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**GASB STATEMENT NO. 68 REPORT**  
**FOR THE**  
**CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM**  
**PREPARED AS OF JUNE 30, 2015**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

August 17, 2016

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

Members of the Board:

Presented in this report is information to assist the Connecticut State Teachers' Retirement System in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 68 and to identify the information to be provided by the actuary, Cavanaugh Macdonald Consulting (CMC). The information is presented for the period ending June 30, 2015 (the Measurement Date).

GASB Statement Number 68 establishes accounting and financial reporting requirements for governmental employers that provide pension benefits to their employees through a trust.

The annual actuarial valuation used as a basis for much of the information presented in this report, including the Net Pension Liability, was performed as of June 30, 2014. The valuation was based upon data, furnished by the Retirement System staff, for active, inactive and retired members along with pertinent financial information. The liabilities from this valuation were rolled forward to the measurement date of June 30, 2015. The schedules contained within this report for participating employers are based on the expected contribution effort as last measured June 30, 2014, the date of the latest biennial valuation. Therefore, the employer allocation percentages have not changed as of the June 30, 2015 measurement date from those in the prior year's report.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the System, and on actuarial assumptions that are internally consistent and individually reasonable based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System and, in our opinion, meet the requirements of GASB 68. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

[www.CavMacConsulting.com](http://www.CavMacConsulting.com)

Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE



Board of Directors  
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These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 and GASB 68 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

Sincerely yours,

A handwritten signature in blue ink that reads 'John J. Garrett'.

John J. Garrett ASA, FCA, MAAA  
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'Cathy Turcot'.

Cathy Turcot  
Principal and Managing Director

A handwritten signature in blue ink that reads 'Jonathan Craven'.

Jonathan Craven ASA, EA, FCA, MAAA  
Senior Actuary

A handwritten signature in blue ink that reads 'Ben Mobley'.

Ben Mobley ASA, ACA, MAAA  
Actuary



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**REPORT OF THE ANNUAL GASB STATEMENT NO. 68  
REQUIRED INFORMATION FOR THE  
EMPLOYERS PARTICIPATING IN THE  
CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM**

**PREPARED AS OF JUNE 30, 2015**

**SECTION I – INTRODUCTION**

The Governmental Accounting Standards Board issued Statement No. 68 (GASB 68), “*Accounting and Financial Reporting For Pensions*” in June 2012. GASB 68’s effective date is for an employer’s fiscal year beginning after June 15, 2014. The Connecticut State Teachers’ Retirement System (System) is a cost-sharing multiple employer defined benefit pension plan with a special funding situation.

This report, prepared as of June 30, 2015 (the Measurement Date), presents information to assist the employers participating in System in meeting the requirements of GASB 68 for the fiscal year ending June 30, 2016 (Reporting Date). Much of the material provided in this report is based on the data, assumptions and results of the annual actuarial valuation of the System as of June 30, 2014. The liabilities of that valuation were rolled forward to the measurement date of June 30, 2015.

The Net Pension Liability (NPL) shown in the GASB Statement No. 67 Report for the Connecticut State Teachers’ Retirement System prepared as of June 30, 2015 and submitted April 19, 2016 is the collective NPL used for purposes of GASB 68. Please refer to that report for the derivation of the collective NPL.

Pension Expense (PE) includes amounts for service cost (the normal cost under the Entry Age Normal actuarial cost method for the year), interest on the Total Pension Liability (TPL), changes in benefit structure, amortization of increases/decreases in liability due to actuarial experience and actuarial assumption changes, and amortization of investment gains/losses. The actuarial experience and assumption change impacts are amortized over the average expected remaining service life of the Plan membership as of the Measurement Date, and investment gains/losses are amortized over five years. The development of the collective PE is shown in Section IV.

The unamortized portions of each year’s experience, assumption changes and investment gains/losses are used to develop deferred inflows and outflows, which also must be included in the employer’s and non-employer contributing entities’ financial statements. The development of the collective deferred inflows and outflows is shown in Section III.



The State makes all contributions to the System on behalf of employees of the participating districts. Therefore, participating employers are considered to be in a special funding situation as defined by GASB 68 and the State is treated as a non-employer contributing entity in the System. Since the districts do not contribute directly to the System, there is no NPL or deferred inflows or outflows to report in the financial statements of the districts, However, the notes to the financial statements must disclose the portion of the non-employer contributing entities' total proportionate share of the collective NPL that is associated with the employer, In addition, each district must recognize the total PE associated with the district as well as revenue in an amount equal to the non-employer contributing entities' total proportionate share of the collective PE associated with the district. The State, as a non-employer contributing entity, would report the entire collective amounts of the NPL, Deferred Inflows and Outflows and PE.

Schedule A of this report shows the total amount of employer contributions from the State as support provided to the districts for the year ending June 30, 2015. Schedule A also shows the proportionate share percentages that have been determined based on these contributions.

Based on these percentages we have determined the proportionate share amounts of the NPL associated with each participating employer and the employer PE and revenue for State support for each participating employer. These amounts are shown in Schedule B.

Section II of this report is a summary of the principal results of the collective amounts under GASB 68. Section III provides the results of all the necessary calculations, presented in the order laid out in GASB 68 for note disclosure and Section V shows the Required Supplementary Information (RSI).



**SECTION II - SUMMARY OF COLLECTIVE AMOUNTS**  
**(\$ IN THOUSANDS)**

	<b>2014</b>
<b>Valuation Date (VD):</b>	June 30, 2014
<b>Measurement Date (MD):</b>	June 30, 2015
<b>Reporting Date (RD):</b>	June 30, 2016
<b>Single Equivalent Interest Rate (SEIR):</b>	
Long-Term Expected Rate of Return	8.50%
Municipal Bond Index Rate at Measurement Date	3.82%
Fiscal Year in which Plan's Fiduciary Net Position is projected to be depleted from future benefit payments for current members	N/A
Single Equivalent Interest Rate	8.50%
<b>Collective Net Pension Liability:</b>	
Total Pension Liability (TPL)	\$ 27,092,095
Fiduciary Net Position (FNP)	<u>16,120,053</u>
Net Pension Liability (NPL = TPL – FNP)	\$ 10,972,042
FNP as a percentage of TPL	59.50%
<b>Collective Pension Expense (PE):</b>	\$879,137
<b>Collective Deferred Outflows of Resources:</b>	\$78,887
<b>Collective Deferred Inflows of Resources:</b>	\$0



### **SECTION III –NOTES TO FINANCIAL STATEMENTS**

The material presented herein will follow the order presented in GASB 68. Paragraph numbers are provided for ease of reference. Amounts are shown in aggregate. Please refer to Schedule B of this report for the proportionate share of certain pension amounts as required by GASB 68.

**Paragraphs 77 and 78(a)-(f):** These paragraphs require information to be disclosed regarding the actuarial assumptions used to measure the TPL. The actuarial assumptions used in the June 30, 2014 valuation were based on the results of an actuarial experience study for the period July 1, 2005 – June 30, 2010. The complete set of actuarial assumptions utilized in developing the TPL are outlined in Schedule D. The TPL was determined by rolling forward the liabilities of an actuarial valuation performed as of June 30, 2014, using the following key actuarial assumptions:

Inflation	3.00 percent
Salary increases, including inflation	3.75 – 7.00
Long-Term Investment Rate of Return, net of pension plan investment expense, including inflation	8.50 percent

Mortality rates were based on the RP-2000 Combined Mortality Table RP-2000 projected 19 years using scale AA, with a two year setback for males and females for the period after service retirement and for dependent beneficiaries. In our opinion, the Scale AA projection to 2019 of the RP-2000 mortality rates with two-year setbacks continues to provide a sufficient margin in the assumed rates of mortality to allow for additional improvement in mortality experience. The post-retirement mortality rates are multiplied by 75% for death in active service. The post retirement mortality rates are set forward ten years for the period after disability retirement.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:



Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Mutual Equity	25.0%	7.3%
Developed Markets ISF	20.0%	7.5%
Emerging Markets ISF	9.0%	8.6%
Core Fixed Income	13.0%	1.7%
Emerging Market Debt	4.0%	4.8%
High Yield	2.0%	3.7%
Inflation Linked Bonds	6.0%	1.3%
Liquidity Fund	6.0%	0.7%
Real Estate	5.0%	5.9%
Private Investment	10.0%	10.9%
Total	100.0%	

*Discount rate.* The discount rate used to measure the total pension liability was 8.50 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that State contributions will be made at the actuarially determined rates in future years. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Paragraph 78 (g):** This paragraph requires disclosure of the sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the System, calculated using the discount rate of 8.50 percent, as well as what the System’s net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (7.50 percent) or 1-percentage-point higher (9.50 percent) than the current rate (\$ thousands):

	1% Decrease (7.50%)	Current Discount Rate (8.50%)	1% Increase (9.50%)
Collective net pension liability	\$13,836,635	\$10,972,042	\$8,537,117



**Paragraph 80(a):** This paragraph requires disclosure of the employer's proportionate share of the collective NPL and if an employer has a special funding situation the portion of the non-employer contributing entities' proportional share of the collective NPL that is associated with the employer. These amounts are shown in Schedule B.

**Paragraph 80(b):** This paragraph requires disclosure of the employer's proportion (percentage) of the collective NPL and the changes in proportion since the prior measurement date. 100% of the collective NPL is allocated to the State.

**Paragraph 80(c):** June 30, 2014 liabilities were rolled forward to the June 30, 2015 measurement date.

**Paragraph 80(d) and (e):** There were no changes in assumptions or benefits that affected the measurement of the TPL since the prior measurement date.

**Paragraph 80(f):** Not applicable.

**Paragraph 80(g):** Please see Section IV of this report for the development of the collective pension expense. The PE for each employer is shown in Schedule B.

**Paragraph 80(h):** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce collective pension expense they are labeled deferred inflows. If they will increase collective pension expense they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average expected remaining service life of the active and inactive Plan members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five year period.



The table below provides a summary in the difference between projected and actual earnings on plan investments.

<b>Investment Earnings (Gain)/Loss as of June 30, 2015</b>		
<b>(\$ thousands)</b>		
a	Expected asset return rate	8.50%
b	Beginning of year market value assets (BOY)	\$16,207,755
c	End of year market value assets (EOY)	16,120,053
d	Expected return on BOY for plan year ( a x b)	1,377,659
	External Cash Flow	
	Contributions - employer	984,110
	Contributions - member	228,100
	Refunds of contributions	(50,329)
	Benefits paid	(1,773,408)
	Admin expenses	0
	Other changes	<u>70,883</u>
e	Net cash flow	(540,644)
f	Expected return on net cash flow (a x 0.5 x e)	(22,977)
g	Projected earnings for plan year (d + f)	1,354,682
h	Net investment income (c - b - e)	452,942
	<b>Investment earnings (gain)/loss (g -h)</b>	<b>901,740</b>

\*Other changes are comprised of participating employer contributions for Early Retirement Incentive Plans, service purchases, etc.

The table below provides a summary of the determination of the average expected remaining service life for the entire Plan membership determined at the beginning of the year.

Category	Number (1)	Average Years of Working Lifetime (2)
a. Active Members	51,433	13.08
b. Inactive Members	47,321	0.00
c. Total	98,754	
Weighted Average Years of Working Lifetime [(a1 * a2) + (b1 * b2)]/c1		6.81



The table below provides a summary of the collective deferred inflows and outflows as of the Measurement Date. 100% of these amounts are allocated to the State.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$0	\$0
Changes of assumptions	0	0
Net difference between projected and actual earnings on plan investments	78,887	0
Employer contributions subsequent to the Measurement Date	<u>0</u>	<u>0</u>
Total	<u>\$78,887</u>	<u>\$0</u>

**Paragraph 80(i):** Collective amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the collective pension expense as follows. 100% of these amounts are allocated to the State.

Deferred Amounts to be Recognized in Fiscal Years Following the Reporting Date:	
Year 1	\$(33,821)
Year 2	(33,821)
Year 3	(33,819)
Year 4	180,348
Year 5	0
Thereafter	0

**Paragraph 80(j):** The amount of revenue recognized for the support provided by non-employer contributing entities for the participating employers is provided in Schedule B.



## **SECTION IV – COLLECTIVE PENSION EXPENSE**

As noted earlier, the collective Pension Expense (PE) consists of a number of different items. GASB 68 refers to the first as Service Cost which is the Normal Cost using the Entry Age Normal actuarial funding method. The second item is interest on the beginning Total Pension Liability (TPL) and the cash flow during the year at the 8.50% rate of return in effect as of the previous measurement date. The next three items refer to any changes that occurred in the TPL due to:

- benefit changes, or
- actual versus expected experience, or
- changes in actuarial assumptions.

Benefit changes, which are reflected immediately in PE, can be positive, if there is a benefit improvement for existing Plan members, or negative if there is a benefit reduction. For the year ended June 30, 2015, there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TPL due to actual versus expected Plan experience for the year. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire Plan membership determined at the beginning of the year. The average expected remaining service life of active members is the average number of years the active members are expected to remain active. For the year ended June 30, 2014 this number of years for the active members is 13.08. The average expected remaining service life of the inactive members is, of course, zero. Therefore, the number of years to use for the amortization is the weighted average for all active and inactive members, or 6.81 years. Since the beginning of year TPL was rolled forward to determine the June 30, 2015 TPL, there were no changes due to actual versus expected experience to be recognized for the year.

The last item under changes in TPL are changes in actuarial assumptions. There were no changes in assumptions since the last measurement date. If there was a change in TPL due to changes in actuarial assumptions, recognition of the change would also be spread over the average expected remaining service life of the plan membership.

Member contributions for the year and projected earnings on the Fiduciary Net Position (FNP), again at the discount rate used to calculate the liabilities, are subtracted from the amount determined thus far. One-fifth of current period differences between projected and actual investment earnings on the FNP are recognized in the pension expense. The amount to be recognized due to investment experience for the year is \$180,348.



The current year portions of previously determined experience, assumption and earnings amounts, recognized as deferred outflows and inflows (see Section III) are included also. Deferred outflows are added to the PE while deferred inflows are subtracted from the PE. Finally, administrative expenses and other miscellaneous items are included.

The calculation of the Collective Pension Expense determined as of the measurement date is shown in the following table:

<b>Collective Pension Expense Determined as of the Measurement Date (\$ thousands)</b>	
Service Cost at end of year	\$404,449
Interest on the TPL and net cash flow	2,162,174
Current-period benefit changes	0
Expensed portion of current-period difference between expected and actual experience in the total pension liability	0
Expensed portion of current-period changes of assumptions	0
Member contributions	(228,100)
Projected earnings on plan investments	(1,354,682)
Expensed portion of current-period differences between projected and actual earnings on plan investments	180,348
Administrative expense	0
Other	(70,883)
Recognition of beginning deferred outflows of resources as pension expense	0
Recognition of beginning deferred inflows of resources as pension expense	<u>(214,169)</u>
<b>Collective Pension Expense</b>	<b><u>\$879,137</u></b>



## SECTION V – REQUIRED SUPPLEMENTARY INFORMATION

**Paragraphs 81(a)-(b):** CMC was not required to supply this information.

**Paragraph 82:**

*Changes of assumptions.* In 2011, rates of withdrawal, retirement and assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience. These assumptions were recommended as part of the Experience Study for the System for the five year period ended June 30, 2010.

*Method and assumptions used in calculations of actuarially determined contributions.* The actuarially determined contributions in the schedule of employer contributions are calculated as of June 30 each biennium for the fiscal years ending two and three years after the valuation date. The following actuarial methods and assumptions were used to determine the most recent contributions reported in that schedule:

Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Single equivalent amortization period	22.4 years
Asset valuation method	4-year smoothed market
Inflation	3.00 percent
Salary increase	3.75-7.00 percent, including inflation
Investment rate of return	8.50 percent, net of investment related expense



**SCHEDULE A**

**CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM**  
**Schedule of Employer Allocations as of June 30, 2015**

<b>Employers</b>	<b>2015 Expected Employer Contribution Effort for Allocation Purposes</b>	<b>Employer Allocation Percentage*</b>
ANDOVER BD OF ED	\$ 547,591	0.055643%
ANSONIA BD OF ED	3,158,595	0.320960%
ASHFORD BD OF ED	739,882	0.075183%
AVON BD OF ED	6,606,753	0.671343%
BARKAMSTED BD OF ED	447,083	0.045430%
BERLIN BD OF ED	5,585,804	0.567600%
BETHANY BD OF ED	813,440	0.082657%
BETHEL BD OF ED	5,322,872	0.540882%
HIGHVILLE CHARTER SCH	376,279	0.038235%
BLOOMFIELD BD OF ED	4,596,617	0.467084%
BOLTON BD OF ED	1,631,312	0.165765%
BOZRAH BD OF ED	474,155	0.048181%
BRANFORD BD OF ED	6,286,563	0.638807%
BRIDGEPORT BD OF ED	29,532,628	3.000948%
BRISTOL BD OF ED	13,714,679	1.393612%
BROOKFIELD BD OF ED	4,835,545	0.491362%
BROOKLYN BD OF ED	1,443,582	0.146689%
CHILDRENS CENTER COM PROG	116,724	0.011861%
CANAAN BD OF ED	243,635	0.024757%
CANTERBURY BD OF ED	844,111	0.085774%
CANTON BD OF ED	2,814,849	0.286030%
CHAPLIN BD OF ED	427,528	0.043443%
CHESHIRE BD OF ED	8,026,065	0.815566%
CHESTER BD OF ED	331,699	0.033705%
CLINTON BD OF ED	3,948,536	0.401229%
COLCHESTER BD OF ED	4,761,534	0.483842%
AMISTAD ACADEMY	822,424	0.083570%
COLEBROOK BD OF ED	220,985	0.022455%
COLUMBIA BD OF ED	1,047,806	0.106472%
CORNWALL BD OF ED	269,243	0.027359%
COVENTRY BD OF ED	3,066,037	0.311554%
CROMWELL BD OF ED	3,301,006	0.335431%
DANBURY BD OF ED	16,918,280	1.719145%
DARIEN BD OF ED	10,487,787	1.065713%
DEEP RIVER BD OF ED	393,051	0.039940%
DERBY BD OF ED	2,244,233	0.228047%
EASTFORD BD OF ED	324,045	0.032928%
EAST GRANBY BD OF ED	1,762,211	0.179066%



Employers	2015 Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage*
EAST HADDAM BD OF ED	\$ 2,324,485	0.236202%
EAST HAMPTON BD OF ED	3,496,658	0.355312%
EAST HARTFORD BD OF ED	13,079,468	1.329066%
EAST HAVEN BD OF ED	5,221,714	0.530603%
EAST LYME BD OF ED	5,154,370	0.523760%
EASTON BD OF ED	1,872,826	0.190307%
EAST WINDSOR BD OF ED	2,407,252	0.244612%
ELLINGTON BD OF ED	4,343,028	0.441315%
ENFIELD BD OF ED	9,732,840	0.988999%
ESSEX BD OF ED	637,887	0.064819%
FAIRFIELD BD OF ED	21,036,042	2.137570%
FARMINGTON BD OF ED	7,650,285	0.777381%
FRANKLIN BD OF ED	314,351	0.031943%
GLASTONBURY BD OF ED	11,664,781	1.185313%
GRANBY BD OF ED	3,466,110	0.352208%
GREENWICH BD OF ED	23,000,904	2.337229%
GRISWOLD BD OF ED	3,088,122	0.313798%
GROTON BD OF ED	9,083,267	0.922993%
GUILFORD BD OF ED	6,555,522	0.666137%
HAMDEN BD OF ED	11,010,380	1.118816%
HAMPTON BD OF ED	249,386	0.025341%
HARTFORD BD OF ED	39,029,273	3.965946%
HARTLAND BD OF ED	388,094	0.039436%
HEBRON BD OF ED	1,469,137	0.149286%
KENT BD OF ED	473,638	0.048129%
KILLINGLY BD OF ED	4,008,844	0.407357%
LEBANON BD OF ED	1,949,068	0.198054%
LEDYARD BD OF ED	4,377,349	0.444803%
LISBON BD OF ED	763,977	0.077631%
LITCHFIELD BD OF ED	2,034,841	0.206770%
MADISON BD OF ED	5,954,717	0.605087%
MANCHESTER BD OF ED	11,625,291	1.181300%
MANSFIELD BD OF ED	2,773,193	0.281797%
MARLBOROUGH BD OF ED	977,631	0.099342%
MERIDEN BD OF ED	13,366,410	1.358223%
MIDDLETOWN BD OF ED	8,426,696	0.856276%
MILFORD BD OF ED	12,768,705	1.297488%
MONROE BD OF ED	6,903,420	0.701489%
MONTVILLE BD OF ED	4,666,180	0.474152%
NAUGATUCK BD OF ED	7,191,853	0.730798%
NEW BRITAIN BD OF ED	17,188,337	1.746587%
NEW CANAAN BD OF ED	9,605,729	0.976083%
NEW FAIRFIELD BD OF ED	4,721,768	0.479801%



Employers	2015 Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage*
NEW HARTFORD BD OF ED	\$ 898,919	0.091343%
NEW HAVEN BD OF ED	34,211,043	3.476343%
NEWINGTON BD OF ED	7,911,187	0.803893%
NEW LONDON BD OF ED	5,007,972	0.508883%
NEW MILFORD BD OF ED	6,991,729	0.710462%
NEWTOWN BD OF ED	8,943,001	0.908740%
NORFOLK BD OF ED	194,835	0.019798%
NORTH BRANFORD BD OF ED	3,371,557	0.342600%
NORTH CANAAN BD OF ED	457,232	0.046461%
NORTH HAVEN BD OF ED	5,707,571	0.579973%
NORTH STONINGTON BD OF ED	1,468,191	0.149190%
NORWALK BD OF ED	21,083,543	2.142397%
NORWICH BD OF ED	5,136,802	0.521974%
NORWICH FREE ACADEMY	3,688,244	0.374780%
OLD SAYBROOK BD OF ED	2,908,379	0.295534%
ORANGE BD OF ED	2,275,112	0.231185%
OXFORD BD OF ED	2,991,625	0.303993%
PLAINFIELD BD OF ED	3,637,147	0.369587%
PLAINVILLE BD OF ED	4,409,702	0.448090%
PLYMOUTH BD OF ED	2,790,458	0.283551%
POMFRET BD OF ED	716,659	0.072823%
PORTLAND BD OF ED	2,210,375	0.224606%
PRESTON BD OF ED	801,332	0.081427%
PUTNAM BD OF ED	1,807,490	0.183667%
REDDING BD OF ED	2,726,336	0.277036%
RSD #1	1,719,782	0.174755%
RSD #4	1,692,649	0.171998%
RSD #5	4,638,078	0.471297%
RSD #6	2,004,116	0.203648%
RSD #7	1,907,693	0.193850%
RSD #8	3,033,129	0.308210%
RIDGEFIELD BD OF ED	10,084,130	1.024695%
ROCKY HILL BD OF ED	4,639,422	0.471433%
SALEM BD OF ED	796,258	0.080912%
SALISBURY BD OF ED	584,642	0.059408%
SCOTLAND BD OF ED	304,276	0.030919%
SEYMOUR BD OF ED	3,920,123	0.398342%
SHARON BD OF ED	415,795	0.042251%
SHELTON BD OF ED	8,525,654	0.866331%
SHERMAN BD OF ED	817,441	0.083064%
SIMSBURY BD OF ED	8,315,115	0.844938%
SOMERS BD OF ED	2,647,570	0.269032%
SOUTHINGTON BD OF ED	10,404,126	1.057212%



Employers	2015 Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage*
SOUTH WINDSOR BD OF ED	\$ 8,216,135	0.834880%
SPRAGUE BD OF ED	496,915	0.050494%
STAFFORD BD OF ED	2,964,014	0.301187%
STAMFORD BD OF ED	32,461,016	3.298515%
STATE BD OF ED	8,132,174	0.826348%
DCYS RECG HOME	464,068	0.047156%
STERLING BD OF ED	674,248	0.068514%
STONINGTON BD OF ED	4,062,476	0.412807%
STRATFORD BD OF ED	12,384,429	1.258439%
SUFFIELD BD OF ED	4,257,264	0.432600%
THOMASTON BD OF ED	1,679,432	0.170655%
THOMPSON BD OF ED	1,759,618	0.178803%
TOLLAND BD OF ED	4,425,229	0.449668%
TORRINGTON BD OF ED	7,240,415	0.735732%
TRUMBULL BD OF ED	12,530,576	1.273290%
UNION BD OF ED	138,066	0.014030%
VERNON BD OF ED	6,599,478	0.670604%
VOLUNTOWN BD OF ED	565,879	0.057502%
WALLINGFORD BD OF ED	11,965,583	1.215879%
WATERBURY BD OF ED	28,121,733	2.857580%
WATERFORD BD OF ED	5,452,492	0.554053%
WATERTOWN BD OF ED	4,346,934	0.441712%
WESTBROOK BD OF ED	1,885,015	0.191545%
WEST HARTFORD BD OF ED	18,329,405	1.862536%
WEST HAVEN BD OF ED	10,200,475	1.036518%
WESTON BD OF ED	5,389,398	0.547642%
WESTPORT BD OF ED	13,447,787	1.366492%
WETHERSFIELD BD OF ED	6,410,307	0.651381%
WILLINGTON BD OF ED	1,002,364	0.101855%
WILTON BD OF ED	9,147,159	0.929485%
WINCHESTER BD OF ED	1,266,910	0.128737%
WINDHAM BD OF ED	5,581,326	0.567144%
WINDSOR BD OF ED	7,340,139	0.745866%
WINDSOR LOCKS BD OF ED	3,491,472	0.354785%
WINSTED GILBERT SCHOOL	960,224	0.097573%
WOLCOTT BD OF ED	4,187,052	0.425466%
WOODBRIIDGE BD OF ED	1,537,345	0.156217%
WOODSTOCK BD OF ED	1,298,082	0.131904%
WOODSTOCK ACADEMY	1,779,506	0.180824%
UNIVERSITY OF CONN	397,334	0.040375%
RSD #9	2,354,727	0.239275%
CCI SOMERS	33,422	0.003396%
RSD #10	4,390,616	0.446151%



Employers	2015 Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage*
SUPERVISORY DISTRICT #4	\$ 826,875	0.084023%
NORTHWESTERN CTC	50,806	0.005163%
MANCHESTER CTC	105,968	0.010768%
NORWALK CTC	40,883	0.004154%
WESTERN CSU	121,233	0.012319%
CENTRAL CSU	274,260	0.027869%
EASTERN CSU	171,196	0.017396%
SOUTHERN CSU	377,228	0.038332%
RSD #11	587,610	0.059710%
CAPITAL CTC	47,280	0.004804%
HOUSATONIC CTC	100,466	0.010209%
NAUGATUCK VALLEY CTC	135,220	0.013740%
MIDDLESEX CTC	116,499	0.011838%
EDUCATION CONNECTION	434,223	0.044123%
RSD #12	2,156,186	0.219100%
GATEWAY CTC	200,719	0.020396%
RSD #13	3,745,031	0.380550%
RSD #14	3,547,653	0.360494%
BOARD OF TRUSTEES CSU	-	0.000000%
CCI CHESIRE	36,156	0.003674%
SHARED SERVICES	314,668	0.031975%
CREC	17,012,295	1.728699%
RSD #15	7,307,577	0.742557%
RSD #16	3,715,497	0.377549%
THREE RIVERS CC	74,517	0.007572%
TUNXIS CTC	83,412	0.008476%
QUINEBAUG CTC	18,334	0.001863%
ODYSSEY CHARTER SCH	437,781	0.044485%
CES	2,874,480	0.292089%
ACES	5,423,767	0.551134%
PROJECT LEARN	3,341,536	0.339549%
RSD #17	4,254,174	0.432286%
ASNUNTUCK CTC	103,864	0.010554%
PROJECT OCEANOLOGY	101,339	0.010298%
RSD #18	3,090,837	0.314074%
DCF MENTAL HEALTH	46,744	0.004750%
EASTCONN	1,575,888	0.160133%
SERVICES FOR THE BLIND	235,640	0.023945%
RSD #19	2,291,006	0.232800%
UConn HEALTH CENTER	93,471	0.009498%
CCI SUFFIELD	18,780	0.001908%
CHILDRENS CENTER	272,145	0.027654%
BRIDGE ACADEMY CHARTER SCH	368,607	0.037456%



Employers	2015 Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage*
COMMON GROUND CHARTER SCH	\$ 264,562	0.026883%
EXPLORATIONS CHARTER SCH	142,579	0.014488%
INTEGRATED DAY SCHOOL	410,315	0.041694%
ISAAC CHARTER SCH	452,294	0.045960%
JUMOKE ACADEMY CHARTER SCH	698,394	0.070967%
SIDE BY SIDE CHARTER SCH	346,315	0.035191%
TRAILBLAZERS ACADEMY	304,336	0.030925%
NEW BEGINNINGS	548,368	0.055722%
ELM CITY COLLEGE PREP	283,151	0.028772%
STAMFORD ACADEMY	178,061	0.018094%
PARK CITY PREP	260,664	0.026487%
AF BRIDGEPORT ACADEMY	391,664	0.039799%
SERC	197,978	0.020118%
AF HARTFORD ACADEMY	702,705	0.071405%
BRASS CITY	93,081	0.009458%
Total	\$ 984,110,000	100.000000%

\*Allocation percentages remain the same as measured in the latest biennial valuation.



**SCHEDULE B**

**CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM**  
**Schedule of Pension Amounts by Employer as of June 30, 2015**

<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability Associated with the District</b>	<b>Pension Expense and Revenue For State Support</b>
ANDOVER BD OF ED	\$ 6,105,206	\$ 489,181
ANSONIA BD OF ED	35,215,816	2,821,674
ASHFORD BD OF ED	8,249,096	660,960
AVON BD OF ED	73,660,024	5,902,024
BARKAMSTED BD OF ED	4,984,615	399,393
BERLIN BD OF ED	62,277,260	4,989,978
BETHANY BD OF ED	9,069,208	726,672
BETHEL BD OF ED	59,345,782	4,755,092
HIGHVILLE CHARTER SCH	4,195,213	336,142
BLOOMFIELD BD OF ED	51,248,617	4,106,305
BOLTON BD OF ED	18,187,832	1,457,304
BOZRAH BD OF ED	5,286,454	423,578
BRANFORD BD OF ED	70,090,168	5,615,988
BRIDGEPORT BD OF ED	329,265,255	26,382,443
BRISTOL BD OF ED	152,907,734	12,251,762
BROOKFIELD BD OF ED	53,912,476	4,319,748
BROOKLYN BD OF ED	16,094,784	1,289,598
CHILDRENS CENTER COM PROG	1,301,375	104,273
CANAAN BD OF ED	2,716,332	217,647
CANTERBURY BD OF ED	9,411,166	754,072
CANTON BD OF ED	31,383,321	2,514,595
CHAPLIN BD OF ED	4,766,601	381,925
CHESHIRE BD OF ED	89,484,226	7,169,941
CHESTER BD OF ED	3,698,179	296,317
CLINTON BD OF ED	44,023,030	3,527,354
COLCHESTER BD OF ED	53,087,310	4,253,631
AMISTAD ACADEMY	9,169,375	734,698
COLEBROOK BD OF ED	2,463,806	197,413
COLUMBIA BD OF ED	11,682,199	936,038
CORNWALL BD OF ED	3,001,850	240,524
COVENTRY BD OF ED	34,183,863	2,738,989
CROMWELL BD OF ED	36,803,580	2,948,894
DANBURY BD OF ED	188,625,334	15,113,642
DARIEN BD OF ED	116,930,465	9,369,076
DEEP RIVER BD OF ED	4,382,209	351,125
DERBY BD OF ED	25,021,409	2,004,845
EASTFORD BD OF ED	3,612,838	289,479
EAST GRANBY BD OF ED	19,647,248	1,574,240



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District	Pension Expense and Revenue For State Support
EAST HADDAM BD OF ED	\$ 25,916,149	\$ 2,076,537
EAST HAMPTON BD OF ED	38,984,952	3,123,677
EAST HARTFORD BD OF ED	145,825,643	11,684,308
EAST HAVEN BD OF ED	58,217,951	4,664,725
EAST LYME BD OF ED	57,467,120	4,604,564
EASTON BD OF ED	20,880,516	1,673,055
EAST WINDSOR BD OF ED	26,838,937	2,150,475
ELLINGTON BD OF ED	48,421,304	3,879,766
ENFIELD BD OF ED	108,513,402	8,694,657
ESSEX BD OF ED	7,111,930	569,845
FAIRFIELD BD OF ED	234,535,103	18,792,171
FARMINGTON BD OF ED	85,294,583	6,834,245
FRANKLIN BD OF ED	3,504,766	280,820
GLASTONBURY BD OF ED	130,053,006	10,420,522
GRANBY BD OF ED	38,644,363	3,096,387
GREENWICH BD OF ED	256,441,748	20,547,445
GRISWOLD BD OF ED	34,430,103	2,758,719
GROTON BD OF ED	101,271,189	8,114,374
GUILFORD BD OF ED	73,088,842	5,856,258
HAMDEN BD OF ED	122,756,960	9,835,925
HAMPTON BD OF ED	2,780,460	222,785
HARTFORD BD OF ED	435,145,281	34,866,100
HARTLAND BD OF ED	4,326,943	346,697
HEBRON BD OF ED	16,379,710	1,312,427
KENT BD OF ED	5,280,686	423,116
KILLINGLY BD OF ED	44,695,412	3,581,229
LEBANON BD OF ED	21,730,557	1,741,165
LEDYARD BD OF ED	48,803,952	3,910,426
LISBON BD OF ED	8,517,731	682,485
LITCHFIELD BD OF ED	22,686,851	1,817,788
MADISON BD OF ED	66,390,347	5,319,539
MANCHESTER BD OF ED	129,612,727	10,385,245
MANSFIELD BD OF ED	30,918,893	2,477,382
MARLBOROUGH BD OF ED	10,899,807	873,349
MERIDEN BD OF ED	149,024,816	11,940,642
MIDDLETOWN BD OF ED	93,950,946	7,527,838
MILFORD BD OF ED	142,360,886	11,406,694
MONROE BD OF ED	76,967,634	6,167,047
MONTVILLE BD OF ED	52,024,185	4,168,448
NAUGATUCK BD OF ED	80,183,428	6,424,713
NEW BRITAIN BD OF ED	191,636,257	15,354,892
NEW CANAAN BD OF ED	107,096,225	8,581,106
NEW FAIRFIELD BD OF ED	52,643,952	4,218,107



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District	Pension Expense and Revenue For State Support
NEW HARTFORD BD OF ED	\$ 10,022,228	\$ 803,033
NEW HAVEN BD OF ED	381,425,862	30,561,821
NEWINGTON BD OF ED	88,203,433	7,067,317
NEW LONDON BD OF ED	55,834,897	4,473,782
NEW MILFORD BD OF ED	77,952,202	6,245,935
NEWTOWN BD OF ED	99,707,327	7,989,069
NORFOLK BD OF ED	2,172,256	174,052
NORTH BRANFORD BD OF ED	37,590,172	3,011,920
NORTH CANAAN BD OF ED	5,097,775	408,460
NORTH HAVEN BD OF ED	63,634,867	5,098,756
NORTH STONINGTON BD OF ED	16,369,155	1,311,582
NORWALK BD OF ED	235,064,702	18,834,605
NORWICH BD OF ED	57,271,245	4,588,870
NORWICH FREE ACADEMY	41,120,978	3,294,826
OLD SAYBROOK BD OF ED	32,426,111	2,598,148
ORANGE BD OF ED	25,365,685	2,032,430
OXFORD BD OF ED	33,354,232	2,672,514
PLAINFIELD BD OF ED	40,551,291	3,249,180
PLAINVILLE BD OF ED	49,164,659	3,939,328
PLYMOUTH BD OF ED	31,111,382	2,492,806
POMFRET BD OF ED	7,990,178	640,215
PORTLAND BD OF ED	24,643,918	1,974,599
PRESTON BD OF ED	8,934,216	715,856
PUTNAM BD OF ED	20,152,069	1,614,688
REDDING BD OF ED	30,396,474	2,435,523
RSD #1	19,174,197	1,536,336
RSD #4	18,871,685	1,512,097
RSD #5	51,710,873	4,143,344
RSD #6	22,344,297	1,790,341
RSD #7	21,269,259	1,704,204
RSD #8	33,816,975	2,709,592
RIDGEFIELD BD OF ED	112,430,005	9,008,476
ROCKY HILL BD OF ED	51,725,859	4,144,545
SALEM BD OF ED	8,877,646	711,323
SALISBURY BD OF ED	6,518,289	522,279
SCOTLAND BD OF ED	3,392,432	271,819
SEYMOUR BD OF ED	43,706,244	3,501,971
SHARON BD OF ED	4,635,777	371,443
SHELTON BD OF ED	95,054,242	7,616,240
SHERMAN BD OF ED	9,113,816	730,246
SIMSBURY BD OF ED	92,706,902	7,428,159
SOMERS BD OF ED	29,518,300	2,365,160
SOUTHINGTON BD OF ED	115,997,712	9,294,339



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District	Pension Expense and Revenue For State Support
SOUTH WINDSOR BD OF ED	\$ 91,603,357	\$ 7,339,737
SPRAGUE BD OF ED	5,540,211	443,910
STAFFORD BD OF ED	33,046,392	2,647,849
STAMFORD BD OF ED	361,914,456	28,998,466
STATE BD OF ED	90,667,261	7,264,732
DCYS RECG HOME	5,173,984	414,566
STERLING BD OF ED	7,517,333	602,328
STONINGTON BD OF ED	45,293,369	3,629,140
STRATFORD BD OF ED	138,076,507	11,063,407
SUFFIELD BD OF ED	47,465,105	3,803,151
THOMASTON BD OF ED	18,724,328	1,500,290
THOMPSON BD OF ED	19,618,342	1,571,923
TOLLAND BD OF ED	49,337,774	3,953,199
TORRINGTON BD OF ED	80,724,853	6,468,095
TRUMBULL BD OF ED	139,705,936	11,193,965
UNION BD OF ED	1,539,326	123,339
VERNON BD OF ED	73,578,920	5,895,525
VOLUNTOWN BD OF ED	6,309,101	505,518
WALLINGFORD BD OF ED	133,406,713	10,689,239
WATERBURY BD OF ED	313,534,900	25,122,045
WATERFORD BD OF ED	60,790,941	4,870,886
WATERTOWN BD OF ED	48,464,850	3,883,256
WESTBROOK BD OF ED	21,016,415	1,683,944
WEST HARTFORD BD OF ED	204,358,254	16,374,245
WEST HAVEN BD OF ED	113,727,170	9,112,412
WESTON BD OF ED	60,087,491	4,814,522
WESTPORT BD OF ED	149,932,102	12,013,339
WETHERSFIELD BD OF ED	71,469,813	5,726,533
WILLINGTON BD OF ED	11,175,560	895,444
WILTON BD OF ED	101,983,534	8,171,451
WINCHESTER BD OF ED	14,125,042	1,131,772
WINDHAM BD OF ED	62,227,331	4,985,977
WINDSOR BD OF ED	81,836,695	6,557,181
WINDSOR LOCKS BD OF ED	38,927,124	3,119,043
WINSTED GILBERT SCHOOL	10,705,733	857,799
WOLCOTT BD OF ED	46,682,287	3,740,427
WOODBIDGE BD OF ED	17,140,167	1,373,359
WOODSTOCK BD OF ED	14,472,583	1,159,619
WOODSTOCK ACADEMY	19,840,076	1,589,690
UNIVERSITY OF CONN	4,429,959	354,951
RSD #9	26,253,325	2,103,553
CCI SOMERS	372,631	29,857
RSD #10	48,951,866	3,922,278



Employers	State's Proportionate Share Of the Net Pension Liability Associated with the District	Pension Expense and Revenue For State Support
SUPERVISORY DISTRICT #4	\$ 9,218,996	\$ 738,674
NORTHWESTERN CTC	566,447	45,387
MANCHESTER CTC	1,181,453	94,664
NORWALK CTC	455,814	36,522
WESTERN CSU	1,351,650	108,301
CENTRAL CSU	3,057,784	245,006
EASTERN CSU	1,908,695	152,935
SOUTHERN CSU	4,205,787	336,990
RSD #11	6,551,388	524,931
CAPITAL CTC	527,134	42,237
HOUSATONIC CTC	1,120,119	89,750
NAUGATUCK VALLEY CTC	1,507,592	120,796
MIDDLESEX CTC	1,298,875	104,073
EDUCATION CONNECTION	4,841,235	387,905
RSD #12	24,039,750	1,926,190
GATEWAY CTC	2,237,858	179,309
RSD #13	41,754,112	3,345,556
RSD #14	39,553,506	3,169,232
BOARD OF TRUSTEES CSU	-	-
CCI CHESIRE	403,116	32,300
SHARED SERVICES	3,508,296	281,103
CREC	189,673,526	15,197,628
RSD #15	81,473,657	6,528,093
RSD #16	41,424,835	3,319,173
THREE RIVERS CC	830,808	66,569
TUNXIS CTC	929,973	74,514
QUINEBAUG CTC	204,412	16,379
ODYSSEY CHARTER SCH	4,880,913	391,084
CES	32,048,166	2,567,866
ACES	60,470,680	4,845,225
PROJECT LEARN	37,255,461	2,985,101
RSD #17	47,430,645	3,800,390
ASNUNTUCK CTC	1,157,995	92,785
PROJECT OCEANOLOGY	1,129,849	90,529
RSD #18	34,460,371	2,761,144
DCF MENTAL HEALTH	521,157	41,758
EASTCONN	17,569,895	1,407,791
SERVICES FOR THE BLIND	2,627,203	210,505
RSD #19	25,542,887	2,046,629
UCONN HEALTH CENTER	1,042,127	83,501
CCI SUFFIELD	209,377	16,776
CHILDRENS CENTER	3,034,197	243,116
BRIDGE ACADEMY CHARTER SCH	4,109,678	329,289



<b>Employers</b>	<b>State's Proportionate Share Of the Net Pension Liability Associated with the District</b>	<b>Pension Expense and Revenue For State Support</b>
COMMON GROUND CHARTER SCH	\$ 2,949,655	\$ 236,342
EXPLORATIONS CHARTER SCH	1,589,643	127,370
INTEGRATED DAY SCHOOL	4,574,688	366,548
ISAAC CHARTER SCH	5,042,713	404,048
JUMOKE ACADEMY CHARTER SCH	7,786,541	623,898
SIDE BY SIDE CHARTER SCH	3,861,141	309,375
TRAILBLAZERS ACADEMY	3,393,107	271,873
NEW BEGINNINGS	6,113,864	489,875
ELM CITY COLLEGE PREP	3,156,912	252,948
STAMFORD ACADEMY	1,985,244	159,068
PARK CITY PREP	2,906,196	232,860
AF BRIDGEPORT ACADEMY	4,366,738	349,886
SERC	2,207,301	176,860
AF HARTFORD ACADEMY	7,834,603	627,749
BRASS CITY	1,037,781	83,152
Total	\$ <u>10,972,042,000</u>	\$ <u>879,137,000</u>



## **SCHEDULE C**

### **SUMMARY OF BENEFIT PROVISIONS EVALUATED**

#### **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.

#### **Annual Salary**

Annual Salary rate for service as a Connecticut teacher during a school year excluding amounts paid for extra duty assignments, coaching, unused sick time, unused vacation or terminal pay.

#### **Average Annual Salary**

Average of Annual Salary received during three years of highest salary.

#### **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 prior to 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.

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

In addition, amounts derived from the accumulation of 6% contributions made prior to July 1, 1989 and voluntary contributions by the teacher are payable.

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.

#### **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.

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. Effective July 1, 1999, the reduction for individuals with 30 or more years of service is 3% for each year by which early retirement precedes the minimum retirement age.



### **Proratable Retirement**

Eligibility - Age 60 with 10 years of Credited Service.

Benefit - 2% less 0.1% for each year less than 20 years of Average Annual Salary times years of Credited Service in Connecticut, plus 1% of Average Annual Salary times years of additional Credited Service time.

### **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.

Benefit - 2% of Average Annual Salary times Credited Service to date of disability, but not less than 15% of Average Annual Salary, nor more than 50% of Average Annual Salary. In addition, disability benefit under this plan (without regard to any cost-of-living adjustments) plus any initial award of Social Security benefits and workers' compensation cannot exceed Average Annual Salary.

### **Termination of Employment**

Less than 5 years of Credited Service - Return 6% contributions with interest.

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

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. Benefits are payable at age 60 and early retirement reductions are based on the number of years of service the member would have had if they had continued to work until age 60.

Member may elect return of all contributions plus interest on 6% contributions in lieu of vested benefit.

### **Pre-Retirement Death Benefits**

A lump sum plus one of the following: survivor's benefit, return of all contributions with interest, or 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 is \$1,500 per month. Each minor child is entitled to \$300 per month. The surviving spouse's benefit is \$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: An active member who is eligible for immediate retirement and who has named his or her spouse as primary beneficiary will be covered by a 100% Plan D co-participant option in the event of his or her death prior to retirement.



## **Benefit Options**

Normal form: 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 the benefit commencement, the difference is paid to the Member's beneficiary.

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

Amounts payable under the optional forms are determined on an actuarially equivalent basis. Actuarial equivalence is determined using mortality as described in Section F of the report, 8.5% interest, and 2% compound COLA. A unisex mortality blend of 60% male was used for certain benefit forms, and a blend of 80% male was used for co-participant annuity forms.

## **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.

For teachers who were members of the Teachers' Retirement System before July 1, 2007, and retire on or after September 1, 1992, pension benefit adjustments are made that are consistent with those provided for Social Security benefits on January 1 of the year granted, with a maximum of 6% per annum. If the return on assets in the previous year was less than 8.5%, the maximum increase is 1.5%.

For teachers who were members of the Teachers' Retirement System after July 1, 2007, pension benefit adjustments are made that are consistent with those provided for Social Security benefits on January 1 of the year granted, with a maximum of 5% per annum. If the return on assets in the previous year was less than 11.5%, the maximum increase is 3%, and if the return on the assets in the previous year was less than 8.5%, the maximum increase is 1.0%.

## **Teachers' Required Contribution**

Effective July 1, 1992, each teacher is required to contribute 6% of annual salary for the pension benefit.

## **State Contribution**

The State's contribution requirement is determined in accordance with Section 10-183z (which reflects Public Act 79-436 as amended).

## **Early Retirement Incentive**

A local or regional board of education may establish a retirement incentive plan. The plan shall provide for purchase of additional credited service by a board of education and a member of the system who chooses to participate in the plan, of additional credited service for such member and for payment by the board of education of not less than fifty per cent of the entire cost of such total cost. Any such plan shall specify a maximum number of years to be purchased, not to exceed five. Members must have attained age 50 and be eligible for retirement with the additional purchased service. The amount of service purchased cannot exceed the lesser of five years and one-fifth of the member's credited service.



**SCHEDULE D**

**STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

**Investment Rate of Return**

Assumed annual rate of 8.50% net of investment expenses.

**Rates of Annual Salary Increase**

<b>Rates of Annual Salary Increase Assumption</b>	
<b>Years of Service</b>	
<b>0</b>	7.00%
<b>1</b>	7.00
<b>2</b>	7.00
<b>3</b>	7.00
<b>4</b>	7.00
<b>5</b>	7.00
<b>6</b>	7.00
<b>7</b>	7.00
<b>8</b>	7.00
<b>9</b>	7.00
<b>10</b>	5.50
<b>11</b>	5.50
<b>12</b>	5.50
<b>13</b>	5.50
<b>14</b>	5.50
<b>15</b>	4.00
<b>16</b>	4.00
<b>17</b>	4.00
<b>18</b>	4.00
<b>19</b>	4.00
<b>20+</b>	3.75



**Active Member Decrement Rates**

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

<b>Annual Rates of Retirement</b>						
<b>Age</b>	<b>Unreduced</b>		<b>Proratable</b>		<b>Reduced</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	27.5%	15.0%			2.0%	2.0%
55	38.5%	30.0%			4.5%	6.0%
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.

<b>Annual Rates of Death and Disability</b>				
<b>Age</b>	<b>Pre-Retirement Mortality</b>		<b>Disability</b>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
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	0.1490%	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	14.00%	12.00%	25	1.20%	3.50%
1-2	8.50	9.00	30	1.20	3.50
2-3	5.50	7.00	35	1.20	3.50
3-4	4.50	6.00	40	1.20	2.30
4-5	3.50	5.50	45	1.26	1.30
5-6	2.50	5.00	50	1.96	1.25
6-7	2.40	4.50	55	2.76	1.60
7-8	2.30	3.50	59	3.00	1.90
8-9	2.20	3.00			
9-10	2.10	2.50			

#### 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				
Age	Healthy		Disabled	
	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

85% of males and 75% of females assumed to be married, with female spouses being 3 years younger than males.

#### Asset Valuation Method

Market value of assets is used for GASB 67 disclosure purposes.



### **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.

### **Future Cost-of-living Increases**

Members who retired prior to September 1, 1992 are assumed to receive an annual Cost-of-Living Adjustment (COLA) of 3.0%. Members who retired on or after September 1, 1992 are assumed to receive an annual Cost-of-Living Adjustment (COLA) of 2.0%.

### **Administrative and Investment Expenses**

The investment return assumption represents the expected return net of all investment expenses. Administrative expenses are paid from the State's General Fund.

### **Payroll Growth Rate**

The total annual payroll of active members is assumed to increase at an annual rate of 3.75%. This rate does not anticipate increases in the number of members.