

NORFOLK COUNTY RETIREMENT SYSTEM

**SCHEDULES OF EMPLOYER ALLOCATIONS,
PENSION AMOUNTS BY EMPLOYER AND
AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS**

YEAR ENDED DECEMBER 31, 2017

NORFOLK COUNTY RETIREMENT SYSTEM

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Dorothy F. Di Pesa, CPA
John F. Oteri, CPA

INDEPENDENT AUDITOR'S REPORT

To the Board of the Norfolk County
Retirement System
Canton, Massachusetts 02021

Report on Schedules

We have audited the accompanying schedule of employer allocations of the Norfolk County Retirement System (the System) as of and for the year ended December 31, 2017, and the related notes. We have also audited the totals for all entities of the columns titled ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, total pension expense, total pension revenue, and total covered payroll (specified column totals) included in the accompanying schedule of pension amounts by employer of the System as of and for the year ended December 31, 2017, and the related notes. We have also audited the column totals included in the accompanying schedule of amortization of employers' deferred outflows/inflows for the year ended December 31, 2017, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the schedule of employer allocations and the specified column totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and specified column totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and ending net pension liability, total deferred outflows of resources, total deferred inflows of resources, total pension expense, total pension revenue, total covered payroll and total amortization of deferred outflows/inflows for the total of all participating entities for the Norfolk County Retirement System as of and for the year ended December 31, 2017, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Norfolk County Retirement System as of and for the years ended December 31, 2017 and 2016, and our report thereon, dated October 17, 2018, expressed an unmodified opinion on those financial statements.

Restriction on Use

Our report is intended solely for the information and use of the System's management, Board, employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

DI PESA & COMPANY

Di Pesa & Company

Certified Public Accountants
Quincy, Massachusetts
October 17, 2018

NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2017

<u>Employer</u>	<u>Employer Contributions</u>	<u>Employer Allocation Percentage</u>
Town of Avon	\$ 1,181,256	1.8454%
Avon Housing Authority	21,023	0.0328%
Town of Bellingham	2,854,177	4.4590%
Bellingham Housing Authority	27,804	0.0434%
Town of Canton	4,796,247	7.4930%
Canton Housing Authority	91,953	0.1437%
Town of Cohasset	2,296,320	3.5874%
Cohasset Housing Authority	15,388	0.0240%
Norfolk County	3,386,923	5.2912%
Charles River Pollution Control	148,304	0.2317%
Town of Dover	1,210,458	1.8910%
Dover-Sherborn Regional High School	711,254	1.1112%
Town of Foxboro	4,011,736	6.2674%
Foxboro Housing Authority	54,419	0.0850%
Town of Franklin	4,771,398	7.4542%
Franklin Housing Authority	79,918	0.1249%
Town of Holbrook	1,893,166	2.9576%
Holbrook Housing Authority	46,729	0.0730%
King Philip Regional School District	701,268	1.0956%
Town of Medfield	2,309,695	3.6083%
Medfield Housing Authority	14,325	0.0224%
Town of Medway	2,239,347	3.4984%
Medway Housing Authority	83,099	0.1298%
Town of Millis	1,577,876	2.4650%
Millis Housing Authority	35,665	0.0557%
Town of Norfolk	1,941,855	3.0337%
Norfolk Housing Authority	29,265	0.0457%
Norfolk Mosquito Control	180,879	0.2826%
Town of Plainville	1,697,074	2.6513%
Town of Randolph	5,188,401	8.1056%
Randolph Housing Authority	60,144	0.0940%
Town of Sharon	3,751,960	5.8615%
Sharon Housing Authority	22,916	0.0358%
Town of Stoughton	4,935,424	7.7104%
Stoughton Housing Authority	67,575	0.1056%
Town of Walpole	4,550,407	7.1089%
Walpole Housing Authority	50,641	0.0791%
Town of Westwood	4,631,206	7.2351%
Town of Wrentham	1,774,694	2.7725%
Wrentham Housing Authority	23,692	0.0370%
Dedham Westwood Water District	544,023	0.8499%
	<u>\$ 64,009,904</u>	<u>100.0000%</u>

The Accompanying Notes are an Integral Part of the Schedule of Employer Allocations.

NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	Deferred Outflows of Resources					
	December 31, 2017 Net Pension Liability	Difference Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings	Assumption Changes	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
Town of Avon	\$ 10,205,142	\$ 972,860	\$ 634,042	\$ 511,688	\$ -	\$ 2,118,590
Avon Housing Authority	181,385	17,292	11,269	9,095	-	37,656
Town of Bellingham	24,658,464	2,350,699	1,532,023	1,236,381	418,337	5,537,440
Bellingham Housing Authority	240,004	22,879	14,911	12,034	-	49,824
Town of Canton	41,436,616	3,950,166	2,574,444	2,077,642	218,977	8,821,229
Canton Housing Authority	795,773	75,861	49,441	39,900	-	165,202
Town of Cohasset	19,838,478	1,891,209	1,232,558	994,706	961,685	5,080,158
Cohasset Housing Authority	132,721	12,652	8,246	6,655	-	27,553
Norfolk County	29,260,566	2,789,420	1,817,949	1,467,132	7,984,132	14,058,633
Charles River Pollution Control	1,281,311	122,148	79,607	64,245	-	266,000
Town of Dover	10,457,312	996,899	649,710	524,332	-	2,170,941
Dover-Sherborn Regional High School	6,144,984	585,803	381,786	308,111	112,440	1,388,140
Town of Foxboro	34,658,995	3,304,053	2,153,353	1,737,810	-	7,195,216
Foxboro Housing Authority	470,054	44,811	29,205	23,569	-	97,585
Town of Franklin	41,222,050	3,929,712	2,561,113	2,066,884	-	8,557,709
Franklin Housing Authority	690,702	65,845	42,913	34,632	16,105	159,495
Town of Holbrook	16,355,657	1,559,191	1,016,172	820,077	-	3,395,440
Holbrook Housing Authority	403,693	38,484	25,081	20,241	44,879	128,685
King Philip Regional School District	6,058,716	577,579	376,426	303,785	79,722	1,337,512
Town of Medfield	19,954,056	1,902,227	1,239,739	1,000,501	296,574	4,439,041
Medfield Housing Authority	123,873	11,809	7,696	6,211	-	25,716
Town of Medway	19,346,304	1,844,289	1,201,980	970,028	784,104	4,800,401
Medway Housing Authority	717,800	68,428	44,596	35,991	-	149,015
Town of Millis	13,631,557	1,299,501	846,924	683,490	-	2,829,915
Millis Housing Authority	308,023	29,364	19,138	15,444	61,332	125,278

The Accompanying Notes are an Integral Part of the Schedule of Pension Amounts by Employer.

NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	Deferred Outflows of Resources					
	December 31, 2017 Net Pension Liability	Difference Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings	Assumption Changes	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources
Town of Norfolk	16,776,493	1,599,309	1,042,319	841,177	36,060	3,518,865
Norfolk Housing Authority	252,723	24,093	15,702	12,672	36,004	88,471
Norfolk Mosquito Control	1,562,790	148,982	97,096	78,359	46,583	371,020
Town of Plainville	14,661,804	1,397,715	910,933	735,146	654,654	3,698,448
Town of Randolph	44,824,321	4,273,112	2,784,921	2,247,503	182,250	9,487,786
Randolph Housing Authority	519,824	49,556	32,296	26,064	-	107,916
Town of Sharon	32,414,350	3,090,071	2,013,893	1,625,263	-	6,729,227
Sharon Housing Authority	197,976	18,872	12,300	9,927	-	41,099
Town of Stoughton	42,638,847	4,064,775	2,649,138	2,137,922	-	8,851,835
Stoughton Housing Authority	583,973	55,670	36,282	29,281	-	121,233
Town of Walpole	39,312,526	3,747,676	2,442,475	1,971,140	-	8,161,291
Walpole Housing Authority	437,426	41,700	27,178	21,933	-	90,811
Town of Westwood	40,010,418	3,814,207	2,485,835	2,006,132	1,500,711	9,806,885
Town of Wrentham	15,332,046	1,461,609	952,575	768,753	2,533	3,185,470
Wrentham Housing Authority	204,612	19,506	12,713	10,259	-	42,478
Dedham Westwood Water District	4,699,984	448,051	292,008	235,658	817	976,534
	<u>\$ 553,004,349</u>	<u>\$ 52,718,085</u>	<u>\$ 34,357,986</u>	<u>\$ 27,727,773</u>	<u>\$ 13,437,899</u>	<u>\$ 128,241,743</u>

The Accompanying Notes are an Integral Part of the Schedule of Pension Amounts by Employer.

NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	Deferred Inflows of Resources				Pension Expense				(Proportionate Share of Contributions from Nonemployer Entities)	Total Covered Payroll
	Difference Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings	Assumption Changes	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Pension Expense	Net Amortization from Changes in Proportions	Total Pension Expense		
Town of Avon	\$ -	\$ 949,265	\$ 411,584	\$ 361,547	\$ 1,722,396	\$ 1,471,004	\$ (82,599)	\$ 1,388,405	\$ 72,589	\$ 5,252,001
Avon Housing Authority	-	16,873	7,315	7,256	31,444	26,146	1,214	27,360	1,290	50,770
Town of Bellingham	-	2,293,692	994,500	377,347	3,665,539	3,554,356	(160,916)	3,393,440	175,395	13,162,759
Bellingham Housing Authority	-	22,324	9,680	59,635	91,639	34,595	(1,269)	33,326	1,707	125,424
Town of Canton	-	3,854,371	1,671,179	634,646	6,160,196	5,972,817	(223,968)	5,748,849	294,737	22,020,861
Canton Housing Authority	-	74,022	32,095	93,146	199,263	114,706	7,054	121,760	5,660	328,967
Town of Cohasset	-	1,845,345	800,105	303,848	2,949,298	2,859,587	(285,292)	2,574,295	141,110	9,688,873
Cohasset Housing Authority	-	12,344	5,353	7,266	24,963	19,131	562	19,693	944	61,506
Norfolk County	-	2,721,773	1,180,107	466,895	4,368,775	4,217,719	3,069,308	7,287,027	208,130	9,289,423
Charles River Pollution Control	-	119,185	51,676	35,956	206,817	184,693	(9,499)	175,194	9,114	691,756
Town of Dover	-	972,721	421,754	275,027	1,669,502	1,507,353	(40,220)	1,467,133	74,383	5,699,731
Dover-Sherborn Regional High School	-	571,596	247,834	93,949	913,379	885,759	(59,459)	826,300	43,709	3,531,196
Town of Foxboro	-	3,223,926	1,397,832	627,582	5,249,340	4,995,867	(203,201)	4,792,666	246,528	19,038,711
Foxboro Housing Authority	-	43,723	18,958	48,692	111,373	67,755	(6,356)	61,399	3,343	297,205
Town of Franklin	-	3,834,410	1,662,526	1,132,243	6,629,179	5,941,889	(238,204)	5,703,685	293,211	22,986,553
Franklin Housing Authority	-	64,247	27,856	10,460	102,563	99,560	(7,057)	92,503	4,913	348,841
Town of Holbrook	-	1,521,379	659,640	641,744	2,822,763	2,357,561	(11,408)	2,346,153	116,337	8,405,958
Holbrook Housing Authority	-	37,550	16,281	400	54,231	58,190	(8,903)	49,287	2,871	135,187
King Philip Regional School District	-	563,571	244,354	92,745	900,670	873,324	(28,532)	844,792	43,095	3,012,508
Town of Medfield	-	1,856,095	804,767	305,858	2,966,720	2,876,247	(133,039)	2,743,208	141,933	11,127,630
Medfield Housing Authority	-	11,524	4,995	40,074	56,593	17,855	4,501	22,356	881	59,700
Town of Medway	-	1,799,564	780,626	296,626	2,876,446	2,788,643	(66,992)	2,721,651	137,610	10,541,235
Medway Housing Authority	-	66,767	28,950	24,800	120,517	103,466	(3,603)	99,863	5,106	362,578
Town of Millis	-	1,267,985	549,774	676,846	2,494,605	1,964,900	(34,384)	1,930,516	96,961	7,293,198
Millis Housing Authority	-	28,652	12,423	393	41,468	44,400	(4,515)	39,885	2,191	161,575

The Accompanying Notes are an Integral Part of the Schedule of Pension Amounts by Employer.

NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	Deferred Inflows of Resources				Pension Expense				Total Pension Revenue	Total Covered Payroll
	Difference Between Expected and Actual Experience	Difference Between Projected and Actual Investment Earnings	Assumption Changes	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Pension Expense	Net Amortization from Changes in Proportions	Total Pension Expense		
Town of Norfolk	-	1,560,523	676,613	256,915	2,494,051	2,418,222	(65,859)	2,352,363	119,331	8,700,652
Norfolk Housing Authority	-	23,506	10,193	392	34,091	36,428	545	36,973	1,798	137,169
Norfolk Mosquito Control	-	145,368	63,029	23,693	232,090	225,266	(16,063)	209,203	11,116	820,668
Town of Plainville	-	1,363,817	591,325	224,405	2,179,547	2,113,403	(234,282)	1,879,121	104,289	7,751,152
Town of Randolph	-	4,169,492	1,807,810	686,805	6,664,107	6,461,129	(243,822)	6,217,307	318,834	24,056,179
Randolph Housing Authority	-	48,354	20,965	141,958	211,277	74,929	17,987	92,916	3,699	357,737
Town of Sharon	-	3,015,131	1,307,303	1,678,651	6,001,085	4,672,316	23,576	4,695,892	230,562	17,786,282
Sharon Housing Authority	-	18,417	7,984	8,680	35,081	28,537	(126)	28,411	1,408	53,390
Town of Stoughton	-	3,966,199	1,719,667	1,143,727	6,829,593	6,146,111	(296,932)	5,849,179	303,289	23,204,088
Stoughton Housing Authority	-	54,320	23,552	151,158	229,030	84,176	14,510	98,686	4,154	315,113
Town of Walpole	-	3,656,791	1,585,514	1,503,433	6,745,738	5,666,643	(48,902)	5,617,741	279,629	19,899,720
Walpole Housing Authority	-	40,688	17,642	66,204	124,534	63,052	(1,252)	61,800	3,111	232,365
Town of Westwood	-	3,721,706	1,613,660	612,938	5,948,304	5,767,240	(452,083)	5,315,157	284,593	21,211,283
Town of Wrentham	-	1,426,162	618,357	234,812	2,279,331	2,210,014	(128,074)	2,081,940	109,056	8,607,846
Wrentham Housing Authority	-	19,034	8,252	17,296	44,582	29,493	(5,520)	23,973	1,455	113,663
Dedham Westwood Water District	-	437,185	189,555	71,851	698,591	677,472	(36,926)	640,546	33,431	2,204,410
	\$ -	\$ 51,439,597	\$ 22,303,215	\$ 13,437,899	\$ 87,180,711	\$ 79,711,954	\$ -	\$ 79,711,954	\$ 3,933,503	\$ 289,125,863

The Accompanying Notes are an Integral Part of the Schedule of Pension Amounts by Employer.

NORFOLK COUNTY RETIREMENT SYSTEM

SCHEDULE OF AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS
FOR THE YEAR ENDED DECEMBER 31, 2017

Employer	FOR THE YEARS ENDING DECEMBER 31					
	2018	2019	2020	2021	Thereafter	Total
Town of Avon	\$ 252,961	\$ 190,371	\$ 68,029	\$ (115,167)	\$ -	\$ 396,194
Avon Housing Authority	4,117	3,004	941	(1,850)	-	6,212
Town of Bellingham	926,563	775,328	448,209	(278,199)	-	1,871,901
Bellingham Housing Authority	(11,812)	(13,284)	(14,283)	(2,436)	-	(41,815)
Town of Canton	1,389,953	1,135,813	602,805	(467,538)	-	2,661,033
Canton Housing Authority	(2,705)	(7,586)	(14,857)	(8,913)	-	(34,061)
Town of Cohasset	960,927	839,254	554,521	(223,842)	-	2,130,860
Cohasset Housing Authority	2,341	1,527	82	(1,360)	-	2,590
Norfolk County	3,345,880	3,166,419	2,811,466	366,093	-	9,689,858
Charles River Pollution Control	35,016	27,157	11,470	(14,460)	-	59,183
Town of Dover	292,133	227,996	99,334	(118,024)	-	501,439
Dover-Sherborn Regional High School	233,753	196,065	114,263	(69,320)	-	474,761
Town of Foxboro	1,066,079	853,508	417,339	(391,050)	-	1,945,876
Foxboro Housing Authority	354	(2,529)	(6,838)	(4,775)	-	(13,788)
Town of Franklin	1,134,905	882,084	376,629	(465,088)	-	1,928,530
Franklin Housing Authority	27,500	23,264	13,950	(7,782)	-	56,932
Town of Holbrook	383,919	283,607	89,692	(184,541)	-	572,677
Holbrook Housing Authority	30,050	27,574	20,908	(4,078)	-	74,454
King Philip Regional School District	219,699	182,539	102,960	(68,356)	-	436,842
Town of Medfield	735,172	612,790	349,526	(225,167)	-	1,472,321
Medfield Housing Authority	(9,308)	(10,068)	(10,258)	(1,243)	-	(30,877)
Town of Medway	883,983	765,328	492,960	(218,316)	-	1,923,955
Medway Housing Authority	18,018	13,616	4,982	(8,118)	-	28,498
Town of Millis	271,029	187,426	30,692	(153,837)	-	335,310
Millis Housing Authority	32,243	30,354	24,332	(3,119)	-	83,810
Town of Norfolk	544,626	441,733	227,745	(189,290)	-	1,024,814
Norfolk Housing Authority	21,496	19,946	15,500	(2,562)	-	54,380
Norfolk Mosquito Control	65,712	56,127	34,703	(17,612)	-	138,930
Town of Plainville	690,888	600,966	392,464	(165,417)	-	1,518,901
Town of Randolph	1,484,668	1,209,751	635,050	(505,790)	-	2,823,679
Randolph Housing Authority	(29,728)	(32,916)	(34,877)	(5,840)	-	(103,361)
Town of Sharon	620,592	421,788	51,505	(365,743)	-	728,142
Sharon Housing Authority	4,339	3,124	803	(2,248)	-	6,018
Town of Stoughton	1,183,387	921,873	398,090	(481,108)	-	2,022,242
Stoughton Housing Authority	(30,832)	(34,414)	(36,634)	(5,917)	-	(107,797)
Town of Walpole	936,262	695,150	227,709	(443,568)	-	1,415,553
Walpole Housing Authority	(6,638)	(9,321)	(12,820)	(4,944)	-	(33,723)
Town of Westwood	1,786,647	1,541,255	982,135	(451,456)	-	3,858,581
Town of Wrentham	487,238	393,203	198,691	(172,993)	-	906,139
Wrentham Housing Authority	1,610	355	(1,754)	(2,315)	-	(2,104)
Dedham Westwood Water District	149,414	120,588	60,960	(53,019)	-	277,943
	<u>\$ 20,132,451</u>	<u>\$ 16,740,765</u>	<u>\$ 9,728,124</u>	<u>\$ (5,540,308)</u>	<u>\$ -</u>	<u>\$ 41,061,032</u>

The Accompanying Notes are an Integral Part of the Schedule of Amortization of Employers' Deferred Outflows/Inflows.

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO SCHEDULES OF EMPLOYER ALLOCATIONS, PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS DECEMBER 31, 2017

NOTE 1 – DESCRIPTION OF THE ENTITY

The Norfolk County Retirement System (the System) was established to provide retirement benefits to eligible employees of its member employers. The System is governed by a five member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director. The legislative body for the System is an Advisory Council consisting of full-time treasurers or other qualified officials of the member units. The Advisory Council meets at least twice annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

The System issued a publicly available audited financial statement for the year ended December 31, 2017, which is available through the System's website at www.norfolkcountyretirement.org, or a copy may be obtained by submitting a request to the System's Executive Director at 480 Neponset Street, Building #15, Canton, MA 02021.

Plan Description

The System is a cost-sharing multiple-employer contributory defined benefit governmental pension plan established under Chapter 32 of the Massachusetts General Laws ("MGL") covering all employees of governmental member units deemed eligible by the Board. The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of MGL. The Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Membership

Membership in the Plan is mandatory immediately upon the commencement of employment for all non-teaching permanent employees regularly scheduled to work 20 hours or more per week. The pensions of school department employees who serve in a teaching capacity are administered by the Commonwealth of Massachusetts' Teachers Retirement System.

Benefits

Massachusetts Contributory Retirement System benefits are, with certain exceptions, uniform from system to system. The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO SCHEDULES OF EMPLOYER ALLOCATIONS, PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS DECEMBER 31, 2017

NOTE 1 – DESCRIPTION OF THE ENTITY (Continued)

Benefits (Continued)

There are three classes of membership in the retirement system: group 1, group 2, and group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, group 4 consists of police officers, firefighters, and other hazardous positions.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with 10 years of service if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 55 years of age with 10 years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, with at least ten years of creditable service, such employees are entitled to receive one hundred (100%) percent of the regular interest which has accrued upon those deductions. Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

Contributions

Active members contribute between 5 and 9% of their gross regular compensation. Members joining the System after January 1, 1979 must contribute an additional 2% on regular compensation earned at a rate in excess of \$30,000. The percentage rate is keyed to the date upon which an employee's membership commences. These deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission's (PERAC) actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by

NORFOLK COUNTY RETIREMENT SYSTEM

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NOTE 1 – DESCRIPTION OF THE ENTITY (Continued)

Contributions (Continued)

the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System. The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment.

NOTE 2 – ACTUARIAL ASSUMPTIONS AND METHODS

The total pension liability was determined by an actuarial valuation as of January 1, 2018. The following actuarial assumptions were applied to all periods included in the measurement that was updated to December 31, 2017:

Actuarial cost method:	Entry Age Normal Cost Method
Asset valuation method	Market value
Investment rate of return	7.75%
Projected salary increases	3.5% - 5.5%
Inflation	4.0%
Cost of living increases	3.0% of first \$17,000 of retirement income
Mortality:	The RP-2014 Blue Collar Mortality Table adjusted with Scale with MP-2014

NOTE 3 – NET PENSION LIABILITY

The components of the net pension liability of the System as of December 31, 2017, is as follows:

Total Pension Liability	\$1,516,083,187
Fiduciary Net Position	<u>963,078,838</u>
System's Net Pension Liability	\$ <u>553,004,349</u>
Fiduciary Net Position as a percentage of total pension liability	63.5%

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO SCHEDULES OF EMPLOYER ALLOCATIONS, PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS DECEMBER 31, 2017

NOTE 3 – NET PENSION LIABILITY (Continued)

The total pension liability is calculated by the System's actuary and plan fiduciary net position is reported in the System's financial statements. The net pension liability is disclosed in accordance with the requirements of Governmental Accounting Standards Board (GASB) Statement No. 67 in the System's notes to financial statements and required supplementary information.

Discount Rate

The discount rate used to measure the total pension liability as of December 31, 2017 was 7.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Under Chapter 32 of the MGL, employers are required to make the necessary contributions such that the Plan reaches full funding status by 2040. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current Plan members. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine total pension liability.

Long-Term Expected Rate of Return

The long term expected rate of return on Plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized as follows:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-term Expected Real Rate of Return</u>
Domestic Equity	32.0%	8.8%
International Equities	17.5	8.8%
Fixed Income	19.0	3.6%
Real Estate	9.0	7.4%
Private Equity	8.5	13.3%
Hedge Funds	9.0	7.4%
Real Assets	<u>5.0</u>	10.4%
Total	<u>100.0%</u>	

The System's policy in regard to the allocation of invested Plan assets is established and may be amended by the Board. Plan assets are managed with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the Plan.

The annual money-weighted rate of return on investments, net of investment expense was 14.81% for the year ended December 31, 2017. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO SCHEDULES OF EMPLOYER ALLOCATIONS,
PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF
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DECEMBER 31, 2017**

NOTE 3 – NET PENSION LIABILITY (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System as of December 31, 2017, calculated using the discount rate of 7.75%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one-percentage point lower (6.75%) or one-percentage point higher (8.75%) than the current rate:

	<u>1% Decrease (6.75%)</u>	<u>Current Discount Rate (7.75%)</u>	<u>1% Increase (8.75%)</u>
System's Net Pension Liability	\$715,642,268	\$553,004,349	\$414,842,339

NOTE 4 – BASIS OF PRESENTATION

The Schedule of Employer Allocations, Schedule of Pension Amounts by Employer, and Schedule of Amortization of Employers' Deferred Outflows/Inflows present amounts that are elements of the financial statements of the System or of its participating employers. Accordingly, they do not purport to be a complete presentation of the financial position or changes in financial position of either the System or its participating employers. The amounts presented in the schedules were prepared in accordance with U.S. generally accepted accounting principles. Such preparation requires management of the System to make a number of estimates and assumptions relating to the reported amounts. Due to inherent nature of these estimates, actual results may differ from those estimates.

NOTE 5 – PENSION EXPENSE

System pension expense for the year ended December 31, 2017 is as follows:

Service Cost	\$ 34,738,004
Interest Cost	107,709,293
Expected Return on Assets	(66,937,687)
Member Contributions	(29,351,605)
Current Year Amortization of Difference Between Expected and Actual Experience	17,304,135
Current Year Amortization of Assumption Changes	(3,259,094)
Current Year Amortization of Difference Between Projected and Actual Investment Earnings	6,087,412
Change in Plan Provisions	12,205,895
Administrative Expenses	<u>1,215,601</u>
Total	<u>\$ 79,711,954</u>

The System pension expense is based on the January 1, 2018 valuation. The employers' allocation of the pension expense is shown in the Schedule of Pension Amounts by Employer. The difference between expected and actual experience and the effect of assumption changes are amortized over the average expected remaining service lives of active and inactive members as of January 1, 2018 (4.27 years). The difference between projected and actual investment earnings is amortized over 5 years.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO SCHEDULES OF EMPLOYER ALLOCATIONS,
PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF
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NOTE 6 – DEFERRED INFLOWS OF RESOURCES AND DEFERRED OUTFLOWS OF RESOURCES

Annual changes to the net pension liability resulting from differences between expected and actual experience and from changes in assumptions are deferred and amortized over a closed period equal to the average of the expected service lives of all members determined for the period during which the changes occurred. Differences between projected and actual earnings are amortized over a closed 5 year period. The following presents a summary of the changes in the collective deferred outflows of resources and deferred inflows of resources for the year ended December 31, 2017:

<u>Year</u>	<u>Amortization Period</u>	<u>Original Amount</u>	<u>Accumulated Amortization</u>	<u>Beginning Of year Balance</u>	<u>Current Year Deferrals</u>	<u>Current Year Amortizations</u>	<u>End Of Year Balance</u>
<u>Deferred Outflows of Resources</u>							
Different Between Expected and Actual Experience							
2015	4.9	\$ 13,828,826	\$ 5,644,418	\$ 8,184,408	\$ -	\$ 2,822,209	\$ 5,362,199
2017	4.27	-	-	-	61,837,812	14,481,926	47,355,886
Difference Between Projected and Actual Investment Earnings							
2014	5	21,416,618	12,849,972	8,566,646	-	4,283,324	4,283,322
2015	5	75,186,656	30,074,662	45,111,994	-	15,037,331	30,074,664
Difference from Assumption Changes							
2017	4.27	-	-	-	36,207,214	8,479,441	27,727,773
<u>Deferred Inflows of Resources</u>							
Difference Between Projected and Actual Investment Earnings							
2016	5	(7,466,805)	(1,493,361)	(5,973,444)	-	(1,493,361)	(4,480,083)
2017	5	-	-	-	(58,699,395)	(11,739,881)	(46,959,514)
Difference from Assumption Changes							
2015	4.9	(57,518,820)	(23,477,070)	(34,041,750)	-	(11,738,535)	<u>(22,303,215)</u>
Total Deferred Outflows/Inflows of Resources							\$ <u>41,061,032</u>

The following schedule reflects the amortization of the balance of deferred outflows of resources and deferred inflows of resources at December 31, 2017:

<u>Measurement Period Ending December 31:</u>	<u>Amount</u>
2018	\$20,132,451
2019	16,740,765
2020	9,728,124
2021	(5,540,308)
Thereafter	-
Total	<u>\$41,061,032</u>

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO SCHEDULES OF EMPLOYER ALLOCATIONS, PENSION AMOUNTS BY EMPLOYER AND AMORTIZATION OF EMPLOYERS' DEFERRED OUTFLOWS/INFLOWS DECEMBER 31, 2017

NOTE 7 – PROPORTIONATE SHARE ALLOCATION METHODOLOGY AND EMPLOYER ALLOCATIONS

GASB Statement No. 68 requires employers in the Plan to recognize their proportionate share of the collective net pension liability. Employers' proportionate shares were calculated on the basis of actual employer contributions for the year ended December 31, 2017. The Schedule of Employer Allocations display the proportionate allocation used to allocate the Difference Between Expected and Actual Experience; Difference Between Projected and Actual Investment Earnings; Proportionate Share of Plan Pension Expense; and Proportionate Share of Contributions from Nonemployer Entities.

NOTE 8 – ADDITIONAL FINANCIAL AND ACTUARIAL INFORMATION

Information contained in these Notes to Schedules of Employer Allocations and Pension Amounts by Employer (the Schedules) was extracted from the audited financial statements of the System for the years ended December 31, 2017 and 2016. Additional financial information supporting the preparation of the Schedules (including the unqualified audit opinion on the financial statements and required supplementary information) is located in the audited financial statements of the System for the years ended December 31, 2017 and 2016. A copy may be obtained by submitting a request to the System's Executive Director at 480 Neponset Street, Building #15, Canton, MA 02021.