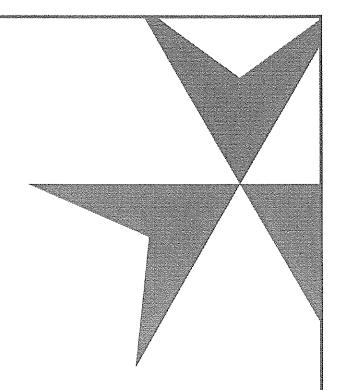
#### Hampden County Regional Retirement System

Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67/68) Accounting Valuation as of December 31, 2022



This report has been prepared at the request of the Retirement Board to assist the Board and the member units in preparing their financial reports for their liabilities associated with the Hampden County Regional Retirement System. This valuation report may not otherwise be copied or reproduced in any form without the consent of the 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



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August 3, 2023

Retirement Board Hampden County Regional Retirement System 67 Hunt Street, Suite 106 Agawam, MA 01001

#### Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67/68) Accounting Valuation as of December 31, 2022 for the Hampden County Regional Retirement System. It contains various information that will need to be disclosed in order to comply with GASB 67 and 68. Please refer to the Hampden County Regional Retirement System Actuarial Valuation and Review as of January 1, 2022, dated November 2, 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 Retirement System. The census and financial information on which our calculations were based were provided by the staff of the 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 completed under the supervision of A. Donald Morgan, FSA, MAAA, EA. He 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 his knowledge, the information supplied in the actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board based upon our analysis and recommendations. In his opinion, the assumptions are reasonable and take into account the experience of Retirement System and reasonable expectations.

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

Sincerely,

Segal

Lisa VanDermark, FSA, MAAA, EA Vice President and Consulting Actuary A. Donald Morgan, FSA, MAAA, EA Senior Vice President and Actuary

**¥** Segal

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## Section 1: Actuarial Valuation Summary

#### Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67/68) as of December 31, 2022. This report is based on financial information as of December 31, 2022 and the 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.

#### Highlights of the valuation

- 1. The Net Pension Liability (NPL) measured as of December 31, 2022 and December 31, 2021 was determined based upon the results of an actuarial valuation as of January 1, 2022.
- The NPL is equal to the difference between the Total Pension Liability (TPL) and the Plan Fiduciary Net Position (FNP). 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 (UAL) on a market value basis. The NPL increased from \$347,766,554 as of December 31, 2021 to \$439,979,143 as of December 31, 2022 and the Plan Fiduciary Net Position as a percent of the TPL decreased from 60.81% to 52.02%, primarily due to the decline in the Plan Fiduciary Net Position over that period.
- The discount rate used to measure the TPL and NPL was 7.00% as of December 31, 2022 and December 31, 2021.



## Section 1: Actuarial Valuation Summary

#### Important information about actuarial valuations

In order to prepare a 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. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our 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.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight), it is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.
Actuarial 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 actuarial valuation is prepared at the request of the Retirement Board. 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.

Actuarial results in this report 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 Retirement 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.

#### General information about the pension plan

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

Retired participants or beneficiaries currently receiving benefits	1,952
Inactive participants with a vested right to a deferred or immediate benefit	95
Inactive participants entitled to a refund of employee contributions	617
Active members	2,824
Total	5,488

#### Exhibit 1 - Net Pension Liability

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022	
Measurement date	December 31, 2022	December 31, 2021	
Components of the Net Pension Liability			
Total Pension Liability	\$916,964,706	\$887,453,103	
Plan Fiduciary Net Position	476,985,563	539,686,549	
Net Pension Liability	439,979,143	347,766,554	
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	52.02%	60.81%	

Actuarial assumptions. The TPL as of December 31, 2022, which was determined based on the results of an actuarial valuation as of January 1, 2022, used the following actuarial assumptions, applied to all periods included in the measurement:

Wage inflation	3.25%
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
Net investment rate of return	7.00%
Mortality	Pre-Retirement: RP-2014 Blue Collar Employee Mortality Table projected generationally with Scale MP-2021
	Healthy Retiree: RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2021
	Disabled Retiree: RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2021

Detailed information regarding all actuarial assumptions can be found in the January 1, 2022 Actuarial Valuation and Review.



#### Determination of discount rate and investment rates of return

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	20.5%	6.59%
International developed markets equity	12%	6.87%
International emerging markets equity	4.5%	8.30%
Core fixed income	15%	1,53%
High-yield fixed income	8%	3.54%
Real estate	10%	3.44%
Timber	4%	4.01%
Hedge fund, GTAA, Risk parity	10%	3.06%
Private equity	<u>16%</u>	9.49%
Total	100%	- THE THE OWNER OF THE OWNER OWN

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

Discount rate. The discount rate used to measure the TPL was 7.00% as of December 31, 2022 and December 31, 2021. The projection of cash flows used to determine the discount rate 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. Based on those assumptions, the Plan FNP was projected to be available to make all projected future benefit payments for 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 TPL as of both December 31, 2022 and December 31, 2021.

#### Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of the Retirement System as of December 31, 2022 calculated using the discount rate of 7.00%, as well as what the NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

Net Pension Liability	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net Pension Liability as of December 31, 2022	\$544,045,548	\$439,979,143	\$352,419,541

# Exhibit 2 – Schedule of changes in Net Pension Liability – Last two fiscal years

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	December 31, 2022	December 31, 2021
Total Pension Liability		
Service cost	\$20,608,490	\$19,802,858
Interest	61,715,865	60,277,759
Change of benefit terms	0	0
Differences between expected and actual experience	0	-6,993,389
Changes of assumptions	0	16,795,884
Benefit payments, including refunds of member contributions	<u>-52,812,752</u>	<u>-51,345,470</u>
Net change in Total Pension Liability	\$29,511,603	\$38,537,642
Total Pension Liability – beginning	<u>887,453,103</u>	<u>848,915,461</u>
Total Pension Liability – ending	\$916,964,706	\$887,453,103
Plan Fiduciary Net Position		
Contributions – employer	\$39,045,565	\$36,180,780
Contributions – employee	12,741,964	12,155,849
Net investment income	-60,775,958	86,928,325
Benefit payments, including refunds of member contributions	-52,812,752	-51,345,470
Administrative expense	-899,805	-928,916
Other	<u>o</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	-\$62,700,986	\$82,990,568
Plan Fiduciary Net Position – beginning	539,686,549	<u>456,695,981</u>
Plan Fiduciary Net Position – ending	\$476,985,563	\$539,686,549
Net Pension Liability – ending	\$439,979,143	\$347,766,554
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	52.02%	60.81%
Covered payroll	\$130,874,871	\$125,635,569
Plan Net Pension Liability as percentage of covered payroll	336.18%	276,81%

Notes to Schedule:	
Changes in actuarial assumptions	Effective December 31, 2021:
	<ul> <li>The investment assumption was lowered from 7.15% to 7.00%</li> </ul>
	<ul> <li>The mortality improvement projection scale was updated from MP-2017 to MP-2021 and the age set forward for healthy females was removed.</li> </ul>
	Effective December 31, 2022:
	None,
Changes in plan provisions	Effective December 31, 2021:
	None.
	Effective December 31, 2022:
	• None.

#### Exhibit 3 – Schedule of employer contributions

Year Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2014	\$21,373,733	\$21,373,733		\$100,077,260	21.36%
2015	22,876,301	22,876,301	P 4	104,080,350	21.98%
2016	24,644,961	24,644,961		107,528,616	22.92%
2017	26,603,693	26,603,693		109,713,930	24.25%
2018	28,726,819	28,726,819		114,335,356	25.13%
2019	30,980,826	30,986,622	-5,796	120,106,229	25.80%
2020	33,416,528	33,416,528		125,225,926	26,68%
2021	36,176,306	36,180,780	-4,474	125,635,569	28.80%
2022	39,043,214	39,045,565	-2,351	130,874,871	29.83%

See accompanying notes to this schedule on next page.

#### Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution":

Valuation date	Actuarially determined contribution for year ended December 31, 2022 was determined with the January 1, 2020 actuarial valuation.	
Actuarial cost method	Entry Age Actuarial Cost Method	
Amortization method	Total appropriation increases 8.00% per year. For fiscal 2031 and later years, each year's total appropriation increases 3.75% per year, with a smaller payment in fiscal 2036.	
Remaining amortization period	16 years from July 1, 2020	
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 10% of the market value of assets.	
Actuarial assumptions:		
Net investment rate of return	7.15%	
Wage inflation	3.25%	
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 \$18,000	
Other assumptions	Same as those used in the January 1, 2020 funding actuarial valuation.	

### Exhibit 4 - Pension expense

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	December 31, 2022	December 31, 2021
Components of pension expense		
Service cost	\$20,608,490	\$19,802,858
Interest	61,715,865	60,277,759
Current-period benefit changes		
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	• •	-1,165,564
Expensed portion of current-period changes of assumptions		2,799,314
Member contributions	-12,741,964	-12,155,849
Projected earnings on pension plan investments	-37,710,682	-32,512,988
Expensed portion of current-period differences between actual and projected earnings on pension plan investments	19,697,328	-10,883,069
Administrative expense	899,805	928,916
Recognition of beginning of year deferred outflows of resources as pension expense	18,830,685	23,442,855
Recognition of beginning of year deferred inflows of resources as pension expense	-22,483,164	<u>-16,023,732</u>
Pension expense	\$48,816,363	\$34,510,500

#### Deferred outflows of resources and deferred inflows of resources

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	December 31, 2022	December 31, 2021
Deferred outflows of resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$31,196,919	\$21,211,330
Changes of assumptions	20,937,300	31,974,485
Net difference between projected and actual earnings on pension plan investments	33,115,705	0
Difference between expected and actual experience in the Total Pension Liability	<u>1,113,364</u>	<u>1,670,046</u>
Total deferred outflows of resources	\$86,363,288	\$54,855,861
Deferred inflows of resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions <sup>1</sup>	\$31,196,919	\$21,211,330
Changes of assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	0	58,723,162
Difference between expected and actual experience in the Total Pension Liability	<u>4,662,260</u>	<u>6,859,051</u>
Total deferred inflows of resources	\$35,859,179	\$86,793,543
Deferred outflows of resources and deferred inflows of resources related to pension will be recognize	red as follows:	
Reporting date for employer under GASB 68 year ended June 30:		
2023	N/A	-\$3,652,479
2024	\$6,471,408	-13,225,920
2025	12,253,614	-7,443,714
2026	10,448,010	-9,249,318
2027	21,331,077	1,633,749
2028	0	0
Thereafter	0	0

Note: Average expected remaining service is 6 years as of January 1, 2022 (the beginning of the measurement period ending December 31, 2022).

<sup>&</sup>lt;sup>1</sup> Calculated in accordance with Paragraphs 54 and 55 of GASB 68 #9714941/13353.012 Hampden County Regional Retirement System - December 31, 2022 GASB Statements No. 67 and 68 Accounting Valuation Report

### Exhibit 5 – Determination of proportionate share

Employer Name	FY 2022 Total Appropriation with Payments on July 1 and December 31	Percent of FY 2022 Total Appropriation	Share of NPL as of December 31, 2021	FY 2023 Total Appropriation with Payments on July 1 and December 31	Percent of FY 2023 Total Appropriation	Share of NPL as of December 31, 2022
Town of Agawam	\$8,124,716	22,18%	\$77,134,624	\$8,644,142	21.85%	\$96,135,441
Agawam Housing Authority	106,229	0.29%	1,008,523	130,552	0.33%	1,451,931
Town of Blandford	113,556	0.31%	1,078,076	102,859	0.26%	1,143,946
Town of Brimfield	421,254	1.15%	3,999,315	450,999	1.14%	5,015,762
Brimfield Housing Authority	0	0,00%	0	0	0.00%	0
Town of Chester	102,566	0,28%	973,746	193,850	0.49%	2,155,898
Chester Electric Light	73,262	0.20%	695,533	75,166	0.19%	835,960
Town of East Longmeadow	4,337,089	11.84%	41,175,560	3,283,588	8.30%	36,518,269
East Longmeadow Schools	0	0.00%	0	1,404,426	3.55%	15,619,260
East Longmeadow Housing Authority	80,588	0.22%	765,086	98,903	0.25%	1,099,948
Town of Granville	161,176	0.44%	1,530,173	158,245	0.40%	1,759,917
Town of Hampden	706,975	1.93%	6,711,894	672,542	1.70%	7,479,645
Hampden Housing Authority	32,968	0.09%	312,990	31,649	0.08%	351,983
Hampden-Wilbraham Regional School	1,901,140	5.19%	18,049,084	2,076,968	5.25%	23,098,905
Town of Holland	326,014	0.89%	3,095,122	371,876	0.94%	4,135,804
Town of Longmeadow	4,055,032	11.07%	38,497,758	4,529,768	11.45%	50,377,612
Town of Ludlow	3,230,838	8.82%	30,673,010	3,390,402	8.57%	37,706,213
Town of Ludlow - School	1,772,932	4.84%	16,831,901	1,962,240	4.96%	21,822,965
Ludlow Housing Authority	58,609	0.16%	556,426	79,123	0.20%	879,958

#9714941/13353.012

Employer Name	FY 2022 Total Appropriation with Payments on July 1 and December 31	Percent of FY 2022 Total Appropriation	Share of NPL as of December 31, 2021	FY 2023 Total Appropriation with Payments on July 1 and December 31	Percent of FY 2023 Total Appropriation	Share of NPL as of December 31, 2022
Town of Monson	1,208,817	3.30%	11,476,296	1,301,566	3.29%	14,475,314
Town of Monson - School	879,140	2,40%	8,346,397	886,173	2.24%	9,855,533
Monson Housing Authority	87,914	0.24%	834,640	102,859	0.26%	1,143,946
Town of Montgomery	54,946	0.15%	521,650	51,430	0.13%	571,973
Town of Palmer	1,227,133	3.35%	11,650,180	1,246,181	3.15%	13,859,343
Town of Palmer - School	644,702	1,76%	6,120,691	890,129	2.25%	9,899,531
Town of Palmer - Library	153,849	0.42%	1,460,620	154,289	0.39%	1,715,919
Town of Palmer - WWTP	183,154	0.50%	1,738,833	197,806	0.50%	2,199,896
Palmer Fire/Water District #1	183,154	0.50%	1,738,833	185,938	0.47%	2,067,902
Palmer Housing Authority	0	0.00%	0	0	0.00%	0
Pathfinder Regional Vocational Technical High School	391,950	1.07%	3,721,102	447,043	1.13%	4,971,764
Town of Russell	164,839	0.45%	1,564,949	181,982	0.46%	2,023,904
Town of Southwick	1,293,068	3.53%	12,276,159	1,396,513	3.53%	15,531,264
Town of Southwick – Water	95,240	0.26%	904,193	98,903	0.25%	1,099,948
Southwick-Tolland Regional High School	897,455	2.45%	8,520,281	933,646	2.36%	10,383,508
Southwick Housing Authority	18,315	0.05%	173,883	15,825	0.04%	175,992
Three Rivers Fire District	51,283	0.14%	486,873	55,386	0.14%	615,971
Town of Tolland	95,240	0.26%	904,193	106,815	0.27%	1,187,944
Town of Wales	172,165	0.47%	1,634,503	189,894	0.48%	2,111,900
West Hampden Veterans' Services	51,283	0.14%	486,873	47,474	0.12%	527,975

Employer Name	FY 2022 Total Appropriation with Payments on July 1 and December 31	Percent of FY 2022 Total Appropriation	Share of NPL as of December 31, 2021	FY 2023 Total Appropriation with Payments on July 1 and December 31	Percent of FY 2023 Total Appropriation	Share of NPL as of December 31, 2022
Western Massachusetts Emergency Communications and Regional Dispatch Center	428,581	1.17%	4,068,869	466,823	1.18%	5,191,754
Town of Wilbraham	2,479,907	6.77%	23,543,796	2,662,475	6.73%	29,610,596
Wilbraham - Solid Waste	32,968	0.09%	312,990	35,605	0.09%	395,981
Wilbraham - Sewer	73,262	0.20%	695,533	71,210	0.18%	791,962
Wilbraham - Water Dept.	117,219	0.32%	1,112,853	134,508	0.34%	1,495,929
Wilbraham - Ambulance	0	0.00%	0	0	0.00%	0
Wilbraham Housing Authority	40,294	0.11%	382,543	43,517	0.11%	483,977
Grand totals:	\$36,630,822	100.00%	\$347,766,554	\$39,561,288	100.00%	\$439,979,143

### Exhibit 6 – Determination of proportionate share amounts by employer

				Disc	ount Rate Sensit	ivity
	2023 Share of Cost Allocation	Net Pension Liability	Covered Employee Payroll	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Employer Name	(1)	(2)	(3)	(4)	(5)	(6)
Town of Agawam	21.85%	\$96,135,441	\$28,596,159	\$118,873,954	\$96,135,441	\$77,003,668
Agawam Housing Authority	0.33%	1,451,931	431,886	1,795,350	1,451,931	1,162,984
Town of Blandford	0.26%	1,143,946	340,274	1,414,518	1,143,946	916,291
Town of Brimfield	1.14%	5,015,762	1,491,975	6,202,119	5,015,762	4,017,583
Brimfield Housing Authority	0.00%	0	0	0	0	0
Town of Chester	0.49%	2,155,898	641,286	2,665,823	2,155,898	1,726,856
Chester Electric Light	0.19%	835,960	248,661	1,033,687	835,960	669,597
Town of East Longmeadow	8.30%	36,518,269	10,862,618	45,155,780	36,518,269	29,250,822
East Longmeadow Schools	3,55%	15,619,260	4,646,059	19,313,617	15,619,260	12,510,894
East Longmeadow Housing Authority	0.25%	1,099,948	327,186	1,360,114	1,099,948	881,049
Town of Granville	0.40%	1,759,917	523,499	2,176,182	1,759,917	1,409,678
Town of Hampden	1.70%	7,479,645	2,224,873	9,248,774	7,479,645	5,991,132
Hampden Housing Authority	0.08%	351,983	104,700	435,236	351,983	281,936
Hampden-Wilbraham Regional School	5.25%	23,098,905	6,870,932	28,562,391	23,098,905	18,502,026
Town of Holland	0,94%	4,135,804	1,230,223	5,114,028	4,135,804	3,312,744
Town of Longmeadow	11.45%	50,377,612	14,985,174	62,293,215	50,377,612	40,352,037
Town of Ludlow	8.57%	37,706,213	11,215,975	46,624,703	37,706,213	30,202,355
Town of Ludlow - School	4.96%	21,822,965	6,491,394	26,984,659	21,822,965	17,480,009
Ludlow Housing Authority	0,20%	879,958	261,751	1,088,091	879,958	704,839
Town of Monson	3.29%	14,475,314	4,305,782	17,899,099	14,475,314	11,594,603
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				Disc	ount Rate Sensit	ivity
	2023 Share of Cost Allocation	Net Pension Liability	Covered Employee Payroll	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Employer Name	(1)	(2)	(3)	(4)	(5)	(6)
Town of Monson - School	2,24%	9,855,533	2,931,598	12,186,620	9,855,533	7,894,198
Monson Housing Authority	0.26%	1,143,946	340,274	1,414,518	1,143,946	916,291
Town of Montgomery	0.13%	571,973	170,138	707,259	571,973	458,145
Town of Palmer	3.15%	13,859,343	4,122,560	17,137,435	13,859,343	11,101,216
Town of Palmer - School	2.25%	9,899,531	2,944,685	12,241,025	9,899,531	7,929,440
Town of Palmer - Library	0,39%	1,715,919	510,412	2,121,778	1,715,919	1,374,436
Town of Palmer - WWTP	0.50%	2,199,896	654,373	2,720,228	2,199,896	1,762,098
Palmer Fire/Water District #1	0.47%	2,067,902	615,112	2,557,014	2,067,902	1,656,372
Palmer Housing Authority	0.00%	0	0	0	0	0
Pathfinder Regional Vocational Technical High School	1.13%	4,971,764	1,478,888	6,147,715	4,971,764	3,982,341
Town of Russell	0.46%	2,023,904	602,025	2,502,610	2,023,904	1,621,130
Town of Southwick	3.53%	15,531,264	4,619,881	19,204,808	15,531,264	12,440,410
Town of Southwick - Water	0.25%	1,099,948	327,186	1,360,114	1,099,948	881,049
Southwick-Tolland Regional High School	2.36%	10,383,508	3,088,646	12,839,475	10,383,508	8,317,101
Southwick Housing Authority	0.04%	175,992	52,352	217,618	175,992	140,968
Three Rivers Fire District	0,14%	615,971	183,225	761,664	615,971	493,387
Town of Tolland	0,27%	1,187,944	353,361	1,468,923	1,187,944	951,533
Town of Wales	0.48%	2,111,900	628,199	2,611,419	2,111,900	1,691,614
West Hampden Veterans' Services	0.12%	527,975	157,051	652,855	527,975	422,903

				Discount Rate Sensitivity				
	2023 Share of Cost Allocation	Net Pension Liability	Covered Employee Payroll	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)		
Employer Name	(1)	(2)	(3)	(4)	(5)	(6)		
Western Massachusetts Emergency Communications and Regional Dispatch Center	1.18%	5,191,754	1,544,323	6,419,737	5,191,754	4,158,551		
Town of Wilbraham	6.73%	29,610,596	8,807,880	36,614,265	29,610,596	23,717,835		
Wilbraham - Solid Waste	0.09%	395,981	117,787	489,641	395,981	317,178		
Wilbraham - Sewer	0.18%	791,962	235,574	979,282	791,962	634,355		
Wilbraham - Water Dept,	0.34%	1,495,929	444,973	1,849,755	1,495,929	1,198,226		
Wilbraham - Ambulance	0.00%	0	0	0	0	0		
Wilbraham Housing Authority	0,11%	483,977	143,961	598,450	483,977	387,661		
Grand totals:	100.00%	\$439,979,143	\$130,874,871	\$544,045,548	\$439,979,143	\$352,419,541		

### Exhibit 6 – Determination of proportionate share by employer

	***************************************	Schedule of C	ontributions		Pension Expense			
	Statutory Required Contribution	Contributions in Relation to the Statutory Required Contribution	Contribution Deficiency / (Excess)	Contributions as a Percentage of Covered Employee Payroll	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense	
Employer Name	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Town of Agawam	\$8,545,219	\$8,547,570	-\$2,351	29.89%	\$10,666,373	\$306,360	\$10,972,733	
Agawam Housing Authority	129,058	129,058	0	29.88%	161,094	22,822	183,916	
Town of Blandford	102,859	102,859	0	30.23%	126,923	27,790	154,713	
Town of Brimfield	445,838	445,838	0	29.88%	556,507	-6,054	550,453	
Brimfield Housing Authority	0	0	0	0.00%	0	-44,547	-44,547	
Town of Chester	117,921	117,921	0	18,39%	239,200	60,104	299,304	
Chester Electric Light	74,306	74,306	0	29,88%	92,751	105,938	198,689	
Town of East Longmeadow	3,246,010	3,246,010	0	29.88%	4,051,758	-2,060,494	1,991,264	
East Longmeadow Schools	1,388,354	1,388,354	0	29.88%	1,732,981	2,246,952	3,979,933	
East Longmeadow Housing Authority	97,771	97,771	0	29.88%	122,041	23,701	145,742	
Town of Granville	158,245	158,245	0	30,23%	195,265	72,384	267,649	
Town of Hampden	664,845	664,845	0	29.88%	829,878	57,006	886,884	
Hampden Housing Authority	31,287	31,287	0	29.88%	39,053	6,760	45,813	
Hampden-Wilbraham Regional School	2,053,199	2,053,199	0	29.88%	2,562,859	-57,686	2,505,173	
Town of Holland	367,620	367,620	0	29.88%	458,874	4,420	463,294	



		Schedule of C	Contributions		Pension Expense			
	Statutory Required Contribution	Contributions in Relation to the Statutory Required Contribution	Contribution Deficiency / (Excess)	Contributions as a Percentage of Covered Employee Payroll	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense	
Employer Name	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Town of Longmeadow	4,477,930	4,477,930	0	29,88%	5,589,474	-704,773	4,884,701	
Town of Ludlow	3,351,602	3,351,602	0	29.88%	4,183,562	66,537	4,250,099	
Town of Ludlow - School	1,939,784	1,939,784	0	29.88%	2,421,292	98,995	2,520,287	
Ludlow Housing Authority	79,123	79,123	0	30.23%	97,633	42,305	139,938	
Town of Monson	1,286,671	1,286,671	0	29.88%	1,606,058	-43,112	1,562,946	
Town of Monson - School	876,032	876,032	0	29.88%	1,093,487	9,926	1,103,413	
Monson Housing Authority	101,682	101,682	0	29.88%	126,923	65,896	192,819	
Town of Montgomery	50,841	50,841	0	29,88%	63,461	1,152	64,613	
Town of Palmer	1,231,920	1,231,920	0	29.88%	1,537,715	-14,068	1,523,647	
Town of Palmer - School	879,942	879,942	0	29.88%	1,098,368	221,647	1,320,015	
Town of Palmer - Library	152,523	152,523	0	29.88%	190,384	-39,834	150,550	
Town of Palmer - WWTP	195,542	195,542	0	29.88%	244,082	-50,645	193,437	
Palmer Fire/Water District #1	185,938	185,938	0	30,23%	229,437	61,466	290,903	
Palmer Housing Authority	0	0	0	0.00%	0	-15,475	-15,475	
Pathfinder Regional Vocational Technical High School	441,927	441,927	0	29.88%	551,625	-41,792	509,833	
Town of Russell	179,899	179,899	0	29.88%	224,555	5,520	230,075	
Town of Southwick	1,380,531	1,380,531	0	29.88%	1,723,218	-241,528	1,481,690	
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		Schedule of C	ontributions			Pension Expense				
	Statutory Required Contribution	Contributions in Relation to the Statutory Required Contribution	Contribution Deficiency / (Excess)	Contributions as a Percentage of Covered Employee Payroll	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense			
Employer Name	(7)	(8)	(9)	(10)	(11)	(12)	(13)			
Town of Southwick – Water	97,771	97,771	0	29.88%	122,041	-5,010	117,031			
Southwick-Tolland Regional High School	922,961	922,961	0	29,88%	1,152,066	-753,647	398,419			
Southwick Housing Authority	15,825	15,825	0	30.23%	19,527	-5,838	13,689			
Three Rivers Fire District	54,752	54,752	0	29.88%	68,343	7,880	76,223			
Town of Tolland	105,593	105,593	0	29.88%	131,804	-15,287	116,517			
Town of Wales	189,894	189,894	0	30.23%	234,319	16,022	250,341			
West Hampden Veterans' Services	46,931	46,931	0	29.88%	58,580	-10,660	47,920			
Western Massachusetts Emergency Communications and Regional Dispatch Center	461,481	461,481	0	29.88%	576,033	742,017	1,318,050			
Town of Wilbraham	2,632,006	2,632,006	0	29.88%	3,285,341	-108,277	3,177,064			
Wilbraham - Solid Waste	35,198	35,198	0	29.88%	43,935	-17,433	26,502			
Wilbraham - Sewer	70,395	70,395	0	29.88%	87,869	-5,253	82,616			
Wilbraham - Water Dept.	132,969	132,969	0	29.88%	165,976	-26,850	139,126			
Wilbraham - Ambulance	0	0	0	0.00%	0	-5,435	-5,435			
Wilbraham Housing Authority	43,019	43,019	0	29.88%	53,698	98	53,796			
Grand totals:	\$39,043,214	\$39,045,565	-\$2,351	29.83%	\$48,816,363	\$0	\$48,816,363			

#9714941/13353.012
Hampden County Regional Retirement System - December 31, 2022 GASB Statements No. 67 and 68
Accounting Valuation Report

→ Segal 26

### Exhibit 6 – Determination of proportionate share by employer

		Deferred	Outflows of R	esources		Deferred Inflows of Resources			
	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources
Employer Name	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Town of Agawam	\$243,273	\$7,235,782	\$4,574,800	\$3,551,472	\$15,605,327	\$1,018,702	\$0	\$2,534,728	\$3,553,430
Agawam Housing Authority	3,674	109,282	69,093	276,467	458,516	15,385	0	117,557	132,942
Town of Blandford	2,895	86,101	54,437	224,883	368,316	12,122	0	157,090	169,212
Town of Brimfield	12,692	377,519	238,685	493,436	1,122,332	53,150	0	274,705	327,855
Brimfield Housing Authority	0	0	0	11,050	11,050	0	0	176,965	176,965
Town of Chester	5,455	162,267	102,593	618,729	889,044	22,845	0	130,411	153,256
Chester Electric Light	2,115	62,920	39,781	199,614	304,430	8,858	0	59,468	68,326
Town of East Longmeadow	92,409	2,748,604	1,737,796	1,691,987	6,270,796	386,968	0	12,015,833	12,402,801
East Longmeadow Schools	39,524	1,175,608	743,274	11,234,785	13,193,191	165,510	0	0	165,510
East Longmeadow Housing Authority	2,783	82,789	52,343	196,803	334,718	11,656	0	98,069	109,725
Town of Granville	4,453	132,463	83,749	343,182	563,847	18,649	0	217,184	235,833
Town of Hampden	18,927	562,967	355,934	498,467	1,436,295	79,258	0	751,989	831,247
Hampden Housing Authority	891	26,493	16,750	49,805	93,939	3,730	0	36,969	40,699
Hampden-Wilbraham Regional School	58,452	1,738,575	1,099,208	527,663	3,423,898	244,769	0	425,943	670,712
Town of Holland	10,466	311,288	196,811	223,311	741,876	43,825	0	150,774	194,599
Town of Longmeadow	127,480	3,791,748	2,397,321	1,638,546	7,955,095	533,829	0	3,157,075	3,690,904
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		Deferred	Outflows of R	esources		D	eferred Inflow	s of Resources	
	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources
Employer Name	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Town of Ludlow	95,415	2,838,016	1,794,327	411,592	5,139,350	399,556	0	931,274	1,330,830
Town of Ludlow - School	55,223	1,642,539	1,038,490	761,248	3,497,500	231,248	0	100,094	331,342
Ludlow Housing Authority	2,227	66,231	41,875	149,632	259,965	9,325	0	69,376	78,701
Town of Monson	36,630	1,089,507	688,837	402,853	2,217,827	153,388	0	1,306,351	1,459,739
Town of Monson - School	24,939	741,792	468,996	752,913	1,988,640	104,435	0	645,462	749,897
Monson Housing Authority	2,895	86,101	54,437	218,871	362,304	12,122	0	6,660	18,782
Town of Montgomery	1,447	43,050	27,218	57,024	128,739	6,061	0	68,590	74,651
Town of Palmer	35,071	1,043,145	659,525	68,658	1,806,399	146,861	0	1,158,135	1,304,996
Town of Palmer - School	25,051	745,103	471,089	1,800,856	3,042,099	104,901	0	859,500	964,401
Town of Palmer - Library	4,342	129,151	81,655	157,125	372,273	18,183	0	196,552	214,735
Town of Palmer - WWTP	5,567	165,579	104,687	68,871	344,704	23,311	0	0	23,311
Palmer Fire/Water District #1	5,233	155,644	98,405	191,115	450,397	21,913	0	103,358	125,271
Palmer Housing Authority	0	0	0	0	0	0	0	0	0
Pathfinder Regional Vocational Technical High School	12,581	374,207	236,591	266,180	889,559	52,684	0	209,211	261,895
Town of Russell	5,121	152,332	96,312	111,233	364,998	21,446	0	32,176	53,622
Town of Southwick	39,302	1,168,984	739,087	222,478	2,169,851	164,578	0	1,128,558	1,293,136
Town of Southwick - Water	2,783	82,789	52,343	24,750	162,665	11,656	0	58,981	70,637
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#9714941/13353.012 Hampden County Regional Retirement System - December 31, 2022 GASB Statements No. 67 and 68 Accounting Valuation Report

→ Segal 28

	Deferred Outflows of Resources				D	eferred inflow	s of Resources	ì	
	Differences Between Expected and Actual Experience	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources
Employer Name	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Southwick-Tolland Regional High School	26,275	781,531	494,120	19,210	1,321,136	110,029	0	2,392,387	2,502,416
Southwick Housing Authority	445	13,246	8,375	992	23,058	1,865	0	31,465	33,330
Three Rivers Fire District	1,559	46,362	29,312	36,964	114,197	6,527	0	5,318	11,845
Town of Tolland	3,006	89,412	56,531	83,421	232,370	12,588	0	65,226	77,814
Town of Wales	5,344	158,955	100,499	241,543	506,341	22,379	0	165,212	187,591
West Hampden Veterans' Services	1,336	39,739	25,125	27,137	93,337	5,595	0	63,220	68,815
Western Massachusetts Emergency Communications and Regional Dispatch Center	13,138	390,765	247,060	2,709,374	3,360,337	55,015	0	0	55,015
Town of Wilbraham	74,929	2,228,687	1,409,080	230,220	3,942,916	313,770	0	644,898	958,668
Wilbraham - Solid Waste	1,002	29,804	18,844	125	49,775	4,196	0	47,171	51,367
Wilbraham - Sewer	2,004	59,608	37,687	80,618	179,917	8,392	0	119,994	128,386
Wilbraham - Water Dept.	3,785	112,593	71,187	84,279	271,844	15,852	0	133,370	149,222
Wilbraham - Ambulance	0	0	0	185,742	185,742	0	0	294,918	294,918
Wilbraham Housing Authority	1,225	36,427	23,031	51,695	112,378	5,128	0	54,702	59,830
Grand totals:	\$1,113,364	\$33,115,705	\$20,937,300	\$31,196,919	\$86,363,288	\$4,662,260	\$0	\$31,196,919	\$35,859,179



#### Exhibit 6 – Determination of proportionate share by employer

Deferred Inflows/(Outflows) Recognized In Future Pension Expense (Year Ended June 30) 2024 2025 2026 2027 2028 Thereafter **Employer Name** (23)(24)(25)(26)(27)(28)Town of Agawam \$1,810,470 \$2,781,369 \$2,396,779 \$5,269,429 -\$206,153 \$0 Agawam Housing Authority 38,910 85,038 55,096 25,349 0 121,181 Town of Blandford 65,187 63,825 58,381 43,129 -31,418 0 Town of Brimfield 149,725 0 98,727 213,507 338,726 -6,208 Brimfield Housing Authority -49,784 -60.834 -55.297 0 0 O Town of Chester 86,496 169,020 153,483 206,128 120,661 0 Chester Electric Light 118,231 31,343 33,184 0 59,655 -6,309 Town of East Longmeadow -1,319,076 -831,414 -1,070,432 -671,698 -2,239,385 0 2,617,861 East Longmeadow Schools 2,476,692 2,681,960 0 3,004,210 2,246,957 East Longmeadow Housing Authority 20,414 41,406 46,388 97,776 0 19,011 Town of Granville 114,022 159,146 6,419 73,397 -24,970 0 Town of Hampden 145,777 172,636 0 119,313 312,696 -145,375 Hampden Housing Authority 11,914 21,910 8,629 17,106 -6,320 0 Hampden-Wilbraham Regional School 280,062 711,655 526,141 1,196,808 38,521 0 Town of Holland 79,884 138,715 89,439 207,496 31,741 0 Town of Longmeadow 134,727 943,298 920,879 2,023,607 241,680 0 Town of Ludlow 416,658 946,197 829,316 1,773,660 -157,311 0 Town of Ludlow - School 500,787 714,741 1,211,007 0 663,160 76,462 25,527 0 **Ludlow Housing Authority** 38,227 23,756 68,268 25,486 Town of Monson 80,808 225,956 80,606 376,700 -5,983 0 Town of Monson - School 174,688 0 444,570 305,449 415,056 -101,020 Monson Housing Authority 84,018 105,711 72,951 68,158 12,684 0



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

	2024	2025	2026	2027	2028	Thereafter
Employer Name	(23)	(24)	(25)	(26)	(27)	(28)
Town of Montgomery	9,518	22,410	19,709	15,095	-12,643	0
Town of Palmer	-48,533	64,949	97,141	514,082	-126,237	0
Town of Palmer - School	320,091	471,030	395,637	580,612	310,328	0
Town of Palmer - Library	36,859	15,740	59,613	64,270	-18,944	0
Town of Palmer - WWTP	53,755	82,454	72,040	113,090	52	0
Palmer Fire/Water District #1	70,873	108,502	69,571	94,762	-18,581	0
Palmer Housing Authority	0	0	0	0	0	0
Pathfinder Regional Vocational Technical High School	71,549	168,343	114,994	234,691	38,089	0
Town of Russell	40,278	66,673	74,455	123,593	6,377	0
Town of Southwick	-41,739	-32,106	190,296	759,894	371	0
Town of Southwick - Water	5,915	31,119	14,258	47,040	-6,302	0
Southwick-Tolland Regional High School	-560,958	-263,002	-315,219	14,606	-56,708	0
Southwick Housing Authority	-3,294	-1,030	-1,931	2,276	-6,293	0
Three Rivers Fire District	21,992	35,405	15,053	29,887	15	0
Town of Tolland	8,538	30,690	32,112	76,860	6,357	0
Town of Wales	68,282	58,403	94,910	90,414	6,741	0
West Hampden Veterans' Services	2,212	9,093	6,545	19,316	-12,644	0
Western Massachusetts Emergency Communications and Regional Dispatch Center	818,379	886,609	865,303	728,581	6,452	0
Town of Wilbraham	221,430	672,549	646,347	1,468,529	-24,607	0
Wilbraham - Solid Waste	-11,644	-6,499	-2,672	19,212	10	0
Wilbraham - Sewer	1,165	6,043	31,194	25,768	-12,638	0

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Hampden County Regional Retirement System - December 31, 2022 GASB Statements No. 67 and 68 Accounting Valuation Report

**→**Segal 31

	Deferred Inflo	Deferred Inflows/(Outflows) Recognized In Future Pension E				(pense (Year Ended June 30)		
	2024	2025	2026	2027	2028	Thereafter		
Employer Name	(23)	(24)	(25)	(26)	(27)	(28)		
Wilbraham - Water Dept.	-4,990	25,365	29,745	59,810	12,693	0		
Wilbraham - Ambulance	-5,435	-5,435	-98,306	0	0	0		
Wilbraham Housing Authority	2,026	8,327	5,989	36,194	12	0		
Grand totals:	\$6,471,408	\$12,253,614	\$10,448,010	\$21,331,077	\$0	\$0		

Definitions of certain terms as they are used in Statement No. 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).



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 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.



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 No. 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 No. 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.
	<ol><li>The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.</li></ol>
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,



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 No. 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, 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.			



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:			
	<ol> <li>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.</li> </ol>			
	<ol><li>The non-employer entity is the only entity with a legal obligation to make contributions directly to a pension plan.</li></ol>			
Termination benefits	Inducements offered by employers to active employees to hasten the termination of servic or payments made in consequence of the early termination of services. Termination benefi 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 No. 68.			