

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**

Schedule of Nonemployer Allocations and  
Schedule of Collective Pension Amounts

June 30, 2019

(With Independent Auditors' Report Thereon)



KPMG LLP  
Two Financial Center  
60 South Street  
Boston, MA 02111

## Independent Auditors' Report

Mr. William McNamara, Comptroller  
Commonwealth of Massachusetts:

We have audited the accompanying schedule of nonemployer allocations of the Massachusetts Teachers' Retirement System (MTRS) as of and for the year ended June 30, 2019, and the related notes. We have also audited the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total nonemployer pension expense (specified column totals) included in the accompanying schedule of collective pension amounts of MTRS as of and for the year ended June 30, 2019, and the related notes.

### *Management's Responsibility for the Schedules*

Management is responsible for the preparation and fair presentation of these schedules in accordance with U.S. generally accepted accounting principles; 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 opinions on the schedule of nonemployer allocations and the specified column totals included in the schedule of collective pension amounts 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 schedule of nonemployer allocations and the specified column totals included in the schedule of collective pension amounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of nonemployer allocations and the specified column totals included in the schedule of collective pension amounts. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the schedule of nonemployer allocations and the specified column totals included in the schedule of collective pension amounts, 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 schedule of nonemployer allocations and the specified column totals included in the schedule of collective pension amounts 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 schedule of nonemployer allocations and the specified column totals included in the schedule of collective pension amounts.

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



*Opinions*

In our opinion, the schedules referred to above present fairly, in all material respects, the nonemployer allocations, net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total nonemployer pension expense for MTRS as of and for the year ended June 30, 2019, in accordance with U.S. generally accepted accounting principles.

*Supplemental Information*

The supplemental schedule of employer allocations of special funding amounts, the supplemental schedule of special funding amounts by employer, and related notes have not been subject to the auditing procedures applied in the audit of the schedule of nonemployer allocations and the schedule of collective pension amounts, and accordingly, we do not express an opinion or provide any assurance on them.

*Restriction on Use*

Our report is intended solely for information and use of MTRS management and board, MTRS employers and their auditors, and the Commonwealth of Massachusetts, and is not intended to be and should not be used by anyone other than these specified parties.

*KPMG LLP*

Boston, Massachusetts  
April 17, 2020

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SCHEDULE OF NONEMPLOYER ALLOCATIONS**  
As of and for the fiscal year ended June 30, 2019

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Nonemployer	Nonemployer Contributions	Allocation Percentage
Commonwealth of Massachusetts.....	\$ 1,443,710,000	100.00000%

See accompanying notes to schedule of nonemployer allocations and schedule of collective pension amounts.

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**

SCHEDULE OF COLLECTIVE PENSION AMOUNTS

As of and for the fiscal year ended June 30, 2019

	Net Pension Liability	Deferred Outflows of Resources			Deferred Inflows of Resources			Pension Expense
		Differences Between Expected and Actual Experience	Changes of Assumptions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Net Differences Between Projected and Actual Investment Earnings on Pension Plan Investments	Total Deferred Inflows of Resources	Total Nonemployer Pension Expense
Commonwealth of Massachusetts.....	<u>\$ 25,214,020,000</u>	<u>\$ 158,508,076</u>	<u>\$ 2,255,227,922</u>	<u>\$ 2,413,735,998</u>	<u>\$ 26,266,935</u>	<u>\$ 225,238,200</u>	<u>\$ 251,505,135</u>	<u>\$ 3,057,637,552</u>

See accompanying notes to schedule of nonemployer allocations and schedule of collective pension amounts.

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
Notes to Schedule of Nonemployer Allocations and  
Schedule of Collective Pension Amounts  
June 30, 2019

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**NOTE 1 - PLAN DESCRIPTION**

The Massachusetts Teachers' Retirement System (MTRS) is a public employee retirement system (PERS) that administers a cost-sharing multiple employer defined benefit pension plan, as defined in Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans*. MTRS is managed by the Commonwealth on behalf of municipal teachers and municipal teacher retirees. The Commonwealth is a nonemployer contributing entity and is responsible for all contributions and future benefit requirements of the MTRS. The MTRS covers certified teachers in cities (except Boston), towns, regional school districts, charter schools, educational collaboratives and Quincy College. The MTRS is part of the Commonwealth's reporting entity and does not issue a stand-alone audited financial report.

Management of MTRS is vested in the Massachusetts Teachers' Retirement Board (MTRB), which consists of seven members-two elected by the MTRS members, the State Treasurer (or their designee), the State Auditor (or their designee), a member appointed by the Governor, the Commissioner of Education (or their designee), who serves ex-officio as the Chairman of the MTRB and one who is chosen by the six other MTRB members.

**Benefits provided.** MTRS provides retirement, disability, survivor and death benefits to members and their beneficiaries. Massachusetts General Laws (MGL) establishes uniform benefit and contribution requirements for all contributory PERS. These requirements provide for superannuation retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For employees hired after April 1, 2012, retirement allowances are calculated on the basis of the last five years or any five consecutive years, whichever is greater in terms of compensation. Benefit payments are based upon a member's age, length of creditable service, group creditable service, and group classification. The authority for amending these provisions rests with the Legislature.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of creditable service or upon reaching the age of 55 with ten years of service. Normal retirement for most employees occurs at age 65. Most employees who joined the system after April 1, 2012 cannot retire prior to age 60.

The MTRS' funding policies have been established by Chapter 32 of the MGL. The Legislature has the authority to amend these policies. The annuity portion of the MTRS retirement allowance is funded by employees, who contribute a percentage of their regular compensation. Costs of administering the plan are funded out of plan assets.

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
Notes to Schedule of Nonemployer Allocations and  
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June 30, 2019

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Member contributions for MTRS vary depending on the most recent date of membership:

Hire Date	% of Compensation
Prior to 1975.....	5% of regular compensation
1975 - 1983.....	7% of regular compensation
1984 to 6/30/1996.....	8% of regular compensation
7/1/1996 to present.....	9% of regular compensation
7/1/2001 to present.....	11% of regular compensation (for teachers hired after 7/1/01 and those accepting provisions of Chapter 114 of the Acts of 2000)
1979 to present.....	An additional 2% of regular compensation in excess of \$30,000

In addition, members who join the system on or after April 2, 2012 will have their withholding rates reduced to 8% for those participating in Retirementplus otherwise the withholdings are reduced to 6% plus 2% on earnings over \$30,000 a year after achieving 30 years of creditable service.

**NOTE 2 - BASIS OF PRESENTATION**

The Schedule of Nonemployer Allocations and Schedule of Collective Pension Amounts (the Schedules) present amounts that are elements of the financial statements of the MTRS and the Commonwealth of Massachusetts as the nonemployer entity. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of the MTRS or the Commonwealth of Massachusetts. The amounts presented in the Schedules were prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of the MTRS to make a number of estimates and assumptions related to the reported amounts. Actual results could differ from those estimates.

**NOTE 3 - SPECIAL FUNDING SITUATION**

The Commonwealth is a nonemployer contributing entity and is required by statute to make all actuarially determined employer contributions on behalf of the member employers. Therefore, these employers are considered to be in a special funding situation as defined by GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* and the Commonwealth is a nonemployer contributing entity in MTRS. Since the employers do not contribute directly to MTRS, there is no net pension liability to recognize for each employer. However, the notes to the financial statements must disclose the portion of the nonemployer contributing entities' share of the collective net pension liability that is associated with the employer. In addition, each employer must recognize its portion of the collective pension expense as both a revenue and pension expense.

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
Notes to Schedule of Nonemployer Allocations and  
Schedule of Collective Pension Amounts  
June 30, 2019

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**NOTE 4 - COLLECTIVE NET PENSION LIABILITY**

The collective net pension liability at June 30, 2019 was as follows (amounts in thousands):

Total pension liability.....	\$	54,751,000
Less:		
Plan fiduciary net position.....		29,536,980
Net pension liability.....	\$	25,214,020
 Plan fiduciary net position as a percentage of total pension liability.....		 53.95%

***Actuarial Assumptions***

The total pension liability for the June 30, 2019 measurement date was determined by an actuarial valuation as of January 1, 2019 rolled forward to June 30, 2019. This valuation used the following assumptions:

1. (a) 7.25% investment rate of return, (b) 3.50% interest rate credited to the annuity savings fund and (c) 3.00% cost of living increase on the first \$13,000 of allowance per year.
2. Salary increases are based on analyses of past experience but range from 4.0% to 7.5% depending on length of service.
3. Mortality rates were as follows:
  - Pre-retirement - reflects RP-2014 White Collar Employees Table projected generationally with Scale MP-2016 (gender distinct).
  - Post-retirement - reflects RP-2014 White Collar Healthy Annuitant Table projected generationally with Scale MP-2016 (gender distinct).
  - Disability - assumed to be in accordance with the RP-2014 White Collar Healthy Annuitant Table projected generationally with Scale MP-2016 (gender distinct).
4. Experience study was performed as follows:
  - Dated July 21, 2014 and encompasses the period January 1, 2006 to December 31, 2011, updated to reflect post-retirement mortality through January 1, 2017.

Investment assets of the MTRS are with the Pension Reserves Investment Trust (PRIT) Fund. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future rates of return 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 rates of return by the target asset allocation percentage. Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2019 are summarized in the following table:



**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
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Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity.....	39.0%	4.9%
Core Fixed Income.....	15.0%	1.3%
Private Equity.....	13.0%	8.2%
Portfolio Completion Strategies....	11.0%	3.9%
Real Estate.....	10.0%	3.6%
Value Added Fixed Income.....	8.0%	4.7%
Timberland/Natural Resources....	4.0%	4.1%
Total.....	100.0%	

***Discount Rate***

The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and the Commonwealth's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rates. Based on those assumptions, the 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 Analysis***

The following illustrates the sensitivity of the collective net pension liability to changes in the discount rate as of June 30, 2019. In particular, the table presents the MTRS collective net pension liability assuming it was calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the current discount rate (amounts in thousands):

1% Decrease to 6.25%	Current Discount Rate 7.25%	1% Increase to 8.25%
\$ 31,232,100	\$ 25,214,020	\$ 20,062,500

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
Notes to Schedule of Nonemployer Allocations and  
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June 30, 2019

**NOTE 5 - DEFERRED OUTFLOW AND INFLOW OF RESOURCES**

The following table summarizes the changes in both deferred outflows and deferred inflows of resources (amounts in thousands):

	Year of Deferral	Amortization Period	Balance July 1, 2018	Additions	Deletions	Balance June 30, 2019
<b>Deferred Outflows of Resources:</b>						
Difference between expected and actual experience.....	2015	6.2 years	\$ 54,291	\$ -	\$ (24,677)	\$ 29,614
	2017	6.2 years	31,869	-	(7,588)	24,281
	2018	6.1 years	77,183	-	(15,134)	62,049
	2019	6.1 years	-	50,910	(8,346)	42,564
Subtotal.....			<u>163,343</u>	<u>50,910</u>	<u>(55,745)</u>	<u>158,508</u>
Change of assumptions.....	2014	6.1 years	19,475	-	(17,705)	1,770
	2015	6.2 years	1,092,905	-	(496,776)	596,129
	2017	6.2 years	796,644	-	(189,675)	606,969
	2018	6.1 years	706,475	-	(138,525)	567,950
	2019	6.1 years	-	577,000	(94,590)	482,410
Subtotal.....			<u>2,615,499</u>	<u>577,000</u>	<u>(937,271)</u>	<u>2,255,228</u>
Total deferred outflows of resources.....			<u>\$ 2,778,842</u>	<u>\$ 627,910</u>	<u>\$ (993,016)</u>	<u>\$ 2,413,736</u>
<b>Deferred Inflows of Resources:</b>						
Difference between expected and actual experience.....	2016	6.2 years	\$ (38,207)	\$ -	\$ 11,940	\$ (26,267)
Net difference between projected and actual earnings on plan investments.....	2015	5 years	215,205	-	(215,205)	-
	2016	5 years	564,998	-	(282,499)	282,499
	2017	5 years	(768,870)	-	256,290	(512,580)
	2018	5 years	(478,541)	-	119,635	(358,906)
	2019	5 years	-	454,686	(90,937)	363,749
Subtotal.....			<u>(467,208)</u>	<u>454,686</u>	<u>(212,716)</u>	<u>(225,238)</u>
Total deferred inflows of resources.....			<u>\$ (505,415)</u>	<u>\$ 454,686</u>	<u>\$ (200,776)</u>	<u>\$ (251,505)</u>

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
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Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in the collective pension expense as follows (amounts in thousands):

Fiscal Year Ending June 30	
2020.....	\$ 962,653
2021.....	261,223
2022.....	422,774
2023.....	386,985
2024.....	118,302
Thereafter.....	<u>10,295</u>
 Total.....	 <u>\$ 2,162,231</u>

**NOTE 6 - COLLECTIVE PENSION EXPENSE**

The following table shows the components of pension expense as of June 30, 2019 (amounts in thousands):

Service cost.....	\$	949,262
Interest on the total pension liability.....		3,763,191
Employee contributions.....		(782,431)
Projected earnings on plan investments.....		(2,039,456)
Transfers and reimbursements from other systems.....		(73,491)
Member make up, redeposits and payments from rollovers.....		(14,357)
Other reimbursements.....		(3,538)
Administrative expense.....		18,324
Other changes.....		46,342
Recognition (amortization) of deferred outflows and inflows of resources:		
Differences between expected and actual experience.....		43,805
Differences between projected and actual earnings on plan investments.....		212,716
Changes of assumptions.....		<u>937,271</u>
 Pension expense.....	 \$	 <u>3,057,638</u>

**SUPPLEMENTAL INFORMATION**  
**(SEE ACCOMPANYING INDEPENDENT AUDITORS' REPORT)**  
**(UNAUDITED)**

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
 SUPPLEMENTAL SCHEDULE OF EMPLOYER ALLOCATIONS OF SPECIAL FUNDING AMOUNTS  
 As of and for the fiscal year ended June 30, 2019  
 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
0100-ABINGTON PUBLIC SCHOOLS.....	\$ 2,831,802	0.196148%
0110-ACTON-BOXBOROUGH REGIONAL SCHOOL.....	8,437,069	0.584402%
0115-ACUSHNET PUBLIC SCHOOLS.....	1,319,954	0.091428%
0120-ADAMS-CHESHIRE REGIONAL SCHOOLS.....	1,596,482	0.110582%
0125-AGAWAM PUBLIC SCHOOLS.....	6,146,154	0.425719%
0130-AMESBURY PUBLIC SCHOOLS.....	3,332,176	0.230806%
0135-AMHERST PUBLIC SCHOOLS.....	2,465,788	0.170795%
0140-AMHERST-PELHAM REGIONAL SCHOOL DISTRICT.....	2,490,936	0.172537%
0145-ANDOVER PUBLIC SCHOOLS.....	10,809,377	0.748722%
0150-ARLINGTON PUBLIC SCHOOLS.....	8,047,029	0.557385%
0160-ASHBURNHAM-WESTMINSTER REGIONAL SCHOOL.....	2,959,456	0.204990%
0170-ASHLAND PUBLIC SCHOOLS.....	4,260,842	0.295131%
0175-ASSABET VALLEY REGIONAL VOCATIONAL SCH.....	2,289,925	0.158614%
0180-ASSABET VALLEY COLLABORATIVE SCHOOL.....	744,907	0.051597%
0185-ATHOL-ROYALSTON REGIONAL SCHOOL.....	1,954,688	0.135393%
0190-ATTLEBORO PUBLIC SCHOOLS.....	8,026,225	0.555944%
0195-AUBURN PUBLIC SCHOOLS.....	3,530,282	0.244528%
0200-AVON PUBLIC SCHOOLS.....	1,263,528	0.087520%
0210-BARNSTABLE PUBLIC SCHOOLS.....	8,430,678	0.583959%
0220-BEDFORD PUBLIC SCHOOLS.....	5,312,045	0.367944%
0225-BELCHERTOWN PUBLIC SCHOOLS.....	3,097,220	0.214532%
0230-BELLINGHAM PUBLIC SCHOOLS.....	3,403,341	0.235736%
0235-BELMONT PUBLIC SCHOOLS.....	6,346,780	0.439616%
0240-BERKLEY PUBLIC SCHOOLS.....	1,135,788	0.078671%
0245-BERKSHIRE HILLS REGIONAL SCHOOL DISTRICT.....	2,139,517	0.148196%
0250-BERLIN PUBLIC SCHOOLS.....	384,381	0.026625%
0255-BERLIN-BOYLSTON REGIONAL SCHOOL.....	901,505	0.062444%
0265-BEVERLY PUBLIC SCHOOLS.....	6,448,651	0.446672%
0270-BICOUNTY COLLABORATIVE.....	1,047,053	0.072525%
0275-BILLERICA PUBLIC SCHOOLS.....	8,352,496	0.578544%
0280-BLACKSTONE-MILLVILLE REGIONAL SCHOOL.....	2,234,734	0.154791%
0285-BLACKSTONE VALLEY REG. VOC.....	2,083,387	0.144308%
0300-BLUE HILLS REGIONAL TECH.....	1,818,422	0.125955%
0315-BOURNE PUBLIC SCHOOLS.....	3,150,740	0.218239%
0325-BOXFORD PUBLIC SCHOOLS.....	1,318,642	0.091337%
0330-BOYLSTON PUBLIC SCHOOLS.....	414,022	0.028678%
0335-BRAINTREE PUBLIC SCHOOLS.....	9,216,715	0.638405%
0340-BREWSTER PUBLIC SCHOOLS.....	779,957	0.054024%
0350-BRIDGewater-RAYNHAM REGIONAL SCHOOL.....	6,944,474	0.481016%
0355-BRIMFIELD PUBLIC SCHOOLS.....	453,625	0.031421%
0360-BRISTOL COUNTY AGRICULTURAL.....	710,305	0.049200%
0365-BRISTOL-PLYMOUTH REGIONAL SCHOOL.....	2,162,699	0.149801%
0370-BROCKTON PUBLIC SCHOOLS.....	23,500,935	1.627815%
0375-BROOKFIELD PUBLIC SCHOOLS.....	421,938	0.029226%

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
 SUPPLEMENTAL SCHEDULE OF EMPLOYER ALLOCATIONS OF SPECIAL FUNDING AMOUNTS  
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 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
0380-BROOKLINE PUBLIC SCHOOLS.....	16,595,972	1.149536%
0390-BURLINGTON PUBLIC SCHOOLS.....	7,126,422	0.493619%
0395-CAMBRIDGE PUBLIC SCHOOLS.....	18,032,319	1.249026%
0400-CANTON PUBLIC SCHOOLS.....	5,358,202	0.371141%
0410-CAPE COD REGIONAL SCHOOL DISTRICT.....	1,220,983	0.084573%
0415-CAPE COD COLLABORATIVE.....	554,824	0.038430%
0420-CAPS COLLABORATIVE.....	545,306	0.037771%
0425-CARLISLE PUBLIC SCHOOLS.....	1,509,458	0.104554%
0430-CARVER PUBLIC SCHOOLS.....	2,373,865	0.164428%
0435-CASE COLLABORATIVE.....	822,642	0.056981%
0440-CENTRAL BERKSHIRE REGIONAL.....	2,421,237	0.167709%
0445-CENTRAL MASS. SPEC. ED. COLLABORATIVE.....	1,556,152	0.107788%
0460-CHELMSFORD PUBLIC SCHOOLS.....	7,298,402	0.505531%
0465-CHELSEA PUBLIC SCHOOLS.....	8,091,647	0.560476%
0470-CHESTERFIELD-GOSHEN REGIONAL.....	245,161	0.016981%
0475-CHICOPEE PUBLIC SCHOOLS.....	10,605,840	0.734624%
0485-CLARKSBURG PUBLIC SCHOOLS.....	260,639	0.018053%
0490-CLINTON PUBLIC SCHOOLS.....	2,622,501	0.181650%
0495-COHASSET PUBLIC SCHOOLS.....	2,740,035	0.189791%
0500-CONCORD PUBLIC SCHOOLS.....	4,487,659	0.310842%
0505-CONCORD-CARLISLE REGIONAL SCHOOL.....	2,845,858	0.197121%
0510-CONWAY PUBLIC SCHOOLS.....	260,868	0.018069%
0515-SOUTH COAST ED. COLLABORATIVE (COOPC).....	1,316,290	0.091174%
0520-DANVERS PUBLIC SCHOOLS.....	5,841,509	0.404618%
0525-DARTMOUTH PUBLIC SCHOOLS.....	5,676,379	0.393180%
0530-DEDHAM PUBLIC SCHOOLS.....	5,384,669	0.372974%
0540-DEERFIELD PUBLIC SCHOOLS.....	592,878	0.041066%
0545-DENNIS-YARMOUTH REGIONAL SCHOOLS.....	5,619,702	0.389254%
0555-DIGHTON-REHOBOTH REGIONAL SCHOOL.....	4,181,644	0.289646%
0560-DOUGLAS PUBLIC SCHOOLS.....	1,723,829	0.119403%
0565-DOVER PUBLIC SCHOOLS.....	896,018	0.062064%
0570-DOVER-SHERBORN REGIONAL SCHOOL.....	2,708,470	0.187605%
0575-DRACUT PUBLIC SCHOOLS.....	3,788,414	0.262408%
0580-DUDLEY-CHARLTON REGIONAL SCHOOLS.....	4,880,964	0.338085%
0585-DUXBURY PUBLIC SCHOOLS.....	4,773,047	0.330610%
0590-EAST BRIDGEWATER PUBLIC SCHOOLS.....	2,942,473	0.203813%
0600-EAST LONGMEADOW PUBLIC SCHOOLS.....	4,105,496	0.284371%
0605-EASTHAM PUBLIC SCHOOLS.....	429,541	0.029753%
0610-EASTHAMPTON PUBLIC SCHOOLS.....	1,903,398	0.131841%
0615-EASTON PUBLIC SCHOOLS.....	5,326,486	0.368944%
0617-EDCO COLLABORATIVE.....	461,481	0.031965%
0620-EDGARTOWN PUBLIC SCHOOLS.....	824,687	0.057123%
0625-ERVING PUBLIC SCHOOLS.....	355,384	0.024616%
0640-EVERETT PUBLIC SCHOOLS.....	10,172,118	0.704582%

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 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
0645-FAIRHAVEN PUBLIC SCHOOLS.....	2,667,909	0.184795%
0650-FALL RIVER PUBLIC SCHOOLS.....	14,011,522	0.970522%
0655-FALMOUTH PUBLIC SCHOOLS.....	6,087,865	0.421682%
0660-FITCHBURG PUBLIC SCHOOLS.....	7,138,042	0.494424%
0665-FLLAC COLLABORATIVE.....	626,455	0.043392%
0670-FLORIDA PUBLIC SCHOOLS.....	150,295	0.010410%
0675-FOXBOROUGH PUBLIC SCHOOLS.....	4,561,340	0.315946%
0680-FRAMINGHAM PUBLIC SCHOOLS.....	15,633,729	1.082886%
0685-FRANKLIN PUBLIC SCHOOLS.....	8,507,207	0.589260%
0690-FRANKLIN COUNTY REGIONAL SCHOOL DISTRICT.....	1,003,502	0.069509%
0700-FREETOWN-LAKEVILLE REGIONAL SCHOOLS.....	3,509,216	0.243069%
0705-FRONTIER REGIONAL SCHOOL DISTRICT.....	1,059,660	0.073398%
0710-GARDNER PUBLIC SCHOOLS.....	3,092,851	0.214229%
0715-GATEWAY REGIONAL SCHOOL.....	1,377,540	0.095417%
0725-GEORGETOWN PUBLIC SCHOOLS.....	2,076,912	0.143859%
0730-GILL-MONTAGUE REGIONAL.....	1,529,204	0.105922%
0735-GLOUCESTER PUBLIC SCHOOLS.....	4,823,646	0.334115%
0745-GOSNOLD PUBLIC SCHOOLS.....	8,888	0.000616%
0750-GRAFTON PUBLIC SCHOOLS.....	4,031,514	0.279247%
0755-GRANBY PUBLIC SCHOOLS.....	1,124,037	0.077858%
0765-DIMAN REGIONAL VOC.....	2,774,930	0.192208%
0770-GREATER LAWRENCE REGIONAL.....	2,976,610	0.206178%
0775-CREST.....	936,051	0.064837%
0780-GREATER LOWELL REGIONAL.....	3,999,377	0.277021%
0785-GREATER NEW BEDFORD REGIONAL VOC.....	3,883,174	0.268972%
0795-GREENFIELD PUBLIC SCHOOLS.....	2,423,486	0.167865%
0800-GROTON-DUNSTABLE REGIONAL.....	3,756,882	0.260224%
0810-HADLEY PUBLIC SCHOOLS.....	863,723	0.059827%
0815-HALIFAX PUBLIC SCHOOLS.....	705,697	0.048881%
0820-HAMILTON-WENHAM REGIONAL.....	3,335,246	0.231019%
0830-HAMPDEN-WILBRAHAM REGIONAL.....	4,582,366	0.317402%
0835-HAMPSHIRE REGIONAL SCHOOL.....	1,333,634	0.092375%
0840-COLLABORATIVE FOR EDUCATIONAL SERVICES.....	3,174,707	0.219899%
0845-HANCOCK PUBLIC SCHOOLS.....	78,245	0.005420%
0850-HANOVER PUBLIC SCHOOLS.....	4,270,995	0.295835%
0865-HARVARD PUBLIC SCHOOLS.....	1,938,266	0.134256%
0875-HATFIELD PUBLIC SCHOOLS.....	671,052	0.046481%
0880-HAVERHILL PUBLIC SCHOOLS.....	10,375,559	0.718673%
0885-HAWLEMONT REGIONAL.....	217,643	0.015075%
0895-HINGHAM PUBLIC SCHOOLS.....	6,985,891	0.483885%
0900-HOLBROOK PUBLIC SCHOOLS.....	1,684,326	0.116667%
0910-HOLLAND PUBLIC SCHOOLS.....	321,154	0.022245%
0915-HOLLISTON PUBLIC SCHOOLS.....	4,647,534	0.321916%
0920-HOLYOKE PUBLIC SCHOOLS.....	7,002,163	0.485012%

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
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 As of and for the fiscal year ended June 30, 2019  
 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
0925-HOPEDALE PUBLIC SCHOOLS.....	1,728,240	0.119708%
0930-HOPKINTON PUBLIC SCHOOLS.....	6,063,075	0.419965%
0940-HUDSON PUBLIC SCHOOLS.....	4,757,420	0.329527%
0945-HULL PUBLIC SCHOOLS.....	1,845,917	0.127859%
0950-IPSWICH PUBLIC SCHOOLS.....	3,032,262	0.210033%
0955-KING PHILIP REGIONAL.....	2,575,143	0.178370%
0960-KINGSTON PUBLIC SCHOOLS.....	1,259,690	0.087254%
0965-LABBB COLLABORATIVE.....	1,548,897	0.107286%
0985-LAWRENCE PUBLIC SCHOOLS.....	18,835,044	1.304628%
0990-LEE PUBLIC SCHOOLS.....	1,211,166	0.083893%
0995-LEICESTER PUBLIC SCHOOLS.....	2,124,681	0.147168%
1000-LENOX PUBLIC SCHOOLS.....	1,472,276	0.101979%
1005-LEOMINSTER PUBLIC SCHOOLS.....	7,861,634	0.544544%
1010-LEVERETT PUBLIC SCHOOLS.....	236,042	0.016350%
1015-LEXINGTON PUBLIC SCHOOLS.....	14,563,390	1.008748%
1025-LINCOLN PUBLIC SCHOOLS.....	3,001,772	0.207921%
1030-LINCOLN-SUDBURY REGIONAL.....	3,357,050	0.232529%
1035-LITTLETON PUBLIC SCHOOLS.....	2,347,260	0.162585%
1040-LONGMEADOW PUBLIC SCHOOLS.....	4,571,153	0.316625%
1045-LOWELL PUBLIC SCHOOLS.....	20,957,202	1.451621%
1050-LOWER PIONEER COLLAB.....	788,421	0.054611%
1055-LUDLOW PUBLIC SCHOOLS.....	4,058,617	0.281124%
1060-LUNENBURG PUBLIC SCHOOLS.....	2,207,357	0.152895%
1065-LYNN PUBLIC SCHOOLS.....	20,425,005	1.414758%
1070-LYNNFIELD PUBLIC SCHOOLS.....	3,619,653	0.250719%
1075-MALDEN PUBLIC SCHOOLS.....	9,717,745	0.673109%
1082-MANCHESTER ESSEX REGIONAL SCHOOL.....	2,760,615	0.191217%
1085-MANSFIELD PUBLIC SCHOOLS.....	6,531,669	0.452423%
1090-MARBLEHEAD PUBLIC SCHOOLS.....	5,333,762	0.369448%
1095-MARION PUBLIC SCHOOLS.....	704,545	0.048801%
1100-MARTHA'S VINEYARD PUBLIC SCHOOLS.....	2,316,691	0.160468%
1105-MARSHFIELD PUBLIC SCHOOLS.....	6,260,881	0.433666%
1110-MARLBOROUGH PUBLIC SCHOOLS.....	8,035,165	0.556564%
1115-MASCONOMET REGIONAL SCHOOL.....	3,402,777	0.235697%
1120-MASHPEE PUBLIC SCHOOLS.....	2,710,283	0.187730%
1125-MATTAPOISETT PUBLIC SCHOOLS.....	775,689	0.053729%
1130-MAYNARD PUBLIC SCHOOLS.....	2,315,196	0.160364%
1135-MEDFIELD PUBLIC SCHOOLS.....	4,778,675	0.331000%
1140-MEDFORD PUBLIC SCHOOLS.....	8,434,006	0.584190%
1145-MEDWAY PUBLIC SCHOOLS.....	3,886,093	0.269174%
1150-MELROSE PUBLIC SCHOOLS.....	4,766,414	0.330150%
1155-MENDON-UPTON REGIONAL SCHOOL DISTRICT.....	3,158,666	0.218788%
1165-VALLEY COLLABORATIVE SCHOOL.....	1,201,826	0.083246%
1170-METHUEN PUBLIC SCHOOLS.....	9,529,304	0.660057%



**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
 SUPPLEMENTAL SCHEDULE OF EMPLOYER ALLOCATIONS OF SPECIAL FUNDING AMOUNTS  
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 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
1175-MIDDLEBOROUGH PUBLIC SCHOOLS.....	4,358,380	0.301887%
1180-MIDDLETON PUBLIC SCHOOLS.....	1,274,394	0.088272%
1185-MILFORD PUBLIC SCHOOLS.....	6,611,846	0.457976%
1190-MILLBURY PUBLIC SCHOOLS.....	2,565,517	0.177703%
1195-MILLIS PUBLIC SCHOOLS.....	2,173,955	0.150581%
1200-MILTON PUBLIC SCHOOLS.....	6,658,927	0.461237%
1205-MINUTEMAN REGIONAL VOCATIONAL SCHOOL.....	1,929,624	0.133657%
1210-MOHAWK TRAIL REGIONAL SCHOOL.....	1,591,023	0.110204%
1215-MONROE PUBLIC SCHOOLS.....	5,270	0.000365%
1220-MONSON PUBLIC SCHOOLS.....	1,416,620	0.098124%
1225-MONTACHUSETT REGIONAL VOCATIONAL SCHOOL.....	2,295,666	0.159012%
1230-MOUNT GREYLOCK REGIONAL SCHOOL.....	1,796,296	0.124422%
1235-NAHANT PUBLIC SCHOOLS.....	183,590	0.012717%
1240-NANTUCKET PUBLIC SCHOOLS.....	3,495,525	0.242121%
1245-NARRAGANSETT REGIONAL SCHOOL DISTRICT.....	1,797,966	0.124538%
1250-NASHOBA REGIONAL SCHOOL DISTRICT.....	5,681,631	0.393544%
1255-NASHOBA VALLEY TECH.....	1,437,445	0.099566%
1260-NATICK PUBLIC SCHOOLS.....	8,635,004	0.598112%
1265-NAUSET REGIONAL SCHOOL.....	3,099,629	0.214699%
1275-NEEDHAM PUBLIC SCHOOLS.....	10,059,024	0.696748%
1285-NEW BEDFORD PUBLIC SCHOOLS.....	17,284,830	1.197251%
1295-NEW SALEM-WENDELL REGIONAL SCHOOL.....	302,041	0.020921%
1305-NEWBURYPORT PUBLIC SCHOOLS.....	3,885,075	0.269104%
1310-NEWTON PUBLIC SCHOOLS.....	24,172,854	1.674357%
1315-NORFOLK PUBLIC SCHOOLS.....	1,586,078	0.109861%
1320-NORFOLK COUNTY AGRICULTURAL SCHOOL.....	1,144,560	0.079279%
1325-NORTH ADAMS PUBLIC SCHOOLS.....	2,120,488	0.146878%
1330-NORTH ANDOVER PUBLIC SCHOOLS.....	6,249,266	0.432862%
1335-NORTH ATTLEBORO PUBLIC SCHOOLS.....	5,635,258	0.390332%
1340-NORTH BROOKFIELD PUBLIC SCHOOLS.....	758,677	0.052550%
1345-NORTH MIDDLESEX REGIONAL SCHOOL.....	4,519,158	0.313024%
1350-NORTH READING PUBLIC SCHOOLS.....	4,156,694	0.287917%
1355-NORTH RIVER COLLABORATIVE SCHOOL.....	771,937	0.053469%
1365-NORTHAMPTON PUBLIC SCHOOLS.....	4,921,279	0.340877%
1370-NORTHBOROUGH PUBLIC SCHOOLS.....	3,098,733	0.214637%
1375-NORTHBORO-SOUTHBORO REGIONAL SCHOOL.....	2,591,782	0.179522%
1380-NORTHBRIDGE PUBLIC SCHOOLS.....	3,019,280	0.209133%
1385-NORTHEAST METRO REGIONAL VOCATIONAL SCH.....	2,507,067	0.173654%
1390-NORTHERN BERKSHIRE REGIONAL VOC. SCH.....	874,355	0.060563%
1400-NORTON PUBLIC SCHOOLS.....	3,793,959	0.262792%
1405-NORWELL PUBLIC SCHOOLS.....	3,742,073	0.259198%
1410-NORWOOD PUBLIC SCHOOLS.....	5,795,733	0.401447%
1415-OAK BLUFFS PUBLIC SCHOOLS.....	920,309	0.063746%
1425-OLD COLONY VOCATIONAL SCHOOL.....	1,046,720	0.072502%

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
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 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
1430-OLD ROCHESTER REGIONAL SCHOOL.....	1,842,641	0.127632%
1435-ORANGE PUBLIC SCHOOLS.....	703,680	0.048741%
1440-ORLEANS PUBLIC SCHOOLS.....	472,841	0.032752%
1445-FARMINGTON RIVER PUBLIC SCHOOLS.....	201,266	0.013941%
1450-OXFORD PUBLIC SCHOOLS.....	2,162,301	0.149774%
1455-PALMER PUBLIC SCHOOLS.....	2,042,317	0.141463%
1460-PATHFINDER REGIONAL VOC.....	1,408,250	0.097544%
1470-PEABODY PUBLIC SCHOOLS.....	8,523,849	0.590413%
1475-PELHAM PUBLIC SCHOOLS.....	210,233	0.014562%
1480-PEMBROKE PUBLIC SCHOOLS.....	4,256,805	0.294852%
1485-PENTUCKET REGIONAL SCHOOL.....	3,729,235	0.258309%
1490-PETERSHAM CENTER SCHOOL.....	126,224	0.008743%
1495-PILGRIM AREA COLLABORATIVE.....	704,403	0.048791%
1500-PIONEER VALLEY REGIONAL.....	1,165,389	0.080722%
1505-PITTSFIELD PUBLIC SCHOOLS.....	8,143,457	0.564065%
1515-PLAINVILLE PUBLIC SCHOOLS.....	1,122,043	0.077719%
1520-PLYMOUTH PUBLIC SCHOOLS.....	12,236,797	0.847594%
1530-PLYMPTON PUBLIC SCHOOLS.....	333,888	0.023127%
1540-ACCEPT EDUCATIONAL COLLABORATIVE.....	499,709	0.034613%
1550-PROVINCETOWN PUBLIC SCHOOLS.....	425,679	0.029485%
1556-QUABBIN REGIONAL SCHOOL.....	2,964,126	0.205313%
1560-QUABOAG REGIONAL SCHOOL DISTRICT.....	1,726,935	0.119618%
1565-QUINCY PUBLIC SCHOOLS.....	14,706,014	1.018627%
1566-QUINCY COLLEGE.....	903,368	0.062573%
1570-RALPH C. MAHAR REG. SCHOOL.....	1,063,597	0.073671%
1575-RANDOLPH PUBLIC SCHOOLS.....	5,212,066	0.361019%
1585-READING PUBLIC SCHOOLS.....	6,261,516	0.433710%
1590-READS COLLABORATIVE.....	769,007	0.053266%
1605-REVERE PUBLIC SCHOOLS.....	11,351,973	0.786306%
1610-RICHMOND PUBLIC SCHOOLS.....	306,847	0.021254%
1615-ROCHESTER PUBLIC SCHOOLS.....	804,014	0.055691%
1620-ROCKLAND PUBLIC SCHOOLS.....	3,427,164	0.237386%
1625-ROCKPORT PUBLIC SCHOOLS.....	1,717,151	0.118940%
1630-ROWE PUBLIC SCHOOLS.....	140,004	0.009698%
1645-SALEM PUBLIC SCHOOLS.....	7,976,595	0.552507%
1660-SANDWICH PUBLIC SCHOOLS.....	4,123,183	0.285596%
1665-SAUGUS PUBLIC SCHOOLS.....	3,870,100	0.268066%
1670-SAVOY PUBLIC SCHOOLS.....	73,119	0.005065%
1675-SCITUATE PUBLIC SCHOOLS.....	5,363,829	0.371531%
1680-SEEKONK PUBLIC SCHOOLS.....	3,259,248	0.225755%
1685-SEEM COLLABORATIVE.....	1,736,684	0.120293%
1690-SHARON PUBLIC SCHOOLS.....	6,062,294	0.419911%
1695-SHAWSHEEN VALLEY VOC.....	2,974,849	0.206056%
1700-SHERBORN PUBLIC SCHOOLS.....	813,670	0.056360%

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
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Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
1710-SHORE COLLABORATIVE.....	911,462	0.063133%
1715-SHREWSBURY PUBLIC SCHOOLS.....	8,580,300	0.594323%
1720-SHUTESBURY PUBLIC SCHOOLS.....	240,267	0.016642%
1725-SILVER LAKE REGIONAL SCHOOL DIST.....	2,976,866	0.206196%
1730-SOMERSET PUBLIC SCHOOLS.....	2,428,574	0.168218%
1735-SOMERVILLE PUBLIC SCHOOLS.....	9,727,095	0.673757%
1745-SOUTH HADLEY PUBLIC SCHOOLS.....	2,710,713	0.187760%
1750-SOUTH MIDDLESEX REGIONAL VOC.....	1,743,013	0.120731%
1755-SOUTH SHORE REGIONAL SCHOOL DIST.....	1,263,025	0.087485%
1760-SOUTH SHORE EDUCATIONAL COLLABORATIVE.....	1,937,026	0.134170%
1765-SOUTHERN WORCESTER COUNTY REGIONAL SCH.....	2,192,876	0.151892%
1770-SOUTHAMPTON PUBLIC SCHOOLS.....	608,348	0.042138%
1775-SOUTHBOROUGH PUBLIC SCHOOLS.....	2,584,210	0.178998%
1780-SOUTHBRIDGE PUBLIC SCHOOLS.....	3,049,419	0.211221%
1785-SOUTHEASTERN REGIONAL VOC. SCHOOL DIST.....	2,594,174	0.179688%
1790-SOUTHEASTERN MASS. COLLAB.....	324,446	0.022473%
1795-SOUTHERN BERKSHIRE REGIONAL.....	1,305,024	0.090394%
1800-SOUTHERN WORCESTER CO. ED. COLLAB.....	564,588	0.039107%
1805-SOUTHWICK-TOLLAND REGIONAL.....	2,349,535	0.162743%
1810-NORTH SHORE EDUCATION CONSORTIUM.....	1,875,285	0.129893%
1820-SPENCER-EAST BROOKFIELD PUBLIC SCHOOLS.....	1,959,758	0.135745%
1825-SPRINGFIELD PUBLIC SCHOOLS.....	35,152,313	2.434860%
1835-STONEHAM PUBLIC SCHOOLS.....	3,740,221	0.259070%
1840-STOUGHTON PUBLIC SCHOOLS.....	6,176,633	0.427831%
1850-STURBRIDGE PUBLIC SCHOOL.....	1,384,408	0.095892%
1855-SUDBURY PUBLIC SCHOOLS.....	4,886,306	0.338455%
1860-SUNDERLAND PUBLIC SCHOOLS.....	344,857	0.023887%
1865-SUTTON PUBLIC SCHOOLS.....	2,007,847	0.139075%
1870-SWAMPSCOTT PUBLIC SCHOOLS.....	3,687,999	0.255453%
1875-SWANSEA PUBLIC SCHOOLS.....	2,901,838	0.200999%
1880-TANTASQUA REGIONAL HIGH SCHOOL.....	2,770,551	0.191905%
1885-TAUNTON PUBLIC SCHOOLS.....	10,800,555	0.748111%
1890-TECH. COLLAB. THE ED. COOPERATIVE.....	580,321	0.040196%
1895-TEWKSBURY PUBLIC SCHOOLS.....	5,141,577	0.356136%
1900-TISBURY PUBLIC SCHOOLS.....	745,700	0.051652%
1905-TOPSFIELD PUBLIC SCHOOLS.....	1,108,990	0.076815%
1910-TRI-COUNTY REGIONAL VOC.....	2,121,042	0.146916%
1915-TRITON PUBLIC SCHOOLS.....	3,934,554	0.272531%
1920-TRURO PUBLIC SCHOOLS.....	351,904	0.024375%
1925-TYNGSBOROUGH PUBLIC SCHOOLS.....	2,659,615	0.184221%
1935-UPPER CAPE COD VOC. SCHOOL.....	1,463,550	0.101374%
1936-UP ISLAND REGIONAL SCHOOL.....	950,584	0.065843%
1940-UXBRIDGE PUBLIC SCHOOLS.....	2,552,216	0.176782%
1950-WACHUSETT REGIONAL SCHOOL DIST.....	9,196,366	0.636995%

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Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
1955-WAKEFIELD PUBLIC SCHOOLS.....	5,521,816	0.382474%
1960-WALES PUBLIC SCHOOLS.....	203,552	0.014099%
1965-WALPOLE PUBLIC SCHOOLS.....	6,495,342	0.449906%
1970-WALTHAM PUBLIC SCHOOLS.....	11,282,567	0.781498%
1975-WARE PUBLIC SCHOOLS.....	1,508,417	0.104482%
1980-WAREHAM PUBLIC SCHOOLS.....	3,497,964	0.242290%
2000-WATERTOWN PUBLIC SCHOOLS.....	5,710,187	0.395522%
2005-WAYLAND PUBLIC SCHOOLS.....	5,382,915	0.372853%
2010-WEBSTER PUBLIC SCHOOLS.....	2,701,329	0.187110%
2015-WELLESLEY PUBLIC SCHOOLS.....	10,714,064	0.742120%
2020-WELLFLEET PUBLIC SCHOOLS.....	260,275	0.018028%
2025-WEST BOYLSTON PUBLIC SCHOOLS.....	1,587,979	0.109993%
2030-WEST BRIDGEWATER PUBLIC SCHOOLS.....	1,835,949	0.127169%
2045-WEST SPRINGFIELD PUBLIC SCHOOLS.....	5,992,736	0.415093%
2055-WESTBOROUGH PUBLIC SCHOOLS.....	6,710,109	0.464782%
2060-WESTFIELD PUBLIC SCHOOLS.....	7,595,508	0.526110%
2065-WESTFORD PUBLIC SCHOOLS.....	8,049,770	0.557575%
2070-WESTHAMPTON PUBLIC SCHOOLS.....	206,568	0.014308%
2080-WESTON PUBLIC SCHOOLS.....	4,994,845	0.345973%
2085-WESTPORT PUBLIC SCHOOLS.....	2,251,142	0.155928%
2090-WESTWOOD PUBLIC SCHOOLS.....	5,999,535	0.415564%
2095-WEYMOUTH PUBLIC SCHOOLS.....	8,926,928	0.618333%
2100-WHATELY PUBLIC SCHOOLS.....	215,986	0.014960%
2110-WHITMAN-HANSON REGIONAL.....	5,076,874	0.351655%
2120-WILLIAMSBURG PUBLIC SCHOOLS.....	263,668	0.018263%
2130-WILMINGTON PUBLIC SCHOOLS.....	5,540,677	0.383780%
2135-WINCENDON PUBLIC SCHOOLS.....	1,702,759	0.117943%
2140-WINCHESTER PUBLIC SCHOOLS.....	7,531,561	0.521681%
2145-WINTHROP PUBLIC SCHOOLS.....	2,668,666	0.184848%
2150-WHITTIER VOC. SCHOOL DIST.....	2,417,656	0.167461%
2155-WOBURN PUBLIC SCHOOLS.....	7,906,412	0.547645%
2160-WORCESTER PUBLIC SCHOOLS.....	37,997,850	2.631959%
2162-MASS ACADEMY OF MATH AND SCIENCE.....	140,353	0.009722%
2164-WORTHINGTON PUBLIC SCHOOLS.....	96,954	0.006716%
2165-WRENTHAM PUBLIC SCHOOLS.....	1,584,424	0.109747%
2200-AYER SHIRLEY REGIONAL.....	2,284,683	0.158251%
2205-SOMERSET-BERKLEY REGIONAL.....	1,526,914	0.105763%
2210-MONOMOY REGIONAL SCHOOL DISTRICT.....	3,461,285	0.239749%
2215-ESSEX NORTH SHORE AGRICULTURAL & TECHNICAL.....	2,596,243	0.179831%
3000-MASS VIRTUAL ACADEMY AT GREENFIELD.....	555,074	0.038448%
3005-TECCA VIRTUAL SCHOOL.....	1,248,726	0.086494%
4005-COMMUNITY DAY CHARTER SCHOOL.....	692,490	0.047966%
4010-CITY ON A HILL CHARTER SCHOOL.....	593,853	0.041134%
4015-ATLANTIS CHARTER SCHOOL.....	1,266,920	0.087754%

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
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 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
4020-CAPE COD LIGHTHOUSE CHARTER SCHOOL.....	438,276	0.030358%
4025-HILLTOWN COOPERATIVE CHARTER SCHOOL.....	315,321	0.021841%
4030-BENJAMIN FRANKLIN CLASSICAL CHARTER SCH.....	594,668	0.041190%
4035-SOUTH SHORE CHARTER SCHOOL.....	1,500,252	0.103916%
4040-LOWELL MIDDLESEX ACADEMY CHARTER SCH.....	157,149	0.010885%
4055-BOSTON RENAISSANCE CHARTER SCHOOL.....	1,562,973	0.108261%
4060-MARBLEHEAD COMMUNITY CHARTER SCHOOL.....	305,696	0.021174%
4065-FRANCIS W. PARKER CHARTER SCHOOL.....	556,832	0.038569%
4070-NEIGHBORHOOD HOUSE CHARTER SCHOOL.....	1,093,378	0.075734%
4075-ACADEMY OF THE PACIFIC RIM CHARTER SCH.....	860,181	0.059581%
4080-BENJAMIN BANNEKER CHARTER SCHOOL.....	484,649	0.033570%
4090-LAWRENCE FAMILY DEVELOPMENT CHARTER SCH.....	880,647	0.060999%
4095-MARTHA'S VINEYARD CHARTER SCHOOL.....	399,460	0.027669%
4105-SABIS INTERNATIONAL CHARTER SCHOOL.....	1,401,131	0.097051%
4115-PIONEER VALLEY PERFORMING ARTS CHARTER.....	660,138	0.045725%
4120-PROSPECT HILL ACADEMY CHARTER SCHOOL.....	2,130,373	0.147562%
4125-SEVEN HILLS CHARTER SCHOOL.....	783,367	0.054261%
4140-ABBY KELLEY FOSTER REGIONAL CHARTER.....	1,758,386	0.121796%
4145-MYSTIC VALLEY REGIONAL CHARTER SCHOOL.....	1,466,397	0.101571%
4150-FOXBORO REGIONAL CHARTER SCHOOL.....	1,747,693	0.121056%
4165-RISING TIDE CHARTER.....	924,742	0.064053%
4170-BOSTON COLLEGIATE CHARTER SCHOOL.....	1,292,414	0.089520%
4175-STURGIS CHARTER SCHOOL.....	1,581,712	0.109559%
4180-RIVER VALLEY CHARTER SCHOOL.....	365,239	0.025299%
4200-CONSERVATORY LAB CHARTER SCHOOL.....	616,751	0.042720%
4205-ROXBURY PREPARATORY CHARTER.....	2,192,217	0.151846%
4210-MEDIA & TECH CHARTER HIGH SCH.....	2,191,815	0.151818%
4225-CODMAN ACADEMY CHARTER SCHOOL.....	661,609	0.045827%
4235-CHRISTA MCAULIFFE REG. CHARTER P.S.....	628,643	0.043544%
4240-NORTH CENTRAL CHARTER ESSENTIAL SCHOOL.....	550,045	0.038099%
4245-INNOVATION ACADEMY CHARTER SCHOOL.....	1,106,682	0.076655%
4250-EDWARD BROOKE CHARTER SCHOOL.....	3,281,582	0.227302%
4260-FOUR RIVER CHARTER PUBLIC SCHOOL.....	354,156	0.024531%
4265-BOSTON PREPARATORY CHARTER SCHOOL.....	1,054,721	0.073056%
4270-EXCEL ACADEMY CHARTER SCHOOL.....	2,128,559	0.147437%
4275-SALEM ACADEMY CHARTER SCHOOL.....	781,679	0.054144%
4285-BERKSHIRE ARTS AND TECHNOLOGY CHARTER.....	513,021	0.035535%
4290-HELEN Y. DAVIS LEADERSHIP ACADEMY CHARTER PUBLIC.....	316,481	0.021921%
4295-HILLVIEW MONTESSORI CHARTER SCHOOL.....	338,621	0.023455%
4300-KIPP ACADEMY LYNN CHARTER SCHOOL.....	2,261,534	0.156647%
4305-ADVANCED MATH & SCIENCE ACADEMY CHARTER SCHOOL.....	1,316,961	0.091221%
4310-COMMUNITY CHARTER SCHOOL OF CAMBRIDGE.....	673,016	0.046617%
4315-HOLYOKE COMMUNITY CHARTER SCHOOL.....	684,798	0.047433%
4320-MARTIN LUTHER KING JR. CHARTER SCHOOL.....	573,082	0.039695%

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
 SUPPLEMENTAL SCHEDULE OF EMPLOYER ALLOCATIONS OF SPECIAL FUNDING AMOUNTS  
 As of and for the fiscal year ended June 30, 2019  
 (Unaudited)

Employer	Commonwealth Pension Support Provided	Employer Allocation Percentage
4325-PHOENIX CHARTER ACADEMY.....	330,451	0.022889%
4330-PIONEER VALLEY CHINESE IMMERSION CHARTER.....	898,714	0.062250%
4420-LOWELL COMMUNITY CHARTER SCHOOL.....	1,054,104	0.073014%
4425-PIONEER CHARTER SCHOOL OF SCIENCE.....	1,029,627	0.071318%
4430-GLOBAL LEARNING CHARTER PUBLIC SCHOOL.....	640,607	0.044372%
4440-HAMPDEN CHARTER SCHOOL OF SCIENCE - EAST.....	587,836	0.040717%
4510-ALMA DEL MAR CHARTER SCHOOL.....	542,504	0.037577%
4515-BRIDGE BOSTON CHARTER SCHOOL.....	643,064	0.044542%
4550-VERITAS PREPARATORY CHARTER SCHOOL.....	597,034	0.041354%
4565-CDCPS-GATEWAY.....	489,436	0.033901%
4570-CDCPS-R KINGMAN WEBSTER.....	462,260	0.032019%
4575-KIPP ACADEMY BOSTON CHARTER SCHOOL.....	835,348	0.057861%
4580-PAULO FREIRE SOCIAL JUSTICE CHARTER SCHOOL.....	397,093	0.027505%
4585-CITY ON A HILL CHARTER 2.....	403,193	0.027928%
4590-CITY ON A HILL CHARTER - NEW BEDFORD.....	333,781	0.023120%
4595-PIONEER CHARTER SCHOOL OF SCIENCE II.....	454,145	0.031457%
4600-THE LOWELL COLLEGIATE CHARTER SCHOOL.....	546,521	0.037855%
4605-BAY STATE ACADEMY CHARTER PUBLIC SCHOOL.....	656,897	0.045501%
4610-PHOENIX CHARTER ACADEMY SPRINGFIELD.....	235,942	0.016343%
4615-ARGOSY COLLEGIATE CHARTER SCHOOL.....	531,433	0.036810%
4620-SPRINGFIELD PREPARATORY CHARTER SCHOOL.....	353,255	0.024469%
4625-NEW HEIGHTS CHARTER OF BROCKTON.....	655,980	0.045437%
4630-LIBERTAS ACADEMY CHARTER SCHOOL.....	274,578	0.019019%
4635-OLD STURBRIDGE ACADEMY CHARTER PS.....	180,267	0.012486%
4640-MAP ACADEMY CHARTER SCHOOL.....	179,507	0.012434%
4645-HAMPDEN CHARTER SCHOOL OF SCIENCE - WEST.....	251,842	0.017444%
4650-PHOENIX ACADEMY PUBLIC CHARTER HS LAWRENCE.....	162,211	0.011236%
Totals.....	<u>\$ 1,443,710,000</u>	<u>100.000000%</u>

See accompanying notes to supplemental schedules.

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
0100-ABINGTON PUBLIC SCHOOLS.....	\$ 49,456,690	\$ 5,997,482
0110-ACTON-BOXBOROUGH REGIONAL SCHOOL.....	147,351,210	17,868,892
0115-ACUSHNET PUBLIC SCHOOLS.....	23,052,646	2,795,533
0120-ADAMS-CHESHIRE REGIONAL SCHOOLS.....	27,882,148	3,381,194
0125-AGAWAM PUBLIC SCHOOLS.....	107,340,984	13,016,957
0130-AMESBURY PUBLIC SCHOOLS.....	58,195,590	7,057,225
0135-AMHERST PUBLIC SCHOOLS.....	43,064,352	5,222,300
0140-AMHERST-PELHAM REGIONAL SCHOOL DISTRICT.....	43,503,543	5,275,560
0145-ANDOVER PUBLIC SCHOOLS.....	188,782,964	22,893,211
0150-ARLINGTON PUBLIC SCHOOLS.....	140,539,265	17,042,825
0160-ASHBURNHAM-WESTMINSTER REGIONAL SCHOOL.....	51,686,139	6,267,841
0170-ASHLAND PUBLIC SCHOOLS.....	74,414,504	9,024,050
0175-ASSABET VALLEY REGIONAL VOCATIONAL SCH.....	39,992,946	4,849,839
0180-ASSABET VALLEY COLLABORATIVE SCHOOL.....	13,009,603	1,577,640
0185-ATHOL-ROYALSTON REGIONAL SCHOOL.....	34,138,121	4,139,840
0190-ATTLEBORO PUBLIC SCHOOLS.....	140,175,942	16,998,766
0195-AUBURN PUBLIC SCHOOLS.....	61,655,459	7,476,795
0200-AVON PUBLIC SCHOOLS.....	22,067,189	2,676,030
0210-BARNSTABLE PUBLIC SCHOOLS.....	147,239,603	17,855,357
0220-BEDFORD PUBLIC SCHOOLS.....	92,773,488	11,250,396
0225-BELCHERTOWN PUBLIC SCHOOLS.....	54,092,140	6,559,611
0230-BELLINGHAM PUBLIC SCHOOLS.....	59,438,461	7,207,945
0235-BELMONT PUBLIC SCHOOLS.....	110,844,863	13,441,864
0240-BERKLEY PUBLIC SCHOOLS.....	19,836,244	2,405,489
0245-BERKSHIRE HILLS REGIONAL SCHOOL DISTRICT.....	37,366,109	4,531,289
0250-BERLIN PUBLIC SCHOOLS.....	6,713,110	814,081
0255-BERLIN-BOYLSTON REGIONAL SCHOOL.....	15,744,547	1,909,300
0265-BEVERLY PUBLIC SCHOOLS.....	112,624,007	13,657,616
0270-BICOUNTY COLLABORATIVE.....	18,286,502	2,217,556
0275-BILLERICA PUBLIC SCHOOLS.....	145,874,165	17,689,774
0280-BLACKSTONE-MILLVILLE REGIONAL SCHOOL.....	39,029,044	4,732,949
0285-BLACKSTONE VALLEY REG. VOC.....	36,385,809	4,412,411
0300-BLUE HILLS REGIONAL TECH.....	31,758,271	3,851,242
0315-BOURNE PUBLIC SCHOOLS.....	55,026,855	6,672,961
0325-BOXFORD PUBLIC SCHOOLS.....	23,029,746	2,792,756
0330-BOYLSTON PUBLIC SCHOOLS.....	7,230,784	876,858
0335-BRAINTREE PUBLIC SCHOOLS.....	160,967,525	19,520,106
0340-BREWSTER PUBLIC SCHOOLS.....	13,621,740	1,651,872
0350-BRIDGewater-RAYNHAM REGIONAL SCHOOL.....	121,283,433	14,707,721
0355-BRIMFIELD PUBLIC SCHOOLS.....	7,922,436	960,733
0360-BRISTOL COUNTY AGRICULTURAL.....	12,405,297	1,504,358

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
0365-BRISTOL-PLYMOUTH REGIONAL SCHOOL.....	37,770,973	4,580,386
0370-BROCKTON PUBLIC SCHOOLS.....	410,437,717	49,772,697
0375-BROOKFIELD PUBLIC SCHOOLS.....	7,369,042	893,624
0380-BROOKLINE PUBLIC SCHOOLS.....	289,844,334	35,148,656
0390-BURLINGTON PUBLIC SCHOOLS.....	124,461,103	15,093,069
0395-CAMBRIDGE PUBLIC SCHOOLS.....	314,929,768	38,190,700
0400-CANTON PUBLIC SCHOOLS.....	93,579,605	11,348,151
0410-CAPE COD REGIONAL SCHOOL DISTRICT.....	21,324,152	2,585,924
0415-CAPE COD COLLABORATIVE.....	9,689,850	1,175,063
0420-CAPS COLLABORATIVE.....	9,523,620	1,154,904
0425-CARLISLE PUBLIC SCHOOLS.....	26,362,287	3,196,885
0430-CARVER PUBLIC SCHOOLS.....	41,458,944	5,027,617
0435-CASE COLLABORATIVE.....	14,367,222	1,742,275
0440-CENTRAL BERKSHIRE REGIONAL.....	42,286,276	5,127,945
0445-CENTRAL MASS. SPEC. ED. COLLABORATIVE.....	27,177,790	3,295,779
0460-CHELMSFORD PUBLIC SCHOOLS.....	127,464,695	15,457,307
0465-CHELSEA PUBLIC SCHOOLS.....	141,318,508	17,137,322
0470-CHESTERFIELD-GOSHEN REGIONAL.....	4,281,665	519,226
0475-CHICOPEE PUBLIC SCHOOLS.....	185,228,232	22,462,138
0485-CLARKSBURG PUBLIC SCHOOLS.....	4,551,998	552,009
0490-CLINTON PUBLIC SCHOOLS.....	45,801,300	5,554,203
0495-COHASSET PUBLIC SCHOOLS.....	47,853,996	5,803,128
0500-CONCORD PUBLIC SCHOOLS.....	78,375,790	9,504,425
0505-CONCORD-CARLISLE REGIONAL SCHOOL.....	49,702,166	6,027,250
0510-CONWAY PUBLIC SCHOOLS.....	4,555,997	552,494
0515-SOUTH COAST ED. COLLABORATIVE (COOPC).....	22,988,655	2,787,773
0520-DANVERS PUBLIC SCHOOLS.....	102,020,428	12,371,748
0525-DARTMOUTH PUBLIC SCHOOLS.....	99,136,484	12,022,019
0530-DEDHAM PUBLIC SCHOOLS.....	94,041,839	11,404,205
0540-DEERFIELD PUBLIC SCHOOLS.....	10,354,461	1,255,658
0545-DENNIS-YARMOUTH REGIONAL SCHOOLS.....	98,146,637	11,901,983
0555-DIGHTON-REHOBOTH REGIONAL SCHOOL.....	73,031,324	8,856,316
0560-DOUGLAS PUBLIC SCHOOLS.....	30,106,220	3,650,902
0565-DOVER PUBLIC SCHOOLS.....	15,648,720	1,897,679
0570-DOVER-SHERBORN REGIONAL SCHOOL.....	47,302,722	5,736,276
0575-DRACUT PUBLIC SCHOOLS.....	66,163,672	8,023,494
0580-DUDLEY-CHARLTON REGIONAL SCHOOLS.....	85,244,761	10,337,407
0585-DUXBURY PUBLIC SCHOOLS.....	83,360,030	10,108,851
0590-EAST BRIDGEWATER PUBLIC SCHOOLS.....	51,389,518	6,231,871
0600-EAST LONGMEADOW PUBLIC SCHOOLS.....	71,701,416	8,695,041
0605-EASTHAM PUBLIC SCHOOLS.....	7,501,819	909,726



**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
0610-EASTHAMPTON PUBLIC SCHOOLS.....	33,242,360	4,031,213
0615-EASTON PUBLIC SCHOOLS.....	93,025,687	11,280,979
0617-EDCO COLLABORATIVE.....	8,059,653	977,373
0620-EDGARTOWN PUBLIC SCHOOLS.....	14,402,944	1,746,607
0625-ERVING PUBLIC SCHOOLS.....	6,206,687	752,669
0640-EVERETT PUBLIC SCHOOLS.....	177,653,405	21,543,559
0645-FAIRHAVEN PUBLIC SCHOOLS.....	46,594,344	5,650,373
0650-FALL RIVER PUBLIC SCHOOLS.....	244,707,583	29,675,042
0655-FALMOUTH PUBLIC SCHOOLS.....	106,322,988	12,893,508
0660-FITCHBURG PUBLIC SCHOOLS.....	124,664,044	15,117,679
0665-FLLAC COLLABORATIVE.....	10,940,869	1,326,770
0670-FLORIDA PUBLIC SCHOOLS.....	2,624,866	318,311
0675-FOXBOROUGH PUBLIC SCHOOLS.....	79,662,615	9,660,475
0680-FRAMINGHAM PUBLIC SCHOOLS.....	273,039,022	33,110,720
0685-FRANKLIN PUBLIC SCHOOLS.....	148,576,160	18,017,438
0690-FRANKLIN COUNTY REGIONAL SCHOOL DISTRICT.....	17,525,901	2,125,320
0700-FREETOWN-LAKEVILLE REGIONAL SCHOOLS.....	61,287,548	7,432,179
0705-FRONTIER REGIONAL SCHOOL DISTRICT.....	18,506,690	2,244,257
0710-GARDNER PUBLIC SCHOOLS.....	54,015,842	6,550,358
0715-GATEWAY REGIONAL SCHOOL.....	24,058,372	2,917,495
0725-GEORGETOWN PUBLIC SCHOOLS.....	36,272,723	4,398,697
0730-GILL-MONTAGUE REGIONAL.....	26,707,150	3,238,705
0735-GLOUCESTER PUBLIC SCHOOLS.....	84,243,718	10,216,013
0745-GOSNOLD PUBLIC SCHOOLS.....	155,231	18,824
0750-GRAFTON PUBLIC SCHOOLS.....	70,409,350	8,538,356
0755-GRANBY PUBLIC SCHOOLS.....	19,631,022	2,380,602
0765-DIMAN REGIONAL VOC.....	48,463,438	5,877,033
0770-GREATER LAWRENCE REGIONAL.....	51,985,717	6,304,170
0775-CREST.....	16,347,894	1,982,466
0780-GREATER LOWELL REGIONAL.....	69,848,081	8,470,292
0785-GREATER NEW BEDFORD REGIONAL VOC.....	67,818,628	8,224,186
0795-GREENFIELD PUBLIC SCHOOLS.....	42,325,552	5,132,708
0800-GROTON-DUNSTABLE REGIONAL.....	65,612,961	7,956,710
0810-HADLEY PUBLIC SCHOOLS.....	15,084,702	1,829,282
0815-HALIFAX PUBLIC SCHOOLS.....	12,324,814	1,494,598
0820-HAMILTON-WENHAM REGIONAL.....	58,249,212	7,063,728
0830-HAMPDEN-WILBRAHAM REGIONAL.....	80,029,835	9,705,007
0835-HAMPSHIRE REGIONAL SCHOOL.....	23,291,568	2,824,507
0840-COLLABORATIVE FOR EDUCATIONAL SERVICES.....	55,445,432	6,723,721
0845-HANCOCK PUBLIC SCHOOLS.....	1,366,533	165,716
0850-HANOVER PUBLIC SCHOOLS.....	74,591,816	9,045,552

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
 SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER  
 As of and for the fiscal year ended June 30, 2019  
 (Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
0865-HARVARD PUBLIC SCHOOLS.....	33,851,304	4,105,058
0875-HATFIELD PUBLIC SCHOOLS.....	11,719,756	1,421,224
0880-HAVERHILL PUBLIC SCHOOLS.....	181,206,442	21,974,426
0885-HAWLEMONT REGIONAL.....	3,801,070	460,946
0895-HINGHAM PUBLIC SCHOOLS.....	122,006,768	14,795,438
0900-HOLBROOK PUBLIC SCHOOLS.....	29,416,324	3,567,240
0910-HOLLAND PUBLIC SCHOOLS.....	5,608,871	680,173
0915-HOLLISTON PUBLIC SCHOOLS.....	81,167,976	9,843,026
0920-HOLYOKE PUBLIC SCHOOLS.....	122,290,961	14,829,902
0925-HOPEDALE PUBLIC SCHOOLS.....	30,183,263	3,660,244
0930-HOPKINTON PUBLIC SCHOOLS.....	105,890,031	12,841,004
0940-HUDSON PUBLIC SCHOOLS.....	83,087,103	10,075,753
0945-HULL PUBLIC SCHOOLS.....	32,238,462	3,909,473
0950-IPSWICH PUBLIC SCHOOLS.....	52,957,661	6,422,036
0955-KING PHILIP REGIONAL.....	44,974,208	5,453,903
0960-KINGSTON PUBLIC SCHOOLS.....	22,000,161	2,667,901
0965-LABBB COLLABORATIVE.....	27,051,082	3,280,413
0985-LAWRENCE PUBLIC SCHOOLS.....	328,949,155	39,890,794
0990-LEE PUBLIC SCHOOLS.....	21,152,704	2,565,133
0995-LEICESTER PUBLIC SCHOOLS.....	37,107,002	4,499,868
1000-LENOX PUBLIC SCHOOLS.....	25,712,918	3,118,138
1005-LEOMINSTER PUBLIC SCHOOLS.....	137,301,403	16,650,178
1010-LEVERETT PUBLIC SCHOOLS.....	4,122,405	499,913
1015-LEXINGTON PUBLIC SCHOOLS.....	254,345,829	30,843,846
1025-LINCOLN PUBLIC SCHOOLS.....	52,425,174	6,357,462
1030-LINCOLN-SUDBURY REGIONAL.....	58,630,015	7,109,907
1035-LITTLETON PUBLIC SCHOOLS.....	40,994,283	4,971,268
1040-LONGMEADOW PUBLIC SCHOOLS.....	79,833,999	9,681,258
1045-LOWELL PUBLIC SCHOOLS.....	366,012,093	44,385,319
1050-LOWER PIONEER COLLAB.....	13,769,562	1,669,798
1055-LUDLOW PUBLIC SCHOOLS.....	70,882,683	8,595,756
1060-LUNENBURG PUBLIC SCHOOLS.....	38,550,921	4,674,968
1065-LYNN PUBLIC SCHOOLS.....	356,717,408	43,258,177
1070-LYNNFIELD PUBLIC SCHOOLS.....	63,216,300	7,666,074
1075-MALDEN PUBLIC SCHOOLS.....	169,717,899	20,581,241
1082-MANCHESTER ESSEX REGIONAL SCHOOL.....	48,213,416	5,846,713
1085-MANSFIELD PUBLIC SCHOOLS.....	114,073,910	13,833,441
1090-MARBLEHEAD PUBLIC SCHOOLS.....	93,152,763	11,296,389
1095-MARION PUBLIC SCHOOLS.....	12,304,692	1,492,158
1100-MARTHA'S VINEYARD PUBLIC SCHOOLS.....	40,460,398	4,906,526
1105-MARSHFIELD PUBLIC SCHOOLS.....	109,344,668	13,259,939

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
 SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER  
 As of and for the fiscal year ended June 30, 2019  
 (Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
1110-MARLBOROUGH PUBLIC SCHOOLS.....	140,332,067	17,017,699
1115-MASCONOMET REGIONAL SCHOOL.....	59,428,611	7,206,751
1120-MASHPEE PUBLIC SCHOOLS.....	47,334,396	5,740,117
1125-MATTAPOISETT PUBLIC SCHOOLS.....	13,547,215	1,642,835
1130-MAYNARD PUBLIC SCHOOLS.....	40,434,299	4,903,361
1135-MEDFIELD PUBLIC SCHOOLS.....	83,458,318	10,120,770
1140-MEDFORD PUBLIC SCHOOLS.....	147,297,721	17,862,405
1145-MEDWAY PUBLIC SCHOOLS.....	67,869,604	8,230,367
1150-MELROSE PUBLIC SCHOOLS.....	83,244,186	10,094,802
1155-MENDON-UPTON REGIONAL SCHOOL DISTRICT.....	55,165,274	6,689,747
1165-VALLEY COLLABORATIVE SCHOOL.....	20,989,574	2,545,350
1170-METHUEN PUBLIC SCHOOLS.....	166,426,825	20,182,141
1175-MIDDLEBOROUGH PUBLIC SCHOOLS.....	76,117,966	9,230,624
1180-MIDDLETON PUBLIC SCHOOLS.....	22,256,968	2,699,044
1185-MILFORD PUBLIC SCHOOLS.....	115,474,174	14,003,248
1190-MILLBURY PUBLIC SCHOOLS.....	44,806,089	5,433,516
1195-MILLIS PUBLIC SCHOOLS.....	37,967,559	4,604,225
1200-MILTON PUBLIC SCHOOLS.....	116,296,436	14,102,961
1205-MINUTEMAN REGIONAL VOCATIONAL SCHOOL.....	33,700,373	4,086,755
1210-MOHAWK TRAIL REGIONAL SCHOOL.....	27,786,800	3,369,632
1215-MONROE PUBLIC SCHOOLS.....	92,045	11,162
1220-MONSON PUBLIC SCHOOLS.....	24,740,898	3,000,263
1225-MONTACHUSETT REGIONAL VOCATIONAL SCHOOL.....	40,093,211	4,861,998
1230-MOUNT GREYLOCK REGIONAL SCHOOL.....	31,371,842	3,804,380
1235-NAHANT PUBLIC SCHOOLS.....	3,206,357	388,826
1240-NANTUCKET PUBLIC SCHOOLS.....	61,048,438	7,403,183
1245-NARRAGANSETT REGIONAL SCHOOL DISTRICT.....	31,401,007	3,807,917
1250-NASHOBA REGIONAL SCHOOL DISTRICT.....	99,228,204	12,033,142
1255-NASHOBA VALLEY TECH.....	25,104,598	3,044,368
1260-NATICK PUBLIC SCHOOLS.....	150,808,106	18,288,100
1265-NAUSET REGIONAL SCHOOL.....	54,134,221	6,564,714
1275-NEEDHAM PUBLIC SCHOOLS.....	175,678,243	21,304,036
1285-NEW BEDFORD PUBLIC SCHOOLS.....	301,875,071	36,607,592
1295-NEW SALEM-WENDELL REGIONAL SCHOOL.....	5,275,074	639,694
1305-NEWBURYPORT PUBLIC SCHOOLS.....	67,851,829	8,228,212
1310-NEWTON PUBLIC SCHOOLS.....	422,172,622	51,195,758
1315-NORFOLK PUBLIC SCHOOLS.....	27,700,442	3,359,159
1320-NORFOLK COUNTY AGRICULTURAL SCHOOL.....	19,989,446	2,424,067
1325-NORTH ADAMS PUBLIC SCHOOLS.....	37,033,769	4,490,987
1330-NORTH ANDOVER PUBLIC SCHOOLS.....	109,141,802	13,235,338
1335-NORTH ATTLEBORO PUBLIC SCHOOLS.....	98,418,309	11,934,928

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
1340-NORTH BROOKFIELD PUBLIC SCHOOLS.....	13,250,089	1,606,803
1345-NORTH MIDDLESEX REGIONAL SCHOOL.....	78,925,920	9,571,138
1350-NORTH READING PUBLIC SCHOOLS.....	72,595,573	8,803,473
1355-NORTH RIVER COLLABORATIVE SCHOOL.....	13,481,684	1,634,888
1365-NORTHAMPTON PUBLIC SCHOOLS.....	85,948,854	10,422,790
1370-NORTHBOROUGH PUBLIC SCHOOLS.....	54,118,575	6,562,816
1375-NORTHBORO-SOUTHBORO REGIONAL SCHOOL.....	45,264,800	5,489,143
1380-NORTHBRIDGE PUBLIC SCHOOLS.....	52,730,934	6,394,541
1385-NORTHEAST METRO REGIONAL VOCATIONAL SCH.....	43,785,278	5,309,725
1390-NORTHERN BERKSHIRE REGIONAL VOC. SCH.....	15,270,381	1,851,799
1400-NORTON PUBLIC SCHOOLS.....	66,260,500	8,035,236
1405-NORWELL PUBLIC SCHOOLS.....	65,354,332	7,925,347
1410-NORWOOD PUBLIC SCHOOLS.....	101,220,976	12,274,800
1415-OAK BLUFFS PUBLIC SCHOOLS.....	16,072,951	1,949,124
1425-OLD COLONY VOCATIONAL SCHOOL.....	18,280,684	2,216,850
1430-OLD ROCHESTER REGIONAL SCHOOL.....	32,181,250	3,902,535
1435-ORANGE PUBLIC SCHOOLS.....	12,289,584	1,490,325
1440-ORLEANS PUBLIC SCHOOLS.....	8,258,045	1,001,431
1445-FARMINGTON RIVER PUBLIC SCHOOLS.....	3,515,066	426,263
1450-OXFORD PUBLIC SCHOOLS.....	37,764,033	4,579,545
1455-PALMER PUBLIC SCHOOLS.....	35,668,527	4,325,428
1460-PATHFINDER REGIONAL VOC.....	24,594,713	2,982,536
1470-PEABODY PUBLIC SCHOOLS.....	148,866,800	18,052,683
1475-PELHAM PUBLIC SCHOOLS.....	3,671,659	445,252
1480-PEMBROKE PUBLIC SCHOOLS.....	74,343,988	9,015,499
1485-PENTUCKET REGIONAL SCHOOL.....	65,130,126	7,898,158
1490-PETERSHAM CENTER SCHOOL.....	2,204,472	267,330
1495-PILGRIM AREA COLLABORATIVE.....	12,302,221	1,491,858
1500-PIONEER VALLEY REGIONAL.....	20,353,223	2,468,182
1505-PITTSFIELD PUBLIC SCHOOLS.....	142,223,366	17,247,052
1515-PLAINVILLE PUBLIC SCHOOLS.....	19,596,191	2,376,378
1520-PLYMOUTH PUBLIC SCHOOLS.....	213,712,472	25,916,346
1530-PLYMPTON PUBLIC SCHOOLS.....	5,831,274	707,143
1540-ACCEPT EDUCATIONAL COLLABORATIVE.....	8,727,292	1,058,336
1550-PROVINCETOWN PUBLIC SCHOOLS.....	7,434,365	901,546
1556-QUABBIN REGIONAL SCHOOL.....	51,767,695	6,277,732
1560-QUABOAG REGIONAL SCHOOL DISTRICT.....	30,160,468	3,657,480
1565-QUINCY PUBLIC SCHOOLS.....	256,836,706	31,145,908
1566-QUINCY COLLEGE.....	15,777,095	1,913,247
1570-RALPH C. MAHAR REG. SCHOOL.....	18,575,443	2,252,595
1575-RANDOLPH PUBLIC SCHOOLS.....	91,027,370	11,038,649

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
1585-READING PUBLIC SCHOOLS.....	109,355,748	13,261,283
1590-READS COLLABORATIVE.....	13,430,500	1,628,681
1605-REVERE PUBLIC SCHOOLS.....	198,259,260	24,042,376
1610-RICHMOND PUBLIC SCHOOLS.....	5,359,007	649,873
1615-ROCHESTER PUBLIC SCHOOLS.....	14,041,894	1,702,823
1620-ROCKLAND PUBLIC SCHOOLS.....	59,854,537	7,258,401
1625-ROCKPORT PUBLIC SCHOOLS.....	29,989,589	3,636,758
1630-ROWE PUBLIC SCHOOLS.....	2,445,135	296,515
1645-SALEM PUBLIC SCHOOLS.....	139,309,152	16,893,653
1660-SANDWICH PUBLIC SCHOOLS.....	72,010,320	8,732,501
1665-SAUGUS PUBLIC SCHOOLS.....	67,590,286	8,196,495
1670-SAVOY PUBLIC SCHOOLS.....	1,276,996	154,858
1675-SCITUATE PUBLIC SCHOOLS.....	93,677,876	11,360,068
1680-SEEKONK PUBLIC SCHOOLS.....	56,921,923	6,902,771
1685-SEEM COLLABORATIVE.....	30,330,731	3,678,128
1690-SHARON PUBLIC SCHOOLS.....	105,876,389	12,839,350
1695-SHAWSHEEN VALLEY VOC.....	51,954,967	6,300,442
1700-SHERBORN PUBLIC SCHOOLS.....	14,210,542	1,723,275
1710-SHORE COLLABORATIVE.....	15,918,451	1,930,389
1715-SHREWSBURY PUBLIC SCHOOLS.....	149,852,702	18,172,241
1720-SHUTESBURY PUBLIC SCHOOLS.....	4,196,193	508,861
1725-SILVER LAKE REGIONAL SCHOOL DIST.....	51,990,194	6,304,713
1730-SOMERSET PUBLIC SCHOOLS.....	42,414,415	5,143,484
1735-SOMERVILLE PUBLIC SCHOOLS.....	169,881,193	20,601,043
1745-SOUTH HADLEY PUBLIC SCHOOLS.....	47,341,901	5,741,027
1750-SOUTH MIDDLESEX REGIONAL VOC.....	30,441,263	3,691,531
1755-SOUTH SHORE REGIONAL SCHOOL DIST.....	22,058,412	2,674,965
1760-SOUTH SHORE EDUCATIONAL COLLABORATIVE.....	33,829,657	4,102,433
1765-SOUTHERN WORCESTER COUNTY REGIONAL SCH.....	38,298,005	4,644,298
1770-SOUTHAMPTON PUBLIC SCHOOLS.....	10,624,640	1,288,422
1775-SOUTHBOROUGH PUBLIC SCHOOLS.....	45,132,562	5,473,106
1780-SOUTHBRIDGE PUBLIC SCHOOLS.....	53,257,319	6,458,374
1785-SOUTHEASTERN REGIONAL VOC. SCHOOL DIST.....	45,306,578	5,494,209
1790-SOUTHEASTERN MASS. COLLAB.....	5,666,368	687,145
1795-SOUTHERN BERKSHIRE REGIONAL.....	22,791,912	2,763,915
1800-SOUTHERN WORCESTER CO. ED. COLLAB.....	9,860,380	1,195,742
1805-SOUTHWICK-TOLLAND REGIONAL.....	41,034,022	4,976,087
1810-NORTH SHORE EDUCATION CONSORTIUM.....	32,751,366	3,971,672
1820-SPENCER-EAST BROOKFIELD PUBLIC SCHOOLS.....	34,226,657	4,150,576
1825-SPRINGFIELD PUBLIC SCHOOLS.....	613,926,010	74,449,184
1835-STONEHAM PUBLIC SCHOOLS.....	65,321,980	7,921,424

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
1840-STOUGHTON PUBLIC SCHOOLS.....	107,873,297	13,081,510
1850-STURBRIDGE PUBLIC SCHOOL.....	24,178,322	2,932,041
1855-SUDBURY PUBLIC SCHOOLS.....	85,338,062	10,348,721
1860-SUNDERLAND PUBLIC SCHOOLS.....	6,022,842	730,374
1865-SUTTON PUBLIC SCHOOLS.....	35,066,524	4,252,425
1870-SWAMPSCOTT PUBLIC SCHOOLS.....	64,409,948	7,810,824
1875-SWANSEA PUBLIC SCHOOLS.....	50,679,842	6,145,811
1880-TANTASQUA REGIONAL HIGH SCHOOL.....	48,386,958	5,867,758
1885-TAUNTON PUBLIC SCHOOLS.....	188,628,883	22,874,526
1890-TECH. COLLAB. THE ED. COOPERATIVE.....	10,135,151	1,229,063
1895-TEWKSBURY PUBLIC SCHOOLS.....	89,796,305	10,889,361
1900-TISBURY PUBLIC SCHOOLS.....	13,023,454	1,579,320
1905-TOPSFIELD PUBLIC SCHOOLS.....	19,368,216	2,348,732
1910-TRI-COUNTY REGIONAL VOC.....	37,043,452	4,492,161
1915-TRITON PUBLIC SCHOOLS.....	68,715,960	8,333,003
1920-TRURO PUBLIC SCHOOLS.....	6,145,907	745,298
1925-TYNGSBOROUGH PUBLIC SCHOOLS.....	46,449,478	5,632,805
1935-UPPER CAPE COD VOC. SCHOOL.....	25,560,527	3,099,658
1936-UP ISLAND REGIONAL SCHOOL.....	16,601,710	2,013,246
1940-UXBRIDGE PUBLIC SCHOOLS.....	44,573,782	5,405,345
1950-WACHUSETT REGIONAL SCHOOL DIST.....	160,612,146	19,477,010
1955-WAKEFIELD PUBLIC SCHOOLS.....	96,437,085	11,694,670
1960-WALES PUBLIC SCHOOLS.....	3,554,987	431,104
1965-WALPOLE PUBLIC SCHOOLS.....	113,439,467	13,756,504
1970-WALTHAM PUBLIC SCHOOLS.....	197,047,109	23,895,382
1975-WARE PUBLIC SCHOOLS.....	26,344,116	3,194,681
1980-WAREHAM PUBLIC SCHOOLS.....	61,091,041	7,408,349
2000-WATERTOWN PUBLIC SCHOOLS.....	99,726,929	12,093,621
2005-WAYLAND PUBLIC SCHOOLS.....	94,011,205	11,400,490
2010-WEBSTER PUBLIC SCHOOLS.....	47,178,016	5,721,153
2015-WELLESLEY PUBLIC SCHOOLS.....	187,118,342	22,691,347
2020-WELLFLEET PUBLIC SCHOOLS.....	4,545,627	551,236
2025-WEST BOYLSTON PUBLIC SCHOOLS.....	27,733,645	3,363,186
2030-WEST BRIDGEWATER PUBLIC SCHOOLS.....	32,064,378	3,888,362
2045-WEST SPRINGFIELD PUBLIC SCHOOLS.....	104,661,582	12,692,033
2055-WESTBOROUGH PUBLIC SCHOOLS.....	117,190,308	14,211,359
2060-WESTFIELD PUBLIC SCHOOLS.....	132,653,571	16,086,548
2065-WESTFORD PUBLIC SCHOOLS.....	140,587,139	17,048,631
2070-WESTHAMPTON PUBLIC SCHOOLS.....	3,607,664	437,492
2080-WESTON PUBLIC SCHOOLS.....	87,233,662	10,578,596
2085-WESTPORT PUBLIC SCHOOLS.....	39,315,603	4,767,699

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
2090-WESTWOOD PUBLIC SCHOOLS.....	104,780,328	12,706,433
2095-WEYMOUTH PUBLIC SCHOOLS.....	155,906,482	18,906,367
2100-WHATELY PUBLIC SCHOOLS.....	3,772,131	457,436
2110-WHITMAN-HANSON REGIONAL.....	88,666,278	10,752,325
2120-WILLIAMSBURG PUBLIC SCHOOLS.....	4,604,898	558,424
2130-WILMINGTON PUBLIC SCHOOLS.....	96,766,479	11,734,615
2135-WINCENDON PUBLIC SCHOOLS.....	29,738,245	3,606,278
2140-WINCHESTER PUBLIC SCHOOLS.....	131,536,755	15,951,115
2145-WINTHROP PUBLIC SCHOOLS.....	46,607,555	5,651,975
2150-WHITTIER VOC. SCHOOL DIST.....	42,223,736	5,120,361
2155-WOBURN PUBLIC SCHOOLS.....	138,083,433	16,745,013
2160-WORCESTER PUBLIC SCHOOLS.....	663,622,575	80,475,755
2162-MASS ACADEMY OF MATH AND SCIENCE.....	2,451,232	297,254
2164-WORTHINGTON PUBLIC SCHOOLS.....	1,693,274	205,339
2165-WRENTHAM PUBLIC SCHOOLS.....	27,671,549	3,355,656
2200-AYER SHIRLEY REGIONAL.....	39,901,399	4,838,737
2205-SOMERSET-BERKLEY REGIONAL.....	26,667,161	3,233,856
2210-MONOMOY REGIONAL SCHOOL DISTRICT.....	60,450,445	7,330,666
2215-ESSEX NORTH SHORE AGRICULTURAL & TECHNICAL.....	45,342,715	5,498,591
3000-MASS VIRTUAL ACADEMY AT GREENFIELD.....	9,694,225	1,175,593
3005-TECCA VIRTUAL SCHOOL.....	21,808,676	2,644,680
4005-COMMUNITY DAY CHARTER SCHOOL.....	12,094,152	1,466,626
4010-CITY ON A HILL CHARTER SCHOOL.....	10,371,492	1,257,723
4015-ATLANTIS CHARTER SCHOOL.....	22,126,420	2,683,213
4020-CAPE COD LIGHTHOUSE CHARTER SCHOOL.....	7,654,370	928,225
4025-HILLTOWN COOPERATIVE CHARTER SCHOOL.....	5,507,004	667,820
4030-BENJAMIN FRANKLIN CLASSICAL CHARTER SCH.....	10,385,715	1,259,448
4035-SOUTH SHORE CHARTER SCHOOL.....	26,201,519	3,177,389
4040-LOWELL MIDDLESEX ACADEMY CHARTER SCH.....	2,744,575	332,827
4055-BOSTON RENAISSANCE CHARTER SCHOOL.....	27,296,916	3,310,225
4060-MARBLEHEAD COMMUNITY CHARTER SCHOOL.....	5,338,900	647,434
4065-FRANCIS W. PARKER CHARTER SCHOOL.....	9,724,920	1,179,315
4070-NEIGHBORHOOD HOUSE CHARTER SCHOOL.....	19,095,557	2,315,668
4075-ACADEMY OF THE PACIFIC RIM CHARTER SCH.....	15,022,841	1,821,780
4080-BENJAMIN BANNEKER CHARTER SCHOOL.....	8,464,263	1,026,439
4090-LAWRENCE FAMILY DEVELOPMENT CHARTER SCH.....	15,380,266	1,865,124
4095-MARTHA'S VINEYARD CHARTER SCHOOL.....	6,976,464	846,017
4105-SABIS INTERNATIONAL CHARTER SCHOOL.....	24,470,381	2,967,458
4115-PIONEER VALLEY PERFORMING ARTS CHARTER.....	11,529,144	1,398,109
4120-PROSPECT HILL ACADEMY CHARTER SCHOOL.....	37,206,411	4,511,923
4125-SEVEN HILLS CHARTER SCHOOL.....	13,681,308	1,659,096

**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
4140-ABBY KELLEY FOSTER REGIONAL CHARTER.....	30,709,756	3,724,091
4145-MYSTIC VALLEY REGIONAL CHARTER SCHOOL.....	25,610,236	3,105,686
4150-FOXBORO REGIONAL CHARTER SCHOOL.....	30,523,003	3,701,444
4165-RISING TIDE CHARTER.....	16,150,373	1,958,513
4170-BOSTON COLLEGIATE CHARTER SCHOOL.....	22,571,669	2,737,207
4175-STURGIS CHARTER SCHOOL.....	27,624,188	3,349,912
4180-RIVER VALLEY CHARTER SCHOOL.....	6,378,797	773,540
4200-CONSERVATORY LAB CHARTER SCHOOL.....	10,771,398	1,306,219
4205-ROXBURY PREPARATORY CHARTER.....	38,286,497	4,642,902
4210-MEDIA & TECH CHARTER HIGH SCH.....	38,279,471	4,642,050
4225-CODMAN ACADEMY CHARTER SCHOOL.....	11,554,827	1,401,223
4235-CHRISTA MCAULIFFE REG. CHARTER P.S.....	10,979,090	1,331,405
4240-NORTH CENTRAL CHARTER ESSENTIAL SCHOOL.....	9,606,398	1,164,943
4245-INNOVATION ACADEMY CHARTER SCHOOL.....	19,327,921	2,343,846
4250-EDWARD BROOKE CHARTER SCHOOL.....	57,311,974	6,950,072
4260-FOUR RIVER CHARTER PUBLIC SCHOOL.....	6,185,239	750,068
4265-BOSTON PREPARATORY CHARTER SCHOOL.....	18,420,427	2,233,796
4270-EXCEL ACADEMY CHARTER SCHOOL.....	37,174,729	4,508,081
4275-SALEM ACADEMY CHARTER SCHOOL.....	13,651,825	1,655,521
4285-BERKSHIRE ARTS AND TECHNOLOGY CHARTER.....	8,959,783	1,086,529
4290-HELEN Y. DAVIS LEADERSHIP ACADEMY CHARTER PUBLIC.....	5,527,264	670,277
4295-HILLVIEW MONTESSORI CHARTER SCHOOL.....	5,913,931	717,167
4300-KIPP ACADEMY LYNN CHARTER SCHOOL.....	39,497,111	4,789,710
4305-ADVANCED MATH & SCIENCE ACADEMY CHARTER SCHOOL.....	23,000,376	2,789,195
4310-COMMUNITY CHARTER SCHOOL OF CAMBRIDGE.....	11,754,051	1,425,383
4315-HOLYOKE COMMUNITY CHARTER SCHOOL.....	11,959,822	1,450,336
4320-MARTIN LUTHER KING JR. CHARTER SCHOOL.....	10,008,727	1,213,732
4325-PHOENIX CHARTER ACADEMY.....	5,771,247	699,864
4330-PIONEER VALLEY CHINESE IMMERSION CHARTER.....	15,695,806	1,903,389
4420-LOWELL COMMUNITY CHARTER SCHOOL.....	18,409,647	2,232,489
4425-PIONEER CHARTER SCHOOL OF SCIENCE.....	17,982,166	2,180,650
4430-GLOBAL LEARNING CHARTER PUBLIC SCHOOL.....	11,188,027	1,356,742
4440-HAMPDEN CHARTER SCHOOL OF SCIENCE - EAST.....	10,266,398	1,244,979
4510-ALMA DEL MAR CHARTER SCHOOL.....	9,474,693	1,148,971
4515-BRIDGE BOSTON CHARTER SCHOOL.....	11,230,952	1,361,948
4550-VERITAS PREPARATORY CHARTER SCHOOL.....	10,427,042	1,264,460
4565-CDCPS-GATEWAY.....	8,547,876	1,036,578
4570-CDCPS-R KINGMAN WEBSTER.....	8,073,258	979,023
4575-KIPP ACADEMY BOSTON CHARTER SCHOOL.....	14,589,140	1,769,186
4580-PAULO FREIRE SOCIAL JUSTICE CHARTER SCHOOL.....	6,935,127	841,005
4585-CITY ON A HILL CHARTER 2.....	7,041,656	853,923



**MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM**  
**SUPPLEMENTAL SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**  
As of and for the fiscal year ended June 30, 2019  
(Unaudited)

Employer	Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District	Employer Pension Expense and Revenue from Commonwealth Support
4590-CITY ON A HILL CHARTER - NEW BEDFORD.....	5,829,396	706,915
4595-PIONEER CHARTER SCHOOL OF SCIENCE II.....	7,931,526	961,835
4600-THE LOWELL COLLEGIATE CHARTER SCHOOL.....	9,544,842	1,157,478
4605-BAY STATE ACADEMY CHARTER PUBLIC SCHOOL.....	11,472,541	1,391,245
4610-PHOENIX CHARTER ACADEMY SPRINGFIELD.....	4,120,658	499,701
4615-ARGOSY COLLEGIATE CHARTER SCHOOL.....	9,281,343	1,125,524
4620-SPRINGFIELD PREPARATORY CHARTER SCHOOL.....	6,169,499	748,159
4625-NEW HEIGHTS CHARTER OF BROCKTON.....	11,456,514	1,389,301
4630-LIBERTAS ACADEMY CHARTER SCHOOL.....	4,795,436	581,530
4635-OLD STURBRIDGE ACADEMY CHARTER PS.....	3,148,324	381,789
4640-MAP ACADEMY CHARTER SCHOOL.....	3,135,044	380,178
4645-HAMPDEN CHARTER SCHOOL OF SCIENCE - WEST.....	4,398,361	533,378
4650-PHOENIX ACADEMY PUBLIC CHARTER HS LAWRENCE.....	2,832,966	343,546
Totals.....	<u>\$ 25,214,020,000</u>	<u>\$ 3,057,637,552</u>

See accompanying notes to supplemental schedules.

# MASSACHUSETTS TEACHERS' RETIREMENT SYSTEM

## Notes to Supplemental Schedules

June 30, 2019

(Unaudited)

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### **NOTE 1 - SCHEDULE OF EMPLOYER ALLOCATIONS OF SPECIAL FUNDING AMOUNTS**

The Supplemental Schedule of Employer Allocations of Special Funding Amounts shows the total Commonwealth support provided to the employers for the year ending June 30, 2019. The total of Commonwealth provided contributions has been allocated based on the ratio of each employer's covered payroll to the total covered payroll (approximately \$7,277,148,000) of employers in MTRS as of the measurement date of June 30, 2019. The Supplemental Schedule of Employer Allocations of Special Funding Amounts is included to provide employers with their calculated proportionate share that will be used to recognize pension expense and revenue and to disclose the proportionate share of the collective net pension liability.

### **NOTE 2 - COMPONENTS ON SCHEDULE OF SPECIAL FUNDING AMOUNTS BY EMPLOYER**

#### *Commonwealth's Proportionate Share of the Net Pension Liability Associated with the District*

The Commonwealth's proportionate share of the net pension liability associated with each employer is equal to the collective net pension liability multiplied by the employer's proportionate share percentage for the fiscal year ending June 30, 2019, as shown in the Supplemental Schedule of Employer Allocations of Special Funding Amounts.

#### *Employer Pension Expense and Revenue from Commonwealth Support*

Employers in a special funding situation are required to recognize pension expense and revenue for the support provided by the nonemployer contributing entity (the Commonwealth). All employers in MTRS are special funding situations with employer contributions paid by the Commonwealth. The amount reported in the Employer Pension Expense and Revenue from Commonwealth Support Column are calculated for each participating employer by multiplying the collective pension expense by the allocation percentage as shown in the Supplemental Schedule of Employer Allocations of Special Funding Amounts.