

**NORFOLK COUNTY  
CONTRIBUTORY RETIREMENT SYSTEM**

Actuarial Valuation Report

January 1, 2018

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## Report Summary:

<u>Highlights</u>	<u>January 1, 2016</u>	<u>January 1, 2018</u>
<u>Contributions</u>		
Funding Schedule FY 2019	\$71,227,433	\$71,227,433
Funding Schedule FY 2020	73,862,848	76,217,089
<u>Funded Ratio</u>		
GAS No. 25	62.1%	62.4%
<u>Participants</u>		
Actives	5,278	5,406
Retirees and Beneficiaries	2,833	2,975
Inactives	2,425	2,793
Disabled	<u>351</u>	<u>354</u>
Total	10,887	11,528
<u>Payroll</u>		
Payroll of Active Members	\$267,454,300	\$289,125,863
Average Payroll	50,673	53,482
<u>Normal Cost</u>		
Employer	9,859,467	7,553,575
Employee	23,542,460	25,567,216
Administrative Expenses	<u>1,700,000</u>	<u>1,775,000</u>
Total	35,101,927	34,895,791
<u>Actuarial Accrued Liabilities</u>		
Actives	583,420,685	687,570,269
Retirees, Beneficiaries, Disabilities and Inactives	<u>727,140,753</u>	<u>828,512,918</u>
Total	1,310,561,438	1,516,083,187
<u>Actuarial Value of Assets</u>	<u>814,225,634</u>	<u>945,554,676</u>
<u>Unfunded Actuarial Accrued Liabilities</u>	\$496,335,804	\$570,528,511

## **Introduction**

This report presents the findings of an actuarial valuation as of January 1, 2018, of Norfolk County Contributory Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L.", as of January 1, 2018.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Norfolk 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, 2018.

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, based on the 2016 actuarial assumptions and plan provisions, the total unfunded actuarial accrued liability increased by 5.2% to \$522,115,402. The increase is slightly more than expected as a result of net unfavorable actuarial experience during the preceding years. The sources of actuarial (gains) and losses are as follows:

Assets	3,382,321
Retirements	(6,860,825)
Terminations	11,459,965
Death while active	(1,029,857)
Disabled while active	(2,373,154)
Salary	(252,676)
New Participants	4,431,063
Inactive Mortality and data	3,323,112
Benefit Payments	(9,678,162)
Other	<u>590,748</u>
Total (Gain) / Loss	2,992,535

The System modified its COLA Base by increasing it to \$17,000. These changes increased the unfunded actuarial accrued liability by \$12,205,895, and the employer Normal Cost by \$241,856. In addition, the investment rate of return was lowered to 7.75. These changes increased the unfunded actuarial accrued liability by \$36,207,214, and the employer Normal Cost by \$1,306,184.

## 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, 2016</u>	<u>January 1, 2018</u>
Superannuation	\$21,040,954	\$20,453,132
Termination	5,941,503	6,946,840
Death	2,509,552	2,085,512
Disability	3,909,918	3,635,307
Administrative Expenses	<u>1,700,000</u>	<u>1,775,000</u>
Total Normal Cost	35,101,927	34,895,791
% of Pay	13.1%	12.1%
Employee Contributions	23,542,460	25,567,216
% of Pay	8.8%	8.8%
Employer Normal Cost	\$11,559,467	\$9,328,575
% of Pay	4.3%	3.2%

**Present Value of Actuarial Accrued Liabilities**

The actuarial accrued liabilities (AAL) represents today's value of all benefits based on the past service of 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.

**Table II**

	<u>January 1, 2016</u>	<u>January 1, 2018</u>
Actives		
Superannuations	\$561,594,977	\$630,287,961
Termination	(14,761,414)	11,204,204
Death	15,021,818	20,509,989
Disability	21,565,304	25,568,115
Retirees and Inactives		
Retirees and Beneficiaries	587,654,656	678,927,930
Terminated (Refund)	18,111,561	22,123,732
Disabled	<u>121,374,536</u>	<u>127,461,256</u>
Total	\$1,310,561,438	\$1,516,083,187

**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, 2016</u>	<u>January 1, 2018</u>
Actives		
Superannuation	\$721,517,177	\$767,967,269
Termination	29,860,679	46,777,846
Death	32,439,418	32,867,638
Disability	56,292,081	52,318,263
Retirees and Inactives		
Retirees and Beneficiaries	587,654,656	678,927,930
Terminated (Refund)	18,111,561	22,123,732
Disabled	<u>121,374,536</u>	<u>127,461,256</u>
Total	\$1,567,250,108	\$1,728,443,934



## 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, 2016</u>	<u>January 1, 2018</u>
Cash equivalents	\$13,354,698	\$24,670,103
Short term investments	0	0
Fixed income securities	123,080,990	130,273,090
Equities	351,520,569	393,126,847
International	82,255,464	173,693,506
Real Estate	77,301,133	88,406,467
Venture Capital	0	0
Other	114,888,724	147,937,614
Accounts receivable	4,943,738	5,969,130
Accounts payable	(924,180)	(1,665,694)
Accrued income	<u>927,587</u>	<u>667,775</u>
Total Market Value	\$767,348,723	\$963,078,838
Total Actuarial Value	\$814,225,634	\$945,554,676

**Actuarial Value of Assets**

The actuarial value of assets is determined by projecting the actuarial value of assets as of the beginning of the prior plan year with the assumed rate of return during that year (8%) 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, 2018 is presented in Table V.

**Table V**

	<u>January 1, 2018</u>
(1) Market value at January 1, 2017	\$836,027,536
(2) 2017 Contributions	\$96,424,985
(3) 2017 Benefit Payments	(\$96,418,962)
(4) Net interest adjustment at 8% on (1), (2), and (3) to December 31, 2017	\$66,882,444
(5) Expected market value on January 1, 2018	\$902,916,003
(1) + (2) + (3) + (4)	
(6) Actual market value on January 1, 2018	\$963,078,838
(7) 2017 (Gain) / Loss	(\$60,162,835)
(8) 80% of 2017 (Gain) / Loss	(\$48,130,268)
(9) 2016 (Gain) / Loss	(\$8,015,564)
(10) 60% of 2016 (Gain) / Loss	(\$4,809,339)
(11) 2015 (Gain) / Loss	\$75,183,574
(12) 40% of 2015 (Gain) / Loss	\$30,073,430
(13) 2014 (Gain) / Loss	\$26,710,081
(14) 20% of 2014 (Gain) / Loss	\$5,342,016
(15) Actuarial value on January 1, 2018, (6) + (8) + (10) + (12) + (14)	\$945,554,676
(16) but not less than 80% nor greater than 120% of (6)	\$945,554,676
(17) Ratio of actuarial value to market value	98.18%
(18) 2017 Market Value Return on Assets	15.20%
(19) 2017 Actuarial Value Return on Assets	8.24%
(20) 2016 Market Value Return on Assets	9.05%
(21) 2016 Actuarial Value Return on Assets	7.38%

**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, 2016</u>	<u>January 1, 2018</u>
Actuarial Accrued Liability	\$1,310,561,438	\$1,516,083,187
Actuarial Assets	<u>814,225,634</u>	<u>945,554,676</u>
Unfunded Actuarial Accrued Liability	\$496,335,804	\$570,528,511
Funded Status	62.1%	62.4%

**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, 2040, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the prior unfunded actuarial accrued liability by June 30, 2029  
\$ 544,495,494 over 11 years with 4.0% increasing payments
- Increasing amortization of the 2002 Early Retirement Incentive by June 30, 2028  
\$ 7,720,285 over 10 years with 4.5% increasing payments
- Increasing amortization of the 2003 Early Retirement Incentive by June 30, 2028  
\$ 4,888,153 over 10 years with 4.5% increasing payments
- Increasing amortization of the Sheriff's Liability by June 30, 2031  
\$ 13,424,578 over 13 years with 4.0% increasing payments
- Interest adjustment for payments deposited semiannually.

The Board opted to use funding relief granted under Chapter 32 of the Massachusetts General Laws. The pension appropriation is shown in Table VII.

**Table VII**

	<u>January 1, 2016</u>	<u>January 1, 2018</u>
Employer Normal cost	\$11,559,467	\$9,328,575
Amortization payment of the unfunded liability	45,989,055	59,987,951
Amortization payment of 2002 ERI liability	816,285	882,691
Amortization payment of 2003 ERI liability	<u>516,837</u>	<u>558,882</u>
Total cost	\$58,881,644	\$70,758,099
% of Pay	22.0%	24.5%
Fiscal 2019 cost	\$71,227,433	\$71,227,433
Fiscal 2020 cost	\$73,862,848	\$76,217,089

### **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 4.0% per year. The employee contribution rate is expected to increase to 10.5% by 2040 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 at the beginning of the year.

The employer total cost is expected to increase during the next 9 years until the unfunded liabilities are substantially paid off, at which time only the normal cost will remain. The total cost represents 25% of payroll, decreasing to 20.7% by the time the unfunded liabilities are fully paid off, leaving only a normal cost of about 2.9% thereafter. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

**Appropriation Forecast**

Fiscal Year Ending	Employer Employee Contribution	Employer Normal Cost with Interest	Amortization Payments with Interest	Employer Total Cost with Interest	Employer Total Cost % of Payroll	Funded Ratio %**	Unfunded Accrued Laibility
2019	\$25,567,216	\$9,863,991	\$61,363,442	\$71,227,433	24.6	62.4	\$570,528,511
2020	\$26,956,150	\$10,055,777	\$66,161,312	\$76,217,089	25.2	64.4	\$548,554,158
2021	\$28,418,314	\$10,244,850	\$71,307,435	\$81,552,285	25.8	67.2	\$522,221,414
2022	\$29,957,487	\$10,430,577	\$74,406,707	\$84,837,284	25.7	70.0	\$491,085,939
2023	\$31,577,639	\$10,612,273	\$77,618,502	\$88,230,775	25.6	73.1	\$454,664,678
2024	\$33,282,940	\$10,789,200	\$80,970,806	\$91,760,006	25.5	76.3	\$412,432,690
2025	\$35,077,774	\$10,960,561	\$84,469,845	\$95,430,406	25.3	79.7	\$363,819,721
2026	\$36,966,745	\$11,125,495	\$88,122,128	\$99,247,623	25.2	83.3	\$308,206,508
2027	\$38,954,690	\$11,283,079	\$91,960,753	\$103,243,832	25.1	87.1	\$244,920,788
2028	\$41,046,693	\$11,432,316	\$95,941,269	\$107,373,585	25.0	91.2	\$173,232,986
2029	\$43,248,093	\$11,572,137	\$81,513,594	\$93,085,731	20.7	95.4	\$92,351,568
2030	\$45,564,500	\$11,701,390	\$2,060,901	\$13,762,291	2.9	99.8	\$3,830,240
2031	\$48,001,805	\$11,818,843	\$2,143,337	\$13,962,180	2.8	99.9	\$2,026,997
2032	\$50,566,200	\$11,923,172	\$0	\$11,923,172	2.3	100.0	(\$0)
2033	\$53,264,187	\$12,012,957	\$0	\$12,012,957	2.2	100.0	(\$0)
2034	\$56,102,597	\$12,086,678	\$0	\$12,086,678	2.2	100.0	(\$0)
2035	\$59,088,603	\$12,142,707	\$0	\$12,142,707	2.1	100.0	(\$0)
2036	\$62,229,742	\$12,179,304	\$0	\$12,179,304	2.0	100.0	(\$0)
2037	\$65,533,929	\$12,194,606	\$0	\$12,194,606	1.9	100.0	(\$0)
2038	\$69,009,477	\$12,186,621	\$0	\$12,186,621	1.8	100.0	(\$0)
2039	\$72,665,119	\$12,153,224	\$0	\$12,153,224	1.7	100.0	(\$0)
2040	\$76,510,024	\$12,092,144	\$0	\$12,092,144	1.7	100.0	(\$0)
2041	\$79,952,976	\$12,636,290	\$0	\$12,636,290	1.7	100.0	(\$0)
2042	\$83,550,859	\$13,204,923	\$0	\$13,204,923	1.7	100.0	(\$0)
2043	\$87,310,648	\$13,799,145	\$0	\$13,799,145	1.7	100.0	(\$0)
2044	\$91,239,627	\$14,420,106	\$0	\$14,420,106	1.7	100.0	(\$0)
2045	\$95,345,410	\$15,069,011	\$0	\$15,069,011	1.7	100.0	(\$0)
2046	\$99,635,954	\$15,747,117	\$0	\$15,747,117	1.7	100.0	(\$0)
2047	\$104,119,572	\$16,455,737	\$0	\$16,455,737	1.7	100.0	(\$0)
2048	\$108,804,953	\$17,196,245	\$0	\$17,196,245	1.7	100.0	(\$0)
2049	\$113,701,175	\$17,970,076	\$0	\$17,970,076	1.7	100.0	(\$0)
2050	\$118,817,728	\$18,778,729	\$0	\$18,778,729	1.7	100.0	(\$0)

\*\* Beginning of Fiscal Year

**EXHIBITS**

[https://shermanactuary-my.sharepoint.com/personal/dan\\_shermanactuary\\_com/Documents/Recovered Data/Norfolk/Val18/Report/\[ACT1.xlsx\]Actives](https://shermanactuary-my.sharepoint.com/personal/dan_shermanactuary_com/Documents/Recovered%20Data/Norfolk/Val18/Report/[ACT1.xlsx]Actives)

## Exhibit 1 - Age/Service Distribution with Salary as of January 1, 2018

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	1	0	0	0	0	0	0	0	0	0	1
	41,969	0	0	0	0	0	0	0	0	0	41,969
20-24	170	2	0	0	0	0	0	0	0	0	172
	32,515	31,239	0	0	0	0	0	0	0	0	32,500
25-29	339	54	0	1	0	0	0	0	0	0	394
	39,639	55,965	0	37,337	0	0	0	0	0	0	41,871
30-34	273	133	37	1	0	0	0	0	0	0	444
	45,730	60,366	64,133	69,699	0	0	0	0	0	0	51,702
35-39	182	96	114	27	0	0	0	0	0	0	419
	41,260	58,568	73,411	77,141	0	0	0	0	0	0	56,285
40-44	182	73	75	89	21	1	0	0	0	0	441
	36,728	57,717	65,782	77,752	75,461	74,304	0	0	0	0	55,352
45-49	217	120	106	112	118	33	0	0	0	0	706
	34,615	44,897	56,505	71,669	88,081	76,369	0	0	0	0	56,415
50-54	254	173	141	135	113	72	39	5	0	0	932
	35,653	39,597	45,328	57,243	76,407	85,466	90,136	61,524	0	0	52,184
55-59	159	122	170	198	106	54	61	16	2	0	888
	34,648	43,538	42,923	50,670	61,578	82,262	91,912	89,927	68,992	0	52,143
60-64	81	53	130	158	88	53	45	16	11	0	635
	39,093	42,002	40,729	46,008	52,964	66,414	79,680	87,617	91,497	0	50,601
65-69	29	29	42	68	43	30	18	5	5	0	269
	30,661	48,015	38,090	45,370	50,291	53,167	74,417	88,366	93,119	0	48,219
70+	9	9	15	18	12	15	15	7	6	0	106
	37,562	48,466	47,510	41,786	25,780	44,649	54,204	58,197	77,376	0	46,253
Total Employees	1,896	864	830	807	501	258	178	49	24	0	5,407
Average Salary	38,057	49,252	51,759	57,006	68,408	73,546	83,484	81,582	86,430	0	51,387



## Exhibit 2 - Retiree Distribution as of January 1, 2018

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	1	1	2	2654.76	23,587	26,242
35-39	1	1	2	5,227	6,556	11,784
40-44	0	0	0	0	0	0
45-49	3	5	8	35,140	99,829	134,968
50-54	9	17	26	87,392	417,543	504,935
55-59	50	79	129	620,259	3,038,384	3,658,643
60-64	171	180	351	2,703,911	7,559,007	10,262,918
65-69	323	287	610	6,238,840	11,430,249	17,669,089
70-74	321	280	601	6,793,683	10,208,314	17,001,996
75-79	261	205	466	5,066,237	6,509,260	11,575,498
80-84	221	130	351	3,939,353	3,624,365	7,563,718
85-89	149	87	236	2,261,790	2,025,988	4,287,778
90-94	98	45	143	1,148,756	929,078	2,077,834
95+	34	16	50	360,625	237,709	598,334
Total	1642	1333	2975	29,263,868	46,109,869	75,373,737
Average (Age/Payment)	75.01	72.49	73.88	17,822	34,591	25,336
Frequency Percent	55.2	44.8	100	38.8	61.2	100

## Exhibit 3 - Disabled Retiree Distribution as of January 1, 2018

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	1	0	1	5,663	0	5,663
30-34	0	0	0	0	0	0
35-39	0	1	1	0	33,471	33,471
40-44	2	1	3	65,081	34,233	99,313
45-49	2	18	20	85,422	707,099	792,521
50-54	6	29	35	262,554	1,192,725	1,455,279
55-59	12	31	43	279,241	1,275,757	1,554,998
60-64	11	39	50	248,267	1,701,521	1,949,788
65-69	9	54	63	220,952	2,166,481	2,387,434
70-74	9	47	56	198,555	1,638,244	1,836,799
75-79	7	45	52	197,851	1,421,258	1,619,109
80-84	4	12	16	96,274	389,937	486,211
85-89	4	9	13	55,598	204,025	259,623
90-94	1	0	1	16,963	0	16,963
95-99	0	0	0	0	0	0
Total	68	286	354	1,732,420	10,764,751	12,497,171
Average (Age/Payment)	65.94	66.29	66.22	25,477	37,639	35,303
Frequency Percent	19.2	80.8	100	13.9	86.1	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
2018	\$122,503,711	\$25,567,216	\$71,227,433	\$73,705,357	\$47,996,295
2019	104,784,313	26,956,150	76,217,089	75,981,619	74,370,545
2020	109,078,254	28,418,314	81,552,285	79,224,846	80,117,191
2021	113,339,735	29,957,487	84,837,284	85,074,222	86,529,259
2022	117,815,750	31,577,639	88,230,775	91,417,117	93,409,781
2023	122,537,548	33,282,940	91,760,006	98,265,407	100,770,805
2024	126,977,565	35,077,774	95,430,406	105,675,108	109,205,723
2025	131,388,057	36,966,745	99,247,623	113,718,487	118,544,798
2026	135,718,683	38,954,690	103,243,832	122,439,781	128,919,619
2027	140,054,516	41,046,693	107,373,585	131,966,042	140,331,804
2028	144,081,152	43,248,093	93,085,731	158,533,276	150,785,948
2029	148,223,557	45,564,500	13,762,291	155,984,192	67,087,426
2030	152,485,057	48,001,805	13,962,180	161,074,436	70,553,364
2031	156,869,077	50,566,200	11,923,172	166,389,625	72,009,920
2032	161,379,141	53,264,187	12,012,957	171,857,166	75,755,169
2033	166,018,871	56,102,597	12,086,678	177,613,747	79,784,152
2034	170,791,995	59,088,603	12,142,707	183,681,432	84,120,747
2035	175,702,349	62,229,742	12,179,304	190,084,142	88,790,839
2036	180,753,878	65,533,929	12,194,606	196,847,814	93,822,471
2037	185,950,641	69,009,477	12,186,621	204,000,569	99,246,026
2038	191,296,814	72,665,119	12,153,224	211,572,888	105,094,417
2039	196,796,691	76,510,024	12,092,144	219,597,815	111,403,291
2040	202,454,693	79,952,976	12,636,290	228,076,683	118,211,256
2041	208,275,365	83,550,859	13,204,923	237,079,694	125,560,111
2042	214,263,385	87,310,648	13,799,145	246,648,712	133,495,120
2043	220,423,563	91,239,627	14,420,106	256,829,109	142,065,279
2044	226,760,849	95,345,410	15,069,011	267,670,053	151,323,625
2045	233,280,335	99,635,954	15,747,117	279,224,824	161,327,560
2046	239,987,260	104,119,572	16,455,737	291,551,152	172,139,202
2047	248,042,103	108,804,953	17,196,245	304,667,658	182,626,753

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

This summary is prepared in accordance with Chapter 32 as of January 1, 2018, 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:

Age at Retirement	Percentage of Average Salary		
	Group 1	Group 2	Group 4
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 with interest.

**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 \$871.56 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 \$17,000. 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. They are based on the 2015 Experience Study conducted by Sherman Actuarial Services, LLC.

### 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, 2018.

### 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 7.75% per annum. This includes a 3% inflation assumption. The assumed rate for 2016 was 8%.

### 5. Salary Scale

It is assumed that salaries including longevity will increase at the following rates.

<u>Service</u>	<u>Rate</u>
0 - 1	5.50%
2	5.00%
3 - 4	4.50%
5	4.00%
6 +	3.50%

**6. Cost-of-Living Increases**

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$17,000 per year. For 2016 the base was \$15,000.

**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.

**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	0.2080	0.0150
5	0.1020	0.0150
10	0.0650	0.0150
15	0.0417	0.0150
20	0.0400	0.0000
30	0.0000	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-2014, 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-2014.

**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:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
50	0.0360	0.1019	0.0144
51	0.0405	0.0714	0.0144
52	0.0437	0.0562	0.0123
53	0.0366	0.0448	0.0210
54	0.0451	0.0488	0.0569
55	0.0477	0.0469	0.0879
56	0.0574	0.0518	0.0931
57	0.0632	0.0509	0.0897
58	0.0765	0.0552	0.0846
59	0.0917	0.0645	0.1022
60	0.1057	0.0774	0.1455
61	0.1224	0.1038	0.1844
62	0.1473	0.1168	0.2741
63	0.1777	0.1440	0.1984
64	0.2136	0.1708	0.4139
65	0.2615	0.1939	1.00000
66	0.2682	0.1959	1.00000
67	0.2500	0.2000	1.00000
68	0.2500	0.2000	1.00000
69	0.2500	0.2000	1.00000
70 to 76	0.2500	0.2500	1.00000
77 to 79	0.3500	0.2500	1.00000
80	1.0000	1.0000	1.00000

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	0.0072
51	0.0000	0.0000	0.0072
52	0.0000	0.0000	0.0062
53	0.0000	0.0000	0.0105
54	0.0000	0.0000	0.0105
55	0.0000	0.0000	0.0389
56	0.0000	0.0000	0.0631
57	0.0000	0.0000	0.0897
58	0.0000	0.0000	0.0846
59	0.0000	0.0000	0.1022
60	0.0477	0.0469	0.1455
61	0.0574	0.0518	0.1844
62	0.0632	0.0509	0.2741
63	0.0765	0.0552	0.1984
64	0.0917	0.0645	0.4139
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
80	1.0000	1.0000	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:

<u>Attained Age</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
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 20% of all disabilities are ordinary (80% 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 members will be survived by a spouse and that 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 2018 is \$1,775,000 and is anticipated to increase at 4.0% 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 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 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. 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:

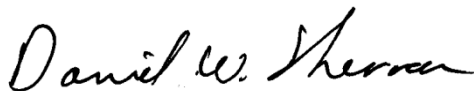
This report fairly represents the actuarial position of the Norfolk County Retirement System contributing as of January 1, 2018, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial 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, 2018

## **BREAKOUTS**

## Breakouts - July and December Payments

	<b>Actives</b>		<b>Fiscal 2020</b>
	<b>Participants</b>	<b>Payroll</b>	<b>Appropriation</b>
Avon Housing Auth.	1	\$ 50,770	\$ 12,894
Town of Avon	103	5,252,001	1,350,801
Town of Bellingham	263	13,162,759	3,388,333
Bellingham Hous. Auth.	2	125,424	31,854
Town of Canton	390	22,020,861	5,740,194
Canton Housing Auth.	6	328,967	93,364
Cohasset Housing Auth.	1	61,506	17,653
Town of Cohasset	179	9,688,873	2,508,585
Charles Riv. Poll. Cont.	11	691,756	179,691
County of Norfolk	138	8,673,779	2,528,913
Retired Sheriffs	0	-	1,381,222
Town of Dover	101	5,699,731	1,447,542
Dover/Shearborne Schl.	81	3,531,196	896,806
Foxboro Housing Auth.	6	297,205	82,115
Franklin Housing Auth.	6	348,841	93,636
Town of Foxboro	363	19,038,711	4,934,461
Town of Franklin	457	22,986,553	5,872,928
Holbrook Housing Auth	2	135,187	42,315
Town of Holbrook	131	8,405,958	2,180,877
Massachusetts Respiratory	0	-	-
King Phillip Reg School	72	3,012,508	765,077
Town of Medway	209	10,541,235	2,677,123

## Breakouts - July and December Payments

	<b>Actives</b>		<b>Fiscal 2020</b>
	<b>Participants</b>	<b>Payroll</b>	<b>Appropriation</b>
Town of Medfield	246	\$ 11,127,630	\$ 2,826,048
Medfield Housing Auth.	1	59,700	15,162
Medway Housing Auth.	6	362,578	92,083
Town of Millis	151	7,293,198	1,852,230
Millis Housing Auth.	2	161,575	45,156
Norfolk Housing Auth.	3	137,169	34,836
Norfolk Cnty Mos. Con.	12	820,668	213,914
Town of Norfolk	166	8,700,652	2,303,029
Town of Plainville	141	7,751,152	2,008,903
Town of Randolph	415	24,056,179	6,359,077
Norfolk County Ret BD	8	807,547	-
Randolph Housing Auth	6	357,737	101,866
Town of Sharon	363	17,786,282	4,517,124
Sharon Housing Auth.	1	53,390	13,559
Stoughton Hous. Auth.	6	315,113	83,283
Town of Stoughton	392	23,204,088	5,999,462
Town of Walpole	351	19,899,720	5,184,034
Town of Westwood	410	21,211,283	5,507,106
Walpole Housing Auth.	4	232,365	59,013
Town of Wrentham	168	8,607,846	2,186,107
Wrentham Hous. Auth.	2	113,663	28,867
Dedham-Westwood Water Dist.	30	2,204,410	559,847
<b>Total</b>	<b>5,406</b>	<b>\$ 289,317,766</b>	<b>\$ 76,217,090</b>

## Breakouts - July Lump Sum Payment

	<b>Actives Participants</b>	<b>Payroll</b>	<b>Fiscal 2020 Appropriation</b>
Avon Housing Auth.	1	\$ 50,770	\$ 12,658
Town of Avon	103	5,252,001	1,326,058
Town of Bellingham	263	13,162,759	3,326,269
Bellingham Hous. Auth.	2	125,424	31,271
Town of Canton	390	22,020,861	5,635,051
Canton Housing Auth.	6	328,967	91,654
Cohasset Housing Auth.	1	61,506	17,330
Town of Cohasset	179	9,688,873	2,462,635
Charles Riv. Poll. Cont.	11	691,756	176,400
County of Norfolk	138	8,673,779	2,482,591
Retired Sheriffs	0	0	1,355,922
Town of Dover	101	5,699,731	1,421,027
Dover/Shearborne Schl.	81	3,531,196	880,379
Foxboro Housing Auth.	6	297,205	80,611
Franklin Housing Auth.	6	348,841	91,921
Town of Foxboro	363	19,038,711	4,844,077
Town of Franklin	457	22,986,553	5,765,354
Holbrook Housing Auth	2	135,187	41,540
Town of Holbrook	131	8,405,958	2,140,930
Massachusetts Respiratory	0	-	-
King Phillip Reg School	72	3,012,508	751,063
Town of Medway	209	10,541,235	2,628,086



## Breakouts - July Lump Sum Payment

	<b>Actives Participants</b>	<b>Payroll</b>	<b>Fiscal 2020 Appropriation</b>
Town of Medfield	246	\$ 11,127,630	\$ 2,774,283
Medfield Housing Auth.	1	59,700	14,884
Medway Housing Auth.	6	362,578	90,396
Town of Millis	151	7,293,198	1,818,303
Millis Housing Auth.	2	161,575	44,329
Norfolk Housing Auth.	3	137,169	34,198
Norfolk Cnty Mos. Con.	12	820,668	209,996
Town of Norfolk	166	8,700,652	2,260,845
Town of Plainville	141	7,751,152	1,972,106
Town of Randolph	415	24,056,179	6,242,598
Norfolk County Ret BD	8	807,547	-
Randolph Housing Auth	6	357,737	100,000
Town of Sharon	363	17,786,282	4,434,384
Sharon Housing Auth.	1	53,390	13,311
Stoughton Hous. Auth.	6	315,113	81,758
Town of Stoughton	392	23,204,088	5,889,570
Town of Walpole	351	19,899,720	5,089,078
Town of Westwood	410	21,211,283	5,406,233
Walpole Housing Auth.	4	232,365	57,932
Town of Wrentham	168	8,607,846	2,146,064
Wrentham Hous. Auth.	2	113,663	28,338
Dedham-Westwood Water Dist.	30	2,204,410	549,590
<b>Total</b>	5,406	289,317,766	\$ 74,821,023

## Breakouts - July and December Payments

	<b>Actives</b>		<b>Fiscal 2021</b>
	<b>Participants</b>	<b>Payroll</b>	<b>Appropriation</b>
Avon Housing Auth.	1	\$ 50,770	\$ 13,811
Town of Avon	103	5,252,001	1,446,399
Town of Bellingham	263	13,162,759	3,628,055
Bellingham Hous. Auth.	2	125,424	34,118
Town of Canton	390	22,020,861	6,144,464
Canton Housing Auth.	6	328,967	99,746
Cohasset Housing Auth.	1	61,506	18,855
Town of Cohasset	179	9,688,873	2,685,692
Charles Riv. Poll. Cont.	11	691,756	192,363
County of Norfolk	138	8,673,779	2,700,206
Retired Sheriffs	0	-	1,436,471
Town of Dover	101	5,699,731	1,550,461
Dover/Shearborne Schl.	81	3,531,196	960,569
Foxboro Housing Auth.	6	297,205	87,780
Franklin Housing Auth.	6	348,841	100,162
Town of Foxboro	363	19,038,711	5,282,706
Town of Franklin	457	22,986,553	6,289,571
Holbrook Housing Auth	2	135,187	45,116
Town of Holbrook	131	8,405,958	2,334,734
Massachusetts Respiratory	0	-	-
King Phillip Reg School	72	3,012,508	819,473
Town of Medway	209	10,541,235	2,867,464

## Breakouts - July and December Payments

	<b>Actives Participants</b>	<b>Payroll</b>	<b>Fiscal 2021 Appropriation</b>
Town of Medfield	246	\$ 11,127,630	\$ 3,026,978
Medfield Housing Auth.	1	59,700	16,240
Medway Housing Auth.	6	362,578	98,630
Town of Millis	151	7,293,198	1,983,922
Millis Housing Auth.	2	161,575	48,259
Norfolk Housing Auth.	3	137,169	37,313
Norfolk Cnty Mos. Con.	12	820,668	228,980
Town of Norfolk	166	8,700,652	2,464,336
Town of Plainville	141	7,751,152	2,150,681
Town of Randolph	415	24,056,179	6,804,687
Norfolk County Ret BD	8	807,547	-
Randolph Housing Auth	6	357,737	108,821
Town of Sharon	363	17,786,282	4,838,288
Sharon Housing Auth.	1	53,390	14,523
Stoughton Hous. Auth.	6	315,113	89,119
Town of Stoughton	392	23,204,088	6,423,241
Town of Walpole	351	19,899,720	5,549,217
Town of Westwood	410	21,211,283	5,895,521
Walpole Housing Auth.	4	232,365	63,209
Town of Wrentham	168	8,607,846	2,341,537
Wrentham Hous. Auth.	2	113,663	30,919
Dedham-Westwood Water Dist.	30	2,204,410	599,651
<b>Total</b>	<b>5,406</b>	<b>\$ 289,317,766</b>	<b>\$ 81,552,288</b>

## Breakouts - July Lump Sum Payment

	<b>Actives Participants</b>	<b>Payroll</b>	<b>Fiscal 2021 Appropriation</b>
Avon Housing Auth.	1	\$ 50,770	\$ 13,558
Town of Avon	103	5,252,001	1,419,905
Town of Bellingham	263	13,162,759	3,561,600
Bellingham Hous. Auth.	2	125,424	33,493
Town of Canton	390	22,020,861	6,031,916
Canton Housing Auth.	6	328,967	97,919
Cohasset Housing Auth.	1	61,506	18,510
Town of Cohasset	179	9,688,873	2,636,498
Charles Riv. Poll. Cont.	11	691,756	188,839
County of Norfolk	138	8,673,779	2,650,746
Retired Sheriffs	0	0	1,410,159
Town of Dover	101	5,699,731	1,522,061
Dover/Shearborne Schl.	81	3,531,196	942,974
Foxboro Housing Auth.	6	297,205	86,172
Franklin Housing Auth.	6	348,841	98,327
Town of Foxboro	363	19,038,711	5,185,943
Town of Franklin	457	22,986,553	6,174,365
Holbrook Housing Auth	2	135,187	44,290
Town of Holbrook	131	8,405,958	2,291,969
Massachusetts Respiratory	0	-	-
King Phillip Reg School	72	3,012,508	804,463
Town of Medway	209	10,541,235	2,814,941

## Breakouts - July Lump Sum Payment

	<b>Actives Participants</b>	<b>Payroll</b>	<b>Fiscal 2021 Appropriation</b>
Town of Medfield	246	\$ 11,127,630	\$ 2,971,533
Medfield Housing Auth.	1	59,700	15,943
Medway Housing Auth.	6	362,578	96,823
Town of Millis	151	7,293,198	1,947,583
Millis Housing Auth.	2	161,575	47,375
Norfolk Housing Auth.	3	137,169	36,630
Norfolk Cnty Mos. Con.	12	820,668	224,786
Town of Norfolk	166	8,700,652	2,419,197
Town of Plainville	141	7,751,152	2,111,287
Town of Randolph	415	24,056,179	6,680,046
Norfolk County Ret BD	8	807,547	-
Randolph Housing Auth	6	357,737	106,828
Town of Sharon	363	17,786,282	4,749,665
Sharon Housing Auth.	1	53,390	14,257
Stoughton Hous. Auth.	6	315,113	87,487
Town of Stoughton	392	23,204,088	6,305,587
Town of Walpole	351	19,899,720	5,447,572
Town of Westwood	410	21,211,283	5,787,533
Walpole Housing Auth.	4	232,365	62,051
Town of Wrentham	168	8,607,846	2,298,647
Wrentham Hous. Auth.	2	113,663	30,353
Dedham-Westwood Water Dist.	30	2,204,410	588,665
<b>Total</b>	5,406	289,317,766	\$ 80,058,496