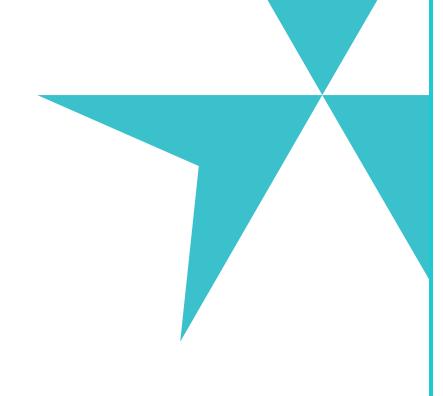
Hampden County Regional Retirement System

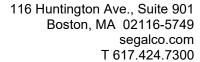
Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67/68) Actuarial Valuation as of December 31, 2021



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





December 5, 2022

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) Actuarial Valuation based on a December 31, 2021 measurement date for employer reporting as of June 30, 2022. It contains various information that will need to be disclosed in order for Hampden County Regional Retirement System employers to comply with GASB 67/68. Please refer to the Hampden County Regional Retirement System Actuarial Valuation Report as of January 1, 2022, dated November 2, 2022, for the data, methods, assumptions, and plan of benefits underlying these calculations.

It is important to note that GASB 67 and 68 only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans should develop and adopt funding policies under current practices, if no policy currently exists.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist the Board and member units in preparing their financial report for their liabilities associated with the Retirement System. The census and financial information on which our calculations were based were provided by 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 Lisa VanDermark, FSA, MAAA, EA, and A. Donald Morgan, FSA, MAAA, EA. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our 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 our opinion, the assumptions are reasonable and take into account the experience of the 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



Table of Contents

Section 1: Actuarial valuation Summary	5
Purpose and basis	5
Highlights of the valuation	5
Important information about actuarial valuations	6
Section 2: GASB Information	8
General information about the pension plan	8
Net pension liability	g
Determination of discount rate and investment rates of return	10
Discount rate sensitivity	11
Schedule of changes in Net Pension Liability – Last two fiscal years	12
Deferred outflows of resources and deferred inflows of resources – Total for all employers	13
Pension expense – Total for all employers	14
Schedule of contributions – Last eight fiscal years	15
Section 3: Results by Employer	17
Exhibit A: Determination of Proportionate Share	17
Exhibit B: Schedule of Proportionate Share Amounts by Employer	20
Appendix: Definition of Terms	32

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) for employer reporting as of June 30, 2022. This valuation is based on:

- The benefit provisions of Massachusetts General Law Chapter 32;
- The characteristics of covered active members, inactive members, and retired members and beneficiaries as of December 31, 2021, provided by the staff of the Retirement System;
- The assets of the Plan as of December 31, 2021, provided by the staff of the Retirement System;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the January 1, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the January 1, 2022 valuation.

Highlights of the valuation

- 1. The NPL measured as of December 31, 2021 and December 31, 2020 was determined based upon the results of actuarial valuations as of January 1, 2022 and January 1, 2020, respectively.
- 2. The NPL decreased from \$392.2 million as of December 31, 2020 to \$347.8 million as of December 31, 2021. Changes in these values during the last two fiscal years ending December 31, 2020 and December 31, 2021, along with various other information that is required to be disclosed, can be found in Section 2.
- 3. The discount rate used to measure the TPL and NPL was 7.00% as of December 31, 2021 and 7.15% as of December 31, 2020.

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.
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 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 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.

General information about the pension plan

Plan Description

Plan membership. At January 1, 2022, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	1,952
Vested terminated members with a vested right to a deferred or immediate benefit	95
Inactive members due a refund of employee contributions	617
Active members	<u>2,824</u>
Total	5,488

Net pension liability

Reporting Date for Employer under GASB 68	June 30, 2022	June 30, 2021
Measurement Date	December 31, 2021	December 31, 2020
Components of the Net Pension Liability		
Total Pension Liability	\$887,453,103	\$848,915,461
Plan Fiduciary Net Position	539,686,549	456,695,981
Net Pension Liability	347,766,554	392,219,480
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	60.81%	53.80%

Actuarial assumptions. The TPL as of December 31, 2021, 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
Investment rate of return	7.00%, (previously 7.15%)
Other assumptions	See the January 1, 2022 actuarial valuation for a complete description of all actuarial assumptions

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	22%	6.11%
International developed markets equity	11.5%	6.49%
International emerging markets equity	4.5%	8.12%
Core fixed income	15%	0.38%
High-yield fixed income	8%	2.48%
Real estate	10%	3.72%
Timber	4%	3.44%
Hedge fund, GTAA, Risk parity	10%	2.63%
Private equity	<u>15%</u>	9.93%
Total	100%	

Discount rate. The discount rate used to measure the TPL was 7.00% as of December 31, 2021 and 7.15% as of December 31, 2020. 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 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 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, 2021 and December 31, 2020.

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, 2021, which is allocated to all employers, calculated using the discount rate of 7.00%, as well as what the System's 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.

	Current		
Net Pension Liability	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Net pension liability as of December 31, 2021	\$449,245,547	\$347,766,554	\$262,349,960

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

Reporting Date for Employer under GASB 68	June 30, 2022	June 30, 2021
Measurement Date	December 31, 2021	December 31, 2020
Total Pension Liability		
Service cost	\$19,802,858	\$19,150,797
Interest	60,277,759	58,165,906
Change of benefit terms	0	0
Differences between expected and actual experience	-6,993,389	0
Changes of assumptions	16,795,884	0
Benefit payments, including refunds of member contributions	<u>-51,345,470</u>	<u>-45,519,253</u>
Net change in Total Pension Liability	\$38,537,642	\$31,797,450
Total Pension Liability – beginning	848,915,461	817,118,011
Total Pension Liability – ending	\$887,453,103	\$848,915,461
Plan Fiduciary Net Position		
Contributions – employer	\$36,180,780	\$33,416,528
Contributions – employee	12,155,849	11,815,421
Net investment income	86,928,325	47,410,684
Benefit payments, including refunds of member contributions	-51,345,470	-45,519,253
Administrative expense	-928,916	-867,476
Other	<u>0</u>	<u>0</u>
Net change in Plan Fiduciary Net Position	\$82,990,568	\$46,255,904
Plan Fiduciary Net Position – beginning	456,695,981	410,440,077
Plan Fiduciary Net Position – ending	\$539,686,549	\$456,695,981
Net Pension Liability – ending	\$347,766,554	\$392,219,480
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	60.81%	53.80%
Covered payroll	\$125,635,569	\$125,225,926
Plan Net Pension Liability as percentage of covered payroll	276.81%	313.21%

Notes to Schedule: See Section 4 of the January 1, 2022 actuarial valuation for changes in actuarial assumptions and benefit changes applicable to the current measurement date.

Deferred outflows of resources and deferred inflows of resources – Total for all employers

Reporting Date for Employer under GASB 68	June 30, 2022	June 30, 2021
Measurement Date	December 31, 2021	December 31, 2020
Deferred Outflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions	\$21,211,330	\$16,352,935
Changes of assumptions or other inputs	31,974,485	32,257,957
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>1,670,046</u>	<u>3,596,041</u>
Total Deferred Outflows of Resources	\$54,855,861	\$52,206,933
Deferred Inflows of Resources		
Changes in proportion and differences between employer's contributions and proportionate share of contributions	\$21,211,330	\$16,352,935
Changes of assumptions or other inputs	0	0
Net difference between projected and actual earnings on pension plan investments	58,723,162	22,946,580
Difference between expected and actual experience in the Total Pension Liability	<u>6,859,051</u>	<u>2,062,454</u>
Total Deferred Inflows of Resources	\$86,793,543	\$41,361,969
Deferred outflows of resources and deferred inflows of resources related to pension will be recognize	ed as follows:	
Reporting Date for Employer under GASB 68 Year Ended June 30:		
2022	N/A	\$7,419,123
2023	-\$3,652,479	5,596,839
2024	-13,225,920	-3,976,602
2025	-7,443,714	1,805,604
2026	-9,249,318	0
2027	1,633,749	0
Thereafter	0	0

Note: Average expected remaining service life as of December 31, 2021 and December 31, 2020 is 6 years.

Pension expense – Total for all employers

Reporting Date for Employer under GASB 68	June 30, 2022	June 30, 2021
Measurement Date	December 31, 2021	December 31, 2020
Components of Pension Expense		
Service cost	\$19,802,858	\$19,150,797
Interest on the Total Pension Liability	60,277,759	58,165,906
Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions		
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 or other inputs	2,799,314	
Member contributions	-12,155,849	-11,815,421
Projected earnings on plan investments	-32,512,988	-29,305,182
Expensed portion of current-period differences between actual and projected earnings on plan investments	-10,883,069	-3,621,102
Administrative expense	928,916	867,476
Other		
Recognition of beginning of year deferred outflows of resources as pension expense	23,442,855	23,880,405
Recognition of beginning of year deferred inflows of resources as pension expense	-16,023,732	-12,402,633
Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions		
Pension Expense	\$34,510,500	\$44,920,246

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 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		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%

See accompanying notes to this schedule on next page.

Notes to Schedule:

Valuation date	Actuarially determined contribution for the year ended December 31, 2021 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, further adjusted, if necessary, to be within 10% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	7.15%
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 \$18,000
Other assumptions	Same as those used in the January 1, 2020 funding actuarial valuation.

Exhibit A: Determination of Proportionate Share

Employer	FY 2021 Total Appropriation with Payments on July 1 and December 31	Percentage of NPL as of January 1, 2021	Share of NPL as of January 1, 2021	FY 2022 Total Appropriation with Payments on July 1 and December 31	Percentage of NPL as of January 1, 2022	Share of NPL as of January 1, 2022
Town of Agawam	\$7,088,742	20.90%	\$81,973,872	\$8,124,716	22.18%	\$77,134,624
Agawam Housing Authority	84,794	0.25%	980,553	106,229	0.29%	1,008,523
Town of Blandford	94,968	0.28%	1,098,207	113,556	0.31%	1,078,076
Town of Brimfield	335,782	0.99%	3,882,965	421,254	1.15%	3,999,315
Brimfield Housing Authority	0	0.00%	0	0	0.00%	0
Town of Chester	105,144	0.31%	1,215,880	102,566	0.28%	973,746
Chester Electric Light	54,268	0.16%	627,551	73,262	0.20%	695,533
Town of East Longmeadow	4,124,359	12.16%	47,693,889	4,337,089	11.84%	41,175,560
East Longmeadow Housing Authority	61,051	0.18%	705,991	80,588	0.22%	765,086
Town of Granville	142,453	0.42%	1,647,318	161,176	0.44%	1,530,173
Town of Hampden	603,730	1.78%	6,981,503	706,975	1.93%	6,711,894
Hampden Housing Authority	27,134	0.08%	313,776	32,968	0.09%	312,990
Hampden-Wilbraham Regional School	1,739,964	5.13%	20,120,859	1,901,140	5.19%	18,049,084
Town of Holland	315,432	0.93%	3,647,641	326,014	0.89%	3,095,122
Town of Longmeadow	4,107,401	12.11%	47,497,783	4,055,032	11.07%	38,497,758
Town of Ludlow	2,937,250	8.66%	33,966,215	3,230,838	8.82%	30,673,010
Town of Ludlow - School	1,600,903	4.72%	18,512,763	1,772,932	4.84%	16,831,901

Employer	FY 2021 Total Appropriation with Payments on July 1 and December 31	Percentage of NPL as of January 1, 2021	Share of NPL as of January 1, 2021	FY 2022 Total Appropriation with Payments on July 1 and December 31	Percentage of NPL as of January 1, 2022	Share of NPL as of January 1, 2022
Ludlow Housing Authority	54,268	0.16%	627,551	58,609	0.16%	556,426
Town of Monson	1,285,471	3.79%	14,865,122	1,208,817	3.30%	11,476,296
Town of Monson - School	793,668	2.34%	9,177,940	879,140	2.40%	8,346,397
Monson Housing Authority	81,401	0.24%	941,319	87,914	0.24%	834,640
Town of Montgomery	50,876	0.15%	588,329	54,946	0.15%	521,650
Town of Palmer	1,153,193	3.40%	13,335,466	1,227,133	3.35%	11,650,180
Town of Palmer - School	708,874	2.09%	8,197,383	644,702	1.76%	6,120,691
Town of Palmer - Library	142,453	0.42%	1,647,318	153,849	0.42%	1,460,620
Town of Palmer - WWTP	166,195	0.49%	1,921,872	183,154	0.50%	1,738,833
Palmer Fire/Water District #1	162,804	0.48%	1,882,657	183,154	0.50%	1,738,833
Palmer Housing Authority	0	0.00%	0	0	0.00%	0
Pathfinder Regional Vocational Technical High School	386,659	1.14%	4,471,306	391,950	1.07%	3,721,102
Town of Russell	142,453	0.42%	1,647,318	164,839	0.45%	1,564,949
Town of Southwick	1,193,894	3.52%	13,806,134	1,293,068	3.53%	12,276,159
Town of Southwick – Water	88,185	0.26%	1,019,767	95,240	0.26%	904,193
Southwick-Tolland Regional High School	1,061,616	3.13%	12,276,474	897,455	2.45%	8,520,281

Employer	FY 2021 Total Appropriation with Payments on July 1 and December 31	Percentage of NPL as of January 1, 2021	Share of NPL as of January 1, 2021	FY 2022 Total Appropriation with Payments on July 1 and December 31	Percentage of NPL as of January 1, 2022	Share of NPL as of January 1, 2022
Southwick Housing Authority	16,959	0.05%	196,114	18,315	0.05%	173,883
Three Rivers Fire District	47,484	0.14%	549,103	51,283	0.14%	486,873
Town of Tolland	81,401	0.24%	941,319	95,240	0.26%	904,193
Town of Wales	169,587	0.50%	1,961,097	172,165	0.47%	1,634,503
West Hampden Veterans' Services	44,093	0.13%	509,889	51,283	0.14%	486,873
Western Massachusetts Emergency Communications and Regional Dispatch Center	145,845	0.43%	1,686,544	428,581	1.17%	4,068,869
Town of Wilbraham	2,265,684	6.68%	26,200,257	2,479,907	6.77%	23,543,796
Wilbraham - Solid Waste	30,526	0.09%	353,001	32,968	0.09%	312,990
Wilbraham - Sewer	67,835	0.20%	784,439	73,262	0.20%	695,533
Wilbraham - Water Dept.	122,103	0.36%	1,411,994	117,219	0.32%	1,112,853
Wilbraham - Ambulance	0	0.00%	0	0	0.00%	0
Wilbraham Housing Authority	30,526	0.09%	353,001	40,294	0.11%	382,543
Grand Totals	\$33,917,428	100.00%	\$392,219,480	\$36,630,822	100.00%	\$347,766,554

Exhibit B: Schedule of Proportionate Share Amounts by Employer

Employer Name	2022 Share of Cost Allocator (1)	Net Pension Liability (2)	Covered Payroll (3)	1% Decrease (6.00%) (4)	Current Discount Rate (7.00%) (5)	1% Increase (8.00%) (6)
Town of Agawam	22.18%	\$77,134,624	\$27,865,972	\$99,642,663	\$77,134,624	\$58,189,217
Agawam Housing Authority	0.29%	1,008,523	364,342	1,302,812	1,008,523	760,815
Town of Blandford	0.31%	1,078,076	389,472	1,392,661	1,078,076	813,285
Town of Brimfield	1.15%	3,999,315	1,444,807	5,166,324	3,999,315	3,017,025
Brimfield Housing Authority	0.00%	0	-	0	0	0
Town of Chester	0.28%	973,746	351,779	1,257,888	973,746	734,580
Chester Electric Light	0.20%	695,533	251,272	898,491	695,533	524,700
Town of East Longmeadow	11.84%	41,175,560	14,875,250	53,190,673	41,175,560	31,062,235
East Longmeadow Housing Authority	0.22%	765,086	276,399	988,340	765,086	577,170
Town of Granville	0.44%	1,530,173	552,798	1,976,680	1,530,173	1,154,340
Town of Hampden	1.93%	6,711,894	2,424,767	8,670,439	6,711,894	5,063,354
Hampden Housing Authority	0.09%	312,990	113,073	404,321	312,990	236,115
Hampden-Wilbraham Regional School	5.19%	18,049,084	6,520,487	23,315,844	18,049,084	13,615,963
Town of Holland	0.89%	3,095,122	1,118,155	3,998,285	3,095,122	2,334,915
Town of Longmeadow	11.07%	38,497,758	13,907,858	49,731,482	38,497,758	29,042,141
Town of Ludlow	8.82%	30,673,010	11,081,055	39,623,457	30,673,010	23,139,266
Town of Ludlow - School	4.84%	16,831,901	6,080,762	21,743,484	16,831,901	12,697,738

	2022 Share of	Net Pension		1% Decrease	Current Discount Rate	1% Increase
Employer Name	Cost Allocator (1)	Liability (2)	Covered Payroll (3)	(6.00%) (4)	(7.00%) (5)	(8.00%) (6)
Ludlow Housing Authority	0.16%	556,426	201,016	718,793	556,426	419,760
Town of Monson	3.30%	11,476,296	4,145,973	14,825,103	11,476,296	8,657,549
Town of Monson - School	2.40%	8,346,397	3,015,255	10,781,893	8,346,397	6,296,399
Monson Housing Authority	0.24%	834,640	301,525	1,078,189	834,640	629,640
Town of Montgomery	0.15%	521,650	188,453	673,868	521,650	393,525
Town of Palmer	3.35%	11,650,180	4,208,793	15,049,726	11,650,180	8,788,724
Town of Palmer - School	1.76%	6,120,691	2,211,184	7,906,722	6,120,691	4,617,359
Town of Palmer - Library	0.42%	1,460,620	527,668	1,886,831	1,460,620	1,101,870
Town of Palmer - WWTP	0.50%	1,738,833	628,177	2,246,228	1,738,833	1,311,750
Palmer Fire/Water District #1	0.50%	1,738,833	628,177	2,246,228	1,738,833	1,311,750
Palmer Housing Authority	0.00%	0	0	0	0	0
Pathfinder Regional Vocational Technical High School	1.07%	3,721,102	1,344,301	4,806,927	3,721,102	2,807,145
Town of Russell	0.45%	1,564,949	565,361	2,021,605	1,564,949	1,180,575
Town of Southwick	3.53%	12,276,159	4,434,936	15,858,368	12,276,159	9,260,954
Town of Southwick – Water	0.26%	904,193	326,652	1,168,038	904,193	682,110
Southwick-Tolland Regional High School	2.45%	8,520,281	3,078,071	11,006,516	8,520,281	6,427,574

Employer Name	2022 Share of Cost Allocator (1)	Net Pension Liability (2)	Covered Payroll (3)	1% Decrease (6.00%) (4)	Current Discount Rate (7.00%) (5)	1% Increase (8.00%) (6)
Southwick Housing Authority	0.05%	173,883	62,816	224,623	173,883	131,175
Three Rivers Fire District	0.14%	486,873	175,889	628,944	486,873	367,290
Town of Tolland	0.26%	904,193	326,652	1,168,038	904,193	682,110
Town of Wales	0.47%	1,634,503	590,488	2,111,454	1,634,503	1,233,045
West Hampden Veterans' Services	0.14%	486,873	175,889	628,944	486,873	367,290
Western Massachusetts Emergency Communications and Regional Dispatch Center	1.17%	4,068,869	1,469,937	5,256,173	4,068,869	3,069,495
Town of Wilbraham	6.77%	23,543,796	8,505,529	30,413,924	23,543,796	17,761,092
Wilbraham - Solid Waste	0.09%	312,990	113,073	404,321	312,990	236,115
Wilbraham - Sewer	0.20%	695,533	251,272	898,491	695,533	524,700
Wilbraham - Water Dept.	0.32%	1,112,853	402,035	1,437,586	1,112,853	839,520
Wilbraham - Ambulance	0.00%	0	0	0	0	0
Wilbraham Housing Authority	0.11%	382,543	138,199	494,170	382,543	288,585
Grand Totals	100.00%	\$347,766,554	\$125,635,569	\$449,245,547	\$347,766,554	\$262,349,960

Employer NameStatutor Scintinution Scintinuti			Schedule of	Contributions		Pension Expense			
Agawam Housing Authority 105,013 105,013 0 28.82% 100,080 17,050 117,130 Town of Blandford 112,256 112,256 0 28.82% 106,983 69,015 175,998 Town of Brimfield 416,433 416,433 0 28.82% 396,871 49,370 446,241 Brimfield Housing Authority 0 0 0 0 0 44,489 44,889 Town of Chester 101,392 101,392 0 28.82% 96,629 -65,100 31,529 Chester Electric Light 72,424 72,424 0 28.82% 69,021 112,248 181,269 Town of East Longmeadow 4,287,456 4,287,456 0 28.82% 4,086,043 136,987 4,223,030 East Longmeadow Housing 79,666 79,666 0 28.82% 75,923 -15,970 59,953 Town of Granville 161,176 161,176 0 29.16% 151,846 58,163 210,009 Hampden Housing Authori	Employer Name	Required Contribution	In Relation to the Statutory Required Contribution	Deficiency/ (Excess)	as a Percentage of Covered Payroll	Share of Plan Pension Expense	Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Pension Expense	
Town of Blandford 112,256 12,256 0 28,82% 106,983 69,015 175,998 Town of Brimfield 416,433 416,433 0 28,82% 396,871 49,370 446,241 Brimfield Housing Authority 0 0 0 0.00% 0 -44,489 -44,489 Town of Chester 101,392 101,392 0 28,82% 96,629 -65,100 31,529 Chester Electric Light 72,424 72,424 0 28,82% 69,021 112,248 181,269 Town of East Longmeadow 4,287,456 4,287,456 0 28,82% 4,086,043 136,987 4,223,030 East Longmeadow Housing 79,666 79,666 0 28,82% 4,086,043 136,987 4,223,030 Town of Granville 161,176 161,176 0 29,16% 151,846 58,163 210,009 Town of Hampden Housing Authority 32,591 32,591 0 28,82% 31,059 8,241 39,300 Hampden-	Town of Agawam	\$8,031,737	\$8,031,737	\$0	28.82%	\$7,654,429	\$339,829	\$7,994,258	
Town of Brimfield 416,433 416,433 0 28,82% 396,871 49,370 446,241 Brimfield Housing Authority 0 0 0.00% 0 -44,489 -44,489 Town of Chester 101,392 101,392 0 28,82% 96,629 -65,100 31,529 Chester Electric Light 72,424 72,424 0 28,82% 69,021 112,248 181,269 Town of East Longmeadow 4,287,456 4,287,456 0 28,82% 4,086,043 136,987 4,223,030 East Longmeadow Housing Authority 79,666 79,666 0 28,82% 75,923 -15,970 59,953 Town of Granville 161,176 161,176 0 29,16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28,82% 666,053 256,465 922,518 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28,82% 1,791,095 -16,485 1,774,610 School <td>Agawam Housing Authority</td> <td>105,013</td> <td>105,013</td> <td>0</td> <td>28.82%</td> <td>100,080</td> <td>17,050</td> <td>117,130</td>	Agawam Housing Authority	105,013	105,013	0	28.82%	100,080	17,050	117,130	
Brimfield Housing Authority 0 0 0.00% 0 -44,489 -44,489 Town of Chester 101,392 101,392 0 28.82% 96,629 -65,100 31,529 Chester Electric Light 72,424 72,424 0 28.82% 69,021 112,248 181,269 Town of East Longmeadow 4,287,456 4,287,456 0 28.82% 4,086,043 136,987 4,223,030 East Longmeadow Housing Authority 79,666 79,666 0 28.82% 75,923 -15,970 59,953 Town of Granville 161,176 161,176 0 29,16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28.82% 31,059 8,241 39,300 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 307,143 -16,771 290,372 Town of Hollan	Town of Blandford	112,256	112,256	0	28.82%	106,983	69,015	175,998	
Town of Chester 101,392 101,392 0 28.82% 96,629 -65,100 31,529 Chester Electric Light 72,424 72,424 0 28.82% 69,021 112,248 181,269 Town of East Longmeadow 4,287,456 4,287,456 0 28.82% 4,086,043 136,987 4,223,030 East Longmeadow Housing Authority 79,666 79,666 0 28.82% 75,923 -15,970 59,953 Town of Granville 161,176 0 29.16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28.82% 666,053 256,465 922,518 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town	Town of Brimfield	416,433	416,433	0	28.82%	396,871	49,370	446,241	
Chester Electric Light 72,424 72,424 0 28.82% 69,021 112,248 181,269 Town of East Longmeadow 4,287,456 4,287,456 0 28.82% 4,086,043 136,987 4,223,030 East Longmeadow Housing Authority 79,666 79,666 0 28.82% 75,923 -15,970 59,953 Town of Granville 161,176 0 29.16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28.82% 666,053 256,465 922,518 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895	Brimfield Housing Authority	0	0	0	0.00%	0	-44,489	-44,489	
Town of East Longmeadow 4,287,456 4,287,456 0 28.82% 4,086,043 136,987 4,223,030 East Longmeadow Housing Authority 79,666 79,666 0 28.82% 75,923 -15,970 59,953 Town of Granville 161,176 161,176 0 29.16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28.82% 666,053 256,465 922,518 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 School 50 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,558,187	Town of Chester	101,392	101,392	0	28.82%	96,629	-65,100	31,529	
East Longmeadow Housing Authority 79,666 79,666 0 28.82% 75,923 -15,970 59,953 Town of Granville 161,176 161,176 0 29.16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28.82% 666,053 256,465 922,518 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187	Chester Electric Light	72,424	72,424	0	28.82%	69,021	112,248	181,269	
Authority Authority Town of Granville 161,176 161,176 0 29.16% 151,846 58,163 210,009 Town of Hampden 698,884 698,884 0 28.82% 666,053 256,465 922,518 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187	Town of East Longmeadow	4,287,456	4,287,456	0	28.82%	4,086,043	136,987	4,223,030	
Town of Hampden 698,884 698,884 0 28.82% 666,053 256,465 922,518 Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187		79,666	79,666	0	28.82%	75,923	-15,970	59,953	
Hampden Housing Authority 32,591 32,591 0 28.82% 31,059 8,241 39,300 Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187	Town of Granville	161,176	161,176	0	29.16%	151,846	58,163	210,009	
Hampden-Wilbraham Regional School 1,879,383 1,879,383 0 28.82% 1,791,095 -16,485 1,774,610 Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187	Town of Hampden	698,884	698,884	0	28.82%	666,053	256,465	922,518	
School Town of Holland 326,014 326,014 0 29.16% 307,143 -16,771 290,372 Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187	Hampden Housing Authority	32,591	32,591	0	28.82%	31,059	8,241	39,300	
Town of Longmeadow 4,008,626 4,008,626 0 28.82% 3,820,312 -1,331,417 2,488,895 Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187		1,879,383	1,879,383	0	28.82%	1,791,095	-16,485	1,774,610	
Town of Ludlow 3,193,864 3,198,338 -4,474 28.86% 3,043,826 314,361 3,358,187	Town of Holland	326,014	326,014	0	29.16%	307,143	-16,771	290,372	
	Town of Longmeadow	4,008,626	4,008,626	0	28.82%	3,820,312	-1,331,417	2,488,895	
Town of Ludlow - School 1,752,643 1,752,643 0 28.82% 1,670,308 106,939 1,777,247	Town of Ludlow	3,193,864	3,198,338	-4,474	28.86%	3,043,826	314,361	3,358,187	
	Town of Ludlow - School	1,752,643	1,752,643	0	28.82%	1,670,308	106,939	1,777,247	

		Schedule of 0	Contributions		Pension Expense				
Employer Name	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered 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)		
Ludlow Housing Authority	58,609	58,609	0	29.16%	55,217	15,540	70,757		
Town of Monson	1,148,057	1,148,057	0	27.69%	1,138,847	-6,789	1,132,058		
Town of Monson - School	869,079	869,079	0	28.82%	828,252	43,588	871,840		
Monson Housing Authority	86,908	86,908	0	28.82%	82,825	37,313	120,138		
Town of Montgomery	54,317	54,317	0	28.82%	51,766	13,835	65,601		
Town of Palmer	1,213,090	1,213,090	0	28.82%	1,156,102	306,433	1,462,535		
Town of Palmer - School	637,324	637,324	0	28.82%	607,385	-131,828	475,557		
Town of Palmer - Library	152,088	152,088	0	28.82%	144,944	57,142	202,086		
Town of Palmer - WWTP	181,058	181,058	0	28.82%	172,553	-1,827	170,726		
Palmer Fire/Water District #1	183,154	183,154	0	29.16%	172,553	65,764	238,317		
Palmer Housing Authority	0	0	0	0.00%	0	-30,051	-30,051		
Pathfinder Regional Vocational Technical High School	387,465	387,465	0	28.82%	369,262	-39,886	329,376		
Town of Russell	162,953	162,953	0	28.82%	155,297	18,766	174,063		
Town of Southwick	1,278,270	1,278,270	0	28.82%	1,218,221	-259,220	959,001		
Town of Southwick – Water	94,150	94,150	0	28.82%	89,727	-18,089	71,638		
Southwick-Tolland Regional High School	887,185	887,185	0	28.82%	845,507	-654,877	190,630		

		Schedule of 0	Contributions		Pension Expense			
Employer Name	Statutory Required Contribution (7)	Contributions In Relation to the Statutory Required Contribution (8)	Contribution Deficiency/ (Excess) (9)	Contributions as a Percentage of Covered 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)	
Southwick Housing Authority	18,315	18,315	0	29.16%	17,255	497	17,752	
Three Rivers Fire District	50,696	50,696	0	28.82%	48,315	-35,819	12,496	
Town of Tolland	95,240	95,240	0	29.16%	89,727	-17,975	71,752	
Town of Wales	172,165	172,165	0	29.16%	162,199	-10,744	151,455	
West Hampden Veterans' Services	50,696	50,696	0	28.82%	48,315	2,022	50,337	
Western Massachusetts Emergency Communications and Regional Dispatch Center	423,676	423,676	0	28.82%	403,773	735,565	1,139,338	
Town of Wilbraham	2,451,527	2,451,527	0	28.82%	2,336,361	-32,611	2,303,750	
Wilbraham - Solid Waste	32,591	32,591	0	28.82%	31,059	-12,527	18,532	
Wilbraham - Sewer	72,424	72,424	0	28.82%	69,021	7,456	76,477	
Wilbraham - Water Dept.	115,878	115,878	0	28.82%	110,434	-39,410	71,024	
Wilbraham - Ambulance	0	0	0	0.00%	0	-5,435	-5,435	
Wilbraham Housing Authority	39,833	39,833	0	28.82%	37,962	14,731	52,693	
Grand Totals	\$36,176,306	\$36,180,780	-\$4,474	28.80%	\$34,510,500	\$0	\$34,510,500	

		Deferred Outflov	vs of Resources	i	Deferred Inflows of Resources						
Employer Name	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 Agawam	\$370,419	\$7,091,940	\$4,658,728	\$12,121,087	\$1,521,334	\$13,024,799	\$0	\$2,098,711	\$16,644,844		
Agawam Housing Authority	4,843	92,726	204,414	301,983	19,891	170,297	0	174,773	364,961		
Town of Blandford	5,177	99,121	304,662	408,960	21,263	182,042	0	20,567	223,872		
Town of Brimfield	19,206	367,707	638,394	1,025,307	78,879	675,316	0	388,467	1,142,662		
Brimfield Housing Authority	0	0	27,337	27,337	0	0	0	237,799	237,799		
Town of Chester	4,676	89,529	28,104	122,309	19,205	164,425	0	203,659	387,289		
Chester Electric Light	3,340	63,949	322,925	390,214	13,718	117,446	0	38,989	170,153		
Town of East Longmeadow	197,733	3,785,779	2,285,699	6,269,211	812,112	6,952,822	0	1,233,738	8,998,672		
East Longmeadow Housing Authority	3,674	70,344	146,646	220,664	15,090	129,191	0	138,280	282,561		
Town of Granville	7,348	140,688	501,730	649,766	30,180	258,382	0	153,529	442,091		
Town of Hampden	32,232	617,108	709,218	1,358,558	132,380	1,133,357	0	33,485	1,299,222		
Hampden Housing Authority	1,503	28,777	68,254	98,534	6,173	52,851	0	10,738	69,762		
Hampden-Wilbraham Regional School	86,675	1,659,476	466,181	2,212,332	355,985	3,047,732	0	653,276	4,056,993		
Town of Holland	14,863	284,573	96,909	396,345	61,046	522,636	0	210,397	794,079		
Town of Longmeadow	184,874	3,539,575	573,528	4,297,977	759,297	6,500,654	0	4,246,918	11,506,869		
Town of Ludlow	147,298	2,820,150	718,966	3,686,414	604,968	5,179,383	0	228,247	6,012,598		
Town of Ludlow - School	80,830	1,547,565	528,299	2,156,694	331,978	2,842,201	0	226,919	3,401,098		

	-	Deferred Outflov	vs of Resources		Deferred Inflows of Resources						
Employer Name	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)		
Ludlow Housing Authority	2,672	51,159	62,906	116,737	10,974	93,957	0	93,259	198,190		
Town of Monson	55,112	1,055,158	684,832	1,795,102	226,349	1,937,864	0	1,595,545	3,759,758		
Town of Monson - School	40,081	767,388	1,024,023	1,831,492	164,617	1,409,356	0	300,530	1,874,503		
Monson Housing Authority	4,008	76,739	216,619	297,366	16,462	140,936	0	14,615	172,013		
Town of Montgomery	2,505	47,962	76,199	126,666	10,289	88,085	0	10,754	109,128		
Town of Palmer	55,947	1,071,145	375,633	1,502,725	229,778	1,967,226	0	721,753	2,918,757		
Town of Palmer - School	29,393	562,751	391,042	983,186	120,719	1,033,528	0	1,090,007	2,244,254		
Town of Palmer - Library	7,014	134,293	238,608	379,915	28,808	246,637	0	204,203	479,648		
Town of Palmer - WWTP	8,350	159,872	89,961	258,183	34,295	293,616	0	72,049	399,960		
Palmer Fire/Water District #1	8,350	159,872	281,619	449,841	34,295	293,616	0	20,909	348,820		
Palmer Housing Authority	0	0	0	0	0	0	0	15,475	15,475		
Pathfinder Regional Vocational Technical High School	17,869	342,127	111,962	471,958	73,392	628,338	0	325,319	1,027,049		
Town of Russell	7,515	143,885	99,571	250,971	30,866	264,254	0	53,254	348,374		
Town of Southwick	58,953	1,128,699	450,293	1,637,945	242,125	2,072,928	0	1,600,124	3,915,177		
Town of Southwick – Water	4,342	83,134	42,369	129,845	17,834	152,680	0	43,798	214,312		
Southwick-Tolland Regional High School	40,916	783,375	28,815	853,106	168,047	1,438,717	0	2,815,391	4,422,155		

		Deferred Outflow	vs of Resources	i	Deferred Inflows of Resources					
Employer Name	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)	
Southwick Housing Authority	835	15,987	1,452	18,274	3,430	29,362	0	0	32,792	
Three Rivers Fire District	2,338	44,764	55,124	102,226	9,603	82,212	0	15,686	107,501	
Town of Tolland	4,342	83,134	64,545	152,021	17,834	152,680	0	99,778	270,292	
Town of Wales	7,849	150,280	302,210	460,339	32,238	275,999	0	250,302	558,539	
West Hampden Veterans' Services	2,338	44,764	34,229	81,331	9,603	82,212	0	5,107	96,922	
Western Massachusetts Emergency Communications and Regional Dispatch Center	19,540	374,101	3,412,678	3,806,319	80,251	687,061	0	0	767,312	
Town of Wilbraham	113,062	2,164,673	393,595	2,671,330	464,358	3,975,558	0	768,907	5,208,823	
Wilbraham - Solid Waste	1,503	28,777	176	30,456	6,173	52,851	0	64,712	123,736	
Wilbraham - Sewer	3,340	63,949	116,404	183,693	13,718	117,446	0	85,206	216,370	
Wilbraham - Water Dept.	5,344	102,318	27,900	135,562	21,949	187,914	0	179,995	389,858	
Wilbraham - Ambulance	0	0	278,613	278,613	0	0	0	393,224	393,224	
Wilbraham Housing Authority	1,837	35,172	69,958	106,967	7,545	64,595	0	72,936	145,076	
Grand Totals	\$1,670,046	\$31,974,485	\$21,211,330	\$54,855,861	\$6,859,051	\$58,723,162	\$0	\$21,211,330	\$86,793,543	

	Deletted if	Deferred filliows/(Outflows) Necognized fill attale Pension Expense (Tear Ended Julie 30)				
Employer Name	2022 (23)	2023 (24)	2024 (25)	2025 (26)	2026 (27)	Thereafter (28)
Town of Agawam	-\$297,612	-\$2,330,885	-\$1,340,909	-\$1,731,459	\$1,177,104	\$0
Agawam Housing Authority	-13,116	-46,150	-2,335	-31,554	30,177	0
Town of Blandford	47,889	38,779	40,308	33,961	24,151	0
Town of Brimfield	-41,848	-120,937	-5,579	-69,541	120,548	0
Brimfield Housing Authority	-44,547	-49,784	-60,834	-55,297	0	0
Town of Chester	-70,795	-102,908	-32,526	-44,271	-14,481	0
Chester Electric Light	104,940	85,792	-517	1,143	28,702	0
Town of East Longmeadow	-253,572	-1,182,767	-490,415	-793,351	-9,356	0
East Longmeadow Housing Authority	-3,348	-43,873	-24,615	-19,091	29,031	0
Town of Granville	81,282	54,912	102,350	-51,100	20,231	0
Town of Hampden	131,887	-74,122	-33,964	-91,440	126,974	0
Hampden Housing Authority	9,793	1,154	11,728	-1,733	7,831	0
Hampden-Wilbraham Regional School	-285,774	-784,633	-356,510	-540,941	123,197	0
Town of Holland	-59,827	-130,399	-74,459	-122,832	-10,217	0
Town of Longmeadow	-1,350,790	-2,312,038	-1,525,440	-1,540,998	-479,625	0
Town of Ludlow	-98,303	-1,147,157	-603,163	-724,557	246,995	0
Town of Ludlow - School	-154,244	-536,792	-329,776	-379,190	155,597	0

	Deletted innows/(Outflows) Recognized in Future Fension Expense (Fear Ended Julie 30)					
Employer Name	2022 (23)	2023 (24)	2024 (25)	2025 (26)	2026 (27)	Thereafter (28)
Ludlow Housing Authority	10,977	-34,063	-23,676	-37,425	2,734	0
Town of Monson	-157,662	-562,573	-416,848	-562,378	-265,195	0
Town of Monson - School	23,283	-186,674	92,460	-49,550	77,470	0
Monson Housing Authority	44,447	22,766	43,303	10,904	3,934	0
Town of Montgomery	8,317	-6,091	7,957	4,896	2,459	0
Town of Palmer	-10,186	-569,213	-444,167	-415,586	23,121	0
Town of Palmer - School	-152,965	-368,620	-246,013	-312,559	-180,911	0
Town of Palmer - Library	-36,228	-24,984	-44,369	-1,037	6,885	0
Town of Palmer - WWTP	-68,961	-44,784	-16,085	-26,499	14,552	0
Palmer Fire/Water District #1	61,786	-7,092	32,272	-7,201	21,256	0
Palmer Housing Authority	-15,475	0	0	0	0	0
Pathfinder Regional Vocational Technical High School	-118,963	-181,184	-87,860	-140,126	-26,958	0
Town of Russell	-17,291	-55,384	-29,568	-21,605	26,445	0
Town of Southwick	-370,829	-737,426	-727,793	-505,391	64,207	0
Town of Southwick – Water	-8,204	-38,349	-12,567	-29,608	4,262	0
Southwick-Tolland Regional High School	-786,425	-981,010	-677,850	-731,692	-392,072	0

_	Deletted ii	rred innows/(Outhows) Recognized in ruture relision Expense (real Ended Julie 30)				
Employer Name	2022 (23)	2023 (24)	2024 (25)	2025 (26)	2026 (27)	Thereafter (28)
Southwick Housing Authority	-1,366	-6,203	-3,360	-4,442	854	0
Three Rivers Fire District	2,754	-5,599	7,814	-12,538	2,295	0
Town of Tolland	-31,139	-49,679	-28,106	-26,503	17,157	0
Town of Wales	-7,885	-31,684	-42,140	-5,453	-11,037	0
West Hampden Veterans' Services	-3,128	-11,426	-3,388	-6,298	8,650	0
Western Massachusetts Emergency Communications and Regional Dispatch Center	692,830	580,821	648,473	627,347	489,537	0
Town of Wilbraham	-330,942	-1,084,884	-631,451	-658,376	168,160	0
Wilbraham - Solid Waste	-20,727	-29,381	-24,236	-20,409	1,474	0
Wilbraham - Sewer	79	-24,298	-18,263	6,527	3,277	0
Wilbraham - Water Dept.	-51,227	-82,009	-52,810	-48,069	-20,181	0
Wilbraham - Ambulance	-5,435	-5,435	-5,435	-98,306	0	0
Wilbraham Housing Authority	-3,929	-19,654	-13,352	-15,690	14,515	0
Grand Totals	-\$3,652,479	-\$13,225,920	-\$7,443,714	-\$9,249,318	\$1,633,749	\$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.
	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.
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, 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.
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 No. 68.