

Middlesex County Retirement System

**Governmental Accounting Standards Board
(GASB) Statements No. 67 and 68
Accounting Valuation Report
as of December 31, 2021**



This report has been prepared at the request of the Middlesex County Retirement Board to assist the Board and the member units in preparing their financial reports for their liabilities associated with the Middlesex County Retirement System. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Middlesex County Retirement Board and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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Segal



116 Huntington Avenue
Suite 901
Boston, MA 02116-5744
segalco.com

July 8, 2022

Retirement Board
Middlesex County Retirement System
25 Linnell Circle
Billerica, MA 01865

Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 Accounting Valuation as of December 31, 2021 for the Middlesex County Retirement System, a cost-sharing multiple employer defined benefit pension plan. It contains the actuarial information that will need to be disclosed in order to comply with GASB 67 and 68. Please refer to the Middlesex County Retirement System Actuarial Valuation Report as of January 1, 2022, for the data, assumptions and plan of benefits underlying these calculations.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the Board and the member units in preparing their financial reports for their liabilities associated with the Middlesex County Retirement System. The census and financial information on which our calculations were based were provided by the staff of the Middlesex County Retirement System. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Bridget P. Orr, ASA, MAAA, EA. She is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of her knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board based upon her analysis and recommendations. In her opinion, the

Middlesex County Retirement System
July 8, 2022
Page 3

assumptions are reasonable and take into account the experience of the Middlesex County Retirement System and reasonable expectations.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,
Segal



Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary



Bridget P. Orr, FSA, MAAA, EA
Consulting Actuary

Table of Contents

Section 1: Actuarial Valuation Summary	5
Purpose	5
Significant issues	5
Important information about actuarial valuations	6
Section 2: GASB Information	8
General information about the pension plan	8
Exhibit 1 – Net Pension Liability	9
Exhibit 2 – Schedule of Changes in Net Pension Liability – Last Two Fiscal Years	12
Exhibit 3 – Schedule of Contributions – Last Eight Fiscal Years	14
Exhibit 4 – Pension Expense	15
Exhibit 5 – Determination of Proportionate Share	17
Exhibit 6 – Determination of Proportionate Share Amounts by Employer	21
Appendix: Definition of Terms	41

Section 1: Actuarial Valuation Summary

Purpose

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 as of December 31, 2021. This report is based on financial information as of December 31, 2021 provided by the Retirement System and the Middlesex County Retirement System Actuarial Valuation and Review as of January 1, 2022, which reflects:

- The benefit provisions of Massachusetts General Law Chapter 32;
- The characteristics of covered active participants, inactive participants, and retired participants and beneficiaries as of December 31, 2021, provided by the staff of the Retirement System;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant issues

The following key findings were the result of this actuarial valuation:

1. The Net Pension Liability (NPL) is equal to the difference between the Total Pension Liability (TPL) and the Plan Fiduciary Net Position. The Plan Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis. The NPL decreased from \$1.531 billion as of December 31, 2020 to \$1.341 billion as of December 31, 2021, and the Plan's Fiduciary Net Position as a percent of the TPL increased from 53.42% to 61.14%.
2. The NPL measured as of December 31, 2021 and December 31, 2020 was determined based upon the results of the actuarial valuations as of January 1, 2022 and January 1, 2020, respectively.
3. The discount rate used to measure the TPL and NPL as of December 31, 2021 and December 31, 2020 was 7.15% and 7.30%, respectively.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

In order to prepare an actuarial valuation, Segal relies on a number of input items. These include:

Plan of Benefits:	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant Data:	An actuarial valuation for a plan is based on data provided to the actuary by the Retirement System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets:	The valuation is based on the market value of assets as of the valuation date, as provided by the Retirement System. The Retirement System uses an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial Assumptions:	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The valuation is prepared at the request of the Retirement Board to assist the Board and the member units in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

Sections of this report may include actuarial results that are not rounded, but that does not imply precision.

If the Retirement Board is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of the Retirement System, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Retirement System.

Section 2: GASB Information

General information about the pension plan

Plan membership. On December 31, 2021, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	6,284
Inactive participants entitled to a refund of employee contributions	3,581
Inactive participants with a vested right to a deferred or immediate benefit	403
Active members	<u>9,432</u>
Total	19,700

Section 2: GASB Information

Exhibit 1 – Net Pension Liability

	December 31, 2021	December 31, 2020
Components of the Net Pension Liability		
Total Pension Liability	\$3,450,498,511	\$3,287,231,456
Plan Fiduciary Net Position	2,109,770,999	1,756,138,330
Net Pension Liability	1,340,727,512	1,531,093,126
Plan Fiduciary Net Position as a percentage of the Total Pension Liability ¹	61.14%	53.42%

Actuarial assumptions. The total pension liability as of December 31, 2021 was measured by an actuarial valuation as of January 1, 2022, using the following actuarial assumptions, applied to all periods included in the measurement:

Salary Increases:	Varies by length of service with ultimate rates of 4.00% for Group 1, 4.25% for Group 2 and 4.50% for Group 4
Wage Inflation:	3.25%
Net Investment Return:	7.15% (previously, 7.30%)
Cost of Living Adjustment:	3% of first \$16,000
Mortality Rates:	<i>Pre-Retirement:</i> RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2021 (previously, Scale MP-2017) <i>Healthy Retiree:</i> RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2021 (previously, Scale MP-2017) <i>Disabled Retiree:</i> RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year projected generationally with Scale MP-2021 (previously, Scale MP-2017)

¹ These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Section 2: GASB Information

Target asset allocation

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and adding expected inflation. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	22.00%	6.11%
International developed markets equity	11.50%	6.49%
International emerging markets equity	4.50%	8.12%
Core fixed income	15.00%	0.38%
High-yield fixed income	8.00%	2.48%
Real estate	10.00%	3.72%
Timber	4.00%	3.44%
Hedge fund, GTAA, Risk parity	10.00%	2.63%
Private equity	<u>15.00%</u>	9.93%
Total	100.00%	

Note: Some asset classes included in the pension plan's target asset allocation have been combined.

Discount rate. The discount rate used to measure the TPL as of December 31, 2021 and December 31, 2020 was 7.15% and 7.30%, respectively. The projection of cash flows used to determine the discount rates assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rates of return on pension plan investments were applied to all periods of projected benefit payments to determine the TPL as of both December 31, 2021 and December 31, 2020.

Section 2: GASB Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the NPL of the Middlesex County Retirement System as of December 31, 2021 calculated using the discount rate of 7.15%, as well as what the Middlesex County Retirement System's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.15%) or 1-percentage-point higher (8.15%) than the current rate.

Net Pension Liability	1% Decrease (6.15%)	Current Discount Rate (7.15%)	1% Increase (8.15%)
Middlesex County Retirement System's net pension liability as of December 31, 2021	\$1,734,275,212	\$1,340,727,512	\$1,009,270,759

Section 2: GASB Information

Exhibit 2 – Schedule of Changes in Net Pension Liability – Last Two Fiscal Years

	December 31, 2021	December 31, 2020
Total Pension Liability		
Service cost	\$76,097,081	\$73,591,386
Interest	238,805,957	229,825,239
Change of benefit terms	0	0
Differences between expected and actual experience	5,225,766	0
Changes of assumptions	27,166,375	0
Benefit payments, including refunds of member contributions	<u>-184,028,124</u>	<u>-181,769,445</u>
Net change in Total Pension Liability	\$163,267,055	\$121,647,180
Total Pension Liability – beginning	<u>3,287,231,456</u>	<u>3,165,584,276</u>
Total Pension Liability – ending	\$3,450,498,511	\$3,287,231,456
Plan Fiduciary Net Position		
Contributions – employer	\$147,852,245	\$138,290,237
Contributions – employee	52,748,793	51,832,960
Net investment income	340,463,667	185,567,914
Benefit payments, including refunds of member contributions	<u>-184,028,124</u>	<u>-181,769,445</u>
Administrative expense	<u>-3,403,912</u>	<u>-3,311,597</u>
Net change in Plan Fiduciary Net Position	\$353,632,669	\$190,610,069
Plan Fiduciary Net Position – beginning	<u>1,756,138,330</u>	<u>1,565,528,261</u>
Plan Fiduciary Net Position – ending	\$2,109,770,999	\$1,756,138,330
Net Pension Liability – ending	1,340,727,512	1,531,093,126
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	61.14%	53.42%
Covered payroll	\$519,239,588	\$513,201,283
Plan Net Pension Liability as percentage of covered payroll	258.21%	298.34%

Note:

Covered-employee payroll for 2021 and 2020 as estimated in the January 1, 2022 and January 1, 2020 valuations, respectively.

Section 2: GASB Information

Notes to schedule:

Changes in Actuarial Assumptions:	Effective January 1, 2021: • None. Effective January 1, 2022: • The investment return assumption was lowered from 7.30% to 7.15%. • The mortality projection scale was updated from MP-2017 to MP-2021.
Changes in Plan Provisions:	Effective January 1, 2021: • None. Effective January 1, 2022: • None

Section 2: GASB Information

Exhibit 3 – Schedule of Contributions – Last Eight Fiscal Years

Year Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered-Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2014	\$92,826,743	\$93,400,946	-\$574,203	\$415,752,810	22.47%
2015	98,792,642	99,820,481	-1,027,839	432,382,921	23.09%
2016	105,246,797	107,067,707	-1,820,910	439,644,322	24.35%
2017	112,017,087	115,426,815	-3,409,728	451,777,105	25.55%
2018	119,298,291	120,614,676	-1,316,385	471,115,185	25.60%
2019	127,151,838	129,685,754	-2,533,916	492,109,775	26.35%
2020	135,472,822	138,290,237	-2,817,415	513,201,283	26.95%
2021	144,255,207	147,852,245	-3,597,038	519,239,588	28.47%

Notes to schedule:

Valuation date:	Actuarial determined contribution for year ended December 31, 2021 is determined with the January 1, 2020 actuarial valuation.				
Actuarial cost method:	Entry Age Normal Cost Method				
Amortization method:	Prior year's total contribution increased by 6.5% for fiscal 2021 through fiscal 2028, and thereafter the remaining unfunded liability will be amortized on a 4.0% annual increasing basis; ERI liability amortized in level payments.				
Remaining amortization period:	17 years from July 1, 2020 for non-ERI liability, and 2 years from July 1, 2020 for 2010 ERI.				
Asset valuation method:	Market value of assets less unrecognized return in each of the last five years. Unrecognized return is equal to the difference between the actual and expected return on a market value basis, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.				
Actuarial assumptions:					
Investment rate of return	7.30% (previously, 7.50%)				
Discount rate	7.30% (previously, 7.50%)				
Wage inflation rate	3.25%				
Projected salary increases	Varies by length of service with ultimate rates of 4.00% for Group 1, 4.25% for Group 2 and 4.50% for Group 4				
Cost of living adjustments	3% of first \$16,000 as of July 1, 2019 (previously, \$14,000)				
Plan membership:					
	Retired participants and beneficiaries receiving benefits				5,862
	Inactive participants entitled to a return of their employee contributions				3,082
	Inactive participants with a vested right to a deferred or immediate benefit				381
	Active participants				9,282
	Total				18,607

Section 2: GASB Information

Exhibit 4 – Pension Expense

Reporting Date for Employer under GASB 68 Measurement Date for Employer under GASB 68	June 30, 2022 December 31, 2021	June 30, 2021 December 31, 2020
Components of Pension Expense		
Service cost	\$76,097,081	\$73,591,386
Interest on the Total Pension Liability	238,805,957	229,825,239
Current-period benefit changes	0	0
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	1,045,154	0
Expensed portion of current-period changes of assumptions	5,433,275	0
Member contributions	-52,748,793	-51,832,960
Projected earnings on plan investments	-128,678,767	-114,467,602
Expensed portion of current-period differences between actual and projected earnings on plan investments	-42,356,980	-14,220,064
Administrative expense	3,403,912	3,311,597
Recognition of beginning of year deferred outflows of resources as pension expense	68,684,783	92,016,101
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-56,982,431</u>	<u>-42,762,372</u>
Pension Expense	\$112,703,191	\$175,461,325

Section 2: GASB Information

Deferred outflows of resources and deferred inflows of resources

Reporting Date for Employer under GASB 68	June 30, 2022	June 30, 2021
Measurement Date for Employer under GASB 68	December 31, 2021	December 31, 2020
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions	\$38,895,800	\$22,923,004
Changes of assumptions	47,738,660	58,447,504
Net difference between projected and actual earnings on plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>22,849,362</u>	<u>28,003,125</u>
Total Deferred Outflows of Resources	\$109,483,822	\$109,373,633
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions	\$38,895,800	\$22,923,004
Changes of assumptions	0	0
Net difference between projected and actual earnings on plan investments	227,961,260	86,795,430
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>1,811,877</u>
Total Deferred Inflows of Resources	\$266,857,060	\$111,530,311
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2022	N/A	\$11,702,352
2023	-\$22,243,804	13,634,748
2024	-49,152,268	-13,273,716
2025	-50,098,614	-14,220,062
2026	-35,878,552	0
Thereafter	0	0

Note:

Average expected remaining service life as of December 31, 2021 and December 31, 2020 is 5 years.

Section 2: GASB Information

Exhibit 5 – Determination of Proportionate Share

Employer Name	FY 2021 Total Appropriation	Share of NPL as of January 1, 2021	Percent of Total NPL	FY 2022 Total Appropriation	Share of NPL as of January 1, 2022 ¹	Percent of Total NPL
Middlesex County Retirement Board	\$356,333	\$0	0.000000%	\$428,815	\$0	0.000000%
Middlesex County	0	0	0.000000%	0	0	0.000000%
Middlesex Hospital	0	0	0.000000%	0	0	0.000000%
Town of Acton	4,615,717	52,615,628	3.436475%	4,821,666	44,317,853	3.305508%
Town of Ashby	251,979	1,775,392	0.115956%	240,126	1,370,949	0.102254%
Town of Ashland	3,243,063	35,887,576	2.343919%	3,598,325	29,025,102	2.164877%
Town of Ayer	2,087,745	19,150,544	1.250776%	2,234,480	16,034,552	1.195959%
Town of Bedford	4,787,530	51,394,381	3.356712%	4,966,807	44,033,584	3.284305%
Town of Billerica	12,782,396	152,215,238	9.941605%	13,587,241	136,488,741	10.180200%
Town of Boxborough	1,008,914	12,166,423	0.794623%	1,144,434	10,220,882	0.762339%
Town of Burlington	10,675,811	133,422,263	8.714183%	11,757,449	118,806,981	8.861382%
Town of Carlisle	1,057,819	10,349,764	0.675972%	1,192,106	8,806,565	0.656850%
Town of Chelmsford	9,511,562	110,931,084	7.245221%	10,283,109	100,318,386	7.482384%
Town of Dracut	5,727,860	66,580,110	4.348534%	6,152,234	62,185,294	4.638175%
Town of Dunstable	292,296	3,218,104	0.210183%	367,320	2,299,674	0.171524%
Town of Groton	2,090,290	24,595,262	1.606386%	2,385,255	19,238,916	1.434961%
Town of Holliston	2,385,594	25,050,502	1.636119%	2,589,575	18,170,200	1.355249%
Town of Hopkinton	2,486,832	24,095,505	1.573745%	2,916,805	16,725,088	1.247464%
Town of Hudson	6,207,788	66,148,477	4.320343%	6,387,468	59,893,267	4.467221%

¹ Net Pension Liability for each employer was determined on an individual basis.

The NPL for the Middlesex County Retirement Board, Middlesex County and the Middlesex Hospital has been allocated amongst the other units in the System in proportion to the remaining units' NPL because the obligation to fund these units is a shared responsibility of these other units.

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Middlesex County Retirement System

Section 2: GASB Information

Employer Name	FY 2021 Total Appropriation	Share of NPL as of January 1, 2021	Percent of Total NPL	FY 2022 Total Appropriation	Share of NPL as of January 1, 2022 ¹	Percent of Total NPL
Town of Lincoln	2,434,721	26,477,563	1.729324%	2,589,045	24,515,962	1.828557%
Town of Littleton	3,281,774	23,466,261	1.532648%	4,061,166	19,636,977	1.464651%
Town of North Reading	4,401,955	50,095,267	3.271863%	4,553,483	44,566,036	3.324019%
Town of Pepperell	1,531,884	17,612,899	1.150348%	1,672,631	15,377,884	1.146981%
Town of Sherborn	1,087,478	9,801,713	0.640177%	1,047,555	8,564,819	0.638819%
Town of Shirley	818,964	8,952,975	0.584744%	812,736	8,630,720	0.643734%
Town of Stow	1,024,938	11,389,407	0.743874%	1,077,698	11,352,166	0.846717%
Town of Sudbury	5,389,846	61,745,935	4.032801%	5,622,886	54,643,133	4.075633%
Town of Tewksbury	8,807,233	104,198,258	6.805481%	9,177,392	99,361,547	7.411017%
Town of Townsend	911,165	8,103,799	0.529282%	934,704	4,774,763	0.356132%
Town of Tyngsborough	2,152,711	24,002,922	1.567698%	2,462,187	21,175,029	1.579369%
Town of Wayland	5,182,543	56,416,777	3.684738%	5,378,336	46,247,117	3.449405%
Town of Westford	5,473,719	56,098,309	3.663938%	5,950,276	44,844,218	3.344767%
Town of Weston	5,668,652	64,849,395	4.235496%	5,898,122	59,360,735	4.427502%
Town of Wilmington	9,104,998	86,423,315	5.644550%	9,306,639	76,302,617	5.691135%
Acton-Boxborough RSD	2,794,347	30,083,545	1.964841%	3,124,290	24,866,009	1.854665%
Acton Water Supply	256,971	3,548,184	0.231742%	268,502	3,246,366	0.242135%
Bedford Housing Authority	27,468	315,580	0.020611%	28,862	255,587	0.019063%
Billerica Housing Authority	115,453	1,612,020	0.105286%	130,292	1,042,229	0.077736%

Section 2: GASB Information

Employer Name	FY 2021 Total Appropriation	Share of NPL as of January 1, 2021	Percent of Total NPL	FY 2022 Total Appropriation	Share of NPL as of January 1, 2022 ¹	Percent of Total NPL
Chelmsford Housing Authority	271,136	2,016,950	0.131733%	248,780	1,656,493	0.123552%
Chelmsford Water District	67,843	24,164	0.001578%	70,601	-1,005,744	-0.075015%
Dracut Housing Authority	162,257	2,264,513	0.147902%	170,394	1,703,681	0.127071%
Dracut Water Supply	247,338	3,240,627	0.211654%	252,748	3,204,541	0.239015%
E. Chelmsford Water	35,999	366,619	0.023945%	37,612	183,163	0.013661%
E. Middlesex Mosq Control	51,505	649,547	0.042424%	58,341	465,506	0.034720%
Greater Lowell RVTSD	1,307,090	17,820,793	1.163926%	1,453,154	17,260,795	1.287420%
Groton-Dunstable RSD	1,077,851	12,381,614	0.808678%	1,173,066	11,406,839	0.850795%
Hudson Housing Authority	98,078	616,643	0.040275%	58,322	568,228	0.042382%
Lincoln Sudbury	755,859	8,715,281	0.569220%	756,986	8,307,816	0.619650%
Nashoba Valley THSD	324,010	3,650,910	0.238451%	327,120	3,439,271	0.256523%
N. Chelmsford Water	72,338	977,691	0.063856%	78,589	628,790	0.046899%
North Middlesex RSD	1,123,918	12,806,518	0.836430%	1,219,851	11,254,512	0.839433%
Shawsheen Valley RVS	706,293	8,542,800	0.557954%	723,882	8,099,773	0.604133%
South Middlesex RVTS	599,951	6,677,782	0.436145%	580,201	6,194,749	0.462044%
Sudbury Water District	142,163	2,449,672	0.159995%	178,572	1,399,802	0.104406%
Tewksbury Housing Authority	137,197	1,645,758	0.107489%	142,280	1,475,444	0.110048%
Wayland Housing Authority	55,104	625,875	0.040878%	57,807	371,407	0.027702%

Section 2: GASB Information

Employer Name	FY 2021 Total Appropriation	Share of NPL as of January 1, 2021	Percent of Total NPL	FY 2022 Total Appropriation	Share of NPL as of January 1, 2022 ¹	Percent of Total NPL
Hopkinton Housing Authority	40,023	517,677	0.033811%	43,799	498,319	0.037168%
Sudbury Housing Authority	43,152	465,613	0.030411%	43,182	458,401	0.034190%
Wilmington Housing Authority	32,574	370,673	0.024210%	35,519	185,577	0.013842%
Acton Housing Authority	66,700	861,176	0.056246%	77,609	721,454	0.053811%
Burlington Housing Authority	14,349	327,467	0.021388%	35,290	4,057	0.000303%
Ayer Housing Authority	62,116	858,485	0.056070%	66,830	691,363	0.051566%
Holliston Housing Authority	15,782	168,599	0.011012%	19,951	93,451	0.006970%
Littleton Housing Authority	43,356	607,838	0.039700%	48,297	665,340	0.049625%
Westford Housing Authority	50,725	537,128	0.035081%	53,528	285,368	0.021285%
Shirley Water District	24,607	453,772	0.029637%	36,292	310,034	0.023124%
Tyngsboro Housing Authority	44,565	516,453	0.033731%	47,279	504,387	0.037620%
Pepperell Housing Authority	18,331	247,338	0.016154%	24,032	212,725	0.015866%
Groton Housing Authority	2,867	0	0.000000%	0	0	0.000000%
Tyngsboro Water District	40,250	440,581	0.028776%	43,481	370,151	0.027608%
North Reading Housing Authority	17,708	212,881	0.013904%	22,357	26,035	0.001942%

Note:
 Since the last participant employed by the Groton Housing Authority transferred to the Westford Housing Authority prior to 2020, the fiscal year 2021 contribution from the Groton Housing Authority has been credited to the Westford Housing Authority.

Section 2: GASB Information

Exhibit 6 – Determination of Proportionate Share Amounts by Employer

Employer Name	2022 Share of Cost Allocation (1)	Net Pension Liability (2)	Covered Employee Payroll (3)	Discount Rate Sensitivity		
				1% Decrease (4)	Current Discount Rate (5)	1% Increase (6)
Middlesex County Retirement Board	0.000000%	\$0	\$1,339,300	\$0	\$0	\$0
Middlesex County	0.000000%	0	0	0	0	0
Middlesex Hospital	0.000000%	0	0	0	0	0
Town of Acton	3.305508%	44,317,853	14,922,594	57,326,603	44,317,853	33,361,524
Town of Ashby	0.102254%	1,370,949	992,577	1,773,368	1,370,949	1,032,021
Town of Ashland	2.164877%	29,025,102	15,457,970	37,544,926	29,025,102	21,849,471
Town of Ayer	1.195959%	16,034,552	7,307,387	20,741,221	16,034,552	12,070,465
Town of Bedford	3.284305%	44,033,584	19,572,584	56,958,892	44,033,584	33,147,533
Town of Billerica	10.180200%	136,488,741	38,284,144	176,552,682	136,488,741	102,745,780
Town of Boxborough	0.762339%	10,220,882	3,526,748	13,221,048	10,220,882	7,694,060
Town of Burlington	8.861382%	118,806,981	37,219,280	153,680,745	118,806,981	89,435,333
Town of Carlisle	0.656850%	8,806,565	6,153,577	11,391,582	8,806,565	6,629,392
Town of Chelmsford	7.482384%	100,318,386	29,987,946	129,765,138	100,318,386	75,517,518
Town of Dracut	4.638175%	62,185,294	17,308,432	80,438,727	62,185,294	46,811,748
Town of Dunstable	0.171524%	2,299,674	1,435,309	2,974,704	2,299,674	1,731,145
Town of Groton	1.434961%	19,238,916	8,229,713	24,886,172	19,238,916	14,482,641
Town of Holliston	1.355249%	18,170,200	11,683,621	23,503,752	18,170,200	13,678,135
Town of Hopkinton	1.247464%	16,725,088	18,552,588	21,634,452	16,725,088	12,590,286
Town of Hudson	4.467221%	59,893,267	22,864,683	77,473,914	59,893,267	45,086,360

Section 2: GASB Information

Employer Name	2022 Share of Cost Allocation (1)	Net Pension Liability (2)	Covered Employee Payroll (3)	Discount Rate Sensitivity		
				1% Decrease (4)	Current Discount Rate (5)	1% Increase (6)
Town of Lincoln	1.828557%	24,515,962	11,398,289	31,712,205	24,515,962	18,455,087
Town of Littleton	1.464651%	19,636,977	14,917,191	25,401,077	19,636,977	14,782,293
Town of North Reading	3.324019%	44,566,036	14,117,838	57,647,636	44,566,036	33,548,351
Town of Pepperell	1.146981%	15,377,884	5,476,497	19,891,800	15,377,884	11,576,140
Town of Sherborn	0.638819%	8,564,819	4,623,108	11,078,876	8,564,819	6,447,411
Town of Shirley	0.643734%	8,630,720	1,942,258	11,164,121	8,630,720	6,497,020
Town of Stow	0.846717%	11,352,166	3,828,104	14,684,401	11,352,166	8,545,666
Town of Sudbury	4.075633%	54,643,133	18,814,338	70,682,693	54,643,133	41,134,172
Town of Tewksbury	7.411017%	99,361,547	24,651,278	128,527,435	99,361,547	74,797,230
Town of Townsend	0.356132%	4,774,763	3,607,178	6,176,313	4,774,763	3,594,339
Town of Tyngsborough	1.579369%	21,175,029	9,042,420	27,390,598	21,175,029	15,940,105
Town of Wayland	3.449405%	46,247,117	21,184,193	59,822,170	46,247,117	34,813,832
Town of Westford	3.344767%	44,844,218	26,671,296	58,007,473	44,844,218	33,757,760
Town of Weston	4.427502%	59,360,735	21,737,198	76,785,067	59,360,735	44,685,481
Town of Wilmington	5.691135%	76,302,617	25,210,625	98,699,949	76,302,617	57,438,965
Acton-Boxborough RSD	1.854665%	24,866,009	14,699,280	32,165,002	24,866,009	18,718,595
Acton Water Supply	0.242135%	3,246,366	1,246,732	4,199,281	3,246,366	2,443,794
Bedford Housing Authority	0.019063%	255,587	120,957	330,610	255,587	192,400
Billerica Housing Authority	0.077736%	1,042,229	386,955	1,348,158	1,042,229	784,568

Section 2: GASB Information

Employer Name	2022 Share of Cost Allocation (1)	Net Pension Liability (2)	Covered Employee Payroll (3)	Discount Rate Sensitivity		
				1% Decrease (4)	Current Discount Rate (5)	1% Increase (6)
Chelmsford Housing Authority	0.123552%	1,656,493	3,092,974	2,142,728	1,656,493	1,246,972
Chelmsford Water District	-0.075015%	-1,005,744	1,544,300	-1,300,963	-1,005,744	-757,102
Dracut Housing Authority	0.127071%	1,703,681	412,422	2,203,767	1,703,681	1,282,494
Dracut Water Supply	0.239015%	3,204,541	626,182	4,145,179	3,204,541	2,412,309
E. Chelmsford Water	0.013661%	183,163	214,654	236,927	183,163	137,881
E. Middlesex Mosq Control	0.034720%	465,506	395,169	602,147	465,506	350,423
Greater Lowell RVTSD	1.287420%	17,260,795	4,734,333	22,327,407	17,260,795	12,993,554
Groton-Dunstable RSD	0.850795%	11,406,839	4,231,955	14,755,122	11,406,839	8,586,822
Hudson Housing Authority	0.042382%	568,228	423,443	735,022	568,228	427,750
Lincoln Sudbury	0.619650%	8,307,816	2,993,714	10,746,434	8,307,816	6,253,945
Nashoba Valley THSD	0.256523%	3,439,271	1,038,502	4,448,810	3,439,271	2,589,009
N. Chelmsford Water	0.046899%	628,790	577,414	813,361	628,790	473,340
North Middlesex RSD	0.839433%	11,254,512	5,799,083	14,558,082	11,254,512	8,472,154
Shawsheen Valley RVS	0.604133%	8,099,773	2,981,397	10,477,323	8,099,773	6,097,334
South Middlesex RVTS	0.462044%	6,194,749	2,258,149	8,013,112	6,194,749	4,663,273
Sudbury Water District	0.104406%	1,399,802	998,296	1,810,690	1,399,802	1,053,741
Tewksbury Housing Authority	0.110048%	1,475,444	484,993	1,908,535	1,475,444	1,110,682
Wayland Housing Authority	0.027702%	371,407	332,528	480,427	371,407	279,587

Section 2: GASB Information

Employer Name	2022 Share of Cost Allocation (1)	Net Pension Liability (2)	Covered Employee Payroll (3)	Discount Rate Sensitivity		
				1% Decrease (4)	Current Discount Rate (5)	1% Increase (6)
Hopkinton Housing Authority	0.037168%	498,319	125,114	644,592	498,319	375,124
Sudbury Housing Authority	0.034190%	458,401	157,571	592,957	458,401	345,074
Wilmington Housing Authority	0.013842%	185,577	63,386	240,050	185,577	139,698
Acton Housing Authority	0.053811%	721,454	477,825	933,225	721,454	543,095
Burlington Housing Authority	0.000303%	4,057	218,402	5,248	4,057	3,054
Ayer Housing Authority	0.051566%	691,363	198,031	894,301	691,363	520,443
Holliston Housing Authority	0.006970%	93,451	86,205	120,882	93,451	70,348
Littleton Housing Authority	0.049625%	665,340	0	860,639	665,340	500,854
Westford Housing Authority	0.021285%	285,368	265,045	369,133	285,368	214,819
Shirley Water District	0.023124%	310,034	229,540	401,039	310,034	233,387
Tyngsboro Housing Authority	0.037620%	504,387	179,917	652,441	504,387	379,692
Pepperell Housing Authority	0.015866%	212,725	97,538	275,167	212,725	160,135
Groton Housing Authority	0.000000%	0	0	0	0	0
Tyngsboro Water District	0.027608%	370,151	232,657	478,803	370,151	278,642
North Reading Housing Authority	0.001942%	26,035	61,252	33,677	26,035	19,599

Section 2: GASB Information

Employer Name	2022 Share of Cost Allocation (1)	Net Pension Liability (2)	Covered Employee Payroll (3)	Discount Rate Sensitivity		
				1% Decrease (4)	Current Discount Rate (5)	1% Increase (6)
West Groton Water	-0.002975%	-39,887	193,409	-51,595	-39,887	-30,026
Ayer-Shirley RSD	0.156460%	2,097,697	4,076,791	2,713,440	2,097,697	1,579,101
NMRECC	0.024466%	328,026	923,210	424,312	328,026	246,931
Total for All Entities:	100.000000%	\$1,340,727,512	\$519,239,589	\$1,734,275,212	\$1,340,727,512	\$1,009,270,759

Section 2: GASB Information

Employer Name	Schedule of Contributions				Pension Expense		
	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered Employee Payroll (10)	Proportionate Share of Plan Pension Expense (11)	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (12)	Total Employer Pension Expense (13)
Middlesex County Retirement Board	\$428,815	\$428,815	\$0	32.02%	\$428,815	\$0	\$428,815
Middlesex County	0	0	0	0.00%	0	0	0
Middlesex Hospital	0	0	0	0.00%	0	0	0
Town of Acton	4,814,701	4,821,666	-6,965	32.31%	3,711,238	-110,017	3,601,221
Town of Ashby	240,126	240,126	0	24.19%	114,806	49,164	163,970
Town of Ashland	3,563,976	3,598,325	-34,349	23.28%	2,430,602	-136,315	2,294,287
Town of Ayer	1,934,480	2,234,480	-300,000	30.58%	1,342,756	74,178	1,416,934
Town of Bedford	4,965,363	4,966,807	-1,444	25.38%	3,687,433	-721,874	2,965,559
Town of Billerica	13,584,397	13,587,241	-2,844	35.49%	11,429,756	-472,654	10,957,102
Town of Boxborough	1,144,434	1,144,434	0	32.45%	855,911	111,338	967,249
Town of Burlington	11,757,449	11,757,449	0	31.59%	9,949,061	1,179,597	11,128,658
Town of Carlisle	1,192,106	1,192,106	0	19.37%	737,474	-15,013	722,461
Town of Chelmsford	9,883,109	10,283,109	-400,000	34.29%	8,400,800	873,243	9,274,043
Town of Dracut	6,152,234	6,152,234	0	35.54%	5,207,483	1,257,711	6,465,194
Town of Dunstable	367,320	367,320	0	25.59%	192,577	50,819	243,396
Town of Groton	2,385,255	2,385,255	0	28.98%	1,611,094	-322,137	1,288,957
Town of Holliston	2,589,575	2,589,575	0	22.16%	1,521,597	-833,925	687,672
Town of Hopkinton	2,910,419	2,916,805	-6,386	15.72%	1,400,582	-416,652	983,930
Town of Hudson	6,381,731	6,387,468	-5,737	27.94%	5,015,545	219,026	5,234,571

Section 2: GASB Information

Employer Name	Schedule of Contributions				Pension Expense		
	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered Employee Payroll (10)	Proportionate Share of Plan Pension Expense (11)	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (12)	Total Employer Pension Expense (13)
Town of Lincoln	2,587,296	2,589,045	-1,749	22.71%	2,053,001	100,907	2,153,908
Town of Littleton	2,730,527	4,061,166	-1,330,639	27.22%	1,644,427	577,715	2,222,142
Town of North Reading	4,553,483	4,553,483	0	32.25%	3,732,021	-256,301	3,475,720
Town of Pepperell	1,671,047	1,672,631	-1,584	30.54%	1,287,766	-93,579	1,194,187
Town of Sherborn	1,047,555	1,047,555	0	22.66%	717,230	-208,249	508,981
Town of Shirley	812,736	812,736	0	41.84%	722,749	83,762	806,511
Town of Stow	1,077,698	1,077,698	0	28.15%	950,646	280,843	1,231,489
Town of Sudbury	5,622,886	5,622,886	0	29.89%	4,575,891	-97,985	4,477,906
Town of Tewksbury	9,177,392	9,177,392	0	37.23%	8,320,673	1,808,853	10,129,526
Town of Townsend	934,704	934,704	0	25.91%	399,845	-655,438	-255,593
Town of Tyngsborough	2,462,187	2,462,187	0	27.23%	1,773,226	44,324	1,817,550
Town of Wayland	5,378,336	5,378,336	0	25.39%	3,872,797	-1,229,247	2,643,550
Town of Westford	5,950,276	5,950,276	0	22.31%	3,755,317	-678,704	3,076,613
Town of Weston	5,898,122	5,898,122	0	27.13%	4,970,950	-280,114	4,690,836
Town of Wilmington	7,801,298	9,306,639	-1,505,341	36.92%	6,389,687	372,046	6,761,733
Acton-Boxborough RSD	3,124,290	3,124,290	0	21.25%	2,082,314	-85,208	1,997,106
Acton Water Supply	268,502	268,502	0	21.54%	271,855	-46,644	225,211
Bedford Housing Authority	28,862	28,862	0	23.86%	21,403	-6,054	15,349
Billerica Housing Authority	130,292	130,292	0	33.67%	87,278	-65,098	22,180

Section 2: GASB Information

Employer Name	Schedule of Contributions				Pension Expense		
	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered Employee Payroll (10)	Proportionate Share of Plan Pension Expense (11)	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (12)	Total Employer Pension Expense (13)
Chelmsford Housing Authority	248,780	248,780	0	8.04%	138,717	152,538	291,255
Chelmsford Water District	70,601	70,601	0	4.57%	-84,222	-191,293	-275,515
Dracut Housing Authority	170,394	170,394	0	41.32%	142,669	-62,397	80,272
Dracut Water Supply	252,748	252,748	0	40.36%	268,353	94,931	363,284
E. Chelmsford Water	37,612	37,612	0	17.52%	15,338	-23,272	-7,934
E. Middlesex Mosq Control	58,341	58,341	0	14.76%	38,982	-23,007	15,975
Greater Lowell RVTSD	1,453,154	1,453,154	0	30.69%	1,445,442	451,134	1,896,576
Groton-Dunstable RSD	1,173,066	1,173,066	0	27.72%	955,225	295,624	1,250,849
Hudson Housing Authority	58,322	58,322	0	13.77%	47,584	-140,304	-92,720
Lincoln Sudbury	756,986	756,986	0	25.29%	695,708	56,763	752,471
Nashoba Valley THSD	327,120	327,120	0	31.50%	288,009	59,612	347,621
N. Chelmsford Water	78,589	78,589	0	13.61%	52,656	-34,445	18,211
North Middlesex RSD	1,219,851	1,219,851	0	21.04%	942,468	-1,235	941,233
Shawsheen Valley RVS	723,882	723,882	0	24.28%	678,286	-14,567	663,719
South Middlesex RVTS	580,201	580,201	0	25.69%	518,757	-137,550	381,207
Sudbury Water District	178,572	178,572	0	17.89%	117,221	-150,161	-32,940
Tewksbury Housing Authority	142,280	142,280	0	29.34%	123,556	6,208	129,764
Wayland Housing Authority	57,807	57,807	0	17.38%	31,102	-48,108	-17,006

Section 2: GASB Information

Employer Name	Schedule of Contributions				Pension Expense		
	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered Employee Payroll (10)	Proportionate Share of Plan Pension Expense (11)	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (12)	Total Employer Pension Expense (13)
Hopkinton Housing Authority	43,799	43,799	0	35.01%	41,730	-1,043	40,687
Sudbury Housing Authority	43,182	43,182	0	27.40%	38,387	18,865	57,252
Wilmington Housing Authority	35,519	35,519	0	56.04%	15,541	-23,145	-7,604
Acton Housing Authority	77,609	77,609	0	16.24%	60,415	-42,956	17,459
Burlington Housing Authority	35,290	35,290	0	16.16%	340	-15,922	-15,582
Ayer Housing Authority	66,830	66,830	0	33.75%	57,896	-214,539	-156,643
Holliston Housing Authority	19,951	19,951	0	23.14%	7,826	-19,696	-11,870
Littleton Housing Authority	48,297	48,297	0	0.00%	55,716	43,282	98,998
Westford Housing Authority	53,528	53,528	0	20.20%	23,897	-33,256	-9,359
Shirley Water District	36,292	36,292	0	15.81%	25,963	-17,914	8,049
Tyngsboro Housing Authority	47,279	47,279	0	26.28%	42,238	13,081	55,319
Pepperell Housing Authority	24,032	24,032	0	24.64%	17,814	11,245	29,059
Groton Housing Authority	0	0	0	0.00%	0	546	546
Tyngsboro Water District	43,481	43,481	0	18.69%	30,997	-3,199	27,798
North Reading Housing Authority	22,357	22,357	0	36.50%	2,181	-21,538	-19,357

Section 2: GASB Information

Employer Name	Schedule of Contributions				Pension Expense		
	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered Employee Payroll (10)	Proportionate Share of Plan Pension Expense (11)	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (12)	Total Employer Pension Expense (13)
West Groton Water	2,709	2,709	0	1.40%	-3,340	-11,521	-14,861
Ayer-Shirley RSD	513,767	513,767	0	12.60%	175,664	-393,228	-217,564
NMRECC	0	0	0	0.00%	27,469	68,149	95,618
Total for All Entities:	\$144,255,207	\$147,852,245	-\$3,597,038	28.47%	\$112,703,191	\$0	\$112,703,191

Section 2: GASB Information

Employer Name	Deferred Outflows of Resources				Deferred Inflows of Resources				
	Differences Between Expected and Actual Experience (14)	Changes of Assumptions (15)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (16)	Total Deferred Outflows of Resources (17)	Differences Between Expected and Actual Experience (18)	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments (19)	Changes of Assumptions (20)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (21)	Total Deferred Inflows of Resources (22)
Middlesex County Retirement Board	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Middlesex County	0	0	0	0	0	0	0	0	0
Middlesex Hospital	0	0	0	0	0	0	0	0	0
Town of Acton	755,287	1,578,005	14,416	2,347,708	0	7,535,277	0	1,784,770	9,320,047
Town of Ashby	23,364	48,815	41,871	114,050	0	233,100	0	165,720	398,820
Town of Ashland	494,661	1,033,483	356,649	1,884,793	0	4,935,081	0	1,976,868	6,911,949
Town of Ayer	273,269	570,935	71,405	915,609	0	2,726,323	0	436,870	3,163,193
Town of Bedford	750,443	1,567,883	94,043	2,412,369	0	7,486,944	0	1,808,571	9,295,515
Town of Billerica	2,326,115	4,859,892	2,837,939	10,023,946	0	23,206,915	0	591,897	23,798,812
Town of Boxborough	174,189	363,930	357,785	895,904	0	1,737,836	0	379,548	2,117,384
Town of Burlington	2,024,769	4,230,305	2,927,496	9,182,570	0	20,200,517	0	334,022	20,534,539
Town of Carlisle	150,086	313,571	148,410	612,067	0	1,497,363	0	223,522	1,720,885
Town of Chelmsford	1,709,677	3,571,990	3,002,347	8,284,014	0	17,056,938	0	552,719	17,609,657
Town of Dracut	1,059,793	2,214,203	3,692,727	6,966,723	0	10,573,243	0	120,361	10,693,604
Town of Dunstable	39,192	81,883	150,370	271,445	0	391,009	0	382,628	773,637
Town of Groton	327,879	685,031	577,786	1,590,696	0	3,271,155	0	1,886,868	5,158,023
Town of Holliston	309,666	646,978	223,070	1,179,714	0	3,089,443	0	3,586,151	6,675,594
Town of Hopkinton	285,037	595,522	596,398	1,476,957	0	2,843,734	0	3,457,221	6,300,955
Town of Hudson	1,020,732	2,132,592	1,697,746	4,851,070	0	10,183,534	0	672,302	10,855,836

Section 2: GASB Information

Employer Name	Deferred Outflows of Resources				Deferred Inflows of Resources				
	Differences Between Expected and Actual Experience (14)	Changes of Assumptions (15)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (16)	Total Deferred Outflows of Resources (17)	Differences Between Expected and Actual Experience (18)	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments (19)	Changes of Assumptions (20)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (21)	Total Deferred Inflows of Resources (22)
Town of Lincoln	417,814	872,928	1,207,163	2,497,905	0	4,168,401	0	249,099	4,417,500
Town of Littleton	334,663	699,205	1,451,193	2,485,061	0	3,338,837	0	159,606	3,498,443
Town of North Reading	759,517	1,586,842	392,765	2,739,124	0	7,577,475	0	662,566	8,240,041
Town of Pepperell	262,078	547,553	19,470	829,101	0	2,614,671	0	111,471	2,726,142
Town of Sherborn	145,966	304,964	120,522	571,452	0	1,456,259	0	481,950	1,938,209
Town of Shirley	147,089	307,310	643,092	1,097,491	0	1,467,464	0	1,403	1,468,867
Town of Stow	193,469	404,211	1,147,453	1,745,133	0	1,930,186	0	20,129	1,950,315
Town of Sudbury	931,256	1,945,653	304,228	3,181,137	0	9,290,864	0	759,061	10,049,925
Town of Tewksbury	1,693,370	3,537,920	6,514,025	11,745,315	0	16,894,248	0	565,487	17,459,735
Town of Townsend	81,374	170,013	96,188	347,575	0	811,844	0	2,033,266	2,845,110
Town of Tyngsborough	360,876	753,969	759,785	1,874,630	0	3,600,348	0	0	3,600,348
Town of Wayland	788,167	1,646,700	58,540	2,493,407	0	7,863,306	0	3,252,009	11,115,315
Town of Westford	764,258	1,596,747	500,972	2,861,977	0	7,624,774	0	3,693,847	11,318,621
Town of Weston	1,011,656	2,113,630	1,851,892	4,977,178	0	10,092,989	0	544,687	10,637,676
Town of Wilmington	1,300,388	2,716,872	1,345,055	5,362,315	0	12,973,584	0	261,431	13,235,015
Acton-Boxborough RSD	423,779	885,392	408,886	1,718,057	0	4,227,919	0	1,039,352	5,267,271
Acton Water Supply	55,326	115,592	56,708	227,626	0	551,973	0	119,417	671,390
Bedford Housing Authority	4,356	9,101	478	13,935	0	43,457	0	24,585	68,042
Billerica Housing Authority	17,762	37,110	51,504	106,376	0	177,208	0	335,044	512,252

Section 2: GASB Information

Employer Name	Deferred Outflows of Resources				Deferred Inflows of Resources				
	Differences Between Expected and Actual Experience (14)	Changes of Assumptions (15)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (16)	Total Deferred Outflows of Resources (17)	Differences Between Expected and Actual Experience (18)	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments (19)	Changes of Assumptions (20)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (21)	Total Deferred Inflows of Resources (22)
Chelmsford Housing Authority	28,231	58,982	34,021	121,234	0	281,650	0	111,642	393,292
Chelmsford Water District	-17,140	-35,811	137,703	84,752	0	-171,005	0	1,053,282	882,277
Dracut Housing Authority	29,035	60,662	18,316	108,013	0	289,674	0	290,811	580,485
Dracut Water Supply	54,613	114,103	255,912	424,628	0	544,862	0	56,010	600,872
E. Chelmsford Water	3,122	6,522	7,870	17,514	0	31,143	0	117,389	148,532
E. Middlesex Mosq Control	7,933	16,575	24,008	48,516	0	79,149	0	111,666	190,815
Greater Lowell RVTSD	294,167	614,597	1,446,808	2,355,572	0	2,934,819	0	107,491	3,042,310
Groton-Dunstable RSD	194,401	406,158	669,010	1,269,569	0	1,939,482	0	82,794	2,022,276
Hudson Housing Authority	9,684	20,233	22,520	52,437	0	96,615	0	191,777	288,392
Lincoln Sudbury	141,586	295,813	493,356	930,755	0	1,412,562	0	187,046	1,599,608
Nashoba Valley THSD	58,614	122,461	225,799	406,874	0	584,772	0	40,422	625,194
N. Chelmsford Water	10,716	22,389	18,806	51,911	0	106,912	0	247,901	354,813
North Middlesex RSD	191,805	400,734	80,780	673,319	0	1,913,583	0	27,663	1,941,246
Shawsheen Valley RVS	138,040	288,405	444,986	871,431	0	1,377,188	0	32,627	1,409,815
South Middlesex RVTs	105,574	220,574	244,125	570,273	0	1,053,281	0	137,991	1,191,272
Sudbury Water District	23,856	49,842	162,541	236,239	0	238,006	0	715,804	953,810
Tewksbury Housing Authority	25,145	52,535	24,420	102,100	0	250,867	0	13,101	263,968
Wayland Housing Authority	6,330	13,225	6,105	25,660	0	63,150	0	184,183	247,333

Section 2: GASB Information

Employer Name	Deferred Outflows of Resources				Deferred Inflows of Resources				
	Differences Between Expected and Actual Experience (14)	Changes of Assumptions (15)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (16)	Total Deferred Outflows of Resources (17)	Differences Between Expected and Actual Experience (18)	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments (19)	Changes of Assumptions (20)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (21)	Total Deferred Inflows of Resources (22)
Hopkinton Housing Authority	8,493	17,743	35,164	61,400	0	84,728	0	1,914	86,642
Sudbury Housing Authority	7,812	16,322	40,584	64,718	0	77,941	0	4,303	82,244
Wilmington Housing Authority	3,163	6,608	6,243	16,014	0	31,553	0	115,318	146,871
Acton Housing Authority	12,295	25,688	16,337	54,320	0	122,667	0	42,075	164,742
Burlington Housing Authority	69	144	75,912	76,125	0	690	0	241,805	242,495
Ayer Housing Authority	11,783	24,617	15,654	52,054	0	117,551	0	72,082	189,633
Holliston Housing Authority	1,593	3,327	7,322	12,242	0	15,889	0	41,832	57,721
Littleton Housing Authority	11,339	23,690	141,102	176,131	0	113,126	0	3,524	116,650
Westford Housing Authority	4,863	10,161	0	15,024	0	48,521	0	157,431	205,952
Shirley Water District	5,284	11,039	21,480	37,803	0	52,714	0	93,820	146,534
Tyngsboro Housing Authority	8,596	17,959	46,081	72,636	0	85,760	0	7,839	93,599
Pepperell Housing Authority	3,625	7,574	21,097	32,296	0	36,169	0	3,939	40,108
Groton Housing Authority	0	0	8,244	8,244	0	0	0	0	0
Tyngsboro Water District	6,308	13,180	9,051	28,539	0	62,936	0	23,708	86,644
North Reading Housing Authority	444	927	23,015	24,386	0	4,427	0	131,128	135,555

Section 2: GASB Information

Employer Name	Deferred Outflows of Resources				Deferred Inflows of Resources				
	Differences Between Expected and Actual Experience (14)	Changes of Assumptions (15)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (16)	Total Deferred Outflows of Resources (17)	Differences Between Expected and Actual Experience (18)	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments (19)	Changes of Assumptions (20)	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions (21)	Total Deferred Inflows of Resources (22)
West Groton Water	-680	-1,420	2,149	49	0	-6,782	0	55,970	49,188
Ayer-Shirley RSD	35,750	74,692	105,858	216,300	0	356,667	0	1,507,225	1,863,892
NMRECC	5,590	11,680	283,044	300,314	0	55,774	0	7,839	63,613
Total for All Entities:	\$22,849,362	\$47,738,660	\$38,895,800	\$109,483,822	\$0	\$227,961,260	\$0	\$38,895,800	\$266,857,060

Section 2: GASB Information

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended June 30)

Employer Name	2023 (23)	2024 (24)	2025 (25)	2026 (26)	2027 (27)	Thereafter (28)
Middlesex County Retirement Board	\$0	\$0	\$0	\$0	\$0	\$0
Middlesex County	0	0	0	0	0	0
Middlesex Hospital	0	0	0	0	0	0
Town of Acton	-1,190,679	-2,094,556	-2,089,241	-1,597,863	0	0
Town of Ashby	-44,300	-106,627	-73,015	-60,827	0	0
Town of Ashland	-733,783	-1,461,335	-1,587,638	-1,244,400	0	0
Town of Ayer	-341,208	-731,463	-671,996	-502,918	0	0
Town of Bedford	-1,305,064	-2,282,864	-1,919,816	-1,375,401	0	0
Town of Billerica	-1,965,504	-4,112,940	-4,491,409	-3,205,012	0	0
Town of Boxborough	-92,511	-297,684	-462,882	-368,403	0	0
Town of Burlington	-1,067,956	-3,118,396	-4,176,403	-2,989,213	0	0
Town of Carlisle	-81,370	-406,529	-371,363	-249,556	0	0
Town of Chelmsford	-1,362,912	-2,823,588	-3,032,297	-2,106,846	0	0
Town of Dracut	-94,404	-1,222,104	-1,497,342	-913,031	0	0
Town of Dunstable	-51,974	-120,447	-172,573	-157,197	0	0
Town of Groton	-497,951	-902,577	-1,180,239	-986,560	0	0
Town of Holliston	-1,094,841	-1,682,588	-1,489,246	-1,229,206	0	0
Town of Hopkinton	-627,969	-1,447,759	-1,515,705	-1,232,564	0	0
Town of Hudson	-868,990	-2,118,814	-1,824,938	-1,192,025	0	0

Section 2: GASB Information

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended June 30)

Employer Name	2023 (23)	2024 (24)	2025 (25)	2026 (26)	2027 (27)	Thereafter (28)
Town of Lincoln	-168,864	-736,219	-641,414	-373,099	0	0
Town of Littleton	349,254	-393,914	-615,099	-353,623	0	0
Town of North Reading	-1,025,673	-1,808,640	-1,564,551	-1,102,053	0	0
Town of Pepperell	-294,464	-594,960	-582,114	-425,503	0	0
Town of Sherborn	-317,880	-535,800	-300,870	-212,208	0	0
Town of Shirley	19,201	-152,615	-160,637	-77,325	0	0
Town of Stow	106,023	-144,249	-144,421	-22,535	0	0
Town of Sudbury	-1,304,168	-2,198,073	-1,958,505	-1,408,043	0	0
Town of Tewksbury	-534,543	-1,963,247	-2,064,903	-1,151,727	0	0
Town of Townsend	-560,101	-737,920	-622,711	-576,802	0	0
Town of Tyngsborough	4,103	-506,516	-719,204	-504,102	0	0
Town of Wayland	-1,659,902	-2,646,624	-2,414,757	-1,900,626	0	0
Town of Westford	-1,276,212	-2,677,209	-2,528,293	-1,974,930	0	0
Town of Weston	-842,684	-1,928,421	-1,763,843	-1,125,551	0	0
Town of Wilmington	-1,177,785	-2,467,635	-2,511,551	-1,715,729	0	0
Acton-Boxborough RSD	-451,305	-1,015,154	-1,157,489	-925,265	0	0
Acton Water Supply	-94,722	-152,066	-124,279	-72,697	0	0
Bedford Housing Authority	-11,104	-16,712	-14,856	-11,435	0	0
Billerica Housing Authority	-83,024	-94,270	-119,348	-109,234	0	0

Section 2: GASB Information

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended June 30)

Employer Name	2023 (23)	2024 (24)	2025 (25)	2026 (26)	2027 (27)	Thereafter (28)
Chelmsford Housing Authority	-30,816	-98,083	-87,072	-56,089	0	0
Chelmsford Water District	-150,403	-267,921	-207,483	-171,720	0	0
Dracut Housing Authority	-108,543	-120,980	-130,093	-112,855	0	0
Dracut Water Supply	-27,177	-68,172	-59,117	-21,777	0	0
E. Chelmsford Water	-25,964	-35,486	-36,627	-32,942	0	0
E. Middlesex Mosq Control	-17,251	-43,180	-47,219	-34,648	0	0
Greater Lowell RVTSD	65,263	-211,852	-367,974	-172,175	0	0
Groton-Dunstable RSD	46,428	-265,868	-340,924	-192,343	0	0
Hudson Housing Authority	-100,955	-107,073	-18,351	-9,576	0	0
Lincoln Sudbury	-115,961	-257,546	-196,364	-98,982	0	0
Nashoba Valley THSD	-36,775	-65,380	-69,335	-46,831	0	0
N. Chelmsford Water	-58,947	-90,373	-86,648	-66,934	0	0
North Middlesex RSD	-148,808	-399,528	-424,089	-295,500	0	0
Shawsheen Valley RVS	-48,876	-184,656	-196,354	-108,498	0	0
South Middlesex RVTs	-100,619	-232,161	-181,673	-106,547	0	0
Sudbury Water District	-114,909	-163,940	-235,730	-202,991	0	0
Tewksbury Housing Authority	-23,442	-48,629	-54,169	-35,628	0	0
Wayland Housing Authority	-52,982	-66,541	-55,201	-46,949	0	0

Section 2: GASB Information

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended June 30)

Employer Name	2023 (23)	2024 (24)	2025 (25)	2026 (26)	2027 (27)	Thereafter (28)
Hopkinton Housing Authority	1,206	-10,045	-11,164	-5,240	0	0
Sudbury Housing Authority	415	-8,403	-7,416	-2,121	0	0
Wilmington Housing Authority	-29,369	-32,859	-34,892	-33,737	0	0
Acton Housing Authority	-11,816	-33,108	-38,379	-27,118	0	0
Burlington Housing Authority	-16,834	-30,214	-61,524	-57,798	0	0
Ayer Housing Authority	-28,936	-33,326	-41,167	-34,150	0	0
Holliston Housing Authority	-7,551	-11,254	-13,715	-12,959	0	0
Littleton Housing Authority	30,413	20,584	823	7,660	0	0
Westford Housing Authority	-45,319	-50,263	-49,830	-45,515	0	0
Shirley Water District	-17,003	-27,553	-36,348	-27,828	0	0
Tyngsboro Housing Authority	-2,037	-8,801	-6,917	-3,207	0	0
Pepperell Housing Authority	5,080	1,729	-8,173	-6,448	0	0
Groton Housing Authority	4,832	2,839	573	0	0	0
Tyngsboro Water District	-4,877	-19,573	-20,726	-12,928	0	0
North Reading Housing Authority	-21,471	-23,712	-32,507	-33,479	0	0

Section 2: GASB Information

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended June 30)

Employer Name	2023 (23)	2024 (24)	2025 (25)	2026 (26)	2027 (27)	Thereafter (28)
West Groton Water	-12,289	-13,638	-12,959	-10,254	0	0
Ayer-Shirley RSD	-354,951	-502,909	-420,813	-368,919	0	0
NMRECC	<u>62,706</u>	<u>56,122</u>	<u>55,891</u>	<u>61,983</u>	<u>0</u>	<u>0</u>
Total for All Entities:	-\$22,243,804	-\$49,152,268	-\$50,098,614	-\$35,878,552	\$0	\$0

Appendix: Definition of Terms

Definitions of certain terms as they are used in Statement 68. The terms may have different meanings in other contexts.

Active Employees:	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual Contributions:	Cash contributions recognized as additions to a pension Plan Fiduciary Net Position.
Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad Hoc Postemployment Benefit Changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Agent Employer:	An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.
Agent Multiple-Employer Defined Benefit Pension Plan (Agent Pension Plan):	A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.
Allocated Insurance Contract:	A contract with an insurance company under which related payments to the insurance company are currently used to purchase immediate or deferred annuities for individual employees. Also may be referred to as an annuity contract.
Automatic Cost-of-Living Adjustments (Automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

Appendix: Definition of Terms

Automatic Postemployment Benefit Changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Closed Period:	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Collective Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions:	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
Collective Net Pension Liability:	The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.
Collective Pension Expense:	Pension expense arising from certain changes in the collective Net Pension Liability.
Contributions:	Additions to a pension Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Employer:	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll:	The payroll of employees that are provided with pensions through the pension plan.
Deferred Retirement Option Program (DROP):	A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.

Appendix: Definition of Terms

Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.
Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan Fiduciary Net Position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement Period:	The period between the prior and the current measurement dates.

Appendix: Definition of Terms

Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.
Non-Employer Contributing Entities:	Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement 68, employees are not considered non-employer contributing entities.
Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment:	The period after employment.
Postemployment Benefit Changes:	Adjustments to the pension of an inactive employee.
Postemployment Healthcare Benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected Benefit Payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

Appendix: Definition of Terms

Single Employer:	An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.
Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan)	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Special Funding Situations:	Circumstances in which a non-employer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists: 1. The amount of contributions for which the non-employer entity legally is responsible is not dependent upon one or more events or circumstances unrelated to the pensions. 2. The non-employer entity is the only entity with a legal obligation to make contributions directly to a pension plan.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.