0900	26	0.0120	0.0350
2-3	0.0550	0.0700	27	0.0120	0.0350
3-4	0.0450	0.0600	28	0.0120	0.0350
4-5	0.0350	0.0550	29	0.0120	0.0350
5-6	0.0250	0.0500	30	0.0120	0.0350
6-7	0.0240	0.0450	31	0.0120	0.0350
7-8	0.0230	0.0350	32	0.0120	0.0350
8-9	0.0220	0.0300	33	0.0120	0.0350
9-10	0.0210	0.0250	34	0.0120	0.0350
			35	0.0120	0.0350
			36	0.0120	0.0350
			37	0.0120	0.0350
			38	0.0120	0.0310
			39	0.0120	0.0270
			40	0.0120	0.0230
			41	0.0120	0.0190
			42	0.0120	0.0160
			43	0.0122	0.0150
			44	0.0124	0.0140
			45	0.0126	0.0130
			46	0.0128	0.0120
			47	0.0130	0.0110
			48	0.0152	0.0115
			49	0.0174	0.0120
			50	0.0196	0.0125
			51	0.0218	0.0130
			52	0.0240	0.0130
			53	0.0272	0.0140
			54	0.0304	0.0150
			55	0.0336	0.0160
			56	0.0368	0.0170
			57	0.0400	0.0180
			58	0.0400	0.0180
			59	0.0400	0.0190
Sw	407	408	Wx	735	736

PRE-RETIREMENT MORTALITY PROBABILITIES

Age	% Dying Next Year	
	Male	Female
20	0.0164%	0.0108%
21	0.0173%	0.0107%
22	0.0180%	0.0106%
23	0.0190%	0.0104%
24	0.0198%	0.0105%
25	0.0210%	0.0109%
26	0.0220%	0.0113%
27	0.0233%	0.0118%
28	0.0253%	0.0127%
29	0.0260%	0.0133%
30	0.0268%	0.0140%
31	0.0281%	0.0148%
32	0.0303%	0.0164%
33	0.0340%	0.0198%
34	0.0383%	0.0225%
35	0.0431%	0.0249%
36	0.0479%	0.0269%
37	0.0527%	0.0289%
38	0.0574%	0.0307%
39	0.0616%	0.0324%
40	0.0645%	0.0343%
41	0.0670%	0.0365%
42	0.0695%	0.0398%
43	0.0721%	0.0436%
44	0.0753%	0.0479%
45	0.0790%	0.0527%
46	0.0833%	0.0579%
47	0.0882%	0.0620%
48	0.0927%	0.0662%
49	0.0976%	0.0704%
50	0.1027%	0.0761%
51	0.1080%	0.0823%
52	0.1136%	0.0908%
53	0.1276%	0.1022%
54	0.1363%	0.1158%
55	0.1489%	0.1316%
56	0.1633%	0.1502%
57	0.1888%	0.1749%
58	0.2231%	0.2067%
59	0.2541%	0.2372%
60	0.2911%	0.2675%
61	0.3282%	0.3029%
62	0.3725%	0.3447%
63	0.4320%	0.3965%
64	0.4928%	0.4539%
65	0.5744%	0.5215%
Ref	456 0.75.00 2	457 0.75 2

**DISABILITY RATES
PRIOR TO ELIGIBILITY FOR RETIREMENT**

Attained Age	% Becoming Disabled	
	Male	Female
20	0.0455%	0.0500%
21	0.0455%	0.0500%
22	0.0455%	0.0500%
23	0.0455%	0.0500%
24	0.0455%	0.0500%
25	0.0455%	0.0500%
26	0.0455%	0.0500%
27	0.0455%	0.0500%
28	0.0455%	0.0470%
29	0.0455%	0.0440%
30	0.0455%	0.0410%
31	0.0455%	0.0380%
32	0.0455%	0.0350%
33	0.0455%	0.0370%
34	0.0455%	0.0390%
35	0.0455%	0.0410%
36	0.0455%	0.0430%
37	0.0455%	0.0450%
38	0.0520%	0.0540%
39	0.0650%	0.0630%
40	0.0715%	0.0720%
41	0.0845%	0.0810%
42	0.1040%	0.0900%
43	0.1170%	0.1000%
44	0.1430%	0.1100%
45	0.1625%	0.1200%
46	0.1820%	0.1300%
47	0.2015%	0.1400%
48	0.2340%	0.1810%
49	0.2730%	0.2220%
50	0.3250%	0.2630%
51	0.3900%	0.3040%
52	0.4615%	0.3450%
53	0.5330%	0.3760%
54	0.6175%	0.4070%
55	0.7150%	0.4380%
56	0.8320%	0.4690%
57	0.9490%	0.5000%
58	1.0790%	0.5000%
59	1.2805%	0.5000%
60	1.2805%	0.5000%
Ref:	312 x 0.65	135 x 0.50

PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER

Service	% Increases in Salaries Next Year		
	Merit & Seniority	Base	Total
0	3.50%	4.00%	7.50%
1	3.50%	4.00%	7.50%
2	3.50%	4.00%	7.50%
3	3.50%	4.00%	7.50%
4	3.50%	4.00%	7.50%
5	2.50%	4.00%	6.50%
6	2.50%	4.00%	6.50%
7	2.50%	4.00%	6.50%
8	2.50%	4.00%	6.50%
9	2.50%	4.00%	6.50%
10	1.50%	4.00%	5.50%
11	1.50%	4.00%	5.50%
12	1.50%	4.00%	5.50%
13	1.50%	4.00%	5.50%
14	1.50%	4.00%	5.50%
15	0.00%	4.00%	4.00%
16	0.00%	4.00%	4.00%
17	0.00%	4.00%	4.00%
18	0.00%	4.00%	4.00%
19	0.00%	4.00%	4.00%
20	0.00%	4.00%	4.00%
21	0.00%	4.00%	4.00%
22	0.00%	4.00%	4.00%
23	0.00%	4.00%	4.00%
24	0.00%	4.00%	4.00%
25	0.00%	4.00%	4.00%
26	0.00%	4.00%	4.00%
27	0.00%	4.00%	4.00%
28	0.00%	4.00%	4.00%
29	0.00%	4.00%	4.00%
30	0.00%	4.00%	4.00%
31	0.00%	4.00%	4.00%
32	0.00%	4.00%	4.00%
33	0.00%	4.00%	4.00%
34	0.00%	4.00%	4.00%
35	0.00%	4.00%	4.00%
36	0.00%	4.00%	4.00%
37	0.00%	4.00%	4.00%
38	0.00%	4.00%	4.00%
39	0.00%	4.00%	4.00%
40	0.00%	4.00%	4.00%
Ref	4	4.00%	

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	85% of males and 75% of females are assumed to be married for purposes of valuing death-in-service benefits.
Pay Increase Timing:	Beginning of (fiscal) year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and exact service on the date the decrement is assumed to occur.
Benefit Service:	Exact years of service are used to determine the amount of benefit payable.
Decrement Timing:	Retirement decrements are assumed to occur at the beginning of the year, other decrements are assumed to occur mid-year.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and turnover decrements do not operate after member reaches retirement eligibility.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Miscellaneous Loading Factors:	None.

GLOSSARY

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Accumulated Benefit Obligation. The actuarial present value of vested and non-vested benefits based on service to date and past and current salary levels.

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Present Value of Credited Projected Benefits or Pension Benefit Obligation. The present value of future benefits based on service to date and the effect projected salary increases.

Actuary. A person who is trained in the applications of probability and compound interest to problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries. The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation A.S.A. and ultimately to Fellowship with the designation F.S.A.

GLOSSARY

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Pension Benefit Obligation. A standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to (i) help users assess the plan’s funding status on a going-concern basis, (ii) assess progress being made in accumulating sufficient assets to pay benefits when due, and (iii) allow for comparisons among public employee retirement plans. The measure is independent of the actuarial funding method used to determine contributions to the plan.

Plan Termination Liability. The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a “going concern” basis and is not normally determined in a routine actuarial valuation.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

Valuation Assets. The value of current plan assets recognized for valuation purposes. Generally based on book value plus a portion of unrealized appreciation or depreciation.

