

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

**SCHEDULE OF EMPLOYER ALLOCATIONS AND
SCHEDULE OF PENSION AMOUNTS BY EMPLOYER**

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

CONTENTS

Independent Auditors' Report	1-2
---	-----

Schedules

Schedule I - Employer Allocations as of and for the year ended June 30, 2019.....	3-9
Schedule II - Pension Amounts by Employer as of and for the year ended June 30, 2019.....	10-16

Notes to Schedule of Employer Allocations and Schedule of Pension Amounts by Employer	17-26
--	-------

INDEPENDENT AUDITORS' REPORT

The Retirement Board
Connecticut State Teachers' Retirement Board

Report on the Schedules

We have audited the accompanying schedule of employer allocations and schedule of pension amounts by employer of the Connecticut Teachers' Retirement System as of and for the year ended June 30, 2019, and the related notes to the schedules.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the schedules based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedules are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedules. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedules, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedules in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedules.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the schedule of employer allocations and schedule of pension amounts by employer referred to above present fairly, in all material respects, the employer allocations, net pension liability, and employer pension expense and revenue of all participating entities for the Connecticut Teachers' Retirement System as of and for the year ended June 30, 2019 in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Audited Net Position of the Connecticut Teachers' Retirement System

We have not audited the financial statements of the Connecticut Teachers' Retirement System as of and for the year ended June 30, 2019. The audit for the Connecticut Teachers' Retirement System was performed by the State of Connecticut Auditors of Public Accounts. The net position of the Connecticut Teachers' Retirement System used to calculate the net pension liability in the schedules in this report was based solely upon the amounts audited by the State of Connecticut Auditors of Public Accounts.

Restrictions on Use

Our report is intended solely for the information and use of the Connecticut Teachers' Retirement System management, the State Teachers' Retirement Board, and Connecticut State and local retirement system employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Marcum LLP

New Haven, CT
June 18, 2020

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
Andover	\$ 586,446	0.045380%
Ansonia	4,258,986	0.329563%
Ashford	988,724	0.076508%
Avon	8,811,273	0.681821%
Barkhamsted	520,161	0.040250%
Berlin	6,893,243	0.533403%
Bethany	991,823	0.076748%
Bethel	6,469,503	0.500614%
Highville Chtr	590,897	0.045724%
Bloomfield	4,649,366	0.359771%
Bolton	2,124,219	0.164373%
Bozrah	592,280	0.045831%
Branford	8,282,573	0.640910%
Bridgeport	38,038,733	2.943459%
Bristol	17,778,524	1.375712%
Brookfield	6,302,897	0.487722%
Brooklyn	1,798,194	0.139145%
Cldrn Ctr Com Prog	94,098	0.007281%
Canaan	277,246	0.021453%
Canterbury	1,111,909	0.086040%
Canton	3,750,238	0.290196%
Chaplin	468,914	0.036285%
Cheshire	10,622,247	0.821956%
Chester	476,404	0.036864%
Clinton	5,041,563	0.390119%
Colchester	5,839,223	0.451842%
Amistad Acd	810,161	0.062691%
Colebrook	295,254	0.022847%
Columbia	1,329,786	0.102900%
Cornwall	320,847	0.024827%
Coventry	4,107,502	0.317841%
Cromwell	4,452,343	0.344525%
Danbury	23,973,301	1.855068%
Darien	14,409,256	1.114997%
Deep River	522,280	0.040414%
Derby	2,960,569	0.229091%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
Eastford	\$ 410,635	0.031775%
East Granby	2,583,017	0.199875%
East Haddam	2,992,790	0.231584%
East Hampton	4,978,983	0.385277%
East Hartford	17,031,745	1.317926%
East Haven	6,338,693	0.490492%
East Lyme	6,726,547	0.520504%
Easton	2,337,985	0.180915%
East Windsor	3,399,482	0.263054%
Ellington	5,976,062	0.462431%
Enfield	11,861,146	0.917822%
Essex	684,021	0.052930%
Fairfield	27,251,773	2.108758%
Farmington	10,426,511	0.806809%
Franklin	408,823	0.031635%
Glastonbury	14,946,709	1.156585%
Granby	4,422,470	0.342213%
Greenwich	30,779,115	2.381706%
Griswold	3,981,293	0.308075%
Groton	11,605,121	0.898011%
Guilford	8,358,024	0.646749%
Hamden	14,787,708	1.144281%
Hampton	340,833	0.026374%
Hartford	43,748,665	3.385297%
Hartland	503,258	0.038942%
Hebron	1,745,378	0.135058%
Kent	620,852	0.048042%
Killingly	5,064,521	0.391896%
Lebanon	2,579,561	0.199608%
Ledyard	5,639,874	0.436417%
Lisbon	986,305	0.076321%
Litchfield	2,721,111	0.210561%
Madison	7,765,858	0.600927%
Manchester	16,254,929	1.257816%
Mansfield	3,592,709	0.278006%
Marlborough	1,268,085	0.098125%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
Meriden	\$ 17,656,680	1.366284%
Middletown	11,482,758	0.888542%
Milford	16,196,586	1.253301%
Monroe	8,690,107	0.672445%
Montville	5,875,357	0.454638%
Naugatuck	9,306,242	0.720122%
New Britain	23,056,309	1.784110%
New Canaan	13,148,343	1.017426%
New Fairfield	6,228,033	0.481929%
New Hartford	1,016,904	0.078689%
New Haven	47,270,760	3.657839%
Newington	10,221,403	0.790938%
New London	7,146,676	0.553014%
New Milford	8,773,710	0.678915%
Newtown	10,922,616	0.845198%
Norfolk	265,354	0.020533%
North Branford	4,301,120	0.332823%
North Canaan	629,053	0.048676%
North Haven	8,054,665	0.623275%
No.Stonington	1,989,263	0.153930%
Norwalk	29,169,572	2.257158%
Norwich	6,209,024	0.480458%
NFA	5,119,660	0.396162%
Old Saybrook	3,834,756	0.296736%
Orange	3,080,643	0.238382%
Oxford	4,083,519	0.315985%
Plainfield	4,572,176	0.353798%
Plainville	5,543,842	0.428986%
Plymouth	3,174,273	0.245627%
Pomfret	889,170	0.068804%
Portland	3,055,546	0.236440%
Preston	1,113,802	0.086187%
Putnam	2,754,487	0.213144%
Redding	3,172,707	0.245506%
RSD 1	2,077,218	0.160736%
RSD 4	2,254,277	0.174437%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
RSD 5	\$ 6,176,437	0.477936%
RSD 6	2,502,499	0.193645%
RSD 7	2,505,536	0.193880%
RSD 8	3,657,073	0.282986%
Ridgefield	13,667,016	1.057562%
Rocky Hill	6,587,307	0.509730%
Salem	985,951	0.076293%
Salisbury	785,730	0.060800%
Scotland	340,920	0.026381%
Seymour	5,080,455	0.393129%
Sharon	533,966	0.041319%
Shelton	11,721,693	0.907031%
Sherman	1,060,632	0.082072%
Simsbury	10,897,090	0.843223%
Somers	3,570,030	0.276251%
Southington	13,918,417	1.077015%
S. Windsor	10,753,391	0.832104%
Sprague	613,033	0.047437%
Stafford	3,597,416	0.278370%
Stamford	43,868,549	3.394574%
SDE	11,037,109	0.854058%
DCF Recq Home	487,283	0.037706%
Sterling	716,167	0.055417%
Stonington	5,148,074	0.398361%
Stratford	16,751,121	1.296211%
Suffield	5,695,683	0.440735%
Thomaston	2,085,231	0.161356%
Thompson	2,341,982	0.181224%
Tolland	5,154,314	0.398844%
Torrington	9,133,592	0.706763%
Trumbull	17,168,514	1.328510%
Union	190,962	0.014777%
Vernon	7,887,966	0.610375%
Voluntown	726,263	0.056199%
Wallingford	16,250,488	1.257472%
Waterbury	36,618,648	2.833572%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
Waterford	\$ 7,342,992	0.568205%
Watertown	5,597,129	0.433109%
Westbrook	2,518,569	0.194888%
W.Hartford	23,927,392	1.851515%
West Haven	13,514,875	1.045789%
Weston	7,193,053	0.556603%
Westport	17,696,750	1.369385%
Wethersfield	8,492,344	0.657142%
Willington	1,177,752	0.091135%
Wilton	11,846,765	0.916709%
Winchester	1,585,304	0.122672%
Windham	7,818,725	0.605017%
Windsor	9,826,537	0.760383%
Windsor Locks	5,010,581	0.387722%
Winsted/Gilbert	1,265,573	0.097931%
Wolcott	5,132,439	0.397151%
Woodbridge	2,070,210	0.160194%
Woodstock	1,538,327	0.119037%
Woodstock Ad	2,449,954	0.189579%
UCONN	466,158	0.036072%
RSD 9	2,920,810	0.226014%
RSD 10	5,594,706	0.432922%
Supervison District	1,073,396	0.083060%
NWCTC	124,851	0.009661%
MCTC	334,918	0.025916%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
Norwalk CTC	\$ 193,828	0.014999%
WCSU	383,320	0.029661%
CCSU	943,392	0.073000%
ESCU	273,257	0.021145%
SCSU	831,643	0.064353%
RSD 11	713,709	0.055227%
CCTC	37,391	0.002893%
Hou CTC	343,550	0.026584%
Naug CTC	396,965	0.030717%
MCTC	109,950	0.008508%
Ed Connection	797,339	0.061699%
RSD 12	2,615,754	0.202409%
Gateway CTC	536,877	0.041544%
RSD 13	4,850,534	0.375337%
RSD 14	4,623,201	0.357746%
CCI Cheshire	17,352	0.001343%
Shared Svcs	496,994	0.038458%
CREC	24,920,059	1.928329%
RSD 15	9,039,573	0.699487%
RSD 16	4,961,680	0.383938%
TRCC (Mohegan)	142,916	0.011059%
Tunxis CTC	161,033	0.012461%
QVCC	46,645	0.003609%
Odyssey	581,237	0.044976%
CES	3,680,915	0.284831%
ACES	6,877,731	0.532203%
Project Learn	4,918,785	0.380618%
RSD 17	5,033,807	0.389519%
Asnun CTC	50,666	0.003921%
RSD 18	3,908,055	0.302408%
EASTCONN	2,224,634	0.172143%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE I – EMPLOYER ALLOCATIONS (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	Expected Employer Contribution Effort for Allocation Purposes	Employer Allocation Percentage
BSBE	\$ 339,409	0.026264%
RSD 19	3,057,406	0.236584%
UConn Health	338,317	0.026179%
CCI Niantic	21,639	0.001674%
Children's CTR	341,016	0.026388%
Bridges Academy	462,216	0.035767%
Common Ground	413,228	0.031976%
Explorations	301,518	0.023332%
Intergrated Day	551,575	0.042681%
Isaac	502,337	0.038871%
Jumoke Academy	967,061	0.074832%
Side by Side	356,637	0.027597%
Trailblazers Academy	300,810	0.023277%
New Beginnings	700,707	0.054221%
Elm City CP	498,504	0.038574%
Stamford Academy	192,147	0.014868%
Park City	509,577	0.039431%
AF Bridgeport Academy	473,725	0.036657%
SERC	32,483	0.002514%
AF Hartford Acad	1,071,026	0.082877%
Brass City	199,803	0.015461%
Path Academy	183,470	0.014197%
Great Oaks Charter	203,362	0.015736%
Booker T. Washington(BTW)	316,673	0.024504%
Capitol Prep Harbor	331,568	0.025656%
Stamford Charter Excellence	200,160	0.015487%
Total	\$ 1,292,314,000	100.000000%

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
Andover	\$ 7,747,521	\$ 951,528
Ansonia	56,265,332	6,910,342
Ashford	13,062,008	1,604,237
Avon	116,405,455	14,296,574
Barkhamsted	6,871,833	843,978
Berlin	91,066,420	11,184,508
Bethany	13,102,943	1,609,265
Bethel	85,468,406	10,496,977
Highville Chtr	7,806,317	958,749
Bloomfield	61,422,629	7,543,746
Bolton	28,062,991	3,446,614
Bozrah	7,824,588	960,993
Branford	109,420,810	13,438,740
Bridgeport	502,528,522	61,719,068
Bristol	234,871,528	28,846,227
Brookfield	83,267,380	10,226,653
Brooklyn	23,755,883	2,917,627
Cldrn Ctr Com Prog	1,243,121	152,676
Canaan	3,662,689	449,841
Canterbury	14,689,389	1,804,107
Canton	49,544,282	6,084,882
Chaplin	6,194,807	760,828
Cheshire	140,330,173	17,234,937
Chester	6,293,759	772,981
Clinton	66,603,926	8,180,097
Colchester	77,141,798	9,474,328
Amistad Acd	10,703,014	1,314,513
Colebrook	3,900,586	479,058
Columbia	17,567,758	2,157,620
Cornwall	4,238,701	520,585
Coventry	54,264,077	6,664,554
Cromwell	58,819,764	7,224,070
Danbury	316,710,533	38,897,451
Darien	190,360,237	23,379,482
Deep River	6,899,827	847,416
Derby	39,111,989	4,803,619

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
Eastford	\$ 5,424,890	\$ 666,269
East Granby	34,124,153	4,191,028
East Haddam	39,537,660	4,855,899
East Hampton	65,777,196	8,078,561
East Hartford	225,005,852	27,634,554
East Haven	83,740,282	10,284,734
East Lyme	88,864,208	10,914,039
Easton	30,887,051	3,793,456
East Windsor	44,910,454	5,515,769
Ellington	78,949,572	9,696,353
Enfield	156,697,228	19,245,090
Essex	9,036,579	1,109,846
Fairfield	360,022,323	44,216,877
Farmington	137,744,312	16,917,349
Franklin	5,400,946	663,328
Glastonbury	197,460,513	24,251,517
Granby	58,425,114	7,175,600
Greenwich	406,621,933	49,940,104
Griswold	52,596,737	6,459,776
Groton	153,314,894	18,829,682
Guilford	110,417,597	13,561,163
Hamden	195,359,950	23,993,532
Hampton	4,502,740	553,013
Hartford	577,962,248	70,983,615
Hartland	6,648,520	816,552
Hebron	23,058,134	2,831,932
Kent	8,202,057	1,007,352
Killingly	66,907,234	8,217,349
Lebanon	34,078,497	4,185,420
Ledyard	74,508,198	9,150,877
Lisbon	13,030,038	1,600,311
Litchfield	35,948,513	4,415,090
Madison	102,594,513	12,600,355
Manchester	214,743,358	26,374,144
Mansfield	47,463,161	5,829,285
Marlborough	16,752,634	2,057,509

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
Meriden	\$ 233,261,847	\$ 28,648,530
Middletown	151,698,358	18,631,144
Milford	213,972,588	26,279,481
Monroe	114,804,732	14,099,978
Montville	77,619,156	9,532,955
Naugatuck	122,944,478	15,099,677
New Britain	304,596,175	37,409,602
New Canaan	173,702,347	21,333,609
New Fairfield	82,278,348	10,105,183
New Hartford	13,434,289	1,649,960
New Haven	624,492,535	76,698,327
Newington	135,034,640	16,584,555
New London	94,414,517	11,595,712
New Milford	115,909,211	14,235,627
Newtown	144,298,337	17,722,295
Norfolk	3,505,583	430,545
North Branford	56,821,962	6,978,705
North Canaan	8,310,399	1,020,659
North Haven	106,409,929	13,068,953
No. Stonington	26,280,093	3,227,643
Norwalk	385,358,313	47,328,569
Norwich	82,027,227	10,074,342
NFA	67,635,668	8,306,813
Old Saybrook	50,660,836	6,222,014
Orange	40,698,277	4,998,442
Oxford	53,947,241	6,625,641
Plainfield	60,402,877	7,418,503
Plainville	73,239,529	8,995,062
Plymouth	41,935,227	5,150,361
Pomfret	11,746,798	1,442,707
Portland	40,366,719	4,957,721
Preston	14,714,403	1,807,179
Putnam	36,389,446	4,469,244
Redding	41,914,530	5,147,819
RSD 1	27,442,066	3,370,353
RSD 4	29,781,184	3,657,637

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
RSD 5	\$ 81,596,716	\$ 10,021,467
RSD 6	33,060,442	4,060,386
RSD 7	33,100,552	4,065,312
RSD 8	48,313,482	5,933,719
Ridgefield	180,554,527	22,175,173
Rocky Hill	87,024,703	10,688,117
Salem	13,025,364	1,599,737
Salisbury	10,380,261	1,274,873
Scotland	4,503,884	553,154
Seymour	67,117,735	8,243,202
Sharon	7,054,214	866,378
Shelton	154,854,921	19,018,824
Sherman	14,011,982	1,720,910
Simsbury	143,961,121	17,680,879
Somers	47,163,558	5,792,489
Southington	183,875,769	22,583,078
S. Windsor	142,062,712	17,447,722
Sprague	8,098,759	994,666
Stafford	47,525,347	5,836,923
Stamford	579,546,040	71,178,131
SDE	145,810,909	17,908,065
DCF Recq Home	6,437,486	790,633
Sterling	9,461,265	1,162,005
Stonington	68,011,051	8,352,916
Stratford	221,298,534	27,179,232
Suffield	75,245,493	9,241,429
Thomaston	27,547,926	3,383,355
Thompson	30,939,852	3,799,941
Tolland	68,093,479	8,363,040
Torrington	120,663,593	14,819,546
Trumbull	226,812,709	27,856,466
Union	2,522,794	309,842
Vernon	104,207,675	12,798,479
Voluntown	9,594,634	1,178,385
Wallingford	214,684,684	26,366,938
Waterbury	483,767,820	59,414,934

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
Waterford	\$ 97,008,042	\$ 11,914,241
Watertown	73,943,493	9,081,521
Westbrook	33,272,735	4,086,459
W.Hartford	316,104,035	38,822,963
West Haven	178,544,596	21,928,319
Weston	95,027,203	11,670,960
Westport	233,791,211	28,713,545
Wethersfield	112,192,091	13,779,101
Willington	15,559,240	1,910,940
Wilton	156,507,242	19,221,757
Winchester	20,943,408	2,572,207
Windham	103,292,937	12,686,133
Windsor	129,818,072	15,943,872
Windsor Locks	66,194,635	8,129,829
Winsted/Gilbert	16,719,445	2,053,433
Wolcott	67,804,494	8,327,547
Woodbridge	27,349,477	3,358,982
Woodstock	20,322,785	2,495,984
Woodstock Ad	32,366,266	3,975,129
UCONN	6,158,405	756,357
RSD 9	38,586,726	4,739,108
RSD 10	73,911,482	9,077,590
Supervison District	14,180,597	1,741,619
NWCTC	1,649,400	202,574
MCTC	4,424,594	543,416
Norwalk CTC	2,560,657	314,492
WCSU	5,064,023	621,948
CCSU	12,463,126	1,530,684
ESCU	3,609,988	443,368
SCSU	10,986,805	1,349,367
RSD 11	9,428,790	1,158,016
CCTC	493,969	60,668
Hou CTC	4,538,631	557,421
Naug CTC	5,244,295	644,089
MCTC	1,452,541	178,397

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
Ed Connection	\$ 10,533,621	\$ 1,293,708
RSD 12	34,556,644	4,244,145
Gateway CTC	7,092,662	871,100
RSD 13	64,080,249	7,870,147
RSD 14	61,076,960	7,501,292
CCI Cheshire	229,234	28,155
Shared Svcs	6,565,769	806,388
CREC	329,218,126	40,433,597
RSD 15	119,421,515	14,666,997
RSD 16	65,548,597	8,050,485
TRCC (Mohegan)	1,888,061	231,886
Tunxis CTC	2,127,407	261,282
QVCC	616,220	75,682
Odyssey	7,678,702	943,076
CES	48,628,454	5,972,403
ACES	90,861,496	11,159,340
Project Learn	64,981,920	7,980,887
RSD 17	66,501,471	8,167,514
Asnun CTC	669,344	82,207
RSD 18	51,629,190	6,340,945
EASTCONN	29,389,564	3,609,539
BSBE	4,483,926	550,702
RSD 19	40,391,302	4,960,740
UCONN Health	4,469,490	548,930
CCI Niantic	285,871	35,111
Children's CTR	4,505,154	553,310
Bridges Academy	6,106,319	749,960
Common Ground	5,459,143	670,476
Explorations	3,983,344	489,223
Intergrated Day	7,286,834	894,947
Isaac	6,636,353	815,057
Jumoke Academy	12,775,817	1,569,088
Side by Side	4,711,514	578,654

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

SCHEDULE II – PENSION AMOUNTS BY EMPLOYER (CONTINUED)

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

Employer	State of Connecticut's Proportionate Share of the Net Pension Liability Associated with the Employer	Employer Pension Expense and Revenue
Trailblazers Academy	\$ 3,973,997	\$ 488,075
New Beginnings	9,257,024	1,136,920
Elm City CP	6,585,714	808,838
Stamford Academy	2,538,454	311,765
Park City	6,732,002	826,805
AF Bridgeport Academy	6,258,363	768,633
SERC	429,126	52,705
AF Hartford Acad	14,149,296	1,737,774
Brass City	2,639,598	324,187
Path Academy	2,423,814	297,685
Great Oaks Charter	2,686,608	329,960
Booker T. Washington(BTW)	4,183,540	513,810
Capitol Prep Harbor	4,380,314	537,976
Stamford Charter Excellance	2,644,298	324,764
Total	\$ 17,072,720,000	\$ 2,096,821,000

The accompanying notes are an integral part of this schedule.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 1 - ORGANIZATION

The Connecticut Teachers' Retirement System (TRS or the Plan) is the public pension plan offered by the State of Connecticut (the State) to provide retirement, disability, survivorship and health insurance benefits for Connecticut public school teachers and their beneficiaries. The Plan is governed by Connecticut Statute Title 10, Chapter 167a of the Connecticut General Statutes.

TRS is a multiemployer pension plan administered by the Connecticut State Teachers' Retirement Board. The State Treasurer is responsible for investing TRS funds for the exclusive benefit of TRS members.

NOTE 2 - DESCRIPTION OF THE PLAN

PLAN DESCRIPTION

Teachers, principals, superintendents or supervisors engaged in the service of public schools are provided with pensions through the Connecticut Teachers' Retirement System - a cost sharing multi-employer defined benefit pension plan administered by the TRB. Chapter 167a of the State Statutes grants authority to establish and amend the benefit terms to the TRB. TRS issues a publicly available financial report that can be obtained at www.ct.gov.

BENEFIT PROVISIONS

The Plan provides retirement, disability and death benefits. Employees are eligible to retire at 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.

Normal Retirement: Retirement benefits for the employees are calculated as 2% of the average annual salary times the years of credited service (maximum benefit is 75% of average annual salary during the 3 years of highest salary).

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

Early Retirement: Employees are eligible after 25 years of credited service with a minimum of 20 years of Connecticut service, or age 55 with 20 years of credited service with a minimum of 15 years of Connecticut service. Benefit amounts are reduced by 6% per year for the first 5 years preceding normal retirement age and 4% per year for the next 5 years preceding normal retirement age. Effective July 1, 1999, the reduction for individuals with 30 or more years of service is 3% per year by which retirement precedes normal retirement date.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

BENEFIT PROVISIONS (CONTINUED)

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

Disability Retirement: Employees are eligible for service-related disability benefits regardless of length of service. Five years of credited service is required to be eligible for non-service related disability. Disability benefits are calculated as 2% per year of service times the average of the highest three years of pensionable salary, as defined per the Plan, but not less than 15%, nor more than 50%. In addition, disability benefits under this Plan (without regard to cost-of-living adjustments) plus any initial award of Social Security benefits and workers' compensation cannot exceed 75% of average annual salary.

A plan member who leaves service and has attained 10 years of service will be entitled to 100% of the accrued benefit as of the date of termination of covered employment. Benefits are payable at age 60, and early retirement reductions are based on the number of years of service the member would have had if they had continued work until age 60.

Pre-Retirement Death Benefit: The Plan also offers a lump-sum return of contributions with interest or surviving spouse benefit depending on length of service.

CONTRIBUTIONS

STATE OF CONNECTICUT

Per Connecticut General Statutes Section 10-183z (which reflects Public Act 79-436 as amended), contribution requirements of active employees and the State are amended and certified by the TRB and appropriated by the General Assembly. The contributions are actuarially determined as an amount that, when combined with employee contributions and investment earnings, is expected to finance the costs of the benefits earned by employees during the year, with any additional amounts to finance any unfunded accrued liability.

EMPLOYER (SCHOOL DISTRICTS)

School district employers are not required to make contributions to the Plan, as contributions are required only from employees and the State.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

CONTRIBUTIONS (CONTINUED)

EMPLOYEES

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

Effective January 1, 2018, the required contribution increased to 7% of pensionable salary.

ADMINISTRATIVE EXPENSES

Administrative expenses of the Plan are to be paid by the General Assembly per Section 10-183r of the Connecticut General Statutes.

NOTE 3 - RELATIONSHIP TO FINANCIAL STATEMENTS

The components associated with pension expense and deferred inflows and outflows of resources have been determined based on fiduciary net position as audited by the State of Connecticut Auditors of Public Accounts as part of the State of Connecticut Comprehensive Annual Financial Report as of and for the year ended June 30, 2019. The net pension liability at June 30, 2019 has been calculated using the audited amounts. TRS is included in the State of Connecticut audit as a pension trust fund.

NOTE 4 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The schedule of employer allocations and schedule of pension amounts by employer (the schedules) are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America. The schedules present amounts that are elements of financial statements of TRS or its participating employers. Accordingly, they do not purport to be a complete presentation of the net position or changes in net position of TRS or its participating employers.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 4 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

BASIS OF PRESENTATION (CONTINUED)

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, requires participating employers to recognize their proportional share of the collective net pension liability, deferred inflows and outflows of resources and pension expense. The schedules have been prepared to provide employers with their proportional share of these amounts. Contributions remitted by the State are recognized when legally due, based upon statutory requirements.

USE OF ESTIMATES

The preparation of the schedules requires management to make estimates and assumptions relating to the reported amounts. Due to the inherent nature and uncertainty of these estimates, actual results could differ, and the differences may be material.

ALLOCATION METHODOLOGY

The schedules contained within this report for participating employers are based on the expected contribution effort as measured June 30, 2018, the date of the latest biennial valuation. The liabilities of the June 30, 2018 actuarial valuation were rolled forward to the measurement date of June 30, 2019. The employer allocations were then applied to the net pension liability and pension expense to determine the amount applicable to each employer.

Based upon the employee contributions made by the employees of each employer, as compared to the total employee contributions, an employer allocation percentage is calculated to six decimal places and is used to allocate the elements noted above.

NOTE 5 - COLLECTIVE NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

The components of the current year collective net pension liability of participating employers, which are based upon the actuarial valuation date of June 30, 2018 and a measurement date of June 30, 2019, were as follows:

Employers' total pension liability	\$ 35,566,175,000
Less: Plan fiduciary net position	<u>18,493,455,000</u>
Total employers' net pension liability	<u>\$ 17,072,720,000</u>
Fiduciary net position as a percentage of total pension liability	<u>52.00%</u>

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 6 - ACTUARIAL ASSUMPTIONS AND RELATED DISCLOSURES

ACTUARIAL ASSUMPTIONS

The total pension liability was determined by an actuarial valuation as of June 30, 2018 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increase	3.25-6.50%, including inflation
Investment rate of return	6.90%, net of pension plan investment expense, including inflation
Administrative expenses	\$0 assumption as expenses are paid for by the General Assembly

Mortality rates were based on the RPH-2014 White Collar table with employee and annuitant rates blended from ages 50 to 80, projected to the year 2020 using the BB improvement scale.

Future cost-of-living increases for teachers who retired prior to September 1, 1992, are made in accordance with increases in the Consumer Price Index, with a minimum of 3% and a maximum of 5% per annum. For teachers who were members of the Teachers' Retirement System before July 1, 2007, and retire on or after September 1, 1992, pension benefit adjustments are made that are consistent with those provided for Social Security benefits on January 1 of the year granted, with a maximum of 6% per annum. If the return on assets in the previous year was less than 8.5%, the maximum increase is 1.5%. For teachers who were members of TRS after July 1, 2007, pension benefit adjustments are made that are consistent with those provided for Social Security benefits on January 1 of the year granted, with a maximum of 5% per annum. If the return on assets in the previous year was less than 11.5%, the maximum increase is 3%, and if the return on the assets in the previous year was less than 8.5%, the maximum increase is 1.0%.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 6 - ACTUARIAL ASSUMPTIONS AND RELATED DISCLOSURES (CONTINUED)

LONG-TERM RATE OF RETURN

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

Asset Class	Expected Return	Target Allocation	Standard Deviation
Public Equity - US Equity	8.1%	20.0%	17.0%
Public Equity - International Developed Equity	8.5%	11.0%	19.0%
Public Equity - Emerging Markets Equity	10.4%	9.0%	24.0%
Fixed Income - Core Fixed Income	4.6%	16.0%	7.0%
Fixed Income - Inflation Linked Bonds	3.6%	5.0%	7.0%
Fixed Income - High Yield	6.5%	6.0%	11.0%
Fixed Income - Emerging Market Debt	5.2%	5.0%	11.0%
Private Equity	9.8%	10.0%	23.0%
Real Estate	7.0%	10.0%	15.0%
Alternative Investments - Real Assets	8.2%	4.0%	17.0%
Alternative Investments - Hedge Funds	5.4%	3.0%	7.0%
Liquidity Fund	2.9%	1.0%	1.0%

The geometric rates of expected return shown in the table above are nominal returns net of investment expenses.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 6 - ACTUARIAL ASSUMPTIONS AND RELATED DISCLOSURES (CONTINUED)

DISCOUNT RATE

The discount rate used to measure the total pension liability was 6.90%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that the State contributions will be made at the actuarially determined rates in future years. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following presents the net pension liability, calculated using the discount rate of 6.90% as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease (5.90%)	Current Discount (6.90%)	1% Increase (7.90%)
Collective net pension liability	\$21,296,573,000	\$17,072,720,000	\$13,521,724,000

NOTE 7 - COMPONENTS OF SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

NET PENSION LIABILITY

The participating employer's proportionate share of the collective net pension liability is calculated using the employer allocation percentage.

DIFFERENCE BETWEEN EXPECTED AND ACTUAL EXPERIENCE

The difference between expected and actual experience for economic and demographic factors is amortized over the average of the expected remaining service life of active and inactive plan members. The weighted-average is 6.41 years for the year ended June 30, 2019. In the year that the difference occurs, one year is amortized and recognized as pension expense. The balance is recorded as a deferred inflow or outflow and recognized in future periods.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 7 - COMPONENTS OF SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED)

DIFFERENCE BETWEEN EXPECTED AND ACTUAL EXPERIENCE (CONTINUED)

The collective difference between expected and actual experience as of June 30, 2019 is \$425,400,000. For the year ended June 30, 2019, no amortization was recognized as pension expense.

CHANGES IN ACTUARIAL ASSUMPTIONS

The collective amount due to changes in actuarial assumptions as of June 30, 2019 is \$4,184,542,000. For the year ended June 30, 2019, no amortization was recognized as pension expense.

CHANGES IN EMPLOYER PROPORTIONAL SHARE

For the year ended June 30, 2019 there were no changes to the employer proportional share and no impact to the individual employers and each employer's proportional share.

NET DIFFERENCE BETWEEN PROJECTED AND ACTUAL INVESTMENT EARNINGS ON PENSION PLAN INVESTMENTS

Deferred outflows and inflows related to differences between projected and actual earnings on plan investments are netted and amortized over a closed five-year period. The collective amount of the net difference between projected and actual investment earnings compared to the Plan's expected rate of return of 6.90% was \$283,560,000. Amortization of the preceding net difference which relates to projected earnings on plan investments of \$1,417,128,000 is recognized within pension expense and the remaining amount is shown as a deferred outflow of resources.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 7 - COMPONENTS OF SCHEDULE OF PENSION AMOUNTS BY EMPLOYER (CONTINUED)

DEFERRED OUTFLOWS AND DEFERRED INFLOWS OF RESOURCES

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

	Collective Deferred Outflows of Resources	Collective Deferred Inflows of Resources
Differences between expected and actual experience	\$ --	\$ 425,400,000
Changes of assumptions	4,184,542,000	--
Net difference between projected and actual earnings on plan investments	283,560,000	--
	<u>\$ 4,468,102,000</u>	<u>\$ 425,400,000</u>
Net deferred outflows and inflows	<u>\$ 4,042,702,000</u>	
Amounts to be recognized in subsequent fiscal years:		
2020	\$ 996,173,000	
2021	722,748,000	
2022	867,225,000	
2023	622,819,000	
2024	585,821,000	
2025	247,916,000	
	<u>\$ 4,042,702,000</u>	

The above amounts do not include the deferred outflows/inflows of resources for employer contributions made subsequent to the measurement date. These amounts should be calculated and recorded by each participating employer.

CONNECTICUT TEACHERS' RETIREMENT SYSTEM

NOTES TO SCHEDULE OF EMPLOYER ALLOCATIONS AND SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED JUNE 30, 2019

NOTE 8 - COLLECTIVE PENSION EXPENSE

Collective pension expense includes certain current period changes in the collective net pension liability, projected earnings on pension plan investments and the amortization of deferred outflows of resources and deferred inflows of resources for the current period. The collective pension expense was \$2,096,821,000 calculated as follows:

Service cost at end of year	\$ 463,997,000
Interest on the total pension liability and net cash flow	2,406,206,000
Current-period benefit changes	(224,281,000)
Expensed portion of current period changes of assumptions	604,680,000
Member contributions	(309,333,000)
Projected earnings on plan investments	(1,417,128,000)
Expensed portion of current-period differences between projected and actual earnings on plan investments	81,008,000
Other	837,000
Recognition of beginning deferred outflows of resources as pension expense	608,887,000
Recognition of beginning deferred inflows of resources as pension expense	<u>(118,052,000)</u>
Collective pension expense	<u>\$ 2,096,821,000</u>

NOTE 9 - SUBSEQUENT EVENT

In March 2020, the World Health Organization declared the outbreak of a novel coronavirus (COVID-19) as a pandemic which continues to spread through the United States. As of the date the financial statements were available to be issued, there was considerable uncertainty around the expected duration of this pandemic. The full impact of the COVID-19 outbreak continues to evolve as of the date of this report. At this point, the extent to which COVID-19 may impact the Plan's financial condition, and changes in the fair value of its investments or results of operations cannot be reasonably estimated at this time.

In preparing these financial statements, the Plan has evaluated events and transactions for potential recognition or disclosure through June 18, 2020, the date the financial statements were available to be issued. Except as disclosed above, there were no subsequent events that require recognition or disclosure in these financial statements.

June 18 , 2020

To The Retirement Board
Connecticut Teachers' Retirement System
765 Asylum Avenue
Hartford, CT 06105

Re: Required communications between Marcum and Those Charged With Governance

In accordance with auditing standards generally accepted in the United States of America ("GAAS"), Marcum LLP ("Marcum" or the "Firm"), as auditors of the schedule of employer allocations and schedule of pension amounts by employer of Connecticut Teachers' Retirement System (the "Plan"), is required to determine that certain matters related to the conduct of our audit are communicated to the body or individuals (including management) charged with governance (hereafter referred to as the "Those Charged with Governance"). GAAS requires the auditor to ensure that Those Charged with Governance receive additional information regarding the scope and results of the audit that may assist them in overseeing the financial reporting and disclosure process, for which management is responsible.

1. The Auditor's Responsibility under U.S. Generally Accepted Auditing Standards

Marcum is responsible to communicate the auditor's responsibilities under GAAS.

As stated in our engagement letter dated February 3, 2020 our responsibility, as described by professional standards, is to form and express an opinion about whether the schedule of employer allocations and schedule of pension amounts by employer of the Connecticut Teachers' Retirement System have been prepared by management with your oversight are presented fairly, in all material respects, in conformity with accounting principles general accepted in the United States of America ("GAAP"). Our audit of the schedule of employer allocations and schedule of pension amounts by employer does not relieve you or management of your respective responsibilities.

Our responsibility, as prescribed by professional standards, is to plan and perform our audit to obtain reasonable, rather than absolute, assurance about whether the schedule of employer allocations and schedule of pension amounts by employer are free of material misstatement. An audit of such schedules includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, as part of our audit, we considered the internal control of the Plan solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are also responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you.

2. Planned Scope and Timing of the Audit

The auditor should communicate an overview of the planned scope and timing of the audit. This communication may assist Those Charged With Governance in better understanding the consequences of the auditor's work for their oversight activities, discussing with the auditor issues of risk and materiality, and identifying any areas in which they may request the auditor to undertake additional procedures. Such communication may also assist the auditor in better understanding the Plan and its environment. Nevertheless, the auditor maintains sole responsibility to determine the overall audit strategy and the audit plan, including the nature, timing and extent of procedures necessary to obtain sufficient appropriate audit evidence.

We conducted our audit consistent with the planned scope and timing we previously communicated to you. We would be pleased to meet with you to further discuss any of the following matters at your request:

- *The allocation of responsibilities between Those Charged With Governance and management.*
- *The Plan's objectives and strategies, and the related business risks that may result in material misstatements.*
- *Matters you have identified that warrant particular attention during the audit, and any areas where you request additional procedures to be undertaken.*
- *Significant communications with regulators.*
- *Other matters you believe are relevant to the audit of the financial statements.*
- *The attitudes, awareness, and actions of Those Charged With Governance concerning (a) the Plan's internal control and its importance in the Plan, including how Those Charged With Governance oversee the effectiveness of internal control and (b) the detection or the possibility of fraud.*
- *The actions of Those Charged With Governance in response to developments in financial reporting, laws, accounting standards, corporate governance practices, and other related matters.*
- *The actions of Those Charged With Governance in response to previous communications with the auditor.*

3. Qualitative Aspects of the Plan's Significant Accounting Policies

The Connecticut Teachers' Retirement System's significant policies are described in Note 4 to the financial schedules. There are no specific matters that we believe should be communicated to you. However, we would be pleased to meet with you at your convenience to discuss your significant accounting policies. Since the primary responsibility for establishing the Plan's accounting principles rests with management, such a discussion should generally include the Plan's management as a participant.

4. Management Judgments and Significant Accounting Estimates

The most sensitive accounting estimates affecting the financial schedules relate to the actuarial assumptions and disclosures around the valuation to calculate the total employer pension allocations and liability.

5. Financial Statement Disclosures

The financial schedules' disclosures are neutral, consistent and clear. The most sensitive disclosures affecting the Plan's financial schedules are described in Note 6 – Actuarial Assumptions and Related Disclosures.

6. Significant Difficulties Encountered During the Audit

We encountered no significant difficulties in dealing with management relating to the performance of the audit.

7. Uncorrected and Corrected Misstatements

We did not identify any material misstatements that resulted from the performance of our audit procedures.

8. Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, which could be significant to the Plan's financial statements or the auditor's report. However, a disagreement does not include a difference of opinion based on incomplete facts or preliminary information that is later resolved.

There were no such disagreements.

9. Representations Requested from Management

See the attached copy of the representation letter from management.

10. Management Consultations with Other Accountants

When the auditor is aware that management has consulted with other accountants about significant accounting or auditing matters, the auditor's views about the subject of the consultation should be communicated to Those Charged With Governance.

To our knowledge, no such consultations were made by management.

11. Other Audit Findings or Issues

During the course of our audit, we reviewed the GASB Statement No. 68 Report for the Connecticut Teachers' Retirement System prepared as of June 30, 2018 and provided to us. While we did not note any material variances or differences in assumptions or calculations, we do have several best practice recommendations for Plan management to consider.

- *Expected returns included on page 5 of the GASB Statement No. 68 Report are total expected rates of return. GASB Statement No. 68 requires reporting of the real rate of return, net of inflation. It is recommended that CMC restate these rates to exclude the inflation component for purposes of accounting disclosure.*
- *The return rates included on page 5 of the GASB Statement No. 68 Report are geometric rates, whereas arithmetic rates were reported in prior years. While the use of both rates are allowed by GASB, disclosure of the change is required. It is recommended that the change to geometric rates from arithmetic rates be disclosed.*
- *It is recommended that the GASB report explicitly state that administrative expenses paid from System assets are assumed to be \$0.*

12. Fraud or violations of Laws and Regulations

There were no fraud or violations of laws and regulations that came to our attention during the course of our audit.

13. Independence

In order to issue an auditor's report, Marcum must be independent from the Plan in accordance with professional standards. The auditor may choose to communicate circumstances or relationships, such as financial interests, business or family relationships or nonaudit services provided or expected to be provided, that in the auditor's judgment may reasonably be thought to bear on independence, and that the auditor gave significant consideration to in reaching the conclusion that independence has not been impaired.

There are no matters identified that impair our independence.

This report is intended solely for the information and use of the Retirement Board, and management of the Connecticut Teachers' Retirement System and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,



Marcum LLP



CT TEACHERS' RETIREMENT BOARD

765 ASYLUM AVENUE 2ND FLOOR HARTFORD, CT 06105-2822
Toll Free 1-800-504-1102 Local (860) 241-8400 Fax (860) 241-9295
"An Affirmative Action/Equal Opportunity Employer"
www.ct.gov/trb

Marcum LLP
Accountants & Advisors
555 Long Wharf Drive
New Haven, CT 06511

This representation letter is provided in connection with your audit of the schedule of employer allocations and schedule of pension amounts by employer (the Schedules) of the Connecticut Teachers' Retirement System (the Plan), as of and for the year ended June 30, 2019, and the related notes to the Schedules, for the purpose of expressing an opinion as to whether the Schedules are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement. An omission or misstatement that is monetarily small in amount could be considered material as a result of qualitative factors.

We confirm, to the best of our knowledge and belief, the following representations made to you during your audit:

1. We confirm that we are responsible for the fair presentation of the schedule of employer allocations and schedule of pension amounts by employer in conformity with accounting principles generally accepted in the United States of America. The Schedules and related footnotes are fairly presented in conformity with accounting principles generally accepted in the United States of America and the footnotes include all disclosures required by laws and regulations to which the Plan is subject.
2. We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated February 3, 2020, including our responsibility for the preparation and fair presentation of the Schedules and note disclosures.
3. We have made available to you all –
 - a. financial records and related data.
 - b. minutes of the meetings of the Connecticut State Teachers' Retirement Board, or summaries of actions of recent meetings for which minutes have not yet been prepared. The last such meeting was held on February 19, 2020.

- c. Plan instruments, trust agreements, insurance contracts, or investment contracts and amendments to such documents entered into during the year, including amendments to comply with applicable laws.
 - d. actuarial reports prepared for the Plan and the Plan's sponsor during the year.
4. There have been no communications from regulatory agencies concerning noncompliance with, or deficiencies in, financial reporting practices that could have a material effect on the financial statements in the event of noncompliance.
5. We acknowledge our responsibility for the design and implementation of programs and controls to prevent and detect fraud.
6. We understand that there are no corrected or uncorrected misstatements on the Schedules proposed by you during the engagement.
7. We have no knowledge of any fraud or suspected fraud affecting the entity involving:
 - a. management
 - b. employees who have significant roles in internal control, or
 - c. others where the fraud could have a material effect on the financial statements.
8. We have no knowledge of any allegations of fraud or suspected fraud affecting the entity that has been received in communications from employees, former employees, analysts, regulators, or others.
9. We have no –
 - a. plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
 - b. intentions to terminate the Plan.
10. The following have been properly recorded or disclosed in the notes to the Schedules:
 - a. guarantees whether written or oral under which the Plan is contingently liable.
 - b. amendments to the Plan instruments if any.
11. All significant estimates and material concentrations known to management are disclosed in accordance with GASB Statement No, 68, *Accounting and Financial Reporting for Pensions*. We understand that the preparation of these Schedules requires a number of estimates and assumptions and that due to the inherent nature and uncertainty of these estimates, actual results could differ, and the differences may be material.

12. We have provided you with:
 - a. Access to all information, of which we are aware, that is relevant to the preparation and fair presentation of the Schedules, such as records, documentation, and other matters.
 - b. Additional information that you have requested from us for the purpose of the audit.
 - c. Unrestricted access to persons within the plan from whom you determined it necessary to obtain audit evidence.
 - d. Plan instruments, trust agreements, insurance contracts, or investment contracts and amendments to such documents entered into during the year, including amendments to comply with applicable laws.

13. There are no –
 - a. Instances of noncompliance or suspected noncompliance with laws or regulations whose effects should be considered for disclosure in the Notes to the Schedules, as a basis for recording a loss contingency, or otherwise when preparing the Schedules.
 - b. other liabilities or gain or loss contingencies that are required to be accrued or disclosed by ASC 450 *Accounting for Contingencies*.
 - c. material transactions that have not been properly recorded in the accounting records underlying the financial statements.
 - d. cybersecurity breaches or other cyber events whose effects should be considered for disclosure in the financial statements, as a basis for recording a loss contingency, or otherwise considered when preparing the financial statements.
 - e. there were no omissions from the participants' data provided to the Plan's actuary for the purpose of determining the schedule of employer allocations and schedule of pension amounts by employer.

14. We are not aware of any pending or threatened litigation, claims or assessments or unasserted claims that are required to be accrued or disclosed in accordance with ASC 450 *Accounting for Contingencies*, and we have not consulted a lawyer concerning litigation, claims or assessments. Further, the Connecticut Teachers' Retirement Board has not engaged an attorney on behalf of the Plan.

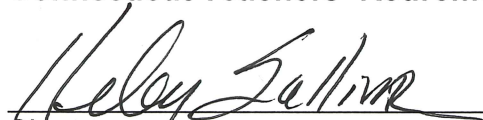
15. The Connecticut Teachers' Retirement System agrees with the actuarial methods and assumptions used by the actuary for allocation purposes and for determining the schedule of employer allocations and schedule of pension amounts by employer and has no knowledge or belief that such methods or assumptions are inappropriate in the circumstances. We did not give any, nor cause any, instructions to be given to the Plan's actuary with respect to values or amounts derived, and we are not aware of any matters that have impacted the independence or objectivity of the Plan's actuary.

16. The following have been properly recorded or disclosed in the Schedules :
 - a. the actuarial methods or assumptions used in calculating amounts recorded or disclosed in the schedule of employer allocations and schedule of pension amounts by employer.
 - b. plan provisions between the actuarial valuation date and the date of this letter.
 - c. contractual agreements that would have a material effect on the Schedules in the event of noncompliance. The Plan has complied with all aspects of contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
17. Expected employer contribution effort for allocation purposes for the year ended June 30, 2019 was \$1,292,314,000 and the State of Connecticut's proportionate share of the net pension liability associated with employers under the Connecticut Teachers' Retirement System as of June 30, 2019, was \$17,072,720,000. Management agrees with the value of the employer allocations and pension liability amounts by employer and accepts responsibility for their valuation.
18. All required filings of Plan (trust) documents with the appropriate agencies have been made.
19. All liens, encumbrances, or security interest requiring disclosure in the financial statements have been properly disclosed.
20. Administrative expense paid by the General Assembly sponsor on behalf of the Plan will not be reimbursed by the Plan.
21. We have apprised you of all communications, whether written or oral, with regulatory agencies concerning the operation of the Plan.
22. We have a process to track the status of audit recommendations.
23. The schedules properly classify all funds and activities in accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*.
24. The Connecticut Teachers' Retirement System has:
 - a. made all management decisions and performed all management functions relating to the accounting services that you have provided.
 - b. established and maintained internal controls including monitoring ongoing activities relating to the accounting services that you have provided.
 - c. evaluated the adequacy and results of the accounting services performed and accepts responsibility for the results of the services that you have provided.
 - d. designated a competent management level individual to oversee the services that you have provided.
25. You have provided us with all documents and records for both the current year and for prior years that are necessary to ensure that our books and records are complete.

26. We have performed an assessment of whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time (defined as the time within one year after the date that the financial statements are issued, or available to be issued, where applicable). In assessing the appropriateness of the going concern basis for the Plan, we have taken account of all relevant information covering a reasonable period of time. We are not aware of any conditions or events beyond such reasonable period of time that may have an effect on Plan's ability to continue as a going concern.
27. In assessing the appropriateness of the going concern basis for the Plan, we have taken account of all relevant information covering a period of at least 12 months from the year end date of the financial statements.

To the best of our knowledge and belief, no events have occurred subsequent to the financial statement date and through the date of this letter that would require adjustment to, or disclosure in, the financial statements.


Connecticut Teachers' Retirement System




Signature



Helen Sullivan
Administrator



Date



Signature



Loc Pho
Fiscal Administrative Manager



Date