# MASSACHUSETTS STATE EMPLOYEES' RETIREMENT SYSTEM INDEPENDENT AUDITORS' REPORT ON PENSION PLAN SCHEDULES AS OF AND FOR THE FISCAL YEAR ENDED JUNE 30, 2024

#### MASSACHUSETTS STATE EMPLOYEES' RETIREMENT SYSTEM

#### INDEPENDENT AUDITORS' REPORT ON PENSION PLAN SCHEDULES

#### AS OF AND FOR THE FISCAL YEAR ENDED JUNE 30, 2024

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#### INDEPENDENT AUDITORS' REPORT

Mr. William McNamara, Comptroller Commonwealth of Massachusetts

#### Report on the Audit of the Schedules

#### **Opinions**

We have audited the accompanying schedule of employer and nonemployer allocations of the Massachusetts State Employees' Retirement System (MSERS) as of and for the year ended June 30, 2024, and the related notes. We have also audited the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total employer pension expense (specified column totals), included in the accompanying schedule of pension amounts by employer and nonemployer of MSERS as of and for the fiscal year ended June 30, 2024, and the related notes.

In our opinion, the schedules referred to above present fairly, in all material respects, the employer and nonemployer allocations and ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense for the total of all participating entities of MSERS as of and for the year ended June 30, 2024, in accordance with accounting principles generally accepted in the United States of America.

#### **Basis for Opinions**

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Schedules section of our report. We are required to be independent of MSERS and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

#### Responsibilities of Management 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, and for 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' Responsibilities for the Audit of the Schedules

Our objectives are to obtain reasonable assurance about whether the schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedule of employer and nonemployer allocations and specified column totals included in the schedule of pension amounts by employer and nonemployer.

Mr. William McNamara, Comptroller Commonwealth of Massachusetts

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the schedule of employer and nonemployer allocations and the specified column totals included in the schedule of pension amounts by employer and nonemployer, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the schedule of employer and nonemployer allocations and the specified totals included in the schedule of pension amounts by employer and nonemployer and the related disclosures.
- Obtain an understanding of internal control relevant to the audit 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 MSERS' internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the schedule of employer and nonemployer allocations and the specified column totals included in the schedule of pension amounts by employer and nonemployer.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

#### Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Commonwealth of Massachusetts as of and for the year ended June 30, 2024, and our report thereon, dated April 29, 2025, expressed an unmodified opinion on those financial statements. MSERS is reported as a pension trust fund in the financial statements of the Commonwealth of Massachusetts.

#### Restriction on Use

Our report is intended solely for the information and use of MSERS management, the MSERS Board of Trustees, Retirement Board, MSERS 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.

CliftonLarsonAllen LLP

Clifton Larson Allen LLP

Boston, Massachusetts June 11, 2025

Non Special Funding Situations:   9015 - Commonwealth of Massachusetts:   Employer contributions	Employer/Nonemployer		Actual Contributions	Employer/ Nonemployer Allocation Percentage
9045 - Commonwealth of Massachusetts   Employer contributions	Non Special Funding Situations:			
Employer contributions				
Total Commonwealth of Massachusetts		\$	1,371,687,079	
Employer contributions	. ,			
Employer contributions	Total Commonwealth of Massachusetts		1,371,687,079	90.78061%
Employer contributions	6070 - Massachusetts State College Building Authority:			
Nonemployer contributions	9 9 ,		770,723	
1,525,520	Nonemployer contributions		(369,986)	
1,525,520	Total Massachusetts State College Building Authority		400,737	0.02652%
Employer contributions				
Nonemployer contributions	· · · · · · · · · · · · · · · · · · ·			
Total Massachusetts Convention Center Authority	* *			
9045 - Massachusetts Department of Transportation:  Employer contributions	Nonemployer contributions		3,130,539	
Employer contributions	Total Massachusetts Convention Center Authority		4,656,059	0.30815%
Employer contributions				
Nonemployer contributions				
Total Massachusetts Department of Transportation	1 7			
8060 - Assabet Valley Regional Vocational School District: Employer contributions	Nonemployer contributions		17,689,182	
Employer contributions	Total Massachusetts Department of Transportation.		83,236,779	5.50875%
Employer contributions	8060 - Assabet Valley Regional Vocational School District			
Nonemployer contributions	, 9		772 499	
8100 - Blackstone Valley Regional Vocational School District: Employer contributions	* *		-	
8100 - Blackstone Valley Regional Vocational School District: Employer contributions	Total Assabet Valley Regional Vocational School District		772 499	0.05113%
Employer contributions	Total rissacci variey regional vocational school District		772,177	0.0011070
Nonemployer contributions	8100 - Blackstone Valley Regional Vocational School District:			
Total Blackstone Valley Regional Vocational School District	Employer contributions		841,319	
8080 - Bristol/Plymouth Regional Vocational Technical School District.  Employer contributions	Nonemployer contributions		2,587	
8080 - Bristol/Plymouth Regional Vocational Technical School District.  Employer contributions	Total Blackstone Valley Regional Vocational School District		843 906	0.05585%
Employer contributions	Total blackstolic valley regional vocational school bistice		010,700	0.0000070
Nonemployer contributions	8080 - Bristol/Plymouth Regional Vocational Technical School District			
Total Bristol/Plymouth Regional Vocational Technical School District. 519,333 0.03437%  8160 - Central Massachusetts Regional Planning Commission: Employer contributions Nonemployer contributions. 670,397  Total Central Massachusetts Regional Planning Commission. 670,397 0.04437%  8020 - Merrimack Valley Planning Commission: Employer contributions Nonemployer contributions 313,731  Total Merrimack Valley Planning Commission. 313,731 0.02076%	Employer contributions.		945,741	
8160 - Central Massachusetts Regional Planning Commission:  Employer contributions	Nonemployer contributions		(426,408)	
Employer contributions	Total Bristol/Plymouth Regional Vocational Technical School District		519,333	0.03437%
Employer contributions	8160 - Central Massachusetts Regional Planning Commission:	_	_	
Nonemployer contributions			-	
8020 - Merrimack Valley Planning Commission:  Employer contributions	* *		670,397	
Employer contributions	Total Central Massachusetts Regional Planning Commission		670,397	0.04437%
Employer contributions	8020 Marrimack Vallay Planning Commission:			
Nonemployer contributions				
Total Merrimack Valley Planning Commission			313 731	
<u> </u>	Total payer contained on the second of the s		010,701	
(continued)	Total Merrimack Valley Planning Commission		313,731	0.02076%
				(continued)

Employer/Nonemployer	Actual Contributions	Employer/ Nonemployer Allocation Percentage
8010 - Montachusett Regional Planning Commission:		
Employer contributions.	\$ -	
Nonemployer contributions		
Total Montachusett Regional Planning Commission	274,334	0.01816%
8090 - Montachusett Regional Vocational Technical School District: Employer contributions	437,960	
Nonemployer contributions		
Total Montachusett Regional Vocational Technical School District	1,058,699	0.07007%
8070 - Nashoba Associated Boards of Health:		
Employer contributions	-	
Nonemployer contributions	324,916	
Total Nashoba Associated Boards of Health	324,916	0.02150%
8040 - Northern Middlesex Council of Governments:		
Employer contributions.	-	
Nonemployer contributions	253,942	
Total North Middlesex Council of Governments	253,942	0.01681%
8030 - Northeast Metropolitan Regional Vocational School District		
Employer contributions.	768,390	
Nonemployer contributions		
Total Northeast Metropolitan Regional Vocational School District	768,390	0.05085%
8170 - Old Colony Planning Council:		
Employer contributions	-	
Nonemployer contributions	399,058	
Total Old Colony Planning Council	399,058	0.02641%
8180 - Old Colony Regional Vocational Technical School District:		
Employer contributions	250,685	
Nonemployer contributions	95,134	
Total Old Colony Regional Vocational Technical School District	345,819	0.02289%
8110 - Pioneer Valley Planning Commission:		
Employer contributions	702,357	
Total Pianogy Valley Planning Commission	702 257	0.046489/
Total Pioneer Valley Planning Commission	702,357	0.04648%
8140 - Southeastern Regional Planning & Economic Development District: Employer contributions		
Nonemployer contributions	484,645	
		0.000050/
Total Southeastern Regional Planning & Economic Development District	484,645	0.03207%
		(continued)

Employer/Nonemployer	Actual Contributions	Employer/ Nonemployer Allocation Percentage
8120 - Southeastern Regional School District:		
Employer contributions.  Nonemployer contributions.	884,692 447,645	
Total Southeastern Regional School District	1,332,337	0.08818%
8200 - Tri-County Regional Vocational Technical School District: Employer contributions	1,483,916 (915,090)	
Total Tri-County Regional Vocational Technical School District	568,826	0.03765%
8190 - Upper Blackstone Water Pollution Abatement District: Employer contributions	573,999 577,288	
Total Upper Blackstone Water Pollution Abatement District	1,151,287	0.07619%
8130 - Upper Cape Cod Regional Vocational Technical School District: Employer contributions	272,024 260,318	
Total Upper Cape Cod Regional Vocational Technical School District	532,342	0.03523%
Special Funding Situations (Educational Collaboratives):		
6013 - ACCEPT Education Collaborative:		
Employer contributions	383,945 1,228,270	
Total ACCEPT Education Collaborative	1,612,215	0.10670%
6022 - Assabet Valley Collaborative:  Employer contributions	162,858 433,718	
Total Assabet Valley Collaborative	596,576	0.03948%
6004 - Bi-County Education Collaborative:  Employer contributions	256,859 689,357	
Total Bi-County Education Collaborative	946,216	0.06262%
6018 - C.A.S.E. Collaborative: Employer contributions Nonemployer contributions	245,811 700,293	
Total C.A.S.E. Collaborative.	946,104	0.06261%
6016 - Cape Cod Collaborative: Employer contributions Nonemployer contributions	342,217 931,904	
Total Cape Cod Collaborative	1,274,121	0.08432%

(continued)

6010 - CAPS Education Collaborative: Employer contributions	232,488	
Nonemployer contributions	232,488	
Nonemployer contributions.  Total CAPS Education Collaborative.  Employer contributions.  Nonemployer contributions.  Total Central Massachusetts Special Education Collaborative.  Employer contributions.  Total Central Massachusetts Special Education Collaborative.  6017 - Collaborative for Educational Services:  Employer contributions.  Nonemployer contributions.  Total Collaborative for Educational Services.  6021 - CREST Collaborative:  Employer contributions.  Nonemployer contributions.  Total CREST Collaborative.  6019 - Keystone Educational Collaborative:  Employer contributions.  Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative:  Employer contributions.  Nonemployer contributions.  Total LABBB Collaborative:  Employer contributions.  Nonemployer contributions.		
6035 - Central Massachusetts Special Education Collaborative: Employer contributions	677,167	
Employer contributions.  Total Central Massachusetts Special Education Collaborative.  6017 - Collaborative for Educational Services: Employer contributions.  Nonemployer contributions.  Total Collaborative for Educational Services.  6021 - CREST Collaborative: Employer contributions.  Nonemployer contributions.  Total CREST Collaborative: Employer contributions.  Total CREST Collaborative.  6019 - Keystone Educational Collaborative: Employer contributions.  Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions.  Nonemployer contributions.  Total LABBB Collaborative: Employer contributions.  Nonemployer contributions.  Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions.  Nonemployer contributions.	909,655	0.06020%
Nonemployer contributions.  Total Central Massachusetts Special Education Collaborative.  6017 - Collaborative for Educational Services: Employer contributions. Nonemployer contributions.  Total Collaborative for Educational Services.  6021 - CREST Collaborative: Employer contributions. Nonemployer contributions.  Total CREST Collaborative.  6019 - Keystone Educational Collaborative: Employer contributions. Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions. Nonemployer contributions.  Total LABBB Collaborative: Employer contributions. Nonemployer contributions. Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions. Nonemployer contributions.		
Total Central Massachusetts Special Education Collaborative.  6017 - Collaborative for Educational Services: Employer contributions	151,949	
6017 - Collaborative for Educational Services: Employer contributions. Nonemployer contributions.  Total Collaborative for Educational Services.  6021 - CREST Collaborative: Employer contributions. Nonemployer contributions.  Total CREST Collaborative.  6019 - Keystone Educational Collaborative: Employer contributions. Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions. Nonemployer contributions. Nonemployer contributions.  Total LABBB Collaborative: Employer contributions. Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions. Nonemployer contributions.	377,968	
Employer contributions	529,917	0.03507%
Nonemployer contributions		
Total Collaborative for Educational Services	168,186	
6021 - CREST Collaborative: Employer contributions	1,562,194	
Employer contributions Nonemployer contributions  Total CREST Collaborative  6019 - Keystone Educational Collaborative: Employer contributions Nonemployer contributions  Total Keystone Educational Collaborative  Employer contributions  Nonemployer contributions  Nonemployer contributions  Total LABBB Collaborative:  Employer contributions  Total LABBB Collaborative  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions  Nonemployer contributions  Nonemployer contributions	1,730,380	0.11452%
Nonemployer contributions.  Total CREST Collaborative.  6019 - Keystone Educational Collaborative: Employer contributions.  Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions.  Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions.  Nonemployer contributions.  Nonemployer contributions.		
Total CREST Collaborative.  6019 - Keystone Educational Collaborative: Employer contributions. Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions. Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions. Nonemployer contributions. Nonemployer contributions.	483,413	
6019 - Keystone Educational Collaborative: Employer contributions	1,208,782	
Employer contributions.  Nonemployer contributions.  Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions.  Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions.  Nonemployer contributions.	1,692,195	0.11199%
Nonemployer contributions		
Total Keystone Educational Collaborative.  6034 - LABBB Collaborative: Employer contributions. Nonemployer contributions.  Total LABBB Collaborative.  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions. Nonemployer contributions.	220,219	
6034 - LABBB Collaborative: Employer contributions	555,852	
Employer contributions Nonemployer contributions  Total LABBB Collaborative  6011 - Lower Pioneer Valley Education Collaborative: Employer contributions Nonemployer contributions	776,071	0.05136%
Nonemployer contributions		
Total LABBB Collaborative	382,154	
6011 - Lower Pioneer Valley Education Collaborative: Employer contributions	999,232	
Employer contributions	1,381,386	0.09142%
Nonemployer contributions		
	606,250	
Total Lower Pioneer Valley Education Collaborative	1,570,555	
· ———	2,176,805	0.14406%
6014 - North River Collaborative:		
Employer contributions	253,518	
Nonemployer contributions.	672,363	
Total North River Collaborative.	925,881	0.06128%

(continued)

Employer/Nonemployer	Actual Contributions	Employer/ Nonemployer Allocation Percentage
6006 - North Shore Education Consortium:		
Employer contributions.	427,926	
Nonemployer contributions	1,026,313	
Total North Shore Education Consortium.	1,454,239	0.09624%
6007 - Pilgrim Area Collaborative:		
Employer contributions.	130,313	
Nonemployer contributions.	401,751	
Total Pilgrim Area Collaborative	532,064	0.03521%
6031 - READS Collaborative:		
Employer contributions	214,607	
Nonemployer contributions.	570,727	
Total READS Collaborative	785,334	0.05197%
6033 - SEEM Collaborative:		
Employer contributions.	336,694	
Nonemployer contributions	994,524	
Total SEEM Collaborative	1,331,218	0.08810%
6009 - Shore Educational Collaborative		
Employer contributions	579,919	
Nonemployer contributions.	1,483,135	
Total Shore Education Consortium.	2,063,054	0.13654%
6015 - South Coast Education Collaborative:		
Employer contributions.	317,407	
Nonemployer contributions.	885,519	
Total South Coast Education Collaborative	1,202,926	0.07961%
6001 - South Shore Education Collaborative:		
Employer contributions	371,704	
Nonemployer contributions	975,999	
Total South Shore Education Collaborative.	1,347,703	0.08919%
6003 - Southeastern Massachusetts Education Collaborative:		
Employer contributions	276,891	
Nonemployer contributions	699,331	
Total Southeastern Massachusetts Education Collaborative	976,222	0.06461%
6002 - Southern Worcester County Education Collaborative:		
Employer contributions	114,202	
Nonemployer contributions	308,861	
Total Southern Worcester County Education Collaborative	423,063	0.02800%

(continued)

148,641	Employer/Nonemployer	Actual Contributions	Employer/ Nonemployer Allocation Percentage
Employer contributions	Employer/ Nonemployer	Continuations	
Nonemployer contributions			
Total The Education Cooperative	2 7		
6020 - Valley Collaborative	Nonemployer contributions	358,597	
Employer contributions	Total The Education Cooperative	507,238	0.03357%
Nonemployer contributions	6020 - Valley Collaborative:		
Nonemployer contributions	Employer contributions.	407,438	
Special Funding Situations (Other than Educational Collaboratives):   8150 - Berkshire Regional Planning Commission: Employer contributions	Nonemployer contributions	1,275,589	
Stock   Perkshire Regional Planning Commission: Employer contributions.   613.224   0.04058%	Total Valley Collaborative	1,683,027	0.11139%
Stock   Perkshire Regional Planning Commission: Employer contributions.   613.224   0.04058%	Constalling the City of the Other than Education (Callaboration)		
Employer contributions.   613,224			
Nonemployer contributions		_	
Total Berkshire Regional Planning Commission.   613,224   0.04058%		613,224	
8250 - Devens Enterprise Commission: Employer contributions	- · · · · · · · · · · · · · · · · · · ·		
Employer contributions	Total Berkshire Regional Planning Commission.	613,224	0.04058%
Employer contributions	8250 - Devens Enterprise Commission:		
Nonemployer contributions	1	_	
6037 - Franklin Regional Council of Governments:  Employer contributions.  Nonemployer contributions.  867,919  Total Franklin Regional Council of Governments.  867,919  Total Franklin Regional Council of Governments.  867,919  Total Franklin Regional Council of Governments.  867,919  0.05744%  8210 - Massachusetts Development Finance Agency:  Employer contributions.  1 -		65,475	
Employer contributions         867,919           Nonemployer contributions         867,919           Total Franklin Regional Council of Governments.         867,919           8210 - Massachusetts Development Finance Agency:         -           Employer contributions         455,817           Total Massachusetts Development Finance Agency.         455,817           Total Massachusetts Development Finance Agency.         455,817           6200 - Massachusetts Healthcare Connector Authority:         -           Employer contributions         -           Nonemployer contributions.         2,112,111           Total Massachusetts Healthcare Connector Authority.         2,112,111           Massachusetts Life Sciences Center:         -           Employer contributions.         -           Nonemployer contributions.         269,615           Total Massachusetts Life Sciences Center.         269,615           Employer contributions.         -           Employer contributions.         -           Nonemployer contributions.         -           Total Massachusetts PRIM Board:         -           Employer contributions.         -           Nonemployer contributions.         -           Total Massachusetts PRIM Board:         - <t< td=""><td>Total Devens Enterprise Commission</td><td>65,475</td><td>0.00433%</td></t<>	Total Devens Enterprise Commission	65,475	0.00433%
Employer contributions         867,919           Nonemployer contributions         867,919           Total Franklin Regional Council of Governments.         867,919           8210 - Massachusetts Development Finance Agency:         -           Employer contributions         455,817           Total Massachusetts Development Finance Agency.         455,817           Total Massachusetts Development Finance Agency.         455,817           6200 - Massachusetts Healthcare Connector Authority:         -           Employer contributions         -           Nonemployer contributions.         2,112,111           Total Massachusetts Healthcare Connector Authority.         2,112,111           Massachusetts Life Sciences Center:         -           Employer contributions.         -           Nonemployer contributions.         269,615           Total Massachusetts Life Sciences Center.         269,615           Employer contributions.         -           Employer contributions.         -           Nonemployer contributions.         -           Total Massachusetts PRIM Board:         -           Employer contributions.         -           Nonemployer contributions.         -           Total Massachusetts PRIM Board:         - <t< td=""><td></td><td></td><td></td></t<>			
Nonemployer contributions         867,919           Total Franklin Regional Council of Governments         867,919           8210 - Massachusetts Development Finance Agency:         -           Employer contributions         -           Nonemployer contributions         455,817           Total Massachusetts Development Finance Agency         455,817           6200 - Massachusetts Healthcare Connector Authority:         -           Employer contributions         -           Nonemployer contributions         2,112,111           Total Massachusetts Healthcare Connector Authority         2,112,111           1         0.13978%           8211 - Massachusetts Life Sciences Center:         -           Employer contributions         -           Nonemployer contributions         269,615           Total Massachusetts Life Sciences Center         269,615           6100 - Massachusetts PRIM Board:         -           Employer contributions         -           Nonemployer contributions         -           Nonemployer contributions         2,223,598           Total Massachusetts PRIM Board         2,223,598	<u> </u>		
Total Franklin Regional Council of Governments.         867,919         0.05744%           8210 - Massachusetts Development Finance Agency:         -         -           Employer contributions.         455,817         -           Nonemployer contributions.         455,817         0.03017%           6200 - Massachusetts Development Finance Agency.         455,817         0.03017%           6200 - Massachusetts Healthcare Connector Authority:         -         -           Employer contributions.         2,112,111         0.13978%           8211 - Massachusetts Healthcare Connector Authority.         2,112,111         0.13978%           8211 - Massachusetts Life Sciences Center:         -         -           Employer contributions.         2         -           Nonemployer contributions.         269,615         0.01784%           6100 - Massachusetts PRIM Board:         -         -           Employer contributions.         -         -           Nonemployer contributions.         -         -           Nonemployer contributions.         -         -           Total Massachusetts PRIM Board:         -         -           Employer contributions.         -         -           Nonemployer contributions.         -         -		- 867 919	
8210 - Massachusetts Development Finance Agency:       -         Employer contributions.       455,817         Total Massachusetts Development Finance Agency.       455,817         6200 - Massachusetts Healthcare Connector Authority:       -         Employer contributions.       -         Nonemployer contributions       2,112,111         Total Massachusetts Healthcare Connector Authority       2,112,111         0.13978%         8211 - Massachusetts Life Sciences Center:       -         Employer contributions.       -         Nonemployer contributions.       269,615         Total Massachusetts Life Sciences Center.       269,615         6100 - Massachusetts PRIM Board:       -         Employer contributions.       -         Nonemployer contributions.       -         Nonemployer contributions.       -         Total Massachusetts PRIM Board:       -         Employer contributions.       -         Total Massachusetts PRIM Board:       -         Total Massachusetts PRIM Board.       2,223,598	- Noncinployer contributions	007,717	
Employer contributions	Total Franklin Regional Council of Governments	867,919	0.05744%
Nonemployer contributions	8210 - Massachusetts Development Finance Agency:		
Total Massachusetts Development Finance Agency. 455,817 0.03017%  6200 - Massachusetts Healthcare Connector Authority: Employer contributions	Employer contributions	-	
6200 - Massachusetts Healthcare Connector Authority: Employer contributions	Nonemployer contributions	455,817	
Employer contributions	Total Massachusetts Development Finance Agency	455,817	0.03017%
Employer contributions	6200 - Massachusetts Healthcare Connector Authority:		
Nonemployer contributions		_	
8211 - Massachusetts Life Sciences Center: Employer contributions		2,112,111	
Employer contributions - 269,615  Nonemployer contributions - 269,615  Total Massachusetts Life Sciences Center - 269,615 - 0.01784%  6100 - Massachusetts PRIM Board:	Total Massachusetts Healthcare Connector Authority	2,112,111	0.13978%
Employer contributions - 269,615  Nonemployer contributions - 269,615  Total Massachusetts Life Sciences Center - 269,615 - 0.01784%  6100 - Massachusetts PRIM Board:	8211 - Massachusetts Life Sciences Center:		
Nonemployer contributions		-	
6100 - Massachusetts PRIM Board: Employer contributions	Nonemployer contributions.	269,615	
Employer contributions         -           Nonemployer contributions         2,223,598           Total Massachusetts PRIM Board         2,223,598           0.14716%	Total Massachusetts Life Sciences Center.	269,615	0.01784%
Nonemployer contributions         2,223,598           Total Massachusetts PRIM Board         2,223,598           0.14716%	6100 - Massachusetts PRIM Board:		
Total Massachusetts PRIM Board	2 7	-	
	Nonemployer contributions.	2,223,598	
(continued)	Total Massachusetts PRIM Board	2,223,598	0.14716%
			(continued)

Employer/Nonemployer	Actual Contributions	Employer/ Nonemployer Allocation Percentage
6060 - Massachusetts School Building Authority:		
Employer contributions	-	
Nonemployer contributions	1,788,649	
Total Massachusetts School Building Authority	1,788,649	0.11838%
1080 - Massachusetts Water Resources Authority:		
Employer contributions	-	
Nonemployer contributions	367,770	
Total Massachusetts Water Resources Authority	367,770	0.02434%
8050 - Metropolitan Area Planning Commission:		
Employer contributions	-	
Nonemployer contributions	3,125,932	
Total Metropolitan Area Planning Commission	3,125,932	0.20688%
Total for all entities	\$ 1,510,991,192	100.00000%

See accompanying notes to schedules.

#### MASSACHUSETTS STATE EMPLOYEES' RETIREMENT SYSTEM SCHEDULE OF PENSION AMOUNTS BY EMPLOYER AND NONEMPLOYER AS OF AND FOR THE FISCAL YEAR ENDED JUNE 30, 2024

Part				Deferred Outflo	ws of Resources			Deferred Inflow	s of Resources			Pension Expense	
Page	Employer/Nonemployee	Pension	Between Expected and Actual			Deferred Outflows of	Between Expected and Actual	Between Projected and Actual Investment Earnings on Pension		Deferred Inflows of	Share of Plan Pension	of Deferred Amounts from Changes in	
Process													
Second Continue   Second Con		\$ 12 822 891 519	\$ 642 676 804	\$ 92,021,286	s .	\$ 734 698 090	\$ 164 284 769	S 166 729 128	\$ 82.410.607	\$ 413 424 504	\$ 1 218 938 819	\$ (37.717.101)	\$ 1.181.221.718
Section   Proposed Physics   Physi					434,758								
Section   Control Proposed Section   19,000	6090 - Massachusetts Convention Center Authority	43,526,064	2,181,504	312,357	4,873,522	7,367,383	557,649	565,946	1,610,423	2,734,018	4,137,570	466,084	4,603,654
Billo   Risklame Value   Rigoral Vacational School District   7,890,050   25,150   25,000													
Sept   Sept   Proposed Projected P		7,221,524									686,475		
Sept.   Common Manuschwerin Regional Planening Commontation.   \$2,500,41   \$41,000   \$40,000   \$13,000   \$12,000   \$13,000   \$12,000   \$13,000   \$12,000   \$13,000													
\$600   Moderland Valley Flataming Commences   \$2,002.500   \$1,007   \$2,003.00   \$2,003.0													
1800   Martine Martine   1800   180													
\$600   Northern Anne   \$152.285   \$12.787   \$10.595   \$2.7825   \$3.9355   \$3.945   \$4.953.60   \$5.01.186   \$2.9574   \$2.02.186   \$2.9574   \$2.02.186   \$2.02.187													
9810 - Northern Meditiones Consonal of Convenuences. 9810 - Northern Meditiones Consonal of Convenuences. 9810 - Northern Meditiones (Paperal Variational School Tables). 9810 - Northern Meditiones (Paperal Variational School Tables). 9810 - Northern Medition (Paperal Variational School Tables). 9810 - Northern Meditional School Tables). 9810 - Northern Meditional School													
\$800. Nordmart Membraid Nordmart Technical School Point 12, 11, 12, 12, 12, 12, 12, 12, 12, 12,													
1817-CAC Cloop Flanning Council   18-071   22-071   10-079   19-071   19-079   19-071   19-079   19-071   19-079   19-071   19-079   19-071   19-079   19-071   19-079   19-071   19-079   19-													
\$1910 - Clark Color Regional Virontineal Technical School Distort.  \$101 - Dissay Virginary Cumman School Distort.  \$102 - Dis													
Section   Sect													
September   Regional School District   12,455,007   60,4240   87,275   830,755   830			329,075				84,120						
Second Comment   Second Procedure   Second Proced	8140 - Southeastern Regional Planning & Economic Development District.	4,530,589	227,071	32,513	423,217	682,801	58,045	58,909	223,113	340,067	430,676	187,406	618,082
Special Page   March   Foliation   Abstraced Bestinat.   197,025   197,026													
Page													
Special Funding Standard   Control   ACCEPT Education Collaborative   15071,410   16022 - Accept Valley Collaborative   5577,498   1432,983   1557,566   16022 - Accept Valley Collaborative   5577,498   4604   455,766   4604   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   1757,868   4604   472,288   475,868													
Nonemployer (Commonwealth) attributable to 15,074,100   123,082   123,083   1,555,766   123,084   1,555,766   123,084   1,555,766   123,084   1,555,766   1,555,76	8130 - Opper Cape Cod Regional Vocational Technical School District	4,970,473	249,410	33,713	67,317	372,048	03,730	04,700	303,399	032,003	475,001	0,573	479,034
6012 - ASCEPT Education Collaborative	Special Funding Situations:												
602 - Asaabet Valley Calabrastrue.  \$ 8,804,76	Nonemployer (Commonwealth) attributable to:												
601 - CAUS Elitocatives Collaborative.  610 - CAUS Elitocatives Collaborative.  611 - CAUS Elitocatives Collaborative.  612 - CAUS Elitocatives Collaborative.  613 - CAUS Elitocatives Collaborative.  614 - CHARMS Collaborative.  615 - CHARMS Collaborative.  616 - CHARMS Collaborative.  617 - CHARMS Collaborative.  618 - CAUS Elitocatives Collaborative.  619 - Evotroe Elitocatives Collaborative.  610 - Evotroe Elitocatives Collaborative.  610 - Evotroe Elitocatives Collaborative.  611 - Evotroe Elitocatives Collaborative.  612 - Evotroe Elitocatives Collaborative.  613 - Evotroe Elitocatives Collaborative.  614 - Evotroe Elitocatives Collaborative.  615 - Evotroe Elitocatives Collaborative.  616 - Evotroe Elitocatives Collaborative.  617 - Evotroe Elitocatives Collaborative.  618 - Evotroe Elitocatives Collaborative.  619 - Evotroe Elitocatives Collaborative.  610 - Evotroe Elitocative													
6018 - CASE Cidalborative													
6011 - Cape Cal Callaborative													
6010 - CATS Inducation Collaborative													
6012 - CHARNS Collaborative	6010 - CAPS Education Collaborative.												
601 - Collaborative for Educational Services. 602 - CMEST Collaborative. 1549/96 603 - ENCO Collaborative. 7, 254.916 604 - Service foliacional Collaborative. 7, 254.916 605 - ENCO Collaborative. 8, 254.916 606 - ENCO Collaborative. 107 - Experiment Collaborative. 108 - ENCO Collaborative. 109 - ENCO Collaborative. 109 - ENCO Collaborative. 109 - ENCO Collaborative. 100 - ENCO Education Collaborative. 101 - ENCO Education Collaborative. 102 - ENCO Education Collaborative. 103 - ENCO Education Collaborative. 104 - ENCO Education Collaborative. 105 - ENCO Education Collaborative. 106 - ENCO Education Collaborative. 107 - ENCO Education Collaborative. 108 - ENCO Education Collaborative. 109 - ENCO Education Collaborative. 100 - ENCO Education Collaborative. 1		4,953,803									470,907	40,456	511,363
603 - EROS Collaborative. 15,819,084   15,803,756   129,189   16,323,45   603 - EROS Collaborative. 7,254,916   603 - EROS Collaborative. 12,913,566   129,189   13,33,178   129,189   13,33,178   129,189   13,33,178   13,33		-										-	-
601 - EVCC Collaborative													
6019 - Keystone Educational Collaborative 7,254,916 6034 - LABB Collaborative 8   20,349,346 6011 - Lower Florner Valley Education Collaborative 8   20,349,346 6011 - Lower Florner Valley Education Collaborative 8   20,349,346 6014 - North Rever Gollaborative 8   20,349,346 6014 - North Rever Collaborative 8   20,349,346 6015 - REAR Social		15,819,084									1,503,756	129,189	1,632,945
603 - LABB Collaborative. 12,915,86   133,016   1333,018   6011 - North River Collaborative. 20,349,346   16,186   21,00,586   6014 - North River Collaborative. 8,855,379   8,855,379   16,006 - North River Collaborative. 13,594,609   12,727,78   11,022   14,03,220   11,022   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,023   14,03,220   11,03,230   11,03,230		7.254.916									689.649	59.248	748.897
6011 - Lower Florner Valley Education Collaborative 20,349,346 6014 - North Shore Education Collaborative 8,855,379 6016 - North Shore Education Consortium. 13,594,609 13,594,609 14,973,874 6017 - Highing Area Collaborative. 47,2814 6018 - READE Collaborative. 14,444,576 6033 - SEEM Collaborative. 11,244,2676 6033 - SEEM Collaborative. 11,245,2671 10,144,5676 10,155,2017 10,1													
6000 - North Shore Education Consortium	6011 - Lower Pioneer Valley Education Collaborative												
6007 - Fligrim Area Collaborative	6014 - North River Collaborative.												
6031 - SELDT Collaborative													
603 - SEEM Collaborative 1,244,576 6009 - Shore Educational Collaborative 1,244,576 19,284,696 6009 - Shore Educational Collaborative 1,245,269 1,285,971 6015 - South Coast Education Collaborative 1,245,269 1,255,886 1,260,875 6001 - South Shore Educational Collaborative 1,245,269 1,1068,871 1,245,269 1,1068,971 1,245,269 1,1068,971 1,245,269 1,245,269 1,245,269 1,245,269 1,245,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,249 1,245,2													
6009 - Shore Education Collaborative. 19,285,971   1,908,199   1,9													
6015 - South Coast Education Collaborative. 11,245,269 12,589 8.82 12,588 8.82													
6003 - Southeastern Massachusetts Education Collaborative. 9,125,980 do 20 - The Education Collaborative 3,954,904 do 20 - The Education Collaborative 3,954,904 do 20 - The Education Collaborative 3,954,904 do 20 - The Education Collaborative 4,741,794 do 20 - The Education Collaborative 5,732,379 do 20 - The Education Collaborative 15,733,379 do 20 - The Education Collaborative 15,733,379 do 20 - The Education Collaborative 14,796,609 do 20 - The Education Collaborative 14,796,609 do 20 - The Education Collaborative 14,797,609 do 20 - The Education Collaborative 14,797,71,269 do 20 - The Education													1,160,807
6002 - Southern Worcester County Education Collaborative 3,954,904 47,1794 486027 - The Education Cooperative. 47,1794 487,976 6020 - Valley Collaborative. 15,733,379 15,733,279 15,734,279 15,274,279 15,274,279 15,274,279 15,274,279 15,274,279 15,274,279 15,274,279 15,274,27													
6027 - The Education Cooperative. 4741/94 6029 - Valley Collaborative. 15,733,379 8150 - Bedeshire Regional Planning Commission. 5732,579 8250 - Deverse Enterprise Commission. 612,078 8250 - Deverse Enterprise Commission. 8113,535 8210 - Massachusetts Development Finance Agency. 8210 - Massachusetts Development Finance Agency. 8210 - Massachusetts Development Finance Agency. 8211 - Massachusetts Life Sciences Center. 8250,0432 8210 - Massachusetts Life Sciences Center. 8250,0432 8211 - Massachusetts Median Autority. 820,0457,045 8210 - Massachusetts School Building Authority. 820,0458,045 8210 - Massachusetts School Building Authority. 820,0458,045 820 - Massachusetts Massachusetts School Building Authority. 820,0458,045 820 - Massachusetts Massachusetts Massachusetts School Building Authority. 820,0458,045 8210 - Massachusetts Mas													
6020 - Valley Collaborative													
8150 - Berkshire Regional Planning Commission 5,722,579 8250 - Deven Enterprise Commission 612,078 8250 - Deven Enterprise Commission 612,078 84,947													
8250 - Devens Enterprise Commission													
8210 - Massachusetts Development Finance Agency												4,999	
6200 - Massachusetts Healthcare Connector Authority. 19,744,569 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2 2,250,432 2,													
8211 - Massachusetts Life Sciences Center. 2,520,432 2 2,405,174 29,591 20,583 26,1074 20,706 1 1,975,983 16,679 4 1,975,983 16,679 5 1,975,983 16,679 5 1,975,983 16,679 5 1,975,983 16,679 5 1,975,983 16,679 5 1,975,983 16,679 5 1,975,983 16,679 5 1,975,993 16											405,058		
6100 - Massachusetts PRM Board 20,786,779 1,975,983 169,778 2,145,741 6606 - Massachusetts PRM Board 1,975,983 169,778 2,145,741 6606 - Massachusetts Mater Resources Authority 1,589,469 136,552 1,726,741 1,759,741 1,	6200 - Massachusetts Healthcare Connector Authority												
666 - Massachusetts Schol Building Authority 1,589,469 136,552 1,726,021 1308 - Massachusetts Mark Resources Authority 326,816 28,077 354,932 8050 - Metropolitan Area Planning Commission 29,222,034 37,067,233 18,597,706 2,662,901 33,952,495 55,213,102 4,754,053 4,824,788 24,433,866 34,012,707 35,273,513 3,030,372 38,303,885 38,000	6211 - IVIASSACRUSETIS LITE SCIENCES CENTER												
1080 - Massachusetts Water Resources Authority													
Total nonemployer (Commonwealth of Massachusetts)		3,438,011									326,816	28,077	354,893
	8050 - Metropolitan Area Planning Commission	29,222,034	1.464,594	209.707	1.385.275	3,059,576	374,388	379,958	244,510	998,856	2,777,835	238,646	3,016,481
Totals \$ 14,125,143,000 \$ 707,944,984 \$ 101,366,667 \$ 119,520,139 \$ 928,831,790 \$ 180,969,000 \$ 183,661,600 \$ 119,520,139 \$ 484,150,739 \$ 1,342,730,317 \$ - \$ 1,342,730,317	Total nonemployer (Commonwealth of Massachusetts)	371,067,333	18,597,706	2,662,901	33,952,495	55,213,102	4,754,053	4,824,788	24,433,866	34,012,707	35,273,513	3,030,372	38,303,885
	Totals	\$ 14,125,143,000	\$ 707,944,984	\$ 101,366,667	\$ 119,520,139	\$ 928,831,790	\$ 180,969,000	\$ 183,661,600	\$ 119,520,139	\$ 484,150,739	\$ 1,342,730,317	s -	\$ 1,342,730,317

See accompanying notes to schedules.

#### **NOTE 1 - PLAN DESCRIPTION**

The Massachusetts State Employees' Retirement System (MSERS) is a public employee retirement system (PERS), that administers a cost-sharing, multiple employers defined benefit pension plan as defined by Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans, covering substantially all employees of the Commonwealth and certain employees of the independent authorities and agencies including the state police officers at the Massachusetts Port Authority. The former Massachusetts Turnpike Authority (MTA) employees and retirees became members of MSERS upon the creation of the Massachusetts Department of Transportation (MassDOT). Other employees who transferred to MassDOT have been, and remain, members of MSERS. The assets and liabilities of the former MTA have been transferred to MSERS. MSERS is reported as a pension trust fund in the Commonwealth's Annual Comprehensive Financial Report and does not issue a stand-alone audited financial report.

Management of MSERS is vested in the Massachusetts State Retirement Board (the MSRB) which consists of five members-two elected by current and active MSERS members, one who is appointed by the State Treasurer, the State Treasurer, who serves as ex-officio and is the Chair of the MSRB, and one by the remaining members of the MSRB.

Benefits provided. MSERS 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 twenty 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; for certain hazardous duty and public safety positions, normal retirement is at age 55. Most employees who joined the system after April 1, 2012 cannot retire and receive benefits prior to age 60.

The MSERS' 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 MSERS 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.

Member contributions for MSERS 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 except for State Police, which is 12%		
•	of regular compensation		
7/1/2001 to present	11% of regular compensation (for teacher 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		
1	except for teachers subject to Chapter 114 of the Acts of 2000		

In addition, members of Group 1 who join the system on or after April 2, 2012 will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

#### **NOTE 2 - BASIS OF PRESENTATION**

The schedule of employer and nonemployer allocations and schedule of pension amounts by employer and nonemployer (the Schedules) present amounts that are elements of the financial statements of the MSERS or of its participating employers and nonemployers. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of the MSERS or its participating employers and nonemployers. The amounts presented in the Schedules were prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of the MSERS to make a number of estimates and assumptions related to the reported amounts. Actual results could differ from those estimates.

The schedule of employer and nonemployer allocations are based on actual contributions adjusted for any nonemployer contributions.

The MGLs governing employer contribution requirements to MSERS are varied and vary among employers to such an extent that there is no uniform contribution method. Consequently, MSERS developed an effective contribution methodology which allocates total actual contributions amongst the employers in a consistent manner (based on an employer's share of total covered payroll). Any differences between the effective contribution and an employer's actual contributions are considered a nonemployer contribution from the Commonwealth. According to MGL, certain nonemployer contributions are the legal responsibility of the Commonwealth and have accordingly been reflected on the schedule of employer and nonemployer allocations as special funding situations.

The schedule of pension amounts presents each employer in sufficient detail to permit each contributing employer as well as each employer considered to be in a special funding situation to derive the necessary information for the preparation of their individual financial statements.

For entities considered to be in a 100% special funding situation, there is no net pension liability, deferred outflows, and deferred inflows recognized. However, the notes to the financial statements for these entities must disclose the portion of the nonemployer contributing entity's total proportionate share of the net pension liability as well its portion of pension expense as both revenue and pension expense.

The special funding situations created by MGL are described below.

#### **Educational Collaboratives**

Collaboratives contribute amounts equal to the normal cost of employees' benefits at a rate established by the Public Employees' Retirement Administration Commission (PERAC), currently 6.1% of covered payroll. Legally, the collaboratives are only responsible for contributing the annual normal cost of their employees' benefits (i.e., the present value of the benefits earned by those employees in any given year) and are not legally responsible for the past service cost attributable to those employees or previously retired employees of the collaboratives. The Commonwealth as a nonemployer is legally responsible for the entire past service cost related to the collaboratives and therefore has a 100% special funding situation.

#### Other Special Funding Situations

MGLs established certain entities whose employees are members of MSERS. However, MGL does not provide an employer funding mechanism for these entities. Consequently, the Commonwealth is considered the nonemployer contributor and is considered legally responsible to make all actuarially determined employer contributions on behalf of these entities. Therefore, these entities are also considered to be in a 100% special funding situation as defined by GASB.

#### NOTE 3 - COLLECTIVE NET PENSION LIABILITY

Components of the collective net pension liability at June 30, 2024 are as follows (amounts in thousands):

Total pension liability	\$ 52,027,000
Less:	
Plan fiduciary net position	37,901,857
•	
Employers/nonemployers' net pension liability	\$ 14,125,143
Plan fiduciary net position as a percentage	
of total pension liability	72.9%

#### **Actuarial Assumptions**

The total pension liability for the June 30, 2024, measurement date was determined by an actuarial valuation as of January 1, 2024 rolled forward to June 30, 2024, using the following actuarial assumptions:

- 1. (a) 2.5% inflation rate; (b) 7.00% investment rate of return/discount; (c) 4.76% discount rate for LDROM only; (d) 3.5% interest rate credited to the annuity savings fund; and (e) 3.0% 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 4.00% to 9.00% depending on group and length of service.
- 3. Mortality rates were as follows:
  - Pre-retirement mortality reflects RP-2014 Blue Collar Employees table projected generationally with Scale MP-2021, set forward 1 year for females.
  - Post-retirement mortality reflects RP-2014 Blue Collar Healthy Annuitant table projected generationally with Scale MP-2021, set forward 1 year for females.
  - For disabled retirees, morality reflects the post-retirement mortality described above, set forward 1 year.
- 4. Experience studies were performed as follows:
  - Dated February 27, 2014 and encompasses the period January 1, 2006 to December 31, 2011, updated to reflect actual experience from 2012 through 2020 for post-retirement mortality.

Investment assets of MSERS 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, 2024 are summarized in the following table:

		Long-Term
	Target	Expected Real
Asset Class	Allocation	Rate of Return
Global Equity	36.0%	4.6%
Core Fixed Income	15.0%	2.1 %
Private Equity	16.0%	7.4%
Portfolio Completion Strategies	10.0%	3.7%
Real Estate	10.0%	3.9%
Value Added Fixed Income	9.0%	5.1%
Timberland/Natural Resources	4.0%	4.4%
Total	100.0%	

#### Discount Rate

The discount rate used to measure the total pension liability was 7.00%. 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, 2024. In particular, the table presents the MSERS 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		 rent Discount	1% Increase			
to 6.00%		 Rate 7.00%	to 8.00%			
\$	19,844,000	\$ 14,125,143	\$	9,287,000		

#### NOTE 4 - DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

The following table summarizes the changes in both deferred outflows and deferred inflows of resources excluding employer specific amounts (change in proportion) (amounts in thousands):

	Year of Deferral	Amortization Period	Balance ly 1, 2023	Ac	lditions	Е	Deletions	Balance te 30, 2024
Deferred Outflows of Resources:								
Difference between expected								
and actual experience	. 2019	5.2 years	\$ 11,657	\$	-	\$	(11,657)	\$ -
-	2020	5.2 years	77,580		-		(64,650)	12,930
	2022	4.9 years	95,231		-		(32,838)	62,393
	2023	4.8 years	335,853		-		(88,383)	247,471
	2024	4.8 years			486,506		(101,355)	 385,151
Subtotal			 520,322		486,506		(298,882)	 707,945
Change of assumptions	2019	5.2 years	16,692		_		(16,692)	-
	2020	5.2 years	102,000		-		(85,000)	17,000
	2021	5.0 years	40,400		-		(20,200)	20,200
	2023	4.8 years	87,083		-		(22,916)	64,167
Subtotal			246,176				(144,808)	101,367
Total deferred outflows of reso	urces		\$ 766,498	\$	486,506	\$	(443,690)	\$ 809,312
	Year of Deferral	Amortization Period	Balance ly 1, 2023	Ac	lditions		Deletions	Balance se 30, 2024
Deferred Inflows of Resources:								
Difference between expected								
and actual experience	. 2021	5.0 years	 (361,938)				180,969	 (180,969)
Subtotal			 (361,938)				180,969	\$ (180,969)
Net difference between projected and actual earnings on plan								
investments	2019	5.0 years	1		-		(1)	-
	2020	5.0 years	289,100		-		(289,100)	-
	2021	5.0 years	(2,509,884)		-		1,254,942	(1,254,942)
	2022	5.0 years	2,268,283		-		(756,095)	1,512,188
	2023	5.0 years	346,707		-		(86,677)	260,030
	2024	5.0 years	 		(876,174)		175,235	(700,939)
Subtotal			 394,208		(876,174)		298,305	(183,663)
Total deferred inflows of resou	rces		\$ 32,270	\$	(876,174)	\$	479,274	\$ (364,632)

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	
2025	\$ (472,751)
2026	909,746
2027	101,837
2028	 (94,150)
Total	\$ 444,681

#### **NOTE 5 - COLLECTIVE PENSION EXPENSE**

The following table shows the components of pension expense, excluding employer specific pension expense for changes in proportion, as of June 30, 2024 (amounts in thousands):

Service cost.	\$ 1,143,160
Interest on the total pension liability	3,472,563
Employee contributions.	(760,851)
Projected earnings on plan investments	(2,432,248)
Transfers and reimbursements from other systems	(54,822)
Member make up, redeposits and payments from rollovers	(7,714)
Cost of living adjustment reimbursements	20,030
Other reimbursements.	(7,837)
Administrative expense	17,632
Other expenses that do not reduce the total pension liability	(11,600)
Recognition (amortization) of deferred outflows and inflows of resources:	
Differences between expected and actual experience	117,914
Differences between projected and actual earnings on plan investments	(298,305)
Changes of assumptions	144,808
Pension expense	\$ 1,342,730

The employer/nonemployer proportionate share of the collective pension expense is equal to the collective pension expense multiplied by the employer/nonemployer proportionate share percentage for the fiscal year ending June 30, 2024 as shown in the schedule of employer and nonemployer allocations.