Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

Teachers' Retirement Board

Connecticut State Teachers' Retirement System
Retiree Health Insurance Plan
Actuarial Valuation
as of June 30, 2010

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 3, 2010

Board of Trustees
Connecticut State Teachers' Retirement System
765 Asylum Avenue
Hartford, CT 06105

Members of the Board:

The laws governing the operation of the Connecticut State Teachers' Retirement System (the System) provide that actuarial valuations of the assets and liabilities of the System shall be made at least once every two years. We have conducted the biennial actuarial valuation of the System's retiree health insurance benefits (the Plan) as of June 30, 2010 and the results of the valuation are contained in the following report.

In performing the valuation, we relied on data supplied by the System and performed limited tests on the data for consistency and reasonableness. The valuation was prepared based upon our understanding of Chapter 167a, Section 10-183t of the Connecticut General Statutes and the Plan's provisions provided by the System's staff.

The cost of providing the Plan's benefits is financed on a pay-as-you-go basis as follows: active teachers pay for the Plan's costs through a contribution of 1.25% of their annual salaries in excess of $500,000; retired teachers pay, through monthly premiums, for one third of the basic costs for the Connecticut State Teachers' Retirement Board (CTRB) Sponsored Medicare Supplemental Plans; and the State of Connecticut (the State) pays for one third of the Plan's costs through an annual appropriation in the General Fund. Additionally, the administrative costs of the Plan are financed by the State.

The liabilities and information for the purpose of complying with Governmental Accounting Standards Board Statements No. 43 and No. 45 presented in this report represent the State's portion of the cost of providing the Plan's benefits. Based upon our interpretation of Chapter 167a, Section 10-183t(d) of the Connecticut statutes, it is assumed the State will pay for any long-term shortfall arising from insufficient active member contributions.

The assumptions recommended by the actuary are in the aggregate reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan and meet the parameters for the disclosures under GASB Statements No. 43 and No. 45. Since the previous valuation, the methodology used to develop per capita costs of health care, the rates of health care inflation used to project the per capita costs, and the percentage of vested members who terminate and elect to withdraw their contributions have been revised.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and meets the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Plan and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plan.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: Plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in Plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein. In our opinion, if the required contributions to a qualifying trust are made by the employer from year to year in the future at the levels required on the basis of the successive actuarial valuations, the Plan will operate in an actuarially sound manner.

Respectfully submitted,

Eric H. Gary, FSA, FCA, MAAA
Senior Actuary

Alisa Bennett, FSA, EA, FCA, MAAA
Principal and Senior Actuary

TABLE OF CONTENTS

Section	Item	Page No.
I	Board Summary	1
II	Membership Data	3
III	System Assets	4
IV	System Liabilities	5
V	Actuarial Valuation Results	6
VI	Accounting Information	7

Appendices

A	Membership Data	10
B	Summary of Actuarial Assumptions and Methods	12
C	Summary of Plan Provisions	18
D	Glossary	20

The table below summarizes the results of the June 30, 2010 actuarial valuation as compared with the prior valuation.

Table I-1: Comparative Summary of Principal Results		
	June 30, 2008*	**June 30, 2010**
Membership		
Active Members		
Number	51,738	51,368
Annual Payroll	$3,399,305	$3,645,974
Retirees and Beneficiaries		
Number of Retirees Receiving Health Insurance Benefits	20,868	22,712
Number of Spouses Receiving Health Insurance Benefits	9,751	10,439
Inactive Members		
Vested	1,394	1,315
Assets		
Market Value	$0	$0
Actuarial Information		
Unfunded Actuarial Liability (UAL)	$2,318,841	$2,997,856
Funded Ratio	0.00%	0.00%
Amortization Period	30 years	30 years
Computed Contribution Rates		
Normal Cost	2.19%	2.78%
Unfunded Accrued Liability	2.50%	2.95%
Total	4.69%	5.73%
Member	1.24%	1.24%
State	3.45%	4.49%
State Contribution Amount for Fiscal Year Ending		
June 30, 2009	$116,667	
June 30, 2010	$121,333	
June 30, 2011		$177,063
June 30, 2012		$184,145
All dollar amounts are in thousands		

**Results for June 30, 2008 were provided by the previous actuary.*

Summary of Key Findings

This report provides the annual expense required to be recognized by the State for purposes of complying with the accounting disclosure requirements of the Governmental Accounting Standards Board Statements No. 43 and No. 45.

The actuarially determined employer normal cost contribution rate increased from 0.95% as of June 30, 2008 to 1.54% as of June 30, 2010. The unfunded actuarial accrued liability increased from $2.319 billion to $2.998 billion over the two year period. The unfunded actuarial accrued liability rate increased from 2.50% to 2.95%. We note the following key findings:

- The per capita cost of basic benefits provided by the CTRB Sponsored Medicare Supplemental Plans has increased by 17% since the prior valuation.

- The number of retired members, spouses of retired members, and surviving spouses of retired members currently participating in the CTRB Sponsored Medicare Supplemental Plans has increased by 17% since the prior valuation.

- The ultimate rate of health care cost inflation has been increased from 4.00% to 5.00%.

- The use of a claims development process differing from that used by the prior actuary has been implemented with the June 30, 2010 valuation. The claims development process relates the health care costs from one age to another under the assumption that costs increase with age. Specifically, the method used to develop age specific claims costs has created cost differences between ages and genders.

Section II of the report provides summarized information on the membership data used in the valuation. Section III of the report covers the Plan's assets and Section IV of the report covers the Plan's liabilities. The results of the valuation are provided in Section V of the report and the accounting information is in Section VI. The appendices provide additional information on: A) the Plan members; B) the actuarial assumptions and methods; and C) the summary of Plan provisions. It should be noted that all information contained in this report for periods prior to June 30, 2010 was produced by a prior actuarial consulting firm.

Data regarding the membership of the Plan for use in the valuation were furnished by the System. The following table summarizes the membership data as of June 30, 2010 and is compared with that reported for the prior valuation.

Table II-1: Summary of Membership Data

	June 30, 2008*	June 30, 2010
Active Members		
Total Number of Active Members	51,738	51,368
Total Annual Compensation	$3,399,305	$3,645,974
Retirees and Beneficiaries		
Number of Retirees Receiving Health Insurance Benefits	20,868	22,712
Number of Spouses Receiving Health Insurance Benefits	9,751	10,439
Inactive Members		
Number of Vested Inactive Members	1,394	1,315

All dollar amounts are in thousands

**Results for June 30, 2008 were provided by the previous actuary.*

Section III: System Assets

GASB Statements No. 43 and No. 45 define plan assets as resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employers or plan administrator, for the payment of benefits in accordance with the terms of the plan.

As of June 30, 2010, no assets are held in a qualified trust solely to provide benefits to retirees and their beneficiaries in accordance with the terms of the Plan.

The present value of benefits is the value, as of the valuation date, of all future benefits expected to be paid to current members of the Plan. An actuarial cost method allocates each individual's present value of benefits to past and future years of service. The actuarial accrued liability includes the portion of the active member present value of benefits allocated to past service as well as the entire present value of benefits for retirees, beneficiaries and inactive members. The unfunded actuarial accrued liability (UAAL) is the difference between the actuarial accrued liability and the actuarial value of assets. Table IV-1 shows the allocation of the present value of future benefits into components for future normal cost contributions and actuarial accrued liabilities and the determination of the UAAL as of the valuation date.

Table IV-1: Calculation and Allocation of Present Value of Future Benefits

	Entry Age Actuarial Cost Method		
	(1) Present Value of Future Benefits	**(2) Portion Covered By Future Normal Cost Contributions**	**(3) Actuarial Accrued Liabilities (1) - (2)**
Active Members			
Service Retirement	$2,420,353	$1,120,110	$1,300,243
Disability Retirement	34,675	31,372	3,303
Survivors' Benefits	35,495	23,887	11,608
Termination	233,450	202,263	31,187
Total for Active Members	2,723,973	1,377,632	1,346,341
Inactive Members	79,900	0	79,900
Retirees and Beneficiaries	1,571,615	0	1,571,615
Total	$4,375,488	$1,377,632	$2,997,856
Actuarial Value of Assets			$0
Unfunded Actuarial Accrued Liability			$2,997,856
Funded Ratio			0.00%

All dollar amounts are in thousands

The valuation shows the Plan has an actuarial accrued liability of $1,346,341,000 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability for retiree health insurance benefits payable to inactive members with vested pension benefits is $79,900,000. The liability on account of benefits payable to retirees amounts to $1,571,615,000. The total actuarial accrued liability of the Plan amounts to $2,997,856,000. Against these liabilities, the Plan has present assets for valuation purposes of $0. Therefore, the unfunded actuarial accrued liability is equal to $2,997,856,000.

Section IV of this report presented the Plan's total present value of future benefits allocated between the present value of future normal cost contributions and actuarial accrued liability. The portion of the active members' present value of benefits allocated to future years of service is funded through annual normal cost contributions determined by the entry age normal actuarial cost method. Under the entry age normal actuarial cost method, the Plan's annual normal cost rate is calculated as a percent of covered payroll which is expected to remain level over all future years of service. The portion of the total normal cost rate in excess of the active member contribution rate is the State's normal cost rate. The normal cost rate developed as of the valuation date is presented in Table V-1. Table V-1 also shows the State's contribution rate that is necessary to amortize, as a level percent of active member payroll, the UAAL over a period of thirty years.

Table V-1: State Contribution Rate	
Normal Cost Rate of Active Members by Expected Benefit Type	
Service Retirement	2.28%
Termination	0.38%
Disability Retirement	0.07%
Survivors' Benefits	0.05%
Total Normal Cost Rate for Active Members	2.78%
Less: Active Member Contribution Rate	1.24%
State Normal Cost Rate	1.54%
Unfunded Actuarial Accrued Liability	2.95%
State Contribution Rate	4.49%

1. Governmental Accounting Standards Board Statements No. 43 and No. 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the Plan and the State. One such item is the schedule of funding progress, as shown below.

Table VI-1: Schedule of Funding Progress

Actuarial Valuation as of June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a % of Active Member Payroll [(b) - (a)] / (c)
2008	$0	$2,318,841	$2,318,841	0.0%	$3,399,305	68.22%
2010	0	2,997,856	2,997,856	0.0%	3,645,974	82.22%

All dollar amounts are in thousands

All figures prior to 6/30/2010 were reported by the prior actuarial firm.

2. The following shows the schedule of employer contributions.

Table VI-2: Schedule of Employer Contributions

Fiscal Year Ending June 30	Annual Required Contribution (a)	Actual Contributions (b)	Percent Contributed (b) / (a)
2008	$116,123	$24,932	21.5%
2009	116,667	29,495	25.3%
2010	121,333	12,108	10.0%
2011	177,063	n/a	n/a
2012	184,145	n/a	n/a

All dollar amounts are in thousands

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2010. Additional information as of the latest actuarial valuation follows.

Table VI-3: Additional Information	
Valuation date	6/30/2010
Actuarial cost method	Entry Age
Amortization method	Level Percent of Pay, Open
Amortization period	30 years
Asset valuation method	Market Value of Assets
Actuarial assumptions:	
Investment rate of return (includes inflation)	4.50%
Projected salary increases (includes inflation)	4.00% - 7.50%
Inflation	4.00%
Claims Trend Assumption	9.0% - 5.0%
Year of Ultimate Trend	2017
Contribution Trend Assumption	10.2% - 5.0%
Year of Ultimate Trend	2018

The assumed investment rate of return reflects the fact no assets are set aside within the System which are legally held exclusively for retiree health insurance benefits. If a qualified trust or equivalent arrangement were set up for this purpose, the investment rate of return may be increased.

4. The following shows contributions towards the Annual OPEB Cost (AOC)

Table VI-4: Trend Information

Fiscal Year Ending June 30	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
2008	$116,123	21.5%	$ 91,191
2009	117,500	25.1%	179,196
2010	122,968	9.8%	290,056

All dollar amounts are in thousands

5. Following is information to assist the System in the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2010.

Table VI-5: Annual OPEB Cost and Net OPEB Obligation
Fiscal Year Ending June 30, 2010

(a)	Employer Annual Required Contribution	$	121,333
(b)	Valuation Discount Rate		4.50%
(c)	Interest on Net OPEB Obligation: (i) * (b)	$	8,064
(d)	Amortization Factor		27.8747
(e)	Adjustment to Annual Required Contribution: (i) / (d)	$	6,429
(f)	Annual OPEB Cost: (a) + (c) - (e)	$	122,968
(g)	Employer Contributions for Fiscal Year Ending June 30, 2010	$	12,108
(h)	Increase in Net OPEB Obligation: (f) - (g)	$	110,860
(i)	Net OPEB Obligation at beginning of Fiscal Year	$	179,196
(j)	Net OPEB Obligation at end of Fiscal Year: (h) + (i)	$	290,056

All dollar amounts are in thousands

Appendix A: Membership Data

Table A-1: Schedule of Active Participant Data as of June 30, 2010									
	Years of Service								
AGE	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	Total
Under 25	501								501
Avg. Pay	39,851								39,851
25 to 29	4,030	1,188							5,218
Avg. Pay	46,805	52,829							48,176
30 to 34	2,004	4,039	837						6,880
Avg. Pay	51,083	58,450	68,857						57,570
35 to 39	903	2,170	2,992	343					6,408
Avg. Pay	55,277	62,307	73,233	83,359					67,545
40 to 44	839	1,492	2,208	1,531	252				6,322
Avg. Pay	54,529	63,874	75,249	83,543	84,554				72,194
45 to 49	703	1,213	1,207	891	1,181	329			5,524
Avg. Pay	52,582	64,812	75,510	83,535	85,345	85,864			74,257
50 to 54	451	1,053	1,226	792	948	1,170	509		6,149
Avg. Pay	54,234	64,568	75,119	83,461	84,423	85,446	87,826		77,306
55 to 59	324	737	1,175	1,032	1,171	896	1,860	731	7,926
Avg. Pay	59,338	67,033	75,787	83,034	86,553	86,551	87,877	89,433	82,147
60 to 64	111	349	570	642	883	714	706	1,155	5,130
Avg. Pay	70,978	75,612	78,453	84,342	86,687	86,323	89,145	90,493	85,530
65 to 69	24	66	126	121	178	187	173	234	1,109
Avg. Pay	65,475	75,224	82,969	84,583	86,477	88,594	88,258	91,976	86,543
70 & up	3	6	16	18	32	32	29	65	201
Avg. Pay	110,927	76,503	78,946	82,909	90,347	89,856	92,527	90,974	89,107
Total	9,893	12,313	10,357	5,370	4,645	3,328	3,277	2,185	51,368
Avg. Pay	50,243	61,494	74,502	83,537	85,751	86,193	88,203	90,311	70,978

Table A-2: Comparative Summary of Active Data		
	Prior Year	Current Year
Average Age	44.8 years	45.0 years
Average Service	13.3 years	13.6 years
Average Pay	$68,903	$70,978

Table A-3: Members Receiving Health Insurance Benefits Under the Plan June 30, 2010	Retirees		Spouses		
	Male	Female	Male	Female	Total
Subsidized Local School District Coverage					
Ages Under 65	1,541	3,530	1,174	1,274	7,519
Ages 65 and Over	2,284	4,147	1,479	1,428	9,338
Total	3,825	7,677	2,653	2,702	16,857
CTRB Sponsored Medicare Supplemental Plans					
Medical with Prescriptions	1,372	2,437	966	812	5,587
Medical with Prescriptions, Vision & Hearing	2,800	4,601	1,953	1,353	10,707
Total	4,172	7,038	2,919	2,165	16,294
Total	7,997	14,715	5,572	4,867	33,151

Table A-4: CTRB Sponsored Medicare Supplemental Plan Participation by Attained Age
Retirees and Spouses Combined
June 30, 2010

Medical with Prescriptions

	Attained Age						
Gender	Under 65	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Male	5	259	308	598	615	553	2,338
Female	7	314	459	817	774	878	3,249
Total	12	573	767	1,415	1,389	1,431	5,587

Medical with Prescriptions, Vision & Hearing

	Attained Age						
Gender	Under 65	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Male	23	1,714	1,313	898	518	287	4,753
Female	31	2,305	1,612	963	584	459	5,954
Total	54	4,019	2,925	1,861	1,102	746	10,707

Total

	Attained Age						
Gender	Under 65	65 - 69	70 - 74	75 - 79	80 - 84	85+	Total
Male	28	1,973	1,621	1,496	1,133	840	7,091
Female	38	2,619	2,071	1,780	1,358	1,337	9,203
Total	66	4,592	3,692	3,276	2,491	2,177	16,294

Investment Rate of Return

Assumed annual rate of 4.50% net of investment and administrative expenses.

Health Care Cost Trend Rates

Following is a chart detailing trend assumptions. Trend is applied to the CTRB Sponsored Medicare Supplemental Plans' premiums and claims.

Year of Increase	Claims Trend	Contributions Trend
2010	9.0%	10.2%
2011	8.5%	8.5%
2012	7.5%	7.6%
2013	7.0%	7.0%
2014	6.5%	6.5%
2015	6.0%	6.0%
2016	5.5%	5.5%
2017	5.0%	5.1%
2018 and beyond	5.0%	5.0%

No increases are assumed for the Subsidized Local School District Coverage's subsidy of $110 per month for a retired member, plus an additional $110 per month for a spouse, as the subsidy amount is set by statute and has not increased since July of 1996. The valuation assumes all future recipients of the subsidy receive an amount of $110 per month.

Anticipated Plan Participation

The assumed annual rates of member participation and spouse coverage are as follows:

Participant	Subsidized Local School District Coverage	CTRB Sponsored Medicare Supplemental Plans
Member Pre 65	68%	n/a
Member Post 65	36%	45%
Spouse/Survivor	47%	38%

Age Related Morbidity

Per capita health care costs of the CTRB Sponsored Medicare Supplemental Plans are adjusted to reflect expected cost changes related to age. The increase to the net incurred claims was assumed to be:

Participant Age	Annual Increase
< 30	0.0%
30 – 34	1.0%
35 – 39	1.5%
40 – 44	2.0%
45 – 49	2.6%
50 – 54	3.3%
55 – 59	3.6%
60 – 64	4.2%
65 – 69	3.0%
70 – 74	2.5%
75 – 79	2.0%
80 – 84	1.0%
85 - 89	0.5%
90 and over	0.0%

Annual Expected Claims of the CTRB Sponsored Medicare Supplemental Plans

Assumed adult per capita health care costs were based on past experience and trended based on the assumptions. The expected value of medical and prescription drug claims of the CTRB Sponsored Medicare Supplemental Plans, age adjusted to age 65, for the year following the valuation date is $3,358.32. This amount includes medical, drug, and third-party administrative costs, and represents the amount the System pays as the full contribution amount. The average medical, drug, and administrative costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

Monthly paid claims data was provided by the System, Stirling Benefits, Medco, and CVS Caremark for the period of July 1, 2008 through June 30, 2010. Claims data was provided separately for medical and prescription drug benefits. The System also provided monthly administrative fee data and enrollment data for the period of July 1, 2008 through June 30, 2010. CMC accepted this information without audit and has relied upon the sources for the accuracy of the data; however, CMC did review the information for reasonableness. On the basis of this review, CMC believes the data and information provided to be sufficiently complete and reliable, and that it is appropriate for the purposes intended.

The results of this valuation do not include a reduction for future payments estimated to be made by the Centers for Medicare & Medicaid Services (CMS) under the Retiree Drug Subsidy Program (RDS). Under GASB Statement No. 43 and No. 45, the subsidy is not recognized as a direct offset, as it is viewed to be a transfer of funds between governmental levels.

Spouse Participation in Health Insurance Coverage

Use of actual census data and current coverage elections for spouses of current retirees. For spouses of future retirees, it was assumed females were three years younger than their spouse.

Rates of Annual Salary Increase

Rates of Annual Salary Increase Assumption	
Years of Service	Annual Rate of Increase
0	7.50%
1	7.50%
2	7.50%
3	7.50%
4	7.50%
5	6.50%
6	6.50%
7	6.50%
8	6.50%
9	6.50%
10	5.50%
11	5.50%
12	5.50%
13	5.50%
14	5.50%
15+	4.00%

Active Member Decrement Rates

a. Table below provides a summary of the assumed rates of service retirement.

Annual Rates of Retirement						
Age	Unreduced		Proratable		Reduced	
	Male	Female	Male	Female	Male	Female
50	27.5%	15.0%			2.0%	2.0%
55	38.5%	30.0%			5.0%	7.5%
60	22.0%	20.0%	6.0%	5.4%		
65	36.3%	30.0%	20.0%	13.5%		
70	100.0%	40.0%	35.0%	10.8%		
75	100.0%	40.0%	40.0%	18.0%		
80	100.0%	100.0%	100.0%	100.0%		

b. Table below provides a summary of the assumed rates of mortality while actively employed and disability.

Annual Rates of Death and Disability				
Age	Pre-Retirement Mortality		Disability	
	Male	Female	Male	Female
20	0.0164%	0.0108%	0.0455%	0.0500%
25	0.0210%	0.0109%	0.0455%	0.0500%
30	0.0268%	0.0140%	0.0455%	0.0410%
35	0.0431%	0.0249%	0.0455%	0.0410%
40	0.0645%	0.0343%	0.0715%	0.0720%
45	0.0790%	0.0527%	0.1625%	0.1200%
50	0.1027%	0.0761%	0.3250%	0.2630%
55	0.1489%	0.1316%	0.7150%	0.4380%
60	0.2911%	0.2675%	1.2805%	0.5000%
64	0.4928%	0.4539%	1.2805%	0.5000%

c. Table below provides a summary of the assumed rates of withdrawal for active members prior to eligibility for retirement.

Annual Rates of Withdrawal					
			10 or more years of service		
Years of Service	Male	Female	Age	Male	Female
0-1	14.0%	12.0%	25	12.0%	35.0%
1-2	8.5%	9.0%	30	12.0%	35.0%
2-3	5.5%	7.0%	35	12.0%	35.0%
3-4	4.5%	6.0%	40	12.0%	23.0%
4-5	3.5%	5.5%	45	12.6%	13.0%
5-6	2.5%	5.0%	50	19.6%	12.5%
6-7	2.4%	4.5%	55	33.6%	16.0%
7-8	2.3%	3.5%	59	40.0%	19.0%
8-9	2.2%	3.0%			
9-10	2.1%	2.5%			

Withdrawal Assumption

It was assumed that 30% of the vested members who terminate elect to withdraw their contributions while the remaining 70% elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date.

Post-Retirement Mortality

For healthy retirees and beneficiaries, the RP-2000 Combined Mortality Table projected forward 19 years using scale AA, with a two-year setback for males and females. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the retirees and beneficiaries:

Annual Rates of Death				
	Healthy		Disabled	
Age	Male	Female	Male	Female
50	0.1369%	0.1015%	0.3881%	0.3567%
55	0.1986%	0.1755%	0.7659%	0.6953%
60	0.3881%	0.3567%	1.3671%	1.2224%
65	0.7659%	0.6953%	2.2802%	2.0100%
70	1.3671%	1.2224%	4.1439%	3.2898%
75	2.2802%	2.0100%	7.7020%	5.4696%
80	4.1439%	3.2898%	13.6910%	9.9435%
85	7.7020%	5.4696%	22.0697%	16.4072%

Marriage Assumption

For the purpose of valuing coverage under the in-service death benefit, 85% of males and 75% of females assumed to be married, with females being three years younger than their spouse.

Asset Valuation Method

The Plan is financed on a pay-as-you-go basis, and no methodology is needed to determine the actuarial value of assets.

Actuarial Cost Method

The Entry Age Normal actuarial cost method allocates the plan's actuarial present value of future benefits to various periods based upon service. The portion of the present value of future benefits allocated to years of service prior to the valuation date is the actuarial accrued liability, and the portion allocated to years following the valuation date is the present value of future normal costs. The normal cost is determined for each active member as the level percent of payroll necessary to fully fund the expected benefits to be earned over the career of each individual active member. The normal cost is partially funded with active member contributions with the remainder funded by employer contributions.

The unfunded accrued liability is determined by subtracting the actuarial value of assets from the actuarial accrued liability.

Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

Payroll Growth Rate

The total annual payroll of active members is assumed to increase at an annual rate of 4.00%. This rate does not anticipate increases in the number of members.

Changes from Prior Valuation

Since the previous valuation, the methodology used to develop per capita costs of health care, the rates of health care inflation used to project the per capita costs, and the percentage of vested members who terminate and elect to withdraw their contributions have been revised.

Appendix C: Summary of Plan Provisions

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

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.

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 the cost.

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.

Early Retirement

Eligibility - 25 years of Credited Service including 20 years of Connecticut service, or age 55 with 20 years of Credited Service including 15 years of Connecticut service, with the last 5 years in Connecticut.

Proratable Retirement

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

Disability Retirement

Eligibility - 5 years of Credited Service in Connecticut if not incurred in the performance of duty and no service requirement if incurred in the performance of duty.

Termination of Employment

Eligibility - 10 or more years of Credited Service.

Teachers' Required Contribution

1.25% of annual salaries in excess of $500,000 is contributed for health insurance of retired teachers.

State Contribution

The State pays for one third of the costs through an annual appropriation in the General Fund. Administrative costs of the Plan are financed by the State. Based upon Chapter 167a, Subsection D of Section 10-183t of the Connecticut statutes, it is assumed the State will pay for any long-term shortfall arising from insufficient active member contributions.

Retiree Health Care Coverage

Any member that is currently receiving a retirement or disability benefit is eligible to participate in the Plan. There are two types of the health care benefits offered through the system. Subsidized Local School District Coverage provides a subsidy paid to members still receiving coverage through their former employer and the CTRB Sponsored Medicare Supplemental Plans provide coverage for those participating in Medicare, but not receiving Subsidized Local School District Coverage.

Any member that is not currently participating in Medicare Parts A & B is eligible to continue health care coverage with their former employer. A subsidy of up to $110 per month for a retired member plus an additional $110 per month for a spouse enrolled in a local school district plan is provided to the school district to first offset the retiree's share of the cost of coverage, any remaining portion is used to offset the district's cost. The subsidy amount is set by statute, and has not increased since July of 1996. A subsidy amount of $220 per month may be paid for a retired member, spouse or the surviving spouse of a who has attained the normal retirement age to participate in Medicare, is not eligible for Part A of Medicare without cost, and contributes at least $220 per month towards coverage under a local school district plan.

Any member that is currently participating in Medicare Parts A & B is eligible to either continue health care coverage with their former employer, if offered, or enroll in the plan sponsored by the System. If they elect to remain in the plan with their former employer, the same subsidies as above will be paid to offset the cost of coverage.

If a member participating in Medicare Parts A & B so elects, they may enroll in one of the CTRB Sponsored Medicare Supplemental Plans. Active members, retirees, and the State pay equally toward the cost of the basic coverage (medical and prescription drug benefits). There are three choices for coverage under the CTRB Sponsored Medicare Supplemental Plans. The choices and calendar year premiums charged for each choice are shown in the table below:

Monthly Funding Rates for CTRB Sponsored Medicare Supplemental Plans		
Coverage	**2010**	**2011**
Medicare Supplement with Prescriptions	$112	$125
Medicare Supplement with Prescriptions and Dental	$160	$174
Medicare Supplement with Prescriptions, Dental, Vision & Hearing	$165	$179

Those participants electing vision, hearing, and/or dental are required by the System's funding policy to pay the full cost of coverage for these benefits, and no liability under GASB No. 43 and No. 45 is assumed by the Plan for these benefits.

Survivor Health Care Coverage

Survivors of former employees or retirees remain eligible to participate in the Plan and continue to be eligible to receive either the $110 monthly subsidy or participate in the CTRB Sponsored Medicare Supplemental Plans, as long as they do not remarry.

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

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

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 costs and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Actuarial Equivalent - A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

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.

Age-Related Morbidity - Assumed increase to the net incurred claims related to the increase in age.

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.

Annual OPEB Cost (AOC) - An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan.

Annual Required Contributions of the Employer (ARC) - The employer's periodic required contributions to a Defined Benefit OPEB Plan, which is the basis for determining an employer's Annual OPEB Cost.

Entry Age Normal Actuarial Cost Method - A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

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.

Health Care Cost Trend Rates - The annual assumed rate of increase for both claims and contributions.

Implicit Rate Subsidy - The differential between utilizing a blend of active and non-Medicare retiree experience for cost of benefits, and utilizing solely the expected retiree experience. Blending a lower cost active cohort with retirees results in an implicit rate subsidy for the retirees of the entire group.

Level Dollar Amortization Method - The dollar amount to be amortized is divided into equal dollar amounts to be paid over a given number of years; part of each payment is interest and part is principal (similar to a mortgage payment on a building). Because payroll can be expected to increase as a result of inflation, level dollar payments generally represent a decreasing percentage of payroll; in dollars adjusted for inflation, the payments can be expected to decrease over time.

Level Percentage of Projected Payroll Amortization Method - Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases (e.g., due to inflation); in dollars adjusted for inflation, the payments can be expected to remain level.

Net OPEB Obligation (NOO) - The cumulative difference since the effective date of this Statement between Annual OPEB Cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

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.

Other Postemployment Benefits (OPEB) - Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-As-You-Go - A method of financing a plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

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.

Sponsor - The entity that established the plan. The sponsor generally is the employer or one of the employers that participate in the plan to provide benefits for their employees and employees of other employers.

Substantive Plan - The terms of an OPEB plan as understood by the employer(s) and plan members.

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.