



Cavanaugh Macdonald
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The experience and dedication you deserve



CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM

RETIREE HEALTH INSURANCE PLAN

FINANCIAL ACCOUNTING REPORT

PREPARED AS OF JUNE 30, 2020

FOR JUNE 30, 2021 FINANCIAL REPORTING





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

February 11, 2021

Board of Directors
Connecticut State Teachers' Retirement System
165 Capitol Avenue
Hartford, CT 06106-1673

**Re: June 30, 2020 GASB 75 Report for the Retiree Health Insurance Plan
of the Connecticut State Teachers' Retirement System**

Members of the Board:

This financial accounting report provides the information that the Connecticut State Teachers' Retirement System (the System) should use to satisfy the requirements described in Governmental Accounting Standards Board (GASB) Statement No. 75 for the System's Retiree Health Insurance Plan (the Plan). This report has been prepared by the System's actuary, Cavanaugh Macdonald Consulting (CMC), as of June 30, 2020 (Measurement Date) for financial reporting as of June 30, 2021.

GASB Statement No. 75 (GASB 75) establishes accounting and financial reporting requirements for governmental employers who sponsor or participate in other postemployment benefits (OPEB) plans. In general, the GASB 75 rules that apply to postretirement benefit plans are designed to help plan sponsors adequately and systematically account for plan costs, facilitate comparisons of plan sponsor financial information by standardizing certain aspects of postretirement benefit plan asset and liability measurement, and improve the utility of financial statement information by requiring that plan sponsors provide certain information about their OPEB plans.

Additional Information and Disclosures

The information contained in this report is intended to be used by the System for financial accounting purposes for the fiscal year ending on June 30, 2021 and its use for other purposes may not be appropriate. Calculations for purposes other than satisfying the requirements of GASB 75 may produce significantly different results. This report supersedes all June 30, 2021 financial reporting results, including draft versions of this document, issued prior to the date of this report. The System should rely only on the June 30, 2021 (as of FYE 2020) financial accounting information provided herein.

The results contained in this report were prepared by qualified actuaries according to generally accepted actuarial principles and practices, and in compliance with Actuarial Standards of Practice issued by the Actuarial Standards Board. The financial accounting information provided in this report reflects our current understanding of GASB Statement Nos. 74 and 75 (GASB accounting rules), including any applicable guidance provided by the System or its audit partners as of the date of this report.



The biennial actuarial valuation used as the basis for much of the information presented in this report was performed as of June 30, 2020 (Valuation Date). The census data for active and retired members as of the Valuation Date, changes in plan provisions since the prior Valuation Date, the net benefits and administrative expenses paid during the fiscal year beginning on July 1, 2019 and ending on June 30, 2020, and pertinent financial information was provided by the System for actuarial valuation and financial accounting purposes. We did not audit the supplied information, but it was reviewed for reasonableness and consistency. In certain situations, the supplied information was adjusted to account for normal differences in collection dates and/or methods. As a result, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it is reliable for the purposes stated herein. The results and conclusions contained in this report depend on the integrity of this information, and if any of the supplied information or analyses change, our results and conclusions may be different and this report may need to be revised. Likewise, this information may need to be revised to reflect any significant event that affects the Plan subsequent to the Valuation Date.

All assumptions used for GASB 75 purposes—including, but not limited to, discount rates, expected rates of return on assets, expected annual per capita claims, long-term health care cost trend rates, and expected active employee and retired member health care coverage election assumptions—should reflect best estimates of anticipated Plan experience. The discount rate was determined based on the methods prescribed by GASB accounting rules. Other than the discount rate required under GASB 75, we believe that those assumptions selected for financial accounting and reporting purposes as of June 30, 2020 and June 30, 2021, respectively, are reasonable for their intended purposes.

The actuarial cost method, the asset valuation method, and the amortization methods are prescribed under GASB rules for financial accounting purposes as of the Measurement Date. Actuarial methods, such as the actuarial cost method, asset valuation method, and amortization methods, used in the cost allocation procedure (for financial accounting purposes) are designed to recognize changes in an orderly fashion over a period of years. In certain situations, the actuarial methods used in an allocation procedure may have the effect of deferring changes in amounts into later years. Likewise, the use of these methods could produce deferred gains or losses if any material underlying assumption is not met over an extended period of time.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in 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 retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. Since an assessment of the potential impact of variations in factors other than discount rates and health care cost trend rates is outside the scope of typical financial reporting requirements, we have not performed any analysis of the potential range of such future differences. **This report does not consider all possible scenarios.**

In order to prepare the results in this report, we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.



Board of Directors
February 11, 2021
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The funded status measurements included in this report are based on the assumptions and methods used to determine the Plan's obligations and asset values as of the Valuation and/or Measurement Date(s). Funded status measurements for financial accounting purposes may not be appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. Likewise, funded status measurements for financial accounting purposes may not be appropriate for assessing the need for or the amount of future actuarially determined contributions.

CMC does not provide legal, investment, or accounting advice. Thus, the information in this report is not intended to supersede or supplant the advice and interpretations of the System or its affiliated legal, investing, or accounting partners.

The undersigned is familiar with the near-term and long-term aspects of other postemployment benefit plan valuations and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained in this report. All sections of this report, including any appendices and attachments, are considered an integral part of the actuarial opinions.

To the best of our knowledge, no executive or employee of CMC providing services to the System has any direct financial interest or indirect material interest in the System. As a result, we believe that there is no relationship existing that might affect our capacity to prepare and certify these estimates for the System's Plan as of June 30, 2020.

Please call us at 678-388-1700 if you have any questions.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Yuek Yeng'.

Youveak Yeng, ASA, MAAA
Senior Actuary

A handwritten signature in blue ink, appearing to read 'Alisa Bennett'.

Alisa Bennett, FSA, EA, FCA, MAAA
President

YY/AB:nh



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Section I — Board Summary

GASB 75 FISCAL YEAR END DISCLOSURE INFORMATION FOR THE SYSTEM'S RETIREE HEALTH INSURANCE PLAN

(\$ in Thousands)		
Principal Results for Financial Reporting as of	June 30, 2021	June 30, 2020
Valuation Date (VD):	June 30, 2020	June 30, 2018
Measurement Date (MD):	June 30, 2020	June 30, 2019
Discount Rate:		
Long-Term Expected Rate of Return at MD	3.00%	3.00%
Municipal Bond Index Rate at MD	2.21%	3.50%
Year in which Fiduciary Net Position is Projected to be Depleted	2021	2019
Single Equivalent Interest Rate at MD	2.21%	3.50%
Collective Net OPEB Liability (NOL) as of the MD:		
Collective Total OPEB Liability (TOL)	\$ 2,882,836	\$ 2,719,040
Fiduciary Net Position (FNP)	71,941	56,453
Collective Net OPEB Liability (NOL = TOL – FNP)	\$ 2,810,895	\$ 2,662,587
FNP as a percentage of TOL	2.50%	2.08%
NOL as a percentage of covered compensation	63.33%	60.66%
Collective OPEB Expense / (Income) for the Measurement Period:		
	\$ 129,842	\$ (194,839)
Collective Deferred Outflows / (Inflows) of Resources as of the MD:		
Total Collective Deferred Outflows of Resources	\$ 861,949	\$ 381,719
Total Collective Deferred (Inflows) of Resources	\$ (810,362)	\$ (377,771)



Section II — Introduction

The Governmental Accounting Standards Board issued Statement No. 75 (GASB 75), “*Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pensions*” in June 2015. GASB 75 is effective for employer fiscal years beginning after June 15, 2017. For the purposes of reporting under GASB 75, the Plan is assumed to be a cost-sharing, other than insured, defined benefit OPEB plan with a special funding situation where assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB 75. Additionally, we have assumed that the System will not restate results for any period prior to the adoption of GASB 75 based on the guidance in paragraph 244 of that Standard.

This report, prepared as of June 30, 2020 (Measurement Date or MD), presents information to assist the System in meeting the requirements of GASB 75. Much of the material provided in this report is based on the data, assumptions, plan provisions, and results of the actuarial valuation of the Plan as of June 30, 2020 (Valuation Date or VD).

GASB 75 requires the plan sponsors to determine the Total OPEB Liability (TOL) utilizing the Entry Age Normal (EAN) actuarial funding method. If the valuation date at which the TOL is determined is before the measurement date, the TOL must be rolled forward to the measurement date. The plan provisions recognized in the determination of the TOL are summarized in Schedule D. The development of the changes in the TOL during the measurement period is shown in Section III.

If a financial accounting asset exists, a Collective Net OPEB Liability / (Asset) (NOL), which is equal to the difference between the actual/projected TOL and the Plan's Fiduciary Net Position (FNP)—the market value of the financial accounting asset—must be determined as of the Measurement Date.

The discount rate is an important assumption used in the measurement of the TOL, and the guidance concerning discount rate selection provided in GASB 75 varies based on whether or not the plan has a financial accounting asset. The environment for yields on 20-year tax-exempt municipal bonds (rating AA/Aa or higher) on the measurement date (Municipal Bond Index Rate) could affect discount rates in either case, so the plan sponsor must choose an appropriate basis for these Municipal Bond Index Rates. The Municipal Bond Index Rate used for this purpose is the 20-Bond average General Obligation 20-year Municipal Bond Rate published at the end of the last week during the month of June by The Bond Buyer (www.bondbuyer.com).

If the plan does not have a financial accounting asset, the plan sponsor must select a discount rate based solely on the Municipal Bond Index Rate. However, if the plan has assets that are accumulated in a Trust that meets the criteria in paragraph 4 of GASB 75, the plan sponsor must select a discount rate based on the Single Equivalent Interest Rate (SEIR) for the plan.

To determine the SEIR, the FNP must be projected into the future for as long as there are anticipated benefits payable to members and beneficiaries under the relevant plan provisions in effect on the measurement date. Future contributions must be projected in accordance with the plan's funding policy and/or the application of professional judgment in situations where the recent contribution history of the contributing entities warrants detailed consideration. If the FNP is not projected to be depleted at any point in the future, the long term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.



Conversely, if the FNP is projected to be depleted on any future measurement date, the SEIR will be equal to the single rate that generates a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion based on the long-term expected rate of return on plan investments, and the present value determined by discounting those benefits after the date of depletion by the Municipal Bond Index Rate on the measurement date.

The changes reflected in the TOL and FNP during the measurement period are shown in Section III. Differences between expected and actual experience and changes of assumptions or other inputs, if any, are recorded as Collective Deferred Outflows of Resources if the change increases the Plan's TOL, or Collective Deferred Inflows of Resources if the change reduces the Plan's TOL.

Schedule A shows the development of the Plan's projected earnings on plan investments, and the determination of the difference between actual and projected earnings on plan investments during the measurement period. Differences between actual and projected earnings on plan investments, if any, are recorded as Collective Deferred Outflows of Resources if the change lowers the FNP, or Collective Deferred Inflows of Resources if the change increases the FNP.

Collective Deferred Outflows of Resources and Collective Deferred Inflows of Resources are usually recognized on a level dollar basis without any adjustments for interest. The unrecognized portions of the Collective Deferred Outflows of Resources and Collective Deferred Inflows of Resources that must be included on the Statement of Net Position are provided in Section IV.



GASB 75 requires the determination and disclosure of the Collective OPEB Expense / (Income) (OE) for the Plan in the notes to financial statements. Generally speaking, OE includes the following components:

COMPONENTS OF COLLECTIVE OPEB EXPENSE / (INCOME)	
+ Service Cost (SC)	This is equal to the Normal Cost determined using the Entry Age Normal (Level Percentage of Pay) actuarial cost method.
- Active Member Contributions	The total amount of active employee payroll deductions for OPEB benefits, if applicable.
+ Administrative Expenses	The amount, if any, paid during the measurement period for OPEB costs not directly related to the payment of benefits. This amount would include costs such as actuarial fees, audit fees, trust fees, salaries associated with staff time spent on OPEB related tasks, etc.
+ / - Changes of Benefit Terms	Benefit changes during the period are recognized immediately. Plan amendments increase OE if the change improves benefits for existing Plan members. Likewise, changes that reduce benefits for existing Plan members lower OE.
+ Interest on the Collective Total OPEB Liability (IOT)	IOT is determined based on the Discount Rate that was used to measure the Plan's TOL as of the Prior Measurement Date. Please note that the SC component may include interest to the end of the measurement period, or this interest adjustment may be included with IOT.
- Projected Earnings on Plan Investments (XR)	If the Plan has a financial accounting asset, XR is determined based on the long-term expected rate of return assumption at the end of the prior measurement period.
+ / - Other	Miscellaneous and non-standard expense items are included in this component.



COMPONENTS OF COLLECTIVE OPEB EXPENSE / (INCOME)

+ / – Recognition of Current Period

Collective Deferred Outflows / (Inflows) of Resources for:

- **Differences Between Expected and Actual Experience**
- **Changes of Assumptions or Other Inputs**
- **Differences Between Actual and Projected Earnings on Plan Investments**

Please note that the results provided in this report reflect the following conventions: Experience losses (“positive amounts”) increase the balances of Collective Deferred Outflows of Resources, and amounts recognized increase OPEB expense. Experience gains (“negative amounts”) decrease the balances of Collective Deferred Inflows of Resources, and amounts recognized decrease OPEB expense.

For differences between expected and actual experience and changes of assumptions or other inputs, the amounts that must be recognized during the current period are determined by spreading the total changes over the average expected remaining service lives (AERSL) of the entire Plan membership at the beginning of the measurement period. The active member AERSL is the average number of years that the active members are expected to remain in covered employment. AERSL is equal to zero for inactive members. The AERSL of the entire Plan membership is the weighted average of these two values, but cannot be less than one year¹. The development of the AERSL as of the Prior Measurement Date is shown in Schedule A.

For differences between actual and projected earnings on plan investments, if any, the amount that must be recognized during the current period is determined by amortizing the total change over five (5) years.

+ Recognition of Prior Period Collective Deferred Outflows of Resources

The amounts that must be recognized during the current year for those Collective Deferred Outflows of Resources established before the current measurement period.

– Recognition of Prior Period Collective Deferred (Inflows) of Resources

The amounts that must be recognized during the current year for those Collective Deferred (Inflows) of Resources established before the current measurement period.

The development of the OE is shown in Section V.

Generally speaking, each contributing entity must report an allocation (proportionate share) of the collective financial accounting amounts associated with a cost-sharing defined benefit OPEB plan. However, the State of Connecticut (State) makes all contributions to the Plan on behalf of the employees of the participating districts. Therefore, our understanding is that the participating districts (employers) are considered to be in a special funding situation as defined by GASB 75 and the State is treated as a governmental non-employer contributing entity in the System. Since employers do not contribute directly to the Plan, we believe that the participating districts would not be required to report proportionate shares

¹ Based on the guidance in GASB Implementation Guide 2017-3, paragraph 4.264.



of the Plan's NOL or Collective Deferred Outflows or (Inflows) of Resources in their financial statements. However, each employer must disclose its share of the NOL (i.e. the non-employer contributing entities' total proportionate share of the NOL that is associated with the employer) in the notes to its financial statements, and would also be required to provide information about the Plan in its note disclosures and schedules of Required Supplementary Information (RSI). Additionally, each district must recognize expense and record revenue equal to the district's share of the OE for the Plan (i.e. the non-employer contributing entities' total proportionate share of the Collective OPEB Expense / (Income) associated with the district). The State—as the sole (non-employer) contributing entity—would report the entire NOL, Collective Deferred Outflows and Inflows of Resources, and OE for the Plan.

Section VI provides the actuarial information for the Plan that must be disclosed for financial reporting purposes. Section VII provides the RSI for the reporting entity's financial statements.

Section VIII 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, 2020. Section VIII 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 NOL associated with each participating employer and the employer OE and revenue for State support for each participating employer for the year ending June 30, 2020. These amounts are also provided in Section VIII.

The appendices (Schedules) contain additional details and in-depth information. As a final reminder, please keep in mind that any information that may be included in this report for periods prior to June 30, 2010 was produced by the prior actuarial consulting firm.



Section III — Schedule of Changes in the Collective Net OPEB Liability / (Asset)

The tables below provide the changes in the Collective Total OPEB Liability (TOL), the Fiduciary Net Position (FNP), and the Collective Net OPEB Liability / (Asset) (NOL) during the current measurement period that must be disclosed under GASB accounting rules, as well as the most recent five years of the 10-year schedule of changes in the TOL, FNP, NOL, and related ratios that must be included in Required Supplementary Information (RSI). We have assumed that the System will not restate results for any period prior to the adoption of GASB 74 or 75, so only results for the years since adoption are shown. Additional periods within the five year window will be added in the future.

Reconciliation of Changes in the Plan's Collective Total OPEB Liability (TOL)

(\$ in Thousands)					
Fiscal Years Ending on June 30	2020	2019	2018	2017	2016
Collective Total OPEB Liability (TOL)					
Service Cost	\$ 93,324	\$ 87,313	\$ 132,392	\$ 148,220	
Interest on the TOL	97,264	105,702	133,597	111,129	
Changes of benefit terms	0	(339,076)	(1,044,628)	0	
Difference between expected and actual experience	(586,004)	66,502	217,853	0	
Changes of assumptions or other inputs	626,595	182,438	(196,049)	(370,549)	
Net benefit payments	(67,383)	(55,154)	(110,622)	(84,071)	
Net change in TOL	\$ 163,796	\$ 47,725	\$ (867,457)	\$ (195,271)	
TOL—beginning of period	\$ 2,719,040	\$ 2,671,315	\$ 3,538,772	\$ 3,734,043	
TOL—end of period	\$ 2,882,836	\$ 2,719,040	\$ 2,671,315	\$ 3,538,772	



Connecticut State Teachers' Retirement System

Reconciliation of Changes in the Plan's Fiduciary Net Position (FNP) and Collective Net OPEB Liability / (Asset) (NOL)

(\$ in Thousands)						
Fiscal Years Ending on June 30		2020	2019	2018	2017	2016
TOL—end of period	(a)	\$ 2,882,836	\$ 2,719,040	\$ 2,671,315	\$ 3,538,772	
Fiduciary Net Position (FNP)						
Contributions – State of Connecticut		\$ 29,173	\$ 35,320	\$ 35,299	\$ 19,922	
Contributions – active member		53,221	51,944	51,484	50,436	
Net investment income		849	1,090	411	369	
Net benefit payments		(67,383)	(55,154)	(110,622)	(84,071)	
Administrative expenses		(372)	(383)	(264)	(150)	
Other		0	(16,100)	0	42	
Net change in FNP		\$ 15,488	\$ 16,717	\$ (23,692)	\$ (13,452)	
FNP—beginning of period		\$ 56,453	\$ 39,736	\$ 63,428	\$ 76,880	
FNP—end of period	(b)	\$ 71,941	\$ 56,453	\$ 39,736	\$ 63,428	
FNP as a percentage of the TOL	[(b) / (a)]	2.50%	2.08%	1.49%	1.79%	
Collective Net OPEB Liability/(Asset) (NOL)						
NOL—end of period	[(a) - (b)]	\$ 2,810,895	\$ 2,662,587	\$ 2,631,579	\$ 3,475,344	
Covered Payroll¹		\$ 4,438,394	\$ 4,389,654	\$ 4,075,939	\$ 4,279,755	
NOL as a percentage of Covered Payroll		63.33%	60.66%	64.56%	81.20%	

¹ Covered Payroll provided by the System for active employees who would be eligible for benefits at retirement.



Section IV — Balances of Collective Deferred Outflows / (Inflows) of Resources

The following tables provide the balances of Collective Deferred Outflows and (Inflows) of Resources that are reported for current and prior period differences between expected and actual experience, changes of assumptions or other inputs, and differences between actual and projected earnings on plan investments. The information in the tables reflects the assumptions and other conventions listed below. This presentation is designed to facilitate the development of Collective OPEB Expense / (Income) (OE), and should not be used for financial reporting purposes without appropriate adjustments. Please note that the contributing entities may be required to report Collective Deferred Outflows / (Inflows) of Resources for contributions made subsequent to the measurement date and prior to the end of the reporting period; however, CMC will not provide or incorporate these amounts in the tables included in this section of the report.

- No differences between expected and actual experience, changes of assumptions or other inputs, or differences between actual and projected earnings on plan investments during measurement periods ending prior to June 30, 2017 are being recognized.
- Experience losses are presented as positive amounts. Experience gains are presented as negative amounts.
- Collective Deferred Outflows of Resources are presented as positive amounts. Collective Deferred (Inflows) of Resources are presented as negative amounts.
- Experience losses (“positive amounts”) increase the balances of Collective Deferred Outflows of Resources, and amounts recognized increase OE. Experience gains (“negative amounts”) decrease the balances of Collective Deferred (Inflows) of Resources, and amounts recognized decrease OE.

The table below provides a summary of the unrecognized balances of Collective Deferred Outflows of Resources and (Inflows) of Resources by source as of June 30, 2020:

(\$ in Thousands)	Collective Deferred Outflows of Resources	Collective Deferred (Inflows) of Resources
Differences between expected and actual experience	\$ 184,854	\$ (503,816)
Changes of assumptions or other inputs	675,428	(306,546)
Differences between projected and actual earnings on plan investments	1,667	0
Total unrecognized balance as of	\$ 861,949	\$ (810,362)



Connecticut State Teachers' Retirement System

Balances of Collective Deferred Outflows / (Inflows) of Resources by Source and Year

(\$ Thousands)	(a)		(b)		(c)		(d)		Balances as of June 30, 2020		
	Initial Experience (Gain) / Loss Amount	Initial Recognition Period (Years)	Initial Recognition Amount	Initial Recognition [(a) ÷ (b)]	Recognized in Collective OPEB Expense through June 30, 2020	Recognized in Collective OPEB Expense through June 30, 2020	Recognized in Collective OPEB Expense through June 30, 2020	Recognized in Collective OPEB Expense through June 30, 2020	Collective Deferred Outflows of Resources [(a) – (d), > 0]	Collective Deferred (Inflows) of Resources [(a) – (d), < 0]	
Collective Deferred Outflows / (Inflows) of Resources for Differences Between Expected and Actual Experience:											
2017	\$	0	7.99	\$	0	\$	0	\$	0	\$	0
2018	\$	217,853	7.89		27,611	\$	82,833		135,020		0
2019	\$	66,502	7.98		8,334	\$	16,668		49,834		0
2020	\$	(586,004)	7.13		(82,188)	\$	(82,188)		0		(503,816)
				\$	(46,243)			\$	184,854	\$	(503,816)
Collective Deferred Outflows / (Inflows) of Resources for Changes in Assumptions or Other Inputs:											
2017	\$	(370,549)	7.99	\$	(46,377)	\$	(185,508)	\$	0	\$	(185,041)
2018	\$	(196,049)	7.89		(24,848)	\$	(74,544)		0		(121,505)
2019	\$	182,438	7.98		22,862	\$	45,724		136,714		0
2020	\$	626,595	7.13		87,881	\$	87,881		538,714		0
				\$	39,518			\$	675,428	\$	(306,546)
Collective Deferred Outflows / (Inflows) of Resources for Differences Between Projected and Actual Earnings on Plan Investments:											
2017	\$	1,512	5.00	\$	302	\$	1,209	\$	303	\$	0
2018	\$	784	5.00		157	\$	471		313		0
2019	\$	335	5.00		67	\$	134		201		0
2020	\$	1,063	5.00		213	\$	213		850		0
				\$	739			\$	1,667	\$	0



Section V — Collective OPEB Expense / (Income)

The development of the Collective OPEB Expense / (Income) for the financial reporting period ending on June 30, 2021 is shown in the following table:

Collective OPEB Expense / (Income)	
For the Fiscal Year Ending on June 30, 2021	
(\$ in Thousands)	
Service cost	\$ 93,324
Active member contributions	(53,221)
Administrative costs*	372
Changes of benefit terms during the current period	0
Interest on the TOL	97,264
Projected earnings on plan investments	(1,912)
Other	0
Recognition of current period	
Collective Deferred Outflows / (Inflows) of Resources:	
Difference between expected and actual experience	(82,188)
Changes of assumptions or other inputs	87,881
Difference between actual and projected earnings on plan investments	213
Recognition of prior period Collective Deferred Outflows of Resources	59,334
Recognition of prior period Collective Deferred (Inflows) of Resources	(71,225)
Collective OPEB Expense / (Income)	\$ 129,842

* Administrative costs are based on the administrative expenses paid from the Plan's trust during the fiscal year ending on June 30, 2020.



Section VI — Financial Statement Note Disclosures

This section contains financial accounting information that may be used to satisfy the reporting requirements for employers and governmental nonemployer contributing entities (GNCEs) under Governmental Accounting Standards Board Statement No. 75 (GASB 75) for the year ending on June 30, 2021, based on a June 30, 2020 valuation date. The Plan is assumed to be cost-sharing, other than insured, defined benefit OPEB plan with a special funding situation where assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB 75. Additionally, we have assumed that the System will not restate results for any period prior to the adoption of GASB 75 based on the guidance in paragraph 244 of that Standard. Amounts are shown in aggregate. This report does not include any non-actuarial items that may need to be reported or disclosed.

Summary of Key Actuarial Assumptions, Methods, and Other Inputs

The TOL was determined by an actuarial valuation as of June 30, 2020, using the key actuarial assumptions, methods, and other inputs listed below. Please note that the complete set of actuarial assumptions, methods, and other inputs that were used to develop the TOL are provided in Schedule B.

Inflation	2.50%
Real Wage Growth	0.50%
Wage Inflation	3.00%
Salary Increases, Including Wage Inflation	3.00% - 6.50%
Long-term Investment Rate of Return, Net of OPEB Plan Investment Expense, Including Inflation	3.00%
Municipal Bond Index Rate	2.21%
Year FNP is Projected to be Depleted	2021
Single Equivalent Interest Rate, Net of OPEB Plan Investment Expense, Including Price Inflation	2.21%
Health Care Cost Trend Rates	5.125% for 2020, decreasing to an ultimate rate of 4.50% by 2023

Subsidy amounts will not increase upon reaching their limit.

Health care cost trend rates are set on an annual basis based on published annual health care inflation surveys in conjunction with actual plan experience (if credible), building block models and heuristics developed by health plan actuaries and administrators, and the views of experts who are familiar with the System's Plan and/or similar plan offerings. Effective June 30, 2020, the health care cost trend rates for the Medicare Supplement and Medicare Advantage medical and prescription drug options were revised to reflect current expectations of future increases in health care claim costs for those options.

Mortality rates were based on the PubT-2010 Healthy Retiree Table (adjusted 105% for males and 103% for females as ages 82 and above), projected generationally with MP-2019 for the period after service retirement. The PubT-2010 Disabled Retiree Table projected generationally with MP-2019 was used for the period after disability retirement. The PubT-2010 Contingent Survivor Table projected generationally with MP-2019 and set forward 1 year for both males and females was used for survivors and beneficiaries. The PubT-2010 Employee Table projected generationally with MP-2019 was used for active members.



Connecticut State Teachers' Retirement System

The demographic actuarial assumptions for retirement, disability incidence, and withdrawal used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period July 1, 2014 – June 30, 2019. The actuarial economic assumptions used in the June 30, 2020 valuation were based on the results of a study of economic assumptions for use in actuarial valuations dated April 24, 2019.

The remaining actuarial assumptions (e.g., initial per capita costs, rates of plan participation, rates of plan election, etc.) used in the June 30, 2020 valuation are based on a review of recent plan experience that was performed concurrently with the June 30, 2020 valuation and/or based on observed changes in participant behavior following the changes of benefit terms, effective July 1, 2018 and January 1, 2019.

The long-term expected return on plan assets is reviewed as part of the GASB 75 valuation process. Several factors are considered in evaluating the long-term rate of return assumption, including the Plan's current asset allocations and a log-normal distribution analysis using the best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) for each major asset class compiled by Horizon Actuarial Services, LLC in its "Survey of Capital Market Assumptions, 2020 Edition". The long-term expected rate of return was determined by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The assumption is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

The target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Expected 10-Year Geometric Real Rate of Return	Standard Deviation
U.S. Treasuries (Cash Equivalents)	100.00%*	-0.42%	1.78%
Price Inflation		2.50%	
Expected Rate of Return		$0.9958 \times 1.0250 - 1 = 2.07\%$	
Expected Rate of Return (Rounded Nearest 0.25%)		2.00%	

*All of the Plan's assets are assumed to be invested in cash equivalents given the need for liquidity.

Since there have not been any changes to the asset allocation and we expect that the recent economic downturn is temporary, we continue to use the funding rate of 3.00% as of June 30, 2020.



DEVELOPMENT OF THE DISCOUNT RATE (SEIR)

The projection of cash flows used to determine the discount rate was performed in accordance with GASB 75. The basis for this projection was the actuarial valuation performed as of June 30, 2020. In addition to the actuarial methods and assumptions of the June 30, 2020 actuarial valuation, the following actuarial methods and assumptions were used in the projection of cash flows:

- Total payroll for the initial projection year consists of the payroll of the active membership present on the Valuation Date. In subsequent projection years, total payroll was assumed to increase annually at a rate of 3.00%.
- Employee contributions were assumed to be made at the current member contribution rate, and were first applied to reduce applicable service costs for these members.
- Annual State contributions were assumed to be equal to the most recent five-year average of state contributions toward the fund.

Based on these assumptions, the Plan's FNP was projected to be depleted in 2021 and, as a result, the Municipal Bond Index Rate was used in the determination of the SEIR. In this analysis, the long-term expected rate of return on Plan investments equal to 3.00% was applied to periods through 2021 and the Municipal Bond Index Rate as of the Measurement Date (2.21%) was applied to periods on or after 2021, resulting in a SEIR equal to 2.21% as of the Measurement Date.

Please note that the FNP projections are based upon the Plan's financial status on the Valuation Date, the indicated set of methods and assumptions, and the requirements of GASB 75. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of the Plan, or the Plan's ability to make benefit payments in future years.

Sensitivity of the Collective Net OPEB Liability / (Asset) to Health Care Cost Trend Rates

The sensitivity of the NOL to changes in health care cost trend rates must be disclosed under GASB accounting rules. The table below provides the NOL of the Plan determined using current health care cost trend rates, as well as what the Plan's NOL would be if health care cost trend rates were 1-percentage-point lower or 1-percentage-point higher than current health care cost trend rates.

Sensitivity of the Net OPEB Liability to Health Care Cost Trend Rates			
	1% Lower Trend Rates	Current Trend Rates	1% Higher Trend Rates
Initial Health Care Trend Rates	4.125%	5.125%	6.125%
Ultimate Health Care Trend Rate	3.50%	4.50%	5.50%
Net OPEB Liability / (Asset)	\$2,296,392	\$2,810,895	\$3,521,815

Please keep in mind that the estimates provided in the table above were prepared using streamlined calculation techniques, and they are intended to provide an "order of magnitude" indication of the NOL's sensitivity to changes in these assumptions. Results based on more refined calculations may yield findings and conclusions different than those suggested by the methodology required under GASB accounting rules, as shown above.



Sensitivity of the Collective Net OPEB Liability / (Asset) to Discount Rates

The sensitivity of the NOL to changes in the discount rate must also be disclosed under GASB accounting rules. The table below provides the NOL of the Plan determined using the current discount rate of 2.21%, as well as what the Plan's NOL would be if the discount rate was 1-percentage-point lower or 1-percentage-point higher than the current rate:

Sensitivity of the Net OPEB Liability to Discount Rates (\$ in Thousands)			
	1% Decrease (1.21%)	Current Discount Rate (2.21%)	1% Increase (3.21%)
Net OPEB Liability / (Asset)	\$3,431,738	\$2,810,895	\$2,327,450

Please keep in mind that the estimates provided in the table above were prepared using streamlined calculation techniques, and they are intended to provide an "order of magnitude" indication of the NOL's sensitivity to changes in these assumptions. Results based on more refined calculations may yield findings and conclusions different than those suggested by the methodology required under GASB accounting rules, as shown above.

Schedule of the Recognition of Collective Deferred Outflows / (Inflows) of Resources in Collective OPEB Expense / (Income)

Amounts reported as Collective Deferred Outflows of Resources and Collective Deferred (Inflows) of Resources related to OPEB benefits will be recognized in Collective OPEB Expense / (Income) as follows:

Reporting Period Ending:	Net Amount Recognized (\$ in Thousands)	
June 30, 2022	\$	(5,985)
June 30, 2023	\$	(6,289)
June 30, 2024	\$	(6,445)
June 30, 2025	\$	(6,047)
June 30, 2026	\$	39,352
Thereafter	\$	37,001



Section VII — Required Supplementary Information

Under GASB 75, the reporting entity may need to incorporate one or more of the following items in the Required Supplementary Information (RSI) that must be included in its financial statements.

Details Concerning Plan Amendments and Assumption Changes

Information about changes to benefit terms and changes to assumptions or other inputs should be provided in RSI. The information should be listed by the date for which the indicated change was first reflected in reported amounts. We have only provided relevant details for the measurement period ending on June 30, 2020.

CHANGES TO BENEFIT TERMS

June 30, 2019 (Valuation Date: June 30, 2018)

- The Plan was amended by the Board, effective January 1, 2019, during the September 12, 2018 meeting. The Board elected a new prescription drug plan, which is expected to reduce overall costs and allow for the Board to receive a government subsidy for members whose claims reach a catastrophic level. These changes were communicated to retired members during the months leading up to the open enrollment period that preceded the January 1, 2019 implementation date.

CHANGES TO ASSUMPTIONS OR OTHER INPUTS

June 30, 2019 (Valuation Date: June 30, 2018)

- Based on the procedure described in GASB 75, the discount rate used to measure Plan obligations for financial accounting purposes as of June 30, 2019 was updated to equal the Municipal Bond Index Rate of 3.50% as of June 30, 2019;
- Expected annual per capita claims costs were updated to better reflect anticipated medical and prescription drug claim experience both before and after the plan change that became effective on January 1, 2019; and
- The expected rate of inflation was decreased, and the Real Wage Growth assumption was increased.

June 30, 2020 (Valuation Date: June 30, 2020)

- Based on the procedure described in GASB 75, the discount rate used to measure Plan obligations for financial accounting purposes as of June 30, 2020 was updated to equal the Municipal Bond Index Rate as of June 30, 2020;
- Expected annual per capita claims costs were updated to better reflect anticipated medical and prescription drug claim experience;
- Long-term health care cost trend rates were updated;
- The percentages of participating retirees who are expected to enroll in the Medicare Supplement Plan and the Medicare Advantage Plan options were updated based on observed plan experience. Additionally, participants are no longer assumed to migrate from the Medicare Supplement Plan to the Medicare Advantage Plan after selecting an option; and,



- The Board adopted new assumptions as the result of an experience study for the five-year period ending June 30, 2019. The changes in assumptions are summarized below:
 - Decrease the annual rate of real wage increase assumption from 0.75% to 0.50%.
 - Decrease payroll growth assumption from 3.25% to 3.00%.
 - Rates of withdrawal, disability, retirement, mortality, and assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience.



Methods and Assumptions Used in the Determination of Actuarially Determined Contributions

The actuarially determined contribution (ADC) rates, as a percentage of payroll, used to determine the actuarially determined State contribution amounts for the measurement period ending on June 30, 2020 that are shown in the following "Schedule of Governmental Nonemployer Contributing Entity Contributions" are calculated as of June 30, 2018. The following actuarial methods and assumptions as of June 30, 2018 were used to determine the actuarially determined State contribution amounts reported in that schedule for the fiscal year ending on June 30, 2020:

Actuarial Cost Method	Entry age
Amortization Method	Level percentage of payroll over an open period
Amortization Period	30 Years
Asset Valuation Method	Market Value of Assets
Long-term Investment Rate of Return, Net of OPEB Plan Investment Expense, Including Price Inflation	3.00%
Price Inflation	2.75%
Real Wage Growth	0.50%
Wage Inflation	3.25%
Salary Increases, Including Wage Inflation	3.25% to 6.50%
Initial Health Care Cost Trend Rates	
Medicare Supplement / Advantage Claims	5.95% / 5.00%
Medicare Supplement / Advantage Retiree Contributions	5.95% / 0.00%
Local School District Subsidies	0.00% or 5.95%
Ultimate Health Care Cost Trend Rates	
Medicare Supplement / Advantage Claims	4.75% / 4.75%
Medicare Supplement / Advantage Retiree Contributions	4.75% / 4.75%
Local School District Subsidies	0.00% when maximum is reached
Year Ultimate Trend Rates Reached	
Medicare Supplement Claims and Contributions	2025
Medicare Advantage Claims and Contributions	2028
Local School District Subsidies	Varies
Basis for Postretirement Mortality Rates	RP-2014 Headcount-Weighted
Basis for Postretirement Mortality Improvement Rates For Healthy / Disabled Lives	Scale BB / MP-2014
Projection of Mortality Improvements for Healthy / Disabled Lives	Static Projection to 2020 / 2017



**REQUIRED SUPPLEMENTARY INFORMATION—
SCHEDULE OF GOVERNMENTAL NONEMPLOYER CONTRIBUTING ENTITY CONTRIBUTIONS**

(\$ in Thousands)										
Fiscal Year										
Ending on June 30	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially Determined State Contribution	\$ 173,273	\$ 167,819	\$ 172,223	\$ 166,802	\$ 130,331	\$ 125,620	\$ 187,227	\$ 180,460	\$ 184,145	\$ 177,063
Contributions in relation to the Actuarially Determined Contribution	29,173	35,320	35,299	19,922	19,960	25,145	25,955	27,040	49,486	5,312
Annual Contribution Deficiency (Excess)	\$ 144,100	\$ 132,499	\$ 136,924	\$ 146,880	\$ 110,371	\$ 100,475	\$ 161,272	\$ 153,420	\$ 134,659	\$ 171,751
Covered Payroll ¹	\$ 4,438,394	\$ 4,389,654	\$ 4,075,939	\$ 4,279,755	\$ 4,125,066	\$ 4,078,367	\$ 3,930,957	\$ 4,101,750	\$ 3,943,990	\$ 3,823,754
Actual Contributions as a Percentage of Covered Payroll	0.66%	0.80%	0.87%	0.47%	0.48%	0.62%	0.66%	0.66%	1.25%	0.14%

¹ Covered Payroll provided by the System for active employees who would be eligible for benefits at retirement.



Section VIII — Schedule of Employer Allocations as of June 30, 2020

Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
Andover	\$ 12,301	0.042167%	\$ 1,185,270	\$ 54,750
Ansonia	96,201	0.329759%	9,269,179	428,166
Ashford	21,264	0.072890%	2,048,861	94,642
Avon	201,293	0.689999%	19,395,147	895,909
Barkhamsted	11,032	0.037816%	1,062,968	49,101
Berlin	157,740	0.540706%	15,198,678	702,063
Bethany	21,369	0.073249%	2,058,952	95,108
Bethel	164,746	0.564721%	15,873,714	733,245
Highville Chtr	11,925	0.040878%	1,149,038	53,077
Bloomfield	121,623	0.416902%	11,718,677	541,314
Bolton	49,238	0.168779%	4,744,200	219,146
Bozrah	12,168	0.041711%	1,172,452	54,158
Branford	184,427	0.632185%	17,770,057	820,842
Bridgeport	840,614	2.881478%	80,995,321	3,741,369
Bristol	395,979	1.357347%	38,153,599	1,762,406
Brookfield	143,994	0.493585%	13,874,156	640,881
Brooklyn	42,580	0.145957%	4,102,698	189,513
Cldrn Ctr Com Prog	2,415	0.008277%	232,658	10,747
Canaan	5,997	0.020558%	577,864	26,693
Canterbury	23,533	0.080666%	2,267,437	104,738
Canton	82,792	0.283797%	7,977,236	368,488
Chaplin	10,943	0.037512%	1,054,423	48,706
Cheshire	246,730	0.845748%	23,773,088	1,098,136
Chester	9,244	0.031687%	890,688	41,143
Clinton	106,559	0.365265%	10,267,216	474,267
Colchester	132,914	0.455607%	12,806,634	591,569
Amistad Acd	30,185	0.103469%	2,908,405	134,346
Colebrook	5,842	0.020027%	562,938	26,003
Columbia	29,389	0.100739%	2,831,668	130,802
Cornwall	6,195	0.021234%	596,865	27,571
Coventry	90,235	0.309310%	8,694,379	401,614
Cromwell	97,937	0.335712%	9,436,512	435,895
Danbury	551,707	1.891156%	53,158,409	2,455,515
Darien	325,887	1.117086%	31,400,115	1,450,447
Deep River	9,253	0.031718%	891,560	41,183



Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
Derby	\$ 69,796	0.239247%	\$ 6,724,982	\$ 310,643
Eastford	8,477	0.029056%	816,734	37,727
East Granby	56,210	0.192677%	5,415,948	250,176
East Haddam	67,281	0.230629%	6,482,739	299,453
East Hampton	105,989	0.363313%	10,212,347	471,733
East Hartford	373,824	1.281404%	36,018,921	1,663,801
East Haven	140,771	0.482538%	13,563,637	626,537
East Lyme	153,294	0.525466%	14,770,298	682,276
Easton	54,393	0.186450%	5,240,914	242,090
East Windsor	74,371	0.254931%	7,165,843	331,008
Ellington	137,959	0.472898%	13,292,666	614,020
Enfield	273,541	0.937652%	26,356,413	1,217,466
Essex	13,982	0.047929%	1,347,234	62,232
Fairfield	625,782	2.145071%	60,295,693	2,785,203
Farmington	238,367	0.817080%	22,967,261	1,060,913
Franklin	9,219	0.031600%	888,243	41,030
Glastonbury	345,877	1.185607%	33,326,168	1,539,416
Granby	98,528	0.337738%	9,493,461	438,526
Greenwich	704,655	2.415435%	67,895,342	3,136,249
Griswold	86,141	0.295277%	8,299,926	383,394
Groton	260,754	0.893821%	25,124,370	1,160,555
Guilford	190,522	0.653076%	18,357,281	847,967
Hamden	319,028	1.093574%	30,739,217	1,419,918
Hampton	6,409	0.021968%	617,497	28,524
Hartford	922,478	3.162094%	88,883,142	4,105,726
Hartland	9,358	0.032078%	901,679	41,651
Hebron	38,820	0.133069%	3,740,430	172,779
Kent	12,951	0.044394%	1,247,869	57,642
Killingly	116,533	0.399454%	11,228,233	518,659
Lebanon	56,577	0.193935%	5,451,309	251,809
Ledyard	124,415	0.426472%	11,987,680	553,740
Lisbon	22,164	0.075973%	2,135,521	98,645
Litchfield	59,473	0.203863%	5,730,375	264,700
Madison	166,758	0.571619%	16,067,610	742,202
Manchester	381,279	1.306958%	36,737,217	1,696,980
Mansfield	76,675	0.262830%	7,387,875	341,264
Marlborough	27,629	0.094708%	2,662,142	122,971



Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
Meriden	\$ 383,676	1.315175%	\$ 36,968,188	\$ 1,707,650
Middletown	269,776	0.924747%	25,993,667	1,200,710
Milford	362,515	1.242639%	34,929,278	1,613,467
Monroe	199,957	0.685418%	19,266,380	889,960
Montville	125,507	0.430216%	12,092,920	558,601
Naugatuck	208,467	0.714590%	20,086,375	927,838
New Britain	501,534	1.719172%	48,324,120	2,232,207
New Canaan	296,687	1.016992%	28,586,577	1,320,483
New Fairfield	143,457	0.491746%	13,822,464	638,493
New Hartford	23,581	0.080833%	2,272,131	104,955
New Haven	1,004,959	3.444813%	96,830,075	4,472,809
Newington	229,559	0.786890%	22,118,652	1,021,714
New London	163,140	0.559217%	15,719,003	726,099
New Milford	198,137	0.679178%	19,090,980	881,858
Newtown	250,070	0.857197%	24,094,908	1,113,002
Norfolk	4,914	0.016844%	473,467	21,871
North Branford	93,274	0.319726%	8,987,162	415,139
North Canaan	13,735	0.047080%	1,323,369	61,130
North Haven	180,828	0.619848%	17,423,276	804,823
No.Stonington	45,354	0.155467%	4,370,014	201,861
Norwalk	702,925	2.409504%	67,728,627	3,128,548
Norwich	166,346	0.570204%	16,027,836	740,364
NFA	117,798	0.403791%	11,350,141	524,290
Old Saybrook	85,977	0.294713%	8,284,073	382,661
Orange	70,813	0.242734%	6,822,998	315,171
Oxford	92,690	0.317726%	8,930,944	412,542
Plainfield	97,693	0.334875%	9,412,985	434,808
Plainville	128,671	0.441062%	12,397,790	572,684
Plymouth	74,410	0.255066%	7,169,637	331,183
Pomfret	19,940	0.068352%	1,921,303	88,750
Portland	67,319	0.230758%	6,486,365	299,621
Preston	24,928	0.085450%	2,401,910	110,950
Putnam	60,518	0.207445%	5,831,061	269,351
Redding	67,708	0.232091%	6,523,834	301,352
RSD 1	46,566	0.159620%	4,486,751	207,254
RSD 4	49,030	0.168066%	4,724,159	218,220
RSD 5	138,384	0.474355%	13,333,621	615,912



Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
RSD 6	\$ 57,577	0.197365%	\$ 5,547,723	\$ 256,263
RSD 7	58,636	0.200994%	5,649,730	260,975
RSD 8	76,802	0.263265%	7,400,103	341,829
Ridgefield	307,911	1.055467%	29,668,069	1,370,439
Rocky Hill	159,489	0.546701%	15,367,191	709,848
Salem	22,076	0.075672%	2,127,060	98,254
Salisbury	16,825	0.057674%	1,621,156	74,885
Scotland	7,639	0.026185%	736,033	33,999
Seymour	111,866	0.383456%	10,778,546	497,887
Sharon	11,303	0.038744%	1,089,053	50,306
Shelton	257,480	0.882598%	24,808,903	1,145,983
Sherman	25,240	0.086519%	2,431,958	112,338
Simsbury	244,165	0.836955%	23,525,926	1,086,719
Somers	79,783	0.273484%	7,687,348	355,097
Southington	315,168	1.080343%	30,367,307	1,402,739
S. Windsor	253,918	0.870388%	24,465,693	1,130,129
Sprague	11,937	0.040919%	1,150,190	53,130
Stafford	84,862	0.290893%	8,176,697	377,701
Stamford	996,751	3.416689%	96,039,540	4,436,297
SDE	277,761	0.952116%	26,762,981	1,236,246
DCF Recq Home	11,165	0.038271%	1,075,758	49,692
Sterling	16,398	0.056211%	1,580,032	72,985
Stonington	114,838	0.393644%	11,064,920	511,115
Stratford	384,203	1.316982%	37,018,981	1,709,996
Suffield	127,105	0.435693%	12,246,873	565,713
Thomaston	45,650	0.156482%	4,398,545	203,179
Thompson	53,058	0.181872%	5,112,231	236,146
Tolland	120,854	0.414266%	11,644,582	537,891
Torrington	203,230	0.696638%	19,581,763	904,529
Trumbull	392,545	1.345576%	37,822,729	1,747,123
Union	4,358	0.014939%	419,920	19,397
Vernon	179,865	0.616545%	17,330,433	800,534
Voluntown	14,971	0.051317%	1,442,467	66,631
Wallingford	368,380	1.262744%	35,494,408	1,639,572
Waterbury	796,996	2.731963%	76,792,611	3,547,235
Waterford	163,324	0.559847%	15,736,711	726,917
Watertown	133,418	0.457335%	12,855,207	593,813



Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
Westbrook	\$ 56,914	0.195093%	\$ 5,483,859	\$ 253,313
W.Hartford	555,012	1.902484%	53,476,828	2,470,223
West Haven	298,896	1.024565%	28,799,446	1,330,316
Weston	163,665	0.561014%	15,769,514	728,432
Westport	392,543	1.345570%	37,822,560	1,747,115
Wethersfield	195,406	0.669817%	18,827,853	869,704
Willington	26,407	0.090519%	2,544,394	117,532
Wilton	277,846	0.952407%	26,771,161	1,236,624
Winchester	34,363	0.117792%	3,311,009	152,943
Windham	165,327	0.566714%	15,929,735	735,833
Windsor	223,141	0.764888%	21,500,199	993,146
Windsor Locks	112,475	0.385546%	10,837,293	500,601
Winsted/Gilbert	25,095	0.086022%	2,417,988	111,693
Wolcott	116,990	0.401022%	11,272,307	520,695
Woodbridge	48,138	0.165009%	4,638,230	214,251
Woodstock	36,785	0.126093%	3,544,342	163,722
Woodstock Ad	51,985	0.178196%	5,008,902	231,373
UCONN	12,064	0.041354%	1,162,418	53,695
RSD 9	65,087	0.223106%	6,271,275	289,685
CCI Somers	1,487	0.005097%	143,271	6,618
RSD 10	123,766	0.424248%	11,925,166	550,852
Supervison District	25,949	0.088948%	2,500,235	115,492
NWCTC	2,350	0.008056%	226,446	10,460
MCTC	2,112	0.007238%	203,453	9,398
Norwalk CTC	2,840	0.009734%	273,613	12,639
WCSU	3,158	0.010825%	304,279	14,055
CCSU	10,996	0.037693%	1,059,511	48,941
ESCU	5,650	0.019367%	544,386	25,147
SCSU	13,651	0.046792%	1,315,274	60,756
RSD 11	15,310	0.052481%	1,475,186	68,142
CCTC	997	0.003416%	96,020	4,435
Hou CTC	4,267	0.014626%	411,122	18,991
Naug CTC	4,118	0.014115%	396,758	18,327
MCTC	3,407	0.011677%	328,228	15,162
Ed Connection	27,232	0.093345%	2,623,830	121,201
RSD 12	60,637	0.207854%	5,842,558	269,882
Gateway CTC	6,635	0.022743%	639,282	29,530



Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
RSD 13	\$ 110,808	0.379829%	\$ 10,676,594	\$ 493,178
RSD 14	100,416	0.344210%	9,675,382	446,929
CCI Cheshire	1,482	0.005080%	142,793	6,596
Shared Svcs	11,339	0.038868%	1,092,539	50,467
CREC	572,075	1.960975%	55,120,948	2,546,169
RSD 15	209,921	0.719572%	20,226,413	934,307
RSD 16	112,629	0.386074%	10,852,135	501,286
TRCC (Mohegan)	2,302	0.007892%	221,836	10,247
Tunxis CTC	3,493	0.011972%	336,520	15,545
QVCC	532	0.001824%	51,271	2,368
Odyssey	14,304	0.049033%	1,378,266	63,665
CES	88,804	0.304404%	8,556,477	395,244
ACES	165,478	0.567229%	15,944,212	736,501
Project Learn	125,601	0.430538%	12,101,971	559,019
RSD 17	109,924	0.376801%	10,591,480	489,246
Asnun CTC	-	0.000000%	-	-
RSD 18	86,541	0.296648%	8,338,464	385,174
EASTCONN	55,903	0.191626%	5,386,406	248,811
BSBE	6,044	0.020718%	582,361	26,901
RSD 19	70,008	0.239976%	6,745,473	311,590
UCONN Health	9,102	0.031201%	877,027	40,512
CCI Niantic	901	0.003089%	86,829	4,011
Children's CTR	9,406	0.032241%	906,261	41,862
Bridges Academy	11,605	0.039779%	1,118,146	51,650
Common Ground	11,170	0.038290%	1,076,292	49,717
Explorations	6,307	0.021619%	607,687	28,071
Intergrated Day	12,875	0.044134%	1,240,560	57,304
Isaac	11,795	0.040430%	1,136,445	52,495
Jumoke Academy	20,945	0.071795%	2,018,082	93,220
Side by Side	10,036	0.034403%	967,032	44,670
Trailblazers Academy	229	0.000786%	22,094	1,021
New Beginnings	16,298	0.055866%	1,570,335	72,538
Elm City CP	16,369	0.056110%	1,577,193	72,854
Stamford Academy	5,940	0.020360%	572,298	26,436
Park City	10,968	0.037598%	1,056,840	48,818
AF Bridgeport Academy	18,116	0.062100%	1,745,566	80,632
SERC	1,707	0.005853%	164,522	7,600



Employer	Expected Employer Contribution Effort at FYE 2020	Employer Allocation Percentage at FYE 2020	State's Proportionate Share of the NOL Associated With the Employer at FYE 2020	Employer OPEB Expense and Revenue
AF Hartford Acad	\$ 24,691	0.084638%	\$ 2,379,085	\$ 109,896
Brass City	9,948	0.034099%	958,487	44,275
Path Academy	-	0.000000%	-	-
Great Oaks Charter	5,056	0.017331%	487,156	22,503
Booker T. Washington(BTW)	11,569	0.039655%	1,114,660	51,489
Capitol Prep Harbor	17,160	0.058823%	1,653,453	76,377
Stamford Charter Excellance	5,581	0.019132%	537,780	24,841
Totals	\$ 29,173,000	100.000000%	\$ 2,810,895,000	\$ 129,842,000



Schedule A — Additional Supporting Information

Development of the Projected Earnings on Plan Investments as of June 30, 2020

The development of the projected earnings on plan investments component of Collective OPEB Expense / (Income) as of the June 30, 2020 measurement date is shown in the following table:

Projected Earnings on Plan Investments For the Measurement Period Ending on June 30, 2020 (\$ in Thousands)		
(a)	Expected rate of return on assets at June 30, 2019	3.00%
(b)	Beginning of year market value of assets	\$ 56,453
(c)	Expected return on assets at the beginning of the year [(b) x (a)]	\$ 1,694
(d)	External cash flow (mid-year payments assumed):	
	Contributions - State of Connecticut	\$ 29,173
	Contributions - member	53,221
	Refunds of contributions	0
	Net benefit payments	(67,383)
	Administrative expenses	(372)
	Other	0
	Total net external cash flow	\$ 14,639
(e)	Expected return on external cash flow [(d) x (1 - (a)) ^{1/2} - 1]	\$ 218
(f)	Projected earnings on plan investments [(c) + (e)]	\$ 1,912

Development of the Collective Deferred Outflow / (Inflow) of Resources for the Difference Between Projected and Actual Earnings on Plan Investments at June 30, 2020

The determination of the Collective Deferred Outflow / (Inflow) of Resources for the difference between projected and actual earnings on plan investments at June 30, 2020 is shown in the following table:

Difference Between Projected and Actual Earnings on Plan Investments at June 30, 2020 (\$ in Thousands)		
(a)	Projected earnings on plan investments at June 30, 2020	\$ 1,912
(b)	Net investment income ¹	\$ 849
(c)	Difference between projected and actual earnings on plan investments [(a) - (b)]	\$ 1,063

¹ See "Reconciliation of Changes in the Plan's Fiduciary Net Position (FNP) and Collective Net OPEB Liability / (Asset) (NOL)" on page 8.



Development of the Average Expected Remaining Service Lives

The determination of the average expected remaining service lives for the entire Plan membership is provided in the following table:

Membership Category	(1) Number	(2) Average Remaining Service Lives (in Years)
(a) Active Members	50,951	12.46
(b) Inactive Members	<u>38,118</u>	<u>0.00</u>
(c) Total Membership $[(1a) \times (2a) + (1b) \times (2b)] / (1c)$	89,069	7.13



**Schedule B —
Summary of Actuarial Assumptions and Methods for GASB Accounting Purposes**

ECONOMIC ASSUMPTIONS

Discount Rate

2.21% per year for all periods after June 30, 2020.

Municipal Bond Index Rate Basis

The 20-Bond average General Obligation 20-year Municipal Bond Rate published at the end of the last week during the month of June by The Bond Buyer (www.bondbuyer.com) was used as the 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate required under GASB rules.

Expected Long-term Rate of Return on Assets

3.00% per year, net of investment expenses, for all periods after June 30, 2020.

Expected Long-term Rates of Inflation

CPI: 2.50% per year for all periods after June 30, 2020.

MEDICAL CPI: 3.25% per year for all periods after June 30, 2020.

Expected Long-term Real Wage Growth

0.50% per year for all periods after June 30, 2020.

Expected Long-term Wage Inflation

3.00% per year for all periods after June 30, 2020. This rate does not reflect any expected future increase in the number of active members.

Expected Administrative Expenses Included in Service Cost

None.



Long-term Health Care Cost Trend Rates

Annual per capita health care claims costs are expected to increase in future years as a result of medical inflation, utilization, leverage in the plan design, and improvements in technology adjusted for any implicit and/or explicit cost containment features. Initial health care cost trend rates were selected based on an analysis of national average health trend surveys specific to similarly structured plans for Medicare-eligible participants.

The assumed annual assumed rates of increases in retiree expected health care claims costs and contributions during each period subsequent to the measurement date are shown in the table below.

Fiscal Year Beginning July 1,	Annual Per Capita Claims Cost Increase
2020	5.125%
2021	5.000%
2022	4.750%
2023+	4.500%

Subsidy amounts are assumed to also follow medical trend until they reach their limit.



DEMOGRAPHIC ASSUMPTIONS

The demographic actuarial assumptions for retirement, disability incidence, and withdrawal were developed based on the results of an actuarial experience study for the five-year period from July 1, 2014 to June 30, 2019, adopted by the Board, and prescribed for use in the Plan's June 30, 2020 actuarial valuation.

Expected Annual Subsidies for Local School District Coverage

FUTURE RETIREES AND DEPENDENTS

The lesser of \$1,320 per year (\$110 per month) and the Maximum Annual Subsidy for all future retired members and dependents who are expected to be covered under local school district OPEB plans in future periods.

CURRENT RETIREES AND DEPENDENTS

The lesser of the annualized actual monthly subsidy amounts provided by the System for retired members and dependents who are covered under local school district OPEB plans as of June 30, 2018 and the applicable Maximum Annual Subsidy. Reported subsidies are expected to increase each year based on the assumed long-term health care cost trend rates for Medicare Supplement Plans until the Maximum Annual Subsidy is reached.

The following table provides Maximum Annual Subsidy amounts for Medicare-ineligible and Medicare-eligible members and dependents who are receiving health care coverage under a local school district OPEB plan:

Medicare Status	Maximum Annual Subsidy
Ineligible	\$1,320 per year (\$110 per month)
Eligible	\$2,640 per year (\$220 per month) for those without "premium free" Medicare Part A, and contribute at least \$220 per month for coverage under a local school district plan;
	\$1,320 per year (\$110 per month), otherwise.

The Maximum Annual Subsidies provided in the table above have not increased since July of 1996. Our understanding is that these types of benefit improvements would not be considered "substantially automatic" (as that term is defined in GASB 74 and 75) based on the Plan's history of such changes. As a result, the Maximum Annual Subsidy Amounts shown above are not expected to increase in any future period.



Expected Annual Per Capita Health Care Claims Costs

MEDICAL AND PRESCRIPTION DRUGS

Assumed annual per capita health care claims costs were developed for the Medicare Supplement Plan and the Medicare Advantage Plan based on the medical and prescription drug premium / premium equivalent rates for each plan and period provided by the System. Our understanding is that these premium / premium equivalent rates include all relevant medical, prescription drug, and/or third-party administrative costs, and represent the amounts paid by the System as "the full contribution amount" for each coverage provided.

Age-adjusted health care premium / premium equivalent rates for covered adults were trended forward to the midpoint of the measurement period. The expected annual age 65 per capita health care claims costs for the Medicare Supplement Plan and Medicare Advantage Plan for the year following the valuation date are shown below:

Expected Annual Age 65 Per Capita Claims Cost for	
Medicare Supplement Plan	\$2,815
Medicare Advantage Plan	\$1,675

Future experience may differ significantly from the cost estimates presented in this report due to unforeseen and random events, including, but not limited to, any event that would affect one or more insurers' ability to provide coverage under the terms of the Plan, any significant change to existing Department of Health and Human Services (HHS) and/or Centers for Medicare & Medicaid Services (CMS) regulations, and/or any insolvency of Social Security and/or Medicare Trust Funds on any future date. As such, these results should be viewed as having a likely range of variability.

AFFORDABLE CARE ACT (ACA)

The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results other than plan design features and fees currently mandated by the ACA and incorporated in the plan designs, which are included in the current baseline claims costs. Continued monitoring of the ACA's impact on the Plan's liability will be required.

COVID-19 PANDEMIC

The impact of the COVID-19 pandemic was considered in this valuation; however, no changes were incorporated at this time due to the level of uncertainty regarding the impact on both plan costs and contribution levels going forward. Given the uncertainty regarding COVID-19 (e.g., the impact of routine care being deferred, direct COVID-19 treatment and prevention costs, changes in contribution and budget projections), continued monitoring of the impact on the Plan's liability will be required.

AGE RELATED MORBIDITY

Expected annual age 65 per capita health care claims costs are adjusted to reflect anticipated age-related cost changes. The assumed annual percentage increases in expected annual per capita health care costs/net incurred claims that were used to adjust Medicare Supplement and Medicare Advantage Plan amounts from one age to the next are provided in the following table for both retirees and their dependents:



Payment Age	Medicare Supplement Annual Increase	Medicare Advantage Annual Increase
Under 30	0.000%	0.000%
30 – 34	0.329%	0.329%
35 – 39	-0.077%	-0.077%
40 – 44	1.566%	1.566%
45 – 49	3.992%	3.992%
50 – 54	5.076%	5.076%
55 – 59	3.928%	3.928%
60 – 64	0.141%	0.141%
65 – 69	2.468%	4.741%
70 – 74	1.764%	2.239%
75 – 79	1.123%	1.090%
80 – 84	0.129%	0.000%
85 – 89	0.000%	0.000%
Over 89	0.000%	0.000%

Mortality and Mortality Improvement Rates

PRE-RETIREMENT MORTALITY

The PubT-2010 Employee Table projected generationally with MP-2019 is used for both males and females while in active service. Representative values of the assumed annual rates of mortality while in active service are as follows:

Age	Annual Rates of Death*	
	Male	Female
30	0.022%	0.014%
35	0.030%	0.020%
40	0.042%	0.031%
45	0.067%	0.048%
50	0.111%	0.073%
55	0.172%	0.107%
60	0.264%	0.161%
65	0.435%	0.270%

* Rates shown are for 2010, the base year of the table.



Connecticut State Teachers' Retirement System

POST-RETIREMENT MORTALITY

The PubT-2010 Healthy Retiree Table (adjusted 105% for males and 103% for females at ages 82 and above) projected generationally with MP-2019 is used for the period after service retirement. The PubT-2010 Disabled Retiree Table projected generationally with MP-2019 is used for the period after disability retirement. The PubT-2010 Contingent Survivor Table projected generationally with MP-2019 and set forward 1 year for both males and females is used for survivors and beneficiaries. Representative values of the assumed annual rates of mortality are as follows:

Annual Rates of Death*						
Age	Healthy		Disabled		Survivor	
	Male	Female	Male	Female	Male	Female
50	0.111%	0.073%	1.605%	1.483%	0.724%	0.342%
55	0.223%	0.193%	2.114%	1.742%	0.854%	0.476%
60	0.357%	0.287%	2.503%	1.956%	1.067%	0.667%
65	0.592%	0.446%	3.044%	2.256%	1.497%	0.973%
70	1.070%	0.770%	3.901%	2.862%	2.335%	1.478%
75	2.031%	1.461%	5.192%	4.003%	3.706%	2.371%
80	3.960%	2.868%	7.348%	6.007%	5.897%	3.985%
85	7.598%	5.548%	10.815%	9.331%	9.658%	7.122%
90	13.923%	10.392%	16.253%	13.665%	15.947%	12.596%

* Rates shown are for 2010, the base year of the tables

Withdrawal Rates

The following table contains service based annual rates of withdrawal (separation from service for causes other than death, disability, or retirement) for males and females:

Annual Rates of Withdrawal					
10 or more years of service					
Years of Service	Male	Female	Age	Male	Female
0	15.00%	12.00%	25	1.80%	6.00%
1	11.00	11.00	30	1.80	6.00
2	8.50	9.50	35	1.80	4.25
3	7.00	8.00	40	1.80	2.50
4	5.50	7.50	45	1.80	2.00
5	4.50	7.00	50	2.25	2.40
6	4.00	6.50	55	4.00	3.90
7	3.50	6.00	59	5.50	4.00
8	3.50	5.50			
9	3.50	5.00			



Retirement Rates

The following table contains age and service based annual rates of retirement at sample ages:

Annual Rates of Retirement				
Age	Unreduced			
	Less than 35 years of Service		35 or more years of Service	
	Male	Female	Male	Female
50			35.0%	30.0%
55			35.0%	30.0%
60	20.0%	20.0%	30.0%	30.0%
65	27.5%	32.5%	35.0%	37.5%
70	27.5%	30.0%	30.0%	32.5%
75	100.0%	100.0%	100.0%	100.0%

Annual Rates of Retirement				
Age	Proratable		Reduced	
	Male	Female	Male	Female
	50			1.50%
52			1.50%	1.25%
54			2.00%	2.25%
56			4.00%	3.75%
58			6.50%	5.50%
60	6.0%	5.0%		
65	15.0%	12.0%		
70	28.5%	15.0%		
75	28.5%	15.0%		
80	100.0%	100.0%		



Disability Rates

The table below provides age based annual rates of disability for males and females at sample ages:

Annual Rates of Disability		
Age	Male	Female
20	0.020%	0.020%
25	0.020%	0.020%
30	0.020%	0.020%
35	0.020%	0.030%
40	0.030%	0.060%
45	0.080%	0.090%
50	0.150%	0.150%
55	0.150%	0.170%
60	0.150%	0.150%

Rates of Annual Salary Increases

Rates of annual salary increases are constructed geometrically based on the expected long-term rate of inflation (currently, 2.50%), an expected productivity component (currently, 0.50%), and a variable expected merit component that is dependent on years of service. The following table provides a sample of the service-based rates of salary increases that are used to project a member's total salary as of the valuation date to future years.

Years of Service	Total Increase (Next Year)
0	6.50%
1	6.25%
2 – 9	6.00%
10 – 11	5.50%
12	5.25%
13	5.00%
14	4.75%
15	4.50%
16	4.00%
17	3.75%
18	3.50%
19	3.25%
20 and Over	3.00%



Decrement Timing and Adjustment

Decrements—retirement, withdrawal, death, and disability—are assumed to occur at the beginning of the year. Decrement rates (or “probabilities”) are assumed to be uniformly distributed throughout the year, and reflect multiple decrement effects.

Subsidized Local School District Coverage and System-Sponsored Health Care Plan Participation Rates¹

FUTURE RETIREES AND DEPENDENTS

The table below provides the percentage of future retired members and dependents who are expected to be covered under local school district OPEB plans or the System-sponsored health care plan options in future periods.

Membership Class	Subsidized Local School District Coverage	System-Sponsored Health Care Plans
Pre-65 Members	60.0%	N/A
Post-64 Members	20.0%	60.0%
Pre 65 Spouses/Survivors*	45.0%	N/A
Post-64 Spouses/Survivors*	40.0%	45.0%

* Percentage of participating members electing spouse coverage.

CURRENT RETIREES AND DEPENDENTS—ENROLLED

All current retirees and dependents who are eligible for Medicare as of the valuation date are assumed to continue current coverage. For retirees and surviving spouses who are not eligible for Medicare and are covered under local school district OPEB plans as of the valuation date, the following table shows the assumed migration from subsidized local school district coverage to a System-sponsored health care plan option at age 65:

Membership Class	Assumed Percentage Electing Subsidized Local School District Coverage On or After Age 65	Assumed Percentage Electing System-Sponsored Health Care Plans On or After Age 65
Pre-65 Members	25.0%	75.0%
Pre-65 Spouses/Survivors*	47.1%	52.9%

* Percentage of participating members electing spouse coverage.

¹ Long-term Plan participation and spouse coverage election and enrollment rates are uncertain due to the recent plan change that became effective on July 1, 2018, and future experience may differ significantly from the assumptions that were used to measure Plan obligations as of June 30, 2018. As such, these assumptions will need to be reviewed as experience evolves, and the results provided in this report should be viewed as having a likely range of variability.



Connecticut State Teachers' Retirement System

CURRENT RETIREES AND DEPENDENTS—NOT ENROLLED

50% of retired members who are not eligible for Medicare, are currently receiving a retirement or disability benefit, but are not participating in the Plan, are expected to be covered under a System-sponsored health care plan option at age 65. Of these participants, 50% are assumed to cover a spouse.

SYSTEM-SPONSORED HEALTH CARE PLAN ELECTION

Current retirees already enrolled in a System-sponsored health care plan are assumed to continue with their elected plan for life. Future retirees and current retirees newly electing to enroll in System-sponsored health care plans are assumed to elect between the System-sponsored health care plan options as follows:

Health Care Coverage Option	Percent of New System-Sponsored Health Care Plan Enrollees Electing the Plan
Medicare Supplement Plan	20.0%
Medicare Advantage Plan	80.0%

Participants are not assumed to change plan options once System-sponsored health care is elected.

Assumed Eligibility for “Premium Free” Medicare Part A Benefits

FUTURE RETIREES AND DEPENDENTS

100% of future Medicare-eligible retirees and dependents are expected to be eligible for “premium free” Medicare Part A benefits.

CURRENT RETIREES AND DEPENDENTS

0% of retired members and dependents who are currently receiving a subsidy equal to \$2,640 per year (\$220 per month) as of June 30, 2018 are expected to be eligible for “premium free” Medicare Part A benefits. Otherwise, 100% of retired members and dependents are expected to be eligible for these benefits when they reach age 65 or, if they are older, their attained age on the valuation date.



Assumed Commencement Age for Eligible Deferred Vested Members

Eligible deferred vested members and their dependents are expected to begin receiving health care benefits when members reach age 60 or, if they are older, the member's attained age on the valuation date.

The following table contains the age based assumed percentages of deferred vested members who will become ineligible for future health care benefits because they are expected to withdraw their contributions from the System:

Attained Ages on the Later of the Valuation Date or Date of Decrement					
Under Age 55	Age 56	Age 57	Age 58	Age 59	Over Age 59
30.00%	24.00%	18.00%	12.00%	6.00%	0.00%

Marital and Spouse Assumptions

FUTURE RETIREES

100% of future retired members are assumed to be married to a spouse of the opposite gender. Husbands are assumed to be three years older than their wives.

CURRENT RETIREES

Actual spouse age is used where available. If relevant spouse information is not available, husbands are assumed to be three years older than their wives.

Valuation Date

June 30, 2020

Measurement Date

June 30, 2020

Measurement Period

July 1, 2019 to June 30, 2020

Benefits Not Valued

Dental, vision, and hearing benefits for retirees and their dependents are paid by the retiree on a full cost basis, and without an implicit subsidy. As a result, no dental, vision, or hearing benefit liabilities are included in the Plan's GASB 75 results as of June 30, 2020.

Dental benefit payments and retiree contributions are included in the total benefit payments received. Vision and hearing benefit payments and retiree contributions are not broken out from the total amounts. Because we assume that dental, vision, and hearing benefits are not subject to an implicit subsidy and retirees pay 100% of the benefit costs, the net benefit payments represent the net medical benefit payments.



Changes in Assumptions and Methods Since the Prior Valuation

The June 30, 2020 measurements used in the development of June 30, 2020 financial accounting results for the Plan reflect the following changes in assumptions and methods:

- Based on the procedure described in GASB 74, the discount rate used to measure Plan obligations for financial accounting purposes as of June 30, 2020 was updated to equal the Municipal Bond Index Rate as of June 30, 2020;
- Expected annual per capita claims costs were updated to better reflect anticipated medical and prescription drug claim experience;
- Long-term health care cost trend rates were updated;
- The percentages of participating retirees who are expected to enroll in the Medicare Supplement Plan and the Medicare Advantage Plan options were updated based on observed plan experience. Additionally, participants are no longer assumed to migrate from the Medicare Supplement Plan to the Medicare Advantage Plan after selecting an option; and,
- The Board adopted new assumptions as the result of an experience study for the five-year period ending June 30, 2019. The changes in assumptions are summarized below:
 - Decrease the annual rate of real wage increase assumption from 0.75% to 0.50%.
 - Decrease payroll growth assumption from 3.25% to 3.00%.
 - Rates of withdrawal, disability, retirement, mortality, and assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience.

The aggregate effect of the changes described above was an increase in the Plan's Total OPEB Liability and Service Cost measured as of June 30, 2020.



Schedule C — Summary of Actuarial Cost and Asset Valuation Methods

Actuarial Cost Method

The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 2.21%), of each member's expected benefits at retirement is determined, based upon age, service, and gender. The calculations take into account the probability of a member's death or termination of employment prior to receiving benefits under the Plan. The present value of the expected benefits payable on account of active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable by the Plan.

The actuarial cost method is a procedure for allocating the actuarial present value of postemployment benefits and expenses to time periods. The method used for the valuation is known as the Entry Age Normal (Level Percentage of Pay) actuarial cost method, and has the following characteristics:

- (i) The annual normal costs for each individual active participant are sufficient to accumulate the value of the participant's postemployment benefits at time of retirement.
- (ii) Each annual normal cost is a constant percentage of the participant's year-by-year projected covered compensation.

The Entry Age Normal (Level Percentage of Pay) actuarial cost method allocates the actuarial present value of each participant's projected benefits on a level basis over the participant's assumed compensation rates between the entry age of the participant and the assumed ages at which the participant will leave active service.

The portion of the actuarial present value allocated to the valuation year is called the service cost (SC). The portion of the actuarial present value of expected benefits not provided for by the actuarial present value of future service costs is called the Total OPEB Liability (TOL). The difference between the TOL and the Fiduciary Net Position (FNP) is the Net OPEB Liability / (Asset) (NOL).

The actuarial cost method is prescribed by GASB 74 and 75 for financial accounting purposes.

Asset Valuation Method

The Actuarial Asset Value for financial accounting purposes is equal to the Fiduciary Net Position (FNP)—the market value of the financial accounting asset—on the measurement date.

The asset valuation method is prescribed by GASB 74 and 75 for financial accounting purposes.

Changes in Actuarial Cost and Asset Valuation Methods Since the Previous Valuation

There were no changes in actuarial cost or amortization methods since the previous valuation on June 30, 2018.



Schedule D — Summary of Main Plan Provisions for Valuation Purposes

This summary of main plan provisions is intended to describe only the principal features of the Retiree Health Insurance Plan (RHIP, or the Plan), cost-sharing, other than insured, defined benefit OPEB plan with a special funding situation sponsored by the Connecticut State Teachers' Retirement System (the System) as interpreted for valuation purposes. All actual eligibility requirements and benefit amounts will be determined in accordance with the Plan document and any System practices, processes, and procedures.

Key Plan Terms

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 wartime 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.

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.

PRORATABLE RETIREMENT

Eligibility—Age 60 with 10 years of Credited Service.

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 who 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 Medical Plans provide coverage for those participating in Medicare, but not receiving Subsidized Local School District Coverage.

Any member who 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 member 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 Supplement Plan(s). Effective July 1, 2018, the System added a Medicare Advantage Plan option. Active members, retirees, and the State pay equally toward the cost of the basic coverage (medical and prescription drug benefits) under the Medicare Advantage plan. Retired members who choose to enroll in the Medicare Supplement Plan are responsible for the full difference in the premium cost between the two plans. Additionally, effective July 1, 2018, retired members who cancel their health care coverage(s) or elect not enroll in a CTRB sponsored health care coverage option must wait two years to re-enroll.

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 Supplement or Medicare Advantage Plan options, as long as they do not remarry.

System Determined Monthly Retiree Contributions Since 2013

Eligible retirees who elect to enroll in a health care coverage option under the Plan contribute a monthly amount based on the coverages that they selected during the enrollment process. Effective January 1, 2015, new enrollees will only be able to elect the "all coverages" package (Medical with Prescription Drugs, Dental, Vision and Hearing). Existing retired members and dependents were grandfathered into the health care option elections that they had made prior to January 1, 2015.



The following tables provide the monthly health care contributions for retiree and dependent coverage options during the periods beginning on January 1, 2016 and ending on January 1, 2021.

Monthly Funding Rates for the CTRB Sponsored Medicare Supplemental Plan Options							
Coverage	2016	2017	Jan. 1 2018	July 1 2018	Jan. 1 2019	Jan. 1 2020	Jan. 1 2021
Medical with Prescriptions	\$95	\$92	\$101	\$199	\$173	\$179	\$167
Medical with Prescriptions and Dental	\$143	\$136	\$151	\$254	\$231	\$231	\$220
Medical with Prescriptions, Dental, Vision & Hearing	\$148	\$141	\$156	\$259	\$238	\$239	\$228

Monthly Funding Rates for the CTRB Sponsored Medicare Advantage Plan Options							
Coverage	2016	2017	Jan. 1 2018	July 1 2018	Jan. 1 2019	Jan. 1 2020	Jan. 1 2021
Medical with Prescriptions	N/A	N/A	N/A	\$74	\$65	\$67	\$64
Medical with Prescriptions and Dental	N/A	N/A	N/A	\$129	\$123	\$119	\$117
Medical with Prescriptions, Dental, Vision & Hearing	N/A	N/A	N/A	\$134	\$130	\$127	\$125

Changes in Plan Provisions Since the Previous Valuation

The Plan was amended by the Board, effective January 1, 2019, during the September 12, 2018 meeting. The Board elected a new prescription drug plan, which is expected to reduce overall costs and allow for the Board to receive a government subsidy for members whose claims reach a catastrophic level. These changes were communicated to retired members during the months leading up to the open enrollment period that preceded the January 1, 2019 implementation date.

These changes were reflected in the measurement of the Plan's benefit obligations for Plan accounting purposes as of June 30, 2019.