

**PLYMOUTH COUNTY  
CONTRIBUTORY RETIREMENT SYSTEM**

Actuarial Valuation Report  
January 1, 2022

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## Report Summary:

### Highlights

### January 1, 2020

### January 1, 2022

#### Contributions

Funding Schedule FY 2023	\$94,655,942	\$94,655,942
Funding Schedule FY 2024	97,968,998	103,932,225

#### Funded Ratios

Using Actuarial Value of Assets	61.0%	68.8%
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#### Participants

Actives	5,708	5,824
Retirees and Beneficiaries	3,940	4,162
Vested	0	0
Inactives	1,621	1,805
Disabled	<u>394</u>	<u>384</u>
Total	11,663	12,175

#### Payroll

Payroll of Active Members	\$294,614,062	\$316,714,508
Average Payroll	51,614	54,381

#### Normal Cost

Employer	4,217,452	4,141,156
Employee	26,181,441	28,368,227
Administrative Expenses	<u>2,000,000</u>	<u>2,100,000</u>
Total	32,398,893	34,609,383

#### Actuarial Accrued Liabilities

Actives	731,275,525	741,411,462
Retirees, Beneficiaries, Disabilities and Inactives	<u>1,045,899,996</u>	<u>1,166,702,511</u>
Total	1,777,175,521	1,908,113,973

#### Actuarial Value of Assets

<u>1,083,858,357</u>	<u>1,313,706,961</u>
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#### Unfunded Actuarial Accrued Liabilities

\$693,317,164	\$594,407,012
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## **Introduction**

The purpose of this report is to present the findings of an actuarial valuation as of January 1, 2022, of the Plymouth County Contributory Retirement System.

The actuarial valuation is based on:

- Provisions of Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2022.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Plymouth County Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2022.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The cost of these benefits has been assumed by the State under Proposition Two and One-Half.

### **Actuarial Experience**

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

During the last two years, the total unfunded actuarial accrued liability decreased by 14.3% to \$594,407,012. The decrease is the result of net favorable actuarial experience during the preceding years. The sources of change are as follows:

Asset Gains	(55,367,512)
Salary Increases	3,890,070
New Participants	11,849,918
Active - Retirements	8,476,391
Active - Terminations	(505,619)
Active - Mortality	(1,284,850)
Active - Disabilities	(302,873)
Inactive - Mortality	12,063,249
Inactive - Data adjustments	10,988,363
Benefit Payments	(461,898)
Other, including data, contribution interest, purchased service	<u>1,367,770</u>
Total (Gain) / Loss	(9,286,991)

## Actuarial Costs and Liabilities:

### Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

**Table I**

	<u>January 1, 2020</u>	<u>January 1, 2022</u>
Superannuation	\$17,933,334	\$18,661,787
Termination	6,554,134	7,504,464
Death	2,281,061	2,404,545
Disability	3,630,364	3,938,587
Administrative Expenses	<u>2,000,000</u>	<u>2,100,000</u>
Total Normal Cost	32,398,893	34,609,383
% of Pay	11.0%	10.9%
Employee Contributions	26,181,441	28,368,227
% of Pay	8.9%	9.0%
Employer Normal Cost	\$6,217,452	\$6,241,156
% of Pay	2.1%	2.0%

**Present Value of Actuarial Accrued Liabilities**

The actuarial accrued liabilities (AAL) represents a portion of today's value of all projected benefits attributable to past service for the actives and inactive. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

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<b>Table II</b>			
		<u>January 1, 2020</u>	<u>January 1, 2022</u>
Actives			
Superannuations		\$665,103,704	\$672,190,768
Termination		11,973,635	13,316,250
Death		29,788,745	30,208,189
Disability		24,409,441	25,696,255
Retirees and Inactives			
Retirees and Beneficiaries		888,647,798	1,003,608,162
Vested		0	0
Terminated (Refund)		15,320,306	18,267,473
Disabled		<u>141,931,892</u>	<u>144,826,876</u>
Total		\$1,777,175,521	\$1,908,113,973

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**Present Value of Future Benefits**

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

**Table III**

	<u>January 1, 2020</u>	<u>January 1, 2022</u>
Actives		
Superannuation	\$784,419,432	\$797,309,461
Termination	46,330,786	53,356,053
Death	43,303,939	44,579,143
Disability	49,744,952	53,394,548
Retirees and Inactives		
Retirees and Beneficiaries	888,647,798	1,003,608,162
Vested	0	0
Terminated (Refund)	15,320,306	18,267,473
Disabled	<u>141,931,892</u>	<u>144,826,876</u>
Total	\$1,969,699,105	\$2,115,341,716

## Funded Status and Appropriations:

### Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

**Table IV**

	<u>January 1, 2020</u>	<u>January 1, 2022</u>
Cash equivalents	\$23,775,931	\$37,833,062
Short term investments	0	0
Fixed income securities	157,947,708	223,620,436
Equities	381,035,116	481,024,087
International	248,884,237	194,937,914
Real Estate	94,529,484	143,835,945
Venture Capital	0	0
Other	188,385,347	359,134,236
Accounts receivable	10,540,972	8,841,653
Accounts payable	(11,358,622)	(8,873,014)
Accrued income	<u>306,943</u>	<u>0</u>
Total Market Value	\$1,094,047,116	\$1,440,354,319
Total Actuarial Value	\$1,083,858,357	\$1,313,706,961

**Actuarial Value of Assets**

The actuarial value of assets is determined by projecting the market value of assets as of the beginning of the prior plan year with the assumed rate of return during that year (7.875%) and accounting for deposits and disbursements with interest at the assumed rate of return. An adjustment is then applied to recognize the difference between the actual investment return and expected return over a five year period. This preliminary actuarial value is not allowed to differ from the market value of assets by more than 20%. The calculation of the actuarial value of assets as of January 1, 2022 is presented in Table V.

**Table V**

	<u>January 1, 2022</u>
(1) Market value at January 1, 2021	\$1,239,611,831
(2) 2021 Contributions	\$127,205,801
(3) 2021 Payments	(\$131,010,507)
(4) Net interest adjustment at 7.875% on (1), (2), and (3) to December 31, 2021	\$98,412,263
(5) Expected market value on January 1, 2022	\$1,334,219,388
(1) + (2) + (3) + (4)	
(6) Actual market value on January 1, 2022	\$1,440,354,319
(7) 2021 (Gain) / Loss	(\$106,134,931)
(8) 80% of 2021 (Gain) / Loss	(\$84,907,945)
(9) 2020 (Gain) / Loss	(\$57,534,987)
(10) 60% of 2020 (Gain) / Loss	(\$34,520,992)
(11) 2019 (Gain) / Loss	(\$95,222,080)
(12) 40% of 2019 (Gain) / Loss	(\$38,088,832)
(13) 2018 (Gain) / Loss	\$154,352,055
(14) 20% of 2018 (Gain) / Loss	\$30,870,411
(15) Actuarial value on January 1, 2022, (6) + (8) + (10) + (12) + (14) but not less than 80% nor greater than 120% of (6)	\$1,313,706,961
(16) Ratio of actuarial value to market value	91.21%
(17) Actuarial Value Return for 2020	9.10%
(18) Actuarial Value Return for 2021	11.35%
(19) Market Value Return for 2020	13.07%
(20) Market Value Return for 2021	16.37%

**Unfunded Actuarial Accrued Liabilities**

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

**Table VI**

	<u>January 1, 2020</u>	<u>January 1, 2022</u>
Actuarial Accrued Liability	\$1,777,175,521	\$1,908,113,973
Actuarial Assets	<u>1,083,858,357</u>	<u>1,313,706,961</u>
Unfunded Actuarial Accrued Liability	\$693,317,164	\$594,407,012
Funded Status	61.0%	68.8%

**Appropriations**

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2028, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2029  
\$ 594,225,529 over 7 years with 7.0% increasing payments
- Level amortization of the 2013 Early Retirement Incentive June 30, 2028  
\$ 181,483 over 6 years
- Interest adjustment for payments deposited semiannually.

**Table VII**

	<u>January 1, 2020</u>	<u>January 1, 2022</u>
Normal cost	\$6,217,452	\$6,241,156
Amortization payment of the accrued liability	79,542,654	86,977,465
Amortization payment of 2002 ERI liability	0	0
Amortization payment of 2003 ERI liability	0	0
Amortization payment of 2011 ERI liability	<u>36,254</u>	<u>36,254</u>
Total cost	\$85,796,360	\$93,254,875
% of Pay	29.1%	29.4%
Fiscal 2023 cost	\$94,655,942	\$94,655,942
Fiscal 2024 cost	\$97,968,998	\$103,932,225

### **Appropriation Forecast**

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 3.75% per year. The employee contribution rate is expected to increase to 10.5% by 2041 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be made twice per year.

The employer total cost is expected to increase during the next 6 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents about 32% of payroll, increasing to about 37% by the time the unfunded liabilities are fully paid off, leaving only a normal cost of 1% thereafter. The increase in the cost as a percentage of payroll is a result of the high rate of increase in amortization payments, offset by the increase in member deductions and the effect of the 2012 pension plan modifications to benefits.

**Appropriation Forecast**

Fiscal Year	Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Unfunded Liability	Funded Ratio %**
2023	\$28,368,227	\$6,605,074	\$88,050,868	\$94,655,942	29.9	\$594,407,012	68.8
2024	\$29,673,467	\$6,597,255	\$97,334,970	\$103,932,225	31.6	\$551,704,957	71.4
2025	\$31,036,706	\$6,579,562	\$106,642,410	\$113,221,972	33.2	\$496,007,859	74.8
2026	\$32,460,461	\$6,551,264	\$114,104,693	\$120,655,957	34.1	\$426,293,991	78.8
2027	\$33,947,351	\$6,511,592	\$122,089,336	\$128,600,928	35.0	\$343,478,679	83.2
2028	\$35,500,111	\$6,459,732	\$130,632,904	\$137,092,636	36.0	\$245,997,382	88.2
2029	\$37,121,589	\$6,394,824	\$139,736,154	\$146,130,978	37.0	\$132,125,052	93.8
2030	\$38,814,756	\$6,315,965	\$0	\$6,315,965	1.5	\$0	100.0
2031	\$40,582,709	\$6,222,199	\$0	\$6,222,199	1.5	\$0	100.0
2032	\$42,428,674	\$6,112,519	\$0	\$6,112,519	1.4	\$0	100.0
2033	\$44,356,018	\$5,985,862	\$0	\$5,985,862	1.3	\$0	100.0
2034	\$46,368,247	\$5,841,111	\$0	\$5,841,111	1.2	\$0	100.0
2035	\$48,469,018	\$5,677,085	\$0	\$5,677,085	1.2	\$0	100.0
2036	\$50,662,141	\$5,492,544	\$0	\$5,492,544	1.1	\$0	100.0
2037	\$52,951,589	\$5,286,179	\$0	\$5,286,179	1.0	\$0	100.0
2038	\$55,341,501	\$5,056,612	\$0	\$5,056,612	0.9	\$0	100.0
2039	\$57,836,194	\$4,802,394	\$0	\$4,802,394	0.8	\$0	100.0
2040	\$60,440,165	\$4,521,999	\$0	\$4,521,999	0.8	\$0	100.0
2041	\$63,158,102	\$4,213,821	\$0	\$4,213,821	0.7	\$0	100.0
2042	\$65,994,890	\$3,876,170	\$0	\$3,876,170	0.6	\$0	100.0
2043	\$68,955,621	\$3,507,270	\$0	\$3,507,270	0.5	\$0	100.0
2044	\$72,045,601	\$3,105,252	\$0	\$3,105,252	0.5	\$0	100.0
2045	\$74,747,311	\$3,221,699	\$0	\$3,221,699	0.5	\$0	100.0
2046	\$77,550,335	\$3,342,513	\$0	\$3,342,513	0.5	\$0	100.0
2047	\$80,458,473	\$3,467,857	\$0	\$3,467,857	0.5	\$0	100.0
2048	\$83,475,666	\$3,597,902	\$0	\$3,597,902	0.5	\$0	100.0
2049	\$86,606,003	\$3,732,823	\$0	\$3,732,823	0.5	\$0	100.0
2050	\$89,853,728	\$3,872,804	\$0	\$3,872,804	0.5	\$0	100.0
2051	\$93,223,243	\$4,018,034	\$0	\$4,018,034	0.5	\$0	100.0
2052	\$96,719,115	\$4,168,710	\$0	\$4,168,710	0.5	\$0	100.0
2053	\$100,346,082	\$4,325,037	\$0	\$4,325,037	0.5	\$0	100.0
2054	\$104,109,060	\$4,487,226	\$0	\$4,487,226	0.5	\$0	100.0

## **EXHIBITS**

**Exhibit 1 - Age/Service Distribution with Salary as of January 1, 2022**

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	7	0	0	0	0	0	0	0	0	0	7
	26,226	0	0	0	0	0	0	0	0	0	26,226
20-24	208	4	0	0	0	0	0	0	0	0	212
	37,708	52,148	0	0	0	0	0	0	0	0	37,981
25-29	382	60	1	0	0	0	0	0	0	0	443
	45,375	56,493	0	0	0	0	0	0	0	0	46,961
30-34	265	197	24	0	0	0	0	0	0	0	486
	49,949	71,534	78,891	0	0	0	0	0	0	0	60,128
35-39	201	128	85	40	4	2	0	0	0	0	460
	43,746	65,835	79,399	80,874	110,052	0	0	0	0	0	60,263
40-44	322	127	52	96	31	1	0	0	0	0	629
	37,272	57,840	77,878	81,320	87,203	114,137	0	0	0	0	54,088
45-49	204	135	63	85	110	38	2	0	0	0	637
	37,706	46,147	55,017	74,022	89,127	97,035	71,806	0	0	0	58,579
50-54	218	198	96	104	101	86	32	2	0	0	837
	38,892	42,561	52,045	63,211	80,262	100,095	104,381	129,371	0	0	58,291
55-59	159	204	155	169	132	71	66	20	1	0	977
	37,921	47,423	43,723	51,595	63,519	87,844	94,391	95,520	93,334	0	55,328
60-64	88	107	94	149	162	81	43	15	8	0	747
	39,987	48,192	46,630	49,563	51,072	58,014	80,455	83,028	135,132	0	52,480
65-69	30	40	32	65	54	42	19	5	2	0	289
	39,964	44,470	38,429	46,633	47,117	50,639	60,772	72,238	89,989	0	47,078
70+	26	19	8	17	11	9	11	0	3	0	104
	26,746	30,358	47,047	43,630	46,893	49,965	39,376	#DIV/0!	48,849	0	37,841
Total Employees	2,110	1,219	610	725	605	330	173	42	14	0	5,828
Average Salary	41,234	53,573	55,608	60,393	67,392	78,552	85,323	#DIV/0!	107,208	0	54,376

**Exhibit 2 - Retiree Distribution as of January 1, 2022**

Attained Age	Number of Employees			Total Payments		
	Female	Male	Total	Female	Male	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	2	0	2	34,972	0	34,972
35-39	4	0	4	40,990	0	40,990
40-44	0	3	3	0	34,739	34,739
45-49	2	4	6	13,766	128,881	142,647
50-54	13	34	47	345,118	1,780,417	2,125,535
55-59	102	89	191	1,799,647	4,531,205	6,330,853
60-64	270	185	455	4,520,962	8,170,680	12,691,641
65-69	512	342	854	10,631,530	14,439,484	25,071,013
70-74	584	361	945	12,407,668	13,887,093	26,294,761
75-79	481	283	764	9,140,671	9,997,273	19,137,944
80-84	312	150	462	6,067,165	4,464,935	10,532,100
85-89	201	73	274	3,254,915	1,930,898	5,185,813
90-94	86	22	108	1,461,202	437,353	1,898,555
95+	43	6	49	503,152	129,885	633,036
Total	2612	1552	4164	50,221,758	59,932,843	110,154,600
Average (Age/Payment)	74.07	71.8	73.22	19,227	38,617	26,454
Frequency Percent	62.7	37.3	100	45.6	54.4	100

[https://shermanactuary-my.sharepoint.com/personal/dan\\_shermanactuary\\_com/Documents/Recovered Data/Plymouth/Pension/Val22/Report/\[DIS1.xls\]Disabled](https://shermanactuary-my.sharepoint.com/personal/dan_shermanactuary_com/Documents/Recovered Data/Plymouth/Pension/Val22/Report/[DIS1.xls]Disabled)

Attained Age	Number of Employees			Total Payments		
	Female	Male	Total	Female	Male	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	1	0	1	32,619	0	32,619
40-44	0	2	2	0	105,019	105,019
45-49	3	11	14	96,672	597,622	694,294
50-54	9	25	34	366,654	1,124,576	1,491,230
55-59	11	45	56	373,457	1,973,834	2,347,290
60-64	18	44	62	575,224	1,910,056	2,485,280
65-69	10	52	62	241,807	1,983,281	2,225,087
70-74	10	48	58	208,162	1,673,756	1,881,918
75-79	12	43	55	334,732	1,484,105	1,818,838
80-84	4	25	29	89,335	774,809	864,143
85-89	0	9	9	0	271,198	271,198
90-94	0	2	2	0	38,998	38,998
95-99	0	0	0	0	0	0
Total	78	306	384	2,318,662	11,937,253	14,255,914
Average (Age/Payment)	65.17	67.33	66.89	29,726	39,011	37,125
Frequency Percent	20.3	79.7	100	16.3	83.7	100

**EXHIBIT 4 - CASHFLOW FORECAST:**

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2022	\$155,841,411	\$28,368,227	\$94,655,942	\$98,991,375	\$66,174,133
2023	143,222,989	29,673,467	103,932,225	105,055,864	95,438,567
2024	148,249,971	31,036,706	113,221,972	112,719,523	108,728,230
2025	152,997,160	32,460,461	120,655,957	121,267,819	121,387,077
2026	157,600,377	33,947,351	128,600,928	130,830,325	135,778,227
2027	162,134,483	35,500,111	137,092,636	141,541,374	151,999,638
2028	166,755,557	37,121,589	146,130,978	153,539,183	170,036,193
2029	171,062,423	38,814,756	6,315,965	163,995,282	38,063,580
2030	175,105,477	40,582,709	6,222,199	166,864,102	38,563,533
2031	178,556,285	42,428,674	6,112,519	169,796,886	39,781,794
2032	181,519,066	44,356,018	5,985,862	172,846,264	41,669,078
2033	183,981,533	46,368,247	5,841,111	176,065,489	44,293,314
2034	185,781,829	48,469,018	5,677,085	179,518,950	47,883,225
2035	186,931,322	50,662,141	5,492,544	183,282,356	52,505,719
2036	187,541,389	52,951,589	5,286,179	187,432,829	58,129,208
2037	187,534,466	55,341,501	5,056,612	192,052,310	64,915,956
2038	187,044,890	57,836,194	4,802,394	197,227,332	72,821,030
2039	185,921,590	60,440,165	4,521,999	203,051,925	82,092,498
2040	184,208,882	63,158,102	4,213,821	209,632,111	92,795,152
2041	182,084,760	65,994,890	3,876,170	217,073,857	104,860,157
2042	179,661,493	68,955,621	3,507,270	225,480,255	118,281,653
2043	177,082,799	72,045,601	3,105,252	234,952,727	133,020,781
2044	174,249,995	74,747,311	3,221,699	245,568,506	149,287,521
2045	171,248,915	77,550,335	3,342,513	257,472,952	167,116,886
2046	168,119,448	80,458,473	3,467,857	270,787,626	186,594,508
2047	164,752,576	83,475,666	3,597,902	285,646,582	207,967,575
2048	161,134,164	86,606,003	3,732,823	302,199,682	231,404,344
2049	157,285,459	89,853,728	3,872,804	320,608,668	257,049,741
2050	153,304,512	93,223,243	4,018,034	341,043,733	284,980,498
2051	149,170,665	96,719,115	4,168,710	363,685,701	315,402,861

## **EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:**

This summary is prepared in accordance with Chapter 32 as of January 1, 2022, and does not take into account any subsequent changes.

### **1. Administration**

Each of the 104 contributory retirement systems for public employees of the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

### **2. Participation**

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) Group 2: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

Chapter 176 of the Acts of 2011 created different plan provisions within these groups for those hired on or after April 2, 2012.

### 3. **Salary**

Salary is defined as gross regular compensation. Salary does not include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

### 4. **Member Contributions**

Member contributions vary depending upon date hired as follows:

<b><u>Date of Hire</u></b>	<b><u>Member Contribution Rate</u></b>
Prior to 1975	5.0% of Salary
1975 to 1983	7.0% of Salary
1984 to 1996	8.0% of Salary
1996 and Later plus	9.0% of Salary
1979 and Later	2.0% of Salary in excess of \$30,000

For Group 1 employees who become members on or after April 2, 2012, the Contribution Rate shall be 6% after the completion of 30 years of service.

### 5. **Average Salary**

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.). For employees who become members on or after April 2, 2012, the averaging period shall be five years.

### 6. **Creditable Service**

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

## **7. Service Retirement**

### **a. Eligibility:**

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service
- (iv) for a Group 1 employee hired on or after April 2, 2012, attainment of age 60 and completion of ten years of service

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table for those hired prior to April 2, 2012:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001

For those hired after April 1, 2012 who retire with less than 30 years of service, the following rates are applied:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
67 or Over	.0250	.0250	.0250
66	.0235	.0250	.0250
65	.0220	.0250	.0250
64	.0205	.0250	.0250
63	.0190	.0250	.0250
62	.0175	.0250	.0250
61	.0160	.0235	.0250
60	.0145	.0220	.0250
59		.0205	.0250
58		.0190	.0250
57		.0175	.0250
56		.0160	.0235
55		.0145	.0220
54			.0205
53			.0190
52			.0175
51			.0160
50			.0145

For those hired after April 1, 2012 who retire with at least 30 years of service, the following rates are applied:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
67 or Over	.02500	.02500	.02500
66	.02375	.02500	.02500
65	.02250	.02500	.02500
64	.02125	.02500	.02500
63	.02000	.02500	.02500
62	.01875	.02500	.02500
61	.01750	.02375	.02500
60	.01625	.02250	.02500
59		.02125	.02500
58		.02000	.02500
57		.01875	.02500
56		.01750	.02375
55		.01625	.02250
54			.02125
53			.02000
52			.01875
51			.01750
50			.01625

## 8. Deferred Vested Retirement

### a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

### b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

9. **Accidental Disability**

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$450 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. **Ordinary Disability**

a. Eligibility:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55 or age 60 if hired on or after April 2, 2012).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55 (age 60 if hired on or after April 2, 2012). If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55 (age 60 if hired on or after April 2, 2012), he

will receive not less than the superannuation allowance to which he is entitled.

## **11. Survivor Benefits**

### **a. Occupational Death:**

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

### **b. Non-Occupational Death:**

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

### **c. Refund of Contributions:**

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

## **12. Cost-of-Living Increases**

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$16,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

**13. Postretirement Death Benefits**

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A – Life annuity
- (ii) Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C – Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

## EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

### 1. **Member Data**

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

### 2. **Valuation Date**

January 1, 2022.

### 3. **Actuarial Cost Method**

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

### 4. **Rate of Investment Return**

It is assumed that the assets of the fund will accumulate at a compound annual rate of 7.875% per annum, net of investment expenses. The rationale for the selection of this rate is based on past performance and future expectations. Since 1987 the fund has had an average return of 8.75%. The asset policy continues to have a high concentration in equities and equity like investments. The Board continues to take an aggressive posture in its investment allocations.

### 5. **Salary Scale**

It is assumed that salaries including longevity will increase at a rate of 3.75% per year. The rationale for this assumption is based on the 2015 Experience Study and the history of municipal revenue and Proposition 2-1/2. The member units are limited to how much it can raise in property tax revenue to 2.5% of the previous year's figure, plus new growth. This restriction limits the largest portion of their revenue to about 3% per year. By extension, payroll increases are limited by the growth in revenue. Over an employee's career, promotions are expected to add .75% to the increases.

## 6. Cost-of-Living Increases

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$16,000 per year. Under State law the increase is limited to 3% or CPI. The Board has always granted 3%.

## 7. Value of Investments

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC). The actuarial value of assets is determined using a five-year smoothing of asset returns greater than or less than the assumed rate of return, with a 20% corridor.

## 8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
0	0.1821	0.1500
5	0.1020	0.1000
10	0.0650	0.0600
15	0.0417	0.0600
20	0.0400	0.0000
25	0.0400	0.0000

## 9. Annual Rate of Mortality

It is assumed that both pre-retirement mortality and beneficiary mortality is represented by the RP-2014 Blue Collar Mortality with Scale MP-2016, fully generational. Mortality for retired members for Group 1 and 2 is represented by the RP-2014 Blue Collar Mortality Table set forward five years for males and 3 years for females, fully generational. Mortality for retired members for Group 4 is represented by the RP-2014 Blue Collar Mortality Table set forward three years for males, and six years for females, fully generational. Mortality for disabled members for Group 1 and 2 is represented by the RP-2000 Mortality Table set forward six years. Mortality for disabled members for Group 4 is represented by the RP-2000 Mortality Table set forward two years. Generational adjusting is based on Scale MP-2016.

**10. Service Retirement**

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages for those hired prior to April 2, 2012:

<b><u>Age</u></b>	<b><u>Male General Employees</u></b>	<b><u>Female General Employees</u></b>	<b><u>Male and Female Police and Fire Employees</u></b>
50	0.0360	0.1019	0.0382
51	0.0405	0.0714	0.0351
52	0.0437	0.0562	0.0436
53	0.0366	0.0448	0.0527
54	0.0451	0.0488	0.0999
55	0.0477	0.0469	0.1110
56	0.0574	0.0518	0.1413
57	0.0632	0.0509	0.1292
58	0.0765	0.0552	0.1499
59	0.0917	0.0645	0.1679
60	0.1057	0.0774	0.1871
61	0.1224	0.1038	0.2073
62	0.1473	0.1168	0.2176
63	0.1777	0.1440	0.3338
64	0.2136	0.1708	0.5664
65	0.2615	0.1939	1.0000
66	0.2682	0.1959	1.0000
67	0.2500	0.2000	1.0000
68	0.2500	0.2000	1.0000
69	0.2500	0.2000	1.0000
70 to 76	0.2500	0.2500	1.0000
77 to 79	0.3500	0.2500	1.0000
80	1.0000	1.0000	1.0000

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages for those hired on or after April 2, 2012:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
50	0.0000	0.0000	0.0191
51	0.0000	0.0000	0.0176
52	0.0000	0.0000	0.0436
53	0.0000	0.0000	0.0211
54	0.0000	0.0000	0.0266
55	0.0000	0.0000	0.0370
56	0.0000	0.0000	0.1060
57	0.0000	0.0000	0.1938
58	0.0000	0.0000	0.1499
59	0.0000	0.0000	0.1119
60	0.0477	0.0469	0.0936
61	0.0574	0.0518	0.1555
62	0.0632	0.0509	0.1741
63	0.0765	0.0552	0.2670
64	0.0917	0.0645	0.4720
65	0.1057	0.0774	1.0000
66	0.1224	0.1038	1.0000
67	0.1473	0.1168	1.0000
68	0.1777	0.1440	1.0000
69	0.2136	0.1708	1.0000
70	0.2615	0.1939	1.0000
70 to 76	0.2682	0.1959	1.0000
77 to 79	0.2500	0.2000	1.0000

**12. Annual Rate of Disability Prior to Retirement**

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

<b><u>Attained Age</u></b>	<b><u>General Employees</u></b>	<b><u>Police and Fire Employees</u></b>
20	0.000100	0.000500
30	0.000152	0.000967
40	0.000663	0.002500
50	0.001271	0.007634

In addition, it is assumed for the general employees that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

**13. Family Composition**

It is assumed that 80% of all male members will be survived by a spouse and 60% of all female members will be survived by a spouse. Females (males) are three years younger (older) than members.

**14. Administrative Expenses**

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2022 is \$2,000,000 and is anticipated to increase at 3.75% per year.

## EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

### 1. **Actuarial Accrued Liability**

That portion of the Actuarial Present Value of projected plan benefits that is not provided for by future employer Normal Costs or employee contributions.

### 2. **Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

### 3. **Actuarial Cost Method**

A procedure for allocating the Actuarial Present Value of projected pension plan benefits between Normal Cost and Actuarial Accrued Liability.

### 4. **Actuarial Present Value**

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

### 5. **Forecast**

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

**6. Normal Cost**

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

**7. Unfunded Actuarial Accrued Liability**

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

**8. Actuarial Valuation Method**

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

**9. Vested Liability**

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

## CERTIFICATION:

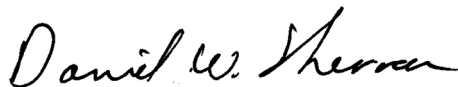
This report fairly represents the actuarial position of the Plymouth County Retirement System contributing as of January 1, 2022, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

The funded status measure is appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations. The funded status measure is appropriate for assessing the need for or the amount of future contributions. The funded status measure would be different if the measure reflected the market value of assets rather than the actuarial value of assets.

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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

The report was prepared under the supervision of Daniel Sherman, an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, who takes responsibility for the overall appropriateness of the analysis, assumptions and results. Daniel Sherman is deemed to meet the General Qualification Standard and the basic education and experience requirement in the pension area. Based on over thirty years of performing valuations of similar complexity, Mr. Sherman is qualified by experience. Daniel Sherman has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sherman Actuarial Services, LLC



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Daniel W. Sherman, ASA, MAAA

August, 2022

## **BREAKOUTS**

**County of Plymouth**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	72
Inactives	11
Retirees and Disableds	212
Total	<u>295</u>

Payroll	3,916,347
Average	54,394

## Valuation Results

## Normal Cost

Employee	339,206
Employer	49,286
Administrative Expense	80,133
Total	<u>468,625</u>

## Actuarial Accrued Liability

Actives	11,438,051
Inactives	160,432
Retirees and Disableds	55,660,583
Total	<u>67,259,066</u>

Assets	\$58,200,038
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Unfunded Actuarial Accrued Liability	\$9,059,028
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$1,626,046
FY24 Contribution - July payment	\$1,595,808
FY25 Contribution - semiannual payments	\$1,774,582
FY25 Contribution - July payment	\$1,741,581

## Hospital

Actuarial Valuation as of January 1, 2022

### Participant Information

#### Participants

Actives	0
Inactives	1
Retirees and Disableds	48
Total	<u>49</u>

Payroll	0
Average	0

### Valuation Results

#### Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

#### Actuarial Accrued Liability

Actives	0
Inactives	68,161
Retirees and Disableds	5,443,090
Total	<u>5,511,251</u>

Assets	\$5,511,251
--------	-------------

Unfunded Actuarial Accrued Liability	\$0
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FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0



**Abington**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	248
Inactives	75
Retirees and Disableds	159
Total	<u>482</u>

Payroll	12,122,927
Average	48,883

## Valuation Results

## Normal Cost

Employee	1,075,771
Employer	205,193
Administrative Expense	73,459
Total	<u>1,354,423</u>

## Actuarial Accrued Liability

Actives	24,304,395
Inactives	896,150
Retirees and Disableds	41,508,847
Total	<u>66,709,392</u>

Assets	\$45,409,252
--------	--------------

Unfunded Actuarial Accrued Liability	\$21,300,140
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$3,789,544
FY24 Contribution - July payment	\$3,719,073
FY25 Contribution - semiannual payments	\$4,121,716
FY25 Contribution - July payment	\$4,045,068

**Bridgewater**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	184
Inactives	17
Retirees and Disableds	149
Total	<u>350</u>

Payroll	15,593,676
Average	84,748

## Valuation Results

## Normal Cost

Employee	1,441,675
Employer	44,118
Administrative Expense	108,561
Total	<u>1,594,354</u>

## Actuarial Accrued Liability

Actives	41,196,388
Inactives	392,300
Retirees and Disableds	56,997,654
Total	<u>98,586,342</u>

Assets	\$67,107,972
--------	--------------

Unfunded Actuarial Accrued Liability	\$31,478,370
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$5,331,138
FY24 Contribution - July payment	\$5,232,000
FY25 Contribution - semiannual payments	\$5,828,568
FY25 Contribution - July payment	\$5,720,179

**Bridgewater Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	2
Inactives	1
Retirees and Disableds	8
Total	<u>11</u>

Payroll	95,942
Average	47,971

## Valuation Results

## Normal Cost

Employee	8,343
Employer	(48)
Administrative Expense	1,522
Total	<u>9,817</u>

## Actuarial Accrued Liability

Actives	21,972
Inactives	6,008
Retirees and Disableds	1,354,374
Total	<u>1,382,354</u>

Assets	\$940,972
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Unfunded Actuarial Accrued Liability	\$441,382
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$74,059
FY24 Contribution - July payment	\$72,682
FY25 Contribution - semiannual payments	\$81,051
FY25 Contribution - July payment	\$79,544



**Bridgewater/Raynham Regional School**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	197
Inactives	69
Retirees and Disableds	155
Total	<u>421</u>

Payroll	7,840,505
Average	39,800

## Valuation Results

## Normal Cost

Employee	673,091
Employer	101,273
Administrative Expense	48,030
Total	<u>822,394</u>

## Actuarial Accrued Liability

Actives	17,428,995
Inactives	386,967
Retirees and Disableds	25,800,472
Total	<u>43,616,434</u>

Assets	\$29,689,817
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Unfunded Actuarial Accrued Liability	\$13,926,617
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FY24 Contribution - semiannual payments	\$2,443,538
FY24 Contribution - July payment	\$2,398,098
FY25 Contribution - semiannual payments	\$2,661,550
FY25 Contribution - July payment	\$2,612,055



**Carver**

## Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	194
Inactives	97
Retirees and Disableds	136
Total	<u>427</u>

Payroll	8,439,390
Average	43,502

## Valuation Results

## Normal Cost

Employee	744,681
Employer	59,035
Administrative Expense	58,730
Total	<u>862,446</u>

## Actuarial Accrued Liability

Actives	21,535,451
Inactives	486,751
Retirees and Disableds	31,311,278
Total	<u>53,333,480</u>

Assets	\$36,365,394
--------	--------------

Unfunded Actuarial Accrued Liability	\$16,968,086
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$2,938,961
FY24 Contribution - July payment	\$2,884,308
FY25 Contribution - semiannual payments	\$3,206,235
FY25 Contribution - July payment	\$3,146,611

**Carver/Marion/Wareham Regional Refuse**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	1
Retirees and Disableds	3
Total	<u>4</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

## Actuarial Accrued Liability

Actives	0
Inactives	2,061
Retirees and Disableds	1,066,302
Total	<u>1,068,363</u>

Assets	\$1,068,363
--------	-------------

Unfunded Actuarial Accrued Liability	\$0
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FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0

**Duxbury**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	336
Inactives	149
Retirees and Disableds	270
Total	<u>755</u>

Payroll	18,965,050
Average	56,444

## Valuation Results

## Normal Cost

Employee	1,695,617
Employer	235,053
Administrative Expense	114,380
Total	<u>2,045,050</u>

## Actuarial Accrued Liability

Actives	42,583,715
Inactives	1,637,119
Retirees and Disableds	59,649,628
Total	<u>103,870,462</u>

Assets	\$70,704,886
--------	--------------

Unfunded Actuarial Accrued Liability	\$33,165,576
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$5,812,806
FY24 Contribution - July payment	\$5,704,710
FY25 Contribution - semiannual payments	\$6,332,146
FY25 Contribution - July payment	\$6,214,392



**Duxbury Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	1
Inactives	0
Retirees and Disableds	4
Total	<u>5</u>

Payroll	52,680
Average	52,680

## Valuation Results

## Normal Cost

Employee	4,328
Employer	2,803
Administrative Expense	543
Total	<u>7,674</u>

## Actuarial Accrued Liability

Actives	135,030
Inactives	0
Retirees and Disableds	357,896
Total	<u>492,926</u>

Assets	\$335,536
--------	-----------

Unfunded Actuarial Accrued Liability	\$157,390
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$29,339
FY24 Contribution - July payment	\$28,793
FY25 Contribution - semiannual payments	\$31,761
FY25 Contribution - July payment	\$31,170



**East Bridgewater**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	242
Inactives	105
Retirees and Disableds	149
Total	<u>496</u>

Payroll	12,286,425
Average	50,770

## Valuation Results

## Normal Cost

Employee	1,102,482
Employer	171,176
Administrative Expense	72,679
Total	<u>1,346,337</u>

## Actuarial Accrued Liability

Actives	25,760,734
Inactives	822,938
Retirees and Disableds	39,417,639
Total	<u>66,001,311</u>

Assets	\$44,927,259
--------	--------------

Unfunded Actuarial Accrued Liability	\$21,074,052
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$3,716,240
FY24 Contribution - July payment	\$3,647,132
FY25 Contribution - semiannual payments	\$4,045,688
FY25 Contribution - July payment	\$3,970,454



**East Bridgewater Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	4
Inactives	1
Retirees and Disableds	4
Total	<u>9</u>

Payroll	201,577
Average	50,394

## Valuation Results

## Normal Cost

Employee	17,676
Employer	8,683
Administrative Expense	1,030
Total	<u>27,389</u>

## Actuarial Accrued Liability

Actives	361,371
Inactives	40,314
Retirees and Disableds	534,011
Total	<u>935,696</u>

Assets	\$636,931
--------	-----------

Unfunded Actuarial Accrued Liability	\$298,765
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$59,185
FY24 Contribution - July payment	\$58,084
FY25 Contribution - semiannual payments	\$63,698
FY25 Contribution - July payment	\$62,514



**Halifax**

## Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	105
Inactives	23
Retirees and Disableds	73
Total	<u>201</u>

Payroll	5,434,876
Average	51,761

## Valuation Results

## Normal Cost

Employee	481,601
Employer	73,567
Administrative Expense	34,618
Total	<u>589,786</u>

## Actuarial Accrued Liability

Actives	12,396,581
Inactives	257,291
Retirees and Disableds	18,434,830
Total	<u>31,088,702</u>

Assets	\$21,399,376
--------	--------------

Unfunded Actuarial Accrued Liability	\$10,037,816
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$1,761,811
FY24 Contribution - July payment	\$1,729,048
FY25 Contribution - semiannual payments	\$1,918,932
FY25 Contribution - July payment	\$1,883,248



**Hanover**

## Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	305
Inactives	96
Retirees and Disableds	199
Total	<u>600</u>

Payroll	17,710,627
Average	58,068

## Valuation Results

## Normal Cost

Employee	1,597,055
Employer	252,900
Administrative Expense	97,732
Total	<u>1,947,687</u>

## Actuarial Accrued Liability

Actives	39,368,578
Inactives	690,489
Retirees and Disableds	48,693,435
Total	<u>88,752,502</u>

Assets	\$60,414,052
--------	--------------

Unfunded Actuarial Accrued Liability	\$28,338,450
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$5,020,862
FY24 Contribution - July payment	\$4,927,494
FY25 Contribution - semiannual payments	\$5,463,302
FY25 Contribution - July payment	\$5,361,706

**Hanson**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	95
Inactives	15
Retirees and Disableds	77
Total	<u>187</u>

Payroll	6,475,013
Average	68,158

## Valuation Results

## Normal Cost

Employee	589,422
Employer	96,795
Administrative Expense	45,377
Total	<u>731,594</u>

## Actuarial Accrued Liability

Actives	17,025,356
Inactives	578,541
Retirees and Disableds	23,603,610
Total	<u>41,207,507</u>

Assets	\$28,050,054
--------	--------------

Unfunded Actuarial Accrued Liability	\$13,157,453
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$2,309,740
FY24 Contribution - July payment	\$2,266,788
FY25 Contribution - semiannual payments	\$2,515,684
FY25 Contribution - July payment	\$2,468,902

**Kingston**

## Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	184
Inactives	40
Retirees and Disableds	133
Total	<u>357</u>

Payroll	10,888,390
Average	59,176

## Valuation Results

## Normal Cost

Employee	985,562
Employer	111,005
Administrative Expense	71,831
Total	<u>1,168,398</u>

## Actuarial Accrued Liability

Actives	28,659,116
Inactives	472,577
Retirees and Disableds	36,099,117
Total	<u>65,230,810</u>

Assets	\$44,402,777
--------	--------------

Unfunded Actuarial Accrued Liability	\$20,828,033
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$3,626,297
FY24 Contribution - July payment	\$3,558,862
FY25 Contribution - semiannual payments	\$3,953,366
FY25 Contribution - July payment	\$3,879,848



**Kingston Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	2
Retirees and Disableds	1
Total	<u>3</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	133
Total	<u>133</u>

## Actuarial Accrued Liability

Actives	0
Inactives	2,175
Retirees and Disableds	118,922
Total	<u>121,097</u>

Assets	\$82,431
--------	----------

Unfunded Actuarial Accrued Liability	\$38,666
--------------------------------------	----------

FY24 Contribution - semiannual payments	\$6,492
FY24 Contribution - July payment	\$6,371
FY25 Contribution - semiannual payments	\$7,104
FY25 Contribution - July payment	\$6,972



**Lakeville**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	76
Inactives	16
Retirees and Disableds	75
Total	<u>167</u>

Payroll	5,021,021
Average	66,066

## Valuation Results

## Normal Cost

Employee	460,028
Employer	96,041
Administrative Expense	29,570
Total	<u>585,639</u>

## Actuarial Accrued Liability

Actives	8,703,295
Inactives	225,830
Retirees and Disableds	17,923,494
Total	<u>26,852,619</u>

Assets	\$18,278,646
--------	--------------

Unfunded Actuarial Accrued Liability	\$8,573,973
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$1,539,379
FY24 Contribution - July payment	\$1,510,753
FY25 Contribution - semiannual payments	\$1,672,750
FY25 Contribution - July payment	\$1,641,643



**Marion**

## Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	93
Inactives	23
Retirees and Disableds	70
Total	<u>186</u>

Payroll	5,398,381
Average	58,047

## Valuation Results

## Normal Cost

Employee	488,756
Employer	91,444
Administrative Expense	32,731
Total	<u>612,931</u>

## Actuarial Accrued Liability

Actives	11,015,975
Inactives	404,642
Retirees and Disableds	18,302,847
Total	<u>29,723,464</u>

Assets	\$20,232,837
--------	--------------

Unfunded Actuarial Accrued Liability	\$9,490,627
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$1,688,511
FY24 Contribution - July payment	\$1,657,111
FY25 Contribution - semiannual payments	\$1,836,515
FY25 Contribution - July payment	\$1,802,363



**Marshfield**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	482
Inactives	177
Retirees and Disableds	351
Total	<u>1,010</u>

Payroll	25,695,810
Average	53,311

## Valuation Results

## Normal Cost

Employee	2,287,249
Employer	382,353
Administrative Expense	167,274
Total	<u>2,836,876</u>

## Actuarial Accrued Liability

Actives	61,129,305
Inactives	1,282,853
Retirees and Disableds	89,492,639
Total	<u>151,904,797</u>

Assets	\$103,401,979
--------	---------------

Unfunded Actuarial Accrued Liability	\$48,502,818
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$8,541,014
FY24 Contribution - July payment	\$8,382,184
FY25 Contribution - semiannual payments	\$9,299,546
FY25 Contribution - July payment	\$9,126,611



**Marshfield Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	2
Inactives	1
Retirees and Disableds	3
Total	<u>6</u>

Payroll	74,712
Average	37,356

## Valuation Results

## Normal Cost

Employee	6,699
Employer	4,431
Administrative Expense	1,068
Total	<u>12,198</u>

## Actuarial Accrued Liability

Actives	103,590
Inactives	76,830
Retirees and Disableds	603,681
Total	<u>784,101</u>

Assets	\$660,390
--------	-----------

Unfunded Actuarial Accrued Liability	\$309,770
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$56,615
FY24 Contribution - July payment	\$55,562
FY25 Contribution - semiannual payments	\$61,409
FY25 Contribution - July payment	\$60,267

**Mattapoisett**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	109
Inactives	23
Retirees and Disableds	70
Total	<u>202</u>

Payroll	5,930,398
Average	54,407

## Valuation Results

## Normal Cost

Employee	533,122
Employer	43,949
Administrative Expense	36,415
Total	<u>613,486</u>

## Actuarial Accrued Liability

Actives	13,902,705
Inactives	340,220
Retirees and Disableds	18,825,778
Total	<u>33,068,703</u>

Assets	\$22,509,950
--------	--------------

Unfunded Actuarial Accrued Liability	\$10,558,753
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$1,818,505
FY24 Contribution - July payment	\$1,784,688
FY25 Contribution - semiannual payments	\$1,984,623
FY25 Contribution - July payment	\$1,947,716



**Middleborough**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	476
Inactives	116
Retirees and Disableds	343
Total	<u>935</u>

Payroll	27,293,703
Average	57,340

## Valuation Results

## Normal Cost

Employee	2,454,021
Employer	437,742
Administrative Expense	184,853
Total	<u>3,076,616</u>

## Actuarial Accrued Liability

Actives	65,963,976
Inactives	1,194,501
Retirees and Disableds	100,710,005
Total	<u>167,868,482</u>

Assets	\$114,268,500
--------	---------------

Unfunded Actuarial Accrued Liability	\$53,599,982
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$9,454,390
FY24 Contribution - July payment	\$9,278,575
FY25 Contribution - semiannual payments	\$10,292,253
FY25 Contribution - July payment	\$10,100,857

**Middleborough Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	8
Inactives	0
Retirees and Disableds	8
Total	<u>16</u>

Payroll	514,270
Average	64,284

## Valuation Results

## Normal Cost

Employee	46,390
Employer	13,210
Administrative Expense	3,406
Total	<u>63,006</u>

## Actuarial Accrued Liability

Actives	1,187,439
Inactives	0
Retirees and Disableds	1,905,660
Total	<u>3,093,099</u>

Assets	\$2,105,480
--------	-------------

Unfunded Actuarial Accrued Liability	\$987,619
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$179,549
FY24 Contribution - July payment	\$176,210
FY25 Contribution - semiannual payments	\$194,858
FY25 Contribution - July payment	\$191,234



**Norwell**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	224
Inactives	81
Retirees and Disableds	169
Total	<u>474</u>

Payroll	11,984,822
Average	53,504

## Valuation Results

## Normal Cost

Employee	1,070,566
Employer	176,176
Administrative Expense	75,326
Total	<u>1,322,068</u>

## Actuarial Accrued Liability

Actives	28,425,886
Inactives	445,458
Retirees and Disableds	39,533,049
Total	<u>68,404,393</u>

Assets	\$46,563,043
--------	--------------

Unfunded Actuarial Accrued Liability	\$21,841,350
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$3,850,266
FY24 Contribution - July payment	\$3,778,666
FY25 Contribution - semiannual payments	\$4,191,741
FY25 Contribution - July payment	\$4,113,791



**Norwell Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	3
Inactives	2
Retirees and Disableds	1
Total	<u>6</u>

Payroll	183,526
Average	61,175

## Valuation Results

## Normal Cost

Employee	15,431
Employer	1,939
Administrative Expense	984
Total	<u>18,354</u>

## Actuarial Accrued Liability

Actives	754,843
Inactives	11,895
Retirees and Disableds	126,552
Total	<u>893,290</u>

Assets	\$608,065
--------	-----------

Unfunded Actuarial Accrued Liability	\$285,225
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$49,905
FY24 Contribution - July payment	\$48,977
FY25 Contribution - semiannual payments	\$54,373
FY25 Contribution - July payment	\$53,362

**Old Rochester Regional School**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	68
Inactives	17
Retirees and Disableds	57
Total	142

Payroll	2,966,805
Average	43,629

## Valuation Results

## Normal Cost

Employee	260,597
Employer	35,171
Administrative Expense	19,703
Total	315,471

## Actuarial Accrued Liability

Actives	7,639,112
Inactives	201,658
Retirees and Disableds	10,051,460
Total	17,892,230

Assets	\$12,179,286
--------	--------------

Unfunded Actuarial Accrued Liability	\$5,712,944
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$995,761
FY24 Contribution - July payment	\$977,244
FY25 Contribution - semiannual payments	\$1,085,354
FY25 Contribution - July payment	\$1,065,170



**Onset Fire District**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	12
Inactives	3
Retirees and Disableds	17
Total	<u>32</u>

Payroll	805,441
Average	67,120

## Valuation Results

## Normal Cost

Employee	74,482
Employer	8,058
Administrative Expense	7,650
Total	<u>90,190</u>

## Actuarial Accrued Liability

Actives	2,053,006
Inactives	22,819
Retirees and Disableds	4,871,068
Total	<u>6,946,893</u>

Assets	\$4,728,768
--------	-------------

Unfunded Actuarial Accrued Liability	\$2,218,125
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$380,801
FY24 Contribution - July payment	\$373,720
FY25 Contribution - semiannual payments	\$415,728
FY25 Contribution - July payment	\$407,997



**Pembroke**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	236
Inactives	44
Retirees and Disableds	160
Total	440

Payroll	13,847,318
Average	58,675

## Valuation Results

## Normal Cost

Employee	1,262,699
Employer	119,606
Administrative Expense	94,457
Total	1,476,762

## Actuarial Accrued Liability

Actives	35,898,676
Inactives	506,555
Retirees and Disableds	49,372,971
Total	85,778,202

Assets	\$58,389,439
--------	--------------

Unfunded Actuarial Accrued Liability	\$27,388,763
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$4,894,409
FY24 Contribution - July payment	\$4,803,392
FY25 Contribution - semiannual payments	\$5,340,952
FY25 Contribution - July payment	\$5,241,631



**Plymouth County Mosquito Control**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	12
Inactives	1
Retirees and Disableds	8
Total	<u>21</u>

Payroll	806,057
Average	67,171

## Valuation Results

## Normal Cost

Employee	74,975
Employer	(9,844)
Administrative Expense	4,863
Total	<u>69,994</u>

## Actuarial Accrued Liability

Actives	1,392,031
Inactives	26,412
Retirees and Disableds	2,997,479
Total	<u>4,415,922</u>

Assets	\$3,005,929
--------	-------------

Unfunded Actuarial Accrued Liability	\$1,409,993
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$226,514
FY24 Contribution - July payment	\$222,302
FY25 Contribution - semiannual payments	\$249,092
FY25 Contribution - July payment	\$244,460



**Plympton**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	48
Inactives	10
Retirees and Disableds	34
Total	<u>92</u>

Payroll	2,433,350
Average	50,695

## Valuation Results

## Normal Cost

Employee	219,313
Employer	74,806
Administrative Expense	13,536
Total	<u>307,655</u>

## Actuarial Accrued Liability

Actives	3,507,494
Inactives	215,818
Retirees and Disableds	8,568,914
Total	<u>12,292,226</u>

Assets	\$8,367,349
--------	-------------

Unfunded Actuarial Accrued Liability	\$3,924,877
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$736,720
FY24 Contribution - July payment	\$723,020
FY25 Contribution - semiannual payments	\$796,996
FY25 Contribution - July payment	\$782,175



**Rochester**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	58
Inactives	11
Retirees and Disableds	47
Total	<u>116</u>

Payroll	3,119,925
Average	53,792

## Valuation Results

## Normal Cost

Employee	277,190
Employer	62,619
Administrative Expense	22,721
Total	<u>362,530</u>

## Actuarial Accrued Liability

Actives	8,983,049
Inactives	342,406
Retirees and Disableds	11,307,869
Total	<u>20,633,324</u>

Assets	\$14,045,156
--------	--------------

Unfunded Actuarial Accrued Liability	\$6,588,168
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$1,171,232
FY24 Contribution - July payment	\$1,149,452
FY25 Contribution - semiannual payments	\$1,273,994
FY25 Contribution - July payment	\$1,250,303



**Rockland**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	338
Inactives	145
Retirees and Disableds	239
Total	<u>722</u>

Payroll	17,324,738
Average	51,257

## Valuation Results

## Normal Cost

Employee	1,543,562
Employer	188,202
Administrative Expense	113,667
Total	<u>1,845,431</u>

## Actuarial Accrued Liability

Actives	41,521,116
Inactives	741,368
Retirees and Disableds	60,960,034
Total	<u>103,222,518</u>

Assets	\$70,263,829
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Unfunded Actuarial Accrued Liability	\$32,958,689
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$5,729,391
FY24 Contribution - July payment	\$5,622,847
FY25 Contribution - semiannual payments	\$6,246,635
FY25 Contribution - July payment	\$6,130,471



**Scituate**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	383
Inactives	114
Retirees and Disableds	307
Total	<u>804</u>

Payroll	20,676,989
Average	53,987

## Valuation Results

## Normal Cost

Employee	1,840,629
Employer	431,039
Administrative Expense	133,989
Total	<u>2,405,657</u>

## Actuarial Accrued Liability

Actives	44,653,948
Inactives	1,410,976
Retirees and Disableds	75,612,797
Total	<u>121,677,721</u>

Assets	\$82,826,332
--------	--------------

Unfunded Actuarial Accrued Liability	\$38,851,389
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$6,971,098
FY24 Contribution - July payment	\$6,841,463
FY25 Contribution - semiannual payments	\$7,575,549
FY25 Contribution - July payment	\$7,434,673



**Scituate Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	4
Inactives	0
Retirees and Disableds	9
Total	<u>13</u>

Payroll	252,732
Average	63,183

## Valuation Results

## Normal Cost

Employee	22,633
Employer	15,908
Administrative Expense	2,053
Total	<u>40,594</u>

## Actuarial Accrued Liability

Actives	337,219
Inactives	0
Retirees and Disableds	1,527,074
Total	<u>1,864,293</u>

Assets	\$1,269,029
--------	-------------

Unfunded Actuarial Accrued Liability	\$595,264
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$116,475
FY24 Contribution - July payment	\$114,309
FY25 Contribution - semiannual payments	\$125,501
FY25 Contribution - July payment	\$123,168



**Silver Lake Regional School**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	108
Inactives	31
Retirees and Disableds	77
Total	<u>216</u>

Payroll	3,917,994
Average	36,278

## Valuation Results

## Normal Cost

Employee	339,786
Employer	61,351
Administrative Expense	23,466
Total	<u>424,603</u>

## Actuarial Accrued Liability

Actives	7,433,729
Inactives	266,490
Retirees and Disableds	13,609,847
Total	<u>21,310,066</u>

Assets	\$14,505,816
--------	--------------

Unfunded Actuarial Accrued Liability	\$6,804,250
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$1,034,701
FY24 Contribution - July payment	\$1,015,460
FY25 Contribution - semiannual payments	\$1,125,133
FY25 Contribution - July payment	\$1,104,210



**South Shore Mosquito Control**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

## Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Assets	\$0
--------	-----

Unfunded Actuarial Accrued Liability	\$0
--------------------------------------	-----

FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0



**South Shore Regional School**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	43
Inactives	18
Retirees and Disableds	28
Total	<u>89</u>

Payroll	1,916,553
Average	44,571

## Valuation Results

## Normal Cost

Employee	167,941
Employer	41,651
Administrative Expense	9,647
Total	<u>219,239</u>

## Actuarial Accrued Liability

Actives	3,394,944
Inactives	361,497
Retirees and Disableds	5,004,520
Total	<u>8,760,961</u>

Assets	\$5,963,608
--------	-------------

Unfunded Actuarial Accrued Liability	\$2,797,353
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$512,958
FY24 Contribution - July payment	\$503,419
FY25 Contribution - semiannual payments	\$556,212
FY25 Contribution - July payment	\$545,869



**Wareham**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	356
Inactives	85
Retirees and Disableds	270
Total	<u>711</u>

Payroll	17,782,841
Average	49,952

## Valuation Results

## Normal Cost

Employee	1,568,206
Employer	213,022
Administrative Expense	113,816
Total	<u>1,895,044</u>

## Actuarial Accrued Liability

Actives	38,596,709
Inactives	1,262,182
Retirees and Disableds	63,499,704
Total	<u>103,358,595</u>

Assets	\$70,626,773
--------	--------------

Unfunded Actuarial Accrued Liability	\$32,731,822
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$5,718,114
FY24 Contribution - July payment	\$5,611,779
FY25 Contribution - semiannual payments	\$6,231,259
FY25 Contribution - July payment	\$6,115,381



**Wareham Fire District**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	51
Inactives	1
Retirees and Disableds	32
Total	<u>84</u>

Payroll	3,601,801
Average	70,624

## Valuation Results

## Normal Cost

Employee	331,280
Employer	25,639
Administrative Expense	25,979
Total	<u>382,898</u>

## Actuarial Accrued Liability

Actives	10,576,160
Inactives	11,173
Retirees and Disableds	13,004,700
Total	<u>23,592,033</u>

Assets	\$16,059,156
--------	--------------

Unfunded Actuarial Accrued Liability	\$7,532,877
--------------------------------------	-------------

FY24 Contribution - semiannual payments	\$1,291,428
FY24 Contribution - July payment	\$1,267,412
FY25 Contribution - semiannual payments	\$1,410,085
FY25 Contribution - July payment	\$1,383,863



**Wareham Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	1
Inactives	0
Retirees and Disableds	3
Total	<u>4</u>

Payroll	82,977
Average	82,977

## Valuation Results

## Normal Cost

Employee	7,772
Employer	734
Administrative Expense	1,283
Total	<u>9,789</u>

## Actuarial Accrued Liability

Actives	227,822
Inactives	0
Retirees and Disableds	937,257
Total	<u>1,165,079</u>

Assets	\$793,072
--------	-----------

Unfunded Actuarial Accrued Liability	\$372,007
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$63,224
FY24 Contribution - July payment	\$62,048
FY25 Contribution - semiannual payments	\$69,097
FY25 Contribution - July payment	\$67,812

**West Bridgewater**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	162
Inactives	25
Retirees and Disableds	121
Total	<u>308</u>

Payroll	9,578,626
Average	59,127

## Valuation Results

## Normal Cost

Employee	872,331
Employer	102,172
Administrative Expense	61,776
Total	<u>1,036,279</u>

## Actuarial Accrued Liability

Actives	22,579,972
Inactives	271,512
Retirees and Disableds	33,248,625
Total	<u>56,100,109</u>

Assets	\$38,187,486
--------	--------------

Unfunded Actuarial Accrued Liability	\$17,912,623
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$3,113,733
FY24 Contribution - July payment	\$3,055,830
FY25 Contribution - semiannual payments	\$3,394,850
FY25 Contribution - July payment	\$3,331,719



**Whitman**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	116
Inactives	15
Retirees and Disableds	99
Total	<u>230</u>

Payroll	7,856,112
Average	67,725

## Valuation Results

## Normal Cost

Employee	723,759
Employer	53,251
Administrative Expense	60,342
Total	<u>837,352</u>

## Actuarial Accrued Liability

Actives	24,420,969
Inactives	124,332
Retirees and Disableds	30,252,295
Total	<u>54,797,596</u>

Assets	\$37,300,862
--------	--------------

Unfunded Actuarial Accrued Liability	\$17,496,734
--------------------------------------	--------------

FY24 Contribution - semiannual payments	\$2,993,075
FY24 Contribution - July payment	\$2,937,415
FY25 Contribution - semiannual payments	\$3,268,839
FY25 Contribution - July payment	\$3,208,051

**Whitman/Hanson Regional School**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	155
Inactives	137
Retirees and Disableds	129
Total	<u>421</u>

Payroll	5,334,495
Average	34,416

## Valuation Results

## Normal Cost

Employee	459,655
Employer	73,819
Administrative Expense	32,184
Total	<u>565,658</u>

## Actuarial Accrued Liability

Actives	9,374,884
Inactives	1,164,309
Retirees and Disableds	18,687,846
Total	<u>29,227,039</u>

Assets	\$19,894,919
--------	--------------

Unfunded Actuarial Accrued Liability	\$9,332,120
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FY24 Contribution - semiannual payments	\$1,643,585
FY24 Contribution - July payment	\$1,613,021
FY25 Contribution - semiannual payments	\$1,789,523
FY25 Contribution - July payment	\$1,756,245



**Whitman Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	6
Inactives	2
Retirees and Disableds	5
Total	<u>13</u>

Payroll	395,262
Average	65,877

## Valuation Results

## Normal Cost

Employee	33,984
Employer	(7,900)
Administrative Expense	2,490
Total	<u>28,574</u>

## Actuarial Accrued Liability

Actives	1,297,135
Inactives	82,539
Retirees and Disableds	881,189
Total	<u>2,260,863</u>

Assets	\$1,538,975
--------	-------------

Unfunded Actuarial Accrued Liability	\$721,888
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$112,999
FY24 Contribution - July payment	\$110,898
FY25 Contribution - semiannual payments	\$124,631
FY25 Contribution - July payment	\$122,313

**Abington Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	2
Inactives	0
Retirees and Disableds	3
Total	<u>5</u>

Payroll	111,994
Average	55,997

## Valuation Results

## Normal Cost

Employee	10,304
Employer	(310)
Administrative Expense	985
Total	<u>10,979</u>

## Actuarial Accrued Liability

Actives	180,891
Inactives	0
Retirees and Disableds	713,624
Total	<u>894,515</u>

Assets	\$608,899
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Unfunded Actuarial Accrued Liability	\$285,616
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$47,634
FY24 Contribution - July payment	\$46,748
FY25 Contribution - semiannual payments	\$52,165
FY25 Contribution - July payment	\$51,195

**Pembroke Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	7
Inactives	1
Retirees and Disableds	7
Total	<u>15</u>

Payroll	478,015
Average	68,288

## Valuation Results

## Normal Cost

Employee	44,420
Employer	(3,265)
Administrative Expense	2,577
Total	<u>43,732</u>

## Actuarial Accrued Liability

Actives	767,935
Inactives	17,327
Retirees and Disableds	1,554,652
Total	<u>2,339,914</u>

Assets	\$1,592,785
--------	-------------

Unfunded Actuarial Accrued Liability	\$747,129
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$122,052
FY24 Contribution - July payment	\$119,782
FY25 Contribution - semiannual payments	\$133,967
FY25 Contribution - July payment	\$131,476

**Hanson Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	1
Inactives	1
Retirees and Disableds	4
Total	<u>6</u>

Payroll	65,548
Average	65,548

## Valuation Results

## Normal Cost

Employee	6,099
Employer	3,939
Administrative Expense	676
Total	<u>10,714</u>

## Actuarial Accrued Liability

Actives	72,828
Inactives	5,163
Retirees and Disableds	536,182
Total	<u>614,173</u>

Assets	\$418,069
--------	-----------

Unfunded Actuarial Accrued Liability	\$196,104
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$37,019
FY24 Contribution - July payment	\$36,331
FY25 Contribution - semiannual payments	\$40,026
FY25 Contribution - July payment	\$39,281

**Rockland Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	2
Inactives	0
Retirees and Disableds	4
Total	<u>6</u>

Payroll	150,628
Average	75,314

## Valuation Results

## Normal Cost

Employee	12,452
Employer	939
Administrative Expense	1,044
Total	<u>14,435</u>

## Actuarial Accrued Liability

Actives	464,514
Inactives	0
Retirees and Disableds	483,669
Total	<u>948,183</u>

Assets	\$645,431
--------	-----------

Unfunded Actuarial Accrued Liability	\$302,752
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$51,809
FY24 Contribution - July payment	\$50,846
FY25 Contribution - semiannual payments	\$56,580
FY25 Contribution - July payment	\$55,528

**Halifax Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	0
Retirees and Disableds	2
Total	<u>2</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	(16)
Total	<u>(16)</u>

## Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	519,848
Total	<u>519,848</u>

Assets	(\$10,007)
--------	------------

Unfunded Actuarial Accrued Liability	(\$4,694)
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0

**Mattapoisett Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	1
Inactives	0
Retirees and Disableds	2
Total	<u>3</u>

Payroll	58,344
Average	58,344

## Valuation Results

## Normal Cost

Employee	3,342
Employer	(2,356)
Administrative Expense	765
Total	<u>1,751</u>

## Actuarial Accrued Liability

Actives	113,525
Inactives	0
Retirees and Disableds	581,441
Total	<u>694,966</u>

Assets	\$473,065
--------	-----------

Unfunded Actuarial Accrued Liability	\$221,901
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$34,810
FY24 Contribution - July payment	\$34,163
FY25 Contribution - semiannual payments	\$38,384
FY25 Contribution - July payment	\$37,670

**Hanover Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

## Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Assets	\$0
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Unfunded Actuarial Accrued Liability	\$0
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FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0



**Acushnet/Rochester/Marion Health District**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	0
Retirees and Disableds	1
Total	<u>1</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	711
Total	<u>711</u>

## Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	646,077
Total	<u>646,077</u>

Assets \$439,786

Unfunded Actuarial Accrued Liability \$206,291

FY24 Contribution - semiannual payments	\$34,637
FY24 Contribution - July payment	\$33,993
FY25 Contribution - semiannual payments	\$37,904
FY25 Contribution - July payment	\$37,199



**West Bridgewater Housing**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	1
Inactives	0
Retirees and Disableds	1
Total	<u>2</u>

Payroll	61,437
Average	61,437

## Valuation Results

## Normal Cost

Employee	5,725
Employer	1,912
Administrative Expense	408
Total	<u>8,045</u>

## Actuarial Accrued Liability

Actives	89,438
Inactives	0
Retirees and Disableds	281,423
Total	<u>370,861</u>

Assets	\$252,446
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Unfunded Actuarial Accrued Liability	\$118,415
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$21,869
FY24 Contribution - July payment	\$21,462
FY25 Contribution - semiannual payments	\$23,696
FY25 Contribution - July payment	\$23,255



**South Shore Tri Town Development**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	1
Inactives	2
Retirees and Disableds	4
Total	<u>7</u>

Payroll	110,937
Average	110,937

## Valuation Results

## Normal Cost

Employee	10,925
Employer	(424)
Administrative Expense	3,131
Total	<u>13,632</u>

## Actuarial Accrued Liability

Actives	247,017
Inactives	350,431
Retirees and Disableds	2,245,737
Total	<u>2,843,185</u>

Assets	\$1,935,363
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Unfunded Actuarial Accrued Liability	\$907,822
--------------------------------------	-----------

FY24 Contribution - semiannual payments	\$151,985
FY24 Contribution - July payment	\$149,159
FY25 Contribution - semiannual payments	\$166,373
FY25 Contribution - July payment	\$163,280



## Carver Housing

Actuarial Valuation as of January 1, 2022

### Participant Information

#### Participants

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Payroll	0
Average	0

### Valuation Results

#### Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

#### Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Assets	\$0
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Unfunded Actuarial Accrued Liability	\$0
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FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0



**No Carver Water District**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

## Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Assets	\$0
--------	-----

Unfunded Actuarial Accrued Liability	\$0
--------------------------------------	-----

FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0



**No Carver Water District**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Payroll	0
Average	0

## Valuation Results

## Normal Cost

Employee	0
Employer	0
Administrative Expense	0
Total	<u>0</u>

## Actuarial Accrued Liability

Actives	0
Inactives	0
Retirees and Disableds	0
Total	<u>0</u>

Assets	\$0
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Unfunded Actuarial Accrued Liability	\$0
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FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0



**Other (Retirement Staff)**

Actuarial Valuation as of January 1, 2022

## Participant Information

## Participants

Actives	10
Inactives	0
Retirees and Disableds	6
Total	<u>16</u>

Payroll	857,515
Average	85,752

## Valuation Results

## Normal Cost

Employee	75,400
Employer	(6,713)
Administrative Expense	5,711
Total	<u>74,398</u>

## Actuarial Accrued Liability

Actives	2,184,598
Inactives	0
Retirees and Disableds	3,001,350
Total	<u>5,185,948</u>

Assets	\$3,530,088
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Unfunded Actuarial Accrued Liability	\$1,655,860
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FY24 Contribution - semiannual payments	\$0
FY24 Contribution - July payment	\$0
FY25 Contribution - semiannual payments	\$0
FY25 Contribution - July payment	\$0

