



**Cavanaugh Macdonald**  
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## **CONNECTICUT STATE TEACHERS' RETIREMENT SYSTEM**

### **RETIREE HEALTH INSURANCE PLAN**

### **FUNDING AND PLAN ACCOUNTING REPORT**

**PREPARED AS OF JUNE 30, 2020**





# 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 Funding and Plan Accounting Report for the  
Retiree Health Insurance Plan of the Connecticut State Teachers' Retirement System**

Members of the Board:

This report presents the results of the actuarial valuation of the Retiree Health Insurance Plan (the Plan) of the Connecticut State Teachers' Retirement System (the System). This report has been prepared by the System's actuary, Cavanaugh Macdonald Consulting (CMC) as of June 30, 2020 (Valuation Date or Measurement Date).

The primary purpose of the valuation report is to provide the State's actuarially determined contribution (ADC) rate for the System for the fiscal years ending on June 30, 2021 and June 30, 2022, to describe the current financial condition of the Plan, to analyze changes in such condition, and to summarize the census data, financial information, assumptions, methods, and plan provisions used to prepare these results.

In addition, the report contains information that will be used by the System in its Comprehensive Annual Financial Report (CAFR), and provides the actuarial information for the Plan required under Governmental Accounting Standards Board (GASB) Statement No. 74 (GASB 74) for the fiscal year ending on June 30, 2020 based on a valuation date of June 30, 2020.

#### **Additional Information and Disclosures**

The information contained in this report is intended to be used by the System for Plan funding purposes for the fiscal years ending on June 30, 2021 and June 30, 2022, and for Plan accounting purposes for the fiscal year ending on June 30, 2020, and its use for other purposes may not be appropriate. Calculations for purposes other than funding the System benefits described in this report, or reporting the Plan accounting information required under GASB 74, may produce significantly different results.

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. Our understanding is that the System has made no changes to the Plan's funding policy since the prior valuation. Thus, ADC rates as of the valuation date were developed based on the contribution allocation procedure described in GASB Statement Nos. 43 and 45, as approved by the System during prior periods. The Plan accounting information provided in this report reflects our current understanding of GASB 74, including any applicable guidance provided by the System, or its audit partners as of the date of this report.



These results supersede all June 30, 2020 actuarial valuation results for the System, including draft versions of this document, issued prior to the date of this report. The System should rely only on the June 30, 2020 actuarial valuation results and actuarially determined State contribution rates for the fiscal years ending on June 30, 2021 and June 30, 2022 provided herein.

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 Plan 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.

Valuation results as of June 30, 2020 are based on the assumptions and methods used in the Plan's June 30, 2020 biennial actuarial valuation, which are summarized in various sections of this report. All GASB 74 assumptions—including, but not limited to, discount rates, expected rates of return on assets, long-term health care cost trend rates, and expected active employee health care coverage election assumptions—have been selected for the measurement of the Plan's benefit obligations as of June 30, 2020 based on the June 30, 2020 valuation date, and should reflect best estimates of anticipated Plan experience. Other than the discount rate required under GASB 74, we believe that those assumptions selected for Plan funding and financial accounting purposes as of June 30, 2020 are reasonable for the purposes of preparing the measurements described above.

We believe the actuarial cost method and the asset valuation method used for funding purposes in the Plan's June 30, 2020 biennial actuarial valuation are appropriate for funding purposes. Additionally, the actuarial cost method, the asset valuation method, and the amortization methods are prescribed under GASB rules for financial accounting purposes as of the June 30, 2020 measurement date. Actuarial methods such as the actuarial cost methods, asset valuation methods, and amortization methods used in the contribution allocation procedure (for funding purposes) and 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 contributions or costs into later years. Likewise, the use of these methods could produce deferred gains or losses if any material underlying assumption is not met over a long 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 the potential impact of such factors is outside the scope of a normal annual actuarial valuation, we have not performed an analysis of the potential range of such future differences other than the sensitivity to changes in the discount rate and healthcare cost trend rates required by GASB 74. **This report does not consider all possible scenarios.**



Board of Directors  
February 11, 2021  
Page 3

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. 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 are familiar with the near-term and/or long-term aspects of other postemployment benefit plan valuations and collectively meet 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 results 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



# Connecticut State Teachers' Retirement System

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## Table of Contents

Section I — Board Summary.....	1
Section II — Plan Membership Data .....	4
Section III — Actuarial Value of Assets .....	5
Section IV — Plan Funding Liabilities .....	6
Section V — Actuarially Determined State Contribution Rate .....	8
Section VI — Plan Accounting Information Under GASB 74 .....	10
Section VII — Plan Financial Statement Note Disclosures.....	12
Schedule A — Details Concerning Membership Census Data.....	20
Schedule B — Summary of Actuarial Assumptions and Methods for Funding Purposes .....	22
Schedule C — Summary of Actuarial Assumptions and Methods for Plan Accounting Purposes .....	34
Schedule D — Summary of Actuarial Cost and Amortization Methods.....	37
Schedule E — Summary of Main Plan Provisions for Valuation Purposes .....	38



## Connecticut State Teachers' Retirement System

### Section I — Board Summary

#### FUNDING CONTRIBUTION RATES FOR THE SYSTEM'S RETIREE HEALTH INSURANCE PLAN

Table I-1: Comparative Summary of Principal Funding Results (\$ in Thousands)

Funding Valuation Results as of	June 30, 2020	June 30, 2018
<b>Membership</b>		
Active Members	50,951	50,594
Annual Payroll	\$4,438,394	\$4,075,939
Retirees and Beneficiaries	47,741	49,123
—Number of Enrolled Retirees, Disableds, and Survivors	27,431	28,530
—Number of Enrolled Spouses and Other Dependents	11,707	12,103
—Number of Nonparticipating Retirees	8,603	8,490
Inactive Members	2,084	2,194
<b>Assets and Actuarial Liabilities</b>		
Discount Rate	3.00%	3.00%
Actuarial Accrued Liability (AAL)	\$2,491,288	\$3,093,846
Actuarial Value of Assets (AVA)	\$71,941	\$39,736
Unfunded Actuarial Accrued Liability (UAAL = AAL – AVA)	\$2,419,347	\$3,054,110
Funded Ratio	2.89%	1.28%
Amortization Period	30 years	30 years
<b>Actuarially Determined Contribution (ADC) Rates</b>		
Normal Cost Rate	2.117%	2.948%
Unfunded Actuarial Accrued Liability Rate	<u>1.846%</u>	<u>2.488%</u>
Total ADC Rate	3.963%	5.436%
Member <sup>1</sup>	<u>1.249%</u>	<u>1.249%</u>
State	2.714%	4.187%
<b>State Contribution Amount for Fiscal Year Ending</b>		
June 30, 2019		\$167,819
June 30, 2020		\$173,273
June 30, 2021	\$120,299	
June 30, 2022	\$123,908	

<sup>1</sup> Effective July 1, 2004, the Plan receives member contributions equal to 1.25% of annual salaries in excess of \$500,000. The member contribution rate shown above has been adjusted to reflect the \$500,000 health benefit plan contribution offset.



## Connecticut State Teachers' Retirement System

### PLAN ACCOUNTING INFORMATION AS OF JUNE 30, 2020 FOR THE SYSTEM'S RETIREE HEALTH INSURANCE PLAN

Table I-2: Summary of Principal Plan Accounting Results

(\$ in Thousands)	
<b>Valuation Date (VD):</b>	June 30, 2020
<b>Prior Measurement Date (PMD):</b>	June 30, 2019
<b>Measurement Date (MD):</b>	June 30, 2020
<b>Membership Data as of the VD:</b>	
Inactive Members Currently Receiving Benefits	27,431
Inactive Members Entitled to, but Not Currently Receiving Benefits	10,687
Active Members	<u>50,951</u>
Total Membership	89,069
<b>Discount Rate:</b>	
Long-Term Expected Rate of Return	3.00%
Municipal Bond Index Rate at PMD	3.50%
Municipal Bond Index Rate at MD	2.21%
Year in which Fiduciary Net Position is Projected to be Depleted	2021
Single Equivalent Interest Rate at Prior Measurement Date	3.50%
Single Equivalent Interest Rate at Measurement Date	2.21%
<b>Total OPEB Liability (TOL) as of the MD:</b>	\$ 2,882,836
TOL as a percentage of covered compensation	64.95%
<b>Net OPEB Liability (NOL) as of the MD:</b>	
Total OPEB Liability (TOL)	\$ 2,882,836
Fiduciary Net Position (FNP)	<u>71,941</u>
Net OPEB Liability (NOL = TOL – FNP)	\$ 2,810,895
FNP as a percentage of TOL	2.50%
NOL as a percentage of covered compensation	63.33%





## Connecticut State Teachers' Retirement System

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### SUMMARY OF KEY FINDINGS

This report presents the results of the actuarial valuation of the Retiree Health Insurance Plan (the Plan) sponsored by the Connecticut State Teachers' Retirement System (the System), prepared as of June 30, 2020. The purpose of the valuation is to measure the Plan's obligations as of June 30, 2020, to determine the actuarially determined State contribution (ADC) rate for the fiscal years ending in 2021 and 2022 based on the System's funding policy, which is centered on the guidance provided in GASB Statements No. 43 and 45, and to provide the Plan accounting information required under GASB Statement No. 74 (GASB 74) for other postemployment benefit plans.

The unfunded actuarial accrued liability (UAAL) decreased from \$3.054 billion as of June 30, 2018 to \$2.419 billion as of June 30, 2020, whereas the Total OPEB Liability (TOL) under GASB 74 increased from \$2.719 billion to \$2.883 billion during the fiscal year ending on the valuation date. The actuarially determined State normal cost contribution rate decreased from 1.699% to 0.868% over the two-year period. The unfunded actuarial accrued liability rate decreased from 2.488% to 1.846% during the same period. We note the following key findings:

- The number of retired members, spouses of retired members, and surviving spouses of retired members who are currently covered under a System-sponsored Health Care Plan has decreased by 4% since the prior valuation.
- The Plan was amended by the Board, effective January 1, 2019, to elect a new prescription drug plan, which was expected to reduce overall costs and allow for the Board to receive a government subsidy for members whose claims reach a catastrophic level.
- The discount rate for Plan accounting purposes has been changed from 3.50% as of June 30, 2019 to 2.21% as of June 30, 2020.
- Assumed participation rates in the Medicare Supplement and Medicare Advantage plans have been updated based experience since the Medicare Advantage option was introduced.

Additional information and details can be found in the Sections and Schedules that follow the Board Summary. Section II of the report provides a high-level summary of the membership data used in the valuation. Section III and Section IV review and reconcile the Plan's actuarial value of assets and the Plan's liabilities, respectively. The actuarially determined State contribution rate is developed in Section V. Sections VI and VII provide the actuarial information that may be needed for Plan accounting purposes under GASB 74. 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.





## Connecticut State Teachers' Retirement System

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### Section II — Plan Membership Data

Data regarding the membership of the Plan for use in the valuation were furnished by the System. The following table summarizes the membership data as of June 30, 2020 and is compared with that reported for the prior valuation.

**Table II: Comparative Summary of Plan Membership Data (\$ in Thousands)**

<b>Membership Data as of</b>	<b>June 30, 2020</b>	<b>June 30, 2018</b>
<b>Active Members</b>		
Total Number of Active Members	50,951	50,594
Total Annual Compensation	\$ 4,438,394	\$ 4,075,939
<b>Retirees and Beneficiaries</b>		
Number of Retirees Receiving Health Insurance Benefits	27,431	28,530
Number of Spouses Receiving Health Insurance Benefits	11,707	12,103
Number of Nonparticipating Retirees	8,603	8,490
Total Retirees and Beneficiaries	47,741	49,123
<b>Inactive Members</b>		
Number of Eligible Vested Members	2,084	2,194



## Connecticut State Teachers' Retirement System

### Section III — Actuarial Value of Assets

Information about the Plan's assets was provided by the System for valuation purposes. The market value of assets held in trust solely to provide benefits to retirees and their beneficiaries in accordance with the terms of the Plan is \$71,941,000 as of June 30, 2020.

The Actuarial Value of Assets for the Plan is equal to \$71,941,000 as of the valuation date based on the "market value" asset valuation method. A detailed reconciliation of the Plan's Actuarial Value of Assets from June 30, 2019 to June 30, 2020 is provided in Table III below.

**Table III: Reconciliation of the Actuarial Value of Plan Assets**

(\$ in Thousands)	
Actuarial Value of Assets as of June 30, 2019	\$ 56,453
<b>Additions</b>	
Active Member Contributions	\$ 53,221
Retired Member Contributions	53,306
State Contributions	29,173
Net Investment Income	847
Total Additions	\$ 136,547
<b>Deductions</b>	
Administrative Expense	\$ 371
Benefit Payments and Refunds	120,688
Other	0
Total Deductions	\$ 121,059
Net Change	\$ 15,488
Actuarial Value of Assets as of June 30, 2020	\$ 71,941



## Connecticut State Teachers' Retirement System

### Section IV — Plan Funding Liabilities

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

**Table IV-1: Summary and Allocation of the Present Value of Future Plan Benefits  
Based on a 3.00% Discount Rate as of June 30, 2020**

(\$ in Thousands)	Entry Age Normal (Level Percentage of Pay)		
	Actuarial Cost Method		
	(1)	(2)	(3)
	Present Value of Future Benefits	Portion Covered By Future Normal Cost Contributions	Actuarial Accrued Liabilities [(1) – (2)]
<b>Active Members</b>			
Service Retirement	\$ 2,242,364	\$ 1,048,798	\$ 1,193,566
Disability Retirement	16,809	15,941	868
Survivors' Benefits	12,424	8,952	3,472
Termination Benefits	333,021	300,902	32,119
<b>Total for Active Members</b>	<b>\$ 2,604,618</b>	<b>\$ 1,374,593</b>	<b>\$ 1,230,025</b>
<b>Inactive Members</b>	\$ 87,686	N/A	\$ 87,686
<b>Retirees and Beneficiaries</b>	\$ 1,173,577	N/A	\$ 1,173,577
<b>Total</b>	<b>\$ 3,865,881</b>	<b>\$ 1,374,593</b>	<b>\$ 2,491,288</b>
<b>Actuarial Value of Assets</b>			\$ 71,941
<b>Unfunded Actuarial Accrued Liability (UAAL)</b>			\$ 2,419,347
<b>Funded Ratio</b>			2.89%

The valuation shows the Plan has an actuarial accrued liability of \$1,230,025,000 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability for retiree health insurance benefits payable to inactive members with vested pension benefits is \$87,686,000. The liability on account of benefits payable to retirees amounts to \$1,173,577,000. The total actuarial accrued liability of the Plan amounts to \$2,491,288,000. Against these liabilities, the Plan has present assets for valuation purposes of \$71,941,000. Therefore, the UAAL is equal to \$2,419,347,000.



## Connecticut State Teachers' Retirement System

The determination of the Plan's actuarial liabilities requires the use of assumptions concerning the future experience of the System and its members. In each valuation, the most recent year of actual experience is compared to the expectations produced by the prior valuation. The differences are actuarial (gains) or losses which (decrease) or increase the UAAL. Table IV provides for the reconciliation of the UAAL and shows the primary sources of this year's gains and losses due to actuarial experience.

**Table IV-2: Reconciliation of the UAAL from June 30, 2018 to June 30, 2020**

(\$ in Thousands)	
1. UAAL as of June 30, 2018	\$ 3,054,110
2. Normal Cost	116,187
3. Expected State Contributions	(167,819)
4. Expected Member Contributions	(51,944)
5. Expected Interest at 3.00%	91,837
6. Expected UAAL as of June 30, 2019 [1 + 2 + 3 + 4 + 5]	\$ 3,042,371
7. Actuarial Experience (Gain) / Loss	
a. Contributions (Higher) / Lower Than Expected <sup>1</sup>	\$ 134,472
b. Asset Return (Higher) / Lower than Expected	335
c. Total Actuarial (Gain) / Loss	\$ 134,807
8. Projected UAAL as of June 30, 2019 [6 + 7c]	\$ 3,177,178
9. Normal Cost	119,672
10. Expected State Contributions	(173,273)
11. Expected Member Contributions	(53,221)
12. Expected Interest at 3.00%	95,533
13. Expected UAAL as of June 30, 2020 [8 + 9 + 10 + 11 + 12]	\$ 3,165,889
14. Actuarial Experience (Gain) / Loss	
a. Contributions (Higher) / Lower Than Expected <sup>1</sup>	\$ 146,246
b. Asset Return (Higher) / Lower Than Expected	1,063
c. Health Care Claims Cost Experience	(632,328)
d. Demographic Experience	(9,332)
e. Assumption Changes	37,342
f. Plan Changes effective January 1, 2019	(289,533)
g. Total Actuarial (Gain) / Loss	\$ (746,542)
15. UAAL as of June 30, 2020 [13 + 14g]	\$ 2,419,347

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 actuarial experience associated with each event. Experience allocations based on more refined calculations may yield findings and conclusions different than those suggested using this streamlined methodology.

<sup>1</sup> Includes an adjustment for the expected investment return from the assumed payment date(s) to the end of the year.



## Connecticut State Teachers' Retirement System

### Section V — Actuarially Determined State Contribution Rate

The Plan's actuarially determined contribution (ADC) is equal to the sum of the normal cost—or, the portion of the Plan's total present value of benefits (PVB) that will accrue as a result of service earned during the year—including expected administrative expenses and the supplemental cost for the year. The supplemental cost is equal to the amount that will amortize the UAAL based on the amortization method and period selected for Plan funding purposes as of the valuation date. The determination of the ADC for the fiscal year ending on June 30, 2021 is shown in Table V. Table V also develops the actuarially determined State contribution amount and rate for the same period.

**Table V: Development of the State's Actuarially Determined Contribution (ADC) Rate for the Fiscal Year Ending on June 30, 2021**

(\$ in Thousands)	(a)	(b)
Fiscal Year Ending June 30, 2021	ADC Amount	ADC Rate as a Percentage of Covered Payroll [(a) ÷ (1)(a)]
1. Adjusted Covered Payroll to Mid-Year	\$ 4,433,145	
2. Discount Rate	3.00%	
3. Long-term Payroll Growth Rate	3.00%	
4. Amortization Period—All Sources	Closed 30 years	
5. Amortization Factor—Level Percentage of Pay [Based on (2), adjusted for (3), over periods in (4)]	30.0000	
6. Unfunded Actuarial Accrued Liability (UAAL)	\$ 2,419,347	
7. Normal Cost		
i. Service Retirement	\$ 70,826	1.598%
ii. Disability Retirement	1,157	0.026%
iii. Survivors' Benefits	651	0.015%
iv. Termination Benefits	19,478	0.439%
v. Expected Administrative Expenses	372	0.008%
vi. Interest to Mid-Year	1,377	0.031%
vii. Total [(7i) + (7ii) + (7iii) + (7iv) + (7v) + (7vi)]	\$ 93,861	2.117%
8. Supplemental Cost		
i. Amortization of the UAAL [(6) ÷ (5)]	\$ 80,645	1.819%
ii. Interest to Mid-Year	1,201	0.027%
iii. Total [(8i) + (8ii)]	\$ 81,846	1.846%
Actuarially Determined Contribution (ADC)		
9. [(7vii) + (8iii)]	\$ 175,707	3.963%
Expected Member Contributions at Mid-Year		
10. [1.25% × {(1) – \$500}]	\$ 55,408	1.249%
11. State Normal Cost [(7vii) – (10), not less than 0]	\$ 38,453	0.868%
12. State Supplemental Cost [(8iii) – {(10) – (7vii)}, not < 0]	81,846	1.846%
13. Actuarially Determined State Contribution [(11) + (12)]	\$ 120,299	2.714%

Please note that, in certain cases, the ADC rates in Table V (b) have been adjusted for calculation and/or presentation purposes.



## Connecticut State Teachers' Retirement System

### SUMMARY OF 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 that will be shown in the "Schedule of Governmental Nonemployer Contributing Entity Contributions" (See Section VII) are calculated as of the most recent Valuation Date. The following actuarial methods and assumptions as of June 30, 2020 were used to determine the contribution rates shown in Table V that will be applicable for fiscal years ending on June 30, 2021 and June 30, 2022:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll over a closed period
Amortization period	30 years
Asset valuation method	Market value of assets
Long-term investment rate of return, net of pension plan investment expense, including price inflation	3.00%
Price inflation	2.50%
Real wage growth	0.50%
Wage inflation	3.00%
Salary increases, including wage inflation	3.00% to 6.50%
Initial health care cost trend rates	5.125%
Ultimate health care cost trend rates	4.50%
Year ultimate trend rates reached	2023
Subsidy amounts will not increase upon reaching their limit.	
Basis for Postretirement Mortality Rates	PubT-2010, Amount Weighted
Basis for Postretirement Mortality Improvement Rates	Scale MP-2019, Generational



## Connecticut State Teachers' Retirement System

### Section VI — Plan Accounting Information Under GASB 74

The table below provides the change in the Net OPEB Liability (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 Net OPEB Liability 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.

**Table VI-1: Reconciliation of Changes in the Plan's Total OPEB Liability (TOL)**

(\$ in Thousands)					
Fiscal Years Ending on June 30	2020	2019	2018	2017	2016
<b>Collective Total OPEB Liability (TOL)</b>					
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)	
<b>Net change in TOL</b>	<b>\$ 163,796</b>	<b>\$ 47,725</b>	<b>\$ (867,457)</b>	<b>\$ (195,271)</b>	
<b>TOL—beginning of period</b>	<b>\$ 2,719,040</b>	<b>\$ 2,671,315</b>	<b>\$ 3,538,772</b>	<b>\$ 3,734,043</b>	
<b>TOL—end of period</b>	<b>\$ 2,882,836</b>	<b>\$ 2,719,040</b>	<b>\$ 2,671,315</b>	<b>\$ 3,538,772</b>	





## Connecticut State Teachers' Retirement System

**Table VI-2: Reconciliation of Changes in the Plan's Fiduciary Net Position (FNP) and Net OPEB Liability / (Asset) (NOL)**

(\$ in Thousands)						
Fiscal Years Ending on June 30		2020	2019	2018	2017	2016
<b>TOL—end of period</b>	(a)	\$ 2,882,836	\$ 2,719,040	\$ 2,671,315	\$ 3,538,772	
<b>Fiduciary Net Position (FNP)</b>						
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	
<b>Net change in FNP</b>		\$ 15,488	\$ 16,717	\$ (23,692)	\$ (13,452)	
<b>FNP—beginning of period</b>		\$ 56,453	\$ 39,736	\$ 63,428	\$ 76,880	
<b>FNP—end of period</b>	(b)	\$ 71,941	\$ 56,453	\$ 39,736	\$ 63,428	
<b>FNP as a percentage of the TOL</b>	[(b) / (a)]	2.50%	2.08%	1.49%	1.79%	
<b>Collective Net OPEB Liability/(Asset) (NOL)</b>						
<b>NOL—end of period</b>	[(a) - (b)]	\$ 2,810,895	\$ 2,662,587	\$ 2,631,579	\$ 3,475,344	
<b>Covered Payroll<sup>1</sup></b>		\$ 4,438,394	\$ 4,389,654	\$ 4,075,939	\$ 4,279,755	
<b>NOL as a percentage of Covered Payroll</b>		63.33%	60.66%	64.56%	81.20%	

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



## Connecticut State Teachers' Retirement System

### Section VII — Plan Financial Statement Note Disclosures

This section contains accounting information that may be used to satisfy the reporting requirements under Governmental Accounting Standards Board (GASB) Statement No. 74 for the fiscal year ending on June 30, 2020, 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 3 of GASB 74. Additionally, we have assumed that the System will not restate results for any period prior to the adoption of GASB 74 based on the guidance in paragraph 61 of that Standard. This report does not include any non-actuarial items that may need to be reported or disclosed.

#### Plan Membership Information

The Plan's membership data was furnished by the System for valuation purposes as of June 30, 2020. The following table summarizes the membership of the Plan as of the June 30, 2020 valuation date.

Membership Group	Number
Inactive plan members currently receiving benefits	27,431
Inactive plan members entitled to, but not currently receiving benefits	10,687
Active participants	<u>50,951</u>
Total membership	89,069

#### Net OPEB Liability / (Asset) (NOL)

The NOL is equal to the Total OPEB Liability (TOL) minus the Fiduciary Net Position (FNP). The development of the NOL, and the Plan's funded ratio, as of the June 30, 2020 Measurement Date is presented in the table below.

As of June 30, 2020 (\$ in Thousands)	
TOL	\$ 2,882,836
FNP	<u>71,941</u>
NOL [TOL – FNP]	\$ 2,810,895
Ratio of FNP to TOL	2.50%



## Connecticut State Teachers' Retirement System

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### 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 C.

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.

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 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.



## Connecticut State Teachers' Retirement System

The long-term expected return on plan assets is reviewed as part of the GASB 74 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.



## Connecticut State Teachers' Retirement System

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### **DEVELOPMENT OF THE DISCOUNT RATE (SEIR)**

The projection of cash flows used to determine the discount rate was performed in accordance with GASB 74. 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 74. 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.



## Connecticut State Teachers' Retirement System

### Sensitivity of the Net OPEB Liability 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 Net OPEB Liability 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.



## Connecticut State Teachers' Retirement System

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### REQUIRED SUPPLEMENTARY INFORMATION

Under GASB 74, information regarding changes to benefit terms and changes to assumptions or other inputs should be noted regarding the Required Supplementary Information (RSI). The information should be listed by the date for which the indicated change was first reflected in reported amounts.

#### 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 74, 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 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,





## Connecticut State Teachers' Retirement System

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- 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.



## Connecticut State Teachers' Retirement System

### 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 <sup>1</sup>	\$ 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%

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



Connecticut State Teachers' Retirement System

Schedule A — Details Concerning Membership Census Data

Table A-1: Distribution of Active Members by Attained Age and Service as of June 30, 2020

Age	Years of Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25	81 *	438 *	2 *									521 \$49,056
25 to 29	201 *	2,994 *	792 \$59,688	2 *								3,989 \$54,755
30 to 34	124 *	1,848 *	3,691 \$64,942	476 \$75,252	1 *							6,140 \$63,324
35 to 39	75 *	1,031 *	2,272 \$69,375	3,340 \$81,493	755 \$92,259							7,473 \$76,137
40 to 44	67 *	670 *	1,030 \$72,845	1,942 \$85,047	3,381 \$94,807	567 \$102,373						7,657 \$87,137
45 to 49	58 *	560 *	737 \$74,523	1,020 \$86,859	2,020 \$95,992	2,673 \$103,064	256 \$109,537					7,324 \$93,058
50 to 54	43 *	381 *	626 \$73,369	856 \$86,046	1,377 \$94,555	2,032 \$100,830	1,354 \$106,072	202 \$107,219				6,871 \$94,305
55 to 59	24 *	205 *	394 \$72,263	626 \$84,084	1,003 \$93,796	976 \$99,050	794 \$103,012	984 \$104,090	201 \$102,648			5,207 \$94,532
60 to 64	17 *	113 *	180 \$76,632	357 \$84,206	733 \$92,853	788 \$99,426	450 \$101,621	490 \$100,950	463 \$102,903	62 \$102,447		3,653 \$95,438
65 to 69	3 *	41 *	72 \$81,815	132 \$86,657	315 \$93,294	382 \$97,561	220 \$102,231	206 \$101,630	138 \$107,797	146 \$107,690		1,655 \$97,641
70 & Up	0 *	8 *	11 *	21 \$89,196	63 \$98,116	90 \$101,094	86 \$104,884	74 \$104,194	29 \$106,626	79 \$104,567		461 \$101,373
<b>Total</b>	693 \$55,999	8,289 \$58,660	9,807 \$68,287	8,772 \$83,401	9,648 \$94,535	7,508 \$101,200	3,160 \$104,650	1,956 \$103,372	831 \$103,784	287 \$105,698		50,951 \$83,368

\* Average reported compensation is not shown for members with fewer than 5 years of service or age/service groups with fewer than 20 individuals.



## Connecticut State Teachers' Retirement System

**Table A-2: Comparative Summary of Key Active Member Statistics**

	June 30, 2020	June 30, 2018
Average Age	44.8 years	44.7 years
Average Service	14.2 years	14.0 years
Average Pay	\$83,368	\$80,562

**Table A-3: Distributions of Members and Spouses Who Are Receiving Retiree Health Insurance Benefits by Age and Gender as of June 30, 2020**

	Retirees		Spouses		Total
	Male	Female	Male	Female	
<b>Subsidized Local School District Coverage</b>					
Ages Under 65	342	1,335	467	353	2,497
Ages 65 and Over	<u>1,742</u>	<u>4,059</u>	<u>1,134</u>	<u>776</u>	<u>7,711</u>
Subsidy Total	2,084	5,394	1,601	1,129	10,208
<b>System-Sponsored Health Care Plans</b>					
<b>Medicare Supplement</b>					
Under Age 65	5	10	7	0	22
Ages 65 – 69	20	59	160	58	297
Ages 70 – 74	126	242	323	112	803
Ages 75 – 79	105	233	267	101	706
Ages 80 – 84	165	300	143	67	675
Ages Over 84	<u>311</u>	<u>642</u>	<u>108</u>	<u>51</u>	<u>1,112</u>
Total	732	1,486	1,008	389	3,615
<b>Medicare Advantage</b>					
Under Age 65	3	38	21	17	79
Ages 65 – 69	949	3,305	1,277	548	6,079
Ages 70 – 74	1,802	4,026	1,840	789	8,457
Ages 75 – 79	1,362	2,222	1,091	571	5,246
Ages 80 – 84	727	1,162	452	264	2,605
Ages Over 84	<u>687</u>	<u>1,323</u>	<u>315</u>	<u>135</u>	<u>2,460</u>
Total	5,530	12,076	4,996	2,324	24,926
Health Care Total	6,262	13,691	5,870	3,107	28,934
<b>Total</b>	<b>8,346</b>	<b>19,085</b>	<b>7,471</b>	<b>4,236</b>	<b>39,142</b>



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

**ECONOMIC ASSUMPTIONS**

**Discount Rate**

3.00% per year for all periods after June 30, 2020.

**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 Normal Cost**

Estimated administrative expenses equal to 0.008% of payroll were included in the normal cost rate.



## Connecticut State Teachers' Retirement System

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### 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.



## Connecticut State Teachers' Retirement System

### 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, 2020 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 Advantage and 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
<b>Ineligible</b>	\$1,320 per year (\$110 per month)
<b>Eligible</b>	\$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.





## Connecticut State Teachers' Retirement System

### 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:



## Connecticut State Teachers' Retirement System

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:

Annual Rates of Death*		
<u>Age</u>	<u>Male</u>	<u>Female</u>
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			



## Connecticut State Teachers' Retirement System

### 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%	1.25%
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%		



## Connecticut State Teachers' Retirement System

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### 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%



## Connecticut State Teachers' Retirement System

### 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 Rates<sup>1</sup>

#### 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.

<sup>1</sup> 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, 2020. 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

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### **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, 2020 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.





## Connecticut State Teachers' Retirement System

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### 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.

### Funding Policy

Our understanding is that the System has not adopted a formal funding policy for the Plan and has not made any changes to the Plan's funding policy since the prior valuation. Thus, ADC rates as of the valuation date were developed based on the contribution allocation procedure described in GASB Statement Nos. 43 and 45, as approved by the System during prior periods.

### Valuation Date

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 valuation results as of June 30, 2020.



## Connecticut State Teachers' Retirement System

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### Changes Since the Prior Valuation

The June 30, 2020 measurements used in the development of actuarially determined contribution rates reflect the following changes in assumptions and methods:

- Expected annual per capita claims costs were updated to better reflect anticipated medical and prescription drug claim experience, including the change to the Prescription plan that occurred on January 1, 2019;
- 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;
- Since the prior funding valuation, the inflation assumption was decreased from 2.75% to 2.50%, which resulted in a temporary increase in the real wage increase assumption from 0.50% to 0.75%. As stated below, the real wage increase assumption was set back to 0.50% as of the June 30, 2020 valuation date. This change was included in the GASB 74 plan accounting report as of June 30, 2019; 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 a reduction in the Plan's actuarial present value of future benefits and the normal cost rate for plan funding purposes measured as of June 30, 2020.



## Connecticut State Teachers' Retirement System

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### **Schedule C — Summary of Actuarial Assumptions and Methods for Plan Accounting Purposes**

#### **ECONOMIC AND OTHER ASSUMPTIONS AND METHODS**

##### **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](http://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 Administrative Expenses Included in Service Cost**

None.

##### **Measurement Date**

June 30, 2020

##### **Measurement Period**

July 1, 2019 to June 30, 2020

##### **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 3.00%), 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.



## Connecticut State Teachers' Retirement System

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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 Actuarial Asset Value 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 market value of plan assets.

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

### **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 74 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.

### **Other Assumptions and Methods**

Unless otherwise stated above, all other actuarial assumptions and methods are the same as those used for the purpose of determining periodic funding contributions as of June 30, 2020.



## Connecticut State Teachers' Retirement System

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### Changes 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 D — Summary of Actuarial Cost and Amortization 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 3.00%), 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 Normal Cost. The portion of the actuarial present value of expected benefits not provided for by the actuarial present value of future normal costs is called the Actuarial Accrued Liability (AAL).

The excess of the AAL over the Actuarial Value of Assets is the Unfunded Actuarial Accrued Liability / (Surplus) ("UAAL").

### Asset Valuation Method

The Actuarial Value of Assets for this purpose is equal to the market value of plan assets.

### Funding Amortization of the Unfunded Actuarial Accrued Liability (formerly GASB 45)

The Plan's actuarially determined contribution includes a "supplemental cost". The supplemental cost is an amount that will amortize the UAAL based on the amortization method and period selected for valuation purposes as of the valuation date.

### Changes in Actuarial Cost and Amortization Methods Since the Previous Valuation

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



## Connecticut State Teachers' Retirement System

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### Schedule E — 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.



## Connecticut State Teachers' Retirement System

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### 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.





## Connecticut State Teachers' Retirement System

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.

<b>Monthly Funding Rates for the CTRB Sponsored Medicare Supplemental Plan Options</b>							
<b>Coverage</b>	<b>2016</b>	<b>2017</b>	<b>Jan. 1 2018</b>	<b>July 1 2018</b>	<b>Jan. 1 2019</b>	<b>Jan. 1 2020</b>	<b>Jan. 1 2021</b>
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

<b>Monthly Funding Rates for the CTRB Sponsored Medicare Advantage Plan Options</b>							
<b>Coverage</b>	<b>2016</b>	<b>2017</b>	<b>Jan. 1 2018</b>	<b>July 1 2018</b>	<b>Jan. 1 2019</b>	<b>Jan. 1 2020</b>	<b>Jan. 1 2021</b>
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. We have reflected these changes in the Plan's liabilities and the development of the actuarially determined contribution rate as of June 30, 2020.