

Teachers

Bolton		Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men 4-Year Period Ending 2017 Proposed Assumptions are 98% of the Current Rates					
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	0	N/A	0.00	0.00	N/A	N/A
49	0	0	N/A	0.00	0.00	N/A	N/A
50	0	0	N/A	0.00	0.00	N/A	N/A
51	0	0	N/A	0.00	0.00	N/A	N/A
52	0	0	N/A	0.00	0.00	N/A	N/A
53	0	0	N/A	0.00	0.00	N/A	N/A
54	0	1	0.0000	0.00	0.00	N/A	N/A
55	0	79	0.0000	0.40	0.39	0.0000	0.0000
56	3	427	0.0070	1.80	1.76	1.6667	1.7007
57	2	595	0.0034	2.80	2.74	0.7143	0.7289
58	5	748	0.0067	4.00	3.92	1.2500	1.2755
59	4	869	0.0046	4.90	4.80	0.8163	0.8330
60	6	1,036	0.0058	6.30	6.17	0.9524	0.9718
61	9	1,240	0.0073	8.30	8.13	1.0843	1.1065
62	10	1,544	0.0065	11.40	11.17	0.8772	0.8951
63	14	2,054	0.0068	16.90	16.56	0.8284	0.8453
64	22	2,583	0.0085	23.10	22.64	0.9524	0.9718
65	21	3,363	0.0062	32.30	31.65	0.6502	0.6634
66	37	4,451	0.0083	47.20	46.26	0.7839	0.7999
67	42	5,353	0.0078	62.90	61.64	0.6677	0.6814
68	45	5,836	0.0077	74.60	73.11	0.6032	0.6155
69	56	5,721	0.0098	79.30	77.71	0.7062	0.7206
70	66	5,141	0.0128	77.10	75.56	0.8560	0.8735
71	53	4,564	0.0116	74.90	73.40	0.7076	0.7221
72	50	4,028	0.0124	72.40	70.95	0.6906	0.7047
73	58	3,628	0.0160	70.60	69.19	0.8215	0.8383
74	50	3,241	0.0154	68.20	66.84	0.7331	0.7481
75	57	2,879	0.0198	65.20	63.90	0.8742	0.8921
76	55	2,685	0.0205	66.60	65.27	0.8258	0.8427
77	66	2,498	0.0264	68.70	67.33	0.9607	0.9803
78	66	2,388	0.0276	72.30	70.85	0.9129	0.9315
79	75	2,210	0.0339	72.90	71.44	1.0288	1.0498
80	69	2,025	0.0341	72.60	71.15	0.9504	0.9698
81	84	1,977	0.0425	79.50	77.91	1.0566	1.0782
82	85	1,826	0.0465	83.70	82.03	1.0155	1.0363
83	100	1,748	0.0572	89.80	88.00	1.1136	1.1363
84	94	1,657	0.0567	94.20	92.32	0.9979	1.0182
85	94	1,539	0.0611	96.60	94.67	0.9731	0.9929
86	113	1,422	0.0795	99.90	97.90	1.1311	1.1542
87	125	1,291	0.0968	102.30	100.25	1.2219	1.2468
88	118	1,135	0.1040	100.70	98.69	1.1718	1.1957
89	105	944	0.1112	93.10	91.24	1.1278	1.1508
90	90	801	0.1124	87.00	85.26	1.0345	1.0556
91	93	701	0.1327	86.00	84.28	1.0814	1.1035
92	71	554	0.1282	77.90	76.34	0.9114	0.9300
93	86	415	0.2072	65.50	64.19	1.3130	1.3398
94	49	289	0.1696	51.10	50.08	0.9589	0.9785
95	38	208	0.1827	41.10	40.28	0.9246	0.9434
96	38	150	0.2533	32.90	32.24	1.1550	1.1786
97	24	100	0.2400	23.80	23.32	1.0084	1.0290
98	20	75	0.2667	19.60	19.21	1.0204	1.0412
99	14	52	0.2692	14.70	14.41	0.9524	0.9718
100+	32	110	0.2909	35.90	35.18	0.8914	0.9096
Total	2,414	88,181	0.0274	2,533.00	2,482.34	0.9530	0.9725

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Women 4-Year Period Ending 2017 Proposed Assumptions are 108% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	0	N/A	0.00	0.00	N/A	N/A
49	0	0	N/A	0.00	0.00	N/A	N/A
50	0	0	N/A	0.00	0.00	N/A	N/A
51	0	0	N/A	0.00	0.00	N/A	N/A
52	0	0	N/A	0.00	0.00	N/A	N/A
53	0	2	0.0000	0.00	0.00	N/A	N/A
54	0	15	0.0000	0.00	0.00	N/A	N/A
55	0	227	0.0000	0.50	0.54	0.0000	0.0000
56	3	1,155	0.0026	3.10	3.35	0.9677	0.8961
57	2	1,735	0.0012	5.00	5.40	0.4000	0.3704
58	6	2,257	0.0027	7.10	7.67	0.8451	0.7825
59	11	2,816	0.0039	9.30	10.04	1.1828	1.0952
60	14	3,318	0.0042	11.70	12.64	1.1966	1.1079
61	14	4,017	0.0035	15.00	16.20	0.9333	0.8642
62	21	5,048	0.0042	20.30	21.92	1.0345	0.9579
63	32	6,851	0.0047	29.70	32.08	1.0774	0.9976
64	31	8,312	0.0037	38.80	41.90	0.7990	0.7398
65	44	9,567	0.0046	47.80	51.62	0.9205	0.8523
66	64	10,823	0.0059	59.40	64.15	1.0774	0.9976
67	81	11,350	0.0071	69.00	74.52	1.1739	1.0870
68	75	11,082	0.0068	75.10	81.11	0.9987	0.9247
69	80	10,400	0.0077	77.90	84.13	1.0270	0.9509
70	66	9,725	0.0068	79.20	85.54	0.8333	0.7716
71	100	9,206	0.0109	83.80	90.50	1.1933	1.1049
72	71	8,773	0.0081	88.80	95.90	0.7995	0.7403
73	97	8,244	0.0118	92.00	99.36	1.0543	0.9762
74	102	7,451	0.0137	91.50	98.82	1.1148	1.0322
75	98	6,683	0.0147	89.50	96.66	1.0950	1.0139
76	99	6,130	0.0162	91.70	99.04	1.0796	0.9996
77	109	5,714	0.0191	97.60	105.41	1.1168	1.0341
78	120	5,281	0.0227	101.70	109.84	1.1799	1.0925
79	128	4,923	0.0260	105.40	113.83	1.2144	1.1245
80	148	4,691	0.0315	110.40	119.23	1.3406	1.2413
81	135	4,457	0.0303	120.30	129.92	1.1222	1.0391
82	144	4,316	0.0334	137.30	148.28	1.0488	0.9711
83	156	4,086	0.0382	149.80	161.78	1.0414	0.9642
84	162	3,863	0.0419	160.90	173.77	1.0068	0.9323
85	202	3,670	0.0550	172.30	186.08	1.1724	1.0855
86	179	3,513	0.0510	185.30	200.12	0.9660	0.8944
87	202	3,264	0.0619	191.40	206.71	1.0554	0.9772
88	187	2,958	0.0632	189.20	204.34	0.9884	0.9152
89	212	2,678	0.0792	190.10	205.31	1.1152	1.0326
90	239	2,344	0.1020	188.60	203.69	1.2672	1.1734
91	213	2,028	0.1050	183.20	197.86	1.1627	1.0765
92	187	1,707	0.1095	170.70	184.36	1.0955	1.0143
93	195	1,396	0.1397	153.40	165.67	1.2712	1.1770
94	182	1,124	0.1619	139.30	150.44	1.3065	1.2098
95	158	893	0.1769	127.70	137.92	1.2373	1.1456
96	123	691	0.1780	111.80	120.74	1.1002	1.0187
97	103	528	0.1951	95.40	103.03	1.0797	0.9997
98	94	381	0.2467	75.30	81.32	1.2483	1.1559
99	58	254	0.2283	53.20	57.46	1.0902	1.0095
100+	193	649	0.2974	150.60	162.65	1.2815	1.1866
Total	4,940	210,596	0.0235	4,447.10	4,802.87	1.1108	1.0286

Bolton		Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men and Women 4-Year Period Ending 2017					
		Proposed Assumptions are 98% of the Current Rates for Men and 108% for Women					
(1)	(2)	(3)	(4) = (2)-(3)	(5)	(6)	(7) = (2)+(5)	(8)=(2)-(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	0	N/A	0.00	0.00	N/A	N/A
49	0	0	N/A	0.00	0.00	N/A	N/A
50	0	0	N/A	0.00	0.00	N/A	N/A
51	0	0	N/A	0.00	0.00	N/A	N/A
52	0	0	N/A	0.00	0.00	N/A	N/A
53	0	2	0.0000	0.00	0.00	N/A	N/A
54	0	16	0.0000	0.00	0.00	N/A	N/A
55	0	306	0.0000	0.90	0.93	0.0000	0.0000
56	6	1,582	0.0038	4.90	5.11	1.2245	1.1737
57	4	2,330	0.0017	7.80	8.14	0.5128	0.4912
58	11	3,005	0.0037	11.10	11.59	0.9910	0.9493
59	15	3,685	0.0041	14.20	14.85	1.0563	1.0104
60	20	4,354	0.0046	18.00	18.81	1.1111	1.0633
61	23	5,257	0.0044	23.30	24.33	0.9871	0.9452
62	31	6,592	0.0047	31.70	33.10	0.9779	0.9367
63	46	8,905	0.0052	46.60	48.64	0.9871	0.9458
64	53	10,895	0.0049	61.90	64.54	0.8562	0.8212
65	65	12,930	0.0050	80.10	83.28	0.8115	0.7805
66	101	15,274	0.0066	106.60	110.41	0.9475	0.9148
67	123	16,703	0.0074	131.90	136.16	0.9325	0.9033
68	120	16,918	0.0071	149.70	154.22	0.8016	0.7781
69	136	16,121	0.0084	157.20	161.85	0.8651	0.8403
70	132	14,866	0.0089	156.30	161.09	0.8445	0.8194
71	153	13,770	0.0111	158.70	163.91	0.9641	0.9335
72	121	12,801	0.0095	161.20	166.86	0.7506	0.7252
73	155	11,872	0.0131	162.60	168.55	0.9533	0.9196
74	152	10,692	0.0142	159.70	165.66	0.9518	0.9176
75	155	9,562	0.0162	154.70	160.56	1.0019	0.9654
76	154	8,815	0.0175	158.30	164.30	0.9728	0.9373
77	175	8,212	0.0213	166.30	172.73	1.0523	1.0131
78	186	7,669	0.0243	174.00	180.69	1.0690	1.0294
79	203	7,133	0.0285	178.30	185.27	1.1385	1.0957
80	217	6,716	0.0323	183.00	190.38	1.1858	1.1398
81	219	6,434	0.0340	199.80	207.83	1.0961	1.0537
82	229	6,142	0.0373	221.00	230.31	1.0362	0.9943
83	256	5,834	0.0439	239.60	249.79	1.0684	1.0249
84	256	5,520	0.0464	255.10	266.09	1.0035	0.9621
85	296	5,209	0.0568	268.90	280.75	1.1008	1.0543
86	292	4,935	0.0592	285.20	298.03	1.0238	0.9798
87	327	4,555	0.0718	293.70	306.97	1.1134	1.0653
88	305	4,093	0.0745	289.90	303.02	1.0521	1.0065
89	317	3,622	0.0875	283.20	296.55	1.1194	1.0690
90	329	3,145	0.1046	275.60	288.95	1.1938	1.1386
91	306	2,729	0.1121	269.20	282.14	1.1367	1.0846
92	258	2,261	0.1141	248.60	260.70	1.0378	0.9897
93	281	1,811	0.1552	218.90	229.86	1.2837	1.2225
94	231	1,413	0.1635	190.40	200.52	1.2132	1.1520
95	196	1,101	0.1780	168.80	178.19	1.1611	1.0999
96	161	841	0.1914	144.70	152.99	1.1126	1.0524
97	127	628	0.2022	119.20	126.36	1.0654	1.0051
98	114	456	0.2500	94.90	100.53	1.2013	1.1340
99	72	306	0.2353	67.90	71.86	1.0604	1.0019
100+	225	759	0.2964	186.50	197.83	1.2064	1.1373
Total	7,354	298,777	0.0246	6,980.10	7,285.21	1.0536	1.0094

Bolton		Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Men 4-Year Period Ending 2017 Proposed Assumptions are 89% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount Current Assumption	Proposed Assumption	Actual/Expected	Current	Proposed
41	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
42	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
45	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
46	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
47	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
48	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
49	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
50	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
51	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
52	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
53	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
54	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A
55	\$ -	\$ 4,096,798	0.0000	\$ 15,636	\$ 13,916	0.0000	0.0000	0.0000
56	\$ 92,280	\$ 22,109,755	0.0042	\$ 94,420	\$ 84,034	0.9773	1.0981	1.0981
57	\$ 77,162	\$ 30,969,634	0.0025	\$ 146,378	\$ 130,277	0.5271	0.5923	0.5923
58	\$ 242,909	\$ 38,466,229	0.0063	\$ 199,857	\$ 177,872	1.2154	1.3656	1.3656
59	\$ 173,161	\$ 44,806,760	0.0039	\$ 252,735	\$ 224,934	0.6851	0.7698	0.7698
60	\$ 204,097	\$ 54,096,540	0.0038	\$ 327,447	\$ 291,428	0.6233	0.7003	0.7003
61	\$ 372,074	\$ 65,004,876	0.0057	\$ 433,422	\$ 385,746	0.8585	0.9646	0.9646
62	\$ 523,680	\$ 83,654,269	0.0063	\$ 623,319	\$ 554,754	0.8401	0.9440	0.9440
63	\$ 753,557	\$ 112,946,020	0.0067	\$ 929,432	\$ 827,194	0.8108	0.9110	0.9110
64	\$ 1,058,518	\$ 148,472,607	0.0071	\$ 1,333,805	\$ 1,187,086	0.7936	0.8917	0.8917
65	\$ 1,138,193	\$ 205,270,168	0.0055	\$ 1,977,379	\$ 1,759,868	0.5756	0.6467	0.6467
66	\$ 1,783,707	\$ 285,673,210	0.0062	\$ 3,042,435	\$ 2,707,767	0.5863	0.6587	0.6587
67	\$ 2,630,581	\$ 349,568,908	0.0075	\$ 4,117,061	\$ 3,664,184	0.6389	0.7179	0.7179
68	\$ 2,689,126	\$ 386,381,011	0.0070	\$ 4,945,976	\$ 4,401,918	0.5437	0.6109	0.6109
69	\$ 3,439,220	\$ 378,910,950	0.0091	\$ 5,248,199	\$ 4,670,897	0.6553	0.7363	0.7363
70	\$ 3,628,401	\$ 335,551,641	0.0108	\$ 5,032,653	\$ 4,479,061	0.7210	0.8101	0.8101
71	\$ 3,476,468	\$ 293,082,313	0.0119	\$ 4,804,491	\$ 4,275,997	0.7236	0.8130	0.8130
72	\$ 2,829,162	\$ 252,312,795	0.0112	\$ 4,529,488	\$ 4,031,244	0.6246	0.7018	0.7018
73	\$ 3,418,551	\$ 223,427,153	0.0153	\$ 4,344,365	\$ 3,866,485	0.7869	0.8841	0.8841
74	\$ 3,000,764	\$ 196,683,102	0.0153	\$ 4,130,872	\$ 3,676,476	0.7264	0.8162	0.8162
75	\$ 3,173,871	\$ 170,750,996	0.0186	\$ 3,859,456	\$ 3,434,916	0.8224	0.9240	0.9240
76	\$ 2,466,744	\$ 157,931,093	0.0156	\$ 3,916,473	\$ 3,485,661	0.6298	0.7077	0.7077
77	\$ 3,355,398	\$ 146,048,709	0.0230	\$ 4,017,446	\$ 3,575,527	0.8352	0.9384	0.9384
78	\$ 3,540,227	\$ 139,969,475	0.0253	\$ 4,233,815	\$ 3,768,095	0.8362	0.9395	0.9395
79	\$ 4,020,793	\$ 128,680,277	0.0312	\$ 4,245,746	\$ 3,778,714	0.9470	1.0641	1.0641
80	\$ 4,029,563	\$ 118,765,358	0.0339	\$ 4,259,343	\$ 3,790,815	0.9461	1.0630	1.0630
81	\$ 4,928,000	\$ 116,284,226	0.0424	\$ 4,676,287	\$ 4,161,896	1.0538	1.1841	1.1841
82	\$ 4,694,033	\$ 109,263,604	0.0430	\$ 5,013,144	\$ 4,461,699	0.9363	1.0521	1.0521
83	\$ 4,932,499	\$ 103,179,178	0.0478	\$ 5,292,184	\$ 4,710,044	0.9320	1.0472	1.0472
84	\$ 5,090,109	\$ 98,026,080	0.0519	\$ 5,569,817	\$ 4,957,137	0.9139	1.0268	1.0268
85	\$ 5,138,930	\$ 90,382,293	0.0569	\$ 5,660,956	\$ 5,038,250	0.9078	1.0200	1.0200
86	\$ 6,497,203	\$ 82,539,641	0.0787	\$ 5,776,743	\$ 5,141,301	1.1247	1.2637	1.2637
87	\$ 6,777,360	\$ 73,603,798	0.0921	\$ 5,827,287	\$ 5,186,285	1.1630	1.3068	1.3068
88	\$ 5,735,995	\$ 63,838,837	0.0899	\$ 5,665,369	\$ 5,042,178	1.0125	1.1376	1.1376
89	\$ 5,690,988	\$ 54,061,051	0.1053	\$ 5,333,112	\$ 4,746,469	1.0671	1.1990	1.1990
90	\$ 4,947,986	\$ 44,660,775	0.1108	\$ 4,845,022	\$ 4,312,070	1.0213	1.1475	1.1475
91	\$ 4,711,936	\$ 38,548,612	0.1222	\$ 4,710,590	\$ 4,192,425	1.0003	1.1239	1.1239
92	\$ 3,855,755	\$ 30,096,849	0.1281	\$ 4,223,550	\$ 3,758,960	0.9129	1.0258	1.0258
93	\$ 4,610,769	\$ 21,793,181	0.2116	\$ 3,442,793	\$ 3,064,086	1.3393	1.5048	1.5048
94	\$ 2,149,493	\$ 14,861,638	0.1446	\$ 2,628,071	\$ 2,338,984	0.8179	0.9190	0.9190
95	\$ 1,869,758	\$ 10,972,171	0.1704	\$ 2,165,706	\$ 1,927,478	0.8633	0.9701	0.9701
96	\$ 1,967,503	\$ 7,840,288	0.2509	\$ 1,717,116	\$ 1,528,233	1.1458	1.2874	1.2874
97	\$ 1,077,149	\$ 5,145,622	0.2093	\$ 1,226,141	\$ 1,091,265	0.8785	0.9871	0.9871
98	\$ 902,396	\$ 4,028,104	0.2240	\$ 1,063,724	\$ 946,715	0.8483	0.9532	0.9532
99	\$ 649,823	\$ 2,889,447	0.2249	\$ 823,719	\$ 733,110	0.7889	0.8864	0.8864
100+	\$ 1,855,645	\$ 6,220,977	0.2983	\$ 2,019,328	\$ 1,797,202	0.9189	1.0325	1.0325
Total	\$ 130,201,537	\$ 5,351,867,019	0.0243	\$ 148,742,307	\$ 132,380,653	0.8753	0.9835	0.9835

*The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the office of the actuary based on TRS experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton

Teachers' Retirement System of the City of New York
 Service Retirees' Mortality Assumption and Experience
 Liability Weighted Mortality - Women
 4-Year Period Ending 2017
 Proposed Assumptions are 102% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
42	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
45	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
46	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
47	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
48	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
49	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
50	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
51	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
52	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
53	\$ -	\$ 57,435	0.0000	\$ 119	\$ 121	0.0000	0.0000
54	\$ -	\$ 234,386	0.0000	\$ 542	\$ 552	0.0000	0.0000
55	\$ -	\$ 11,064,247	0.0000	\$ 27,787	\$ 28,342	0.0000	0.0000
56	\$ 147,913	\$ 58,137,988	0.0025	\$ 156,570	\$ 159,702	0.9447	0.9262
57	\$ 74,395	\$ 88,721,416	0.0008	\$ 257,440	\$ 262,589	0.2890	0.2833
58	\$ 298,323	\$ 114,586,034	0.0026	\$ 356,216	\$ 363,340	0.8375	0.8211
59	\$ 417,294	\$ 140,574,438	0.0030	\$ 464,470	\$ 473,759	0.8984	0.8808
60	\$ 653,582	\$ 165,747,490	0.0039	\$ 579,912	\$ 591,510	1.1270	1.1049
61	\$ 613,304	\$ 202,253,693	0.0030	\$ 757,635	\$ 772,788	0.8095	0.7936
62	\$ 1,004,919	\$ 259,652,765	0.0039	\$ 1,050,983	\$ 1,072,002	0.9562	0.9374
63	\$ 1,280,577	\$ 351,611,638	0.0036	\$ 1,531,735	\$ 1,562,370	0.8360	0.8196
64	\$ 1,359,505	\$ 438,974,670	0.0031	\$ 2,051,079	\$ 2,092,101	0.6628	0.6498
65	\$ 2,222,198	\$ 518,498,969	0.0043	\$ 2,596,187	\$ 2,648,111	0.8559	0.8392
66	\$ 3,100,576	\$ 596,042,222	0.0052	\$ 3,272,101	\$ 3,337,543	0.9476	0.9290
67	\$ 3,818,476	\$ 619,345,161	0.0062	\$ 3,763,230	\$ 3,838,495	1.0147	0.9948
68	\$ 3,402,385	\$ 598,611,490	0.0057	\$ 4,050,324	\$ 4,131,330	0.8400	0.8236
69	\$ 4,364,324	\$ 553,993,582	0.0079	\$ 4,138,530	\$ 4,221,301	1.0546	1.0339
70	\$ 3,102,230	\$ 500,441,946	0.0062	\$ 4,070,451	\$ 4,151,860	0.7621	0.7472
71	\$ 4,371,147	\$ 457,469,629	0.0096	\$ 4,149,576	\$ 4,232,567	1.0534	1.0327
72	\$ 3,266,001	\$ 423,923,116	0.0077	\$ 4,283,845	\$ 4,369,521	0.7624	0.7475
73	\$ 4,067,003	\$ 388,944,160	0.0105	\$ 4,338,416	\$ 4,425,184	0.9374	0.9191
74	\$ 4,201,859	\$ 339,242,990	0.0124	\$ 4,158,123	\$ 4,241,285	1.0105	0.9907
75	\$ 3,867,258	\$ 296,386,473	0.0130	\$ 3,960,927	\$ 4,040,145	0.9764	0.9572
76	\$ 4,164,093	\$ 265,163,933	0.0157	\$ 3,957,126	\$ 4,036,269	1.0523	1.0317
77	\$ 4,231,790	\$ 241,073,189	0.0176	\$ 4,112,074	\$ 4,194,316	1.0291	1.0089
78	\$ 4,533,169	\$ 218,580,220	0.0207	\$ 4,197,972	\$ 4,281,932	1.0798	1.0587
79	\$ 5,318,003	\$ 200,441,593	0.0265	\$ 4,285,877	\$ 4,371,594	1.2408	1.2165
80	\$ 5,297,834	\$ 188,425,506	0.0281	\$ 4,434,833	\$ 4,523,530	1.1946	1.1712
81	\$ 5,297,568	\$ 178,346,766	0.0297	\$ 4,812,619	\$ 4,908,872	1.1008	1.0792
82	\$ 5,371,306	\$ 174,656,075	0.0308	\$ 5,557,018	\$ 5,668,159	0.9666	0.9476
83	\$ 6,109,023	\$ 166,379,956	0.0367	\$ 6,100,629	\$ 6,222,641	1.0014	0.9817
84	\$ 5,711,338	\$ 158,049,847	0.0361	\$ 6,582,155	\$ 6,713,798	0.8677	0.8507
85	\$ 7,232,596	\$ 151,507,845	0.0477	\$ 7,103,662	\$ 7,245,735	1.0182	0.9982
86	\$ 7,401,166	\$ 144,902,850	0.0511	\$ 7,640,296	\$ 7,793,102	0.9687	0.9497
87	\$ 7,808,045	\$ 133,901,337	0.0583	\$ 7,847,808	\$ 8,004,764	0.9949	0.9754
88	\$ 7,007,196	\$ 119,881,917	0.0585	\$ 7,661,998	\$ 7,815,238	0.9145	0.8966
89	\$ 8,670,673	\$ 109,602,264	0.0791	\$ 7,774,377	\$ 7,929,864	1.1153	1.0934
90	\$ 9,155,564	\$ 95,202,079	0.0962	\$ 7,664,675	\$ 7,817,969	1.1945	1.1711
91	\$ 8,073,868	\$ 80,596,849	0.1002	\$ 7,270,032	\$ 7,415,433	1.1106	1.0888
92	\$ 7,777,132	\$ 67,325,179	0.1155	\$ 6,712,182	\$ 6,846,426	1.1587	1.1359
93	\$ 6,923,133	\$ 52,681,349	0.1314	\$ 5,780,188	\$ 5,895,792	1.1977	1.1742
94	\$ 6,669,093	\$ 42,113,105	0.1584	\$ 5,224,614	\$ 5,329,106	1.2765	1.2514
95	\$ 5,503,097	\$ 33,318,211	0.1652	\$ 4,767,381	\$ 4,862,729	1.1543	1.1317
96	\$ 4,201,535	\$ 25,996,746	0.1616	\$ 4,197,292	\$ 4,281,238	1.0010	0.9814
97	\$ 3,791,602	\$ 20,356,203	0.1863	\$ 3,675,345	\$ 3,748,852	1.0316	1.0114
98	\$ 3,306,773	\$ 13,882,169	0.2382	\$ 2,742,867	\$ 2,797,724	1.2056	1.1820
99	\$ 2,016,043	\$ 9,241,519	0.2182	\$ 1,930,939	\$ 1,969,558	1.0441	1.0236
100+	\$ 6,561,053	\$ 22,938,599	0.2860	\$ 5,304,556	\$ 5,410,647	1.2369	1.2126
Total	\$ 193,765,962	\$ 10,039,081,244	0.0193	\$ 187,354,711	\$ 191,101,805	1.0342	1.0139

*The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the office of the actuary based on TRS experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.



Teachers' Retirement System of the City of New York
 Service Retirees' Mortality Assumption and Experience
 Liability Weighted Mortality - Men and Women
 4-Year Period Ending 2017

Proposed Assumptions are 89% of the Current Rates for Men and 102% for Women

(1) Age	(2) Pension Amount of Actual Deaths	(3) Total Pension Amounts	(4) = (2)÷(3) Actual Rate	(5) Expected Reduction in Pension Amount		(7) = (2)÷(5) Actual/Expected		(8) = (2)÷(6)	
				(6) Proposed Assumption		Current		Proposed	
				Current Assumption	Proposed Assumption	Current	Proposed		
41	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
42	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
45	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
46	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
47	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
48	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
49	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
50	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
51	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
52	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	N/A	N/A
53	\$ -	\$ 57,435	0.0000	\$ 119	\$ 121	0.0000	0.0000	0.0000	0.0000
54	\$ -	\$ 234,386	0.0000	\$ 542	\$ 552	0.0000	0.0000	0.0000	0.0000
55	\$ -	\$ 15,161,045	0.0000	\$ 43,423	\$ 42,259	0.0000	0.0000	0.0000	0.0000
56	\$ 240,193	\$ 80,247,743	0.0030	\$ 250,991	\$ 243,736	0.9570	0.9570	0.9570	0.9855
57	\$ 151,557	\$ 119,691,050	0.0013	\$ 403,818	\$ 392,865	0.3753	0.3753	0.3753	0.3858
58	\$ 541,232	\$ 153,052,263	0.0035	\$ 556,073	\$ 541,213	0.9733	0.9733	0.9733	1.0000
59	\$ 590,455	\$ 185,381,198	0.0032	\$ 717,204	\$ 698,693	0.8233	0.8233	0.8233	0.8451
60	\$ 857,679	\$ 219,844,030	0.0039	\$ 907,359	\$ 882,938	0.9452	0.9452	0.9452	0.9714
61	\$ 985,378	\$ 267,258,569	0.0037	\$ 1,191,058	\$ 1,158,534	0.8273	0.8273	0.8273	0.8505
62	\$ 1,528,599	\$ 343,307,034	0.0045	\$ 1,674,430	\$ 1,626,756	0.9130	0.9130	0.9130	0.9397
63	\$ 2,034,134	\$ 464,557,658	0.0044	\$ 2,461,167	\$ 2,389,564	0.8265	0.8265	0.8265	0.8513
64	\$ 2,418,023	\$ 587,447,277	0.0041	\$ 3,384,884	\$ 3,279,187	0.7144	0.7144	0.7144	0.7374
65	\$ 3,360,391	\$ 723,769,137	0.0046	\$ 4,573,566	\$ 4,407,978	0.7347	0.7347	0.7347	0.7623
66	\$ 4,884,283	\$ 881,715,432	0.0055	\$ 6,314,536	\$ 6,045,310	0.7735	0.7735	0.7735	0.8079
67	\$ 6,449,057	\$ 968,914,069	0.0067	\$ 7,880,291	\$ 7,502,679	0.8184	0.8184	0.8184	0.8596
68	\$ 6,091,511	\$ 984,992,501	0.0062	\$ 8,996,299	\$ 8,533,248	0.6771	0.6771	0.6771	0.7139
69	\$ 7,803,544	\$ 932,904,532	0.0084	\$ 9,386,729	\$ 8,892,198	0.8313	0.8313	0.8313	0.8776
70	\$ 6,730,631	\$ 835,993,587	0.0081	\$ 9,103,104	\$ 8,630,921	0.7394	0.7394	0.7394	0.7798
71	\$ 7,847,615	\$ 750,551,942	0.0105	\$ 8,954,067	\$ 8,508,564	0.8764	0.8764	0.8764	0.9223
72	\$ 6,095,163	\$ 676,235,911	0.0090	\$ 8,813,332	\$ 8,400,765	0.6916	0.6916	0.6916	0.7255
73	\$ 7,485,554	\$ 612,371,313	0.0122	\$ 8,682,781	\$ 8,291,669	0.8621	0.8621	0.8621	0.9028
74	\$ 7,202,623	\$ 535,926,092	0.0134	\$ 8,288,994	\$ 7,917,761	0.8689	0.8689	0.8689	0.9097
75	\$ 7,041,129	\$ 467,137,469	0.0151	\$ 7,820,383	\$ 7,475,061	0.9004	0.9004	0.9004	0.9419
76	\$ 6,630,837	\$ 423,095,026	0.0157	\$ 7,873,599	\$ 7,521,930	0.8422	0.8422	0.8422	0.8815
77	\$ 7,587,188	\$ 387,121,898	0.0196	\$ 8,129,521	\$ 7,769,843	0.9333	0.9333	0.9333	0.9765
78	\$ 8,073,396	\$ 358,549,695	0.0225	\$ 8,431,787	\$ 8,050,027	0.9575	0.9575	0.9575	1.0029
79	\$ 9,338,796	\$ 329,121,870	0.0284	\$ 8,531,622	\$ 8,150,308	1.0946	1.0946	1.0946	1.1458
80	\$ 9,327,397	\$ 307,190,864	0.0304	\$ 8,694,175	\$ 8,314,344	1.0728	1.0728	1.0728	1.1218
81	\$ 10,225,568	\$ 294,630,992	0.0347	\$ 9,488,907	\$ 9,070,767	1.0776	1.0776	1.0776	1.1273
82	\$ 10,065,339	\$ 283,919,679	0.0355	\$ 10,570,163	\$ 10,129,857	0.9522	0.9522	0.9522	0.9936
83	\$ 11,041,522	\$ 269,559,134	0.0410	\$ 11,392,812	\$ 10,932,685	0.9692	0.9692	0.9692	1.0100
84	\$ 10,801,447	\$ 256,075,927	0.0422	\$ 12,151,972	\$ 11,670,935	0.8889	0.8889	0.8889	0.9255
85	\$ 12,371,526	\$ 241,890,138	0.0511	\$ 12,764,617	\$ 12,283,986	0.9692	0.9692	0.9692	1.0071
86	\$ 13,898,369	\$ 227,442,491	0.0611	\$ 13,417,040	\$ 12,934,404	1.0359	1.0359	1.0359	1.0745
87	\$ 14,585,405	\$ 207,505,135	0.0703	\$ 13,675,095	\$ 13,191,049	1.0666	1.0666	1.0666	1.1057
88	\$ 12,743,191	\$ 183,720,754	0.0694	\$ 13,327,368	\$ 12,857,417	0.9562	0.9562	0.9562	0.9911
89	\$ 14,361,661	\$ 163,663,315	0.0878	\$ 13,107,488	\$ 12,676,334	1.0957	1.0957	1.0957	1.1330
90	\$ 14,103,550	\$ 139,862,854	0.1008	\$ 12,509,697	\$ 12,130,038	1.1274	1.1274	1.1274	1.1627
91	\$ 12,785,804	\$ 119,145,461	0.1073	\$ 11,980,622	\$ 11,607,858	1.0672	1.0672	1.0672	1.1015
92	\$ 11,632,887	\$ 97,422,028	0.1194	\$ 10,935,733	\$ 10,605,386	1.0638	1.0638	1.0638	1.0969
93	\$ 11,533,902	\$ 74,474,530	0.1549	\$ 9,222,981	\$ 8,959,878	1.2506	1.2506	1.2506	1.2873
94	\$ 8,818,586	\$ 56,974,743	0.1548	\$ 7,852,686	\$ 7,668,090	1.1230	1.1230	1.1230	1.1500
95	\$ 7,372,855	\$ 44,290,382	0.1665	\$ 6,933,087	\$ 6,790,207	1.0634	1.0634	1.0634	1.0858
96	\$ 6,169,038	\$ 33,837,034	0.1823	\$ 5,914,407	\$ 5,809,470	1.0431	1.0431	1.0431	1.0619
97	\$ 4,868,751	\$ 25,501,825	0.1909	\$ 4,901,486	\$ 4,840,117	0.9933	0.9933	0.9933	1.0059
98	\$ 4,209,169	\$ 17,910,273	0.2350	\$ 3,806,591	\$ 3,744,439	1.1058	1.1058	1.1058	1.1241
99	\$ 2,665,866	\$ 12,130,966	0.2198	\$ 2,754,659	\$ 2,702,668	0.9678	0.9678	0.9678	0.9864
100+	\$ 8,416,698	\$ 29,159,576	0.2886	\$ 7,323,883	\$ 7,207,848	1.1492	1.1492	1.1492	1.1677
Total	\$ 323,967,499	\$ 15,390,948,263	0.0210	\$ 336,097,018	\$ 323,482,458	0.9639	0.9639	0.9639	1.0015

*The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on TRS experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men 10-Year Period Ending 2017 Proposed Assumptions are 98% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	0	N/A	0.00	0.00	N/A	N/A
49	0	0	N/A	0.00	0.00	N/A	N/A
50	0	0	N/A	0.00	0.00	N/A	N/A
51	0	0	N/A	0.00	0.00	N/A	N/A
52	0	0	N/A	0.00	0.00	N/A	N/A
53	0	0	N/A	0.00	0.00	N/A	N/A
54	0	5	0.0000	0.00	0.00	N/A	N/A
55	0	117	0.0000	0.50	0.49	0.0000	0.0000
56	4	858	0.0047	3.80	3.72	1.0526	1.0741
57	6	1,461	0.0041	7.40	7.25	0.8108	0.8274
58	8	2,184	0.0037	12.10	11.86	0.6612	0.6747
59	10	3,214	0.0031	19.20	18.82	0.5208	0.5315
60	31	4,686	0.0066	29.80	29.20	1.0403	1.0615
61	37	6,113	0.0061	43.80	42.92	0.8447	0.8620
62	49	7,454	0.0066	59.50	58.31	0.8235	0.8403
63	61	8,790	0.0069	77.10	75.56	0.7912	0.8073
64	65	9,786	0.0066	93.40	91.53	0.6959	0.7101
65	74	10,521	0.0070	106.80	104.66	0.6929	0.7070
66	90	11,012	0.0082	124.30	121.81	0.7241	0.7388
67	90	11,225	0.0080	140.00	137.20	0.6429	0.6560
68	97	11,115	0.0087	150.80	147.78	0.6432	0.6564
69	102	10,629	0.0096	156.60	153.47	0.6513	0.6646
70	113	9,729	0.0116	155.50	152.39	0.7267	0.7415
71	119	8,754	0.0136	153.80	150.72	0.7737	0.7895
72	91	8,021	0.0113	154.60	151.51	0.5886	0.6006
73	113	7,442	0.0152	155.60	152.49	0.7262	0.7410
74	121	6,903	0.0175	155.90	152.78	0.7761	0.7920
75	137	6,444	0.0213	156.60	153.47	0.8748	0.8927
76	154	6,082	0.0253	164.00	160.72	0.9390	0.9582
77	171	5,772	0.0296	172.30	168.85	0.9925	1.0127
78	150	5,491	0.0273	179.50	175.91	0.8357	0.8527
79	181	5,275	0.0343	187.80	184.04	0.9638	0.9835
80	178	4,964	0.0359	192.40	188.55	0.9252	0.9440
81	216	4,763	0.0453	209.70	205.51	1.0300	1.0511
82	202	4,438	0.0455	221.20	216.78	0.9132	0.9318
83	228	4,141	0.0551	229.90	225.30	0.9917	1.0120
84	254	3,857	0.0659	236.50	231.77	1.0740	1.0959
85	232	3,496	0.0664	235.10	230.40	0.9868	1.0070
86	245	3,125	0.0784	236.90	232.16	1.0342	1.0553
87	237	2,734	0.0867	233.10	228.44	1.0167	1.0375
88	235	2,332	0.1008	221.40	216.97	1.0614	1.0831
89	219	1,954	0.1121	205.60	201.49	1.0652	1.0869
90	199	1,618	0.1230	187.00	183.26	1.0642	1.0859
91	190	1,316	0.1444	173.00	169.54	1.0983	1.1207
92	143	1,037	0.1379	156.00	152.88	0.9167	0.9354
93	154	815	0.1890	138.40	135.63	1.1127	1.1354
94	117	609	0.1921	116.30	113.97	1.0060	1.0265
95	93	448	0.2076	95.30	93.39	0.9759	0.9958
96	80	336	0.2381	79.00	77.42	1.0127	1.0333
97	66	249	0.2651	63.80	62.52	1.0345	1.0556
98	57	184	0.3098	51.40	50.37	1.1089	1.1316
99	34	127	0.2677	38.00	37.24	0.8947	0.9130
100+	71	251	0.2829	85.20	83.50	0.8333	0.8503
Total	5,524	211,877	0.0261	6,065.90	5,944.58	0.9107	0.9292

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Women 10-Year Period Ending 2017 Proposed Assumptions are 108% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	1	0.0000	0.00	0.00	N/A	N/A
49	1	1	1.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.00	0.00	N/A	N/A
51	0	0	N/A	0.00	0.00	N/A	N/A
52	0	0	N/A	0.00	0.00	N/A	N/A
53	0	3	0.0000	0.00	0.00	N/A	N/A
54	0	23	0.0000	0.00	0.00	N/A	N/A
55	0	340	0.0000	0.80	0.86	0.0000	0.0000
56	8	2,451	0.0033	6.70	7.24	1.1940	1.1056
57	15	4,188	0.0036	12.40	13.39	1.2097	1.1201
58	24	6,044	0.0040	19.50	21.06	1.2308	1.1396
59	24	8,334	0.0029	28.80	31.10	0.8333	0.7716
60	33	10,852	0.0030	40.10	43.31	0.8229	0.7620
61	59	13,221	0.0045	52.80	57.02	1.1174	1.0347
62	65	15,382	0.0042	66.40	71.71	0.9789	0.9064
63	96	18,520	0.0052	86.00	92.88	1.1163	1.0336
64	91	20,706	0.0044	103.50	111.78	0.8792	0.8141
65	102	22,005	0.0046	117.80	127.22	0.8659	0.8017
66	134	22,757	0.0059	134.70	145.48	0.9948	0.9211
67	147	22,897	0.0064	150.00	162.00	0.9800	0.9074
68	155	22,356	0.0069	165.30	178.52	0.9377	0.8682
69	170	21,252	0.0080	170.50	184.14	0.9971	0.9232
70	168	19,758	0.0085	173.10	186.95	0.9705	0.8986
71	182	18,465	0.0099	181.40	195.91	1.0033	0.9290
72	170	17,500	0.0097	190.80	206.06	0.8910	0.8250
73	205	16,568	0.0124	199.10	215.03	1.0296	0.9534
74	216	15,434	0.0140	203.70	220.00	1.0604	0.9818
75	212	14,276	0.0149	204.60	220.97	1.0362	0.9594
76	231	13,536	0.0171	220.80	238.46	1.0462	0.9687
77	233	12,882	0.0181	238.80	257.90	0.9757	0.9034
78	279	12,343	0.0226	256.70	277.24	1.0869	1.0064
79	319	11,722	0.0272	269.90	291.49	1.1819	1.0944
80	322	11,331	0.0284	285.60	308.45	1.1275	1.0439
81	344	10,806	0.0318	319.90	345.49	1.0753	0.9957
82	343	10,315	0.0333	357.00	385.56	0.9608	0.8896
83	384	9,754	0.0394	385.90	416.77	0.9951	0.9214
84	388	9,220	0.0421	414.10	447.23	0.9370	0.8676
85	431	8,606	0.0501	432.80	467.42	0.9958	0.9221
86	442	7,918	0.0558	447.40	483.19	0.9879	0.9148
87	480	7,165	0.0670	446.90	482.65	1.0741	0.9945
88	446	6,407	0.0696	435.90	470.77	1.0232	0.9474
89	431	5,668	0.0760	431.80	466.34	0.9981	0.9242
90	481	4,922	0.0977	424.30	458.24	1.1336	1.0497
91	462	4,221	0.1095	407.90	440.53	1.1326	1.0487
92	400	3,574	0.1119	382.20	412.78	1.0466	0.9690
93	424	2,980	0.1423	350.10	378.11	1.2111	1.1214
94	362	2,387	0.1517	320.40	346.03	1.1298	1.0461
95	357	1,906	0.1873	294.00	317.52	1.2143	1.1243
96	286	1,498	0.1909	260.70	281.56	1.0970	1.0158
97	244	1,194	0.2044	231.60	250.13	1.0535	0.9755
98	233	925	0.2519	195.60	211.25	1.1912	1.1030
99	168	690	0.2435	151.50	163.62	1.1089	1.0268
100+	467	1,584	0.2948	373.40	403.27	1.2507	1.1580
Total	11,234	476,888	0.0236	10,643.20	11,494.66	1.0555	0.9773

Bolton		Teachers' Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men and Women 10-Year Period Ending 2017					
		Proposed Assumptions are 98% of the Current Rates for Men and 108% for Women					
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	1	0.0000	0.00	0.00	N/A	N/A
49	1	1	1.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.00	0.00	N/A	N/A
51	0	0	N/A	0.00	0.00	N/A	N/A
52	0	0	N/A	0.00	0.00	N/A	N/A
53	0	3	0.0000	0.00	0.00	N/A	N/A
54	0	28	0.0000	0.00	0.00	N/A	N/A
55	0	457	0.0000	1.30	1.35	0.0000	0.0000
56	12	3,309	0.0036	10.50	10.96	1.1429	1.0949
57	21	5,649	0.0037	19.80	20.64	1.0606	1.0172
58	32	8,228	0.0039	31.60	32.92	1.0127	0.9721
59	34	11,548	0.0029	48.00	49.92	0.7083	0.6811
60	64	15,538	0.0041	69.90	72.51	0.9156	0.8826
61	96	19,334	0.0050	96.60	99.95	0.9938	0.9605
62	114	22,836	0.0050	125.90	130.02	0.9055	0.8768
63	157	27,310	0.0057	163.10	168.44	0.9626	0.9321
64	156	30,492	0.0051	196.90	203.31	0.7923	0.7673
65	176	32,526	0.0054	224.60	231.89	0.7836	0.7590
66	224	33,769	0.0066	259.00	267.29	0.8649	0.8380
67	237	34,122	0.0069	290.00	299.20	0.8172	0.7921
68	252	33,471	0.0075	316.10	326.31	0.7972	0.7723
69	272	31,881	0.0085	327.10	337.61	0.8315	0.8057
70	281	29,487	0.0095	328.60	339.34	0.8551	0.8281
71	301	27,219	0.0111	335.20	346.64	0.8980	0.8683
72	261	25,521	0.0102	345.40	357.57	0.7556	0.7299
73	318	24,010	0.0132	354.70	367.52	0.8965	0.8653
74	337	22,337	0.0151	359.60	372.78	0.9372	0.9040
75	349	20,720	0.0168	361.20	374.44	0.9662	0.9321
76	385	19,618	0.0196	384.80	399.18	1.0005	0.9645
77	404	18,654	0.0217	411.10	426.76	0.9827	0.9467
78	429	17,834	0.0241	436.20	453.15	0.9835	0.9467
79	500	16,997	0.0294	457.70	475.54	1.0924	1.0514
80	500	16,295	0.0307	478.00	497.00	1.0460	1.0060
81	560	15,569	0.0360	529.60	551.00	1.0574	1.0163
82	545	14,753	0.0369	578.20	602.34	0.9426	0.9048
83	612	13,895	0.0440	615.80	642.07	0.9938	0.9532
84	642	13,077	0.0491	650.60	679.00	0.9868	0.9455
85	663	12,102	0.0548	667.90	697.82	0.9927	0.9501
86	687	11,043	0.0622	684.30	715.35	1.0039	0.9604
87	717	9,899	0.0724	680.00	711.09	1.0544	1.0083
88	681	8,739	0.0779	657.30	687.74	1.0361	0.9902
89	650	7,622	0.0853	637.40	667.83	1.0198	0.9733
90	680	6,540	0.1040	611.30	641.50	1.1124	1.0600
91	652	5,537	0.1178	580.90	610.07	1.1224	1.0687
92	543	4,611	0.1178	538.20	565.66	1.0089	0.9599
93	578	3,795	0.1523	488.50	513.74	1.1832	1.1251
94	479	2,996	0.1599	436.70	460.01	1.0969	1.0413
95	450	2,354	0.1912	389.30	410.91	1.1559	1.0951
96	366	1,834	0.1996	339.70	358.98	1.0774	1.0196
97	310	1,443	0.2148	295.40	312.65	1.0494	0.9915
98	290	1,109	0.2615	247.00	261.62	1.1741	1.1085
99	202	817	0.2472	189.50	200.86	1.0660	1.0057
100+	538	1,835	0.2932	458.60	486.77	1.1731	1.1052
Total	16,758	688,765	0.0243	16,709.10	17,439.24	1.0029	0.9609

Bolton

**Teachers' Retirement System of the City of New York
Service Retirees' Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (3) ÷ (4)	(6) = (3) ÷ (2)	(7) = (4) ÷ (2)
Plan Year	Life Years Exposed	Actual Deaths	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	61,787	1,548	1,551.50	0.9977	0.0251	0.0251
2009	62,859	1,546	1,570.40	0.9845	0.0246	0.0250
2010	63,739	1,598	1,594.00	1.0025	0.0251	0.0250
2011	65,397	1,637	1,636.20	1.0005	0.0250	0.0250
2012	66,884	1,563	1,664.30	0.9391	0.0234	0.0249
2013	69,323	1,513	1,712.60	0.8835	0.0218	0.0247
2014	71,363	1,572	1,755.80	0.8953	0.0220	0.0246
2015	75,044	1,675	1,822.90	0.9189	0.0223	0.0243
2016	75,653	1,979	1,682.90	1.1759	0.0262	0.0222
2017	76,717	2,128	1,718.50	1.2383	0.0277	0.0224
Total	688,766	16,759	16,709.10	1.0030	0.0243	0.0243

Bolton		Teachers' Retirement System of the City of New York					
		Disability Retirees' Mortality Assumption and Experience					
Men							
4-Year Period Ending 2017							
Proposed Assumptions are 100% of the Current Rates							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	10	0.0000	0.10	0.10	0.0000	0.0000
42	0	14	0.0000	0.10	0.10	0.0000	0.0000
43	0	13	0.0000	0.10	0.10	0.0000	0.0000
44	0	13	0.0000	0.10	0.10	0.0000	0.0000
45	0	15	0.0000	0.20	0.20	0.0000	0.0000
46	0	18	0.0000	0.20	0.20	0.0000	0.0000
47	1	16	0.0625	0.20	0.20	5.0000	5.0000
48	0	20	0.0000	0.40	0.40	0.0000	0.0000
49	0	25	0.0000	0.40	0.40	0.0000	0.0000
50	1	26	0.0385	0.40	0.40	2.5000	2.5000
51	2	35	0.0571	0.50	0.50	4.0000	4.0000
52	0	43	0.0000	0.80	0.80	0.0000	0.0000
53	1	49	0.0204	0.90	0.90	1.1111	1.1111
54	3	65	0.0462	1.20	1.20	2.5000	2.5000
55	1	61	0.0164	1.30	1.30	0.7692	0.7692
56	0	66	0.0000	1.50	1.50	0.0000	0.0000
57	0	75	0.0000	1.90	1.90	0.0000	0.0000
58	1	79	0.0127	2.00	2.00	0.5000	0.5000
59	5	96	0.0521	2.50	2.50	2.0000	2.0000
60	9	104	0.0865	2.60	2.60	3.4615	3.4615
61	2	103	0.0194	2.60	2.60	0.7692	0.7692
62	2	115	0.0174	2.80	2.80	0.7143	0.7143
63	3	108	0.0278	2.60	2.60	1.1538	1.1538
64	3	123	0.0244	3.10	3.10	0.9677	0.9677
65	2	135	0.0148	3.40	3.40	0.5882	0.5882
66	4	167	0.0240	4.20	4.20	0.9524	0.9524
67	4	182	0.0220	4.70	4.70	0.8511	0.8511
68	2	167	0.0120	4.40	4.40	0.4545	0.4545
69	1	163	0.0061	4.40	4.40	0.2273	0.2273
70	5	141	0.0355	4.00	4.00	1.2500	1.2500
71	4	128	0.0313	3.60	3.60	1.1111	1.1111
72	4	115	0.0348	3.40	3.40	1.1765	1.1765
73	5	94	0.0532	2.80	2.80	1.7857	1.7857
74	2	70	0.0286	2.20	2.20	0.9091	0.9091
75	2	52	0.0385	1.70	1.70	1.1765	1.1765
76	4	51	0.0784	1.90	1.90	2.1053	2.1053
77	2	48	0.0417	1.90	1.90	1.0526	1.0526
78	0	44	0.0000	1.90	1.90	0.0000	0.0000
79	5	40	0.1250	1.70	1.70	2.9412	2.9412
80	3	32	0.0938	1.40	1.40	2.1429	2.1429
81	2	23	0.0870	1.20	1.20	1.6667	1.6667
82	1	24	0.0417	1.40	1.40	0.7143	0.7143
83	1	20	0.0500	1.20	1.20	0.8333	0.8333
84	0	19	0.0000	1.40	1.40	0.0000	0.0000
85	1	21	0.0476	1.60	1.60	0.6250	0.6250
86	4	15	0.2667	1.40	1.40	2.8571	2.8571
87	0	15	0.0000	1.50	1.50	0.0000	0.0000
88	0	14	0.0000	1.50	1.50	0.0000	0.0000
89	2	13	0.1538	1.60	1.60	1.2500	1.2500
90	0	11	0.0000	1.50	1.50	0.0000	0.0000
91	1	8	0.1250	1.20	1.20	0.8333	0.8333
92	1	6	0.1667	1.10	1.10	0.9091	0.9091
93	2	8	0.2500	1.70	1.70	1.1765	1.1765
94	0	7	0.0000	1.60	1.60	0.0000	0.0000
95	1	6	0.1667	1.50	1.50	0.6667	0.6667
96	1	7	0.1429	1.90	1.90	0.5263	0.5263
97	0	3	0.0000	0.90	0.90	0.0000	0.0000
98	2	3	0.6667	0.90	0.90	2.2222	2.2222
99	1	1	1.0000	0.30	0.30	3.3333	3.3333
100+	1	3	0.3333	0.90	0.90	1.1111	1.1111
Total	104	3,148	0.0330	102.40	102.40	1.0156	1.0156

Bolton		Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Women 4-Year Period Ending 2017 Proposed Assumptions are 104% of the Current Rates					
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	22	0.0000	0.40	0.42	0.0000	0.0000
42	0	26	0.0000	0.40	0.42	0.0000	0.0000
43	0	43	0.0000	0.60	0.62	0.0000	0.0000
44	1	57	0.0175	0.70	0.73	1.4286	1.3736
45	1	63	0.0159	0.90	0.94	1.1111	1.0684
46	1	71	0.0141	0.90	0.94	1.1111	1.0684
47	3	60	0.0500	0.80	0.83	3.7500	3.6058
48	0	68	0.0000	1.00	1.04	0.0000	0.0000
49	1	91	0.0110	1.40	1.46	0.7143	0.6868
50	0	111	0.0000	1.90	1.98	0.0000	0.0000
51	1	133	0.0075	2.30	2.39	0.4348	0.4181
52	5	179	0.0279	3.00	3.12	1.6667	1.6026
53	5	205	0.0244	3.60	3.74	1.3889	1.3355
54	5	212	0.0236	3.80	3.95	1.3158	1.2652
55	6	252	0.0238	4.70	4.89	1.2766	1.2275
56	4	267	0.0150	5.10	5.30	0.7843	0.7541
57	4	293	0.0137	5.60	5.82	0.7143	0.6868
58	2	315	0.0063	5.80	6.03	0.3448	0.3316
59	8	339	0.0236	6.10	6.34	1.3115	1.2610
60	4	344	0.0116	6.10	6.34	0.6557	0.6305
61	11	381	0.0289	6.70	6.97	1.6418	1.5786
62	6	406	0.0148	7.00	7.28	0.8571	0.8242
63	13	429	0.0303	7.30	7.59	1.7808	1.7123
64	8	436	0.0183	7.30	7.59	1.0959	1.0537
65	5	464	0.0108	7.80	8.11	0.6410	0.6164
66	12	456	0.0263	7.60	7.90	1.5789	1.5182
67	9	424	0.0212	7.20	7.49	1.2500	1.2019
68	13	416	0.0313	7.00	7.28	1.8571	1.7857
69	8	357	0.0224	6.10	6.34	1.3115	1.2610
70	8	320	0.0250	5.50	5.72	1.4545	1.3986
71	4	302	0.0132	5.30	5.51	0.7547	0.7257
72	3	258	0.0116	4.90	5.10	0.6122	0.5887
73	7	230	0.0304	4.60	4.78	1.5217	1.4632
74	4	199	0.0201	4.40	4.58	0.9091	0.8741
75	7	164	0.0427	4.10	4.26	1.7073	1.6417
76	5	153	0.0327	4.10	4.26	1.2195	1.1726
77	6	133	0.0451	3.80	3.95	1.5789	1.5182
78	4	117	0.0342	3.70	3.85	1.0811	1.0395
79	1	110	0.0091	3.80	3.95	0.2632	0.2530
80	3	98	0.0306	3.60	3.74	0.8333	0.8013
81	2	93	0.0215	3.80	3.95	0.5263	0.5061
82	4	87	0.0460	4.00	4.16	1.0000	0.9615
83	7	78	0.0897	3.90	4.06	1.7949	1.7258
84	4	70	0.0571	3.80	3.95	1.0526	1.0121
85	5	57	0.0877	3.30	3.43	1.5152	1.4569
86	4	48	0.0833	3.10	3.22	1.2903	1.2407
87	8	48	0.1667	3.50	3.64	2.2857	2.1978
88	4	40	0.1000	3.30	3.43	1.2121	1.1655
89	7	41	0.1707	3.80	3.95	1.8421	1.7713
90	2	32	0.0625	3.30	3.43	0.6061	0.5828
91	4	34	0.1176	3.70	3.85	1.0811	1.0395
92	2	32	0.0625	3.90	4.06	0.5128	0.4931
93	5	31	0.1613	4.20	4.37	1.1905	1.1447
94	13	33	0.3939	5.00	5.20	2.6000	2.5000
95	3	20	0.1500	3.40	3.54	0.8824	0.8484
96	6	22	0.2727	3.90	4.06	1.5385	1.4793
97	2	22	0.0909	4.20	4.37	0.4762	0.4579
98	4	22	0.1818	4.60	4.78	0.8696	0.8361
99	7	16	0.4375	3.30	3.43	2.1212	2.0396
100+	9	29	0.3103	6.30	6.55	1.4286	1.3736
Total	290	9,859	0.0294	245.20	255.01	1.1827	1.1372

Bolton		Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Men and Women 4-Year Period Ending 2017					
		Proposed Assumptions are 100% of the Current Rates for Men and 104% for Women					
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	32	0.0000	0.50	0.52	0.0000	0.0000
42	0	40	0.0000	0.50	0.52	0.0000	0.0000
43	0	56	0.0000	0.70	0.72	0.0000	0.0000
44	1	70	0.0143	0.80	0.83	1.2500	1.2077
45	1	78	0.0128	1.10	1.14	0.9091	0.8803
46	1	89	0.0112	1.10	1.14	0.9091	0.8803
47	4	76	0.0526	1.00	1.03	4.0000	3.8760
48	0	88	0.0000	1.40	1.44	0.0000	0.0000
49	1	116	0.0086	1.80	1.86	0.5556	0.5388
50	1	137	0.0073	2.30	2.38	0.4348	0.4209
51	3	168	0.0179	2.80	2.89	1.0714	1.0373
52	5	222	0.0225	3.80	3.92	1.3158	1.2755
53	6	254	0.0236	4.50	4.64	1.3333	1.2920
54	8	277	0.0289	5.00	5.15	1.6000	1.5528
55	7	313	0.0224	6.00	6.19	1.1667	1.1312
56	4	333	0.0120	6.60	6.80	0.6061	0.5879
57	4	368	0.0109	7.50	7.72	0.5333	0.5179
58	3	394	0.0076	7.80	8.03	0.3846	0.3735
59	13	435	0.0299	8.60	8.84	1.5116	1.4699
60	13	448	0.0290	8.70	8.94	1.4943	1.4535
61	13	484	0.0269	9.30	9.57	1.3978	1.3587
62	8	521	0.0154	9.80	10.08	0.8163	0.7937
63	16	537	0.0298	9.90	10.19	1.6162	1.5699
64	11	559	0.0197	10.40	10.69	1.0577	1.0288
65	7	599	0.0117	11.20	11.51	0.6250	0.6081
66	16	623	0.0257	11.80	12.10	1.3559	1.3219
67	13	606	0.0215	11.90	12.19	1.0924	1.0666
68	15	583	0.0257	11.40	11.68	1.3158	1.2842
69	9	520	0.0173	10.50	10.74	0.8571	0.8377
70	13	461	0.0282	9.50	9.72	1.3684	1.3374
71	8	430	0.0186	8.90	9.11	0.8989	0.8780
72	7	373	0.0188	8.30	8.50	0.8434	0.8239
73	12	324	0.0370	7.40	7.58	1.6216	1.5823
74	6	269	0.0223	6.60	6.78	0.9091	0.8855
75	9	216	0.0417	5.80	5.96	1.5517	1.5091
76	9	204	0.0441	6.00	6.16	1.5000	1.4601
77	8	181	0.0442	5.70	5.85	1.4035	1.3671
78	4	161	0.0248	5.60	5.75	0.7143	0.6959
79	6	150	0.0400	5.50	5.65	1.0909	1.0616
80	6	130	0.0462	5.00	5.14	1.2000	1.1664
81	4	116	0.0345	5.00	5.15	0.8000	0.7764
82	5	111	0.0450	5.40	5.56	0.9259	0.8993
83	8	98	0.0816	5.10	5.26	1.5686	1.5221
84	4	89	0.0449	5.20	5.35	0.7692	0.7474
85	6	78	0.0769	4.90	5.03	1.2245	1.1924
86	8	63	0.1270	4.50	4.62	1.7778	1.7301
87	8	63	0.1270	5.00	5.14	1.6000	1.5564
88	4	54	0.0741	4.80	4.93	0.8333	0.8110
89	9	54	0.1667	5.40	5.55	1.6667	1.6210
90	2	43	0.0465	4.80	4.93	0.4167	0.4055
91	5	42	0.1190	4.90	5.05	1.0204	0.9905
92	3	38	0.0789	5.00	5.16	0.6000	0.5818
93	7	39	0.1795	5.90	6.07	1.1864	1.1536
94	13	40	0.3250	6.60	6.80	1.9697	1.9118
95	4	26	0.1538	4.90	5.04	0.8163	0.7943
96	7	29	0.2414	5.80	5.96	1.2069	1.1753
97	2	25	0.0800	5.10	5.27	0.3922	0.3797
98	6	25	0.2400	5.50	5.68	1.0909	1.0556
99	8	17	0.4706	3.60	3.73	2.2222	2.1436
100+	10	32	0.3125	7.20	7.45	1.3889	1.3419
Total	394	13,007	0.0303	347.60	357.41	1.1335	1.1024

Bolton		Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Men 4-Year Period Ending 2017 Proposed Assumptions are 94% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount Current Assumption	Proposed Assumption	Actual/Expected		
						Current	Proposed	
41	\$ -	\$ 315,910	0.0000	\$ 3,620	\$ 3,403	0.0000	0.0000	
42	\$ -	\$ 463,378	0.0000	\$ 5,288	\$ 4,971	0.0000	0.0000	
43	\$ -	\$ 468,815	0.0000	\$ 5,420	\$ 5,095	0.0000	0.0000	
44	\$ -	\$ 395,865	0.0000	\$ 4,799	\$ 4,511	0.0000	0.0000	
45	\$ -	\$ 469,107	0.0000	\$ 5,696	\$ 5,354	0.0000	0.0000	
46	\$ -	\$ 456,906	0.0000	\$ 5,579	\$ 5,244	0.0000	0.0000	
47	\$ 12,424	\$ 421,491	0.0295	\$ 5,293	\$ 4,975	2.3473	2.4971	
48	\$ -	\$ 561,555	0.0000	\$ 7,423	\$ 6,978	0.0000	0.0000	
49	\$ -	\$ 640,526	0.0000	\$ 9,205	\$ 8,653	0.0000	0.0000	
50	\$ 30,678	\$ 709,030	0.0433	\$ 10,685	\$ 10,044	2.8711	3.0544	
51	\$ 35,593	\$ 915,323	0.0389	\$ 14,654	\$ 13,775	2.4289	2.5839	
52	\$ -	\$ 1,184,297	0.0000	\$ 20,796	\$ 19,548	0.0000	0.0000	
53	\$ 35,958	\$ 1,431,964	0.0251	\$ 27,104	\$ 25,477	1.3267	1.4114	
54	\$ 95,480	\$ 1,867,030	0.0511	\$ 37,464	\$ 35,216	2.5486	2.7113	
55	\$ 20,772	\$ 1,939,386	0.0107	\$ 41,667	\$ 39,167	0.4985	0.5303	
56	\$ -	\$ 1,991,725	0.0000	\$ 45,433	\$ 42,707	0.0000	0.0000	
57	\$ -	\$ 2,220,385	0.0000	\$ 52,963	\$ 49,786	0.0000	0.0000	
58	\$ 20,026	\$ 2,398,262	0.0084	\$ 58,612	\$ 55,095	0.3417	0.3635	
59	\$ 120,956	\$ 2,845,461	0.0425	\$ 70,307	\$ 66,089	1.7204	1.8302	
60	\$ 236,071	\$ 2,955,808	0.0799	\$ 73,489	\$ 69,079	3.2123	3.4174	
61	\$ 38,814	\$ 3,006,990	0.0129	\$ 74,885	\$ 70,392	0.5183	0.5514	
62	\$ 46,523	\$ 3,280,853	0.0142	\$ 81,486	\$ 76,597	0.5709	0.6074	
63	\$ 65,462	\$ 3,033,078	0.0216	\$ 75,306	\$ 70,787	0.8693	0.9248	
64	\$ 100,975	\$ 3,578,654	0.0282	\$ 89,211	\$ 83,858	1.1319	1.2041	
65	\$ 28,912	\$ 3,925,149	0.0074	\$ 98,861	\$ 92,929	0.2925	0.3111	
66	\$ 84,036	\$ 5,360,848	0.0157	\$ 136,163	\$ 127,994	0.6172	0.6566	
67	\$ 84,796	\$ 5,896,421	0.0144	\$ 151,015	\$ 141,954	0.5615	0.5973	
68	\$ 25,960	\$ 5,746,970	0.0045	\$ 149,900	\$ 140,906	0.1732	0.1842	
69	\$ 22,642	\$ 5,726,993	0.0040	\$ 153,551	\$ 144,338	0.1475	0.1569	
70	\$ 142,346	\$ 4,855,347	0.0293	\$ 135,726	\$ 127,583	1.0488	1.1157	
71	\$ 141,323	\$ 4,474,162	0.0316	\$ 129,556	\$ 121,782	1.0908	1.1605	
72	\$ 111,680	\$ 3,925,739	0.0284	\$ 117,474	\$ 110,426	0.9507	1.0114	
73	\$ 238,895	\$ 3,128,457	0.0764	\$ 97,127	\$ 91,299	2.4596	2.6166	
74	\$ 62,182	\$ 2,248,226	0.0277	\$ 72,497	\$ 68,147	0.8577	0.9125	
75	\$ 42,413	\$ 1,587,399	0.0267	\$ 54,211	\$ 50,958	0.7824	0.8323	
76	\$ 84,063	\$ 1,612,927	0.0521	\$ 59,211	\$ 55,658	1.4197	1.5103	
77	\$ 39,855	\$ 1,550,488	0.0257	\$ 61,067	\$ 57,403	0.6526	0.6943	
78	\$ -	\$ 1,490,817	0.0000	\$ 61,408	\$ 57,724	0.0000	0.0000	
79	\$ 310,733	\$ 1,449,823	0.2143	\$ 63,038	\$ 59,256	4.9293	5.2439	
80	\$ 90,881	\$ 947,088	0.0960	\$ 44,485	\$ 41,816	2.0430	2.1734	
81	\$ 54,183	\$ 698,467	0.0776	\$ 36,040	\$ 33,878	1.5034	1.5994	
82	\$ 15,823	\$ 780,012	0.0203	\$ 44,410	\$ 41,745	0.3563	0.3790	
83	\$ 53,687	\$ 678,615	0.0791	\$ 42,063	\$ 39,539	1.2764	1.3578	
84	\$ -	\$ 633,495	0.0000	\$ 43,583	\$ 40,968	0.0000	0.0000	
85	\$ 23,568	\$ 695,239	0.0339	\$ 55,049	\$ 51,746	0.4281	0.4555	
86	\$ 96,172	\$ 445,310	0.2160	\$ 39,255	\$ 36,900	2.4499	2.6063	
87	\$ -	\$ 676,966	0.0000	\$ 67,701	\$ 63,639	0.0000	0.0000	
88	\$ -	\$ 589,206	0.0000	\$ 64,969	\$ 61,071	0.0000	0.0000	
89	\$ 30,787	\$ 555,140	0.0555	\$ 65,402	\$ 61,478	0.4707	0.5008	
90	\$ -	\$ 593,053	0.0000	\$ 81,273	\$ 76,396	0.0000	0.0000	
91	\$ 44,983	\$ 325,980	0.1380	\$ 52,970	\$ 49,792	0.8492	0.9034	
92	\$ 31,625	\$ 244,598	0.1293	\$ 42,324	\$ 39,785	0.7472	0.7949	
93	\$ 58,341	\$ 341,337	0.1709	\$ 67,228	\$ 63,194	0.8678	0.9232	
94	\$ -	\$ 289,406	0.0000	\$ 65,001	\$ 61,101	0.0000	0.0000	
95	\$ 8,154	\$ 223,727	0.0364	\$ 53,580	\$ 50,365	0.1522	0.1619	
96	\$ 30,388	\$ 274,999	0.1105	\$ 69,817	\$ 65,628	0.4353	0.4630	
97	\$ -	\$ 108,722	0.0000	\$ 29,903	\$ 28,109	0.0000	0.0000	
98	\$ 56,924	\$ 96,720	0.5885	\$ 28,610	\$ 26,893	1.9897	2.1167	
99	\$ 39,796	\$ 39,796	1.0000	\$ 11,933	\$ 11,217	3.3350	3.5478	
100+	\$ 47,500	\$ 142,320	0.3338	\$ 49,218	\$ 46,265	0.9651	1.0267	
Total	\$ 2,962,380	\$ 99,911,761	0.0296	\$ 3,422,001	\$ 3,216,681	0.8657	0.9209	

*The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the office of the actuary based on TRS experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton		Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Women 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 585,325	0.0000	\$ 7,379	\$ 7,379	0.0000	0.0000	
42	\$ -	\$ 796,435	0.0000	\$ 10,014	\$ 10,014	0.0000	0.0000	
43	\$ -	\$ 1,046,101	0.0000	\$ 13,294	\$ 13,294	0.0000	0.0000	
44	\$ 27,315	\$ 1,498,139	0.0182	\$ 19,321	\$ 19,321	1.4137	1.4137	
45	\$ 19,860	\$ 1,622,569	0.0122	\$ 21,215	\$ 21,215	0.9361	0.9361	
46	\$ 21,157	\$ 1,830,869	0.0116	\$ 24,879	\$ 24,879	0.8504	0.8504	
47	\$ 67,426	\$ 1,581,323	0.0426	\$ 22,923	\$ 22,923	2.9414	2.9414	
48	\$ -	\$ 1,740,153	0.0000	\$ 26,448	\$ 26,448	0.0000	0.0000	
49	\$ 9,213	\$ 2,548,571	0.0036	\$ 40,014	\$ 40,014	0.2302	0.2302	
50	\$ -	\$ 3,011,277	0.0000	\$ 48,687	\$ 48,687	0.0000	0.0000	
51	\$ 34,222	\$ 3,518,012	0.0097	\$ 58,647	\$ 58,647	0.5835	0.5835	
52	\$ 156,698	\$ 4,683,687	0.0335	\$ 80,108	\$ 80,108	1.9561	1.9561	
53	\$ 115,462	\$ 5,445,715	0.0212	\$ 95,555	\$ 95,555	1.2083	1.2083	
54	\$ 120,764	\$ 5,712,853	0.0211	\$ 103,054	\$ 103,054	1.1718	1.1718	
55	\$ 122,543	\$ 6,670,478	0.0184	\$ 123,508	\$ 123,508	0.9922	0.9922	
56	\$ 117,070	\$ 6,959,110	0.0168	\$ 132,153	\$ 132,153	0.8859	0.8859	
57	\$ 115,102	\$ 7,584,069	0.0152	\$ 144,153	\$ 144,153	0.7985	0.7985	
58	\$ 47,259	\$ 7,909,131	0.0060	\$ 147,163	\$ 147,163	0.3211	0.3211	
59	\$ 122,409	\$ 8,368,208	0.0146	\$ 152,139	\$ 152,139	0.8046	0.8046	
60	\$ 113,404	\$ 8,570,079	0.0132	\$ 152,518	\$ 152,518	0.7435	0.7435	
61	\$ 251,082	\$ 9,547,894	0.0263	\$ 166,461	\$ 166,461	1.5084	1.5084	
62	\$ 103,176	\$ 10,522,889	0.0098	\$ 180,220	\$ 180,220	0.5725	0.5725	
63	\$ 315,230	\$ 11,005,315	0.0286	\$ 185,969	\$ 185,969	1.6951	1.6951	
64	\$ 188,877	\$ 11,836,232	0.0160	\$ 198,278	\$ 198,278	0.9526	0.9526	
65	\$ 129,379	\$ 12,313,273	0.0105	\$ 205,518	\$ 205,518	0.6295	0.6295	
66	\$ 381,344	\$ 12,279,679	0.0311	\$ 205,255	\$ 205,255	1.8579	1.8579	
67	\$ 226,094	\$ 11,440,734	0.0198	\$ 191,662	\$ 191,662	1.1796	1.1796	
68	\$ 312,196	\$ 10,686,251	0.0292	\$ 180,075	\$ 180,075	1.7337	1.7337	
69	\$ 160,649	\$ 9,144,292	0.0176	\$ 155,816	\$ 155,816	1.0310	1.0310	
70	\$ 193,024	\$ 8,053,242	0.0240	\$ 138,869	\$ 138,869	1.3900	1.3900	
71	\$ 55,196	\$ 7,594,189	0.0073	\$ 134,785	\$ 134,785	0.4095	0.4095	
72	\$ 58,196	\$ 6,745,865	0.0086	\$ 127,610	\$ 127,610	0.4560	0.4560	
73	\$ 121,743	\$ 5,717,285	0.0213	\$ 116,109	\$ 116,109	1.0485	1.0485	
74	\$ 83,776	\$ 4,870,777	0.0172	\$ 107,665	\$ 107,665	0.7781	0.7781	
75	\$ 194,807	\$ 3,625,030	0.0537	\$ 88,574	\$ 88,574	2.1994	2.1994	
76	\$ 115,725	\$ 3,200,748	0.0362	\$ 86,619	\$ 86,619	1.3360	1.3360	
77	\$ 62,992	\$ 3,060,440	0.0206	\$ 89,613	\$ 89,613	0.7029	0.7029	
78	\$ 68,961	\$ 2,725,152	0.0253	\$ 85,764	\$ 85,764	0.8041	0.8041	
79	\$ 28,495	\$ 2,675,811	0.0106	\$ 91,237	\$ 91,237	0.3123	0.3123	
80	\$ 70,915	\$ 2,252,585	0.0315	\$ 83,557	\$ 83,557	0.8487	0.8487	
81	\$ 17,645	\$ 2,059,996	0.0086	\$ 83,521	\$ 83,521	0.2113	0.2113	
82	\$ 58,731	\$ 2,039,630	0.0288	\$ 91,751	\$ 91,751	0.6401	0.6401	
83	\$ 174,729	\$ 1,872,609	0.0933	\$ 92,073	\$ 92,073	1.8977	1.8977	
84	\$ 57,009	\$ 1,627,031	0.0350	\$ 86,630	\$ 86,630	0.6581	0.6581	
85	\$ 78,272	\$ 1,409,255	0.0555	\$ 82,443	\$ 82,443	0.9494	0.9494	
86	\$ 67,391	\$ 1,225,082	0.0550	\$ 78,859	\$ 78,859	0.8546	0.8546	
87	\$ 174,493	\$ 1,238,656	0.1409	\$ 89,317	\$ 89,317	1.9536	1.9536	
88	\$ 40,700	\$ 979,026	0.0416	\$ 79,080	\$ 79,080	0.5147	0.5147	
89	\$ 182,138	\$ 1,030,851	0.1767	\$ 92,474	\$ 92,474	1.9696	1.9696	
90	\$ 41,296	\$ 811,558	0.0509	\$ 82,868	\$ 82,868	0.4983	0.4983	
91	\$ 47,784	\$ 943,227	0.0507	\$ 105,519	\$ 105,519	0.4528	0.4528	
92	\$ 46,502	\$ 1,135,247	0.0410	\$ 139,571	\$ 139,571	0.3332	0.3332	
93	\$ 122,476	\$ 978,644	0.1251	\$ 131,734	\$ 131,734	0.9297	0.9297	
94	\$ 261,428	\$ 936,418	0.2792	\$ 138,995	\$ 138,995	1.8809	1.8809	
95	\$ 73,468	\$ 634,112	0.1159	\$ 103,849	\$ 103,849	0.7074	0.7074	
96	\$ 127,898	\$ 567,007	0.2256	\$ 102,014	\$ 102,014	1.2537	1.2537	
97	\$ 10,165	\$ 553,225	0.0184	\$ 106,327	\$ 106,327	0.0956	0.0956	
98	\$ 88,817	\$ 581,351	0.1528	\$ 117,959	\$ 117,959	0.7529	0.7529	
99	\$ 188,502	\$ 391,820	0.4811	\$ 81,546	\$ 81,546	2.3116	2.3116	
100+	\$ 178,171	\$ 694,991	0.2564	\$ 157,444	\$ 157,444	1.1317	1.1317	
Total	\$ 6,369,376	\$ 252,689,523	0.0252	\$ 6,286,798	\$ 6,286,798	1.0131	1.0131	

*The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the office of the actuary based on TRS experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton		Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Men and Women 4-Year Period Ending 2017						
		Proposed Assumptions are 94% of the Current Rates for Men and 100% for Women						
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)	
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 901,235	0.0000	\$ 10,999	\$ 10,782	0.0000	0.0000	
42	\$ -	\$ 1,259,813	0.0000	\$ 15,302	\$ 14,985	0.0000	0.0000	
43	\$ -	\$ 1,514,916	0.0000	\$ 18,714	\$ 18,389	0.0000	0.0000	
44	\$ 27,315	\$ 1,894,004	0.0144	\$ 24,120	\$ 23,832	1.1325	1.1461	
45	\$ 19,860	\$ 2,091,676	0.0095	\$ 26,911	\$ 26,569	0.7380	0.7475	
46	\$ 21,157	\$ 2,287,775	0.0092	\$ 30,458	\$ 30,123	0.6946	0.7023	
47	\$ 79,850	\$ 2,002,814	0.0399	\$ 28,216	\$ 27,898	2.8300	2.8622	
48	\$ -	\$ 2,301,708	0.0000	\$ 33,871	\$ 33,426	0.0000	0.0000	
49	\$ 9,213	\$ 3,189,097	0.0029	\$ 49,219	\$ 48,666	0.1872	0.1893	
50	\$ 30,678	\$ 3,720,307	0.0082	\$ 59,372	\$ 58,731	0.5167	0.5223	
51	\$ 69,815	\$ 4,433,335	0.0157	\$ 73,301	\$ 72,421	0.9524	0.9640	
52	\$ 156,698	\$ 5,867,984	0.0267	\$ 100,904	\$ 99,656	1.5529	1.5724	
53	\$ 151,420	\$ 6,877,679	0.0220	\$ 122,658	\$ 121,032	1.2345	1.2511	
54	\$ 216,244	\$ 7,579,883	0.0285	\$ 140,518	\$ 138,270	1.5389	1.5639	
55	\$ 143,315	\$ 8,609,864	0.0166	\$ 165,175	\$ 162,675	0.8677	0.8810	
56	\$ 117,070	\$ 8,950,835	0.0131	\$ 177,586	\$ 174,860	0.6592	0.6695	
57	\$ 115,102	\$ 9,804,454	0.0117	\$ 197,116	\$ 193,939	0.5839	0.5935	
58	\$ 67,285	\$ 10,307,393	0.0065	\$ 205,775	\$ 202,258	0.3270	0.3327	
59	\$ 243,365	\$ 11,213,669	0.0217	\$ 222,446	\$ 218,228	1.0940	1.1152	
60	\$ 349,475	\$ 11,525,887	0.0303	\$ 226,007	\$ 221,597	1.5463	1.5771	
61	\$ 289,896	\$ 12,554,884	0.0231	\$ 241,346	\$ 236,853	1.2012	1.2239	
62	\$ 149,699	\$ 13,803,742	0.0108	\$ 261,706	\$ 256,816	0.5720	0.5829	
63	\$ 380,692	\$ 14,038,393	0.0271	\$ 261,275	\$ 256,757	1.4571	1.4827	
64	\$ 289,852	\$ 15,414,886	0.0188	\$ 287,489	\$ 282,136	1.0082	1.0273	
65	\$ 158,291	\$ 16,238,422	0.0097	\$ 304,380	\$ 298,448	0.5200	0.5304	
66	\$ 465,380	\$ 17,640,527	0.0264	\$ 341,418	\$ 333,248	1.3631	1.3965	
67	\$ 310,890	\$ 17,337,155	0.0179	\$ 342,677	\$ 333,616	0.9072	0.9319	
68	\$ 338,156	\$ 16,433,221	0.0206	\$ 329,975	\$ 320,981	1.0248	1.0535	
69	\$ 183,291	\$ 14,871,285	0.0123	\$ 309,367	\$ 300,154	0.5925	0.6107	
70	\$ 335,370	\$ 12,908,589	0.0260	\$ 274,595	\$ 266,451	1.2213	1.2587	
71	\$ 196,519	\$ 12,068,351	0.0163	\$ 264,341	\$ 256,567	0.7434	0.7660	
72	\$ 169,876	\$ 10,671,604	0.0159	\$ 245,084	\$ 238,035	0.6931	0.7137	
73	\$ 360,638	\$ 8,845,742	0.0408	\$ 213,236	\$ 207,408	1.6913	1.7388	
74	\$ 145,958	\$ 7,119,003	0.0205	\$ 180,162	\$ 175,812	0.8101	0.8302	
75	\$ 237,220	\$ 5,212,429	0.0455	\$ 142,784	\$ 139,532	1.6614	1.7001	
76	\$ 199,788	\$ 4,813,675	0.0415	\$ 145,830	\$ 142,277	1.3700	1.4042	
77	\$ 102,847	\$ 4,610,928	0.0223	\$ 150,681	\$ 147,016	0.6826	0.6996	
78	\$ 68,961	\$ 4,215,969	0.0164	\$ 147,172	\$ 143,487	0.4686	0.4806	
79	\$ 339,228	\$ 4,125,634	0.0822	\$ 154,275	\$ 150,492	2.1989	2.2541	
80	\$ 161,796	\$ 3,199,673	0.0506	\$ 128,042	\$ 125,373	1.2636	1.2905	
81	\$ 71,828	\$ 2,758,463	0.0260	\$ 119,562	\$ 117,399	0.6008	0.6118	
82	\$ 74,554	\$ 2,819,642	0.0264	\$ 136,161	\$ 133,496	0.5475	0.5585	
83	\$ 228,416	\$ 2,551,224	0.0895	\$ 134,136	\$ 131,612	1.7029	1.7355	
84	\$ 57,009	\$ 2,260,526	0.0252	\$ 130,213	\$ 127,598	0.4378	0.4468	
85	\$ 101,840	\$ 2,104,494	0.0484	\$ 137,492	\$ 134,189	0.7407	0.7589	
86	\$ 163,563	\$ 1,670,392	0.0979	\$ 118,114	\$ 115,759	1.3848	1.4130	
87	\$ 174,493	\$ 1,915,622	0.0911	\$ 157,018	\$ 152,956	1.1113	1.1408	
88	\$ 40,700	\$ 1,568,232	0.0260	\$ 144,048	\$ 140,150	0.2825	0.2904	
89	\$ 212,925	\$ 1,585,991	0.1343	\$ 157,876	\$ 153,952	1.3487	1.3831	
90	\$ 41,296	\$ 1,404,611	0.0294	\$ 164,140	\$ 159,264	0.2516	0.2593	
91	\$ 92,767	\$ 1,269,207	0.0731	\$ 158,489	\$ 155,311	0.5853	0.5973	
92	\$ 78,127	\$ 1,379,845	0.0566	\$ 181,895	\$ 179,355	0.4295	0.4356	
93	\$ 180,817	\$ 1,319,981	0.1370	\$ 198,962	\$ 194,928	0.9088	0.9276	
94	\$ 261,428	\$ 1,225,824	0.2133	\$ 203,996	\$ 200,095	1.2815	1.3065	
95	\$ 81,622	\$ 857,839	0.0951	\$ 157,429	\$ 154,214	0.5185	0.5293	
96	\$ 158,286	\$ 842,006	0.1880	\$ 171,831	\$ 167,641	0.9212	0.9442	
97	\$ 10,165	\$ 661,947	0.0154	\$ 136,230	\$ 134,436	0.0746	0.0756	
98	\$ 145,741	\$ 678,071	0.2149	\$ 146,569	\$ 144,853	0.9944	1.0061	
99	\$ 228,298	\$ 431,616	0.5289	\$ 93,479	\$ 92,763	2.4422	2.4611	
100+	\$ 225,671	\$ 837,311	0.2695	\$ 206,662	\$ 203,709	1.0920	1.1078	
Total	\$ 9,331,756	\$ 352,601,284	0.0265	\$ 9,708,799	\$ 9,503,479	0.9612	0.9819	

*The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the office of the actuary based on TRS experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Teachers' Retirement System of the City of New York</p> <p>Disability Retirees' Mortality Assumption and Experience</p> <p>Men</p> <p>10-Year Period Ending 2017</p> <p>Proposed Assumptions are 100% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	19	0.0000	0.20	0.20	0.0000	0.0000
42	0	26	0.0000	0.30	0.30	0.0000	0.0000
43	0	24	0.0000	0.30	0.30	0.0000	0.0000
44	0	24	0.0000	0.20	0.20	0.0000	0.0000
45	0	31	0.0000	0.40	0.40	0.0000	0.0000
46	0	40	0.0000	0.50	0.50	0.0000	0.0000
47	1	42	0.0238	0.60	0.60	1.6667	1.6667
48	0	54	0.0000	0.90	0.90	0.0000	0.0000
49	1	65	0.0154	1.00	1.00	1.0000	1.0000
50	5	82	0.0610	1.40	1.40	3.5714	3.5714
51	2	95	0.0211	1.70	1.70	1.1765	1.1765
52	1	105	0.0095	2.10	2.10	0.4762	0.4762
53	1	122	0.0082	2.50	2.50	0.4000	0.4000
54	5	151	0.0331	3.20	3.20	1.5625	1.5625
55	2	157	0.0127	3.60	3.60	0.5556	0.5556
56	0	175	0.0000	4.20	4.20	0.0000	0.0000
57	3	198	0.0152	4.90	4.90	0.6122	0.6122
58	3	234	0.0128	5.90	5.90	0.5085	0.5085
59	14	268	0.0522	6.90	6.90	2.0290	2.0290
60	12	314	0.0382	8.00	8.00	1.5000	1.5000
61	7	328	0.0213	8.40	8.40	0.8333	0.8333
62	5	345	0.0145	8.80	8.80	0.5682	0.5682
63	9	348	0.0259	8.80	8.80	1.0227	1.0227
64	7	355	0.0197	9.30	9.30	0.7527	0.7527
65	9	363	0.0248	9.50	9.50	0.9474	0.9474
66	5	352	0.0142	9.20	9.20	0.5435	0.5435
67	4	346	0.0116	9.30	9.30	0.4301	0.4301
68	4	317	0.0126	8.60	8.60	0.4651	0.4651
69	2	291	0.0069	8.10	8.10	0.2469	0.2469
70	10	250	0.0400	7.40	7.40	1.3514	1.3514
71	7	217	0.0323	6.50	6.50	1.0769	1.0769
72	4	194	0.0206	6.00	6.00	0.6667	0.6667
73	12	170	0.0706	5.50	5.50	2.1818	2.1818
74	3	141	0.0213	4.80	4.80	0.6250	0.6250
75	3	118	0.0254	4.20	4.20	0.7143	0.7143
76	8	110	0.0727	4.30	4.30	1.8605	1.8605
77	3	93	0.0323	3.90	3.90	0.7692	0.7692
78	5	92	0.0543	4.20	4.20	1.1905	1.1905
79	6	83	0.0723	3.80	3.80	1.5789	1.5789
80	7	74	0.0946	3.70	3.70	1.8919	1.8919
81	5	64	0.0781	3.50	3.50	1.4286	1.4286
82	2	59	0.0339	3.60	3.60	0.5556	0.5556
83	4	55	0.0727	3.60	3.60	1.1111	1.1111
84	5	53	0.0943	4.20	4.20	1.1905	1.1905
85	4	46	0.0870	4.00	4.00	1.0000	1.0000
86	6	36	0.1667	3.50	3.50	1.7143	1.7143
87	1	36	0.0278	3.80	3.80	0.2632	0.2632
88	4	38	0.1053	4.50	4.50	0.8889	0.8889
89	4	36	0.1111	4.90	4.90	0.8163	0.8163
90	3	36	0.0833	5.60	5.60	0.5357	0.5357
91	6	29	0.2069	5.00	5.00	1.2000	1.2000
92	6	24	0.2500	4.70	4.70	1.2766	1.2766
93	2	18	0.1111	3.90	3.90	0.5128	0.5128
94	2	20	0.1000	4.80	4.80	0.4167	0.4167
95	3	18	0.1667	4.80	4.80	0.6250	0.6250
96	2	15	0.1333	4.30	4.30	0.4651	0.4651
97	1	10	0.1000	3.00	3.00	0.3333	0.3333
98	5	8	0.6250	2.50	2.50	2.0000	2.0000
99	2	3	0.6667	1.00	1.00	2.0000	2.0000
100+	1	3	0.3333	0.90	0.90	1.1111	1.1111
Total	238	7,420	0.0321	259.20	259.20	0.9182	0.9182

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Women 10-Year Period Ending 2017 Proposed Assumptions are 104% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	59	0.0000	0.90	0.94	0.0000	0.0000
42	3	66	0.0455	1.00	1.04	3.0000	2.8846
43	1	81	0.0123	1.10	1.14	0.9091	0.8741
44	2	105	0.0190	1.40	1.46	1.4286	1.3736
45	1	130	0.0077	1.90	1.98	0.5263	0.5061
46	2	153	0.0131	2.20	2.29	0.9091	0.8741
47	4	158	0.0253	2.30	2.39	1.7391	1.6722
48	1	182	0.0055	2.90	3.02	0.3448	0.3316
49	3	243	0.0123	4.10	4.26	0.7317	0.7036
50	2	283	0.0071	4.80	4.99	0.4167	0.4006
51	4	343	0.0117	6.00	6.24	0.6667	0.6410
52	9	419	0.0215	7.40	7.70	1.2162	1.1694
53	8	472	0.0169	8.50	8.84	0.9412	0.9050
54	8	517	0.0155	9.50	9.88	0.8421	0.8097
55	8	582	0.0137	11.10	11.54	0.7207	0.6930
56	8	654	0.0122	12.50	13.00	0.6400	0.6154
57	10	756	0.0132	14.40	14.98	0.6944	0.6677
58	8	818	0.0098	15.10	15.70	0.5298	0.5094
59	23	883	0.0260	16.20	16.85	1.4198	1.3651
60	16	935	0.0171	17.00	17.68	0.9412	0.9050
61	19	980	0.0194	17.60	18.30	1.0795	1.0380
62	16	1001	0.0160	17.80	18.51	0.8989	0.8643
63	23	1004	0.0229	17.70	18.41	1.2994	1.2495
64	20	1003	0.0199	17.50	18.20	1.1429	1.0989
65	11	986	0.0112	17.30	17.99	0.6358	0.6114
66	22	925	0.0238	16.20	16.85	1.3580	1.3058
67	22	857	0.0257	15.40	16.02	1.4286	1.3736
68	21	790	0.0266	14.00	14.56	1.5000	1.4423
69	14	690	0.0203	12.40	12.90	1.1290	1.0856
70	19	627	0.0303	11.30	11.75	1.6814	1.6167
71	12	550	0.0218	10.20	10.61	1.1765	1.1312
72	10	481	0.0208	9.70	10.09	1.0309	0.9913
73	10	436	0.0229	9.50	9.88	1.0526	1.0121
74	12	391	0.0307	9.40	9.78	1.2766	1.2275
75	9	342	0.0263	9.10	9.46	0.9890	0.9510
76	9	316	0.0285	9.10	9.46	0.9890	0.9510
77	9	298	0.0302	9.10	9.46	0.9890	0.9510
78	5	269	0.0186	9.20	9.57	0.5435	0.5226
79	10	250	0.0400	9.20	9.57	1.0870	1.0452
80	11	224	0.0491	8.70	9.05	1.2644	1.2157
81	11	212	0.0519	9.20	9.57	1.1957	1.1497
82	9	193	0.0466	9.30	9.67	0.9677	0.9305
83	12	174	0.0690	9.10	9.46	1.3187	1.2680
84	8	164	0.0488	9.40	9.78	0.8511	0.8183
85	14	156	0.0897	9.90	10.30	1.4141	1.3598
86	15	144	0.1042	10.10	10.50	1.4851	1.4280
87	18	142	0.1268	11.10	11.54	1.6216	1.5593
88	18	137	0.1314	12.40	12.90	1.4516	1.3958
89	20	138	0.1449	13.70	14.25	1.4599	1.4037
90	10	124	0.0806	13.80	14.35	0.7246	0.6968
91	16	120	0.1333	14.40	14.98	1.1111	1.0684
92	15	113	0.1327	15.10	15.70	0.9934	0.9552
93	19	99	0.1919	14.60	15.18	1.3014	1.2513
94	22	90	0.2444	14.50	15.08	1.5172	1.4589
95	10	70	0.1429	12.40	12.90	0.8065	0.7754
96	12	58	0.2069	11.00	11.44	1.0909	1.0490
97	7	52	0.1346	10.50	10.92	0.6667	0.6410
98	8	49	0.1633	10.60	11.02	0.7547	0.7257
99	10	41	0.2439	9.00	9.36	1.1111	1.0684
100+	25	76	0.3289	17.40	18.10	1.4368	1.3815
Total	684	22,611	0.0303	628.20	653.33	1.0888	1.0469

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #003366; color: white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Teachers' Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Men and Women 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates for Men and 104% for Women </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	78	0.0000	1.10	1.14	0.0000	0.0000
42	3	92	0.0326	1.30	1.34	2.3077	2.2388
43	1	105	0.0095	1.40	1.44	0.7143	0.6925
44	2	129	0.0155	1.60	1.66	1.2500	1.2077
45	1	161	0.0062	2.30	2.38	0.4348	0.4209
46	2	193	0.0104	2.70	2.79	0.7407	0.7174
47	5	200	0.0250	2.90	2.99	1.7241	1.6711
48	1	236	0.0042	3.80	3.92	0.2632	0.2554
49	4	308	0.0130	5.10	5.26	0.7843	0.7599
50	7	365	0.0192	6.20	6.39	1.1290	1.0951
51	6	438	0.0137	7.70	7.94	0.7792	0.7557
52	10	524	0.0191	9.50	9.80	1.0526	1.0208
53	9	594	0.0152	11.00	11.34	0.8182	0.7937
54	13	668	0.0195	12.70	13.08	1.0236	0.9939
55	10	739	0.0135	14.70	15.14	0.6803	0.6603
56	8	829	0.0097	16.70	17.20	0.4790	0.4651
57	13	954	0.0136	19.30	19.88	0.6736	0.6541
58	11	1052	0.0105	21.00	21.60	0.5238	0.5092
59	37	1151	0.0321	23.10	23.75	1.6017	1.5580
60	28	1249	0.0224	25.00	25.68	1.1200	1.0903
61	26	1308	0.0199	26.00	26.70	1.0000	0.9736
62	21	1346	0.0156	26.60	27.31	0.7895	0.7689
63	32	1352	0.0237	26.50	27.21	1.2075	1.1761
64	27	1358	0.0199	26.80	27.50	1.0075	0.9818
65	20	1349	0.0148	26.80	27.49	0.7463	0.7275
66	27	1277	0.0211	25.40	26.05	1.0630	1.0365
67	26	1203	0.0216	24.70	25.32	1.0526	1.0270
68	25	1107	0.0226	22.60	23.16	1.1062	1.0794
69	16	981	0.0163	20.50	21.00	0.7805	0.7620
70	29	877	0.0331	18.70	19.15	1.5508	1.5142
71	19	767	0.0248	16.70	17.11	1.1377	1.1106
72	14	675	0.0207	15.70	16.09	0.8917	0.8702
73	22	606	0.0363	15.00	15.38	1.4667	1.4304
74	15	532	0.0282	14.20	14.58	1.0563	1.0291
75	12	460	0.0261	13.30	13.66	0.9023	0.8782
76	17	426	0.0399	13.40	13.76	1.2687	1.2351
77	12	391	0.0307	13.00	13.36	0.9231	0.8979
78	10	361	0.0277	13.40	13.77	0.7463	0.7263
79	16	333	0.0480	13.00	13.37	1.2308	1.1969
80	18	298	0.0604	12.40	12.75	1.4516	1.4120
81	16	276	0.0580	12.70	13.07	1.2598	1.2244
82	11	252	0.0437	12.90	13.27	0.8527	0.8288
83	16	229	0.0699	12.70	13.06	1.2598	1.2247
84	13	217	0.0599	13.60	13.98	0.9559	0.9302
85	18	202	0.0891	13.90	14.30	1.2950	1.2591
86	21	180	0.1167	13.60	14.00	1.5441	1.4996
87	19	178	0.1067	14.90	15.34	1.2752	1.2383
88	22	175	0.1257	16.90	17.40	1.3018	1.2647
89	24	174	0.1379	18.60	19.15	1.2903	1.2534
90	13	160	0.0813	19.40	19.95	0.6701	0.6516
91	22	149	0.1477	19.40	19.98	1.1340	1.1013
92	21	137	0.1533	19.80	20.40	1.0606	1.0292
93	21	117	0.1795	18.50	19.08	1.1351	1.1004
94	24	110	0.2182	19.30	19.88	1.2435	1.2072
95	13	88	0.1477	17.20	17.70	0.7558	0.7346
96	14	73	0.1918	15.30	15.74	0.9150	0.8895
97	8	62	0.1290	13.50	13.92	0.5926	0.5747
98	13	57	0.2281	13.10	13.52	0.9924	0.9613
99	12	44	0.2727	10.00	10.36	1.2000	1.1583
100+	26	79	0.3291	18.30	19.00	1.4208	1.3687
Total	922	30,031	0.0307	887.40	912.53	1.0390	1.0104

Bolton

**Teachers' Retirement System of the City of New York
Disability Retirees' Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (3) ÷ (4)	(6) = (3) ÷ (2)	(7) = (4) ÷ (2)
Plan Year	Life Years Exposed	Actual Deaths	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	2,686	96	91.90	1.0446	0.0357	0.0342
2009	2,750	83	91.30	0.9091	0.0302	0.0332
2010	2,796	88	90.30	0.9745	0.0315	0.0323
2011	2,878	87	89.10	0.9764	0.0302	0.0310
2012	2,973	101	89.60	1.1272	0.0340	0.0301
2013	3,075	74	88.20	0.8390	0.0241	0.0287
2014	3,149	89	89.00	1.0000	0.0283	0.0283
2015	3,273	88	89.90	0.9789	0.0269	0.0275
2016	3,343	106	86.10	1.2311	0.0317	0.0258
2017	3,363	111	83.70	1.3262	0.0330	0.0249
Total	30,286	923	889.10	1.0381	0.0305	0.0294

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Teachers' Retirement System of the City of New York</p> <p>Active Ordinary Mortality Assumption and Experience</p> <p>Men</p> <p>4-Year Period Ending 2017</p> <p>Proposed Assumptions are 100% of the Current Rates</p> </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	14	0.0000	0.0004	0.0004	0.00	0.01	N/A	0.0000
21	0	36	0.0000	0.0004	0.0004	0.01	0.01	0.0000	0.0000
22	0	95	0.0000	0.0004	0.0004	0.04	0.04	0.0000	0.0000
23	0	351	0.0000	0.0004	0.0004	0.14	0.14	0.0000	0.0000
24	1	785	0.0013	0.0004	0.0004	0.31	0.31	3.2258	3.1847
25	0	1,267	0.0000	0.0004	0.0004	0.50	0.51	0.0000	0.0000
26	0	1,664	0.0000	0.0004	0.0004	0.66	0.67	0.0000	0.0000
27	0	2,005	0.0000	0.0004	0.0004	0.80	0.80	0.0000	0.0000
28	1	2,284	0.0004	0.0004	0.0004	0.91	0.91	1.0989	1.0946
29	1	2,514	0.0004	0.0004	0.0004	1.00	1.01	1.0000	0.9944
30	1	2,694	0.0004	0.0004	0.0004	1.08	1.08	0.9259	0.9280
31	0	2,888	0.0000	0.0004	0.0004	1.20	1.21	0.0000	0.0000
32	1	3,037	0.0003	0.0004	0.0004	1.34	1.34	0.7463	0.7483
33	2	3,138	0.0006	0.0005	0.0005	1.44	1.44	1.3889	1.3855
34	1	3,239	0.0003	0.0005	0.0005	1.56	1.55	0.6410	0.6432
35	2	3,166	0.0006	0.0005	0.0005	1.58	1.58	1.2658	1.2634
36	0	3,122	0.0000	0.0005	0.0005	1.62	1.62	0.0000	0.0000
37	3	3,114	0.0010	0.0005	0.0005	1.67	1.68	1.7964	1.7841
38	2	3,093	0.0006	0.0006	0.0006	1.73	1.73	1.1561	1.1547
39	3	2,986	0.0010	0.0006	0.0006	1.73	1.73	1.7341	1.7322
40	1	2,859	0.0003	0.0006	0.0006	1.71	1.72	0.5848	0.5830
41	1	2,778	0.0004	0.0007	0.0007	1.95	1.94	0.5128	0.5142
42	1	2,778	0.0004	0.0008	0.0008	2.23	2.22	0.4484	0.4500
43	1	2,859	0.0003	0.0009	0.0009	2.57	2.57	0.3891	0.3886
44	1	2,934	0.0003	0.0010	0.0010	2.94	2.93	0.3401	0.3408
45	1	2,876	0.0003	0.0011	0.0011	3.17	3.16	0.3155	0.3161
46	5	2,740	0.0018	0.0012	0.0012	3.28	3.29	1.5244	1.5207
47	3	2,623	0.0011	0.0013	0.0013	3.40	3.41	0.8824	0.8798
48	7	2,482	0.0028	0.0014	0.0014	3.48	3.47	2.0115	2.0145
49	1	2,422	0.0004	0.0015	0.0015	3.63	3.63	0.2755	0.2753
50	2	2,475	0.0008	0.0016	0.0016	3.96	3.96	0.5051	0.5051
51	4	2,438	0.0016	0.0017	0.0017	4.14	4.14	0.9662	0.9651
52	1	2,488	0.0004	0.0018	0.0018	4.47	4.48	0.2237	0.2233
53	1	2,471	0.0004	0.0019	0.0019	4.69	4.69	0.2132	0.2130
54	4	2,456	0.0016	0.0020	0.0020	4.92	4.91	0.8130	0.8143
55	5	2,426	0.0021	0.0021	0.0021	5.09	5.09	0.9823	0.9814
56	3	2,221	0.0014	0.0022	0.0022	4.88	4.89	0.6148	0.6140
57	5	2,102	0.0024	0.0023	0.0023	4.83	4.83	1.0352	1.0342
58	5	2,057	0.0024	0.0024	0.0024	4.94	4.94	1.0121	1.0128
59	4	1,939	0.0021	0.0025	0.0025	4.84	4.85	0.8264	0.8252
60	8	1,808	0.0044	0.0026	0.0026	4.70	4.70	1.7021	1.7018
61	7	1,670	0.0042	0.0027	0.0027	4.51	4.51	1.5521	1.5525
62	5	1,615	0.0031	0.0028	0.0028	4.52	4.52	1.1062	1.1057
63	1	1,400	0.0007	0.0029	0.0029	4.06	4.06	0.2463	0.2463
64	2	1,204	0.0017	0.0030	0.0030	3.62	3.61	0.5525	0.5537
65	6	1,092	0.0055	0.0032	0.0032	3.49	3.49	1.7192	1.7170
66	4	864	0.0046	0.0035	0.0035	3.03	3.02	1.3201	1.3228
67	2	667	0.0030	0.0039	0.0039	2.61	2.60	0.7663	0.7688
68	1	543	0.0018	0.0044	0.0044	2.38	2.39	0.4202	0.4186
69	4	401	0.0100	0.0050	0.0050	2.02	2.01	1.9802	1.9950
70	0	300	0.0000	0.0054	0.0054	1.51	1.62	0.0000	0.0000
71	2	219	0.0091	0.0060	0.0060	1.11	1.31	1.8018	1.5221
72	2	169	0.0118	0.0065	0.0065	0.86	1.10	2.3256	1.8207
73	3	140	0.0214	0.0070	0.0070	0.70	0.98	4.2857	3.0612
74	1	112	0.0089	0.0075	0.0075	0.57	0.84	1.7544	1.1905
Total	122	104,120	0.0012			134.13	135.30	0.9096	0.9017

Bolton

**Teachers' Retirement System of the City of New York
Active Ordinary Mortality Assumption and Experience
Women**

4-Year Period Ending 2017

Proposed Assumptions are 125% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	42	0.0000	0.0002	0.0003	0.00	0.01	N/A	0.0000
21	0	115	0.0000	0.0002	0.0003	0.03	0.03	0.0000	0.0000
22	0	248	0.0000	0.0002	0.0003	0.05	0.06	0.0000	0.0000
23	0	1,359	0.0000	0.0002	0.0003	0.27	0.34	0.0000	0.0000
24	0	2,968	0.0000	0.0002	0.0003	0.60	0.74	0.0000	0.0000
25	0	4,778	0.0000	0.0002	0.0003	0.95	1.19	0.0000	0.0000
26	0	6,422	0.0000	0.0002	0.0003	1.29	1.61	0.0000	0.0000
27	1	7,710	0.0001	0.0002	0.0003	1.54	1.93	0.6494	0.5188
28	0	8,394	0.0000	0.0002	0.0003	1.67	2.10	0.0000	0.0000
29	2	9,081	0.0002	0.0002	0.0003	1.82	2.27	1.0989	0.8810
30	1	9,565	0.0001	0.0002	0.0003	1.91	2.39	0.5236	0.4182
31	0	10,039	0.0000	0.0002	0.0003	2.10	2.64	0.0000	0.0000
32	2	10,354	0.0002	0.0002	0.0003	2.28	2.85	0.8772	0.7024
33	1	10,374	0.0001	0.0002	0.0003	2.38	2.98	0.4202	0.3353
34	5	10,396	0.0005	0.0002	0.0003	2.49	3.12	2.0080	1.6032
35	2	9,992	0.0002	0.0003	0.0003	2.50	3.12	0.8000	0.6405
36	1	9,798	0.0001	0.0003	0.0003	2.54	3.18	0.3937	0.3140
37	4	9,696	0.0004	0.0003	0.0003	2.62	3.27	1.5267	1.2223
38	3	9,499	0.0003	0.0003	0.0004	2.66	3.32	1.1278	0.9024
39	5	9,289	0.0005	0.0003	0.0004	2.69	3.37	1.8587	1.4849
40	4	9,032	0.0004	0.0003	0.0004	2.71	3.39	1.4760	1.1810
41	6	8,857	0.0007	0.0004	0.0004	3.11	3.87	1.9293	1.5484
42	1	8,857	0.0001	0.0004	0.0005	3.55	4.43	0.2817	0.2258
43	2	9,035	0.0002	0.0005	0.0006	4.07	5.08	0.4914	0.3935
44	5	9,164	0.0005	0.0005	0.0006	4.57	5.73	1.0941	0.8730
45	4	9,071	0.0004	0.0006	0.0007	4.99	6.24	0.8016	0.6414
46	4	8,867	0.0005	0.0006	0.0008	5.32	6.65	0.7519	0.6015
47	12	8,453	0.0014	0.0007	0.0008	5.50	6.87	2.1818	1.7472
48	7	8,215	0.0009	0.0007	0.0009	5.76	7.19	1.2153	0.9738
49	12	8,285	0.0014	0.0008	0.0009	6.21	7.77	1.9324	1.5450
50	8	8,465	0.0009	0.0008	0.0010	6.77	8.47	1.1817	0.9451
51	7	8,533	0.0008	0.0009	0.0011	7.25	9.07	0.9655	0.7721
52	9	8,618	0.0010	0.0009	0.0011	7.76	9.70	1.1598	0.9283
53	11	8,641	0.0013	0.0010	0.0012	8.21	10.26	1.3398	1.0720
54	19	8,626	0.0022	0.0010	0.0013	8.63	10.78	2.2016	1.7621
55	16	8,535	0.0019	0.0011	0.0013	8.97	11.20	1.7837	1.4283
56	15	8,024	0.0019	0.0011	0.0014	8.83	11.03	1.6988	1.3596
57	9	7,749	0.0012	0.0012	0.0014	8.90	11.14	1.0112	0.8080
58	8	7,641	0.0010	0.0012	0.0015	9.17	11.46	0.8724	0.6980
59	12	7,365	0.0016	0.0013	0.0016	9.21	11.51	1.3029	1.0428
60	12	6,998	0.0017	0.0013	0.0016	9.09	11.37	1.3201	1.0552
61	10	6,614	0.0015	0.0014	0.0017	8.93	11.16	1.1198	0.8960
62	15	6,056	0.0025	0.0014	0.0018	8.47	10.60	1.7710	1.4154
63	15	4,854	0.0031	0.0015	0.0018	7.04	8.80	2.1307	1.7050
64	9	4,063	0.0022	0.0015	0.0019	6.10	7.62	1.4754	1.1814
65	8	3,365	0.0024	0.0016	0.0020	5.39	6.73	1.4842	1.1887
66	9	2,652	0.0034	0.0018	0.0022	4.64	5.80	1.9397	1.5514
67	4	2,003	0.0020	0.0020	0.0024	3.91	4.88	1.0230	0.8193
68	8	1,446	0.0055	0.0022	0.0028	3.19	3.98	2.5078	2.0118
69	3	1,109	0.0027	0.0025	0.0031	2.76	3.47	1.0870	0.8656
70	8	775	0.0103	0.0028	0.0035	1.94	2.71	4.1237	2.9493
71	2	556	0.0036	0.0031	0.0039	1.40	2.15	1.4286	0.9283
72	1	420	0.0024	0.0034	0.0043	1.06	1.79	0.9434	0.5602
73	1	325	0.0031	0.0037	0.0046	0.82	1.50	1.2195	0.6653
74	2	262	0.0076	0.0042	0.0053	0.66	1.38	3.0303	1.4540
Total	305	351,650	0.0009			227.28	286.28	1.3420	1.0654

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Teachers' Retirement System of the City of New York</p> <p>Active Ordinary Mortality Assumption and Experience</p> <p>Men and Women</p> <p>4-Year Period Ending 2017</p> <p>Proposed Assumptions are 100% of the Current Rates for Men and 125% for Women</p> </div> </div>									
(1)	(2)	(3)	(4) = (2)-(3)	(5)	(6)	(7)	(8)	(9) = (2)-(7)	(10)=(2)-(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	56	0.0000	0.0004	0.0003	0.00	0.02	N/A	0.0000
21	0	151	0.0000	0.0004	0.0003	0.04	0.04	0.0000	0.0000
22	0	343	0.0000	0.0004	0.0003	0.09	0.10	0.0000	0.0000
23	0	1,710	0.0000	0.0004	0.0003	0.41	0.48	0.0000	0.0000
24	1	3,753	0.0003	0.0004	0.0003	0.91	1.06	1.0989	0.9470
25	0	6,045	0.0000	0.0004	0.0003	1.45	1.70	0.0000	0.0000
26	0	8,086	0.0000	0.0004	0.0003	1.95	2.27	0.0000	0.0000
27	1	9,715	0.0001	0.0004	0.0003	2.34	2.73	0.4274	0.3664
28	1	10,678	0.0001	0.0004	0.0003	2.58	3.01	0.3876	0.3320
29	3	11,595	0.0003	0.0004	0.0003	2.82	3.28	1.0638	0.9158
30	2	12,259	0.0002	0.0004	0.0003	2.99	3.47	0.6689	0.5766
31	0	12,927	0.0000	0.0004	0.0003	3.30	3.85	0.0000	0.0000
32	3	13,391	0.0002	0.0004	0.0004	3.62	4.18	0.8287	0.7171
33	3	13,512	0.0002	0.0005	0.0004	3.82	4.43	0.7853	0.6778
34	6	13,635	0.0004	0.0005	0.0004	4.05	4.67	1.4815	1.2838
35	4	13,158	0.0003	0.0005	0.0004	4.08	4.71	0.9804	0.8501
36	1	12,920	0.0001	0.0005	0.0004	4.16	4.81	0.2404	0.2080
37	7	12,810	0.0005	0.0005	0.0004	4.29	4.95	1.6317	1.4130
38	5	12,592	0.0004	0.0006	0.0005	4.39	5.06	1.1390	0.9888
39	8	12,275	0.0007	0.0006	0.0005	4.42	5.10	1.8100	1.5689
40	5	11,891	0.0004	0.0006	0.0005	4.42	5.10	1.1312	0.9799
41	7	11,635	0.0006	0.0007	0.0006	5.06	5.82	1.3834	1.2028
42	2	11,635	0.0002	0.0008	0.0007	5.78	6.65	0.3460	0.3007
43	3	11,894	0.0003	0.0009	0.0007	6.64	7.66	0.4518	0.3919
44	6	12,098	0.0005	0.0010	0.0008	7.51	8.66	0.7989	0.6927
45	5	11,947	0.0004	0.0011	0.0009	8.16	9.40	0.6127	0.5319
46	9	11,607	0.0008	0.0012	0.0010	8.60	9.94	1.0465	0.9056
47	15	11,076	0.0014	0.0013	0.0011	8.90	10.28	1.6854	1.4594
48	14	10,697	0.0013	0.0014	0.0011	9.24	10.66	1.5152	1.3130
49	13	10,707	0.0012	0.0015	0.0012	9.84	11.40	1.3211	1.1403
50	10	10,940	0.0009	0.0016	0.0013	10.73	12.43	0.9320	0.8048
51	11	10,971	0.0010	0.0017	0.0014	11.39	13.21	0.9658	0.8326
52	10	11,106	0.0009	0.0018	0.0015	12.23	14.17	0.8177	0.7055
53	12	11,112	0.0011	0.0019	0.0015	12.90	14.96	0.9302	0.8023
54	23	11,082	0.0021	0.0020	0.0016	13.55	15.69	1.6974	1.4655
55	21	10,961	0.0019	0.0021	0.0017	14.06	16.30	1.4936	1.2886
56	18	10,245	0.0018	0.0022	0.0018	13.71	15.92	1.3129	1.1307
57	14	9,851	0.0014	0.0023	0.0019	13.73	15.97	1.0197	0.8764
58	13	9,698	0.0013	0.0024	0.0020	14.11	16.40	0.9213	0.7928
59	16	9,304	0.0017	0.0025	0.0020	14.05	16.36	1.1388	0.9783
60	20	8,806	0.0023	0.0026	0.0021	13.79	16.07	1.4503	1.2444
61	17	8,284	0.0021	0.0027	0.0022	13.44	15.67	1.2649	1.0849
62	20	7,671	0.0026	0.0028	0.0023	12.99	15.12	1.5396	1.3228
63	16	6,254	0.0026	0.0029	0.0024	11.10	12.86	1.4414	1.2444
64	11	5,267	0.0021	0.0030	0.0024	9.72	11.23	1.1317	0.9795
65	14	4,457	0.0031	0.0032	0.0026	8.88	10.22	1.5766	1.3693
66	13	3,516	0.0037	0.0035	0.0028	7.67	8.83	1.6949	1.4730
67	6	2,670	0.0022	0.0039	0.0032	6.52	7.48	0.9202	0.8018
68	9	1,989	0.0045	0.0044	0.0036	5.57	6.37	1.6158	1.4138
69	7	1,510	0.0046	0.0050	0.0041	4.78	5.47	1.4644	1.2796
70	8	1,075	0.0074	0.0054	0.0045	3.45	4.33	2.3188	1.8465
71	4	775	0.0052	0.0060	0.0049	2.51	3.47	1.5936	1.1532
72	3	589	0.0051	0.0065	0.0054	1.92	2.88	1.5625	1.0404
73	4	465	0.0086	0.0070	0.0058	1.52	2.48	2.6316	1.6109
74	3	374	0.0080	0.0075	0.0064	1.23	2.22	2.4390	1.3541
Total	427	455,770	0.0009			361.41	421.58	1.1815	1.0128

* Assumed probability equals average of male and female assumptions while expected amounts are total of male and female amounts.

Bolton

**Teachers' Retirement System of the City of New York
Active Ordinary Mortality Assumption and Experience
Men**

10-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	28	0.0000	0.0004	0.0004	0.00	0.01	N/A	0.0000
21	0	64	0.0000	0.0004	0.0004	0.01	0.03	0.0000	0.0000
22	0	188	0.0000	0.0004	0.0004	0.08	0.08	0.0000	0.0000
23	1	1,139	0.0009	0.0004	0.0004	0.45	0.46	2.2222	2.1949
24	1	2,362	0.0004	0.0004	0.0004	0.95	0.94	1.0526	1.0584
25	2	3,476	0.0006	0.0004	0.0004	1.39	1.39	1.4388	1.4384
26	2	4,445	0.0004	0.0004	0.0004	1.76	1.78	1.1364	1.1249
27	1	5,255	0.0002	0.0004	0.0004	2.10	2.10	0.4762	0.4757
28	3	5,959	0.0005	0.0004	0.0004	2.38	2.38	1.2605	1.2586
29	1	6,490	0.0002	0.0004	0.0004	2.58	2.60	0.3876	0.3852
30	1	6,827	0.0001	0.0004	0.0004	2.73	2.73	0.3663	0.3662
31	0	7,128	0.0000	0.0004	0.0004	2.98	2.99	0.0000	0.0000
32	2	7,263	0.0003	0.0004	0.0004	3.20	3.20	0.6250	0.6258
33	2	7,304	0.0003	0.0005	0.0005	3.36	3.36	0.5952	0.5953
34	1	7,362	0.0001	0.0005	0.0005	3.54	3.53	0.2825	0.2830
35	2	7,208	0.0003	0.0005	0.0005	3.60	3.60	0.5556	0.5549
36	0	7,165	0.0000	0.0005	0.0005	3.72	3.73	0.0000	0.0000
37	4	7,157	0.0006	0.0005	0.0005	3.85	3.86	1.0390	1.0350
38	3	7,107	0.0004	0.0006	0.0006	3.98	3.98	0.7538	0.7538
39	4	6,980	0.0006	0.0006	0.0006	4.05	4.05	0.9877	0.9880
40	3	6,842	0.0004	0.0006	0.0006	4.09	4.11	0.7335	0.7308
41	3	6,676	0.0004	0.0007	0.0007	4.68	4.67	0.6410	0.6420
42	2	6,537	0.0003	0.0008	0.0008	5.24	5.23	0.3817	0.3824
43	8	6,516	0.0012	0.0009	0.0009	5.86	5.86	1.3652	1.3642
44	6	6,515	0.0009	0.0010	0.0010	6.52	6.52	0.9202	0.9210
45	4	6,349	0.0006	0.0011	0.0011	6.99	6.98	0.5722	0.5727
46	10	6,349	0.0016	0.0012	0.0012	7.63	7.62	1.3106	1.3125
47	8	6,277	0.0013	0.0013	0.0013	8.15	8.16	0.9816	0.9804
48	15	6,173	0.0024	0.0014	0.0014	8.66	8.64	1.7321	1.7357
49	5	6,116	0.0008	0.0015	0.0015	9.18	9.17	0.5447	0.5450
50	11	6,236	0.0018	0.0016	0.0016	9.98	9.98	1.1022	1.1025
51	8	6,259	0.0013	0.0017	0.0017	10.63	10.64	0.7526	0.7519
52	17	6,330	0.0027	0.0018	0.0018	11.38	11.39	1.4938	1.4920
53	11	6,356	0.0017	0.0019	0.0019	12.08	12.08	0.9106	0.9109
54	11	6,502	0.0017	0.0020	0.0020	13.02	13.00	0.8449	0.8459
55	9	6,576	0.0014	0.0021	0.0021	13.81	13.81	0.6517	0.6517
56	13	6,246	0.0021	0.0022	0.0022	13.73	13.74	0.9468	0.9461
57	18	5,945	0.0030	0.0023	0.0023	13.67	13.67	1.3168	1.3164
58	15	5,749	0.0026	0.0024	0.0024	13.80	13.80	1.0870	1.0871
59	15	5,502	0.0027	0.0025	0.0025	13.74	13.76	1.0917	1.0905
60	15	5,169	0.0029	0.0026	0.0026	13.44	13.44	1.1161	1.1161
61	25	4,740	0.0053	0.0027	0.0027	12.80	12.80	1.9531	1.9534
62	14	4,221	0.0033	0.0028	0.0028	11.81	11.82	1.1854	1.1846
63	11	3,445	0.0032	0.0029	0.0029	9.99	9.99	1.1011	1.1010
64	6	2,885	0.0021	0.0030	0.0030	8.67	8.66	0.6920	0.6932
65	11	2,449	0.0045	0.0032	0.0032	7.82	7.84	1.4066	1.4036
66	9	1,878	0.0048	0.0035	0.0035	6.59	6.57	1.3657	1.3692
67	4	1,456	0.0027	0.0039	0.0039	5.69	5.68	0.7030	0.7044
68	8	1,157	0.0069	0.0044	0.0044	5.08	5.09	1.5748	1.5715
69	7	908	0.0077	0.0050	0.0050	4.56	4.54	1.5351	1.5419
70	4	695	0.0058	0.0054	0.0054	3.49	3.75	1.1461	1.0658
71	3	545	0.0055	0.0060	0.0060	2.76	3.27	1.0870	0.9174
72	3	435	0.0069	0.0065	0.0065	2.21	2.83	1.3575	1.0610
73	3	350	0.0086	0.0070	0.0070	1.76	2.45	1.7045	1.2245
74	3	278	0.0108	0.0075	0.0075	1.41	2.09	2.1277	1.4388
Total	348	257,569	0.0014			337.63	340.44	1.0307	1.0222

Bolton

**Teachers' Retirement System of the City of New York
Active Ordinary Mortality Assumption and Experience
Women**

10-Year Period Ending 2017

Proposed Assumptions are 125% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	61	0.0000	0.0002	0.0003	0.01	0.02	0.0000	0.0000
21	0	190	0.0000	0.0002	0.0003	0.04	0.05	0.0000	0.0000
22	0	519	0.0000	0.0002	0.0003	0.10	0.13	0.0000	0.0000
23	0	4,372	0.0000	0.0002	0.0003	0.87	1.09	0.0000	0.0000
24	1	9,168	0.0001	0.0002	0.0003	1.83	2.29	0.5454	0.4363
25	2	13,713	0.0001	0.0002	0.0003	2.74	3.43	0.7292	0.5834
26	4	17,634	0.0002	0.0002	0.0003	3.53	4.41	1.1342	0.9073
27	1	20,687	0.0000	0.0002	0.0003	4.14	5.17	0.2417	0.1934
28	4	22,661	0.0002	0.0002	0.0003	4.53	5.67	0.8826	0.7061
29	8	23,842	0.0003	0.0002	0.0003	4.77	5.96	1.6777	1.3422
30	3	24,316	0.0001	0.0002	0.0003	4.86	6.08	0.6169	0.4935
31	0	24,447	0.0000	0.0002	0.0003	5.13	6.42	0.0000	0.0000
32	4	24,248	0.0002	0.0002	0.0003	5.33	6.67	0.7498	0.5999
33	1	23,807	0.0000	0.0002	0.0003	5.48	6.84	0.1826	0.1461
34	8	23,184	0.0003	0.0002	0.0003	5.56	6.96	1.4378	1.1502
35	3	22,375	0.0001	0.0003	0.0003	5.59	6.99	0.5363	0.4291
36	2	21,873	0.0001	0.0003	0.0003	5.69	7.11	0.3517	0.2813
37	10	21,657	0.0005	0.0003	0.0003	5.85	7.31	1.7102	1.3681
38	4	21,359	0.0002	0.0003	0.0004	5.98	7.48	0.6688	0.5351
39	16	20,896	0.0008	0.0003	0.0004	6.06	7.57	2.6403	2.1123
40	8	20,604	0.0004	0.0003	0.0004	6.18	7.73	1.2942	1.0354
41	10	20,284	0.0005	0.0004	0.0004	7.10	8.87	1.4086	1.1269
42	5	20,221	0.0002	0.0004	0.0005	8.09	10.11	0.6182	0.4945
43	7	20,355	0.0003	0.0005	0.0006	9.16	11.45	0.7642	0.6114
44	14	20,519	0.0007	0.0005	0.0006	10.26	12.82	1.3646	1.0917
45	13	20,475	0.0006	0.0006	0.0007	11.26	14.08	1.1544	0.9235
46	10	20,557	0.0005	0.0006	0.0008	12.33	15.42	0.8108	0.6486
47	18	20,417	0.0009	0.0007	0.0008	13.27	16.59	1.3563	1.0851
48	13	20,473	0.0006	0.0007	0.0009	14.33	17.91	0.9071	0.7257
49	25	20,763	0.0012	0.0008	0.0009	15.57	19.47	1.6054	1.2843
50	25	21,328	0.0012	0.0008	0.0010	17.06	21.33	1.4652	1.1722
51	21	21,765	0.0010	0.0009	0.0011	18.50	23.13	1.1351	0.9081
52	26	22,258	0.0012	0.0009	0.0011	20.03	25.04	1.2979	1.0383
53	35	22,726	0.0015	0.0010	0.0012	21.59	26.99	1.6211	1.2969
54	32	23,195	0.0014	0.0010	0.0013	23.20	28.99	1.3796	1.1037
55	35	23,540	0.0015	0.0011	0.0013	24.72	30.90	1.4160	1.1328
56	35	22,569	0.0016	0.0011	0.0014	24.83	31.03	1.4098	1.1279
57	25	21,818	0.0011	0.0012	0.0014	25.09	31.36	0.9964	0.7971
58	30	21,221	0.0014	0.0012	0.0015	25.47	31.83	1.1781	0.9425
59	37	19,998	0.0019	0.0013	0.0016	25.00	31.25	1.4801	1.1841
60	31	18,605	0.0017	0.0013	0.0016	24.19	30.23	1.2817	1.0254
61	36	16,856	0.0021	0.0014	0.0017	22.76	28.44	1.5820	1.2656
62	29	14,742	0.0020	0.0014	0.0018	20.64	25.80	1.4051	1.1241
63	28	11,523	0.0024	0.0015	0.0018	16.71	20.89	1.6758	1.3406
64	15	9,320	0.0016	0.0015	0.0019	13.98	17.48	1.0730	0.8584
65	22	7,556	0.0029	0.0016	0.0020	12.09	15.11	1.8197	1.4558
66	16	5,852	0.0027	0.0018	0.0022	10.24	12.80	1.5623	1.2499
67	17	4,287	0.0040	0.0020	0.0024	8.36	10.45	2.0336	1.6269
68	13	3,189	0.0041	0.0022	0.0028	7.02	8.77	1.8530	1.4824
69	10	2,458	0.0041	0.0025	0.0031	6.15	7.68	1.6273	1.3019
70	14	1,815	0.0077	0.0028	0.0035	5.08	6.35	2.7548	2.2039
71	3	1,327	0.0023	0.0031	0.0039	4.11	5.14	0.7293	0.5834
72	4	1,004	0.0040	0.0034	0.0043	3.41	4.27	1.1718	0.9374
73	1	802	0.0012	0.0037	0.0046	2.97	3.71	0.3370	0.2696
74	3	624	0.0048	0.0042	0.0053	2.62	3.28	1.1447	0.9158
Total	737	866,055	0.0009			571.46	714.33	1.2897	1.0317

Bolton

**Teachers' Retirement System of the City of New York
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

Proposed Assumptions are 100% of the Current Rates for Men and 125% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	89	0.0000	0.0004	0.0003	0.00	0.03	N/A	0.0000
21	0	254	0.0000	0.0004	0.0003	0.04	0.07	0.0000	0.0000
22	0	707	0.0000	0.0004	0.0003	0.18	0.20	0.0000	0.0000
23	1	5,511	0.0002	0.0004	0.0003	1.32	1.55	0.7576	0.6457
24	2	11,530	0.0002	0.0004	0.0003	2.79	3.24	0.7168	0.6179
25	4	17,189	0.0002	0.0004	0.0003	4.13	4.82	0.9685	0.8301
26	6	22,079	0.0003	0.0004	0.0003	5.29	6.19	1.1342	0.9699
27	2	25,942	0.0001	0.0004	0.0003	6.23	7.27	0.3210	0.2750
28	7	28,620	0.0002	0.0004	0.0003	6.90	8.05	1.0145	0.8697
29	9	30,332	0.0003	0.0004	0.0003	7.35	8.56	1.2245	1.0518
30	4	31,143	0.0001	0.0004	0.0003	7.60	8.81	0.5263	0.4540
31	0	31,575	0.0000	0.0004	0.0003	8.10	9.41	0.0000	0.0000
32	6	31,511	0.0002	0.0004	0.0004	8.53	9.86	0.7034	0.6083
33	3	31,111	0.0001	0.0005	0.0004	8.82	10.20	0.3401	0.2940
34	9	30,546	0.0003	0.0005	0.0004	9.10	10.49	0.9890	0.8580
35	5	29,583	0.0002	0.0005	0.0004	9.20	10.60	0.5435	0.4719
36	2	29,038	0.0001	0.0005	0.0004	9.40	10.83	0.2128	0.1846
37	14	28,814	0.0005	0.0005	0.0004	9.70	11.17	1.4433	1.2529
38	7	28,466	0.0002	0.0006	0.0005	9.95	11.46	0.7035	0.6111
39	20	27,876	0.0007	0.0006	0.0005	10.10	11.62	1.9802	1.7207
40	11	27,446	0.0004	0.0006	0.0005	10.27	11.83	1.0711	0.9297
41	13	26,960	0.0005	0.0007	0.0006	11.79	13.55	1.1026	0.9596
42	7	26,758	0.0003	0.0008	0.0007	13.33	15.34	0.5251	0.4563
43	15	26,871	0.0006	0.0009	0.0007	15.02	17.31	0.9987	0.8663
44	20	27,034	0.0007	0.0010	0.0008	16.77	19.34	1.1926	1.0342
45	17	26,824	0.0006	0.0011	0.0009	18.26	21.06	0.9310	0.8072
46	20	26,906	0.0007	0.0012	0.0010	19.96	23.04	1.0020	0.8682
47	26	26,694	0.0010	0.0013	0.0011	21.43	24.75	1.2133	1.0506
48	28	26,646	0.0011	0.0014	0.0011	23.00	26.56	1.2174	1.0544
49	30	26,879	0.0011	0.0015	0.0012	24.75	28.64	1.2121	1.0475
50	36	27,564	0.0013	0.0016	0.0013	27.05	31.31	1.3309	1.1500
51	29	28,024	0.0010	0.0017	0.0014	29.13	33.77	0.9955	0.8589
52	43	28,588	0.0015	0.0018	0.0015	31.42	36.43	1.3686	1.1802
53	46	29,082	0.0016	0.0019	0.0015	33.68	39.06	1.3658	1.1776
54	43	29,697	0.0014	0.0020	0.0016	36.21	42.00	1.1875	1.0239
55	44	30,116	0.0015	0.0021	0.0017	38.54	44.71	1.1417	0.9842
56	48	28,815	0.0017	0.0022	0.0018	38.55	44.77	1.2451	1.0721
57	43	27,763	0.0015	0.0023	0.0019	38.75	45.04	1.1097	0.9548
58	45	26,970	0.0017	0.0024	0.0020	39.26	45.63	1.1462	0.9862
59	52	25,500	0.0020	0.0025	0.0020	38.74	45.00	1.3423	1.1555
60	46	23,774	0.0019	0.0026	0.0021	37.62	43.67	1.2228	1.0533
61	61	21,596	0.0028	0.0027	0.0022	35.55	41.24	1.7159	1.4791
62	43	18,963	0.0023	0.0028	0.0023	32.45	37.62	1.3251	1.1431
63	39	14,968	0.0026	0.0029	0.0024	26.70	30.88	1.4607	1.2631
64	21	12,205	0.0017	0.0030	0.0024	22.65	26.13	0.9272	0.8037
65	33	10,005	0.0033	0.0032	0.0026	19.91	22.95	1.6575	1.4380
66	25	7,730	0.0032	0.0035	0.0028	16.83	19.37	1.4854	1.2904
67	21	5,743	0.0037	0.0039	0.0032	14.06	16.13	1.4936	1.3021
68	21	4,346	0.0048	0.0044	0.0036	12.11	13.86	1.7341	1.5151
69	17	3,366	0.0051	0.0050	0.0041	10.68	12.22	1.5918	1.3910
70	18	2,510	0.0072	0.0054	0.0045	8.05	10.11	2.2360	1.7812
71	6	1,872	0.0032	0.0060	0.0049	6.10	8.41	0.9836	0.7133
72	7	1,439	0.0049	0.0065	0.0054	4.74	7.09	1.4768	0.9867
73	4	1,152	0.0035	0.0070	0.0058	3.78	6.16	1.0582	0.6494
74	6	902	0.0067	0.0075	0.0064	3.00	5.36	2.0000	1.1192
Total	1,085	1,123,624	0.0010			904.87	1,054.77	1.1991	1.0287

Bolton

**Teachers' Retirement System of the City of New York
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	132	110,631	89.33	1.4777	0.0012	0.0008
2009	128	112,387	90.98	1.4069	0.0011	0.0008
2010	94	113,056	92.24	1.0191	0.0008	0.0008
2011	91	111,529	92.29	0.9860	0.0008	0.0008
2012	108	109,629	91.30	1.1829	0.0010	0.0008
2013	121	112,461	93.23	1.2979	0.0011	0.0008
2014	129	112,482	92.68	1.3919	0.0011	0.0008
2015	106	111,734	88.99	1.1911	0.0009	0.0008
2016	99	114,652	91.15	1.0861	0.0009	0.0008
2017	107	118,240	93.15	1.1487	0.0009	0.0008
Total	1,115	1,126,801	915.34	1.2181	0.0010	0.0008

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 20 and above 74)

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 125% of the Current Rates

Age	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	35	35	1.0000	0.3000	0.3750	10.50	13.13	3.3333	2.6667
55	179	471	0.3800	0.3000	0.3750	141.30	176.63	1.2668	1.0134
56	29	82	0.3537	0.3000	0.3750	24.60	30.75	1.1789	0.9431
57	24	71	0.3380	0.3000	0.3750	21.30	26.63	1.1268	0.9014
58	19	60	0.3167	0.3000	0.3750	18.00	22.50	1.0556	0.8444
59	29	69	0.4203	0.3000	0.3750	20.70	25.88	1.4010	1.1208
60	21	55	0.3818	0.3000	0.3750	16.50	20.63	1.2727	1.0182
61	19	32	0.5938	0.3000	0.3750	9.60	12.00	1.9792	1.5833
62	10	37	0.2703	0.4000	0.5000	14.80	18.50	0.6757	0.5405
63	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
64	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
65	0	0	N/A	0.4000	0.5000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
67	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
68	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
69	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	365	912	0.4002			277.30	346.63	1.3163	1.0530

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 125% of the Current Rates

Age	(2) Actual Retirements	(3) Total Exposed	(4) = (2)÷(3) Actual Rate	(5) Assumed Probability		(7) Expected Retirements		(9) = (2)÷(7) / (10) = (2)÷(8) Actual/Expected	
				(5) Current Assumption	(6) Proposed Assumption	(7) Current Assumption	(8) Proposed Assumption	(9) Current	(10) Proposed
				40	0	0	N/A	0.0000	0.0000
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	110	110	1.0000	0.3000	0.3750	33.00	41.25	3.3333	2.6667
55	573	1,546	0.3706	0.3000	0.3750	463.80	579.75	1.2354	0.9884
56	91	263	0.3460	0.3000	0.3750	78.90	98.63	1.1534	0.9227
57	95	281	0.3381	0.3000	0.3750	84.30	105.38	1.1269	0.9015
58	100	281	0.3559	0.3000	0.3750	84.30	105.38	1.1862	0.9490
59	107	260	0.4115	0.3000	0.3750	78.00	97.50	1.3718	1.0974
60	90	219	0.4110	0.3000	0.3750	65.70	82.13	1.3699	1.0959
61	80	156	0.5128	0.3000	0.3750	46.80	58.50	1.7094	1.3675
62	39	180	0.2167	0.4000	0.5000	72.00	90.00	0.5417	0.4333
63	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
64	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
65	0	0	N/A	0.4000	0.5000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
67	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
68	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
69	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	1,285	3,296	0.3899			1,006.80	1,258.50	1.2763	1.0211

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 125% of the Current Rates

Age	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	145	145	1.0000	0.3000	0.3750	43.50	54.38	3.3333	2.6667
55	752	2017	0.3728	0.3000	0.3750	605.10	756.38	1.2428	0.9942
56	120	345	0.3478	0.3000	0.3750	103.50	129.38	1.1594	0.9275
57	119	352	0.3381	0.3000	0.3750	105.60	132.00	1.1269	0.9015
58	119	341	0.3490	0.3000	0.3750	102.30	127.88	1.1632	0.9306
59	136	329	0.4134	0.3000	0.3750	98.70	123.38	1.3779	1.1023
60	111	274	0.4051	0.3000	0.3750	82.20	102.75	1.3504	1.0803
61	99	188	0.5266	0.3000	0.3750	56.40	70.50	1.7553	1.4043
62	49	217	0.2258	0.4000	0.5000	86.80	108.50	0.5645	0.4516
63	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
64	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
65	0	0	N/A	0.4000	0.5000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
67	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
68	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
69	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	1,650	4,208	0.3921			1,284.10	1,605.13	1.2849	1.0280

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 110% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	76	278	0.2734	0.2000	0.2200	55.60	61.16	1.3669	1.2426
57	59	253	0.2332	0.2000	0.2200	50.60	55.66	1.1660	1.0600
58	55	262	0.2099	0.2000	0.2200	52.40	57.64	1.0496	0.9542
59	57	263	0.2167	0.2000	0.2200	52.60	57.86	1.0837	0.9851
60	60	237	0.2532	0.2000	0.2200	47.40	52.14	1.2658	1.1507
61	44	217	0.2028	0.2000	0.2200	43.40	47.74	1.0138	0.9217
62	50	179	0.2793	0.3000	0.3300	53.70	59.07	0.9311	0.8465
63	34	150	0.2267	0.2000	0.2200	30.00	33.00	1.1333	1.0303
64	26	113	0.2301	0.2000	0.2200	22.60	24.86	1.1504	1.0459
65	18	69	0.2609	0.3000	0.3300	20.70	22.77	0.8696	0.7905
66	10	32	0.3125	0.2000	0.2200	6.40	7.04	1.5625	1.4205
67	4	12	0.3333	0.2000	0.2200	2.40	2.64	1.6667	1.5152
68	0	1	0.0000	0.2000	0.2200	0.20	0.22	0.0000	0.0000
69	0	0	N/A	0.2000	0.2200	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	493	2,066	0.2386			438.00	481.80	1.1256	1.0232

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 110% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	235	989	0.2376	0.2000	0.2200	197.80	217.58	1.1881	1.0801
57	218	956	0.2280	0.2000	0.2200	191.20	210.32	1.1402	1.0365
58	201	970	0.2072	0.2000	0.2200	194.00	213.40	1.0361	0.9419
59	226	1006	0.2247	0.2000	0.2200	201.20	221.32	1.1233	1.0211
60	229	959	0.2388	0.2000	0.2200	191.80	210.98	1.1940	1.0854
61	221	862	0.2564	0.2000	0.2200	172.40	189.64	1.2819	1.1654
62	235	725	0.3241	0.3000	0.3300	217.50	239.25	1.0805	0.9822
63	158	611	0.2586	0.2000	0.2200	122.20	134.42	1.2930	1.1754
64	97	393	0.2468	0.2000	0.2200	78.60	86.46	1.2341	1.1219
65	68	234	0.2906	0.3000	0.3300	70.20	77.22	0.9687	0.8806
66	35	124	0.2823	0.2000	0.2200	24.80	27.28	1.4113	1.2830
67	18	53	0.3396	0.2000	0.2200	10.60	11.66	1.6981	1.5437
68	1	13	0.0769	0.2000	0.2200	2.60	2.86	0.3846	0.3497
69	1	6	0.1667	0.2000	0.2200	1.20	1.32	0.8333	0.7576
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	6	0.0000	1.0000	1.0000	6.00	6.00	0.0000	0.0000
Total	1,943	7,907	0.2457			1,682.10	1,849.71	1.1551	1.0504

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 110% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	311	1267	0.2455	0.2000	0.2200	253.40	278.74	1.2273	1.1157
57	277	1209	0.2291	0.2000	0.2200	241.80	265.98	1.1456	1.0414
58	256	1232	0.2078	0.2000	0.2200	246.40	271.04	1.0390	0.9445
59	283	1269	0.2230	0.2000	0.2200	253.80	279.18	1.1151	1.0137
60	289	1196	0.2416	0.2000	0.2200	239.20	263.12	1.2082	1.0984
61	265	1079	0.2456	0.2000	0.2200	215.80	237.38	1.2280	1.1164
62	285	904	0.3153	0.3000	0.3300	271.20	298.32	1.0509	0.9553
63	192	761	0.2523	0.2000	0.2200	152.20	167.42	1.2615	1.1468
64	123	506	0.2431	0.2000	0.2200	101.20	111.32	1.2154	1.1049
65	86	303	0.2838	0.3000	0.3300	90.90	99.99	0.9461	0.8601
66	45	156	0.2885	0.2000	0.2200	31.20	34.32	1.4423	1.3112
67	22	65	0.3385	0.2000	0.2200	13.00	14.30	1.6923	1.5385
68	1	14	0.0714	0.2000	0.2200	2.80	3.08	0.3571	0.3247
69	1	6	0.1667	0.2000	0.2200	1.20	1.32	0.8333	0.7576
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	6	0.0000	1.0000	1.0000	6.00	6.00	0.0000	0.0000
Total	2,436	9,973	0.2443			2,120.10	2,331.51	1.1490	1.0448

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 125% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	51	51	1.0000	0.3000	0.3750	15.30	19.13	3.3333	2.6667
55	314	888	0.3536	0.3000	0.3750	266.40	333.00	1.1787	0.9429
56	49	183	0.2678	0.3000	0.3750	54.90	68.63	0.8925	0.7140
57	48	142	0.3380	0.3000	0.3750	42.60	53.25	1.1268	0.9014
58	44	139	0.3165	0.3000	0.3750	41.70	52.13	1.0552	0.8441
59	60	159	0.3774	0.3000	0.3750	47.70	59.63	1.2579	1.0063
60	49	120	0.4083	0.3000	0.3750	36.00	45.00	1.3611	1.0889
61	50	84	0.5952	0.3000	0.3750	25.20	31.50	1.9841	1.5873
62	20	73	0.2740	0.4000	0.5000	29.20	36.50	0.6849	0.5479
63	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
64	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
65	0	0	N/A	0.4000	0.5000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
67	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
68	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
69	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	685	1,839	0.3725			559.00	698.75	1.2254	0.9803

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 125% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	142	142	1.0000	0.3000	0.3750	42.60	53.25	3.3333	2.6667
55	976	2,991	0.3263	0.3000	0.3750	897.30	1,121.63	1.0877	0.8702
56	165	589	0.2801	0.3000	0.3750	176.70	220.88	0.9338	0.7470
57	176	605	0.2909	0.3000	0.3750	181.50	226.88	0.9697	0.7758
58	213	630	0.3381	0.3000	0.3750	189.00	236.25	1.1270	0.9016
59	210	571	0.3678	0.3000	0.3750	171.30	214.13	1.2259	0.9807
60	191	519	0.3680	0.3000	0.3750	155.70	194.63	1.2267	0.9814
61	175	362	0.4834	0.3000	0.3750	108.60	135.75	1.6114	1.2891
62	81	323	0.2508	0.4000	0.5000	129.20	161.50	0.6269	0.5015
63	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
64	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
65	0	0	N/A	0.4000	0.5000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
67	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
68	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
69	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	2,329	6,732	0.3460			2,051.90	2,564.88	1.1350	0.9080

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 125% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	193	193	1.0000	0.3000	0.3750	57.90	72.38	3.3333	2.6667
55	1,290	3,879	0.3326	0.3000	0.3750	1,163.70	1,454.63	1.1085	0.8868
56	214	772	0.2772	0.3000	0.3750	231.60	289.50	0.9240	0.7392
57	224	747	0.2999	0.3000	0.3750	224.10	280.13	0.9996	0.7996
58	257	769	0.3342	0.3000	0.3750	230.70	288.38	1.1140	0.8912
59	270	730	0.3699	0.3000	0.3750	219.00	273.75	1.2329	0.9863
60	240	639	0.3756	0.3000	0.3750	191.70	239.63	1.2520	1.0016
61	225	446	0.5045	0.3000	0.3750	133.80	167.25	1.6816	1.3453
62	101	396	0.2551	0.4000	0.5000	158.40	198.00	0.6376	0.5101
63	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
64	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
65	0	0	N/A	0.4000	0.5000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
67	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
68	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
69	0	0	N/A	0.3000	0.3750	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	3,014	8,571	0.3517			2,610.90	3,263.63	1.1544	0.9235

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 110% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	138	551	0.2505	0.2000	0.2200	110.20	121.22	1.2523	1.1384
57	110	540	0.2037	0.2000	0.2200	108.00	118.80	1.0185	0.9259
58	125	538	0.2323	0.2000	0.2200	107.60	118.36	1.1617	1.0561
59	109	512	0.2129	0.2000	0.2200	102.40	112.64	1.0645	0.9677
60	124	486	0.2551	0.2000	0.2200	97.20	106.92	1.2757	1.1597
61	85	397	0.2141	0.2000	0.2200	79.40	87.34	1.0705	0.9732
62	99	297	0.3333	0.3000	0.3300	89.10	98.01	1.1111	1.0101
63	53	209	0.2536	0.2000	0.2200	41.80	45.98	1.2679	1.1527
64	30	131	0.2290	0.2000	0.2200	26.20	28.82	1.1450	1.0409
65	21	73	0.2877	0.3000	0.3300	21.90	24.09	0.9589	0.8717
66	10	32	0.3125	0.2000	0.2200	6.40	7.04	1.5625	1.4205
67	4	12	0.3333	0.2000	0.2200	2.40	2.64	1.6667	1.5152
68	0	1	0.0000	0.2000	0.2200	0.20	0.22	0.0000	0.0000
69	0	0	N/A	0.2000	0.2200	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	908	3,779	0.2403			792.80	872.08	1.1453	1.0412

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 110% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	460	2,013	0.2285	0.2000	0.2200	402.60	442.86	1.1426	1.0387
57	435	2,022	0.2151	0.2000	0.2200	404.40	444.84	1.0757	0.9779
58	462	2,012	0.2296	0.2000	0.2200	402.40	442.64	1.1481	1.0437
59	447	1,960	0.2281	0.2000	0.2200	392.00	431.20	1.1403	1.0366
60	466	1,819	0.2562	0.2000	0.2200	363.80	400.18	1.2809	1.1645
61	420	1,579	0.2660	0.2000	0.2200	315.80	347.38	1.3300	1.2091
62	425	1,201	0.3539	0.3000	0.3300	360.30	396.33	1.1796	1.0723
63	222	835	0.2659	0.2000	0.2200	167.00	183.70	1.3293	1.2085
64	117	457	0.2560	0.2000	0.2200	91.40	100.54	1.2801	1.1637
65	71	248	0.2863	0.3000	0.3300	74.40	81.84	0.9543	0.8675
66	35	128	0.2734	0.2000	0.2200	25.60	28.16	1.3672	1.2429
67	20	56	0.3571	0.2000	0.2200	11.20	12.32	1.7857	1.6234
68	2	14	0.1429	0.2000	0.2200	2.80	3.08	0.7143	0.6494
69	1	6	0.1667	0.2000	0.2200	1.20	1.32	0.8333	0.7576
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	11	0.0000	1.0000	1.0000	11.00	11.00	0.0000	0.0000
Total	3,583	14,361	0.2495			3,025.90	3,327.39	1.1841	1.0768

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 110% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	598	2564	0.2332	0.2000	0.2200	512.80	564.08	1.1661	1.0601
57	545	2562	0.2127	0.2000	0.2200	512.40	563.64	1.0636	0.9669
58	587	2550	0.2302	0.2000	0.2200	510.00	561.00	1.1510	1.0463
59	556	2472	0.2249	0.2000	0.2200	494.40	543.84	1.1246	1.0224
60	590	2305	0.2560	0.2000	0.2200	461.00	507.10	1.2798	1.1635
61	505	1976	0.2556	0.2000	0.2200	395.20	434.72	1.2778	1.1617
62	524	1498	0.3498	0.3000	0.3300	449.40	494.34	1.1660	1.0600
63	275	1044	0.2634	0.2000	0.2200	208.80	229.68	1.3170	1.1973
64	147	588	0.2500	0.2000	0.2200	117.60	129.36	1.2500	1.1364
65	92	321	0.2866	0.3000	0.3300	96.30	105.93	0.9553	0.8685
66	45	160	0.2813	0.2000	0.2200	32.00	35.20	1.4063	1.2784
67	24	68	0.3529	0.2000	0.2200	13.60	14.96	1.7647	1.6043
68	2	15	0.1333	0.2000	0.2200	3.00	3.30	0.6667	0.6061
69	1	6	0.1667	0.2000	0.2200	1.20	1.32	0.8333	0.7576
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	11	0.0000	1.0000	1.0000	11.00	11.00	0.0000	0.0000
Total	4,491	18,140	0.2476			3,818.70	4,199.47	1.1761	1.0694

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 90% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	8	8	1.0000	0.2000	0.1800	1.60	1.44	5.0000	5.5556
55	60	140	0.4286	0.2000	0.1800	28.00	25.20	2.1429	2.3810
56	16	34	0.4706	0.2000	0.1800	6.80	6.12	2.3529	2.6144
57	5	22	0.2273	0.2000	0.1800	4.40	3.96	1.1364	1.2626
58	5	16	0.3125	0.2000	0.1800	3.20	2.88	1.5625	1.7361
59	3	12	0.2500	0.2000	0.1800	2.40	2.16	1.2500	1.3889
60	4	8	0.5000	0.2000	0.1800	1.60	1.44	2.5000	2.7778
61	70	72	0.9722	0.2000	0.1800	14.40	12.96	4.8611	5.4012
62	201	1124	0.1788	0.3000	0.2700	337.20	303.48	0.5961	0.6623
63	1	21	0.0476	0.2000	0.1800	4.20	3.78	0.2381	0.2646
64	1	17	0.0588	0.2000	0.1800	3.40	3.06	0.2941	0.3268
65	2	12	0.1667	0.3000	0.2700	3.60	3.24	0.5556	0.6173
66	1	9	0.1111	0.2000	0.1800	1.80	1.62	0.5556	0.6173
67	0	8	0.0000	0.2000	0.1800	1.60	1.44	0.0000	0.0000
68	1	9	0.1111	0.2000	0.1800	1.80	1.62	0.5556	0.6173
69	1	12	0.0833	0.2000	0.1800	2.40	2.16	0.4167	0.4630
70	2	8	0.2500	1.0000	1.0000	8.00	8.00	0.2500	0.2500
71+	4	14	0.2857	1.0000	1.0000	14.00	14.00	0.2857	0.2857
Total	385	1,546	0.2490			440.40	398.56	0.8742	0.9660

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 90% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	18	18	1.0000	0.2000	0.1800	3.60	3.24	5.0000	5.5556
55	129	333	0.3874	0.2000	0.1800	66.60	59.94	1.9369	2.1522
56	22	59	0.3729	0.2000	0.1800	11.80	10.62	1.8644	2.0716
57	11	35	0.3143	0.2000	0.1800	7.00	6.30	1.5714	1.7460
58	6	25	0.2400	0.2000	0.1800	5.00	4.50	1.2000	1.3333
59	5	24	0.2083	0.2000	0.1800	4.80	4.32	1.0417	1.1574
60	7	26	0.2692	0.2000	0.1800	5.20	4.68	1.3462	1.4957
61	310	323	0.9598	0.2000	0.1800	64.60	58.14	4.7988	5.3320
62	872	4,583	0.1903	0.3000	0.2700	1,374.90	1,237.41	0.6342	0.7047
63	1	38	0.0263	0.2000	0.1800	7.60	6.84	0.1316	0.1462
64	2	32	0.0625	0.2000	0.1800	6.40	5.76	0.3125	0.3472
65	6	28	0.2143	0.3000	0.2700	8.40	7.56	0.7143	0.7937
66	2	24	0.0833	0.2000	0.1800	4.80	4.32	0.4167	0.4630
67	3	21	0.1429	0.2000	0.1800	4.20	3.78	0.7143	0.7937
68	0	7	0.0000	0.2000	0.1800	1.40	1.26	0.0000	0.0000
69	1	10	0.1000	0.2000	0.1800	2.00	1.80	0.5000	0.5556
70	2	12	0.1667	1.0000	1.0000	12.00	12.00	0.1667	0.1667
71+	2	15	0.1333	1.0000	1.0000	15.00	15.00	0.1333	0.1333
Total	1,399	5,613	0.2492			1,605.30	1,447.47	0.8715	0.9665

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 90% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	26	26	1.0000	0.2000	0.1800	5.20	4.68	5.0000	5.5556
55	189	473	0.3996	0.2000	0.1800	94.60	85.14	1.9979	2.2199
56	38	93	0.4086	0.2000	0.1800	18.60	16.74	2.0430	2.2700
57	16	57	0.2807	0.2000	0.1800	11.40	10.26	1.4035	1.5595
58	11	41	0.2683	0.2000	0.1800	8.20	7.38	1.3415	1.4905
59	8	36	0.2222	0.2000	0.1800	7.20	6.48	1.1111	1.2346
60	11	34	0.3235	0.2000	0.1800	6.80	6.12	1.6176	1.7974
61	380	395	0.9620	0.2000	0.1800	79.00	71.10	4.8101	5.3446
62	1,073	5707	0.1880	0.3000	0.2700	1,712.10	1,540.89	0.6267	0.6964
63	2	59	0.0339	0.2000	0.1800	11.80	10.62	0.1695	0.1883
64	3	49	0.0612	0.2000	0.1800	9.80	8.82	0.3061	0.3401
65	8	40	0.2000	0.3000	0.2700	12.00	10.80	0.6667	0.7407
66	3	33	0.0909	0.2000	0.1800	6.60	5.94	0.4545	0.5051
67	3	29	0.1034	0.2000	0.1800	5.80	5.22	0.5172	0.5747
68	1	16	0.0625	0.2000	0.1800	3.20	2.88	0.3125	0.3472
69	2	22	0.0909	0.2000	0.1800	4.40	3.96	0.4545	0.5051
70	4	20	0.2000	1.0000	1.0000	20.00	20.00	0.2000	0.2000
71+	6	29	0.2069	1.0000	1.0000	29.00	29.00	0.2069	0.2069
Total	1,784	7,159	0.2492			2,045.70	1,846.03	0.8721	0.9664

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 20% for the Assumed Probability

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	17	76	0.2237	0.1500	0.2000	11.40	15.20	1.4912	1.1184
57	19	100	0.1900	0.1500	0.2000	15.00	20.00	1.2667	0.9500
58	20	94	0.2128	0.1500	0.2000	14.10	18.80	1.4184	1.0638
59	16	84	0.1905	0.1500	0.2000	12.60	16.80	1.2698	0.9524
60	18	91	0.1978	0.1500	0.2000	13.65	18.20	1.3187	0.9890
61	23	88	0.2614	0.1500	0.2000	13.20	17.60	1.7424	1.3068
62	23	64	0.3594	0.2000	0.2000	12.80	12.80	1.7969	1.7969
63	172	1036	0.1660	0.1500	0.2000	155.40	207.20	1.1068	0.8301
64	134	896	0.1496	0.1500	0.2000	134.40	179.20	0.9970	0.7478
65	166	833	0.1993	0.2000	0.2000	166.60	166.60	0.9964	0.9964
66	158	692	0.2283	0.1500	0.2000	103.80	138.40	1.5222	1.1416
67	105	533	0.1970	0.1500	0.2000	79.95	106.60	1.3133	0.9850
68	93	440	0.2114	0.1500	0.2000	66.00	88.00	1.4091	1.0568
69	47	327	0.1437	0.1500	0.2000	49.05	65.40	0.9582	0.7187
70	59	255	0.2314	0.2000	0.2000	51.00	51.00	1.1569	1.1569
71	37	191	0.1937	0.2000	0.2000	38.20	38.20	0.9686	0.9686
72	27	138	0.1957	0.2000	0.2000	27.60	27.60	0.9783	0.9783
73	25	112	0.2232	0.2000	0.2000	22.40	22.40	1.1161	1.1161
74	10	91	0.1099	0.2000	0.2000	18.20	18.20	0.5495	0.5495
75	12	94	0.1277	0.2000	0.2000	18.80	18.80	0.6383	0.6383
76	23	85	0.2706	0.2000	0.2000	17.00	17.00	1.3529	1.3529
77	9	65	0.1385	0.2000	0.2000	13.00	13.00	0.6923	0.6923
78	11	53	0.2075	0.2000	0.2000	10.60	10.60	1.0377	1.0377
79	6	29	0.2069	0.2000	0.2000	5.80	5.80	1.0345	1.0345
80	3	23	0.1304	0.2000	0.2000	4.60	4.60	0.6522	0.6522
81+	16	71	0.2254	1.0000	1.0000	71.00	71.00	0.2254	0.2254
Total	1,249	6,561	0.1904			1,146.15	1,369.00	1.0897	0.9123

This table originally terminated at age 70 and included all members who retired above age 70 in the "70+" category.

Due to the material amount of retirements above age 70 this table has been extended to age 80 and groups all members who retired above age 80 in the "81+" category.

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 20% for the Assumed Probability

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	58	223	0.2601	0.1500	0.2000	33.45	44.60	1.7339	1.3004
57	47	215	0.2186	0.1500	0.2000	32.25	43.00	1.4574	1.0930
58	50	212	0.2358	0.1500	0.2000	31.80	42.40	1.5723	1.1792
59	45	198	0.2273	0.1500	0.2000	29.70	39.60	1.5152	1.1364
60	53	177	0.2994	0.1500	0.2000	26.55	35.40	1.9962	1.4972
61	32	173	0.1850	0.1500	0.2000	25.95	34.60	1.2331	0.9249
62	54	187	0.2888	0.2000	0.2000	37.40	37.40	1.4439	1.4439
63	614	3,880	0.1582	0.1500	0.2000	582.00	776.00	1.0550	0.7912
64	527	3,367	0.1565	0.1500	0.2000	505.05	673.40	1.0435	0.7826
65	589	2,903	0.2029	0.2000	0.2000	580.60	580.60	1.0145	1.0145
66	539	2,346	0.2298	0.1500	0.2000	351.90	469.20	1.5317	1.1488
67	403	1,804	0.2234	0.1500	0.2000	270.60	360.80	1.4893	1.1170
68	287	1,317	0.2179	0.1500	0.2000	197.55	263.40	1.4528	1.0896
69	221	999	0.2212	0.1500	0.2000	149.85	199.80	1.4748	1.1061
70	173	685	0.2526	0.2000	0.2000	137.00	137.00	1.2628	1.2628
71	109	490	0.2224	0.2000	0.2000	98.00	98.00	1.1122	1.1122
72	69	377	0.1830	0.2000	0.2000	75.40	75.40	0.9151	0.9151
73	59	286	0.2063	0.2000	0.2000	57.20	57.20	1.0315	1.0315
74	47	234	0.2009	0.2000	0.2000	46.80	46.80	1.0043	1.0043
75	47	171	0.2749	0.2000	0.2000	34.20	34.20	1.3743	1.3743
76	34	117	0.2906	0.2000	0.2000	23.40	23.40	1.4530	1.4530
77	12	85	0.1412	0.2000	0.2000	17.00	17.00	0.7059	0.7059
78	14	74	0.1892	0.2000	0.2000	14.80	14.80	0.9459	0.9459
79	10	56	0.1786	0.2000	0.2000	11.20	11.20	0.8929	0.8929
80	6	51	0.1176	0.2000	0.2000	10.20	10.20	0.5882	0.5882
81+	26	162	0.1605	1.0000	1.0000	162.00	162.00	0.1605	0.1605
Total	4,125	20,789	0.1984			3,541.85	4,287.40	1.1646	0.9621

This table originally terminated at age 70 and included all members who retired above age 70 in the "70+" category.

Due to the material amount of retirements above age 70 this table has been extended to age 80 and groups all members who retired above age 80 in the "81+" category.



Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 20% for the Assumed Probability

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	75	299	0.2508	0.1500	0.2000	44.85	59.80	1.6722	1.2542
57	66	315	0.2095	0.1500	0.2000	47.25	63.00	1.3968	1.0476
58	70	306	0.2288	0.1500	0.2000	45.90	61.20	1.5251	1.1438
59	61	282	0.2163	0.1500	0.2000	42.30	56.40	1.4421	1.0816
60	71	268	0.2649	0.1500	0.2000	40.20	53.60	1.7662	1.3246
61	55	261	0.2107	0.1500	0.2000	39.15	52.20	1.4049	1.0536
62	77	251	0.3068	0.2000	0.2000	50.20	50.20	1.5339	1.5339
63	786	4916	0.1599	0.1500	0.2000	737.40	983.20	1.0659	0.7994
64	661	4263	0.1551	0.1500	0.2000	639.45	852.60	1.0337	0.7753
65	755	3736	0.2021	0.2000	0.2000	747.20	747.20	1.0104	1.0104
66	697	3038	0.2294	0.1500	0.2000	455.70	607.60	1.5295	1.1471
67	508	2337	0.2174	0.1500	0.2000	350.55	467.40	1.4492	1.0869
68	380	1757	0.2163	0.1500	0.2000	263.55	351.40	1.4419	1.0814
69	268	1326	0.2021	0.1500	0.2000	198.90	265.20	1.3474	1.0106
70	232	940	0.2468	0.2000	0.2000	188.00	188.00	1.2340	1.2340
71	146	681	0.2144	0.2000	0.2000	136.20	136.20	1.0720	1.0720
72	96	515	0.1864	0.2000	0.2000	103.00	103.00	0.9320	0.9320
73	84	398	0.2111	0.2000	0.2000	79.60	79.60	1.0553	1.0553
74	57	325	0.1754	0.2000	0.2000	65.00	65.00	0.8769	0.8769
75	59	265	0.2226	0.2000	0.2000	53.00	53.00	1.1132	1.1132
76	57	202	0.2822	0.2000	0.2000	40.40	40.40	1.4109	1.4109
77	21	150	0.1400	0.2000	0.2000	30.00	30.00	0.7000	0.7000
78	25	127	0.1969	0.2000	0.2000	25.40	25.40	0.9843	0.9843
79	16	85	0.1882	0.2000	0.2000	17.00	17.00	0.9412	0.9412
80	9	74	0.1216	0.2000	0.2000	14.80	14.80	0.6081	0.6081
81+	42	233	0.1803	1.0000	1.0000	233.00	233.00	0.1803	0.1803
Total	5,374	27,350	0.1965			4,688.00	5,656.40	1.1463	0.9501

This table originally terminated at age 70 and included all members who retired above age 70 in the "70+" category.

Due to the material amount of retirements above age 70 this table has been extended to age 80 and groups all members who retired above age 80 in the "81+" category.

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 90% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	16	16	1.0000	0.2000	0.1800	3.20	2.88	5.0000	5.5556
55	166	449	0.3697	0.2000	0.1800	89.80	80.82	1.8486	2.0539
56	47	134	0.3507	0.2000	0.1800	26.80	24.12	1.7537	1.9486
57	34	91	0.3736	0.2000	0.1800	18.20	16.38	1.8681	2.0757
58	26	70	0.3714	0.2000	0.1800	14.00	12.60	1.8571	2.0635
59	18	53	0.3396	0.2000	0.1800	10.60	9.54	1.6981	1.8868
60	11	33	0.3333	0.2000	0.1800	6.60	5.94	1.6667	1.8519
61	174	195	0.8923	0.2000	0.1800	39.00	35.10	4.4615	4.9573
62	513	2,867	0.1789	0.3000	0.2700	860.10	774.09	0.5964	0.6627
63	8	67	0.1194	0.2000	0.1800	13.40	12.06	0.5970	0.6633
64	2	59	0.0339	0.2000	0.1800	11.80	10.62	0.1695	0.1883
65	2	37	0.0541	0.3000	0.2700	11.10	9.99	0.1802	0.2002
66	3	29	0.1034	0.2000	0.1800	5.80	5.22	0.5172	0.5747
67	0	20	0.0000	0.2000	0.1800	4.00	3.60	0.0000	0.0000
68	1	18	0.0556	0.2000	0.1800	3.60	3.24	0.2778	0.3086
69	2	21	0.0952	0.2000	0.1800	4.20	3.78	0.4762	0.5291
70	4	15	0.2667	1.0000	1.0000	15.00	15.00	0.2667	0.2667
71+	8	32	0.2500	1.0000	1.0000	32.00	32.00	0.2500	0.2500
Total	1,035	4,206	0.2461			1,169.20	1,056.98	0.8852	0.9792

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 90% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	32	32	1.0000	0.2000	0.1800	6.40	5.76	5.0000	5.5556
55	381	1,071	0.3557	0.2000	0.1800	214.20	192.78	1.7787	1.9763
56	80	198	0.4040	0.2000	0.1800	39.60	35.64	2.0202	2.2447
57	48	156	0.3077	0.2000	0.1800	31.20	28.08	1.5385	1.7094
58	40	143	0.2797	0.2000	0.1800	28.60	25.74	1.3986	1.5540
59	36	111	0.3243	0.2000	0.1800	22.20	19.98	1.6216	1.8018
60	27	95	0.2842	0.2000	0.1800	19.00	17.10	1.4211	1.5789
61	659	726	0.9077	0.2000	0.1800	145.20	130.68	4.5386	5.0429
62	1,933	10,868	0.1779	0.3000	0.2700	3,260.40	2,934.36	0.5929	0.6587
63	13	143	0.0909	0.2000	0.1800	28.60	25.74	0.4545	0.5051
64	7	110	0.0636	0.2000	0.1800	22.00	19.80	0.3182	0.3535
65	15	88	0.1705	0.3000	0.2700	26.40	23.76	0.5682	0.6313
66	6	76	0.0789	0.2000	0.1800	15.20	13.68	0.3947	0.4386
67	7	46	0.1522	0.2000	0.1800	9.20	8.28	0.7609	0.8454
68	1	25	0.0400	0.2000	0.1800	5.00	4.50	0.2000	0.2222
69	2	18	0.1111	0.2000	0.1800	3.60	3.24	0.5556	0.6173
70	3	19	0.1579	1.0000	1.0000	19.00	19.00	0.1579	0.1579
71+	12	53	0.2264	1.0000	1.0000	53.00	53.00	0.2264	0.2264
Total	3,302	13,978	0.2362			3,948.80	3,561.12	0.8362	0.9272

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 90% of the Current Rates

Age	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	48	48	1.0000	0.2000	0.1800	9.60	8.64	5.0000	5.5556
55	547	1,520	0.3599	0.2000	0.1800	304.00	273.60	1.7993	1.9993
56	127	332	0.3825	0.2000	0.1800	66.40	59.76	1.9127	2.1252
57	82	247	0.3320	0.2000	0.1800	49.40	44.46	1.6599	1.8444
58	66	213	0.3099	0.2000	0.1800	42.60	38.34	1.5493	1.7214
59	54	164	0.3293	0.2000	0.1800	32.80	29.52	1.6463	1.8293
60	38	128	0.2969	0.2000	0.1800	25.60	23.04	1.4844	1.6493
61	833	921	0.9045	0.2000	0.1800	184.20	165.78	4.5223	5.0247
62	2,446	13,735	0.1781	0.3000	0.2700	4,120.50	3,708.45	0.5936	0.6596
63	21	210	0.1000	0.2000	0.1800	42.00	37.80	0.5000	0.5556
64	9	169	0.0533	0.2000	0.1800	33.80	30.42	0.2663	0.2959
65	17	125	0.1360	0.3000	0.2700	37.50	33.75	0.4533	0.5037
66	9	105	0.0857	0.2000	0.1800	21.00	18.90	0.4286	0.4762
67	7	66	0.1061	0.2000	0.1800	13.20	11.88	0.5303	0.5892
68	2	43	0.0465	0.2000	0.1800	8.60	7.74	0.2326	0.2584
69	4	39	0.1026	0.2000	0.1800	7.80	7.02	0.5128	0.5698
70	7	34	0.2059	1.0000	1.0000	34.00	34.00	0.2059	0.2059
71+	20	85	0.2353	1.0000	1.0000	85.00	85.00	0.2353	0.2353
Total	4,337	18,184	0.2385			5,118.00	4,618.10	0.8474	0.9391

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 20% for the Assumed Probability

(1)	(2)	(3)	(4) = (2)÷(3)	(5) = (6)		(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	77	295	0.2610	0.1500	0.2000	44.25	59.00	1.7401	1.3051
57	73	360	0.2028	0.1500	0.2000	54.00	72.00	1.3519	1.0139
58	110	403	0.2730	0.1500	0.2000	60.45	80.60	1.8197	1.3648
59	108	434	0.2488	0.1500	0.2000	65.10	86.80	1.6590	1.2442
60	113	479	0.2359	0.1500	0.2000	71.85	95.80	1.5727	1.1795
61	110	506	0.2174	0.1500	0.2000	75.90	101.20	1.4493	1.0870
62	127	479	0.2651	0.2000	0.2000	95.80	95.80	1.3257	1.3257
63	451	2,716	0.1661	0.1500	0.2000	407.40	543.20	1.1070	0.8303
64	352	2,311	0.1523	0.1500	0.2000	346.65	462.20	1.0154	0.7616
65	388	1,996	0.1944	0.2000	0.2000	399.20	399.20	0.9719	0.9719
66	336	1,557	0.2158	0.1500	0.2000	233.55	311.40	1.4387	1.0790
67	250	1,207	0.2071	0.1500	0.2000	181.05	241.40	1.3808	1.0356
68	183	962	0.1902	0.1500	0.2000	144.30	192.40	1.2682	0.9511
69	137	752	0.1822	0.1500	0.2000	112.80	150.40	1.2145	0.9109
70	116	575	0.2017	0.2000	0.2000	115.00	115.00	1.0087	1.0087
71	94	454	0.2070	0.2000	0.2000	90.80	90.80	1.0352	1.0352
72	68	360	0.1889	0.2000	0.2000	72.00	72.00	0.9444	0.9444
73	52	290	0.1793	0.2000	0.2000	58.00	58.00	0.8966	0.8966
74	36	236	0.1525	0.2000	0.2000	47.20	47.20	0.7627	0.7627
75	31	190	0.1632	0.2000	0.2000	38.00	38.00	0.8158	0.8158
76	32	154	0.2078	0.2000	0.2000	30.80	30.80	1.0390	1.0390
77	17	124	0.1371	0.2000	0.2000	24.80	24.80	0.6855	0.6855
78	19	97	0.1959	0.2000	0.2000	19.40	19.40	0.9794	0.9794
79	14	68	0.2059	0.2000	0.2000	13.60	13.60	1.0294	1.0294
80	8	52	0.1538	0.2000	0.2000	10.40	10.40	0.7692	0.7692
81+	41	179	0.2291	1.0000	1.0000	179.00	179.00	0.2291	0.2291
Total	3,343	17,236	0.1940			2,991.30	3,590.40	1.1176	0.9311

This table originally terminated at age 70 and included all members who retired above age 70 in the "70+" category.

Due to the material amount of retirements above age 70 this table has been extended to age 80 and groups all members who retired above age 80 in the "81+" category.

Bolton

Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 20% for the Assumed Probability

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	210	803	0.2615	0.1500	0.2000	120.45	160.60	1.7435	1.3076
57	210	954	0.2201	0.1500	0.2000	143.10	190.80	1.4675	1.1006
58	242	1,186	0.2040	0.1500	0.2000	177.90	237.20	1.3603	1.0202
59	278	1,375	0.2022	0.1500	0.2000	206.25	275.00	1.3479	1.0109
60	371	1,508	0.2460	0.1500	0.2000	226.20	301.60	1.6401	1.2301
61	325	1,487	0.2186	0.1500	0.2000	223.05	297.40	1.4571	1.0928
62	366	1,416	0.2585	0.2000	0.2000	283.20	283.20	1.2924	1.2924
63	1,590	9,774	0.1627	0.1500	0.2000	1466.10	1954.80	1.0845	0.8134
64	1,317	8,137	0.1619	0.1500	0.2000	1220.55	1627.40	1.0790	0.8093
65	1,342	6,750	0.1988	0.2000	0.2000	1350.00	1350.00	0.9941	0.9941
66	1,269	5,287	0.2400	0.1500	0.2000	793.05	1057.40	1.6002	1.2001
67	873	3,906	0.2235	0.1500	0.2000	585.90	781.20	1.4900	1.1175
68	603	2,920	0.2065	0.1500	0.2000	438.00	584.00	1.3767	1.0325
69	493	2,241	0.2200	0.1500	0.2000	336.15	448.20	1.4666	1.1000
70	403	1,647	0.2447	0.2000	0.2000	329.40	329.40	1.2234	1.2234
71	264	1,192	0.2215	0.2000	0.2000	238.40	238.40	1.1074	1.1074
72	176	902	0.1951	0.2000	0.2000	180.40	180.40	0.9756	0.9756
73	158	711	0.2222	0.2000	0.2000	142.20	142.20	1.1111	1.1111
74	125	561	0.2228	0.2000	0.2000	112.20	112.20	1.1141	1.1141
75	115	435	0.2644	0.2000	0.2000	87.00	87.00	1.3218	1.3218
76	78	317	0.2461	0.2000	0.2000	63.40	63.40	1.2303	1.2303
77	45	243	0.1852	0.2000	0.2000	48.60	48.60	0.9259	0.9259
78	34	196	0.1735	0.2000	0.2000	39.20	39.20	0.8673	0.8673
79	31	160	0.1938	0.2000	0.2000	32.00	32.00	0.9688	0.9688
80	24	126	0.1905	0.2000	0.2000	25.20	25.20	0.9524	0.9524
81+	76	394	0.1929	1.0000	1.0000	394.00	394.00	0.1929	0.1929
Total	11,018	54,628	0.2017			9,261.90	11,240.80	1.1896	0.9802

This table originally terminated at age 70 and included all members who retired above age 70 in the "70+" category.

Due to the material amount of retirements above age 70 this table has been extended to age 80 and groups all members who retired above age 80 in the "81+" category.



Teachers' Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 20% for the Assumed Probability

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
56	287	1,098	0.2614	0.1500	0.2000	164.70	219.60	1.7426	1.3069
57	283	1,314	0.2154	0.1500	0.2000	197.10	262.80	1.4358	1.0769
58	352	1,589	0.2215	0.1500	0.2000	238.35	317.80	1.4768	1.1076
59	386	1,809	0.2134	0.1500	0.2000	271.35	361.80	1.4225	1.0669
60	484	1,987	0.2436	0.1500	0.2000	298.05	397.40	1.6239	1.2179
61	435	1,993	0.2183	0.1500	0.2000	298.95	398.60	1.4551	1.0913
62	493	1,895	0.2602	0.2000	0.2000	379.00	379.00	1.3008	1.3008
63	2,041	12,490	0.1634	0.1500	0.2000	1873.50	2498.00	1.0894	0.8171
64	1,669	10,448	0.1597	0.1500	0.2000	1567.20	2089.60	1.0650	0.7987
65	1,730	8,746	0.1978	0.2000	0.2000	1749.20	1749.20	0.9890	0.9890
66	1,605	6,844	0.2345	0.1500	0.2000	1026.60	1368.80	1.5634	1.1726
67	1,123	5,113	0.2196	0.1500	0.2000	766.95	1022.60	1.4642	1.0982
68	786	3,882	0.2025	0.1500	0.2000	582.30	776.40	1.3498	1.0124
69	630	2,993	0.2105	0.1500	0.2000	448.95	598.60	1.4033	1.0525
70	519	2,222	0.2336	0.2000	0.2000	444.40	444.40	1.1679	1.1679
71	358	1,646	0.2175	0.2000	0.2000	329.20	329.20	1.0875	1.0875
72	244	1,262	0.1933	0.2000	0.2000	252.40	252.40	0.9667	0.9667
73	210	1,001	0.2098	0.2000	0.2000	200.20	200.20	1.0490	1.0490
74	161	797	0.2020	0.2000	0.2000	159.40	159.40	1.0100	1.0100
75	146	625	0.2336	0.2000	0.2000	125.00	125.00	1.1680	1.1680
76	110	471	0.2335	0.2000	0.2000	94.20	94.20	1.1677	1.1677
77	62	367	0.1689	0.2000	0.2000	73.40	73.40	0.8447	0.8447
78	53	293	0.1809	0.2000	0.2000	58.60	58.60	0.9044	0.9044
79	45	228	0.1974	0.2000	0.2000	45.60	45.60	0.9868	0.9868
80	32	178	0.1798	0.2000	0.2000	35.60	35.60	0.8989	0.8989
81+	117	573	0.2042	1.0000	1.0000	573.00	573.00	0.2042	0.2042
Total	14,361	71,864	0.1998			12,253.20	14,831.20	1.1720	0.9683

This table originally terminated at age 70 and included all members who retired above age 70 in the "70+" category.

Due to the material amount of retirements above age 70 this table has been extended to age 80 and groups all members who retired above age 80 in the "81+" category.

Bolton

**Teachers' Retirement System of the City of New York
Normal Retirement Experience
Table 6G - Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Retirements	Life Years Exposed	Current Expected Retirements	Actual/Expected	Retirement Rate	
					Actual	Current
2008	1,908	8,977	2,741.25	0.6960	0.2125	0.3054
2009	1,750	9,302	2,823.65	0.6198	0.1881	0.3036
2010	2,492	11,990	3,655.55	0.6817	0.2078	0.3049
2011	2,750	12,448	3,846.70	0.7149	0.2209	0.3090
2012	3,018	12,548	3,944.05	0.7652	0.2405	0.3143
2013	3,041	12,804	4,072.25	0.7468	0.2375	0.3180
2014	4,621	13,065	4,157.05	1.1116	0.3537	0.3182
2015	1,988	11,285	3,599.70	0.5523	0.1762	0.3190
2016	2,477	12,095	3,873.75	0.6394	0.2048	0.3203
2017	2,158	12,245	3,944.65	0.5471	0.1762	0.3221
Total	26,203	116,759	36,658.60	0.7148	0.2244	0.3140

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 40)

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Men
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	65	1,554	0.0418	0.0200	0.0250	31.08	38.85	2.0914	1.6731
56	50	1,465	0.0341	0.0200	0.0250	29.30	36.63	1.7065	1.3652
57	56	1,386	0.0404	0.0200	0.0250	27.72	34.65	2.0202	1.6162
58	49	1,350	0.0363	0.0200	0.0250	27.00	33.75	1.8148	1.4519
59	43	1,269	0.0339	0.0300	0.0375	38.07	47.59	1.1295	0.9036
60	87	1,202	0.0724	0.0400	0.0500	48.08	60.10	1.8095	1.4476
61	86	1,148	0.0749	0.0500	0.0625	57.40	71.75	1.4983	1.1986
62	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	1	7	0.1429	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	437	9,430	0.0463			258.65	323.31	1.6895	1.3516

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Women
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	174	5,872	0.0296	0.0200	0.0250	117.44	146.80	1.4816	1.1853
56	154	5,759	0.0267	0.0200	0.0250	115.18	143.98	1.3370	1.0696
57	153	5,623	0.0272	0.0200	0.0250	112.46	140.58	1.3605	1.0884
58	179	5,571	0.0321	0.0200	0.0250	111.42	139.28	1.6065	1.2852
59	182	5,309	0.0343	0.0300	0.0375	159.27	199.09	1.1427	0.9142
60	223	5,156	0.0433	0.0400	0.0500	206.24	257.80	1.0813	0.8650
61	333	4,982	0.0668	0.0500	0.0625	249.10	311.38	1.3368	1.0695
62	2	39	0.0513	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	25	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	20	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	2	15	0.1333	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	21	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	1	13	0.0769	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	10	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	1	12	0.0833	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,404	38,435	0.0365			1,071.11	1,338.89	1.3108	1.0486

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Men and Women
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	239	7,426	0.0322	0.0200	0.0250	148.52	185.65	1.6092	1.2874
56	204	7,224	0.0282	0.0200	0.0250	144.48	180.60	1.4120	1.1296
57	209	7,009	0.0298	0.0200	0.0250	140.18	175.23	1.4909	1.1928
58	228	6,921	0.0329	0.0200	0.0250	138.42	173.03	1.6472	1.3177
59	225	6,578	0.0342	0.0300	0.0375	197.34	246.68	1.1402	0.9121
60	310	6,358	0.0488	0.0400	0.0500	254.32	317.90	1.2189	0.9751
61	419	6,130	0.0684	0.0500	0.0625	306.50	383.13	1.3670	1.0936
62	2	48	0.0417	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	31	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	28	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	3	22	0.1364	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	25	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	1	17	0.0588	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	16	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	1	17	0.0588	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,841	47,865	0.0385			1,329.76	1,662.20	1.3845	1.1076

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Men
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	196	4,426	0.0443	0.0200	0.0250	88.52	110.65	2.2142	1.7714
56	199	4,257	0.0467	0.0200	0.0250	85.14	106.43	2.3373	1.8699
57	192	4,061	0.0473	0.0200	0.0250	81.22	101.53	2.3639	1.8912
58	175	3,878	0.0451	0.0200	0.0250	77.56	96.95	2.2563	1.8051
59	187	3,641	0.0514	0.0300	0.0375	109.23	136.54	1.7120	1.3696
60	223	3,429	0.0650	0.0400	0.0500	137.16	171.45	1.6258	1.3007
61	234	3,178	0.0736	0.0500	0.0625	158.90	198.63	1.4726	1.1781
62	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	1	7	0.1429	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,407	26,926	0.0523			737.73	922.16	1.9072	1.5258

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Women
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	564	17,097	0.0330	0.0200	0.0250	341.94	427.43	1.6494	1.3195
56	570	16,779	0.0340	0.0200	0.0250	335.58	419.48	1.6986	1.3588
57	526	16,114	0.0326	0.0200	0.0250	322.28	402.85	1.6321	1.3057
58	599	15,553	0.0385	0.0200	0.0250	311.06	388.83	1.9257	1.5405
59	637	14,512	0.0439	0.0300	0.0375	435.36	544.20	1.4632	1.1705
60	685	13,402	0.0511	0.0400	0.0500	536.08	670.10	1.2778	1.0222
61	785	12,228	0.0642	0.0500	0.0625	611.40	764.25	1.2839	1.0272
62	2	39	0.0513	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	25	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	20	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	2	15	0.1333	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	21	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	1	13	0.0769	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	10	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	1	12	0.0833	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	4,372	105,848	0.0413			2,893.70	3,617.13	1.5109	1.2087

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Men and Women
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
55	760	21,523	0.0353	0.0200	0.0250	430.46	538.08	1.7656	1.4124
56	769	21,036	0.0366	0.0200	0.0250	420.72	525.90	1.8278	1.4623
57	718	20,175	0.0356	0.0200	0.0250	403.50	504.38	1.7794	1.4235
58	774	19,431	0.0398	0.0200	0.0250	388.62	485.78	1.9917	1.5933
59	824	18,153	0.0454	0.0300	0.0375	544.59	680.74	1.5131	1.2105
60	908	16,831	0.0539	0.0400	0.0500	673.24	841.55	1.3487	1.0790
61	1,019	15,406	0.0661	0.0500	0.0625	770.30	962.88	1.3229	1.0583
62	2	48	0.0417	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	31	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	28	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	3	22	0.1364	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	25	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	1	17	0.0588	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	16	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	1	17	0.0588	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	5,779	132,774	0.0435			3,631.43	4,539.29	1.5914	1.2731

Bolton

**Teachers' Retirement System of the City of New York
Early Retirement Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Retirements	Life Years Exposed	Current Expected Retirements	Actual/Expected	Retirement Rate	
					Actual	Current
2008	801	15,007	391.00	2.0486	0.0534	0.0261
2009	971	15,961	422.89	2.2961	0.0608	0.0265
2010	509	13,922	376.69	1.3512	0.0366	0.0271
2011	591	13,615	373.66	1.5817	0.0434	0.0274
2012	535	13,167	365.91	1.4621	0.0406	0.0278
2013	531	13,237	371.52	1.4293	0.0401	0.0281
2014	800	12,586	351.37	2.2768	0.0636	0.0279
2015	377	11,990	332.90	1.1325	0.0314	0.0278
2016	411	11,724	325.10	1.2642	0.0351	0.0277
2017	253	11,565	320.39	0.7897	0.0219	0.0277
Total	5,779	132,774	3,631.43	1.5914	0.0435	0.0274

Bolton

Teachers' Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Table 8A - Men
 4-Year Period Ending 2015
 Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(7) Expected Withdrawals		(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Actual/Expected	
								Current	Proposed
0	470	7,897	0.0595	0.0900	0.0900	710.80	710.70	0.6612	0.6613
1	432	5,864	0.0737	0.0800	0.0800	469.10	469.10	0.9209	0.9209
2	467	5,013	0.0932	0.0700	0.0700	350.90	350.90	1.3309	1.3309
3	398	4,264	0.0933	0.0600	0.0600	255.80	255.80	1.5559	1.5559
4	332	4,409	0.0753	0.0500	0.0500	220.30	220.50	1.5070	1.5057
5	265	4,305	0.0616	0.0400	0.0400	172.20	172.20	1.5389	1.5389
6	251	4,803	0.0523	0.0350	0.0350	168.10	168.10	1.4932	1.4932
7	206	4,790	0.0430	0.0305	0.0305	146.10	146.10	1.4100	1.4100
8	165	5,115	0.0323	0.0265	0.0265	135.60	135.50	1.2168	1.2177
9	145	4,876	0.0297	0.0230	0.0230	112.20	112.10	1.2923	1.2935
10	118	4,326	0.0273	0.0200	0.0200	86.50	86.50	1.3642	1.3642
11	87	3,862	0.0225	0.0175	0.0175	67.60	67.60	1.2870	1.2870
12	62	2,983	0.0208	0.0155	0.0155	46.20	46.20	1.3420	1.3420
13	42	2,524	0.0166	0.0140	0.0140	35.30	35.30	1.1898	1.1898
14	29	2,297	0.0126	0.0130	0.0130	29.80	29.90	0.9732	0.9699
15	31	1,938	0.0160	0.0125	0.0125	24.20	24.20	1.2810	1.2810
16	12	1,630	0.0074	0.0120	0.0120	19.50	19.60	0.6154	0.6122
17	16	1,499	0.0107	0.0115	0.0115	17.30	17.20	0.9249	0.9302
18	10	1,313	0.0076	0.0110	0.0110	14.50	14.40	0.6897	0.6944
19	17	1,165	0.0146	0.0105	0.0105	12.20	12.20	1.3934	1.3934
20	9	1,070	0.0084	0.0100	0.0100	10.70	10.70	0.8411	0.8411
21	13	991	0.0131	0.0090	0.0090	8.90	8.90	1.4607	1.4607
22	8	918	0.0087	0.0080	0.0080	7.30	7.30	1.0959	1.0959
23	7	820	0.0085	0.0070	0.0070	5.70	5.70	1.2281	1.2281
24	7	756	0.0093	0.0060	0.0060	4.60	4.50	1.5217	1.5556
25	9	657	0.0137	0.0050	0.0050	3.20	3.30	2.8125	2.7273
26	9	586	0.0154	0.0050	0.0050	2.90	2.90	3.1034	3.1034
27	9	504	0.0179	0.0050	0.0050	2.50	2.50	3.6000	3.6000
28	5	406	0.0123	0.0050	0.0050	2.00	2.00	2.5000	2.5000
29	4	284	0.0141	0.0050	0.0050	1.50	1.40	2.6667	2.8571
30	5	151	0.0331	0.0050	0.0050	0.80	0.80	6.2500	6.2500
31+	1	94	0.0106	0.0050	0.0050	0.30	0.50	3.3333	2.0000
Total	3,641	82,110	0.0443			3,144.60	3,144.60	1.1579	1.1579

Bolton

Teachers' Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Table 8A - Women
 4-Year Period Ending 2015
 Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	754	16,285	0.0463	0.0900	0.0900	1,465.70	1,465.70	0.5144	0.5144
1	1,076	19,244	0.0559	0.0800	0.0800	1,539.50	1,539.50	0.6989	0.6989
2	1,217	16,106	0.0756	0.0700	0.0700	1,127.40	1,127.40	1.0795	1.0795
3	1,070	15,164	0.0706	0.0600	0.0600	909.90	909.80	1.1760	1.1761
4	1,018	16,077	0.0633	0.0500	0.0500	803.90	803.90	1.2663	1.2663
5	1,074	15,900	0.0675	0.0400	0.0400	636.00	636.00	1.6887	1.6887
6	951	17,087	0.0557	0.0350	0.0350	598.00	598.00	1.5903	1.5903
7	745	17,051	0.0437	0.0305	0.0305	520.10	520.10	1.4324	1.4324
8	607	16,800	0.0361	0.0265	0.0265	445.20	445.20	1.3634	1.3634
9	478	15,626	0.0306	0.0230	0.0230	359.40	359.40	1.3300	1.3300
10	384	14,312	0.0268	0.0200	0.0200	286.30	286.20	1.3413	1.3417
11	295	12,964	0.0228	0.0175	0.0175	226.90	226.90	1.3001	1.3001
12	197	10,709	0.0184	0.0155	0.0155	165.90	166.00	1.1875	1.1867
13	157	9,382	0.0167	0.0140	0.0140	131.40	131.30	1.1948	1.1957
14	108	8,357	0.0129	0.0130	0.0130	108.60	108.60	0.9945	0.9945
15	82	6,860	0.0120	0.0125	0.0125	85.80	85.80	0.9557	0.9557
16	61	5,744	0.0106	0.0120	0.0120	69.00	68.90	0.8841	0.8853
17	46	4,745	0.0097	0.0115	0.0115	54.70	54.60	0.8410	0.8425
18	32	3,960	0.0081	0.0110	0.0110	43.50	43.60	0.7356	0.7339
19	23	3,637	0.0063	0.0105	0.0105	38.20	38.20	0.6021	0.6021
20	18	3,372	0.0053	0.0100	0.0100	33.70	33.70	0.5341	0.5341
21	17	3,098	0.0055	0.0090	0.0090	27.90	27.90	0.6093	0.6093
22	15	2,899	0.0052	0.0080	0.0080	23.10	23.20	0.6494	0.6466
23	16	2,655	0.0060	0.0070	0.0070	18.60	18.60	0.8602	0.8602
24	10	2,392	0.0042	0.0060	0.0060	14.40	14.40	0.6944	0.6944
25	26	2,128	0.0122	0.0050	0.0050	10.60	10.60	2.4528	2.4528
26	20	1,897	0.0105	0.0050	0.0050	9.40	9.50	2.1277	2.1053
27	11	1,606	0.0068	0.0050	0.0050	8.00	8.00	1.3750	1.3750
28	12	1,276	0.0094	0.0050	0.0050	6.40	6.40	1.8750	1.8750
29	3	908	0.0033	0.0050	0.0050	4.50	4.50	0.6667	0.6667
30	3	587	0.0051	0.0050	0.0050	2.90	2.90	1.0345	1.0345
31+	3	536	0.0056	0.0050	0.0050	2.60	2.70	1.1538	1.1111
Total	10,529	269,364	0.0391			9,777.50	9,777.50	1.0769	1.0769

Bolton

Teachers' Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Table 8A - Men and Women
 4-Year Period Ending 2015
 Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(7) Expected Withdrawals		(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Actual/Expected	
								Current	Proposed
0	1,224	24,182	0.0506	0.0900	0.0900	2,176.50	2,176.40	0.5624	0.5624
1	1,508	25,108	0.0601	0.0800	0.0800	2,008.60	2,008.60	0.7508	0.7508
2	1,684	21,119	0.0797	0.0700	0.0700	1,478.30	1,478.30	1.1391	1.1391
3	1,468	19,428	0.0756	0.0600	0.0600	1,165.70	1,165.70	1.2593	1.2593
4	1,350	20,486	0.0659	0.0500	0.0500	1,024.20	1,024.30	1.3181	1.3180
5	1,339	20,205	0.0663	0.0400	0.0400	808.20	808.20	1.6568	1.6568
6	1,202	21,890	0.0549	0.0350	0.0350	766.10	766.20	1.5690	1.5688
7	951	21,841	0.0435	0.0305	0.0305	666.20	666.20	1.4275	1.4275
8	772	21,915	0.0352	0.0265	0.0265	580.80	580.70	1.3292	1.3294
9	623	20,502	0.0304	0.0230	0.0230	471.60	471.50	1.3210	1.3213
10	502	18,638	0.0269	0.0200	0.0200	372.80	372.80	1.3466	1.3466
11	382	16,826	0.0227	0.0175	0.0175	294.50	294.50	1.2971	1.2971
12	259	13,692	0.0189	0.0155	0.0155	212.10	212.20	1.2211	1.2205
13	199	11,906	0.0167	0.0140	0.0140	166.70	166.70	1.1938	1.1938
14	137	10,654	0.0129	0.0130	0.0130	138.40	138.50	0.9899	0.9892
15	113	8,798	0.0128	0.0125	0.0125	110.00	110.00	1.0273	1.0273
16	73	7,374	0.0099	0.0120	0.0120	88.50	88.50	0.8249	0.8249
17	62	6,244	0.0099	0.0115	0.0115	72.00	71.80	0.8611	0.8635
18	42	5,273	0.0080	0.0110	0.0110	58.00	58.00	0.7241	0.7241
19	40	4,802	0.0083	0.0105	0.0105	50.40	50.40	0.7937	0.7937
20	27	4,442	0.0061	0.0100	0.0100	44.40	44.40	0.6081	0.6081
21	30	4,089	0.0073	0.0090	0.0090	36.80	36.80	0.8152	0.8152
22	23	3,817	0.0060	0.0080	0.0080	30.40	30.50	0.7566	0.7541
23	23	3,475	0.0066	0.0070	0.0070	24.30	24.30	0.9465	0.9465
24	17	3,148	0.0054	0.0060	0.0060	19.00	18.90	0.8947	0.8995
25	35	2,785	0.0126	0.0050	0.0050	13.80	13.90	2.5362	2.5180
26	29	2,483	0.0117	0.0050	0.0050	12.30	12.40	2.3577	2.3387
27	20	2,110	0.0095	0.0050	0.0050	10.50	10.60	1.9048	1.8868
28	17	1,682	0.0101	0.0050	0.0050	8.40	8.40	2.0238	2.0238
29	7	1,192	0.0059	0.0050	0.0050	6.00	6.00	1.1667	1.1667
30	8	738	0.0108	0.0050	0.0050	3.70	3.70	2.1622	2.1622
31+	4	630	0.0063	0.0050	0.0050	2.90	3.20	1.3793	1.2500
Total	14,170	351,474	0.0403			12,922.10	12,922.60	1.0966	1.0965

Bolton

Teachers' Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Table 8A - Men
 8-Year Period Ending 2015
 Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	669	11,947	0.0560	0.0900	0.0900	1,075.20	1,075.20	0.6222	0.6222
1	1,093	13,154	0.0831	0.0800	0.0800	1,052.30	1,052.30	1.0387	1.0387
2	1,497	12,911	0.1159	0.0700	0.0700	903.70	903.80	1.6565	1.6563
3	1,164	11,585	0.1005	0.0600	0.0600	695.00	695.10	1.6748	1.6746
4	843	12,079	0.0698	0.0500	0.0500	603.70	604.00	1.3964	1.3957
5	632	10,670	0.0592	0.0400	0.0400	426.90	426.80	1.4804	1.4808
6	499	10,348	0.0482	0.0350	0.0350	362.20	362.20	1.3777	1.3777
7	372	9,705	0.0383	0.0305	0.0305	296.00	296.00	1.2568	1.2568
8	260	8,633	0.0301	0.0265	0.0265	228.80	228.80	1.1364	1.1364
9	203	7,768	0.0261	0.0230	0.0230	178.80	178.70	1.1353	1.1360
10	165	7,046	0.0234	0.0200	0.0200	140.90	140.90	1.1710	1.1710
11	127	6,144	0.0207	0.0175	0.0175	107.60	107.50	1.1803	1.1814
12	101	4,969	0.0203	0.0155	0.0155	76.90	77.00	1.3134	1.3117
13	69	4,234	0.0163	0.0140	0.0140	59.20	59.30	1.1655	1.1636
14	55	3,885	0.0142	0.0130	0.0130	50.40	50.50	1.0913	1.0891
15	60	3,341	0.0180	0.0125	0.0125	41.90	41.80	1.4320	1.4354
16	34	3,000	0.0113	0.0120	0.0120	35.90	36.00	0.9471	0.9444
17	30	2,793	0.0107	0.0115	0.0115	32.10	32.10	0.9346	0.9346
18	20	2,525	0.0079	0.0110	0.0110	27.80	27.80	0.7194	0.7194
19	25	2,276	0.0110	0.0105	0.0105	23.90	23.90	1.0460	1.0460
20	16	2,180	0.0073	0.0100	0.0100	21.80	21.80	0.7339	0.7339
21	21	2,000	0.0105	0.0090	0.0090	18.00	18.00	1.1667	1.1667
22	16	1,911	0.0084	0.0080	0.0080	15.20	15.30	1.0526	1.0458
23	12	1,695	0.0071	0.0070	0.0070	11.90	11.90	1.0084	1.0084
24	10	1,532	0.0065	0.0060	0.0060	9.30	9.20	1.0753	1.0870
25	18	1,270	0.0142	0.0050	0.0050	6.30	6.40	2.8571	2.8125
26	11	1,071	0.0103	0.0050	0.0050	5.30	5.40	2.0755	2.0370
27	17	858	0.0198	0.0050	0.0050	4.30	4.30	3.9535	3.9535
28	7	740	0.0095	0.0050	0.0050	3.70	3.70	1.8919	1.8919
29	7	553	0.0127	0.0050	0.0050	2.90	2.80	2.4138	2.5000
30	10	338	0.0296	0.0050	0.0050	1.80	1.70	5.5556	5.8824
31+	5	256	0.0195	0.0050	0.0050	1.10	1.30	4.5455	3.8462
Total	8,068	163,417	0.0494			6,520.80	6,521.50	1.2373	1.2371

Bolton

Teachers' Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Table 8A - Women
 8-Year Period Ending 2015
 Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected			
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed		
0	1,111	26,013	0.0427	0.0900	0.0900	2,341.30	2,341.20	0.4745	0.4745		
1	2,559	43,555	0.0588	0.0800	0.0800	3,484.40	3,484.40	0.7344	0.7344		
2	3,828	42,781	0.0895	0.0700	0.0700	2,994.50	2,994.70	1.2783	1.2783		
3	3,280	40,202	0.0816	0.0600	0.0600	2,412.20	2,412.10	1.3598	1.3598		
4	2,521	39,970	0.0631	0.0500	0.0500	1,998.60	1,998.50	1.2614	1.2614		
5	2,184	35,751	0.0611	0.0400	0.0400	1,430.00	1,430.00	1.5273	1.5273		
6	1,823	35,353	0.0516	0.0350	0.0350	1,237.30	1,237.40	1.4734	1.4733		
7	1,377	33,557	0.0410	0.0305	0.0305	1,023.50	1,023.50	1.3454	1.3454		
8	1,031	30,431	0.0339	0.0265	0.0265	806.40	806.40	1.2785	1.2785		
9	736	27,313	0.0269	0.0230	0.0230	628.20	628.20	1.1716	1.1716		
10	598	25,054	0.0239	0.0200	0.0200	501.10	501.10	1.1934	1.1934		
11	454	21,463	0.0212	0.0175	0.0175	375.70	375.60	1.2084	1.2087		
12	322	17,904	0.0180	0.0155	0.0155	277.50	277.50	1.1604	1.1604		
13	233	15,241	0.0153	0.0140	0.0140	213.50	213.40	1.0913	1.0918		
14	182	13,600	0.0134	0.0130	0.0130	176.80	176.80	1.0294	1.0294		
15	137	11,516	0.0119	0.0125	0.0125	144.00	144.00	0.9514	0.9514		
16	111	10,322	0.0108	0.0120	0.0120	124.00	123.90	0.8952	0.8959		
17	87	8,931	0.0097	0.0115	0.0115	102.80	102.70	0.8463	0.8471		
18	67	8,088	0.0083	0.0110	0.0110	89.00	89.00	0.7528	0.7528		
19	55	7,526	0.0073	0.0105	0.0105	79.10	79.00	0.6953	0.6962		
20	53	7,156	0.0074	0.0100	0.0100	71.60	71.60	0.7402	0.7402		
21	31	6,447	0.0048	0.0090	0.0090	58.10	58.00	0.5336	0.5345		
22	27	6,067	0.0045	0.0080	0.0080	48.40	48.50	0.5579	0.5567		
23	27	5,400	0.0050	0.0070	0.0070	37.80	37.80	0.7143	0.7143		
24	23	4,795	0.0048	0.0060	0.0060	28.90	28.80	0.7958	0.7986		
25	45	4,062	0.0111	0.0050	0.0050	20.30	20.30	2.2167	2.2167		
26	36	3,482	0.0103	0.0050	0.0050	17.30	17.40	2.0809	2.0690		
27	19	2,766	0.0069	0.0050	0.0050	13.80	13.80	1.3768	1.3768		
28	22	2,308	0.0095	0.0050	0.0050	11.60	11.50	1.8966	1.9130		
29	11	1,699	0.0065	0.0050	0.0050	8.50	8.50	1.2941	1.2941		
30	12	1,121	0.0107	0.0050	0.0050	5.70	5.60	2.1053	2.1429		
31+	15	1,028	0.0146	0.0050	0.0050	4.80	5.10	3.1250	2.9412		
Total	23,017	540,902	0.0426			20,766.70	20,766.30	1.1084	1.1084		

Bolton

Teachers' Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Table 8A - Men and Women
 8-Year Period Ending 2015
 Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected			
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed		
0	1,780	37,960	0.0469	0.0900	0.0900	3,416.50	3,416.40	0.5210	0.5210		
1	3,652	56,709	0.0644	0.0800	0.0800	4,536.70	4,536.70	0.8050	0.8050		
2	5,325	55,692	0.0956	0.0700	0.0700	3,898.20	3,898.40	1.3660	1.3659		
3	4,444	51,787	0.0858	0.0600	0.0600	3,107.20	3,107.20	1.4302	1.4302		
4	3,364	52,049	0.0646	0.0500	0.0500	2,602.30	2,602.50	1.2927	1.2926		
5	2,816	46,421	0.0607	0.0400	0.0400	1,856.90	1,856.80	1.5165	1.5166		
6	2,322	45,701	0.0508	0.0350	0.0350	1,599.50	1,599.50	1.4517	1.4517		
7	1,749	43,262	0.0404	0.0305	0.0305	1,319.50	1,319.50	1.3255	1.3255		
8	1,291	39,064	0.0330	0.0265	0.0265	1,035.20	1,035.20	1.2471	1.2471		
9	939	35,081	0.0268	0.0230	0.0230	807.00	806.90	1.1636	1.1637		
10	763	32,100	0.0238	0.0200	0.0200	642.00	642.00	1.1885	1.1885		
11	581	27,607	0.0210	0.0175	0.0175	483.30	483.10	1.2022	1.2026		
12	423	22,873	0.0185	0.0155	0.0155	354.40	354.50	1.1936	1.1932		
13	302	19,475	0.0155	0.0140	0.0140	272.70	272.70	1.1074	1.1074		
14	237	17,485	0.0136	0.0130	0.0130	227.20	227.30	1.0431	1.0427		
15	197	14,857	0.0133	0.0125	0.0125	185.90	185.70	1.0597	1.0609		
16	145	13,322	0.0109	0.0120	0.0120	159.90	159.90	0.9068	0.9068		
17	117	11,724	0.0100	0.0115	0.0115	134.90	134.80	0.8673	0.8680		
18	87	10,613	0.0082	0.0110	0.0110	116.80	116.70	0.7449	0.7455		
19	80	9,802	0.0082	0.0105	0.0105	103.00	102.90	0.7767	0.7775		
20	69	9,336	0.0074	0.0100	0.0100	93.40	93.40	0.7388	0.7388		
21	52	8,447	0.0062	0.0090	0.0090	76.10	76.00	0.6833	0.6842		
22	43	7,978	0.0054	0.0080	0.0080	63.60	63.80	0.6761	0.6740		
23	39	7,095	0.0055	0.0070	0.0070	49.70	49.70	0.7847	0.7847		
24	33	6,327	0.0052	0.0060	0.0060	38.20	38.00	0.8639	0.8684		
25	63	5,332	0.0118	0.0050	0.0050	26.60	26.70	2.3684	2.3596		
26	47	4,553	0.0103	0.0050	0.0050	22.60	22.80	2.0796	2.0614		
27	36	3,624	0.0099	0.0050	0.0050	18.10	18.10	1.9890	1.9890		
28	29	3,048	0.0095	0.0050	0.0050	15.30	15.20	1.8954	1.9079		
29	18	2,252	0.0080	0.0050	0.0050	11.40	11.30	1.5789	1.5929		
30	22	1,459	0.0151	0.0050	0.0050	7.50	7.30	2.9333	3.0137		
31+	20	1,284	0.0156	0.0050	0.0050	5.90	6.40	3.3898	3.1250		
Total	31,085	704,319	0.0441			27,287.50	27,287.40	1.1392	1.1392		

Bolton

**Teachers' Retirement System of the City of New York
Withdrawal Experience of Active Members
Table 8B - Men and Women
8-Year Period Ending 2015**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Withdrawals	Life Years Exposed	Expected Wtihdrawals	Actual/Expected	Withdrawal Rate	
					Actual	Current
2008	5,578	87,465	3,724.90	1.4975	0.0638	0.0426
2009	4,299	89,204	3,717.10	1.1565	0.0482	0.0417
2010	3,409	89,060	3,589.50	0.9497	0.0383	0.0403
2011	3,629	87,116	3,333.90	1.0885	0.0417	0.0383
2012	3,327	85,348	3,167.00	1.0505	0.0390	0.0371
2013	3,552	87,763	3,216.10	1.1044	0.0405	0.0366
2014	3,605	88,403	3,282.90	1.0981	0.0408	0.0371
2015	3,686	89,960	3,256.10	1.1320	0.0410	0.0362
Total	31,085	704,319	27,287.50	1.1392	0.0441	0.0387

Bolton

Teachers' Retirement System of the City of New York
 Ordinary Disability Experience of Active Members
 Men
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
28	0	4	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
29	0	4	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
30	0	11	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
31	0	19	0.0000	0.0002	0.0002	0.00	0.00	N/A	N/A
32	0	211	0.0000	0.0003	0.0003	0.07	0.07	0.0000	0.0000
33	0	497	0.0000	0.0004	0.0004	0.20	0.20	0.0000	0.0000
34	0	786	0.0000	0.0005	0.0005	0.40	0.40	0.0000	0.0000
35	0	1,069	0.0000	0.0006	0.0006	0.64	0.64	0.0000	0.0000
36	1	1,248	0.0008	0.0007	0.0007	0.86	0.86	1.1628	1.1628
37	1	1,434	0.0007	0.0008	0.0008	1.09	1.09	0.9174	0.9174
38	1	1,538	0.0007	0.0008	0.0008	1.30	1.30	0.7692	0.7692
39	1	1,606	0.0006	0.0009	0.0009	1.47	1.47	0.6803	0.6803
40	2	1,651	0.0012	0.0010	0.0010	1.66	1.66	1.2048	1.2048
41	3	1,667	0.0018	0.0011	0.0011	1.84	1.84	1.6304	1.6304
42	1	1,768	0.0006	0.0012	0.0012	2.12	2.12	0.4717	0.4717
43	3	1,862	0.0016	0.0013	0.0013	2.42	2.42	1.2397	1.2397
44	1	1,933	0.0005	0.0014	0.0014	2.71	2.71	0.3690	0.3690
45	3	1,937	0.0015	0.0015	0.0015	2.90	2.90	1.0345	1.0345
46	3	1,888	0.0016	0.0015	0.0015	2.82	2.82	1.0638	1.0638
47	5	1,842	0.0027	0.0015	0.0015	2.77	2.77	1.8051	1.8051
48	1	1,782	0.0006	0.0015	0.0015	2.67	2.67	0.3745	0.3745
49	1	1,784	0.0006	0.0015	0.0015	2.67	2.67	0.3745	0.3745
50	3	1,799	0.0017	0.0015	0.0015	2.70	2.70	1.1111	1.1111
51	4	1,727	0.0023	0.0015	0.0015	2.59	2.59	1.5444	1.5444
52	3	1,840	0.0016	0.0015	0.0015	2.76	2.76	1.0870	1.0870
53	6	1,891	0.0032	0.0015	0.0015	2.83	2.83	2.1201	2.1201
54	1	1,889	0.0005	0.0015	0.0015	2.83	2.83	0.3534	0.3534
55	4	1,915	0.0021	0.0015	0.0015	2.87	2.87	1.3937	1.3937
56	3	1,684	0.0018	0.0015	0.0015	2.53	2.53	1.1858	1.1858
57	1	1,605	0.0006	0.0015	0.0015	2.40	2.40	0.4167	0.4167
58	7	1,569	0.0045	0.0015	0.0015	2.36	2.36	2.9661	2.9661
59	3	1,489	0.0020	0.0015	0.0015	2.23	2.23	1.3453	1.3453
60	5	1,394	0.0036	0.0015	0.0015	2.09	2.09	2.3923	2.3923
61	3	1,288	0.0023	0.0015	0.0015	1.94	1.94	1.5464	1.5464
62	2	1,252	0.0016	0.0015	0.0015	1.89	1.89	1.0582	1.0582
63	1	1,066	0.0009	0.0015	0.0015	1.59	1.59	0.6289	0.6289
64	1	899	0.0011	0.0015	0.0015	1.34	1.34	0.7463	0.7463
65	3	818	0.0037	0.0015	0.0015	1.23	1.23	2.4390	2.4390
66	1	665	0.0015	0.0015	0.0015	1.00	1.00	1.0000	1.0000
67	1	498	0.0020	0.0015	0.0015	0.75	0.75	1.3333	1.3333
68	1	409	0.0024	0.0015	0.0015	0.61	0.61	1.6393	1.6393
69	1	304	0.0033	0.0015	0.0015	0.46	0.46	2.1739	2.1739
70	0	230	0.0000	0.0015	0.0015	0.34	0.34	0.0000	0.0000
71	0	167	0.0000	0.0015	0.0015	0.25	0.25	0.0000	0.0000
72	1	124	0.0081	0.0015	0.0015	0.19	0.19	5.2632	5.2632
73	0	103	0.0000	0.0015	0.0015	0.16	0.16	0.0000	0.0000
74	0	84	0.0000	0.0015	0.0015	0.12	0.12	0.0000	0.0000
Total	82	53,250	0.0015			70.67	70.67	1.1603	1.1603

Bolton

Teachers' Retirement System of the City of New York
 Ordinary Disability Experience of Active Members
 Women
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
28	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
29	0	3	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
30	0	14	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
31	0	73	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
32	0	1,054	0.0000	0.0002	0.0002	0.21	0.21	0.0000	0.0000
33	1	2,280	0.0004	0.0003	0.0003	0.69	0.69	1.4493	1.4493
34	1	3,344	0.0003	0.0004	0.0004	1.34	1.34	0.7463	0.7463
35	0	3,993	0.0000	0.0005	0.0005	2.00	2.00	0.0000	0.0000
36	1	4,535	0.0002	0.0006	0.0006	2.72	2.72	0.3676	0.3676
37	1	4,931	0.0002	0.0007	0.0007	3.45	3.45	0.2899	0.2899
38	4	5,104	0.0008	0.0008	0.0008	4.08	4.08	0.9804	0.9804
39	5	5,268	0.0009	0.0009	0.0009	4.75	4.75	1.0526	1.0526
40	4	5,342	0.0007	0.0010	0.0010	5.35	5.35	0.7477	0.7477
41	2	5,441	0.0004	0.0011	0.0011	5.99	5.99	0.3339	0.3339
42	7	5,597	0.0013	0.0012	0.0012	6.71	6.71	1.0432	1.0432
43	9	5,826	0.0015	0.0013	0.0013	7.57	7.57	1.1889	1.1889
44	10	5,996	0.0017	0.0014	0.0014	8.39	8.39	1.1919	1.1919
45	9	5,986	0.0015	0.0015	0.0015	8.97	8.97	1.0033	1.0033
46	4	5,908	0.0007	0.0016	0.0016	9.45	9.45	0.4233	0.4233
47	11	5,680	0.0019	0.0017	0.0017	9.66	9.66	1.1387	1.1387
48	4	5,538	0.0007	0.0018	0.0018	9.96	9.96	0.4016	0.4016
49	12	5,714	0.0021	0.0019	0.0019	10.85	10.85	1.1060	1.1060
50	21	5,903	0.0036	0.0020	0.0020	11.80	11.80	1.7797	1.7797
51	22	6,098	0.0036	0.0020	0.0020	12.20	12.20	1.8033	1.8033
52	23	6,287	0.0037	0.0020	0.0020	12.57	12.57	1.8298	1.8298
53	14	6,425	0.0022	0.0020	0.0020	12.85	12.85	1.0895	1.0895
54	16	6,615	0.0024	0.0020	0.0020	13.24	13.24	1.2085	1.2085
55	15	6,675	0.0022	0.0020	0.0020	13.34	13.34	1.1244	1.1244
56	14	6,275	0.0022	0.0020	0.0020	12.54	12.54	1.1164	1.1164
57	10	6,164	0.0016	0.0020	0.0020	12.33	12.33	0.8110	0.8110
58	19	6,146	0.0031	0.0020	0.0020	12.29	12.29	1.5460	1.5460
59	15	6,002	0.0025	0.0020	0.0020	12.01	12.01	1.2490	1.2490
60	16	5,816	0.0028	0.0020	0.0020	11.63	11.63	1.3758	1.3758
61	12	5,563	0.0022	0.0020	0.0020	11.13	11.13	1.0782	1.0782
62	15	5,211	0.0029	0.0020	0.0020	10.42	10.42	1.4395	1.4395
63	12	4,163	0.0029	0.0020	0.0020	8.32	8.32	1.4423	1.4423
64	11	3,490	0.0032	0.0020	0.0020	6.98	6.98	1.5759	1.5759
65	9	2,914	0.0031	0.0020	0.0020	5.83	5.83	1.5437	1.5437
66	8	2,286	0.0035	0.0020	0.0020	4.57	4.57	1.7505	1.7505
67	4	1,721	0.0023	0.0020	0.0020	3.43	3.43	1.1662	1.1662
68	3	1,229	0.0024	0.0020	0.0020	2.46	2.46	1.2195	1.2195
69	2	938	0.0021	0.0020	0.0020	1.87	1.87	1.0695	1.0695
70	3	642	0.0047	0.0020	0.0020	1.28	1.28	2.3438	2.3438
71	0	463	0.0000	0.0020	0.0020	0.92	0.92	0.0000	0.0000
72	0	353	0.0000	0.0020	0.0020	0.71	0.71	0.0000	0.0000
73	1	265	0.0038	0.0020	0.0020	0.53	0.53	1.8868	1.8868
74	1	221	0.0045	0.0020	0.0020	0.44	0.44	2.2727	2.2727
Total	351	185,492	0.0019			297.83	297.83	1.1785	1.1785

Bolton

**Teachers' Retirement System of the City of New York
Ordinary Disability Experience of Active Members
Men and Women
4-Year Period Ending 2017**

Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
28	0	4	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
29	0	7	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
30	0	25	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
31	0	92	0.0000	0.0002	0.0002	0.00	0.00	N/A	N/A
32	0	1,265	0.0000	0.0003	0.0003	0.28	0.28	0.0000	0.0000
33	1	2,777	0.0004	0.0004	0.0004	0.89	0.89	1.1236	1.1236
34	1	4,130	0.0002	0.0005	0.0005	1.74	1.74	0.5747	0.5747
35	0	5,062	0.0000	0.0006	0.0006	2.64	2.64	0.0000	0.0000
36	2	5,783	0.0003	0.0007	0.0007	3.58	3.58	0.5587	0.5587
37	2	6,365	0.0003	0.0008	0.0008	4.54	4.54	0.4405	0.4405
38	5	6,642	0.0008	0.0008	0.0008	5.38	5.38	0.9294	0.9294
39	6	6,874	0.0009	0.0009	0.0009	6.22	6.22	0.9646	0.9646
40	6	6,993	0.0009	0.0010	0.0010	7.01	7.01	0.8559	0.8559
41	5	7,108	0.0007	0.0011	0.0011	7.83	7.83	0.6386	0.6386
42	8	7,365	0.0011	0.0012	0.0012	8.83	8.83	0.9060	0.9060
43	12	7,688	0.0016	0.0013	0.0013	9.99	9.99	1.2012	1.2012
44	11	7,929	0.0014	0.0014	0.0014	11.10	11.10	0.9910	0.9910
45	12	7,923	0.0015	0.0015	0.0015	11.87	11.87	1.0110	1.0110
46	7	7,796	0.0009	0.0015	0.0015	12.27	12.27	0.5705	0.5705
47	16	7,522	0.0021	0.0015	0.0015	12.43	12.43	1.2872	1.2872
48	5	7,320	0.0007	0.0015	0.0015	12.63	12.63	0.3959	0.3959
49	13	7,498	0.0017	0.0015	0.0015	13.52	13.52	0.9615	0.9615
50	24	7,702	0.0031	0.0015	0.0015	14.50	14.50	1.6552	1.6552
51	26	7,825	0.0033	0.0015	0.0015	14.79	14.79	1.7579	1.7579
52	26	8,127	0.0032	0.0015	0.0015	15.33	15.33	1.6960	1.6960
53	20	8,316	0.0024	0.0015	0.0015	15.68	15.68	1.2755	1.2755
54	17	8,504	0.0020	0.0015	0.0015	16.07	16.07	1.0579	1.0579
55	19	8,590	0.0022	0.0015	0.0015	16.21	16.21	1.1721	1.1721
56	17	7,959	0.0021	0.0015	0.0015	15.07	15.07	1.1281	1.1281
57	11	7,769	0.0014	0.0015	0.0015	14.73	14.73	0.7468	0.7468
58	26	7,715	0.0034	0.0015	0.0015	14.65	14.65	1.7747	1.7747
59	18	7,491	0.0024	0.0015	0.0015	14.24	14.24	1.2640	1.2640
60	21	7,210	0.0029	0.0015	0.0015	13.72	13.72	1.5306	1.5306
61	15	6,851	0.0022	0.0015	0.0015	13.07	13.07	1.1477	1.1477
62	17	6,463	0.0026	0.0015	0.0015	12.31	12.31	1.3810	1.3810
63	13	5,229	0.0025	0.0015	0.0015	9.91	9.91	1.3118	1.3118
64	12	4,389	0.0027	0.0015	0.0015	8.32	8.32	1.4423	1.4423
65	12	3,732	0.0032	0.0015	0.0015	7.06	7.06	1.6997	1.6997
66	9	2,951	0.0030	0.0015	0.0015	5.57	5.57	1.6158	1.6158
67	5	2,219	0.0023	0.0015	0.0015	4.18	4.18	1.1962	1.1962
68	4	1,638	0.0024	0.0015	0.0015	3.07	3.07	1.3029	1.3029
69	3	1,242	0.0024	0.0015	0.0015	2.33	2.33	1.2876	1.2876
70	3	872	0.0034	0.0015	0.0015	1.62	1.62	1.8519	1.8519
71	0	630	0.0000	0.0015	0.0015	1.17	1.17	0.0000	0.0000
72	1	477	0.0021	0.0015	0.0015	0.90	0.90	1.1111	1.1111
73	1	368	0.0027	0.0015	0.0015	0.69	0.69	1.4493	1.4493
74	1	305	0.0033	0.0015	0.0015	0.56	0.56	1.7857	1.7857
Total	433	238,742	0.0018			368.50	368.50	1.1750	1.1750

Bolton

Teachers' Retirement System of the City of New York
Ordinary Disability Experience of Active Members
Men

10-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
25	0	1	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
26	0	1	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
27	0	2	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
28	0	5	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
29	0	6	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
30	0	20	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
31	0	45	0.0000	0.0002	0.0002	0.00	0.00	N/A	N/A
32	0	352	0.0000	0.0003	0.0003	0.11	0.11	0.0000	0.0000
33	0	800	0.0000	0.0004	0.0004	0.31	0.31	0.0000	0.0000
34	0	1,275	0.0000	0.0005	0.0005	0.64	0.64	0.0000	0.0000
35	0	1,726	0.0000	0.0006	0.0006	1.04	1.04	0.0000	0.0000
36	2	2,100	0.0010	0.0007	0.0007	1.43	1.43	1.3986	1.3986
37	2	2,463	0.0008	0.0008	0.0008	1.88	1.88	1.0638	1.0638
38	2	2,759	0.0007	0.0008	0.0008	2.33	2.33	0.8584	0.8584
39	1	2,990	0.0003	0.0009	0.0009	2.75	2.75	0.3636	0.3636
40	2	3,208	0.0006	0.0010	0.0010	3.22	3.22	0.6211	0.6211
41	4	3,332	0.0012	0.0011	0.0011	3.68	3.68	1.0870	1.0870
42	1	3,455	0.0003	0.0012	0.0012	4.16	4.16	0.2404	0.2404
43	6	3,576	0.0017	0.0013	0.0013	4.65	4.65	1.2903	1.2903
44	3	3,698	0.0008	0.0014	0.0014	5.18	5.18	0.5792	0.5792
45	4	3,766	0.0011	0.0015	0.0015	5.65	5.65	0.7080	0.7080
46	4	3,847	0.0010	0.0015	0.0015	5.76	5.76	0.6944	0.6944
47	11	3,911	0.0028	0.0015	0.0015	5.88	5.88	1.8707	1.8707
48	8	3,927	0.0020	0.0015	0.0015	5.89	5.89	1.3582	1.3582
49	9	3,999	0.0023	0.0015	0.0015	5.99	5.99	1.5025	1.5025
50	12	4,143	0.0029	0.0015	0.0015	6.22	6.22	1.9293	1.9293
51	13	4,219	0.0031	0.0015	0.0015	6.32	6.32	2.0570	2.0570
52	13	4,401	0.0030	0.0015	0.0015	6.60	6.60	1.9697	1.9697
53	16	4,515	0.0035	0.0015	0.0015	6.77	6.77	2.3634	2.3634
54	7	4,682	0.0015	0.0015	0.0015	7.01	7.01	0.9986	0.9986
55	12	4,846	0.0025	0.0015	0.0015	7.27	7.27	1.6506	1.6506
56	14	4,555	0.0031	0.0015	0.0015	6.83	6.83	2.0498	2.0498
57	9	4,378	0.0021	0.0015	0.0015	6.57	6.57	1.3699	1.3699
58	12	4,280	0.0028	0.0015	0.0015	6.44	6.44	1.8634	1.8634
59	7	4,070	0.0017	0.0015	0.0015	6.10	6.10	1.1475	1.1475
60	11	3,862	0.0028	0.0015	0.0015	5.78	5.78	1.9031	1.9031
61	7	3,558	0.0020	0.0015	0.0015	5.35	5.35	1.3084	1.3084
62	7	3,189	0.0022	0.0015	0.0015	4.80	4.80	1.4583	1.4583
63	5	2,544	0.0020	0.0015	0.0015	3.80	3.80	1.3158	1.3158
64	4	2,134	0.0019	0.0015	0.0015	3.20	3.20	1.2500	1.2500
65	7	1,839	0.0038	0.0015	0.0015	2.77	2.77	2.5271	2.5271
66	5	1,426	0.0035	0.0015	0.0015	2.14	2.14	2.3364	2.3364
67	6	1,090	0.0055	0.0015	0.0015	1.64	1.64	3.6585	3.6585
68	2	873	0.0023	0.0015	0.0015	1.32	1.32	1.5152	1.5152
69	2	689	0.0029	0.0015	0.0015	1.04	1.04	1.9231	1.9231
70	1	513	0.0019	0.0015	0.0015	0.75	0.75	1.3333	1.3333
71	0	403	0.0000	0.0015	0.0015	0.60	0.60	0.0000	0.0000
72	1	315	0.0032	0.0015	0.0015	0.48	0.48	2.0833	2.0833
73	0	261	0.0000	0.0015	0.0015	0.40	0.40	0.0000	0.0000
74	0	212	0.0000	0.0015	0.0015	0.31	0.31	0.0000	0.0000
Total	232	118,261	0.0020			161.06	161.06	1.4405	1.4405

Bolton

**Teachers' Retirement System of the City of New York
Ordinary Disability Experience of Active Members
Women**

10-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
23	0	1	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
24	0	1	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
25	0	6	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
26	0	7	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
27	0	8	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
28	0	7	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
29	0	17	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
30	0	44	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
31	0	179	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
32	1	1,862	0.0005	0.0002	0.0002	0.37	0.37	2.7027	2.7027
33	1	3,902	0.0003	0.0003	0.0003	1.18	1.18	0.8475	0.8475
34	2	5,630	0.0004	0.0004	0.0004	2.26	2.26	0.8850	0.8850
35	3	6,919	0.0004	0.0005	0.0005	3.47	3.47	0.8646	0.8646
36	3	7,951	0.0004	0.0006	0.0006	4.78	4.78	0.6276	0.6276
37	5	8,851	0.0006	0.0007	0.0007	6.19	6.19	0.8078	0.8078
38	6	9,457	0.0006	0.0008	0.0008	7.57	7.57	0.7926	0.7926
39	10	9,873	0.0010	0.0009	0.0009	8.90	8.90	1.1236	1.1236
40	6	10,285	0.0006	0.0010	0.0010	10.29	10.29	0.5831	0.5831
41	7	10,631	0.0007	0.0011	0.0011	11.70	11.70	0.5983	0.5983
42	12	10,933	0.0011	0.0012	0.0012	13.10	13.10	0.9160	0.9160
43	15	11,261	0.0013	0.0013	0.0013	14.63	14.63	1.0253	1.0253
44	21	11,644	0.0018	0.0014	0.0014	16.30	16.30	1.2883	1.2883
45	16	11,903	0.0013	0.0015	0.0015	17.84	17.84	0.8969	0.8969
46	14	12,162	0.0012	0.0016	0.0016	19.45	19.45	0.7198	0.7198
47	22	12,278	0.0018	0.0017	0.0017	20.87	20.87	1.0541	1.0541
48	26	12,448	0.0021	0.0018	0.0018	22.40	22.40	1.1607	1.1607
49	30	12,927	0.0023	0.0019	0.0019	24.55	24.55	1.2220	1.2220
50	52	13,571	0.0038	0.0020	0.0020	27.12	27.12	1.9174	1.9174
51	50	14,373	0.0035	0.0020	0.0020	28.75	28.75	1.7391	1.7391
52	55	15,160	0.0036	0.0020	0.0020	30.31	30.31	1.8146	1.8146
53	54	15,926	0.0034	0.0020	0.0020	31.84	31.84	1.6960	1.6960
54	51	16,952	0.0030	0.0020	0.0020	33.91	33.91	1.5040	1.5040
55	45	17,745	0.0025	0.0020	0.0020	35.48	35.48	1.2683	1.2683
56	53	17,237	0.0031	0.0020	0.0020	34.47	34.47	1.5376	1.5376
57	49	17,018	0.0029	0.0020	0.0020	34.04	34.04	1.4395	1.4395
58	47	16,877	0.0028	0.0020	0.0020	33.74	33.74	1.3930	1.3930
59	34	16,165	0.0021	0.0020	0.0020	32.33	32.33	1.0517	1.0517
60	41	15,287	0.0027	0.0020	0.0020	30.57	30.57	1.3412	1.3412
61	33	14,018	0.0024	0.0020	0.0020	28.04	28.04	1.1769	1.1769
62	36	12,445	0.0029	0.0020	0.0020	24.89	24.89	1.4464	1.4464
63	28	9,678	0.0029	0.0020	0.0020	19.36	19.36	1.4463	1.4463
64	22	7,828	0.0028	0.0020	0.0020	15.65	15.65	1.4058	1.4058
65	15	6,397	0.0023	0.0020	0.0020	12.80	12.80	1.1719	1.1719
66	11	4,947	0.0022	0.0020	0.0020	9.90	9.90	1.1111	1.1111
67	7	3,630	0.0019	0.0020	0.0020	7.25	7.25	0.9655	0.9655
68	6	2,679	0.0022	0.0020	0.0020	5.37	5.37	1.1173	1.1173
69	3	2,081	0.0014	0.0020	0.0020	4.16	4.16	0.7212	0.7212
70	3	1,536	0.0020	0.0020	0.0020	3.07	3.07	0.9772	0.9772
71	3	1,123	0.0027	0.0020	0.0020	2.24	2.24	1.3393	1.3393
72	1	853	0.0012	0.0020	0.0020	1.71	1.71	0.5848	0.5848
73	3	669	0.0045	0.0020	0.0020	1.34	1.34	2.2388	2.2388
74	1	528	0.0019	0.0020	0.0020	1.06	1.06	0.9434	0.9434
Total	903	415,910	0.0022			695.25	695.25	1.2988	1.2988

Bolton

**Teachers' Retirement System of the City of New York
Ordinary Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
23	0	1	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
24	0	1	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
25	0	7	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
26	0	8	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
27	0	10	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
28	0	12	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
29	0	23	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
30	0	64	0.0000	0.0001	0.0001	0.00	0.00	N/A	N/A
31	0	224	0.0000	0.0002	0.0002	0.00	0.00	N/A	N/A
32	1	2,214	0.0005	0.0003	0.0003	0.48	0.48	2.0833	2.0833
33	1	4,702	0.0002	0.0004	0.0004	1.49	1.49	0.6711	0.6711
34	2	6,905	0.0003	0.0005	0.0005	2.90	2.90	0.6897	0.6897
35	3	8,645	0.0003	0.0006	0.0006	4.51	4.51	0.6652	0.6652
36	5	10,051	0.0005	0.0007	0.0007	6.21	6.21	0.8052	0.8052
37	7	11,314	0.0006	0.0008	0.0008	8.07	8.07	0.8674	0.8674
38	8	12,216	0.0007	0.0008	0.0008	9.90	9.90	0.8081	0.8081
39	11	12,863	0.0009	0.0009	0.0009	11.65	11.65	0.9442	0.9442
40	8	13,493	0.0006	0.0010	0.0010	13.51	13.51	0.5922	0.5922
41	11	13,963	0.0008	0.0011	0.0011	15.38	15.38	0.7152	0.7152
42	13	14,388	0.0009	0.0012	0.0012	17.26	17.26	0.7532	0.7532
43	21	14,837	0.0014	0.0013	0.0013	19.28	19.28	1.0892	1.0892
44	24	15,342	0.0016	0.0014	0.0014	21.48	21.48	1.1173	1.1173
45	20	15,669	0.0013	0.0015	0.0015	23.49	23.49	0.8514	0.8514
46	18	16,009	0.0011	0.0015	0.0015	25.21	25.21	0.7140	0.7140
47	33	16,189	0.0020	0.0015	0.0015	26.75	26.75	1.2336	1.2336
48	34	16,375	0.0021	0.0015	0.0015	28.29	28.29	1.2018	1.2018
49	39	16,926	0.0023	0.0015	0.0015	30.54	30.54	1.2770	1.2770
50	64	17,714	0.0036	0.0015	0.0015	33.34	33.34	1.9196	1.9196
51	63	18,592	0.0034	0.0015	0.0015	35.07	35.07	1.7964	1.7964
52	68	19,561	0.0035	0.0015	0.0015	36.91	36.91	1.8423	1.8423
53	70	20,441	0.0034	0.0015	0.0015	38.61	38.61	1.8130	1.8130
54	58	21,634	0.0027	0.0015	0.0015	40.92	40.92	1.4174	1.4174
55	57	22,591	0.0025	0.0015	0.0015	42.75	42.75	1.3333	1.3333
56	67	21,792	0.0031	0.0015	0.0015	41.30	41.30	1.6223	1.6223
57	58	21,396	0.0027	0.0015	0.0015	40.61	40.61	1.4282	1.4282
58	59	21,157	0.0028	0.0015	0.0015	40.18	40.18	1.4684	1.4684
59	41	20,235	0.0020	0.0015	0.0015	38.43	38.43	1.0669	1.0669
60	52	19,149	0.0027	0.0015	0.0015	36.35	36.35	1.4305	1.4305
61	40	17,576	0.0023	0.0015	0.0015	33.39	33.39	1.1980	1.1980
62	43	15,634	0.0028	0.0015	0.0015	29.69	29.69	1.4483	1.4483
63	33	12,222	0.0027	0.0015	0.0015	23.16	23.16	1.4249	1.4249
64	26	9,962	0.0026	0.0015	0.0015	18.85	18.85	1.3793	1.3793
65	22	8,236	0.0027	0.0015	0.0015	15.57	15.57	1.4130	1.4130
66	16	6,373	0.0025	0.0015	0.0015	12.04	12.04	1.3289	1.3289
67	13	4,720	0.0028	0.0015	0.0015	8.89	8.89	1.4623	1.4623
68	8	3,552	0.0023	0.0015	0.0015	6.69	6.69	1.1958	1.1958
69	5	2,770	0.0018	0.0015	0.0015	5.20	5.20	0.9615	0.9615
70	4	2,049	0.0020	0.0015	0.0015	3.82	3.82	1.0471	1.0471
71	3	1,526	0.0020	0.0015	0.0015	2.84	2.84	1.0563	1.0563
72	2	1,168	0.0017	0.0015	0.0015	2.19	2.19	0.9132	0.9132
73	3	930	0.0032	0.0015	0.0015	1.74	1.74	1.7241	1.7241
74	1	740	0.0014	0.0015	0.0015	1.37	1.37	0.7299	0.7299
Total	1,135	534,171	0.0021			856.31	856.31	1.3255	1.3255

Bolton

**Teachers' Retirement System of the City of New York
Ordinary Disability Experience of Active Members
Table 9C - Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	117	45,227	76.46	1.5302	0.0026	0.0017
2009	83	46,981	78.99	1.0508	0.0018	0.0017
2010	109	48,662	81.27	1.3412	0.0022	0.0017
2011	120	50,581	83.16	1.4430	0.0024	0.0016
2012	146	51,307	83.64	1.7456	0.0028	0.0016
2013	128	54,188	87.06	1.4703	0.0024	0.0016
2014	165	57,298	90.02	1.8329	0.0029	0.0016
2015	128	57,973	89.43	1.4313	0.0022	0.0015
2016	99	61,105	93.94	1.0539	0.0016	0.0015
2017	41	63,435	96.98	0.4228	0.0006	0.0015
Total	1,136	536,757	860.95	1.3195	0.0021	0.0016

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 20 and above 74)

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men
4-Year Period Ending 2017
Proposed Assumptions are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) / (8)		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
21	0	36	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
22	0	95	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
23	0	351	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
24	0	785	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
25	0	1,267	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
26	0	1,664	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
27	0	2,005	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
28	0	2,284	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
29	0	2,514	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
30	0	2,694	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
31	0	2,888	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
32	0	3,037	0.0000	0.0000	0.0000	0.12	0.12	0.0000	0.0000
33	0	3,138	0.0000	0.0001	0.0001	0.20	0.20	0.0000	0.0000
34	0	3,239	0.0000	0.0001	0.0001	0.26	0.26	0.0000	0.0000
35	0	3,166	0.0000	0.0001	0.0001	0.32	0.32	0.0000	0.0000
36	0	3,122	0.0000	0.0001	0.0001	0.38	0.38	0.0000	0.0000
37	0	3,114	0.0000	0.0001	0.0001	0.44	0.44	0.0000	0.0000
38	0	3,093	0.0000	0.0002	0.0002	0.49	0.49	0.0000	0.0000
39	0	2,986	0.0000	0.0002	0.0002	0.54	0.54	0.0000	0.0000
40	0	2,859	0.0000	0.0002	0.0002	0.57	0.57	0.0000	0.0000
41	0	2,778	0.0000	0.0002	0.0002	0.60	0.60	0.0000	0.0000
42	0	2,778	0.0000	0.0002	0.0002	0.62	0.62	0.0000	0.0000
43	0	2,859	0.0000	0.0002	0.0002	0.65	0.65	0.0000	0.0000
44	0	2,934	0.0000	0.0002	0.0002	0.71	0.71	0.0000	0.0000
45	0	2,876	0.0000	0.0003	0.0003	0.73	0.73	0.0000	0.0000
46	0	2,740	0.0000	0.0003	0.0003	0.72	0.72	0.0000	0.0000
47	2	2,623	0.0008	0.0003	0.0003	0.72	0.72	2.7778	2.7778
48	0	2,482	0.0000	0.0003	0.0003	0.69	0.69	0.0000	0.0000
49	0	2,422	0.0000	0.0003	0.0003	0.70	0.70	0.0000	0.0000
50	0	2,475	0.0000	0.0003	0.0003	0.74	0.74	0.0000	0.0000
51	0	2,438	0.0000	0.0003	0.0003	0.76	0.76	0.0000	0.0000
52	0	2,488	0.0000	0.0003	0.0003	0.79	0.79	0.0000	0.0000
53	1	2,471	0.0004	0.0003	0.0003	0.83	0.83	1.2048	1.2048
54	1	2,456	0.0004	0.0003	0.0003	0.84	0.84	1.1905	1.1905
55	0	2,426	0.0000	0.0004	0.0004	0.85	0.85	0.0000	0.0000
56	0	2,221	0.0000	0.0004	0.0004	0.80	0.80	0.0000	0.0000
57	1	2,102	0.0005	0.0004	0.0004	0.78	0.78	1.2821	1.2821
58	0	2,057	0.0000	0.0004	0.0004	0.79	0.79	0.0000	0.0000
59	1	1,939	0.0005	0.0004	0.0004	0.76	0.76	1.3158	1.3158
60	0	1,808	0.0000	0.0004	0.0004	0.74	0.74	0.0000	0.0000
61	0	1,670	0.0000	0.0004	0.0004	0.67	0.67	0.0000	0.0000
62	0	1,615	0.0000	0.0004	0.0004	0.65	0.65	0.0000	0.0000
63	0	1,400	0.0000	0.0004	0.0004	0.56	0.56	0.0000	0.0000
64	0	1,204	0.0000	0.0004	0.0004	0.48	0.48	0.0000	0.0000
65	0	1,092	0.0000	0.0004	0.0004	0.43	0.43	0.0000	0.0000
66	1	864	0.0012	0.0004	0.0004	0.35	0.35	2.8571	2.8571
67	0	667	0.0000	0.0004	0.0004	0.27	0.27	0.0000	0.0000
68	0	543	0.0000	0.0004	0.0004	0.22	0.22	0.0000	0.0000
69	1	401	0.0025	0.0004	0.0004	0.15	0.15	6.6667	6.6667
70	0	300	0.0000	0.0004	0.0004	0.12	0.12	0.0000	0.0000
71	1	219	0.0046	0.0004	0.0004	0.08	0.08	12.5000	12.5000
72	0	169	0.0000	0.0004	0.0004	0.07	0.07	0.0000	0.0000
73	0	140	0.0000	0.0004	0.0004	0.05	0.05	0.0000	0.0000
74	0	112	0.0000	0.0004	0.0004	0.04	0.04	0.0000	0.0000
Total	9	104,120	0.0001			22.56	22.56	0.3989	0.3989

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Women
4-Year Period Ending 2017
Proposed Assumptions are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(7) Expected Disabilities		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	42	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
21	0	115	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
22	0	248	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
23	0	1,359	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
24	0	2,968	0.0000	0.0000	0.0000	0.06	0.06	0.0000	0.0000
25	0	4,778	0.0000	0.0000	0.0000	0.10	0.10	0.0000	0.0000
26	0	6,422	0.0000	0.0000	0.0000	0.13	0.13	0.0000	0.0000
27	0	7,710	0.0000	0.0000	0.0000	0.15	0.15	0.0000	0.0000
28	0	8,394	0.0000	0.0000	0.0000	0.17	0.17	0.0000	0.0000
29	0	9,081	0.0000	0.0000	0.0000	0.18	0.18	0.0000	0.0000
30	0	9,565	0.0000	0.0000	0.0000	0.20	0.20	0.0000	0.0000
31	0	10,039	0.0000	0.0000	0.0000	0.20	0.20	0.0000	0.0000
32	0	10,354	0.0000	0.0000	0.0000	0.20	0.20	0.0000	0.0000
33	0	10,374	0.0000	0.0000	0.0000	0.31	0.31	0.0000	0.0000
34	0	10,396	0.0000	0.0000	0.0000	0.41	0.41	0.0000	0.0000
35	0	9,992	0.0000	0.0001	0.0001	0.50	0.50	0.0000	0.0000
36	0	9,798	0.0000	0.0001	0.0001	0.60	0.60	0.0000	0.0000
37	0	9,696	0.0000	0.0001	0.0001	0.67	0.67	0.0000	0.0000
38	0	9,499	0.0000	0.0001	0.0001	0.76	0.76	0.0000	0.0000
39	0	9,289	0.0000	0.0001	0.0001	0.84	0.84	0.0000	0.0000
40	0	9,032	0.0000	0.0001	0.0001	0.90	0.90	0.0000	0.0000
41	1	8,857	0.0001	0.0001	0.0001	1.07	1.07	0.9346	0.9346
42	0	8,857	0.0000	0.0001	0.0001	1.24	1.24	0.0000	0.0000
43	0	9,035	0.0000	0.0002	0.0002	1.45	1.45	0.0000	0.0000
44	0	9,164	0.0000	0.0002	0.0002	1.64	1.64	0.0000	0.0000
45	0	9,071	0.0000	0.0002	0.0002	1.81	1.81	0.0000	0.0000
46	0	8,867	0.0000	0.0002	0.0002	1.96	1.96	0.0000	0.0000
47	1	8,453	0.0001	0.0002	0.0002	2.02	2.02	0.4950	0.4950
48	4	8,215	0.0005	0.0003	0.0003	2.13	2.13	1.8779	1.8779
49	1	8,285	0.0001	0.0003	0.0003	2.32	2.32	0.4310	0.4310
50	2	8,465	0.0002	0.0003	0.0003	2.53	2.53	0.7905	0.7905
51	2	8,533	0.0002	0.0003	0.0003	2.64	2.64	0.7576	0.7576
52	1	8,618	0.0001	0.0003	0.0003	2.76	2.76	0.3623	0.3623
53	0	8,641	0.0000	0.0003	0.0003	2.85	2.85	0.0000	0.0000
54	2	8,626	0.0002	0.0003	0.0003	2.94	2.94	0.6803	0.6803
55	1	8,535	0.0001	0.0004	0.0004	2.99	2.99	0.3344	0.3344
56	3	8,024	0.0004	0.0004	0.0004	2.88	2.88	1.0417	1.0417
57	1	7,749	0.0001	0.0004	0.0004	2.87	2.87	0.3484	0.3484
58	7	7,641	0.0009	0.0004	0.0004	2.90	2.90	2.4138	2.4138
59	1	7,365	0.0001	0.0004	0.0004	2.88	2.88	0.3472	0.3472
60	5	6,998	0.0007	0.0004	0.0004	2.81	2.81	1.7794	1.7794
61	2	6,614	0.0003	0.0004	0.0004	2.65	2.65	0.7547	0.7547
62	3	6,056	0.0005	0.0004	0.0004	2.42	2.42	1.2397	1.2397
63	2	4,854	0.0004	0.0004	0.0004	1.94	1.94	1.0309	1.0309
64	1	4,063	0.0002	0.0004	0.0004	1.62	1.62	0.6173	0.6173
65	3	3,365	0.0009	0.0004	0.0004	1.34	1.34	2.2388	2.2388
66	0	2,652	0.0000	0.0004	0.0004	1.06	1.06	0.0000	0.0000
67	1	2,003	0.0005	0.0004	0.0004	0.80	0.80	1.2500	1.2500
68	2	1,446	0.0014	0.0004	0.0004	0.57	0.57	3.5088	3.5088
69	0	1,109	0.0000	0.0004	0.0004	0.44	0.44	0.0000	0.0000
70	1	775	0.0013	0.0004	0.0004	0.31	0.31	3.2258	3.2258
71	0	556	0.0000	0.0004	0.0004	0.22	0.22	0.0000	0.0000
72	0	420	0.0000	0.0004	0.0004	0.17	0.17	0.0000	0.0000
73	0	325	0.0000	0.0004	0.0004	0.13	0.13	0.0000	0.0000
74	0	262	0.0000	0.0004	0.0004	0.11	0.11	0.0000	0.0000
Total	47	351,650	0.0001			66.89	66.89	0.7026	0.7026

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men and Women
4-Year Period Ending 2017**

Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	56	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
21	0	151	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
22	0	343	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
23	0	1,710	0.0000	0.0000	0.0000	0.04	0.04	0.0000	0.0000
24	0	3,753	0.0000	0.0000	0.0000	0.06	0.06	0.0000	0.0000
25	0	6,045	0.0000	0.0000	0.0000	0.14	0.14	0.0000	0.0000
26	0	8,086	0.0000	0.0000	0.0000	0.17	0.17	0.0000	0.0000
27	0	9,715	0.0000	0.0000	0.0000	0.19	0.19	0.0000	0.0000
28	0	10,678	0.0000	0.0000	0.0000	0.21	0.21	0.0000	0.0000
29	0	11,595	0.0000	0.0000	0.0000	0.22	0.22	0.0000	0.0000
30	0	12,259	0.0000	0.0000	0.0000	0.24	0.24	0.0000	0.0000
31	0	12,927	0.0000	0.0000	0.0000	0.24	0.24	0.0000	0.0000
32	0	13,391	0.0000	0.0000	0.0000	0.32	0.32	0.0000	0.0000
33	0	13,512	0.0000	0.0001	0.0001	0.51	0.51	0.0000	0.0000
34	0	13,635	0.0000	0.0001	0.0001	0.67	0.67	0.0000	0.0000
35	0	13,158	0.0000	0.0001	0.0001	0.82	0.82	0.0000	0.0000
36	0	12,920	0.0000	0.0001	0.0001	0.98	0.98	0.0000	0.0000
37	0	12,810	0.0000	0.0001	0.0001	1.11	1.11	0.0000	0.0000
38	0	12,592	0.0000	0.0002	0.0002	1.25	1.25	0.0000	0.0000
39	0	12,275	0.0000	0.0002	0.0002	1.38	1.38	0.0000	0.0000
40	0	11,891	0.0000	0.0002	0.0002	1.47	1.47	0.0000	0.0000
41	1	11,635	0.0001	0.0002	0.0002	1.67	1.67	0.5988	0.5988
42	0	11,635	0.0000	0.0002	0.0002	1.86	1.86	0.0000	0.0000
43	0	11,894	0.0000	0.0002	0.0002	2.10	2.10	0.0000	0.0000
44	0	12,098	0.0000	0.0002	0.0002	2.35	2.35	0.0000	0.0000
45	0	11,947	0.0000	0.0003	0.0003	2.54	2.54	0.0000	0.0000
46	0	11,607	0.0000	0.0003	0.0003	2.68	2.68	0.0000	0.0000
47	3	11,076	0.0003	0.0003	0.0003	2.74	2.74	1.0949	1.0949
48	4	10,697	0.0004	0.0003	0.0003	2.82	2.82	1.4184	1.4184
49	1	10,707	0.0001	0.0003	0.0003	3.02	3.02	0.3311	0.3311
50	2	10,940	0.0002	0.0003	0.0003	3.27	3.27	0.6116	0.6116
51	2	10,971	0.0002	0.0003	0.0003	3.40	3.40	0.5882	0.5882
52	1	11,106	0.0001	0.0003	0.0003	3.55	3.55	0.2817	0.2817
53	1	11,112	0.0001	0.0003	0.0003	3.68	3.68	0.2717	0.2717
54	3	11,082	0.0003	0.0003	0.0003	3.78	3.78	0.7937	0.7937
55	1	10,961	0.0001	0.0004	0.0004	3.84	3.84	0.2604	0.2604
56	3	10,245	0.0003	0.0004	0.0004	3.68	3.68	0.8152	0.8152
57	2	9,851	0.0002	0.0004	0.0004	3.65	3.65	0.5479	0.5479
58	7	9,698	0.0007	0.0004	0.0004	3.69	3.69	1.8970	1.8970
59	2	9,304	0.0002	0.0004	0.0004	3.64	3.64	0.5495	0.5495
60	5	8,806	0.0006	0.0004	0.0004	3.55	3.55	1.4085	1.4085
61	2	8,284	0.0002	0.0004	0.0004	3.32	3.32	0.6024	0.6024
62	3	7,671	0.0004	0.0004	0.0004	3.07	3.07	0.9772	0.9772
63	2	6,254	0.0003	0.0004	0.0004	2.50	2.50	0.8000	0.8000
64	1	5,267	0.0002	0.0004	0.0004	2.10	2.10	0.4762	0.4762
65	3	4,457	0.0007	0.0004	0.0004	1.77	1.77	1.6949	1.6949
66	1	3,516	0.0003	0.0004	0.0004	1.41	1.41	0.7092	0.7092
67	1	2,670	0.0004	0.0004	0.0004	1.07	1.07	0.9346	0.9346
68	2	1,989	0.0010	0.0004	0.0004	0.79	0.79	2.5316	2.5316
69	1	1,510	0.0007	0.0004	0.0004	0.59	0.59	1.6949	1.6949
70	1	1,075	0.0009	0.0004	0.0004	0.43	0.43	2.3256	2.3256
71	1	775	0.0013	0.0004	0.0004	0.30	0.30	3.3333	3.3333
72	0	589	0.0000	0.0004	0.0004	0.24	0.24	0.0000	0.0000
73	0	465	0.0000	0.0004	0.0004	0.18	0.18	0.0000	0.0000
74	0	374	0.0000	0.0004	0.0004	0.15	0.15	0.0000	0.0000
Total	56	455,770	0.0001			89.45	89.45	0.6260	0.6260

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men
10-Year Period Ending 2017
Proposed Assumptions are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) / (8)		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	28	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
21	0	64	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
22	0	188	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
23	0	1,139	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
24	0	2,362	0.0000	0.0000	0.0000	0.03	0.03	0.0000	0.0000
25	0	3,476	0.0000	0.0000	0.0000	0.09	0.09	0.0000	0.0000
26	0	4,445	0.0000	0.0000	0.0000	0.10	0.10	0.0000	0.0000
27	0	5,255	0.0000	0.0000	0.0000	0.10	0.10	0.0000	0.0000
28	0	5,959	0.0000	0.0000	0.0000	0.10	0.10	0.0000	0.0000
29	1	6,490	0.0002	0.0000	0.0000	0.10	0.10	10.0000	10.0000
30	0	6,827	0.0000	0.0000	0.0000	0.10	0.10	0.0000	0.0000
31	0	7,128	0.0000	0.0000	0.0000	0.10	0.10	0.0000	0.0000
32	0	7,263	0.0000	0.0000	0.0000	0.30	0.30	0.0000	0.0000
33	0	7,304	0.0000	0.0001	0.0001	0.44	0.44	0.0000	0.0000
34	2	7,362	0.0003	0.0001	0.0001	0.59	0.59	3.3898	3.3898
35	0	7,208	0.0000	0.0001	0.0001	0.73	0.73	0.0000	0.0000
36	2	7,165	0.0003	0.0001	0.0001	0.86	0.86	2.3256	2.3256
37	0	7,157	0.0000	0.0001	0.0001	1.00	1.00	0.0000	0.0000
38	2	7,107	0.0003	0.0002	0.0002	1.13	1.13	1.7699	1.7699
39	2	6,980	0.0003	0.0002	0.0002	1.25	1.25	1.6000	1.6000
40	0	6,842	0.0000	0.0002	0.0002	1.36	1.36	0.0000	0.0000
41	0	6,676	0.0000	0.0002	0.0002	1.41	1.41	0.0000	0.0000
42	1	6,537	0.0002	0.0002	0.0002	1.44	1.44	0.6944	0.6944
43	0	6,516	0.0000	0.0002	0.0002	1.49	1.49	0.0000	0.0000
44	1	6,515	0.0002	0.0002	0.0002	1.56	1.56	0.6410	0.6410
45	1	6,349	0.0002	0.0003	0.0003	1.60	1.60	0.6250	0.6250
46	1	6,349	0.0002	0.0003	0.0003	1.67	1.67	0.5988	0.5988
47	2	6,277	0.0003	0.0003	0.0003	1.72	1.72	1.1628	1.1628
48	1	6,173	0.0002	0.0003	0.0003	1.73	1.73	0.5780	0.5780
49	1	6,116	0.0002	0.0003	0.0003	1.77	1.77	0.5650	0.5650
50	3	6,236	0.0005	0.0003	0.0003	1.86	1.86	1.6129	1.6129
51	0	6,259	0.0000	0.0003	0.0003	1.94	1.94	0.0000	0.0000
52	0	6,330	0.0000	0.0003	0.0003	2.01	2.01	0.0000	0.0000
53	3	6,356	0.0005	0.0003	0.0003	2.11	2.11	1.4218	1.4218
54	1	6,502	0.0002	0.0003	0.0003	2.22	2.22	0.4505	0.4505
55	4	6,576	0.0006	0.0004	0.0004	2.31	2.31	1.7316	1.7316
56	2	6,246	0.0003	0.0004	0.0004	2.25	2.25	0.8889	0.8889
57	4	5,945	0.0007	0.0004	0.0004	2.20	2.20	1.8182	1.8182
58	4	5,749	0.0007	0.0004	0.0004	2.19	2.19	1.8265	1.8265
59	6	5,502	0.0011	0.0004	0.0004	2.16	2.16	2.7778	2.7778
60	0	5,169	0.0000	0.0004	0.0004	2.09	2.09	0.0000	0.0000
61	3	4,740	0.0006	0.0004	0.0004	1.91	1.91	1.5707	1.5707
62	1	4,221	0.0002	0.0004	0.0004	1.68	1.68	0.5952	0.5952
63	2	3,445	0.0006	0.0004	0.0004	1.37	1.37	1.4599	1.4599
64	1	2,885	0.0003	0.0004	0.0004	1.15	1.15	0.8696	0.8696
65	0	2,449	0.0000	0.0004	0.0004	0.98	0.98	0.0000	0.0000
66	1	1,878	0.0005	0.0004	0.0004	0.75	0.75	1.3333	1.3333
67	0	1,456	0.0000	0.0004	0.0004	0.59	0.59	0.0000	0.0000
68	0	1,157	0.0000	0.0004	0.0004	0.47	0.47	0.0000	0.0000
69	1	908	0.0011	0.0004	0.0004	0.35	0.35	2.8571	2.8571
70	0	695	0.0000	0.0004	0.0004	0.28	0.28	0.0000	0.0000
71	1	545	0.0018	0.0004	0.0004	0.22	0.22	4.5455	4.5455
72	1	435	0.0023	0.0004	0.0004	0.17	0.17	5.8824	5.8824
73	1	350	0.0029	0.0004	0.0004	0.13	0.13	7.6923	7.6923
74	0	278	0.0000	0.0004	0.0004	0.11	0.11	0.0000	0.0000
Total	56	257,569	0.0002			56.27	56.27	0.9952	0.9952

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Women
10-Year Period Ending 2017
Proposed Assumptions are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) / (8)		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	61	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
21	0	190	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
22	0	519	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
23	0	4,372	0.0000	0.0000	0.0000	0.11	0.11	0.0000	0.0000
24	0	9,168	0.0000	0.0000	0.0000	0.19	0.19	0.0000	0.0000
25	0	13,713	0.0000	0.0000	0.0000	0.28	0.28	0.0000	0.0000
26	1	17,634	0.0001	0.0000	0.0000	0.35	0.35	2.8571	2.8571
27	0	20,687	0.0000	0.0000	0.0000	0.42	0.42	0.0000	0.0000
28	0	22,661	0.0000	0.0000	0.0000	0.46	0.46	0.0000	0.0000
29	1	23,842	0.0000	0.0000	0.0000	0.48	0.48	2.0833	2.0833
30	0	24,316	0.0000	0.0000	0.0000	0.50	0.50	0.0000	0.0000
31	0	24,447	0.0000	0.0000	0.0000	0.50	0.50	0.0000	0.0000
32	2	24,248	0.0001	0.0000	0.0000	0.49	0.49	4.0816	4.0816
33	0	23,807	0.0000	0.0000	0.0000	0.71	0.71	0.0000	0.0000
34	0	23,184	0.0000	0.0000	0.0000	0.92	0.92	0.0000	0.0000
35	3	22,375	0.0001	0.0001	0.0001	1.11	1.11	2.7027	2.7027
36	1	21,873	0.0000	0.0001	0.0001	1.32	1.32	0.7576	0.7576
37	2	21,657	0.0001	0.0001	0.0001	1.50	1.50	1.3333	1.3333
38	1	21,359	0.0000	0.0001	0.0001	1.72	1.72	0.5814	0.5814
39	3	20,896	0.0001	0.0001	0.0001	1.88	1.88	1.5957	1.5957
40	2	20,604	0.0001	0.0001	0.0001	2.05	2.05	0.9756	0.9756
41	1	20,284	0.0000	0.0001	0.0001	2.45	2.45	0.4082	0.4082
42	2	20,221	0.0001	0.0001	0.0001	2.84	2.84	0.7042	0.7042
43	0	20,355	0.0000	0.0002	0.0002	3.26	3.26	0.0000	0.0000
44	4	20,519	0.0002	0.0002	0.0002	3.68	3.68	1.0870	1.0870
45	3	20,475	0.0001	0.0002	0.0002	4.08	4.08	0.7353	0.7353
46	5	20,557	0.0002	0.0002	0.0002	4.54	4.54	1.1013	1.1013
47	3	20,417	0.0001	0.0002	0.0002	4.89	4.89	0.6135	0.6135
48	11	20,473	0.0005	0.0003	0.0003	5.32	5.32	2.0677	2.0677
49	6	20,763	0.0003	0.0003	0.0003	5.81	5.81	1.0327	1.0327
50	8	21,328	0.0004	0.0003	0.0003	6.38	6.38	1.2539	1.2539
51	10	21,765	0.0005	0.0003	0.0003	6.75	6.75	1.4815	1.4815
52	8	22,258	0.0004	0.0003	0.0003	7.13	7.13	1.1220	1.1220
53	8	22,726	0.0004	0.0003	0.0003	7.50	7.50	1.0667	1.0667
54	12	23,195	0.0005	0.0003	0.0003	7.89	7.89	1.5209	1.5209
55	8	23,540	0.0003	0.0004	0.0004	8.25	8.25	0.9697	0.9697
56	19	22,569	0.0008	0.0004	0.0004	8.11	8.11	2.3428	2.3428
57	10	21,818	0.0005	0.0004	0.0004	8.08	8.08	1.2376	1.2376
58	13	21,221	0.0006	0.0004	0.0004	8.05	8.05	1.6149	1.6149
59	12	19,998	0.0006	0.0004	0.0004	7.80	7.80	1.5385	1.5385
60	13	18,605	0.0007	0.0004	0.0004	7.44	7.44	1.7473	1.7473
61	8	16,856	0.0005	0.0004	0.0004	6.75	6.75	1.1852	1.1852
62	9	14,742	0.0006	0.0004	0.0004	5.90	5.90	1.5254	1.5254
63	8	11,523	0.0007	0.0004	0.0004	4.61	4.61	1.7354	1.7354
64	3	9,320	0.0003	0.0004	0.0004	3.72	3.72	0.8065	0.8065
65	6	7,556	0.0008	0.0004	0.0004	3.02	3.02	1.9868	1.9868
66	3	5,852	0.0005	0.0004	0.0004	2.35	2.35	1.2766	1.2766
67	1	4,287	0.0002	0.0004	0.0004	1.71	1.71	0.5848	0.5848
68	3	3,189	0.0009	0.0004	0.0004	1.27	1.27	2.3622	2.3622
69	2	2,458	0.0008	0.0004	0.0004	0.98	0.98	2.0408	2.0408
70	1	1,815	0.0006	0.0004	0.0004	0.72	0.72	1.3889	1.3889
71	1	1,327	0.0008	0.0004	0.0004	0.53	0.53	1.8868	1.8868
72	1	1,004	0.0010	0.0004	0.0004	0.40	0.40	2.5000	2.5000
73	0	802	0.0000	0.0004	0.0004	0.31	0.31	0.0000	0.0000
74	0	624	0.0000	0.0004	0.0004	0.24	0.24	0.0000	0.0000
Total	218	866,055	0.0003			167.75	167.75	1.2996	1.2996

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	89	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
21	0	254	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
22	0	707	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
23	0	5,511	0.0000	0.0000	0.0000	0.11	0.11	0.0000	0.0000
24	0	11,530	0.0000	0.0000	0.0000	0.22	0.22	0.0000	0.0000
25	0	17,189	0.0000	0.0000	0.0000	0.37	0.37	0.0000	0.0000
26	1	22,079	0.0000	0.0000	0.0000	0.45	0.45	2.2222	2.2222
27	0	25,942	0.0000	0.0000	0.0000	0.52	0.52	0.0000	0.0000
28	0	28,620	0.0000	0.0000	0.0000	0.56	0.56	0.0000	0.0000
29	2	30,332	0.0001	0.0000	0.0000	0.58	0.58	3.4483	3.4483
30	0	31,143	0.0000	0.0000	0.0000	0.60	0.60	0.0000	0.0000
31	0	31,575	0.0000	0.0000	0.0000	0.60	0.60	0.0000	0.0000
32	2	31,511	0.0001	0.0000	0.0000	0.79	0.79	2.5316	2.5316
33	0	31,111	0.0000	0.0001	0.0001	1.15	1.15	0.0000	0.0000
34	2	30,546	0.0001	0.0001	0.0001	1.51	1.51	1.3245	1.3245
35	3	29,583	0.0001	0.0001	0.0001	1.84	1.84	1.6304	1.6304
36	3	29,038	0.0001	0.0001	0.0001	2.18	2.18	1.3761	1.3761
37	2	28,814	0.0001	0.0001	0.0001	2.50	2.50	0.8000	0.8000
38	3	28,466	0.0001	0.0002	0.0002	2.85	2.85	1.0526	1.0526
39	5	27,876	0.0002	0.0002	0.0002	3.13	3.13	1.5974	1.5974
40	2	27,446	0.0001	0.0002	0.0002	3.41	3.41	0.5865	0.5865
41	1	26,960	0.0000	0.0002	0.0002	3.86	3.86	0.2591	0.2591
42	3	26,758	0.0001	0.0002	0.0002	4.28	4.28	0.7009	0.7009
43	0	26,871	0.0000	0.0002	0.0002	4.75	4.75	0.0000	0.0000
44	5	27,034	0.0002	0.0002	0.0002	5.24	5.24	0.9542	0.9542
45	4	26,824	0.0001	0.0003	0.0003	5.68	5.68	0.7042	0.7042
46	6	26,906	0.0002	0.0003	0.0003	6.21	6.21	0.9662	0.9662
47	5	26,694	0.0002	0.0003	0.0003	6.61	6.61	0.7564	0.7564
48	12	26,646	0.0005	0.0003	0.0003	7.05	7.05	1.7021	1.7021
49	7	26,879	0.0003	0.0003	0.0003	7.58	7.58	0.9235	0.9235
50	11	27,564	0.0004	0.0003	0.0003	8.24	8.24	1.3350	1.3350
51	10	28,024	0.0004	0.0003	0.0003	8.69	8.69	1.1507	1.1507
52	8	28,588	0.0003	0.0003	0.0003	9.14	9.14	0.8753	0.8753
53	11	29,082	0.0004	0.0003	0.0003	9.61	9.61	1.1446	1.1446
54	13	29,697	0.0004	0.0003	0.0003	10.11	10.11	1.2859	1.2859
55	12	30,116	0.0004	0.0004	0.0004	10.56	10.56	1.1364	1.1364
56	21	28,815	0.0007	0.0004	0.0004	10.36	10.36	2.0270	2.0270
57	14	27,763	0.0005	0.0004	0.0004	10.28	10.28	1.3619	1.3619
58	17	26,970	0.0006	0.0004	0.0004	10.24	10.24	1.6602	1.6602
59	18	25,500	0.0007	0.0004	0.0004	9.96	9.96	1.8072	1.8072
60	13	23,774	0.0005	0.0004	0.0004	9.53	9.53	1.3641	1.3641
61	11	21,596	0.0005	0.0004	0.0004	8.66	8.66	1.2702	1.2702
62	10	18,963	0.0005	0.0004	0.0004	7.58	7.58	1.3193	1.3193
63	10	14,968	0.0007	0.0004	0.0004	5.98	5.98	1.6722	1.6722
64	4	12,205	0.0003	0.0004	0.0004	4.87	4.87	0.8214	0.8214
65	6	10,005	0.0006	0.0004	0.0004	4.00	4.00	1.5000	1.5000
66	4	7,730	0.0005	0.0004	0.0004	3.10	3.10	1.2903	1.2903
67	1	5,743	0.0002	0.0004	0.0004	2.30	2.30	0.4348	0.4348
68	3	4,346	0.0007	0.0004	0.0004	1.74	1.74	1.7241	1.7241
69	3	3,366	0.0009	0.0004	0.0004	1.33	1.33	2.2556	2.2556
70	1	2,510	0.0004	0.0004	0.0004	1.00	1.00	1.0000	1.0000
71	2	1,872	0.0011	0.0004	0.0004	0.75	0.75	2.6667	2.6667
72	2	1,439	0.0014	0.0004	0.0004	0.57	0.57	3.5088	3.5088
73	1	1,152	0.0009	0.0004	0.0004	0.44	0.44	2.2727	2.2727
74	0	902	0.0000	0.0004	0.0004	0.35	0.35	0.0000	0.0000
Total	274	1,123,624	0.0002			224.02	224.02	1.2231	1.2231

Bolton

**Teachers' Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	27	110,631	22.08	1.2228	0.0002	0.0002
2009	42	112,387	22.42	1.8733	0.0004	0.0002
2010	42	113,056	22.62	1.8568	0.0004	0.0002
2011	45	111,529	22.68	1.9841	0.0004	0.0002
2012	40	109,629	22.45	1.7817	0.0004	0.0002
2013	23	112,461	22.85	1.0066	0.0002	0.0002
2014	26	112,482	22.70	1.1454	0.0002	0.0002
2015	14	111,734	21.95	0.6378	0.0001	0.0002
2016	13	114,652	22.41	0.5801	0.0001	0.0002
2017	3	118,240	22.83	0.1314	0.0000	0.0002
Total	275	1,126,801	224.99	1.2223	0.0002	0.0002

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 20 and above 74)

Bolton

Teachers' Retirement System of the City of New York
 Total Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

(1)	(2)	(3)	(4)	(5)	(6)	(7) = (8) ÷ (9)	(8) = (4) ÷ (3)	(9) = (6) ÷ (3)
Service	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Expected Salary EOY	Actual/Expected	Increase %	
							Actual %	Expected %
0	19,743	800,049,137	892,654,630	11.50%	892,054,788	1.0065	11.57%	11.50%
1	29,652	1,604,187,111	1,761,592,296	9.50%	1,756,584,887	1.0329	9.81%	9.50%
2	24,316	1,379,215,605	1,495,000,896	7.50%	1,482,656,775	1.1193	8.40%	7.50%
3	19,537	1,143,809,337	1,227,363,422	6.50%	1,218,156,944	1.1238	7.30%	6.50%
4	16,269	973,711,836	1,050,266,057	7.50%	1,046,740,224	1.0483	7.86%	7.50%
5	15,315	950,389,073	1,034,830,856	6.50%	1,012,164,363	1.3669	8.88%	6.50%
6	16,629	1,076,729,204	1,182,130,254	6.50%	1,146,716,602	1.5060	9.79%	6.50%
7	18,781	1,291,604,790	1,391,086,573	5.50%	1,362,643,053	1.4004	7.70%	5.50%
8	20,108	1,485,750,426	1,559,948,931	3.50%	1,537,751,691	1.4269	4.99%	3.50%
9	20,771	1,564,088,584	1,645,872,176	6.50%	1,665,754,342	0.8044	5.23%	6.50%
10	21,873	1,698,111,020	1,804,905,654	2.50%	1,740,563,796	2.5156	6.29%	2.50%
11	20,749	1,671,759,895	1,751,377,620	2.50%	1,713,553,892	1.9050	4.76%	2.50%
12	19,285	1,591,119,721	1,666,557,542	4.50%	1,662,720,108	1.0536	4.74%	4.50%
13	18,314	1,524,746,806	1,608,697,774	2.50%	1,562,865,476	2.2024	5.51%	2.50%
14	16,058	1,329,213,635	1,399,872,207	6.50%	1,415,612,521	0.8178	5.32%	6.50%
15	14,708	1,224,010,513	1,297,216,762	2.50%	1,254,610,776	2.3923	5.98%	2.50%
16	13,543	1,155,001,856	1,205,749,567	2.50%	1,183,876,902	1.7575	4.39%	2.50%
17	11,848	1,014,741,575	1,062,462,945	3.50%	1,050,257,530	1.3437	4.70%	3.50%
18	10,482	907,344,542	951,276,701	2.50%	930,028,156	1.9367	4.84%	2.50%
19	9,167	806,305,552	851,298,470	10.50%	890,967,635	0.5314	5.58%	10.50%
20	7,852	705,165,563	757,188,299	2.50%	722,794,702	2.9510	7.38%	2.50%
21	7,256	674,521,196	709,082,324	6.50%	718,365,074	0.7883	5.12%	6.50%
22	6,974	659,266,390	699,626,043	2.50%	675,748,050	2.4488	6.12%	2.50%
23	6,659	647,638,761	673,684,295	2.50%	663,829,730	1.6086	4.02%	2.50%
24	6,317	618,847,694	643,069,176	2.50%	634,318,886	1.5656	3.91%	2.50%
25	5,341	526,870,561	546,856,372	2.50%	540,042,325	1.5173	3.79%	2.50%
26	4,764	474,651,928	493,097,696	2.50%	486,518,226	1.5545	3.89%	2.50%
27	4,211	423,286,424	440,036,334	2.50%	433,868,585	1.5828	3.96%	2.50%
28	3,794	388,401,180	403,619,184	2.50%	398,111,210	1.5672	3.92%	2.50%
29	3,233	335,979,385	349,140,393	2.50%	344,378,870	1.5669	3.92%	2.50%
30+	9,662	1,051,562,050	1,089,737,189	2.50%	1,077,851,101	1.4521	3.63%	2.50%
Total	423,211	31,698,081,350	33,645,298,638		33,222,107,219	1.2777	6.14%	4.81%

Bolton

Teachers' Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7) = (8) ÷ (9)	(8) = (4) ÷ (3)	(9) = (6) ÷ (3)
Service	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Proposed Salary EOY	Actual/Proposed	Increase %	
							Actual %	Proposed %
0	19,743	800,049,137	892,654,630	11.50%	892,054,788	1.0065	11.57%	11.50%
1	29,652	1,604,187,111	1,761,592,296	9.50%	1,756,584,887	1.0329	9.81%	9.50%
2	24,316	1,379,215,605	1,495,000,896	7.50%	1,482,656,775	1.1193	8.40%	7.50%
3	19,537	1,143,809,337	1,227,363,422	6.50%	1,218,156,944	1.1238	7.30%	6.50%
4	16,269	973,711,836	1,050,266,057	7.50%	1,046,740,224	1.0483	7.86%	7.50%
5	15,315	950,389,073	1,034,830,856	6.50%	1,012,164,363	1.3669	8.88%	6.50%
6	16,629	1,076,729,204	1,182,130,254	6.50%	1,146,716,602	1.5060	9.79%	6.50%
7	18,781	1,291,604,790	1,391,086,573	5.50%	1,362,643,053	1.4004	7.70%	5.50%
8	20,108	1,485,750,426	1,559,948,931	3.50%	1,537,751,691	1.4269	4.99%	3.50%
9	20,771	1,564,088,584	1,645,872,176	6.50%	1,665,754,342	0.8044	5.23%	6.50%
10	21,873	1,698,111,020	1,804,905,654	2.50%	1,740,563,796	2.5156	6.29%	2.50%
11	20,749	1,671,759,895	1,751,377,620	2.50%	1,713,553,892	1.9050	4.76%	2.50%
12	19,285	1,591,119,721	1,666,557,542	4.50%	1,662,720,108	1.0536	4.74%	4.50%
13	18,314	1,524,746,806	1,608,697,774	2.50%	1,562,865,476	2.2024	5.51%	2.50%
14	16,058	1,329,213,635	1,399,872,207	6.50%	1,415,612,521	0.8178	5.32%	6.50%
15	14,708	1,224,010,513	1,297,216,762	2.50%	1,254,610,776	2.3923	5.98%	2.50%
16	13,543	1,155,001,856	1,205,749,567	2.50%	1,183,876,902	1.7575	4.39%	2.50%
17	11,848	1,014,741,575	1,062,462,945	3.50%	1,050,257,530	1.3437	4.70%	3.50%
18	10,482	907,344,542	951,276,701	2.50%	930,028,156	1.9367	4.84%	2.50%
19	9,167	806,305,552	851,298,470	10.50%	890,967,635	0.5314	5.58%	10.50%
20	7,852	705,165,563	757,188,299	2.50%	722,794,702	2.9510	7.38%	2.50%
21	7,256	674,521,196	709,082,324	6.50%	718,365,074	0.7883	5.12%	6.50%
22	6,974	659,266,390	699,626,043	2.50%	675,748,050	2.4488	6.12%	2.50%
23	6,659	647,638,761	673,684,295	2.50%	663,829,730	1.6086	4.02%	2.50%
24	6,317	618,847,694	643,069,176	2.50%	634,318,886	1.5656	3.91%	2.50%
25	5,341	526,870,561	546,856,372	2.50%	540,042,325	1.5173	3.79%	2.50%
26	4,764	474,651,928	493,097,696	2.50%	486,518,226	1.5545	3.89%	2.50%
27	4,211	423,286,424	440,036,334	2.50%	433,868,585	1.5828	3.96%	2.50%
28	3,794	388,401,180	403,619,184	2.50%	398,111,210	1.5672	3.92%	2.50%
29	3,233	335,979,385	349,140,393	2.50%	344,378,870	1.5669	3.92%	2.50%
30+	9,662	1,051,562,050	1,089,737,189	2.50%	1,077,851,101	1.4521	3.63%	2.50%
Total	423,211	31,698,081,350	33,645,298,638		33,222,107,219	1.2777	6.14%	4.81%

Bolton

Teachers' Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) = (4)÷(3)	(9)=(6)÷(3)
Service	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Expected Salary EOY	Actual/Expected	Increase %	
							Actual %	Expected %
0	43,311	1,700,303,022	1,884,977,552	11.50%	1,895,837,870	0.9445	10.86%	11.50%
1	68,363	3,485,584,662	3,782,460,174	9.50%	3,816,715,205	0.8966	8.52%	9.50%
2	61,639	3,329,682,490	3,565,330,352	7.50%	3,579,408,677	0.9436	7.08%	7.50%
3	57,297	3,209,386,288	3,398,190,371	6.50%	3,417,996,397	0.9051	5.88%	6.50%
4	56,808	3,342,391,248	3,563,150,407	7.50%	3,593,070,592	0.8806	6.60%	7.50%
5	52,603	3,283,673,924	3,523,768,555	6.50%	3,497,112,729	1.1249	7.31%	6.50%
6	52,255	3,411,825,122	3,667,165,346	6.50%	3,633,593,755	1.1514	7.48%	6.50%
7	52,967	3,639,034,484	3,865,753,498	5.50%	3,839,181,381	1.1328	6.23%	5.50%
8	51,800	3,752,886,055	3,885,315,866	3.50%	3,884,237,067	1.0082	3.53%	3.50%
9	49,467	3,634,137,390	3,773,962,288	6.50%	3,870,356,320	0.5919	3.85%	6.50%
10	47,075	3,513,564,115	3,684,993,215	2.50%	3,601,403,218	1.9516	4.88%	2.50%
11	43,102	3,312,682,716	3,425,266,672	2.50%	3,395,499,784	1.3594	3.40%	2.50%
12	39,146	3,083,816,099	3,195,656,167	4.50%	3,222,587,823	0.8059	3.63%	4.50%
13	35,294	2,821,082,791	2,941,853,487	2.50%	2,891,609,861	1.7124	4.28%	2.50%
14	32,088	2,557,964,295	2,665,710,708	6.50%	2,724,231,974	0.6480	4.21%	6.50%
15	29,380	2,360,028,884	2,474,615,570	2.50%	2,419,029,606	1.9421	4.86%	2.50%
16	27,266	2,245,079,254	2,320,477,980	2.50%	2,301,206,235	1.3434	3.36%	2.50%
17	24,948	2,054,217,038	2,127,025,566	3.50%	2,126,114,634	1.0127	3.54%	3.50%
18	23,834	1,983,801,901	2,058,524,746	2.50%	2,033,396,949	1.5067	3.77%	2.50%
19	22,365	1,876,473,416	1,959,918,340	10.50%	2,073,503,125	0.4235	4.45%	10.50%
20	20,899	1,791,982,350	1,900,989,318	2.50%	1,836,781,909	2.4332	6.08%	2.50%
21	19,394	1,746,328,411	1,810,950,362	6.50%	1,859,839,758	0.5693	3.70%	6.50%
22	18,966	1,750,705,476	1,836,385,316	2.50%	1,794,473,113	1.9576	4.89%	2.50%
23	17,772	1,700,816,040	1,744,295,331	2.50%	1,743,336,441	1.0226	2.56%	2.50%
24	16,535	1,608,549,974	1,647,862,816	2.50%	1,648,763,723	0.9776	2.44%	2.50%
25	13,581	1,336,237,445	1,367,405,748	2.50%	1,369,643,381	0.9330	2.33%	2.50%
26	12,034	1,201,103,492	1,231,138,208	2.50%	1,231,131,079	1.0002	2.50%	2.50%
27	10,135	1,023,005,794	1,048,426,746	2.50%	1,048,580,939	0.9940	2.48%	2.50%
28	9,076	924,834,301	949,690,358	2.50%	947,955,159	1.0750	2.69%	2.50%
29	7,649	787,189,252	807,875,820	2.50%	806,868,983	1.0512	2.63%	2.50%
30+	26,301	2,761,496,192	2,827,914,139	2.50%	2,830,533,597	0.9621	2.41%	2.50%
Total	1,043,350	75,229,863,921	78,937,051,022		78,934,001,282	1.0008	4.93%	4.92%

Bolton

Teachers' Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) = (4)÷(3)	(9)=(6)÷(3)
Service	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Proposed Salary EOY	Actual/Proposed	Increase %	
							Actual %	Proposed %
0	43,311	1,700,303,022	1,884,977,552	11.50%	1,895,837,870	0.9445	10.86%	11.50%
1	68,363	3,485,584,662	3,782,460,174	9.50%	3,816,715,205	0.8966	8.52%	9.50%
2	61,639	3,329,682,490	3,565,330,352	7.50%	3,579,408,677	0.9436	7.08%	7.50%
3	57,297	3,209,386,288	3,398,190,371	6.50%	3,417,996,397	0.9051	5.88%	6.50%
4	56,808	3,342,391,248	3,563,150,407	7.50%	3,593,070,592	0.8806	6.60%	7.50%
5	52,603	3,283,673,924	3,523,768,555	6.50%	3,497,112,729	1.1249	7.31%	6.50%
6	52,255	3,411,825,122	3,667,165,346	6.50%	3,633,593,755	1.1514	7.48%	6.50%
7	52,967	3,639,034,484	3,865,753,498	5.50%	3,839,181,381	1.1328	6.23%	5.50%
8	51,800	3,752,886,055	3,885,315,866	3.50%	3,884,237,067	1.0082	3.53%	3.50%
9	49,467	3,634,137,390	3,773,962,288	6.50%	3,870,356,320	0.5919	3.85%	6.50%
10	47,075	3,513,564,115	3,684,993,215	2.50%	3,601,403,218	1.9516	4.88%	2.50%
11	43,102	3,312,682,716	3,425,266,672	2.50%	3,395,499,784	1.3594	3.40%	2.50%
12	39,146	3,083,816,099	3,195,656,167	4.50%	3,222,587,823	0.8059	3.63%	4.50%
13	35,294	2,821,082,791	2,941,853,487	2.50%	2,891,609,861	1.7124	4.28%	2.50%
14	32,088	2,557,964,295	2,665,710,708	6.50%	2,724,231,974	0.6480	4.21%	6.50%
15	29,380	2,360,028,884	2,474,615,570	2.50%	2,419,029,606	1.9421	4.86%	2.50%
16	27,266	2,245,079,254	2,320,477,980	2.50%	2,301,206,235	1.3434	3.36%	2.50%
17	24,948	2,054,217,038	2,127,025,566	3.50%	2,126,114,634	1.0127	3.54%	3.50%
18	23,834	1,983,801,901	2,058,524,746	2.50%	2,033,396,949	1.5067	3.77%	2.50%
19	22,365	1,876,473,416	1,959,918,340	10.50%	2,073,503,125	0.4235	4.45%	10.50%
20	20,899	1,791,982,350	1,900,989,318	2.50%	1,836,781,909	2.4332	6.08%	2.50%
21	19,394	1,746,328,411	1,810,950,362	6.50%	1,859,839,758	0.5693	3.70%	6.50%
22	18,966	1,750,705,476	1,836,385,316	2.50%	1,794,473,113	1.9576	4.89%	2.50%
23	17,772	1,700,816,040	1,744,295,331	2.50%	1,743,336,441	1.0226	2.56%	2.50%
24	16,535	1,608,549,974	1,647,862,816	2.50%	1,648,763,723	0.9776	2.44%	2.50%
25	13,581	1,336,237,445	1,367,405,748	2.50%	1,369,643,381	0.9330	2.33%	2.50%
26	12,034	1,201,103,492	1,231,138,208	2.50%	1,231,131,079	1.0002	2.50%	2.50%
27	10,135	1,023,005,794	1,048,426,746	2.50%	1,048,580,939	0.9940	2.48%	2.50%
28	9,076	924,834,301	949,690,358	2.50%	947,955,159	1.0750	2.69%	2.50%
29	7,649	787,189,252	807,875,820	2.50%	806,868,983	1.0512	2.63%	2.50%
30+	26,301	2,761,496,192	2,827,914,139	2.50%	2,830,533,597	0.9621	2.41%	2.50%
Total	1,043,350	75,229,863,921	78,937,051,022		78,934,001,282	1.0008	4.93%	4.92%

Bolton

**Teachers' Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6)	(7) = (2) ÷ (3)	(8) = (4) ÷ (3)
Plan Year	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Expected Salary EOY	Actual/Expected	Increase %	
						Actual %	Expected %
2008	100,877	6,645,937,411	7,362,580,172	7,090,296,594	1.0384	1.1078	1.0669
2009	104,216	7,348,393,143	7,545,190,363	7,835,713,198	0.9629	1.0268	1.0663
2010	105,632	7,471,314,653	7,668,938,729	7,964,126,620	0.9629	1.0265	1.0660
2011	103,567	7,378,963,626	7,567,707,436	7,851,640,741	0.9638	1.0256	1.0641
2012	101,681	7,291,154,902	7,533,842,093	7,753,879,600	0.9716	1.0333	1.0635
2013	104,166	7,396,018,836	7,613,493,591	7,868,305,997	0.9676	1.0294	1.0639
2014	102,307	7,293,699,797	7,611,770,198	7,755,547,214	0.9815	1.0436	1.0633
2015	104,567	7,598,981,007	8,276,269,983	8,074,432,019	1.0250	1.0891	1.0626
2016	106,411	8,223,995,960	8,556,225,086	8,739,414,724	0.9790	1.0404	1.0627
2017	109,926	8,581,404,586	9,201,033,371	9,128,030,502	1.0080	1.0722	1.0637
Total	1,043,350	75,229,863,921	78,937,051,022	80,061,387,208	0.9860	1.0493	1.0642

New York City Retirement Systems

Bolton

Teachers' Retirement System of the City of New York
Merit Salary Experience of Active Members
Men and Women
4-Year Period Ending 2017

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Merit Salary EOY	(7) Actual/Expected	(8) = (4)÷(3) (9)=(6)÷(3) Increase %	
							Actual %	Expected %
0	19,743	800,049,137	879,462,690	10.00%	880,054,051	0.9926	9.93%	10.00%
1	29,652	1,604,187,111	1,735,558,912	8.00%	1,732,522,080	1.0237	8.19%	8.00%
2	24,316	1,379,215,605	1,472,907,287	6.00%	1,461,968,541	1.1322	6.79%	6.00%
3	19,537	1,143,809,337	1,209,225,046	5.00%	1,200,999,804	1.1438	5.72%	5.00%
4	16,269	973,711,836	1,034,744,884	6.00%	1,032,134,546	1.0447	6.27%	6.00%
5	15,315	950,389,073	1,019,537,789	5.00%	997,908,527	1.4552	7.28%	5.00%
6	16,629	1,076,729,204	1,164,660,349	5.00%	1,130,565,664	1.6333	8.17%	5.00%
7	18,781	1,291,604,790	1,370,528,643	4.00%	1,343,268,982	1.5276	6.11%	4.00%
8	20,108	1,485,750,426	1,536,895,499	2.00%	1,515,465,435	1.7212	3.44%	2.00%
9	20,771	1,564,088,584	1,621,548,942	5.00%	1,642,293,013	0.7347	3.67%	5.00%
10	21,873	1,698,111,020	1,778,232,171	1.00%	1,715,092,130	4.7183	4.72%	1.00%
11	20,749	1,671,759,895	1,725,495,192	1.00%	1,688,477,494	3.2143	3.21%	1.00%
12	19,285	1,591,119,721	1,641,928,613	3.00%	1,638,853,313	1.0644	3.19%	3.00%
13	18,314	1,524,746,806	1,584,923,915	1.00%	1,539,994,274	3.9467	3.95%	1.00%
14	16,058	1,329,213,635	1,379,184,440	5.00%	1,395,674,317	0.7519	3.76%	5.00%
15	14,708	1,224,010,513	1,278,046,071	1.00%	1,236,250,618	4.4146	4.41%	1.00%
16	13,543	1,155,001,856	1,187,930,608	1.00%	1,166,551,875	2.8510	2.85%	1.00%
17	11,848	1,014,741,575	1,046,761,522	2.00%	1,035,036,407	1.5777	3.16%	2.00%
18	10,482	907,344,542	937,218,425	1.00%	916,417,987	3.2925	3.29%	1.00%
19	9,167	806,305,552	838,717,704	9.00%	878,873,052	0.4466	4.02%	9.00%
20	7,852	705,165,563	745,998,324	1.00%	712,217,219	5.7905	5.79%	1.00%
21	7,256	674,521,196	698,603,275	5.00%	708,247,256	0.7140	3.57%	5.00%
22	6,974	659,266,390	689,286,742	1.00%	665,859,054	4.5536	4.55%	1.00%
23	6,659	647,638,761	663,728,369	1.00%	654,115,149	2.4843	2.48%	1.00%
24	6,317	618,847,694	633,565,691	1.00%	625,036,171	2.3783	2.38%	1.00%
25	5,341	526,870,561	538,774,751	1.00%	532,139,267	2.2594	2.26%	1.00%
26	4,764	474,651,928	485,810,538	1.00%	479,398,447	2.3509	2.35%	1.00%
27	4,211	423,286,424	433,533,334	1.00%	427,519,288	2.4208	2.42%	1.00%
28	3,794	388,401,180	397,654,368	1.00%	392,285,192	2.3824	2.38%	1.00%
29	3,233	335,979,385	343,980,683	1.00%	339,339,179	2.3815	2.38%	1.00%
30+	9,662	1,051,562,050	1,073,632,699	1.00%	1,062,077,671	2.0988	2.10%	1.00%
Total	423,211	31,698,081,350	33,148,077,476		32,746,635,999	1.3829	4.57%	3.31%

Bolton

Teachers' Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Salary Increase

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) = (4)÷(3) (9) = (6)÷(3) Increase %	
							Actual %	Proposed %
0	19,743	800,049,137	879,462,690	10.00%	880,054,051	0.9926	9.93%	10.00%
1	29,652	1,604,187,111	1,735,558,912	8.00%	1,732,522,080	1.0237	8.19%	8.00%
2	24,316	1,379,215,605	1,472,907,287	6.00%	1,461,968,541	1.1322	6.79%	6.00%
3	19,537	1,143,809,337	1,209,225,046	5.00%	1,200,999,804	1.1438	5.72%	5.00%
4	16,269	973,711,836	1,034,744,884	6.00%	1,032,134,546	1.0447	6.27%	6.00%
5	15,315	950,389,073	1,019,537,789	5.00%	997,908,527	1.4552	7.28%	5.00%
6	16,629	1,076,729,204	1,164,660,349	5.00%	1,130,565,664	1.6333	8.17%	5.00%
7	18,781	1,291,604,790	1,370,528,643	4.00%	1,343,268,982	1.5276	6.11%	4.00%
8	20,108	1,485,750,426	1,536,895,499	2.00%	1,515,465,435	1.7212	3.44%	2.00%
9	20,771	1,564,088,584	1,621,548,942	5.00%	1,642,293,013	0.7347	3.67%	5.00%
10	21,873	1,698,111,020	1,778,232,171	1.00%	1,715,092,130	4.7183	4.72%	1.00%
11	20,749	1,671,759,895	1,725,495,192	1.00%	1,688,477,494	3.2143	3.21%	1.00%
12	19,285	1,591,119,721	1,641,928,613	3.00%	1,638,853,313	1.0644	3.19%	3.00%
13	18,314	1,524,746,806	1,584,923,915	1.00%	1,539,994,274	3.9467	3.95%	1.00%
14	16,058	1,329,213,635	1,379,184,440	5.00%	1,395,674,317	0.7519	3.76%	5.00%
15	14,708	1,224,010,513	1,278,046,071	1.00%	1,236,250,618	4.4146	4.41%	1.00%
16	13,543	1,155,001,856	1,187,930,608	1.00%	1,166,551,875	2.8510	2.85%	1.00%
17	11,848	1,014,741,575	1,046,761,522	2.00%	1,035,036,407	1.5777	3.16%	2.00%
18	10,482	907,344,542	937,218,425	1.00%	916,417,987	3.2925	3.29%	1.00%
19	9,167	806,305,552	838,717,704	9.00%	878,873,052	0.4466	4.02%	9.00%
20	7,852	705,165,563	745,998,324	1.00%	712,217,219	5.7905	5.79%	1.00%
21	7,256	674,521,196	698,603,275	5.00%	708,247,256	0.7140	3.57%	5.00%
22	6,974	659,266,390	689,286,742	1.00%	665,859,054	4.5536	4.55%	1.00%
23	6,659	647,638,761	663,728,369	1.00%	654,115,149	2.4843	2.48%	1.00%
24	6,317	618,847,694	633,565,691	1.00%	625,036,171	2.3783	2.38%	1.00%
25	5,341	526,870,561	538,774,751	1.00%	532,139,267	2.2594	2.26%	1.00%
26	4,764	474,651,928	485,810,538	1.00%	479,398,447	2.3509	2.35%	1.00%
27	4,211	423,286,424	433,533,334	1.00%	427,519,288	2.4208	2.42%	1.00%
28	3,794	388,401,180	397,654,368	1.00%	392,285,192	2.3824	2.38%	1.00%
29	3,233	335,979,385	343,980,683	1.00%	339,339,179	2.3815	2.38%	1.00%
30+	9,662	1,051,562,050	1,073,632,699	1.00%	1,062,077,671	2.0988	2.10%	1.00%
Total	423,211	31,698,081,350	33,148,077,476		32,746,635,999	1.3829	4.57%	3.31%

New York City Retirement Systems

Bolton

Teachers' Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Merit Salary EOY	(7) Actual/Expected	(8) = (4)÷(3) (9)=(6)÷(3) Increase %	
							Actual %	Expected %
0	43,311	1,700,303,022	1,857,120,741	10.00%	1,870,333,324	0.9223	9.22%	10.00%
1	68,363	3,485,584,662	3,726,561,748	8.00%	3,764,431,435	0.8642	6.91%	8.00%
2	61,639	3,329,682,490	3,512,640,741	6.00%	3,529,463,439	0.9158	5.49%	6.00%
3	57,297	3,209,386,288	3,347,970,809	5.00%	3,369,855,602	0.8636	4.32%	5.00%
4	56,808	3,342,391,248	3,510,493,012	6.00%	3,542,934,723	0.8382	5.03%	6.00%
5	52,603	3,283,673,924	3,471,693,158	5.00%	3,447,857,620	1.1452	5.73%	5.00%
6	52,255	3,411,825,122	3,612,970,784	5.00%	3,582,416,378	1.1791	5.90%	5.00%
7	52,967	3,639,034,484	3,808,624,136	4.00%	3,784,595,863	1.1651	4.66%	4.00%
8	51,800	3,752,886,055	3,827,897,405	2.00%	3,827,943,776	0.9994	2.00%	2.00%
9	49,467	3,634,137,390	3,718,189,446	5.00%	3,815,844,260	0.4626	2.31%	5.00%
10	47,075	3,513,564,115	3,630,535,187	1.00%	3,548,699,756	3.3291	3.33%	1.00%
11	43,102	3,312,682,716	3,374,646,967	1.00%	3,345,809,543	1.8705	1.87%	1.00%
12	39,146	3,083,816,099	3,148,429,721	3.00%	3,176,330,582	0.6984	2.10%	3.00%
13	35,294	2,821,082,791	2,898,377,820	1.00%	2,849,293,619	2.7399	2.74%	1.00%
14	32,088	2,557,964,295	2,626,315,968	5.00%	2,685,862,510	0.5344	2.67%	5.00%
15	29,380	2,360,028,884	2,438,044,897	1.00%	2,383,629,173	3.3057	3.31%	1.00%
16	27,266	2,245,079,254	2,286,185,202	1.00%	2,267,530,047	1.8309	1.83%	1.00%
17	24,948	2,054,217,038	2,095,591,691	2.00%	2,095,301,379	1.0071	2.01%	2.00%
18	23,834	1,983,801,901	2,028,103,198	1.00%	2,003,639,920	2.2332	2.23%	1.00%
19	22,365	1,876,473,416	1,930,954,030	9.00%	2,045,356,023	0.3226	2.90%	9.00%
20	20,899	1,791,982,350	1,872,895,880	1.00%	1,809,902,174	4.5153	4.52%	1.00%
21	19,394	1,746,328,411	1,784,187,549	5.00%	1,833,644,832	0.4336	2.17%	5.00%
22	18,966	1,750,705,476	1,809,246,617	1.00%	1,768,212,531	3.3439	3.34%	1.00%
23	17,772	1,700,816,040	1,718,517,567	1.00%	1,717,824,200	1.0408	1.04%	1.00%
24	16,535	1,608,549,974	1,623,510,164	1.00%	1,624,635,474	0.9300	0.93%	1.00%
25	13,581	1,336,237,445	1,347,197,781	1.00%	1,349,599,819	0.8202	0.82%	1.00%
26	12,034	1,201,103,492	1,212,944,047	1.00%	1,213,114,527	0.9858	0.99%	1.00%
27	10,135	1,023,005,794	1,032,932,755	1.00%	1,033,235,852	0.9704	0.97%	1.00%
28	9,076	924,834,301	935,655,525	1.00%	934,082,644	1.1701	1.17%	1.00%
29	7,649	787,189,252	795,936,768	1.00%	795,061,145	1.1112	1.11%	1.00%
30+	26,301	2,761,496,192	2,786,122,304	1.00%	2,788,079,756	0.9264	0.89%	0.96%
Total	1,043,350	75,229,863,921	77,770,493,618		77,804,521,925	0.9868	3.38%	3.42%

Bolton

Teachers' Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

Proposed Assumptions are 100% of the Salary Increase

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) = (4)÷(3) (9) = (6)÷(3) Increase %	
							Actual %	Proposed %
0	43,311	1,700,303,022	1,857,120,741	10.00%	1,870,333,324	0.9223	9.22%	10.00%
1	68,363	3,485,584,662	3,726,561,748	8.00%	3,764,431,435	0.8642	6.91%	8.00%
2	61,639	3,329,682,490	3,512,640,741	6.00%	3,529,463,439	0.9158	5.49%	6.00%
3	57,297	3,209,386,288	3,347,970,809	5.00%	3,369,855,602	0.8636	4.32%	5.00%
4	56,808	3,342,391,248	3,510,493,012	6.00%	3,542,934,723	0.8382	5.03%	6.00%
5	52,603	3,283,673,924	3,471,693,158	5.00%	3,447,857,620	1.1452	5.73%	5.00%
6	52,255	3,411,825,122	3,612,970,784	5.00%	3,582,416,378	1.1791	5.90%	5.00%
7	52,967	3,639,034,484	3,808,624,136	4.00%	3,784,595,863	1.1651	4.66%	4.00%
8	51,800	3,752,886,055	3,827,897,405	2.00%	3,827,943,776	0.9994	2.00%	2.00%
9	49,467	3,634,137,390	3,718,189,446	5.00%	3,815,844,260	0.4626	2.31%	5.00%
10	47,075	3,513,564,115	3,630,535,187	1.00%	3,548,699,756	3.3291	3.33%	1.00%
11	43,102	3,312,682,716	3,374,646,967	1.00%	3,345,809,543	1.8705	1.87%	1.00%
12	39,146	3,083,816,099	3,148,429,721	3.00%	3,176,330,582	0.6984	2.10%	3.00%
13	35,294	2,821,082,791	2,898,377,820	1.00%	2,849,293,619	2.7399	2.74%	1.00%
14	32,088	2,557,964,295	2,626,315,968	5.00%	2,685,862,510	0.5344	2.67%	5.00%
15	29,380	2,360,028,884	2,438,044,897	1.00%	2,383,629,173	3.3057	3.31%	1.00%
16	27,266	2,245,079,254	2,286,185,202	1.00%	2,267,530,047	1.8309	1.83%	1.00%
17	24,948	2,054,217,038	2,095,591,691	2.00%	2,095,301,379	1.0071	2.01%	2.00%
18	23,834	1,983,801,901	2,028,103,198	1.00%	2,003,639,920	2.2332	2.23%	1.00%
19	22,365	1,876,473,416	1,930,954,030	9.00%	2,045,356,023	0.3226	2.90%	9.00%
20	20,899	1,791,982,350	1,872,895,880	1.00%	1,809,902,174	4.5153	4.52%	1.00%
21	19,394	1,746,328,411	1,784,187,549	5.00%	1,833,644,832	0.4336	2.17%	5.00%
22	18,966	1,750,705,476	1,809,246,617	1.00%	1,768,212,531	3.3439	3.34%	1.00%
23	17,772	1,700,816,040	1,718,517,567	1.00%	1,717,824,200	1.0408	1.04%	1.00%
24	16,535	1,608,549,974	1,623,510,164	1.00%	1,624,635,474	0.9300	0.93%	1.00%
25	13,581	1,336,237,445	1,347,197,781	1.00%	1,349,599,819	0.8202	0.82%	1.00%
26	12,034	1,201,103,492	1,212,944,047	1.00%	1,213,114,527	0.9858	0.99%	1.00%
27	10,135	1,023,005,794	1,032,932,755	1.00%	1,033,235,852	0.9704	0.97%	1.00%
28	9,076	924,834,301	935,655,525	1.00%	934,082,644	1.1701	1.17%	1.00%
29	7,649	787,189,252	795,936,768	1.00%	795,061,145	1.1112	1.11%	1.00%
30+	26,301	2,761,496,192	2,786,122,304	1.00%	2,789,111,154	0.8918	0.89%	1.00%
Total	1,043,350	75,229,863,921	77,770,493,618		77,805,553,323	0.9864	3.38%	3.42%

BERS

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Board of Education Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	0	N/A	0.00	0.00	N/A	N/A
49	0	1	0.0000	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.00	0.00	N/A	N/A
51	0	6	0.0000	0.00	0.00	N/A	N/A
52	0	7	0.0000	0.00	0.00	N/A	N/A
53	0	8	0.0000	0.00	0.00	N/A	N/A
54	0	14	0.0000	0.00	0.00	N/A	N/A
55	0	21	0.0000	0.20	0.20	0.0000	0.0000
56	1	39	0.0256	0.40	0.40	2.5000	2.5000
57	1	61	0.0164	0.60	0.60	1.6667	1.6667
58	2	88	0.0227	0.90	0.90	2.2222	2.2222
59	4	120	0.0333	1.10	1.10	3.6364	3.6364
60	0	130	0.0000	1.30	1.30	0.0000	0.0000
61	2	159	0.0126	1.70	1.70	1.1765	1.1765
62	1	215	0.0047	2.50	2.50	0.4000	0.4000
63	1	330	0.0030	3.80	3.80	0.2632	0.2632
64	1	400	0.0025	4.80	4.80	0.2083	0.2083
65	3	425	0.0071	5.40	5.40	0.5556	0.5556
66	8	468	0.0171	6.40	6.40	1.2500	1.2500
67	5	479	0.0104	7.00	7.00	0.7143	0.7143
68	3	466	0.0064	7.40	7.40	0.4054	0.4054
69	5	461	0.0108	7.90	7.90	0.6329	0.6329
70	4	455	0.0088	8.30	8.30	0.4819	0.4819
71	4	453	0.0088	8.80	8.80	0.4545	0.4545
72	3	464	0.0065	9.70	9.70	0.3093	0.3093
73	7	439	0.0159	9.80	9.80	0.7143	0.7143
74	7	408	0.0172	9.70	9.70	0.7216	0.7216
75	3	387	0.0078	9.70	9.70	0.3093	0.3093
76	11	371	0.0296	10.70	10.70	1.0280	1.0280
77	6	366	0.0164	11.90	11.90	0.5042	0.5042
78	14	378	0.0370	13.60	13.60	1.0294	1.0294
79	6	360	0.0167	14.30	14.30	0.4196	0.4196
80	5	328	0.0152	14.30	14.30	0.3497	0.3497
81	12	306	0.0392	14.90	14.90	0.8054	0.8054
82	10	289	0.0346	15.60	15.60	0.6410	0.6410
83	6	286	0.0210	17.20	17.20	0.3488	0.3488
84	11	270	0.0407	17.70	17.70	0.6215	0.6215
85	19	265	0.0717	18.90	18.90	1.0053	1.0053
86	11	230	0.0478	18.30	18.30	0.6011	0.6011
87	12	203	0.0591	17.70	17.70	0.6780	0.6780
88	12	178	0.0674	16.90	16.90	0.7101	0.7101
89	15	155	0.0968	16.00	16.00	0.9375	0.9375
90	9	140	0.0643	15.60	15.60	0.5769	0.5769
91	7	106	0.0660	13.60	13.60	0.5147	0.5147
92	5	89	0.0562	12.90	12.90	0.3876	0.3876
93	8	77	0.1039	12.40	12.40	0.6452	0.6452
94	11	46	0.2391	8.30	8.30	1.3253	1.3253
95	3	33	0.0909	6.60	6.60	0.4545	0.4545
96	3	18	0.1667	3.90	3.90	0.7692	0.7692
97	3	16	0.1875	3.90	3.90	0.7692	0.7692
98	2	12	0.1667	3.10	3.10	0.6452	0.6452
99	1	7	0.1429	2.00	2.00	0.5000	0.5000
100+	3	7	0.4286	2.20	2.20	1.3636	1.3636
Total	270	11,041	0.0245	409.90	409.90	0.6587	0.6587

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Board of Education Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Women 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	1	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	1	0.0000	0.00	0.00	N/A	N/A
49	0	2	0.0000	0.00	0.00	N/A	N/A
50	0	2	0.0000	0.00	0.00	N/A	N/A
51	0	4	0.0000	0.00	0.00	N/A	N/A
52	0	3	0.0000	0.00	0.00	N/A	N/A
53	0	3	0.0000	0.00	0.00	N/A	N/A
54	0	3	0.0000	0.00	0.00	N/A	N/A
55	0	21	0.0000	0.00	0.00	N/A	N/A
56	0	68	0.0000	0.20	0.20	0.0000	0.0000
57	0	165	0.0000	0.60	0.60	0.0000	0.0000
58	2	316	0.0063	1.40	1.40	1.4286	1.4286
59	2	397	0.0050	1.80	1.80	1.1111	1.1111
60	3	487	0.0062	2.40	2.40	1.2500	1.2500
61	2	560	0.0036	3.00	3.00	0.6667	0.6667
62	4	819	0.0049	4.50	4.50	0.8889	0.8889
63	8	1,244	0.0064	7.20	7.20	1.1111	1.1111
64	9	1,426	0.0063	8.50	8.50	1.0588	1.0588
65	6	1,592	0.0038	10.10	10.10	0.5941	0.5941
66	16	1,853	0.0086	13.10	13.10	1.2214	1.2214
67	16	2,027	0.0079	15.90	15.90	1.0063	1.0063
68	21	2,081	0.0101	18.30	18.30	1.1475	1.1475
69	4	2,120	0.0019	20.20	20.20	0.1980	0.1980
70	15	2,065	0.0073	21.40	21.40	0.7009	0.7009
71	15	2,020	0.0074	23.60	23.60	0.6356	0.6356
72	23	1,986	0.0116	25.90	25.90	0.8880	0.8880
73	19	1,919	0.0099	27.60	27.60	0.6884	0.6884
74	15	1,805	0.0083	28.40	28.40	0.5282	0.5282
75	19	1,682	0.0113	28.90	28.90	0.6574	0.6574
76	19	1,603	0.0119	31.30	31.30	0.6070	0.6070
77	30	1,547	0.0194	33.90	33.90	0.8850	0.8850
78	15	1,427	0.0105	34.60	34.60	0.4335	0.4335
79	25	1,376	0.0182	36.70	36.70	0.6812	0.6812
80	29	1,245	0.0233	36.30	36.30	0.7989	0.7989
81	28	1,182	0.0237	38.90	38.90	0.7198	0.7198
82	28	1,182	0.0237	43.40	43.40	0.6452	0.6452
83	33	1,158	0.0285	47.20	47.20	0.6992	0.6992
84	37	1,148	0.0322	51.50	51.50	0.7184	0.7184
85	42	1,094	0.0384	53.80	53.80	0.7807	0.7807
86	46	1,036	0.0444	58.00	58.00	0.7931	0.7931
87	56	967	0.0579	60.90	60.90	0.9195	0.9195
88	38	920	0.0413	64.40	64.40	0.5901	0.5901
89	54	813	0.0664	62.60	62.60	0.8626	0.8626
90	50	683	0.0732	57.30	57.30	0.8726	0.8726
91	46	587	0.0784	57.00	57.00	0.8070	0.8070
92	42	491	0.0855	54.10	54.10	0.7763	0.7763
93	48	416	0.1154	51.50	51.50	0.9320	0.9320
94	32	339	0.0944	46.60	46.60	0.6867	0.6867
95	42	259	0.1622	39.30	39.30	1.0687	1.0687
96	28	173	0.1618	29.30	29.30	0.9556	0.9556
97	21	124	0.1694	22.90	22.90	0.9170	0.9170
98	12	77	0.1558	15.30	15.30	0.7843	0.7843
99	15	59	0.2542	12.30	12.30	1.2195	1.2195
100+	19	67	0.2836	14.90	14.90	1.2752	1.2752
Total	1,034	46,645	0.0222	1,317.00	1,317.00	0.7851	0.7851



Board of Education Retirement System of the City of New York
 Service Retirees' Mortality Assumption and Experience
 Mortality By Lives - Men and Women
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	1	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	1	0.0000	0.00	0.00	N/A	N/A
49	0	3	0.0000	0.00	0.00	N/A	N/A
50	0	3	0.0000	0.00	0.00	N/A	N/A
51	0	10	0.0000	0.00	0.00	N/A	N/A
52	0	10	0.0000	0.00	0.00	N/A	N/A
53	0	11	0.0000	0.00	0.00	N/A	N/A
54	0	17	0.0000	0.00	0.00	N/A	N/A
55	0	42	0.0000	0.20	0.20	0.0000	0.0000
56	1	107	0.0093	0.60	0.60	1.6667	1.6667
57	1	226	0.0044	1.20	1.20	0.8333	0.8333
58	4	404	0.0099	2.30	2.30	1.7391	1.7391
59	6	517	0.0116	2.90	2.90	2.0690	2.0690
60	3	617	0.0049	3.70	3.70	0.8108	0.8108
61	4	719	0.0056	4.70	4.70	0.8511	0.8511
62	5	1,034	0.0048	7.00	7.00	0.7143	0.7143
63	9	1,574	0.0057	11.00	11.00	0.8182	0.8182
64	10	1,826	0.0055	13.30	13.30	0.7519	0.7519
65	9	2,017	0.0045	15.50	15.50	0.5806	0.5806
66	24	2,321	0.0103	19.50	19.50	1.2308	1.2308
67	21	2,506	0.0084	22.90	22.90	0.9170	0.9170
68	24	2,547	0.0094	25.70	25.70	0.9339	0.9339
69	9	2,581	0.0035	28.10	28.10	0.3203	0.3203
70	19	2,520	0.0075	29.70	29.70	0.6397	0.6397
71	19	2,473	0.0077	32.40	32.40	0.5864	0.5864
72	26	2,450	0.0106	35.60	35.60	0.7303	0.7303
73	26	2,358	0.0110	37.40	37.40	0.6952	0.6952
74	22	2,213	0.0099	38.10	38.10	0.5774	0.5774
75	22	2,069	0.0106	38.60	38.60	0.5699	0.5699
76	30	1,974	0.0152	42.00	42.00	0.7143	0.7143
77	36	1,913	0.0188	45.80	45.80	0.7860	0.7860
78	29	1,805	0.0161	48.20	48.20	0.6017	0.6017
79	31	1,736	0.0179	51.00	51.00	0.6078	0.6078
80	34	1,573	0.0216	50.60	50.60	0.6719	0.6719
81	40	1,488	0.0269	53.80	53.80	0.7435	0.7435
82	38	1,471	0.0258	59.00	59.00	0.6441	0.6441
83	39	1,444	0.0270	64.40	64.40	0.6056	0.6056
84	48	1,418	0.0339	69.20	69.20	0.6936	0.6936
85	61	1,359	0.0449	72.70	72.70	0.8391	0.8391
86	57	1,266	0.0450	76.30	76.30	0.7471	0.7471
87	68	1,170	0.0581	78.60	78.60	0.8651	0.8651
88	50	1,098	0.0455	81.30	81.30	0.6150	0.6150
89	69	968	0.0713	78.60	78.60	0.8779	0.8779
90	59	823	0.0717	72.90	72.90	0.8093	0.8093
91	53	693	0.0765	70.60	70.60	0.7507	0.7507
92	47	580	0.0810	67.00	67.00	0.7015	0.7015
93	56	493	0.1136	63.90	63.90	0.8764	0.8764
94	43	385	0.1117	54.90	54.90	0.7832	0.7832
95	45	292	0.1541	45.90	45.90	0.9804	0.9804
96	31	191	0.1623	33.20	33.20	0.9337	0.9337
97	24	140	0.1714	26.80	26.80	0.8955	0.8955
98	14	89	0.1573	18.40	18.40	0.7609	0.7609
99	16	66	0.2424	14.30	14.30	1.1189	1.1189
100+	22	74	0.2973	17.10	17.10	1.2865	1.2865
Total	1,304	57,686	0.0226	1,726.90	1,726.90	0.7551	0.7551

Bolton		Board of Education Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality by Pension Amount - Men 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount Current Assumption	Proposed Assumption	Actual/Expected		
						Current	Proposed	
41	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
42	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
45	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
46	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
47	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
48	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
49	\$ -	\$ 29,037	0.0000	\$ 146	\$ 146	0.0000	0.0000	
50	\$ -	\$ 29,037	0.0000	\$ 158	\$ 158	0.0000	0.0000	
51	\$ -	\$ 264,815	0.0000	\$ 1,599	\$ 1,599	0.0000	0.0000	
52	\$ -	\$ 346,985	0.0000	\$ 2,334	\$ 2,334	0.0000	0.0000	
53	\$ -	\$ 386,028	0.0000	\$ 2,820	\$ 2,820	0.0000	0.0000	
54	\$ -	\$ 540,536	0.0000	\$ 4,324	\$ 4,324	0.0000	0.0000	
55	\$ -	\$ 696,633	0.0000	\$ 5,919	\$ 5,919	0.0000	0.0000	
56	\$ 22,607	\$ 1,269,197	0.0178	\$ 11,479	\$ 11,479	1.9694	1.9694	
57	\$ 64,881	\$ 2,031,946	0.0319	\$ 19,232	\$ 19,232	3.3736	3.3736	
58	\$ 40,869	\$ 2,511,664	0.0163	\$ 24,576	\$ 24,576	1.6630	1.6630	
59	\$ 85,860	\$ 3,338,131	0.0257	\$ 33,293	\$ 33,293	2.5790	2.5790	
60	\$ -	\$ 3,641,892	0.0000	\$ 36,780	\$ 36,780	0.0000	0.0000	
61	\$ 6,406	\$ 4,600,722	0.0014	\$ 49,637	\$ 49,637	0.1291	0.1291	
62	\$ 45,569	\$ 6,378,397	0.0071	\$ 72,466	\$ 72,466	0.6288	0.6288	
63	\$ 16,657	\$ 10,213,861	0.0016	\$ 120,879	\$ 120,879	0.1378	0.1378	
64	\$ 29,716	\$ 12,631,881	0.0024	\$ 154,555	\$ 154,555	0.1923	0.1923	
65	\$ 46,210	\$ 12,929,197	0.0036	\$ 162,915	\$ 162,915	0.2836	0.2836	
66	\$ 288,496	\$ 13,918,992	0.0207	\$ 189,441	\$ 189,441	1.5229	1.5229	
67	\$ 192,581	\$ 13,875,113	0.0139	\$ 203,610	\$ 203,610	0.9458	0.9458	
68	\$ 56,408	\$ 13,431,871	0.0042	\$ 211,854	\$ 211,854	0.2663	0.2663	
69	\$ 96,266	\$ 12,989,854	0.0074	\$ 220,067	\$ 220,067	0.4374	0.4374	
70	\$ 60,771	\$ 12,735,761	0.0048	\$ 231,480	\$ 231,480	0.2625	0.2625	
71	\$ 173,493	\$ 12,223,425	0.0142	\$ 238,673	\$ 238,673	0.7269	0.7269	
72	\$ 68,090	\$ 12,822,222	0.0053	\$ 267,878	\$ 267,878	0.2542	0.2542	
73	\$ 193,603	\$ 12,459,644	0.0155	\$ 277,454	\$ 277,454	0.6978	0.6978	
74	\$ 222,623	\$ 11,830,973	0.0188	\$ 280,144	\$ 280,144	0.7947	0.7947	
75	\$ 82,637	\$ 11,070,714	0.0075	\$ 277,944	\$ 277,944	0.2973	0.2973	
76	\$ 255,673	\$ 10,649,611	0.0240	\$ 305,907	\$ 305,907	0.8358	0.8358	
77	\$ 90,754	\$ 10,269,668	0.0088	\$ 332,503	\$ 332,503	0.2729	0.2729	
78	\$ 258,903	\$ 10,083,314	0.0257	\$ 363,652	\$ 363,652	0.7120	0.7120	
79	\$ 120,660	\$ 9,365,160	0.0129	\$ 372,018	\$ 372,018	0.3243	0.3243	
80	\$ 170,330	\$ 8,549,260	0.0199	\$ 371,623	\$ 371,623	0.4583	0.4583	
81	\$ 304,512	\$ 7,615,803	0.0400	\$ 370,639	\$ 370,639	0.8216	0.8216	
82	\$ 208,678	\$ 7,186,235	0.0290	\$ 390,116	\$ 390,116	0.5349	0.5349	
83	\$ 158,778	\$ 6,885,491	0.0231	\$ 411,975	\$ 411,975	0.3854	0.3854	
84	\$ 231,499	\$ 6,564,633	0.0353	\$ 430,555	\$ 430,555	0.5377	0.5377	
85	\$ 398,189	\$ 6,583,537	0.0605	\$ 470,157	\$ 470,157	0.8469	0.8469	
86	\$ 263,664	\$ 5,810,077	0.0454	\$ 461,157	\$ 461,157	0.5717	0.5717	
87	\$ 298,581	\$ 5,176,151	0.0577	\$ 451,918	\$ 451,918	0.6607	0.6607	
88	\$ 215,553	\$ 4,496,028	0.0479	\$ 428,178	\$ 428,178	0.5034	0.5034	
89	\$ 458,635	\$ 3,924,315	0.1169	\$ 405,144	\$ 405,144	1.1320	1.1320	
90	\$ 215,932	\$ 3,356,123	0.0643	\$ 374,702	\$ 374,702	0.5763	0.5763	
91	\$ 187,848	\$ 2,639,080	0.0712	\$ 337,782	\$ 337,782	0.5561	0.5561	
92	\$ 96,557	\$ 2,114,590	0.0457	\$ 306,234	\$ 306,234	0.3153	0.3153	
93	\$ 290,355	\$ 1,861,270	0.1560	\$ 301,451	\$ 301,451	0.9632	0.9632	
94	\$ 362,045	\$ 999,776	0.3621	\$ 180,064	\$ 180,064	2.0107	2.0107	
95	\$ 49,244	\$ 604,984	0.0814	\$ 121,288	\$ 121,288	0.4060	0.4060	
96	\$ 60,234	\$ 343,015	0.1756	\$ 75,125	\$ 75,125	0.8018	0.8018	
97	\$ 47,883	\$ 264,831	0.1808	\$ 64,977	\$ 64,977	0.7369	0.7369	
98	\$ 41,979	\$ 220,466	0.1904	\$ 58,812	\$ 58,812	0.7138	0.7138	
99	\$ 3,046	\$ 138,317	0.0220	\$ 39,499	\$ 39,499	0.0771	0.0771	
100+	\$ 61,824	\$ 161,460	0.3829	\$ 50,513	\$ 50,513	1.2239	1.2239	
Total	\$ 6,645,099	\$ 305,061,723	0.0218	\$ 10,577,641	\$ 10,577,641	0.6282	0.6282	

*The qx are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on BERS experience and the MP2015 mortality improvement table was used to project the qx from 2004 to the exposure year.

Bolton

Board of Education Retirement System of the City of New York
 Service Retirees' Mortality Assumption and Experience
 Mortality By Pension Amount - Women
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
42	\$ -	\$ 2,522	0.0000	\$ 2	\$ 2	0.0000	0.0000
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
45	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
46	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
47	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
48	\$ -	\$ 25,226	0.0000	\$ 38	\$ 38	0.0000	0.0000
49	\$ -	\$ 34,377	0.0000	\$ 62	\$ 62	0.0000	0.0000
50	\$ -	\$ 34,376	0.0000	\$ 70	\$ 70	0.0000	0.0000
51	\$ -	\$ 123,582	0.0000	\$ 288	\$ 288	0.0000	0.0000
52	\$ -	\$ 103,873	0.0000	\$ 268	\$ 268	0.0000	0.0000
53	\$ -	\$ 95,207	0.0000	\$ 269	\$ 269	0.0000	0.0000
54	\$ -	\$ 137,118	0.0000	\$ 420	\$ 420	0.0000	0.0000
55	\$ -	\$ 353,268	0.0000	\$ 1,173	\$ 1,173	0.0000	0.0000
56	\$ -	\$ 888,933	0.0000	\$ 3,271	\$ 3,271	0.0000	0.0000
57	\$ -	\$ 1,712,374	0.0000	\$ 6,871	\$ 6,871	0.0000	0.0000
58	\$ 6,742	\$ 3,303,911	0.0020	\$ 14,288	\$ 14,288	0.4719	0.4719
59	\$ 19,544	\$ 4,199,601	0.0047	\$ 19,365	\$ 19,365	1.0092	1.0092
60	\$ 40,745	\$ 5,309,578	0.0077	\$ 25,898	\$ 25,898	1.5733	1.5733
61	\$ 58,032	\$ 6,440,794	0.0090	\$ 33,705	\$ 33,705	1.7218	1.7218
62	\$ 79,585	\$ 9,386,720	0.0085	\$ 51,650	\$ 51,650	1.5409	1.5409
63	\$ 144,700	\$ 14,930,188	0.0097	\$ 86,014	\$ 86,014	1.6823	1.6823
64	\$ 102,079	\$ 16,252,089	0.0063	\$ 98,346	\$ 98,346	1.0380	1.0380
65	\$ 44,081	\$ 17,211,626	0.0026	\$ 109,930	\$ 109,930	0.4010	0.4010
66	\$ 164,301	\$ 19,586,668	0.0084	\$ 138,376	\$ 138,376	1.1873	1.1873
67	\$ 150,450	\$ 21,799,153	0.0069	\$ 171,614	\$ 171,614	0.8767	0.8767
68	\$ 206,222	\$ 22,364,708	0.0092	\$ 195,868	\$ 195,868	1.0529	1.0529
69	\$ 34,111	\$ 23,351,535	0.0015	\$ 222,396	\$ 222,396	0.1534	0.1534
70	\$ 156,437	\$ 22,184,365	0.0071	\$ 228,888	\$ 228,888	0.6835	0.6835
71	\$ 174,225	\$ 20,768,452	0.0084	\$ 242,135	\$ 242,135	0.7195	0.7195
72	\$ 197,492	\$ 20,253,122	0.0098	\$ 263,318	\$ 263,318	0.7500	0.7500
73	\$ 167,770	\$ 19,092,634	0.0088	\$ 274,116	\$ 274,116	0.6120	0.6120
74	\$ 140,274	\$ 17,648,749	0.0079	\$ 277,659	\$ 277,659	0.5052	0.5052
75	\$ 207,800	\$ 15,824,966	0.0131	\$ 271,291	\$ 271,291	0.7660	0.7660
76	\$ 215,191	\$ 14,427,310	0.0149	\$ 281,445	\$ 281,445	0.7646	0.7646
77	\$ 324,023	\$ 13,097,457	0.0247	\$ 286,548	\$ 286,548	1.1308	1.1308
78	\$ 116,648	\$ 12,074,386	0.0097	\$ 292,673	\$ 292,673	0.3986	0.3986
79	\$ 181,748	\$ 11,447,569	0.0159	\$ 305,021	\$ 305,021	0.5959	0.5959
80	\$ 199,095	\$ 10,481,916	0.0190	\$ 304,618	\$ 304,618	0.6536	0.6536
81	\$ 230,270	\$ 10,068,875	0.0229	\$ 331,248	\$ 331,248	0.6952	0.6952
82	\$ 217,469	\$ 10,159,785	0.0214	\$ 374,146	\$ 374,146	0.5812	0.5812
83	\$ 226,510	\$ 9,778,752	0.0232	\$ 398,999	\$ 398,999	0.5677	0.5677
84	\$ 253,847	\$ 9,240,839	0.0275	\$ 414,394	\$ 414,394	0.6126	0.6126
85	\$ 355,146	\$ 8,716,156	0.0407	\$ 427,233	\$ 427,233	0.8313	0.8313
86	\$ 326,606	\$ 8,094,913	0.0403	\$ 453,576	\$ 453,576	0.7201	0.7201
87	\$ 433,676	\$ 7,559,783	0.0574	\$ 476,124	\$ 476,124	0.9108	0.9108
88	\$ 253,443	\$ 7,373,868	0.0344	\$ 515,998	\$ 515,998	0.4912	0.4912
89	\$ 368,593	\$ 6,404,173	0.0576	\$ 492,737	\$ 492,737	0.7481	0.7481
90	\$ 350,122	\$ 5,370,164	0.0652	\$ 450,896	\$ 450,896	0.7765	0.7765
91	\$ 353,616	\$ 4,698,682	0.0753	\$ 455,414	\$ 455,414	0.7765	0.7765
92	\$ 361,028	\$ 3,729,715	0.0968	\$ 410,760	\$ 410,760	0.8789	0.8789
93	\$ 311,398	\$ 3,209,997	0.0970	\$ 397,406	\$ 397,406	0.7836	0.7836
94	\$ 223,028	\$ 2,707,914	0.0824	\$ 371,984	\$ 371,984	0.5996	0.5996
95	\$ 315,743	\$ 1,976,103	0.1598	\$ 299,697	\$ 299,697	1.0535	1.0535
96	\$ 250,739	\$ 1,406,235	0.1783	\$ 238,093	\$ 238,093	1.0531	1.0531
97	\$ 131,995	\$ 943,826	0.1399	\$ 174,961	\$ 174,961	0.7544	0.7544
98	\$ 72,545	\$ 596,892	0.1215	\$ 118,661	\$ 118,661	0.6114	0.6114
99	\$ 79,067	\$ 424,290	0.1864	\$ 88,398	\$ 88,398	0.8944	0.8944
100+	\$ 129,586	\$ 475,604	0.2725	\$ 106,053	\$ 106,053	1.2219	1.2219
Total	\$ 8,375,722	\$ 447,884,919	0.0187	\$ 11,204,669	\$ 11,204,669	0.7475	0.7475

*The qx are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on BERS experience and the MP2015 mortality improvement table was used to project the qx from 2004 to the exposure year.

Bolton

**Board of Education Retirement System of the City of New York
Service Retirees' Mortality Assumption and Experience
Mortality by Pension Amount - Men and Women
4-Year Period Ending 2017**

Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women

(1) Age	(2) Pension Amount of Actual Deaths	(3) Total Pension Amounts	(4) = (2)÷(3) Actual Rate	(5) Expected Reduction in Pension Amount		(7) = (2)÷(5) Current	(8) = (2)÷(6) Actual/Expected
				(6) Proposed Assumption			
				Current Assumption	Proposed Assumption		
41	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
42	\$ -	\$ 2,522	0.0000	\$ 2	\$ 2	0.0000	0.0000
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
45	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
46	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
47	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A
48	\$ -	\$ 25,226	0.0000	\$ 38	\$ 38	0.0000	0.0000
49	\$ -	\$ 63,414	0.0000	\$ 208	\$ 208	0.0000	0.0000
50	\$ -	\$ 63,413	0.0000	\$ 228	\$ 228	0.0000	0.0000
51	\$ -	\$ 388,397	0.0000	\$ 1,886	\$ 1,886	0.0000	0.0000
52	\$ -	\$ 450,858	0.0000	\$ 2,602	\$ 2,602	0.0000	0.0000
53	\$ -	\$ 481,235	0.0000	\$ 3,089	\$ 3,089	0.0000	0.0000
54	\$ -	\$ 677,654	0.0000	\$ 4,744	\$ 4,744	0.0000	0.0000
55	\$ -	\$ 1,049,901	0.0000	\$ 7,092	\$ 7,092	0.0000	0.0000
56	\$ 22,607	\$ 2,158,130	0.0105	\$ 14,750	\$ 14,750	1.5327	1.5327
57	\$ 64,881	\$ 3,744,320	0.0173	\$ 26,103	\$ 26,103	2.4856	2.4856
58	\$ 47,611	\$ 5,815,575	0.0082	\$ 38,863	\$ 38,863	1.2251	1.2251
59	\$ 105,404	\$ 7,537,732	0.0140	\$ 52,658	\$ 52,658	2.0017	2.0017
60	\$ 40,745	\$ 8,951,470	0.0046	\$ 62,678	\$ 62,678	0.6501	0.6501
61	\$ 64,438	\$ 11,041,516	0.0058	\$ 83,341	\$ 83,341	0.7732	0.7732
62	\$ 125,154	\$ 15,765,117	0.0079	\$ 124,116	\$ 124,116	1.0084	1.0084
63	\$ 161,357	\$ 25,144,049	0.0064	\$ 206,893	\$ 206,893	0.7799	0.7799
64	\$ 131,795	\$ 28,883,970	0.0046	\$ 252,901	\$ 252,901	0.5211	0.5211
65	\$ 90,291	\$ 30,140,823	0.0030	\$ 272,845	\$ 272,845	0.3309	0.3309
66	\$ 452,797	\$ 33,505,660	0.0135	\$ 327,818	\$ 327,818	1.3812	1.3812
67	\$ 343,031	\$ 35,674,266	0.0096	\$ 375,225	\$ 375,225	0.9142	0.9142
68	\$ 262,630	\$ 35,796,579	0.0073	\$ 407,722	\$ 407,722	0.6441	0.6441
69	\$ 130,377	\$ 36,341,389	0.0036	\$ 442,462	\$ 442,462	0.2947	0.2947
70	\$ 217,208	\$ 34,920,126	0.0062	\$ 460,368	\$ 460,368	0.4718	0.4718
71	\$ 347,718	\$ 32,991,877	0.0105	\$ 480,809	\$ 480,809	0.7232	0.7232
72	\$ 265,582	\$ 33,075,344	0.0080	\$ 531,196	\$ 531,196	0.5000	0.5000
73	\$ 361,373	\$ 31,552,278	0.0115	\$ 551,570	\$ 551,570	0.6552	0.6552
74	\$ 362,897	\$ 29,479,722	0.0123	\$ 557,802	\$ 557,802	0.6506	0.6506
75	\$ 290,437	\$ 26,895,680	0.0108	\$ 549,235	\$ 549,235	0.5288	0.5288
76	\$ 470,864	\$ 25,076,921	0.0188	\$ 587,352	\$ 587,352	0.8017	0.8017
77	\$ 414,777	\$ 23,367,125	0.0178	\$ 619,051	\$ 619,051	0.6700	0.6700
78	\$ 375,551	\$ 22,157,700	0.0169	\$ 656,325	\$ 656,325	0.5722	0.5722
79	\$ 302,408	\$ 20,812,729	0.0145	\$ 677,039	\$ 677,039	0.4467	0.4467
80	\$ 369,425	\$ 19,031,176	0.0194	\$ 676,241	\$ 676,241	0.5463	0.5463
81	\$ 534,782	\$ 17,684,678	0.0302	\$ 701,886	\$ 701,886	0.7619	0.7619
82	\$ 426,147	\$ 17,346,020	0.0246	\$ 764,262	\$ 764,262	0.5576	0.5576
83	\$ 385,288	\$ 16,664,243	0.0231	\$ 810,974	\$ 810,974	0.4751	0.4751
84	\$ 485,346	\$ 15,805,472	0.0307	\$ 844,949	\$ 844,949	0.5744	0.5744
85	\$ 753,335	\$ 15,299,693	0.0492	\$ 897,389	\$ 897,389	0.8395	0.8395
86	\$ 590,270	\$ 13,904,990	0.0425	\$ 914,733	\$ 914,733	0.6453	0.6453
87	\$ 732,257	\$ 12,735,934	0.0575	\$ 928,041	\$ 928,041	0.7890	0.7890
88	\$ 468,996	\$ 11,869,896	0.0395	\$ 944,176	\$ 944,176	0.4967	0.4967
89	\$ 827,228	\$ 10,328,488	0.0801	\$ 897,882	\$ 897,882	0.9213	0.9213
90	\$ 566,054	\$ 8,726,287	0.0649	\$ 825,598	\$ 825,598	0.6856	0.6856
91	\$ 541,464	\$ 7,337,762	0.0738	\$ 793,196	\$ 793,196	0.6826	0.6826
92	\$ 457,585	\$ 5,844,305	0.0783	\$ 716,994	\$ 716,994	0.6382	0.6382
93	\$ 601,753	\$ 5,071,267	0.1187	\$ 698,856	\$ 698,856	0.8611	0.8611
94	\$ 585,073	\$ 3,707,690	0.1578	\$ 552,048	\$ 552,048	1.0598	1.0598
95	\$ 364,987	\$ 2,581,087	0.1414	\$ 420,985	\$ 420,985	0.8670	0.8670
96	\$ 310,973	\$ 1,749,250	0.1778	\$ 313,219	\$ 313,219	0.9928	0.9928
97	\$ 179,878	\$ 1,208,657	0.1488	\$ 239,938	\$ 239,938	0.7497	0.7497
98	\$ 114,524	\$ 817,358	0.1401	\$ 177,472	\$ 177,472	0.6453	0.6453
99	\$ 82,113	\$ 562,607	0.1460	\$ 127,897	\$ 127,897	0.6420	0.6420
100+	\$ 191,410	\$ 637,064	0.3005	\$ 156,567	\$ 156,567	1.2225	1.2225
Total	\$ 15,020,821	\$ 752,946,642	0.0199	\$ 21,782,310	\$ 21,782,310	0.6896	0.6896

*The qx are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on BERS experience and the MP2015 mortality improvement table was used to project the qx from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: center;"> Board of Education Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	2	0.0000	0.00	0.00	N/A	N/A
49	0	2	0.0000	0.00	0.00	N/A	N/A
50	0	2	0.0000	0.00	0.00	N/A	N/A
51	0	10	0.0000	0.00	0.00	N/A	N/A
52	0	14	0.0000	0.00	0.00	N/A	N/A
53	0	15	0.0000	0.00	0.00	N/A	N/A
54	0	21	0.0000	0.00	0.00	N/A	N/A
55	0	36	0.0000	0.20	0.20	0.0000	0.0000
56	1	97	0.0103	1.00	1.00	1.0000	1.0000
57	1	151	0.0066	1.40	1.40	0.7143	0.7143
58	3	241	0.0124	2.50	2.50	1.2000	1.2000
59	4	304	0.0132	3.10	3.10	1.2903	1.2903
60	2	343	0.0058	3.40	3.40	0.5882	0.5882
61	6	409	0.0147	4.50	4.50	1.3333	1.3333
62	3	541	0.0055	6.30	6.30	0.4762	0.4762
63	3	749	0.0040	8.90	8.90	0.3371	0.3371
64	5	880	0.0057	11.00	11.00	0.4545	0.4545
65	11	927	0.0119	12.10	12.10	0.9091	0.9091
66	15	1,001	0.0150	14.20	14.20	1.0563	1.0563
67	9	1,048	0.0086	16.10	16.10	0.5590	0.5590
68	10	1,065	0.0094	17.60	17.60	0.5682	0.5682
69	13	1,040	0.0125	18.50	18.50	0.7027	0.7027
70	7	1,034	0.0068	19.70	19.70	0.3553	0.3553
71	14	1,033	0.0136	21.20	21.20	0.6604	0.6604
72	11	1,036	0.0106	22.90	22.90	0.4803	0.4803
73	11	1,013	0.0109	23.80	23.80	0.4622	0.4622
74	21	972	0.0216	24.30	24.30	0.8642	0.8642
75	13	937	0.0139	24.70	24.70	0.5263	0.5263
76	25	925	0.0270	28.10	28.10	0.8897	0.8897
77	19	902	0.0211	30.90	30.90	0.6149	0.6149
78	22	883	0.0249	33.40	33.40	0.6587	0.6587
79	20	864	0.0231	36.20	36.20	0.5525	0.5525
80	16	822	0.0195	37.70	37.70	0.4244	0.4244
81	27	777	0.0347	39.80	39.80	0.6784	0.6784
82	19	721	0.0264	41.00	41.00	0.4634	0.4634
83	26	676	0.0385	42.40	42.40	0.6132	0.6132
84	26	640	0.0406	44.10	44.10	0.5896	0.5896
85	32	582	0.0550	43.40	43.40	0.7373	0.7373
86	23	508	0.0453	42.20	42.20	0.5450	0.5450
87	27	448	0.0603	40.60	40.60	0.6650	0.6650
88	25	382	0.0654	37.70	37.70	0.6631	0.6631
89	28	313	0.0895	33.60	33.60	0.8333	0.8333
90	14	255	0.0549	29.40	29.40	0.4762	0.4762
91	13	207	0.0628	27.60	27.60	0.4710	0.4710
92	10	164	0.0610	24.50	24.50	0.4082	0.4082
93	15	133	0.1128	22.30	22.30	0.6726	0.6726
94	17	91	0.1868	17.00	17.00	1.0000	1.0000
95	6	64	0.0938	13.30	13.30	0.4511	0.4511
96	4	43	0.0930	9.70	9.70	0.4124	0.4124
97	3	31	0.0968	7.80	7.80	0.3846	0.3846
98	6	20	0.3000	5.50	5.50	1.0909	1.0909
99	4	13	0.3077	3.80	3.80	1.0526	1.0526
100+	4	13	0.3077	4.00	4.00	1.0000	1.0000
Total	594	25,400	0.0234	953.40	953.40	0.6230	0.6230

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: center;"> Board of Education Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Women 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	1	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	1	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	1	0.0000	0.00	0.00	N/A	N/A
49	0	3	0.0000	0.00	0.00	N/A	N/A
50	1	4	0.2500	0.00	0.00	N/A	N/A
51	0	4	0.0000	0.00	0.00	N/A	N/A
52	0	3	0.0000	0.00	0.00	N/A	N/A
53	0	3	0.0000	0.00	0.00	N/A	N/A
54	0	7	0.0000	0.00	0.00	N/A	N/A
55	0	62	0.0000	0.10	0.10	0.0000	0.0000
56	0	238	0.0000	0.90	0.90	0.0000	0.0000
57	0	462	0.0000	1.80	1.80	0.0000	0.0000
58	4	764	0.0052	3.30	3.30	1.2121	1.2121
59	4	987	0.0041	4.60	4.60	0.8696	0.8696
60	9	1,220	0.0074	6.20	6.20	1.4516	1.4516
61	6	1,444	0.0042	7.90	7.90	0.7595	0.7595
62	12	1,906	0.0063	10.90	10.90	1.1009	1.1009
63	15	2,875	0.0052	17.40	17.40	0.8621	0.8621
64	22	3,359	0.0065	21.20	21.20	1.0377	1.0377
65	17	3,705	0.0046	24.70	24.70	0.6883	0.6883
66	24	4,105	0.0058	30.60	30.60	0.7843	0.7843
67	37	4,417	0.0084	36.60	36.60	1.0109	1.0109
68	43	4,504	0.0095	41.70	41.70	1.0312	1.0312
69	19	4,494	0.0042	45.10	45.10	0.4213	0.4213
70	32	4,446	0.0072	48.40	48.40	0.6612	0.6612
71	45	4,378	0.0103	53.80	53.80	0.8364	0.8364
72	61	4,250	0.0144	58.20	58.20	1.0481	1.0481
73	41	4,099	0.0100	61.80	61.80	0.6634	0.6634
74	36	3,919	0.0092	64.80	64.80	0.5556	0.5556
75	50	3,765	0.0133	67.70	67.70	0.7386	0.7386
76	53	3,635	0.0146	74.30	74.30	0.7133	0.7133
77	77	3,538	0.0218	81.10	81.10	0.9494	0.9494
78	57	3,423	0.0167	86.90	86.90	0.6559	0.6559
79	67	3,352	0.0200	93.50	93.50	0.7166	0.7166
80	73	3,245	0.0225	98.70	98.70	0.7396	0.7396
81	76	3,153	0.0241	108.20	108.20	0.7024	0.7024
82	87	3,106	0.0280	119.20	119.20	0.7299	0.7299
83	81	2,967	0.0273	125.90	125.90	0.6434	0.6434
84	105	2,844	0.0369	132.70	132.70	0.7913	0.7913
85	111	2,647	0.0419	135.00	135.00	0.8222	0.8222
86	100	2,439	0.0410	141.70	141.70	0.7057	0.7057
87	114	2,201	0.0518	143.70	143.70	0.7933	0.7933
88	99	1,974	0.0502	143.10	143.10	0.6918	0.6918
89	116	1,727	0.0672	137.70	137.70	0.8424	0.8424
90	110	1,457	0.0755	126.80	126.80	0.8675	0.8675
91	97	1,207	0.0804	121.40	121.40	0.7990	0.7990
92	69	972	0.0710	110.70	110.70	0.6233	0.6233
93	90	812	0.1108	104.00	104.00	0.8654	0.8654
94	58	619	0.0937	87.80	87.80	0.6606	0.6606
95	67	443	0.1512	69.20	69.20	0.9682	0.9682
96	45	302	0.1490	52.50	52.50	0.8571	0.8571
97	33	207	0.1594	39.30	39.30	0.8397	0.8397
98	20	133	0.1504	27.00	27.00	0.7407	0.7407
99	21	83	0.2530	17.60	17.60	1.1932	1.1932
100+	27	112	0.2411	25.80	25.80	1.0465	1.0465
Total	2,331	106,024	0.0220	3,011.50	3,011.50	0.7740	0.7740

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: center;"> Board of Education Retirement System of the City of New York Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men and Women 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	0	N/A	0.00	0.00	N/A	N/A
42	0	1	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	1	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.00	0.00	N/A	N/A
46	0	0	N/A	0.00	0.00	N/A	N/A
47	0	0	N/A	0.00	0.00	N/A	N/A
48	0	3	0.0000	0.00	0.00	N/A	N/A
49	0	5	0.0000	0.00	0.00	N/A	N/A
50	1	6	0.1667	0.00	0.00	N/A	N/A
51	0	14	0.0000	0.00	0.00	N/A	N/A
52	0	17	0.0000	0.00	0.00	N/A	N/A
53	0	18	0.0000	0.00	0.00	N/A	N/A
54	0	28	0.0000	0.00	0.00	N/A	N/A
55	0	98	0.0000	0.30	0.30	0.0000	0.0000
56	1	335	0.0030	1.90	1.90	0.5263	0.5263
57	1	613	0.0016	3.20	3.20	0.3125	0.3125
58	7	1,005	0.0070	5.80	5.80	1.2069	1.2069
59	8	1,291	0.0062	7.70	7.70	1.0390	1.0390
60	11	1,563	0.0070	9.60	9.60	1.1458	1.1458
61	12	1,853	0.0065	12.40	12.40	0.9677	0.9677
62	15	2,447	0.0061	17.20	17.20	0.8721	0.8721
63	18	3,624	0.0050	26.30	26.30	0.6844	0.6844
64	27	4,239	0.0064	32.20	32.20	0.8385	0.8385
65	28	4,632	0.0060	36.80	36.80	0.7609	0.7609
66	39	5,106	0.0076	44.80	44.80	0.8705	0.8705
67	46	5,465	0.0084	52.70	52.70	0.8729	0.8729
68	53	5,569	0.0095	59.30	59.30	0.8938	0.8938
69	32	5,534	0.0058	63.60	63.60	0.5031	0.5031
70	39	5,480	0.0071	68.10	68.10	0.5727	0.5727
71	59	5,411	0.0109	75.00	75.00	0.7867	0.7867
72	72	5,286	0.0136	81.10	81.10	0.8878	0.8878
73	52	5,112	0.0102	85.60	85.60	0.6075	0.6075
74	57	4,891	0.0117	89.10	89.10	0.6397	0.6397
75	63	4,702	0.0134	92.40	92.40	0.6818	0.6818
76	78	4,560	0.0171	102.40	102.40	0.7617	0.7617
77	96	4,440	0.0216	112.00	112.00	0.8571	0.8571
78	79	4,306	0.0183	120.30	120.30	0.6567	0.6567
79	87	4,216	0.0206	129.70	129.70	0.6708	0.6708
80	89	4,067	0.0219	136.40	136.40	0.6525	0.6525
81	103	3,930	0.0262	148.00	148.00	0.6959	0.6959
82	106	3,827	0.0277	160.20	160.20	0.6617	0.6617
83	107	3,643	0.0294	168.30	168.30	0.6358	0.6358
84	131	3,484	0.0376	176.80	176.80	0.7410	0.7410
85	143	3,229	0.0443	178.40	178.40	0.8016	0.8016
86	123	2,947	0.0417	183.90	183.90	0.6688	0.6688
87	141	2,649	0.0532	184.30	184.30	0.7651	0.7651
88	124	2,356	0.0526	180.80	180.80	0.6858	0.6858
89	144	2,040	0.0706	171.30	171.30	0.8406	0.8406
90	124	1,712	0.0724	156.20	156.20	0.7939	0.7939
91	110	1,414	0.0778	149.00	149.00	0.7383	0.7383
92	79	1,136	0.0695	135.20	135.20	0.5843	0.5843
93	105	945	0.1111	126.30	126.30	0.8314	0.8314
94	75	710	0.1056	104.80	104.80	0.7156	0.7156
95	73	507	0.1440	82.50	82.50	0.8848	0.8848
96	49	345	0.1420	62.20	62.20	0.7878	0.7878
97	36	238	0.1513	47.10	47.10	0.7643	0.7643
98	26	153	0.1699	32.50	32.50	0.8000	0.8000
99	25	96	0.2604	21.40	21.40	1.1682	1.1682
100+	31	125	0.2480	29.80	29.80	1.0403	1.0403
Total	2,925	131,424	0.0223	3,964.90	3,964.90	0.7377	0.7377

Bolton

**Board of Education Retirement System of the City of New York
Service Retirees' Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (3) ÷ (4)	(6) = (3) ÷ (2)	(7) = (4) ÷ (2)
Plan Year	Life Years Exposed	Actual Deaths	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	11,612	275	343.80	0.7999	0.0237	0.0296
2009	11,869	301	356.30	0.8448	0.0254	0.0300
2010	12,057	235	366.20	0.6417	0.0195	0.0304
2011	12,334	336	377.60	0.8898	0.0272	0.0306
2012	12,749	261	392.40	0.6651	0.0205	0.0308
2013	13,118	213	401.70	0.5302	0.0162	0.0306
2014	13,753	182	413.50	0.4401	0.0132	0.0301
2015	14,274	157	426.50	0.3681	0.0110	0.0299
2016	14,651	484	437.20	1.1070	0.0330	0.0298
2017	15,011	481	449.70	1.0696	0.0320	0.0300
Total	131,428	2,925	3,964.90	0.7377	0.0223	0.0302

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Men 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	1	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.00	0.00	N/A	N/A
43	0	0	N/A	0.00	0.00	N/A	N/A
44	0	0	N/A	0.00	0.00	N/A	N/A
45	0	1	0.0000	0.00	0.00	N/A	N/A
46	0	1	0.0000	0.00	0.00	N/A	N/A
47	1	3	0.3333	0.00	0.00	N/A	N/A
48	0	4	0.0000	0.00	0.00	N/A	N/A
49	1	5	0.2000	0.00	0.00	N/A	N/A
50	0	7	0.0000	0.00	0.00	N/A	N/A
51	1	21	0.0476	0.30	0.30	3.3333	3.3333
52	0	25	0.0000	0.50	0.50	0.0000	0.0000
53	0	32	0.0000	0.60	0.60	0.0000	0.0000
54	2	35	0.0571	0.60	0.60	3.3333	3.3333
55	1	37	0.0270	0.70	0.70	1.4286	1.4286
56	0	38	0.0000	0.90	0.90	0.0000	0.0000
57	2	39	0.0513	0.90	0.90	2.2222	2.2222
58	0	48	0.0000	1.10	1.10	0.0000	0.0000
59	0	39	0.0000	0.90	0.90	0.0000	0.0000
60	1	45	0.0222	1.10	1.10	0.9091	0.9091
61	0	48	0.0000	1.10	1.10	0.0000	0.0000
62	1	48	0.0208	1.20	1.20	0.8333	0.8333
63	1	56	0.0179	1.40	1.40	0.7143	0.7143
64	3	53	0.0566	1.30	1.30	2.3077	2.3077
65	1	47	0.0213	1.30	1.30	0.7692	0.7692
66	0	44	0.0000	1.20	1.20	0.0000	0.0000
67	0	38	0.0000	1.00	1.00	0.0000	0.0000
68	0	36	0.0000	1.00	1.00	0.0000	0.0000
69	1	36	0.0278	1.00	1.00	1.0000	1.0000
70	0	33	0.0000	1.00	1.00	0.0000	0.0000
71	1	29	0.0345	0.90	0.90	1.1111	1.1111
72	1	28	0.0357	0.90	0.90	1.1111	1.1111
73	0	23	0.0000	0.70	0.70	0.0000	0.0000
74	1	24	0.0417	0.80	0.80	1.2500	1.2500
75	1	20	0.0500	0.70	0.70	1.4286	1.4286
76	1	20	0.0500	0.80	0.80	1.2500	1.2500
77	0	18	0.0000	0.80	0.80	0.0000	0.0000
78	1	17	0.0588	0.80	0.80	1.2500	1.2500
79	1	18	0.0556	0.90	0.90	1.1111	1.1111
80	1	11	0.0909	0.60	0.60	1.6667	1.6667
81	0	9	0.0000	0.50	0.50	0.0000	0.0000
82	1	8	0.1250	0.40	0.40	2.5000	2.5000
83	0	4	0.0000	0.30	0.30	0.0000	0.0000
84	1	4	0.2500	0.30	0.30	3.3333	3.3333
85	1	7	0.1429	0.50	0.50	2.0000	2.0000
86	1	8	0.1250	0.60	0.60	1.6667	1.6667
87	0	11	0.0000	1.10	1.10	0.0000	0.0000
88	1	12	0.0833	1.20	1.20	0.8333	0.8333
89	0	8	0.0000	0.80	0.80	0.0000	0.0000
90	0	5	0.0000	0.50	0.50	0.0000	0.0000
91	0	4	0.0000	0.50	0.50	0.0000	0.0000
92	0	2	0.0000	0.20	0.20	0.0000	0.0000
93	0	2	0.0000	0.40	0.40	0.0000	0.0000
94	0	2	0.0000	0.40	0.40	0.0000	0.0000
95	0	0	N/A	0.00	0.00	N/A	N/A
96	0	1	0.0000	0.20	0.20	0.0000	0.0000
97	0	1	0.0000	0.20	0.20	0.0000	0.0000
98	1	1	1.0000	0.30	0.30	3.3333	3.3333
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	30	1,117	0.0269	35.40	35.40	0.8475	0.8475

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Women 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	4	0.0000	0.00	0.00	N/A	N/A
42	0	6	0.0000	0.10	0.10	0.0000	0.0000
43	0	4	0.0000	0.00	0.00	N/A	N/A
44	0	5	0.0000	0.00	0.00	N/A	N/A
45	0	4	0.0000	0.00	0.00	N/A	N/A
46	0	4	0.0000	0.00	0.00	N/A	N/A
47	0	6	0.0000	0.00	0.00	N/A	N/A
48	0	16	0.0000	0.20	0.20	0.0000	0.0000
49	0	23	0.0000	0.40	0.40	0.0000	0.0000
50	1	26	0.0385	0.50	0.50	2.0000	2.0000
51	0	29	0.0000	0.50	0.50	0.0000	0.0000
52	0	32	0.0000	0.50	0.50	0.0000	0.0000
53	1	36	0.0278	0.60	0.60	1.6667	1.6667
54	0	55	0.0000	1.10	1.10	0.0000	0.0000
55	1	65	0.0154	1.20	1.20	0.8333	0.8333
56	1	82	0.0122	1.50	1.50	0.6667	0.6667
57	2	87	0.0230	1.60	1.60	1.2500	1.2500
58	3	96	0.0313	1.80	1.80	1.6667	1.6667
59	0	103	0.0000	2.00	2.00	0.0000	0.0000
60	1	112	0.0089	2.10	2.10	0.4762	0.4762
61	1	124	0.0081	2.50	2.50	0.4000	0.4000
62	4	133	0.0301	2.50	2.50	1.6000	1.6000
63	6	139	0.0432	2.70	2.70	2.2222	2.2222
64	2	137	0.0146	2.80	2.80	0.7143	0.7143
65	2	151	0.0132	3.20	3.20	0.6250	0.6250
66	2	162	0.0123	3.40	3.40	0.5882	0.5882
67	5	154	0.0325	3.30	3.30	1.5152	1.5152
68	2	156	0.0128	3.50	3.50	0.5714	0.5714
69	4	138	0.0290	3.20	3.20	1.2500	1.2500
70	4	140	0.0286	3.40	3.40	1.1765	1.1765
71	1	124	0.0081	3.10	3.10	0.3226	0.3226
72	3	105	0.0286	2.70	2.70	1.1111	1.1111
73	0	101	0.0000	2.90	2.90	0.0000	0.0000
74	1	88	0.0114	2.60	2.60	0.3846	0.3846
75	4	89	0.0449	2.80	2.80	1.4286	1.4286
76	2	74	0.0270	2.50	2.50	0.8000	0.8000
77	3	54	0.0556	1.90	1.90	1.5789	1.5789
78	0	46	0.0000	1.70	1.70	0.0000	0.0000
79	0	33	0.0000	1.30	1.30	0.0000	0.0000
80	0	29	0.0000	1.20	1.20	0.0000	0.0000
81	1	22	0.0455	1.00	1.00	1.0000	1.0000
82	2	23	0.0870	1.10	1.10	1.8182	1.8182
83	0	16	0.0000	0.90	0.90	0.0000	0.0000
84	0	14	0.0000	0.80	0.80	0.0000	0.0000
85	1	14	0.0714	1.00	1.00	1.0000	1.0000
86	0	10	0.0000	0.70	0.70	0.0000	0.0000
87	0	7	0.0000	0.60	0.60	0.0000	0.0000
88	0	6	0.0000	0.60	0.60	0.0000	0.0000
89	0	5	0.0000	0.50	0.50	0.0000	0.0000
90	0	3	0.0000	0.30	0.30	0.0000	0.0000
91	0	5	0.0000	0.60	0.60	0.0000	0.0000
92	0	3	0.0000	0.40	0.40	0.0000	0.0000
93	0	2	0.0000	0.30	0.30	0.0000	0.0000
94	1	2	0.5000	0.30	0.30	3.3333	3.3333
95	0	0	N/A	0.00	0.00	N/A	N/A
96	0	0	N/A	0.00	0.00	N/A	N/A
97	0	0	N/A	0.00	0.00	N/A	N/A
98	0	0	N/A	0.00	0.00	N/A	N/A
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	61	3,104	0.0197	76.40	76.40	0.7984	0.7984

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: center;"> <p>Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Men and Women 4-Year Period Ending 2017</p> <p>Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	5	0.0000	0.00	0.00	N/A	N/A
42	0	6	0.0000	0.10	0.10	0.0000	0.0000
43	0	4	0.0000	0.00	0.00	N/A	N/A
44	0	5	0.0000	0.00	0.00	N/A	N/A
45	0	5	0.0000	0.00	0.00	N/A	N/A
46	0	5	0.0000	0.00	0.00	N/A	N/A
47	1	9	0.1111	0.00	0.00	N/A	N/A
48	0	20	0.0000	0.20	0.20	0.0000	0.0000
49	1	28	0.0357	0.40	0.40	2.5000	2.5000
50	1	33	0.0303	0.50	0.50	2.0000	2.0000
51	1	50	0.0200	0.80	0.80	1.2500	1.2500
52	0	57	0.0000	1.00	1.00	0.0000	0.0000
53	1	68	0.0147	1.20	1.20	0.8333	0.8333
54	2	90	0.0222	1.70	1.70	1.1765	1.1765
55	2	102	0.0196	1.90	1.90	1.0526	1.0526
56	1	120	0.0083	2.40	2.40	0.4167	0.4167
57	4	126	0.0317	2.50	2.50	1.6000	1.6000
58	3	144	0.0208	2.90	2.90	1.0345	1.0345
59	0	142	0.0000	2.90	2.90	0.0000	0.0000
60	2	157	0.0127	3.20	3.20	0.6250	0.6250
61	1	172	0.0058	3.60	3.60	0.2778	0.2778
62	5	181	0.0276	3.70	3.70	1.3514	1.3514
63	7	195	0.0359	4.10	4.10	1.7073	1.7073
64	5	190	0.0263	4.10	4.10	1.2195	1.2195
65	3	198	0.0152	4.50	4.50	0.6667	0.6667
66	2	206	0.0097	4.60	4.60	0.4348	0.4348
67	5	192	0.0260	4.30	4.30	1.1628	1.1628
68	2	192	0.0104	4.50	4.50	0.4444	0.4444
69	5	174	0.0287	4.20	4.20	1.1905	1.1905
70	4	173	0.0231	4.40	4.40	0.9091	0.9091
71	2	153	0.0131	4.00	4.00	0.5000	0.5000
72	4	133	0.0301	3.60	3.60	1.1111	1.1111
73	0	124	0.0000	3.60	3.60	0.0000	0.0000
74	2	112	0.0179	3.40	3.40	0.5882	0.5882
75	5	109	0.0459	3.50	3.50	1.4286	1.4286
76	3	94	0.0319	3.30	3.30	0.9091	0.9091
77	3	72	0.0417	2.70	2.70	1.1111	1.1111
78	1	63	0.0159	2.50	2.50	0.4000	0.4000
79	1	51	0.0196	2.20	2.20	0.4545	0.4545
80	1	40	0.0250	1.80	1.80	0.5556	0.5556
81	1	31	0.0323	1.50	1.50	0.6667	0.6667
82	3	31	0.0968	1.50	1.50	2.0000	2.0000
83	0	20	0.0000	1.20	1.20	0.0000	0.0000
84	1	18	0.0556	1.10	1.10	0.9091	0.9091
85	2	21	0.0952	1.50	1.50	1.3333	1.3333
86	1	18	0.0556	1.30	1.30	0.7692	0.7692
87	0	18	0.0000	1.70	1.70	0.0000	0.0000
88	1	18	0.0556	1.80	1.80	0.5556	0.5556
89	0	13	0.0000	1.30	1.30	0.0000	0.0000
90	0	8	0.0000	0.80	0.80	0.0000	0.0000
91	0	9	0.0000	1.10	1.10	0.0000	0.0000
92	0	5	0.0000	0.60	0.60	0.0000	0.0000
93	0	4	0.0000	0.70	0.70	0.0000	0.0000
94	1	4	0.2500	0.70	0.70	1.4286	1.4286
95	0	0	N/A	0.00	0.00	N/A	N/A
96	0	1	0.0000	0.20	0.20	0.0000	0.0000
97	0	1	0.0000	0.20	0.20	0.0000	0.0000
98	1	1	1.0000	0.30	0.30	3.3333	3.3333
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	91	4,221	0.0216	111.80	111.80	0.8140	0.8140

Bolton		Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Mortality By Pension Amount - Men 4-Year Period Ending 2017						
		Proposed Assumptions are 100% of the Current Rates						
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)	
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 8,087	0.0000	\$ 95	\$ 95	0.0000	0.0000	
42	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
43	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
44	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
45	\$ -	\$ 11,151	0.0000	\$ 151	\$ 151	0.0000	0.0000	
46	\$ -	\$ 11,151	0.0000	\$ 150	\$ 150	0.0000	0.0000	
47	\$ 6,051	\$ 38,864	0.1557	\$ 529	\$ 529	11.4321	11.4321	
48	\$ -	\$ 67,847	0.0000	\$ 968	\$ 968	0.0000	0.0000	
49	\$ 24,417	\$ 105,085	0.2324	\$ 1,622	\$ 1,622	15.0536	15.0536	
50	\$ -	\$ 130,048	0.0000	\$ 2,082	\$ 2,082	0.0000	0.0000	
51	\$ 36,112	\$ 398,488	0.0906	\$ 6,681	\$ 6,681	5.4051	5.4051	
52	\$ -	\$ 460,286	0.0000	\$ 8,079	\$ 8,079	0.0000	0.0000	
53	\$ -	\$ 582,483	0.0000	\$ 10,831	\$ 10,831	0.0000	0.0000	
54	\$ 22,990	\$ 957,653	0.0240	\$ 18,768	\$ 18,768	1.2250	1.2250	
55	\$ 31,745	\$ 643,498	0.0493	\$ 13,232	\$ 13,232	2.3991	2.3991	
56	\$ -	\$ 630,479	0.0000	\$ 13,560	\$ 13,560	0.0000	0.0000	
57	\$ 19,237	\$ 632,589	0.0304	\$ 14,127	\$ 14,127	1.3617	1.3617	
58	\$ -	\$ 778,964	0.0000	\$ 17,921	\$ 17,921	0.0000	0.0000	
59	\$ -	\$ 635,311	0.0000	\$ 15,008	\$ 15,008	0.0000	0.0000	
60	\$ 8,604	\$ 741,277	0.0116	\$ 17,793	\$ 17,793	0.4836	0.4836	
61	\$ -	\$ 813,928	0.0000	\$ 19,773	\$ 19,773	0.0000	0.0000	
62	\$ 17,655	\$ 801,468	0.0220	\$ 19,682	\$ 19,682	0.8970	0.8970	
63	\$ 17,313	\$ 904,276	0.0191	\$ 22,411	\$ 22,411	0.7725	0.7725	
64	\$ 221,142	\$ 1,011,155	0.2187	\$ 25,355	\$ 25,355	8.7219	8.7219	
65	\$ 9,136	\$ 758,103	0.0121	\$ 19,288	\$ 19,288	0.4737	0.4737	
66	\$ -	\$ 733,472	0.0000	\$ 19,001	\$ 19,001	0.0000	0.0000	
67	\$ -	\$ 661,780	0.0000	\$ 17,592	\$ 17,592	0.0000	0.0000	
68	\$ -	\$ 641,401	0.0000	\$ 17,534	\$ 17,534	0.0000	0.0000	
69	\$ 27,984	\$ 612,796	0.0457	\$ 17,346	\$ 17,346	1.6132	1.6132	
70	\$ -	\$ 543,388	0.0000	\$ 15,942	\$ 15,942	0.0000	0.0000	
71	\$ 6,467	\$ 454,412	0.0142	\$ 13,897	\$ 13,897	0.4653	0.4653	
72	\$ 7,395	\$ 440,397	0.0168	\$ 14,074	\$ 14,074	0.5254	0.5254	
73	\$ -	\$ 355,029	0.0000	\$ 11,910	\$ 11,910	0.0000	0.0000	
74	\$ 13,541	\$ 360,807	0.0375	\$ 12,780	\$ 12,780	1.0595	1.0595	
75	\$ 6,767	\$ 262,076	0.0258	\$ 9,739	\$ 9,739	0.6948	0.6948	
76	\$ 23,347	\$ 361,505	0.0646	\$ 14,406	\$ 14,406	1.6207	1.6207	
77	\$ -	\$ 318,200	0.0000	\$ 13,390	\$ 13,390	0.0000	0.0000	
78	\$ 15,177	\$ 355,516	0.0427	\$ 15,966	\$ 15,966	0.9506	0.9506	
79	\$ 10,065	\$ 370,884	0.0271	\$ 17,603	\$ 17,603	0.5718	0.5718	
80	\$ 9,040	\$ 187,790	0.0481	\$ 9,506	\$ 9,506	0.9510	0.9510	
81	\$ -	\$ 170,390	0.0000	\$ 9,082	\$ 9,082	0.0000	0.0000	
82	\$ 12,179	\$ 178,336	0.0683	\$ 10,367	\$ 10,367	1.1748	1.1748	
83	\$ -	\$ 88,888	0.0000	\$ 5,538	\$ 5,538	0.0000	0.0000	
84	\$ 35,474	\$ 89,276	0.3974	\$ 5,849	\$ 5,849	6.0654	6.0654	
85	\$ 26,159	\$ 112,285	0.2330	\$ 8,075	\$ 8,075	3.2397	3.2397	
86	\$ 4,869	\$ 150,573	0.0323	\$ 12,154	\$ 12,154	0.4006	0.4006	
87	\$ -	\$ 229,335	0.0000	\$ 20,203	\$ 20,203	0.0000	0.0000	
88	\$ 9,442	\$ 257,684	0.0366	\$ 24,559	\$ 24,559	0.3845	0.3845	
89	\$ -	\$ 177,844	0.0000	\$ 18,255	\$ 18,255	0.0000	0.0000	
90	\$ -	\$ 94,298	0.0000	\$ 10,410	\$ 10,410	0.0000	0.0000	
91	\$ -	\$ 70,475	0.0000	\$ 9,013	\$ 9,013	0.0000	0.0000	
92	\$ -	\$ 34,944	0.0000	\$ 5,080	\$ 5,080	0.0000	0.0000	
93	\$ -	\$ 32,509	0.0000	\$ 5,278	\$ 5,278	0.0000	0.0000	
94	\$ -	\$ 32,689	0.0000	\$ 5,831	\$ 5,831	0.0000	0.0000	
95	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
96	\$ -	\$ 9,687	0.0000	\$ 2,193	\$ 2,193	0.0000	0.0000	
97	\$ -	\$ 9,779	0.0000	\$ 2,389	\$ 2,389	0.0000	0.0000	
98	\$ 9,779	\$ 9,779	1.0000	\$ 2,577	\$ 2,577	3.7955	3.7955	
99	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
100+	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
Total	\$ 632,087	\$ 19,530,415	0.0324	\$ 625,643	\$ 625,643	1.0103	1.0103	

*The qx are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on BERS experience and the MP2015 mortality improvement table was used to project the qx from 2004 to the exposure year.

Bolton		Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Mortality By Pension Amount - Women 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount Current Assumption	Proposed Assumption	Actual/Expected		
						Current	Proposed	
41	\$ -	\$ 54,179	0.0000	\$ 715	\$ 715	0.0000	0.0000	
42	\$ -	\$ 77,248	0.0000	\$ 1,013	\$ 1,013	0.0000	0.0000	
43	\$ -	\$ 29,040	0.0000	\$ 391	\$ 391	0.0000	0.0000	
44	\$ -	\$ 52,693	0.0000	\$ 722	\$ 722	0.0000	0.0000	
45	\$ -	\$ 42,845	0.0000	\$ 602	\$ 602	0.0000	0.0000	
46	\$ -	\$ 46,659	0.0000	\$ 682	\$ 682	0.0000	0.0000	
47	\$ -	\$ 94,659	0.0000	\$ 1,476	\$ 1,476	0.0000	0.0000	
48	\$ -	\$ 247,178	0.0000	\$ 4,031	\$ 4,031	0.0000	0.0000	
49	\$ -	\$ 324,236	0.0000	\$ 5,412	\$ 5,412	0.0000	0.0000	
50	\$ 10,591	\$ 310,911	0.0341	\$ 5,333	\$ 5,333	1.9861	1.9861	
51	\$ -	\$ 433,975	0.0000	\$ 7,607	\$ 7,607	0.0000	0.0000	
52	\$ -	\$ 355,657	0.0000	\$ 6,358	\$ 6,358	0.0000	0.0000	
53	\$ 8,125	\$ 361,412	0.0225	\$ 6,538	\$ 6,538	1.2428	1.2428	
54	\$ -	\$ 531,250	0.0000	\$ 9,711	\$ 9,711	0.0000	0.0000	
55	\$ 13,714	\$ 714,440	0.0192	\$ 13,088	\$ 13,088	1.0478	1.0478	
56	\$ 8,185	\$ 816,397	0.0100	\$ 14,988	\$ 14,988	0.5461	0.5461	
57	\$ 39,469	\$ 1,002,786	0.0394	\$ 18,435	\$ 18,435	2.1410	2.1410	
58	\$ 39,535	\$ 972,775	0.0406	\$ 18,056	\$ 18,056	2.1896	2.1896	
59	\$ -	\$ 1,057,762	0.0000	\$ 19,857	\$ 19,857	0.0000	0.0000	
60	\$ 5,532	\$ 1,218,151	0.0045	\$ 23,114	\$ 23,114	0.2393	0.2393	
61	\$ 14,169	\$ 1,327,187	0.0107	\$ 25,480	\$ 25,480	0.5561	0.5561	
62	\$ 48,178	\$ 1,421,387	0.0339	\$ 27,534	\$ 27,534	1.7498	1.7498	
63	\$ 45,312	\$ 1,381,803	0.0328	\$ 27,253	\$ 27,253	1.6627	1.6627	
64	\$ 14,133	\$ 1,338,925	0.0106	\$ 27,108	\$ 27,108	0.5214	0.5214	
65	\$ 14,189	\$ 1,444,551	0.0098	\$ 30,033	\$ 30,033	0.4725	0.4725	
66	\$ 15,406	\$ 1,553,540	0.0099	\$ 32,906	\$ 32,906	0.4682	0.4682	
67	\$ 35,923	\$ 1,484,090	0.0242	\$ 32,186	\$ 32,186	1.1161	1.1161	
68	\$ 15,894	\$ 1,489,728	0.0107	\$ 33,219	\$ 33,219	0.4785	0.4785	
69	\$ 50,780	\$ 1,265,224	0.0401	\$ 29,256	\$ 29,256	1.7357	1.7357	
70	\$ 29,348	\$ 1,311,181	0.0224	\$ 31,550	\$ 31,550	0.9302	0.9302	
71	\$ 6,538	\$ 1,141,922	0.0057	\$ 28,705	\$ 28,705	0.2278	0.2278	
72	\$ 35,499	\$ 964,622	0.0368	\$ 25,514	\$ 25,514	1.3914	1.3914	
73	\$ -	\$ 907,759	0.0000	\$ 25,388	\$ 25,388	0.0000	0.0000	
74	\$ 9,459	\$ 761,860	0.0124	\$ 22,616	\$ 22,616	0.4183	0.4183	
75	\$ 21,376	\$ 761,038	0.0281	\$ 24,057	\$ 24,057	0.8886	0.8886	
76	\$ 18,251	\$ 636,166	0.0287	\$ 21,333	\$ 21,333	0.8555	0.8555	
77	\$ 31,286	\$ 471,783	0.0663	\$ 16,802	\$ 16,802	1.8621	1.8621	
78	\$ -	\$ 388,594	0.0000	\$ 14,694	\$ 14,694	0.0000	0.0000	
79	\$ -	\$ 265,416	0.0000	\$ 10,722	\$ 10,722	0.0000	0.0000	
80	\$ -	\$ 234,032	0.0000	\$ 10,101	\$ 10,101	0.0000	0.0000	
81	\$ 6,317	\$ 169,380	0.0373	\$ 7,817	\$ 7,817	0.8082	0.8082	
82	\$ 17,665	\$ 162,849	0.1085	\$ 8,048	\$ 8,048	2.1950	2.1950	
83	\$ -	\$ 109,460	0.0000	\$ 5,803	\$ 5,803	0.0000	0.0000	
84	\$ -	\$ 98,715	0.0000	\$ 5,583	\$ 5,583	0.0000	0.0000	
85	\$ 6,659	\$ 100,603	0.0662	\$ 6,351	\$ 6,351	1.0485	1.0485	
86	\$ -	\$ 74,175	0.0000	\$ 5,185	\$ 5,185	0.0000	0.0000	
87	\$ -	\$ 56,945	0.0000	\$ 4,376	\$ 4,376	0.0000	0.0000	
88	\$ -	\$ 47,538	0.0000	\$ 4,018	\$ 4,018	0.0000	0.0000	
89	\$ -	\$ 42,255	0.0000	\$ 4,069	\$ 4,069	0.0000	0.0000	
90	\$ -	\$ 26,529	0.0000	\$ 2,888	\$ 2,888	0.0000	0.0000	
91	\$ -	\$ 35,693	0.0000	\$ 4,414	\$ 4,414	0.0000	0.0000	
92	\$ -	\$ 22,381	0.0000	\$ 3,065	\$ 3,065	0.0000	0.0000	
93	\$ -	\$ 14,378	0.0000	\$ 2,151	\$ 2,151	0.0000	0.0000	
94	\$ 1,776	\$ 14,504	0.1224	\$ 2,383	\$ 2,383	0.7453	0.7453	
95	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
96	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
97	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
98	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
99	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
100+	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
Total	\$ 563,309	\$ 30,270,466	0.0186	\$ 720,734	\$ 720,734	0.7816	0.7816	

*The qx are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on BERS experience and the MP2015 mortality improvement table was used to project the qx from 2004 to the exposure year.

Bolton		Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Mortality By Pension Amount - Men and Women 4-Year Period Ending 2017						
		Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women						
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)	
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 62,266	0.0000	\$ 810	\$ 810	0.0000	0.0000	
42	\$ -	\$ 77,248	0.0000	\$ 1,013	\$ 1,013	0.0000	0.0000	
43	\$ -	\$ 29,040	0.0000	\$ 391	\$ 391	0.0000	0.0000	
44	\$ -	\$ 52,693	0.0000	\$ 722	\$ 722	0.0000	0.0000	
45	\$ -	\$ 53,996	0.0000	\$ 753	\$ 753	0.0000	0.0000	
46	\$ -	\$ 57,810	0.0000	\$ 832	\$ 832	0.0000	0.0000	
47	\$ 6,051	\$ 133,523	0.0453	\$ 2,005	\$ 2,005	3.0175	3.0175	
48	\$ -	\$ 315,025	0.0000	\$ 4,999	\$ 4,999	0.0000	0.0000	
49	\$ 24,417	\$ 429,321	0.0569	\$ 7,034	\$ 7,034	3.4715	3.4715	
50	\$ 10,591	\$ 440,959	0.0240	\$ 7,414	\$ 7,414	1.4285	1.4285	
51	\$ 36,112	\$ 832,463	0.0434	\$ 14,288	\$ 14,288	2.5275	2.5275	
52	\$ -	\$ 815,943	0.0000	\$ 14,436	\$ 14,436	0.0000	0.0000	
53	\$ 8,125	\$ 943,895	0.0086	\$ 17,369	\$ 17,369	0.4678	0.4678	
54	\$ 22,990	\$ 1,488,903	0.0154	\$ 28,478	\$ 28,478	0.8073	0.8073	
55	\$ 45,459	\$ 1,357,938	0.0335	\$ 26,320	\$ 26,320	1.7272	1.7272	
56	\$ 8,185	\$ 1,446,876	0.0057	\$ 28,548	\$ 28,548	0.2867	0.2867	
57	\$ 58,706	\$ 1,635,375	0.0359	\$ 32,563	\$ 32,563	1.8029	1.8029	
58	\$ 39,535	\$ 1,751,739	0.0226	\$ 35,977	\$ 35,977	1.0989	1.0989	
59	\$ -	\$ 1,693,073	0.0000	\$ 34,865	\$ 34,865	0.0000	0.0000	
60	\$ 14,136	\$ 1,959,428	0.0072	\$ 40,908	\$ 40,908	0.3456	0.3456	
61	\$ 14,169	\$ 2,141,115	0.0066	\$ 45,253	\$ 45,253	0.3131	0.3131	
62	\$ 65,833	\$ 2,222,855	0.0296	\$ 47,216	\$ 47,216	1.3943	1.3943	
63	\$ 62,625	\$ 2,286,079	0.0274	\$ 49,663	\$ 49,663	1.2610	1.2610	
64	\$ 235,275	\$ 2,350,080	0.1001	\$ 52,463	\$ 52,463	4.4846	4.4846	
65	\$ 23,325	\$ 2,202,654	0.0106	\$ 49,320	\$ 49,320	0.4729	0.4729	
66	\$ 15,406	\$ 2,287,012	0.0067	\$ 51,907	\$ 51,907	0.2968	0.2968	
67	\$ 35,923	\$ 2,145,870	0.0167	\$ 49,778	\$ 49,778	0.7217	0.7217	
68	\$ 15,894	\$ 2,131,129	0.0075	\$ 50,753	\$ 50,753	0.3132	0.3132	
69	\$ 78,764	\$ 1,878,020	0.0419	\$ 46,602	\$ 46,602	1.6901	1.6901	
70	\$ 29,348	\$ 1,854,569	0.0158	\$ 47,492	\$ 47,492	0.6180	0.6180	
71	\$ 13,005	\$ 1,596,334	0.0081	\$ 42,603	\$ 42,603	0.3053	0.3053	
72	\$ 42,894	\$ 1,405,019	0.0305	\$ 39,588	\$ 39,588	1.0835	1.0835	
73	\$ -	\$ 1,262,788	0.0000	\$ 37,298	\$ 37,298	0.0000	0.0000	
74	\$ 23,000	\$ 1,122,667	0.0205	\$ 35,396	\$ 35,396	0.6498	0.6498	
75	\$ 28,143	\$ 1,023,114	0.0275	\$ 33,796	\$ 33,796	0.8327	0.8327	
76	\$ 41,598	\$ 997,671	0.0417	\$ 35,738	\$ 35,738	1.1640	1.1640	
77	\$ 31,286	\$ 789,983	0.0396	\$ 30,192	\$ 30,192	1.0362	1.0362	
78	\$ 15,177	\$ 744,110	0.0204	\$ 30,660	\$ 30,660	0.4950	0.4950	
79	\$ 10,065	\$ 636,300	0.0158	\$ 28,325	\$ 28,325	0.3553	0.3553	
80	\$ 9,040	\$ 421,822	0.0214	\$ 19,607	\$ 19,607	0.4611	0.4611	
81	\$ 6,317	\$ 339,770	0.0186	\$ 16,899	\$ 16,899	0.3738	0.3738	
82	\$ 29,844	\$ 341,185	0.0875	\$ 18,415	\$ 18,415	1.6207	1.6207	
83	\$ -	\$ 198,348	0.0000	\$ 11,341	\$ 11,341	0.0000	0.0000	
84	\$ 35,474	\$ 187,991	0.1887	\$ 11,432	\$ 11,432	3.1032	3.1032	
85	\$ 32,818	\$ 212,888	0.1542	\$ 14,426	\$ 14,426	2.2750	2.2750	
86	\$ 4,869	\$ 224,748	0.0217	\$ 17,339	\$ 17,339	0.2808	0.2808	
87	\$ -	\$ 286,280	0.0000	\$ 24,579	\$ 24,579	0.0000	0.0000	
88	\$ 9,442	\$ 305,222	0.0309	\$ 28,577	\$ 28,577	0.3304	0.3304	
89	\$ -	\$ 220,099	0.0000	\$ 22,324	\$ 22,324	0.0000	0.0000	
90	\$ -	\$ 120,827	0.0000	\$ 13,298	\$ 13,298	0.0000	0.0000	
91	\$ -	\$ 106,168	0.0000	\$ 13,427	\$ 13,427	0.0000	0.0000	
92	\$ -	\$ 57,325	0.0000	\$ 8,146	\$ 8,146	0.0000	0.0000	
93	\$ -	\$ 46,887	0.0000	\$ 7,428	\$ 7,428	0.0000	0.0000	
94	\$ 1,776	\$ 47,193	0.0376	\$ 8,214	\$ 8,214	0.2162	0.2162	
95	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
96	\$ -	\$ 9,687	0.0000	\$ 2,193	\$ 2,193	0.0000	0.0000	
97	\$ -	\$ 9,779	0.0000	\$ 2,389	\$ 2,389	0.0000	0.0000	
98	\$ 9,779	\$ 9,779	1.0000	\$ 2,577	\$ 2,577	3.7955	3.7955	
99	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
100+	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
Total	\$ 1,195,396	\$ 49,800,881	0.0240	\$ 1,346,377	\$ 1,346,377	0.8879	0.8879	

*The qx are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the office of the actuary based on BERS experience and the MP2015 mortality improvement table was used to project the qx from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Men 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	2	0.0000	0.00	0.00	N/A	N/A
42	0	3	0.0000	0.00	0.00	N/A	N/A
43	0	5	0.0000	0.00	0.00	N/A	N/A
44	0	6	0.0000	0.00	0.00	N/A	N/A
45	0	9	0.0000	0.00	0.00	N/A	N/A
46	0	13	0.0000	0.10	0.10	0.0000	0.0000
47	1	16	0.0625	0.10	0.10	10.0000	10.0000
48	0	22	0.0000	0.30	0.30	0.0000	0.0000
49	2	30	0.0667	0.50	0.50	4.0000	4.0000
50	0	39	0.0000	0.60	0.60	0.0000	0.0000
51	2	53	0.0377	1.00	1.00	2.0000	2.0000
52	1	62	0.0161	1.20	1.20	0.8333	0.8333
53	1	72	0.0139	1.40	1.40	0.7143	0.7143
54	2	78	0.0256	1.50	1.50	1.3333	1.3333
55	1	83	0.0120	1.60	1.60	0.6250	0.6250
56	4	90	0.0444	2.00	2.00	2.0000	2.0000
57	3	90	0.0333	2.10	2.10	1.4286	1.4286
58	1	102	0.0098	2.40	2.40	0.4167	0.4167
59	4	99	0.0404	2.30	2.30	1.7391	1.7391
60	1	99	0.0101	2.50	2.50	0.4000	0.4000
61	0	106	0.0000	2.60	2.60	0.0000	0.0000
62	2	108	0.0185	2.80	2.80	0.7143	0.7143
63	3	114	0.0263	3.00	3.00	1.0000	1.0000
64	7	108	0.0648	2.90	2.90	2.4138	2.4138
65	2	94	0.0213	2.70	2.70	0.7407	0.7407
66	1	91	0.0110	2.60	2.60	0.3846	0.3846
67	0	80	0.0000	2.30	2.30	0.0000	0.0000
68	1	76	0.0132	2.30	2.30	0.4348	0.4348
69	2	69	0.0290	2.10	2.10	0.9524	0.9524
70	2	66	0.0303	2.10	2.10	0.9524	0.9524
71	1	58	0.0172	1.80	1.80	0.5556	0.5556
72	2	60	0.0333	1.90	1.90	1.0526	1.0526
73	0	55	0.0000	1.80	1.80	0.0000	0.0000
74	2	52	0.0385	1.90	1.90	1.0526	1.0526
75	1	43	0.0233	1.50	1.50	0.6667	0.6667
76	2	42	0.0476	1.60	1.60	1.2500	1.2500
77	3	38	0.0789	1.60	1.60	1.8750	1.8750
78	2	29	0.0690	1.30	1.30	1.5385	1.5385
79	1	31	0.0323	1.60	1.60	0.6250	0.6250
80	3	28	0.1071	1.50	1.50	2.0000	2.0000
81	3	30	0.1000	1.60	1.60	1.8750	1.8750
82	2	25	0.0800	1.50	1.50	1.3333	1.3333
83	1	21	0.0476	1.40	1.40	0.7143	0.7143
84	4	20	0.2000	1.40	1.40	2.8571	2.8571
85	1	18	0.0556	1.40	1.40	0.7143	0.7143
86	1	16	0.0625	1.30	1.30	0.7692	0.7692
87	0	18	0.0000	1.80	1.80	0.0000	0.0000
88	2	17	0.1176	1.70	1.70	1.1765	1.1765
89	0	11	0.0000	1.10	1.10	0.0000	0.0000
90	0	11	0.0000	1.20	1.20	0.0000	0.0000
91	1	9	0.1111	1.20	1.20	0.8333	0.8333
92	1	6	0.1667	0.90	0.90	1.1111	1.1111
93	0	4	0.0000	0.70	0.70	0.0000	0.0000
94	0	3	0.0000	0.60	0.60	0.0000	0.0000
95	0	1	0.0000	0.20	0.20	0.0000	0.0000
96	0	1	0.0000	0.20	0.20	0.0000	0.0000
97	0	1	0.0000	0.20	0.20	0.0000	0.0000
98	1	1	1.0000	0.30	0.30	3.3333	3.3333
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	77	2,534	0.0304	80.20	80.20	0.9601	0.9601

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Women 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	4	0.0000	0.00	0.00	N/A	N/A
42	0	9	0.0000	0.10	0.10	0.0000	0.0000
43	0	10	0.0000	0.00	0.00	N/A	N/A
44	0	10	0.0000	0.00	0.00	N/A	N/A
45	0	14	0.0000	0.10	0.10	0.0000	0.0000
46	0	15	0.0000	0.10	0.10	0.0000	0.0000
47	0	20	0.0000	0.30	0.30	0.0000	0.0000
48	0	31	0.0000	0.50	0.50	0.0000	0.0000
49	0	44	0.0000	0.90	0.90	0.0000	0.0000
50	3	51	0.0588	1.00	1.00	3.0000	3.0000
51	0	60	0.0000	1.10	1.10	0.0000	0.0000
52	2	78	0.0256	1.30	1.30	1.5385	1.5385
53	2	93	0.0215	1.60	1.60	1.2500	1.2500
54	1	114	0.0088	2.20	2.20	0.4545	0.4545
55	3	141	0.0213	2.50	2.50	1.2000	1.2000
56	4	166	0.0241	3.10	3.10	1.2903	1.2903
57	5	190	0.0263	3.40	3.40	1.4706	1.4706
58	5	208	0.0240	3.80	3.80	1.3158	1.3158
59	1	234	0.0043	4.60	4.60	0.2174	0.2174
60	2	264	0.0076	5.00	5.00	0.4000	0.4000
61	8	289	0.0277	5.70	5.70	1.4035	1.4035
62	5	325	0.0154	6.50	6.50	0.7692	0.7692
63	11	341	0.0323	6.90	6.90	1.5942	1.5942
64	6	352	0.0170	7.60	7.60	0.7895	0.7895
65	6	348	0.0172	7.80	7.80	0.7692	0.7692
66	7	347	0.0202	7.80	7.80	0.8974	0.8974
67	11	329	0.0334	7.50	7.50	1.4667	1.4667
68	6	310	0.0194	7.30	7.30	0.8219	0.8219
69	8	284	0.0282	6.80	6.80	1.1765	1.1765
70	6	264	0.0227	6.70	6.70	0.8955	0.8955
71	3	240	0.0125	6.30	6.30	0.4762	0.4762
72	6	208	0.0288	5.60	5.60	1.0714	1.0714
73	7	177	0.0395	5.20	5.20	1.3462	1.3462
74	2	148	0.0135	4.50	4.50	0.4444	0.4444
75	4	128	0.0313	4.10	4.10	0.9756	0.9756
76	3	111	0.0270	3.90	3.90	0.7692	0.7692
77	3	87	0.0345	3.20	3.20	0.9375	0.9375
78	0	81	0.0000	3.20	3.20	0.0000	0.0000
79	1	60	0.0167	2.50	2.50	0.4000	0.4000
80	2	50	0.0400	2.10	2.10	0.9524	0.9524
81	2	41	0.0488	1.90	1.90	1.0526	1.0526
82	2	37	0.0541	2.10	2.10	0.9524	0.9524
83	1	29	0.0345	1.70	1.70	0.5882	0.5882
84	1	23	0.0435	1.40	1.40	0.7143	0.7143
85	1	23	0.0435	1.60	1.60	0.6250	0.6250
86	0	19	0.0000	1.50	1.50	0.0000	0.0000
87	2	17	0.1176	1.50	1.50	1.3333	1.3333
88	0	12	0.0000	1.20	1.20	0.0000	0.0000
89	1	11	0.0909	1.10	1.10	0.9091	0.9091
90	2	7	0.2857	0.70	0.70	2.8571	2.8571
91	0	6	0.0000	0.70	0.70	0.0000	0.0000
92	0	4	0.0000	0.60	0.60	0.0000	0.0000
93	1	3	0.3333	0.50	0.50	2.0000	2.0000
94	1	2	0.5000	0.30	0.30	3.3333	3.3333
95	0	0	N/A	0.00	0.00	N/A	N/A
96	0	0	N/A	0.00	0.00	N/A	N/A
97	0	0	N/A	0.00	0.00	N/A	N/A
98	0	0	N/A	0.00	0.00	N/A	N/A
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	147	6,469	0.0227	159.60	159.60	0.9211	0.9211

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: center;"> <p>Board of Education Retirement System of the City of New York Disability Retirees' Mortality Assumption and Experience Men and Women 10-Year Period Ending 2017</p> <p>Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	6	0.0000	0.00	0.00	N/A	N/A
42	0	12	0.0000	0.10	0.10	0.0000	0.0000
43	0	15	0.0000	0.00	0.00	N/A	N/A
44	0	16	0.0000	0.00	0.00	N/A	N/A
45	0	23	0.0000	0.10	0.10	0.0000	0.0000
46	0	28	0.0000	0.20	0.20	0.0000	0.0000
47	1	36	0.0278	0.40	0.40	2.5000	2.5000
48	0	53	0.0000	0.80	0.80	0.0000	0.0000
49	2	74	0.0270	1.40	1.40	1.4286	1.4286
50	3	90	0.0333	1.60	1.60	1.8750	1.8750
51	2	113	0.0177	2.10	2.10	0.9524	0.9524
52	3	140	0.0214	2.50	2.50	1.2000	1.2000
53	3	165	0.0182	3.00	3.00	1.0000	1.0000
54	3	192	0.0156	3.70	3.70	0.8108	0.8108
55	4	224	0.0179	4.10	4.10	0.9756	0.9756
56	8	256	0.0313	5.10	5.10	1.5686	1.5686
57	8	280	0.0286	5.50	5.50	1.4545	1.4545
58	6	310	0.0194	6.20	6.20	0.9677	0.9677
59	5	333	0.0150	6.90	6.90	0.7246	0.7246
60	3	363	0.0083	7.50	7.50	0.4000	0.4000
61	8	395	0.0203	8.30	8.30	0.9639	0.9639
62	7	433	0.0162	9.30	9.30	0.7527	0.7527
63	14	455	0.0308	9.90	9.90	1.4141	1.4141
64	13	460	0.0283	10.50	10.50	1.2381	1.2381
65	8	442	0.0181	10.50	10.50	0.7619	0.7619
66	8	438	0.0183	10.40	10.40	0.7692	0.7692
67	11	409	0.0269	9.80	9.80	1.1224	1.1224
68	7	386	0.0181	9.60	9.60	0.7292	0.7292
69	10	353	0.0283	8.90	8.90	1.1236	1.1236
70	8	330	0.0242	8.80	8.80	0.9091	0.9091
71	4	298	0.0134	8.10	8.10	0.4938	0.4938
72	8	268	0.0299	7.50	7.50	1.0667	1.0667
73	7	232	0.0302	7.00	7.00	1.0000	1.0000
74	4	200	0.0200	6.40	6.40	0.6250	0.6250
75	5	171	0.0292	5.60	5.60	0.8929	0.8929
76	5	153	0.0327	5.50	5.50	0.9091	0.9091
77	6	125	0.0480	4.80	4.80	1.2500	1.2500
78	2	110	0.0182	4.50	4.50	0.4444	0.4444
79	2	91	0.0220	4.10	4.10	0.4878	0.4878
80	5	78	0.0641	3.60	3.60	1.3889	1.3889
81	5	71	0.0704	3.50	3.50	1.4286	1.4286
82	4	62	0.0645	3.60	3.60	1.1111	1.1111
83	2	50	0.0400	3.10	3.10	0.6452	0.6452
84	5	43	0.1163	2.80	2.80	1.7857	1.7857
85	2	41	0.0488	3.00	3.00	0.6667	0.6667
86	1	35	0.0286	2.80	2.80	0.3571	0.3571
87	2	35	0.0571	3.30	3.30	0.6061	0.6061
88	2	29	0.0690	2.90	2.90	0.6897	0.6897
89	1	22	0.0455	2.20	2.20	0.4545	0.4545
90	2	18	0.1111	1.90	1.90	1.0526	1.0526
91	1	15	0.0667	1.90	1.90	0.5263	0.5263
92	1	10	0.1000	1.50	1.50	0.6667	0.6667
93	1	7	0.1429	1.20	1.20	0.8333	0.8333
94	1	5	0.2000	0.90	0.90	1.1111	1.1111
95	0	1	0.0000	0.20	0.20	0.0000	0.0000
96	0	1	0.0000	0.20	0.20	0.0000	0.0000
97	0	1	0.0000	0.20	0.20	0.0000	0.0000
98	1	1	1.0000	0.30	0.30	3.3333	3.3333
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	224	9,003	0.0249	239.80	239.80	0.9341	0.9341

Bolton

**Board of Education Retirement System of the City of New York
Disability Retirees' Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (3) ÷ (4)	(6) = (3) ÷ (2)	(7) = (4) ÷ (2)
Plan Year	Life Years Exposed	Actual Deaths	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	736	19	19.40	0.9794	0.0258	0.0264
2009	746	22	20.50	1.0732	0.0295	0.0275
2010	764	20	20.80	0.9615	0.0262	0.0272
2011	807	30	21.60	1.3889	0.0372	0.0268
2012	848	24	22.50	1.0667	0.0283	0.0265
2013	891	18	23.20	0.7759	0.0202	0.0260
2014	972	6	25.40	0.2362	0.0062	0.0261
2015	1,044	12	27.40	0.4380	0.0115	0.0262
2016	1,082	37	28.80	1.2847	0.0342	0.0266
2017	1,134	36	30.20	1.1921	0.0317	0.0266
Total	9,024	224	239.80	0.9341	0.0248	0.0266

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: white; padding: 5px; border: 1px solid black;">Bolton</div> <div style="text-align: right;"> Board of Education Retirement System of the City of New York Active Ordinary Mortality Assumption and Experience Men 4-Year Period Ending 2017 Proposed Assumptions are 66.7% of the Current Rates </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	13	0.0000	0.0004	0.0003	0.01	0.00	0.0000	0.0000
21	0	31	0.0000	0.0004	0.0003	0.01	0.01	0.0000	0.0000
22	0	54	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000
23	0	80	0.0000	0.0004	0.0003	0.03	0.02	0.0000	0.0000
24	0	117	0.0000	0.0004	0.0003	0.05	0.03	0.0000	0.0000
25	0	163	0.0000	0.0004	0.0003	0.07	0.04	0.0000	0.0000
26	0	193	0.0000	0.0004	0.0003	0.08	0.06	0.0000	0.0000
27	0	233	0.0000	0.0005	0.0003	0.11	0.07	0.0000	0.0000
28	0	274	0.0000	0.0005	0.0003	0.14	0.10	0.0000	0.0000
29	0	334	0.0000	0.0006	0.0004	0.19	0.12	0.0000	0.0000
30	0	351	0.0000	0.0006	0.0004	0.21	0.14	0.0000	0.0000
31	0	383	0.0000	0.0006	0.0004	0.25	0.16	0.0000	0.0000
32	1	428	0.0023	0.0007	0.0005	0.29	0.19	3.4360	5.1514
33	0	426	0.0000	0.0007	0.0005	0.31	0.20	0.0000	0.0000
34	0	442	0.0000	0.0008	0.0005	0.34	0.22	0.0000	0.0000
35	0	469	0.0000	0.0008	0.0005	0.38	0.25	0.0000	0.0000
36	0	447	0.0000	0.0008	0.0006	0.38	0.25	0.0000	0.0000
37	0	501	0.0000	0.0009	0.0006	0.44	0.29	0.0000	0.0000
38	0	538	0.0000	0.0009	0.0006	0.49	0.33	0.0000	0.0000
39	1	556	0.0018	0.0010	0.0006	0.53	0.36	1.8735	2.8088
40	0	582	0.0000	0.0010	0.0007	0.58	0.39	0.0000	0.0000
41	0	593	0.0000	0.0011	0.0007	0.65	0.44	0.0000	0.0000
42	0	585	0.0000	0.0012	0.0008	0.70	0.47	0.0000	0.0000
43	2	622	0.0032	0.0013	0.0009	0.81	0.54	2.4734	3.7083
44	0	617	0.0000	0.0014	0.0009	0.86	0.58	0.0000	0.0000
45	0	672	0.0000	0.0015	0.0010	1.01	0.67	0.0000	0.0000
46	1	708	0.0014	0.0016	0.0011	1.13	0.76	0.8828	1.3235
47	0	665	0.0000	0.0017	0.0011	1.13	0.75	0.0000	0.0000
48	0	717	0.0000	0.0018	0.0012	1.29	0.86	0.0000	0.0000
49	1	747	0.0013	0.0019	0.0013	1.42	0.95	0.7046	1.0563
50	2	777	0.0026	0.0020	0.0013	1.55	1.04	1.2870	1.9295
51	0	786	0.0000	0.0022	0.0015	1.73	1.15	0.0000	0.0000
52	1	816	0.0012	0.0024	0.0016	1.96	1.31	0.5106	0.7655
53	2	820	0.0024	0.0026	0.0017	2.13	1.42	0.9381	1.4064
54	2	842	0.0024	0.0028	0.0019	2.36	1.57	0.8483	1.2718
55	1	844	0.0012	0.0030	0.0020	2.53	1.69	0.3949	0.5921
56	0	833	0.0000	0.0032	0.0021	2.67	1.78	0.0000	0.0000
57	5	817	0.0061	0.0034	0.0023	2.78	1.85	1.8000	2.6986
58	4	764	0.0052	0.0036	0.0024	2.75	1.83	1.4543	2.1804
59	1	720	0.0014	0.0038	0.0025	2.74	1.82	0.3655	0.5480
60	1	702	0.0014	0.0040	0.0027	2.81	1.87	0.3561	0.5339
61	2	649	0.0031	0.0042	0.0028	2.73	1.82	0.7337	1.1000
62	1	574	0.0017	0.0044	0.0029	2.53	1.68	0.3959	0.5936
63	1	450	0.0022	0.0046	0.0031	2.07	1.38	0.4831	0.7243
64	0	362	0.0000	0.0048	0.0032	1.74	1.16	0.0000	0.0000
65	0	332	0.0000	0.0050	0.0033	1.66	1.11	0.0000	0.0000
66	2	267	0.0075	0.0054	0.0036	1.44	0.96	1.3872	2.0797
67	1	212	0.0047	0.0058	0.0039	1.23	0.82	0.8133	1.2193
68	2	178	0.0112	0.0062	0.0041	1.10	0.74	1.8123	2.7170
69	0	133	0.0000	0.0066	0.0044	0.88	0.59	0.0000	0.0000
70	0	117	0.0000	0.0066	0.0044	0.77	0.52	0.0000	0.0000
71	0	100	0.0000	0.0066	0.0044	0.66	0.44	0.0000	0.0000
72	1	76	0.0132	0.0066	0.0044	0.50	0.33	1.9936	2.9889
73	0	62	0.0000	0.0066	0.0044	0.41	0.27	0.0000	0.0000
74	0	57	0.0000	0.0066	0.0044	0.38	0.25	0.0000	0.0000
75	1	45	0.0222	0.0066	0.0044	0.30	0.20	3.3670	5.0480
76	0	44	0.0000	0.0066	0.0044	0.29	0.19	0.0000	0.0000
77	0	39	0.0000	0.0066	0.0044	0.26	0.17	0.0000	0.0000
78	1	26	0.0385	0.0066	0.0044	0.17	0.11	5.8275	8.7369
79	0	16	0.0000	0.0066	0.0044	0.11	0.07	0.0000	0.0000
80	0	12	0.0000	0.0066	0.0044	0.08	0.05	0.0000	0.0000
Total	37	25,013	0.0015			58.00	38.69	0.6379	0.9564

Board of Education Retirement System of the City of New York									
Active Ordinary Mortality Assumption and Experience									
Women									
4-Year Period Ending 2017									
Proposed Assumptions are 66.7% of the Current Rates									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	16	0.0000	0.0003	0.0002	0.00	0.00	0.0000	0.0000
21	0	38	0.0000	0.0003	0.0002	0.01	0.01	0.0000	0.0000
22	0	54	0.0000	0.0003	0.0002	0.02	0.01	0.0000	0.0000
23	0	104	0.0000	0.0003	0.0002	0.03	0.02	0.0000	0.0000
24	0	154	0.0000	0.0003	0.0002	0.05	0.03	0.0000	0.0000
25	0	262	0.0000	0.0003	0.0002	0.08	0.05	0.0000	0.0000
26	0	353	0.0000	0.0003	0.0002	0.11	0.08	0.0000	0.0000
27	0	453	0.0000	0.0003	0.0002	0.15	0.10	0.0000	0.0000
28	0	526	0.0000	0.0004	0.0002	0.19	0.13	0.0000	0.0000
29	0	597	0.0000	0.0004	0.0003	0.23	0.15	0.0000	0.0000
30	0	646	0.0000	0.0004	0.0003	0.26	0.17	0.0000	0.0000
31	0	714	0.0000	0.0004	0.0003	0.30	0.20	0.0000	0.0000
32	0	773	0.0000	0.0004	0.0003	0.34	0.23	0.0000	0.0000
33	0	873	0.0000	0.0005	0.0003	0.40	0.27	0.0000	0.0000
34	0	916	0.0000	0.0005	0.0003	0.44	0.29	0.0000	0.0000
35	0	937	0.0000	0.0005	0.0003	0.47	0.31	0.0000	0.0000
36	0	1,032	0.0000	0.0005	0.0003	0.54	0.36	0.0000	0.0000
37	0	1,099	0.0000	0.0005	0.0004	0.59	0.40	0.0000	0.0000
38	1	1,185	0.0008	0.0006	0.0004	0.66	0.44	1.5069	2.2593
39	0	1,222	0.0000	0.0006	0.0004	0.71	0.47	0.0000	0.0000
40	0	1,232	0.0000	0.0006	0.0004	0.74	0.49	0.0000	0.0000
41	0	1,307	0.0000	0.0007	0.0005	0.89	0.59	0.0000	0.0000
42	0	1,411	0.0000	0.0008	0.0005	1.07	0.72	0.0000	0.0000
43	3	1,548	0.0019	0.0008	0.0006	1.30	0.87	2.3071	3.4590
44	0	1,604	0.0000	0.0009	0.0006	1.48	0.98	0.0000	0.0000
45	0	1,700	0.0000	0.0010	0.0007	1.70	1.13	0.0000	0.0000
46	0	1,874	0.0000	0.0011	0.0007	2.06	1.37	0.0000	0.0000
47	2	1,954	0.0010	0.0012	0.0008	2.34	1.56	0.8530	1.2788
48	0	2,202	0.0000	0.0013	0.0009	2.86	1.91	0.0000	0.0000
49	0	2,398	0.0000	0.0014	0.0009	3.36	2.24	0.0000	0.0000
50	1	2,569	0.0004	0.0015	0.0010	3.85	2.57	0.2595	0.3891
51	3	2,774	0.0011	0.0016	0.0011	4.44	2.96	0.6759	1.0134
52	9	2,848	0.0032	0.0017	0.0011	4.84	3.23	1.8589	2.7869
53	1	2,901	0.0003	0.0018	0.0012	5.22	3.48	0.1915	0.2871
54	3	2,971	0.0010	0.0019	0.0013	5.64	3.77	0.5315	0.7968
55	5	3,038	0.0016	0.0020	0.0013	6.08	4.05	0.8229	1.2337
56	3	3,142	0.0010	0.0021	0.0014	6.60	4.40	0.4547	0.6817
57	5	3,124	0.0016	0.0022	0.0015	6.87	4.58	0.7275	1.0907
58	4	2,994	0.0013	0.0023	0.0015	6.89	4.59	0.5809	0.8709
59	3	2,897	0.0010	0.0024	0.0016	6.95	4.64	0.4315	0.6469
60	6	2,755	0.0022	0.0025	0.0017	6.89	4.59	0.8711	1.3061
61	4	2,671	0.0015	0.0026	0.0017	6.94	4.63	0.5760	0.8635
62	4	2,309	0.0017	0.0027	0.0018	6.23	4.16	0.6416	0.9619
63	2	1,900	0.0011	0.0028	0.0019	5.32	3.55	0.3759	0.5636
64	2	1,652	0.0012	0.0029	0.0019	4.79	3.20	0.4175	0.6259
65	3	1,402	0.0021	0.0030	0.0020	4.21	2.81	0.7133	1.0694
66	3	1,206	0.0025	0.0032	0.0021	3.86	2.57	0.7774	1.1655
67	3	917	0.0033	0.0034	0.0023	3.12	2.08	0.9622	1.4426
68	2	743	0.0027	0.0036	0.0024	2.67	1.78	0.7477	1.1210
69	0	571	0.0000	0.0038	0.0025	2.17	1.45	0.0000	0.0000
70	1	447	0.0022	0.0038	0.0025	1.70	1.13	0.5887	0.8826
71	2	358	0.0056	0.0038	0.0025	1.36	0.91	1.4702	2.2041
72	0	297	0.0000	0.0038	0.0025	1.13	0.75	0.0000	0.0000
73	0	241	0.0000	0.0038	0.0025	0.92	0.61	0.0000	0.0000
74	0	187	0.0000	0.0038	0.0025	0.71	0.47	0.0000	0.0000
75	1	137	0.0073	0.0038	0.0025	0.52	0.35	1.9209	2.8799
76	0	110	0.0000	0.0038	0.0025	0.42	0.28	0.0000	0.0000
77	1	85	0.0118	0.0038	0.0025	0.32	0.22	3.0960	4.6416
78	0	79	0.0000	0.0038	0.0025	0.30	0.20	0.0000	0.0000
79	2	61	0.0328	0.0038	0.0025	0.23	0.15	8.6281	12.9357
80	0	41	0.0000	0.0038	0.0025	0.16	0.10	0.0000	0.0000
Total	79	76,611	0.0010			134.74	89.87	0.5863	0.8790

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; background-color: white;">Bolton</div> <div style="text-align: center;"> Board of Education Retirement System of the City of New York Active Ordinary Mortality Assumption and Experience Men and Women 4-Year Period Ending 2017 Proposed Assumptions are 66.7% of the Current Rates for Men and 66.7% for Women </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	29	0.0000	0.0004	0.0002	0.01	0.01	0.0000	0.0000
21	0	69	0.0000	0.0004	0.0002	0.02	0.02	0.0000	0.0000
22	0	108	0.0000	0.0004	0.0002	0.04	0.03	0.0000	0.0000
23	0	184	0.0000	0.0004	0.0002	0.06	0.04	0.0000	0.0000
24	0	271	0.0000	0.0004	0.0002	0.09	0.06	0.0000	0.0000
25	0	425	0.0000	0.0004	0.0002	0.14	0.10	0.0000	0.0000
26	0	546	0.0000	0.0004	0.0003	0.20	0.13	0.0000	0.0000
27	0	686	0.0000	0.0005	0.0003	0.27	0.18	0.0000	0.0000
28	0	800	0.0000	0.0005	0.0003	0.33	0.22	0.0000	0.0000
29	0	931	0.0000	0.0006	0.0003	0.41	0.28	0.0000	0.0000
30	0	997	0.0000	0.0006	0.0003	0.47	0.31	0.0000	0.0000
31	0	1,097	0.0000	0.0006	0.0004	0.55	0.36	0.0000	0.0000
32	1	1,201	0.0008	0.0007	0.0004	0.63	0.42	1.5844	2.3754
33	0	1,299	0.0000	0.0007	0.0004	0.71	0.47	0.0000	0.0000
34	0	1,358	0.0000	0.0008	0.0004	0.78	0.52	0.0000	0.0000
35	0	1,406	0.0000	0.0008	0.0004	0.84	0.56	0.0000	0.0000
36	0	1,479	0.0000	0.0008	0.0005	0.91	0.61	0.0000	0.0000
37	0	1,600	0.0000	0.0009	0.0005	1.03	0.69	0.0000	0.0000
38	1	1,723	0.0006	0.0009	0.0005	1.16	0.77	0.8631	1.2941
39	1	1,778	0.0006	0.0010	0.0005	1.24	0.83	0.8048	1.2066
40	0	1,814	0.0000	0.0010	0.0005	1.32	0.88	0.0000	0.0000
41	0	1,900	0.0000	0.0011	0.0006	1.54	1.03	0.0000	0.0000
42	0	1,996	0.0000	0.0012	0.0007	1.77	1.18	0.0000	0.0000
43	5	2,170	0.0023	0.0013	0.0007	2.11	1.41	2.3709	3.5545
44	0	2,221	0.0000	0.0014	0.0008	2.34	1.56	0.0000	0.0000
45	0	2,372	0.0000	0.0015	0.0008	2.71	1.81	0.0000	0.0000
46	1	2,582	0.0004	0.0016	0.0009	3.19	2.13	0.3131	0.4694
47	2	2,619	0.0008	0.0017	0.0010	3.48	2.32	0.5755	0.8628
48	0	2,919	0.0000	0.0018	0.0010	4.15	2.77	0.0000	0.0000
49	1	3,145	0.0003	0.0019	0.0011	4.78	3.19	0.2094	0.3139
50	3	3,346	0.0009	0.0020	0.0012	5.41	3.61	0.5548	0.8318
51	3	3,560	0.0008	0.0022	0.0013	6.17	4.11	0.4864	0.7293
52	10	3,664	0.0027	0.0024	0.0014	6.80	4.54	1.4706	2.2048
53	3	3,721	0.0008	0.0026	0.0015	7.35	4.90	0.4080	0.6116
54	5	3,813	0.0013	0.0028	0.0016	8.00	5.34	0.6248	0.9367
55	6	3,882	0.0015	0.0030	0.0017	8.61	5.74	0.6970	1.0450
56	3	3,975	0.0008	0.0032	0.0018	9.26	6.18	0.3238	0.4855
57	10	3,941	0.0025	0.0034	0.0019	9.65	6.44	1.0362	1.5535
58	8	3,758	0.0021	0.0036	0.0020	9.64	6.43	0.8302	1.2446
59	4	3,617	0.0011	0.0038	0.0021	9.69	6.46	0.4128	0.6190
60	7	3,457	0.0020	0.0040	0.0022	9.70	6.47	0.7220	1.0824
61	6	3,320	0.0018	0.0042	0.0023	9.67	6.45	0.6205	0.9302
62	5	2,883	0.0017	0.0044	0.0024	8.76	5.84	0.5708	0.8557
63	3	2,350	0.0013	0.0046	0.0025	7.39	4.93	0.4060	0.6086
64	2	2,014	0.0010	0.0048	0.0026	6.53	4.35	0.3064	0.4593
65	3	1,734	0.0017	0.0050	0.0027	5.87	3.91	0.5114	0.7667
66	5	1,473	0.0034	0.0054	0.0029	5.30	3.54	0.9432	1.4141
67	4	1,129	0.0035	0.0058	0.0031	4.35	2.90	0.9201	1.3794
68	4	921	0.0043	0.0062	0.0033	3.78	2.52	1.0586	1.5872
69	0	704	0.0000	0.0066	0.0035	3.05	2.03	0.0000	0.0000
70	1	564	0.0018	0.0066	0.0035	2.47	1.65	0.4047	0.6068
71	2	458	0.0044	0.0066	0.0035	2.02	1.35	0.9899	1.4841
72	1	373	0.0027	0.0066	0.0035	1.63	1.09	0.6134	0.9197
73	0	303	0.0000	0.0066	0.0035	1.33	0.88	0.0000	0.0000
74	0	244	0.0000	0.0066	0.0035	1.09	0.72	0.0000	0.0000
75	2	182	0.0110	0.0066	0.0035	0.82	0.55	2.4462	3.6674
76	0	154	0.0000	0.0066	0.0035	0.71	0.47	0.0000	0.0000
77	1	124	0.0081	0.0066	0.0035	0.58	0.39	1.7229	2.5831
78	1	105	0.0095	0.0066	0.0035	0.47	0.31	2.1195	3.1777
79	2	77	0.0260	0.0066	0.0035	0.34	0.23	5.9277	8.8871
80	0	53	0.0000	0.0066	0.0035	0.24	0.16	0.0000	0.0000
Total	116	101,624	0.0011			192.74	127.26	0.6018	0.9115

* Assumed probability equals average of male and female assumptions while expected amounts are total of male and female amounts.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Active Ordinary Mortality Assumption and Experience Men 10-Year Period Ending 2017 Proposed Assumptions are 66.7% of the Current Rates</p> </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	44	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000
21	0	84	0.0000	0.0004	0.0003	0.03	0.02	0.0000	0.0000
22	0	132	0.0000	0.0004	0.0003	0.05	0.04	0.0000	0.0000
23	0	191	0.0000	0.0004	0.0003	0.08	0.05	0.0000	0.0000
24	0	261	0.0000	0.0004	0.0003	0.10	0.07	0.0000	0.0000
25	0	315	0.0000	0.0004	0.0003	0.13	0.08	0.0000	0.0000
26	0	378	0.0000	0.0004	0.0003	0.17	0.11	0.0000	0.0000
27	0	483	0.0000	0.0005	0.0003	0.23	0.15	0.0000	0.0000
28	0	618	0.0000	0.0005	0.0003	0.32	0.21	0.0000	0.0000
29	0	705	0.0000	0.0006	0.0004	0.39	0.26	0.0000	0.0000
30	0	763	0.0000	0.0006	0.0004	0.46	0.31	0.0000	0.0000
31	1	831	0.0012	0.0006	0.0004	0.53	0.35	1.8803	2.8190
32	2	870	0.0023	0.0007	0.0005	0.59	0.39	3.3807	5.0685
33	0	921	0.0000	0.0007	0.0005	0.66	0.44	0.0000	0.0000
34	0	1,003	0.0000	0.0008	0.0005	0.76	0.51	0.0000	0.0000
35	0	1,066	0.0000	0.0008	0.0005	0.85	0.57	0.0000	0.0000
36	0	1,072	0.0000	0.0008	0.0006	0.90	0.60	0.0000	0.0000
37	0	1,177	0.0000	0.0009	0.0006	1.04	0.69	0.0000	0.0000
38	0	1,213	0.0000	0.0009	0.0006	1.12	0.74	0.0000	0.0000
39	1	1,275	0.0008	0.0010	0.0006	1.22	0.82	0.8170	1.2249
40	0	1,321	0.0000	0.0010	0.0007	1.32	0.88	0.0000	0.0000
41	0	1,368	0.0000	0.0011	0.0007	1.50	1.00	0.0000	0.0000
42	1	1,414	0.0007	0.0012	0.0008	1.70	1.13	0.5893	0.8836
43	3	1,517	0.0020	0.0013	0.0009	1.97	1.32	1.5212	2.2807
44	0	1,554	0.0000	0.0014	0.0009	2.18	1.45	0.0000	0.0000
45	1	1,620	0.0006	0.0015	0.0010	2.43	1.62	0.4115	0.6170
46	3	1,677	0.0018	0.0016	0.0011	2.68	1.79	1.1181	1.6763
47	2	1,694	0.0012	0.0017	0.0011	2.88	1.92	0.6945	1.0412
48	3	1,811	0.0017	0.0018	0.0012	3.26	2.17	0.9203	1.3798
49	1	1,858	0.0005	0.0019	0.0013	3.53	2.35	0.2833	0.4247
50	3	1,907	0.0016	0.0020	0.0013	3.81	2.54	0.7866	1.1793
51	2	1,952	0.0010	0.0022	0.0015	4.29	2.86	0.4657	0.6982
52	3	1,967	0.0015	0.0024	0.0016	4.72	3.15	0.6355	0.9528
53	3	1,955	0.0015	0.0026	0.0017	5.08	3.39	0.5902	0.8849
54	6	1,960	0.0031	0.0028	0.0019	5.49	3.66	1.0933	1.6391
55	3	1,927	0.0016	0.0030	0.0020	5.78	3.86	0.5189	0.7780
56	1	1,876	0.0005	0.0032	0.0021	6.00	4.00	0.1666	0.2497
57	9	1,820	0.0049	0.0034	0.0023	6.19	4.13	1.4544	2.1806
58	5	1,703	0.0029	0.0036	0.0024	6.13	4.09	0.8156	1.2227
59	3	1,616	0.0019	0.0038	0.0025	6.14	4.10	0.4885	0.7324
60	2	1,536	0.0013	0.0040	0.0027	6.14	4.10	0.3255	0.4880
61	4	1,412	0.0028	0.0042	0.0028	5.93	3.96	0.6745	1.0112
62	3	1,209	0.0025	0.0044	0.0029	5.32	3.55	0.5640	0.8455
63	3	990	0.0030	0.0046	0.0031	4.55	3.04	0.6588	0.9876
64	3	801	0.0037	0.0048	0.0032	3.84	2.56	0.7803	1.1698
65	0	703	0.0000	0.0050	0.0033	3.52	2.34	0.0000	0.0000
66	3	573	0.0052	0.0054	0.0036	3.09	2.06	0.9696	1.4536
67	3	451	0.0067	0.0058	0.0039	2.62	1.74	1.1469	1.7195
68	2	373	0.0054	0.0062	0.0041	2.31	1.54	0.8648	1.2966
69	0	307	0.0000	0.0066	0.0044	2.03	1.35	0.0000	0.0000
70	0	256	0.0000	0.0066	0.0044	1.69	1.13	0.0000	0.0000
71	0	226	0.0000	0.0066	0.0044	1.49	0.99	0.0000	0.0000
72	1	186	0.0054	0.0000	0.0044	0.00	0.82	N/A	1.2213
73	0	152	0.0000	0.0066	0.0044	1.00	0.67	0.0000	0.0000
74	0	123	0.0000	0.0000	0.0044	0.00	0.54	N/A	0.0000
75	1	95	0.0105	0.0066	0.0044	0.63	0.42	1.5949	2.3911
76	0	80	0.0000	0.0000	0.0044	0.00	0.35	N/A	0.0000
77	0	69	0.0000	0.0066	0.0044	0.46	0.30	0.0000	0.0000
78	1	49	0.0204	0.0000	0.0044	0.00	0.22	N/A	4.6359
79	0	38	0.0000	0.0066	0.0044	0.25	0.17	0.0000	0.0000
80	0	33	0.0000	0.0066	0.0044	0.22	0.15	0.0000	0.0000
Total	82	57,581	0.0014			131.85	89.87	0.6219	0.9124

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #003366; color: white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right; color: white; font-weight: bold;"> Board of Education Retirement System of the City of New York Active Ordinary Mortality Assumption and Experience Women 10-Year Period Ending 2017 Proposed Assumptions are 66.7% of the Current Rates </div> </div>										
(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected		
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed	
20	0	38	0.0000	0.0003	0.0002	0.01	0.01	0.0000	0.0000	
21	0	79	0.0000	0.0003	0.0002	0.02	0.02	0.0000	0.0000	
22	0	139	0.0000	0.0003	0.0002	0.04	0.03	0.0000	0.0000	
23	0	236	0.0000	0.0003	0.0002	0.07	0.05	0.0000	0.0000	
24	0	353	0.0000	0.0003	0.0002	0.11	0.07	0.0000	0.0000	
25	0	547	0.0000	0.0003	0.0002	0.16	0.11	0.0000	0.0000	
26	0	742	0.0000	0.0003	0.0002	0.24	0.16	0.0000	0.0000	
27	0	953	0.0000	0.0003	0.0002	0.32	0.22	0.0000	0.0000	
28	0	1,147	0.0000	0.0004	0.0002	0.41	0.28	0.0000	0.0000	
29	0	1,354	0.0000	0.0004	0.0003	0.51	0.34	0.0000	0.0000	
30	0	1,524	0.0000	0.0004	0.0003	0.61	0.41	0.0000	0.0000	
31	0	1,663	0.0000	0.0004	0.0003	0.70	0.47	0.0000	0.0000	
32	0	1,800	0.0000	0.0004	0.0003	0.79	0.53	0.0000	0.0000	
33	1	1,958	0.0005	0.0005	0.0003	0.90	0.60	1.1103	1.6646	
34	0	2,080	0.0000	0.0005	0.0003	1.00	0.67	0.0000	0.0000	
35	0	2,218	0.0000	0.0005	0.0003	1.11	0.74	0.0000	0.0000	
36	0	2,373	0.0000	0.0005	0.0003	1.23	0.82	0.0000	0.0000	
37	2	2,519	0.0008	0.0005	0.0004	1.36	0.91	1.4703	2.2044	
38	1	2,706	0.0004	0.0006	0.0004	1.52	1.01	0.6599	0.9894	
39	1	2,848	0.0004	0.0006	0.0004	1.65	1.10	0.6054	0.9076	
40	0	3,015	0.0000	0.0006	0.0004	1.81	1.21	0.0000	0.0000	
41	0	3,257	0.0000	0.0007	0.0005	2.21	1.48	0.0000	0.0000	
42	0	3,583	0.0000	0.0008	0.0005	2.72	1.82	0.0000	0.0000	
43	3	3,958	0.0008	0.0008	0.0006	3.32	2.22	0.9023	1.3528	
44	0	4,324	0.0000	0.0009	0.0006	3.98	2.65	0.0000	0.0000	
45	1	4,773	0.0002	0.0010	0.0007	4.77	3.18	0.2095	0.3141	
46	2	5,132	0.0004	0.0011	0.0007	5.65	3.77	0.3543	0.5312	
47	7	5,482	0.0013	0.0012	0.0008	6.58	4.39	1.0641	1.5953	
48	2	5,848	0.0003	0.0013	0.0009	7.60	5.07	0.2631	0.3944	
49	3	6,314	0.0005	0.0014	0.0009	8.84	5.90	0.3394	0.5088	
50	2	6,656	0.0003	0.0015	0.0010	9.98	6.66	0.2003	0.3003	
51	8	6,969	0.0011	0.0016	0.0011	11.15	7.44	0.7175	1.0757	
52	9	7,181	0.0013	0.0017	0.0011	12.21	8.14	0.7372	1.1053	
53	5	7,373	0.0007	0.0018	0.0012	13.27	8.85	0.3768	0.5648	
54	6	7,499	0.0008	0.0019	0.0013	14.25	9.50	0.4211	0.6313	
55	7	7,520	0.0009	0.0020	0.0013	15.04	10.03	0.4654	0.6978	
56	5	7,476	0.0007	0.0021	0.0014	15.70	10.47	0.3185	0.4775	
57	6	7,341	0.0008	0.0022	0.0015	16.15	10.77	0.3715	0.5570	
58	9	7,059	0.0013	0.0023	0.0015	16.24	10.83	0.5543	0.8311	
59	11	6,756	0.0016	0.0024	0.0016	16.21	10.82	0.6784	1.0171	
60	14	6,472	0.0022	0.0025	0.0017	16.18	10.79	0.8653	1.2973	
61	8	6,155	0.0013	0.0026	0.0017	16.00	10.67	0.4999	0.7495	
62	7	5,478	0.0013	0.0027	0.0018	14.79	9.87	0.4733	0.7096	
63	7	4,398	0.0016	0.0028	0.0019	12.31	8.21	0.5684	0.8522	
64	4	3,782	0.0011	0.0029	0.0019	10.97	7.32	0.3647	0.5468	
65	4	3,245	0.0012	0.0030	0.0020	9.74	6.49	0.4109	0.6160	
66	6	2,657	0.0023	0.0032	0.0021	8.50	5.67	0.7057	1.0580	
67	5	2,046	0.0024	0.0034	0.0023	6.96	4.64	0.7188	1.0776	
68	5	1,652	0.0030	0.0036	0.0024	5.95	3.97	0.8407	1.2605	
69	2	1,342	0.0015	0.0038	0.0025	5.10	3.40	0.3922	0.5880	
70	2	1,065	0.0019	0.0038	0.0025	4.05	2.70	0.4942	0.7409	
71	3	839	0.0036	0.0038	0.0025	3.19	2.13	0.9410	1.4107	
72	3	668	0.0045	0.0038	0.0025	2.54	1.69	1.1818	1.7719	
73	1	551	0.0018	0.0038	0.0025	2.09	1.40	0.4776	0.7160	
74	1	441	0.0023	0.0038	0.0025	1.68	1.12	0.5967	0.8946	
75	2	352	0.0057	0.0038	0.0025	1.34	0.89	1.4952	2.2417	
76	1	298	0.0034	0.0038	0.0025	1.13	0.76	0.8831	1.3240	
77	2	241	0.0083	0.0038	0.0025	0.92	0.61	2.1839	3.2742	
78	0	194	0.0000	0.0038	0.0025	0.74	0.49	0.0000	0.0000	
79	3	161	0.0186	0.0038	0.0025	0.61	0.41	4.9036	7.3517	
80	0	126	0.0000	0.0038	0.0025	0.48	0.32	0.0000	0.0000	
Total	171	186,956	0.0009			325.72	217.25	0.5250	0.7871	

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: center;"> <p>Board of Education Retirement System of the City of New York Active Ordinary Mortality Assumption and Experience Men and Women 10-Year Period Ending 2017</p> <p>Proposed Assumptions are 66.7% of the Current Rates for Men and 66.7% for Women</p> </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	82	0.0000	0.0004	0.0002	0.03	0.02	0.0000	0.0000
21	0	163	0.0000	0.0004	0.0002	0.06	0.04	0.0000	0.0000
22	0	271	0.0000	0.0004	0.0002	0.09	0.06	0.0000	0.0000
23	0	427	0.0000	0.0004	0.0002	0.15	0.10	0.0000	0.0000
24	0	614	0.0000	0.0004	0.0002	0.21	0.14	0.0000	0.0000
25	0	862	0.0000	0.0004	0.0002	0.29	0.19	0.0000	0.0000
26	0	1,120	0.0000	0.0004	0.0003	0.40	0.27	0.0000	0.0000
27	0	1,436	0.0000	0.0005	0.0003	0.56	0.37	0.0000	0.0000
28	0	1,765	0.0000	0.0005	0.0003	0.73	0.49	0.0000	0.0000
29	0	2,059	0.0000	0.0006	0.0003	0.91	0.61	0.0000	0.0000
30	0	2,287	0.0000	0.0006	0.0003	1.07	0.71	0.0000	0.0000
31	1	2,494	0.0004	0.0006	0.0004	1.23	0.82	0.8128	1.2186
32	2	2,670	0.0007	0.0007	0.0004	1.38	0.92	1.4455	2.1672
33	1	2,879	0.0003	0.0007	0.0004	1.56	1.04	0.6395	0.9587
34	0	3,083	0.0000	0.0008	0.0004	1.76	1.17	0.0000	0.0000
35	0	3,284	0.0000	0.0008	0.0004	1.96	1.31	0.0000	0.0000
36	0	3,445	0.0000	0.0008	0.0005	2.13	1.42	0.0000	0.0000
37	2	3,696	0.0005	0.0009	0.0005	2.40	1.60	0.8347	1.2515
38	1	3,919	0.0003	0.0009	0.0005	2.63	1.76	0.3800	0.5698
39	2	4,123	0.0005	0.0010	0.0005	2.88	1.92	0.6954	1.0427
40	0	4,336	0.0000	0.0010	0.0005	3.13	2.09	0.0000	0.0000
41	0	4,625	0.0000	0.0011	0.0006	3.72	2.48	0.0000	0.0000
42	1	4,997	0.0002	0.0012	0.0007	4.42	2.95	0.2263	0.3392
43	6	5,475	0.0011	0.0013	0.0007	5.30	3.53	1.1328	1.6983
44	0	5,878	0.0000	0.0014	0.0008	6.15	4.10	0.0000	0.0000
45	2	6,393	0.0003	0.0015	0.0008	7.20	4.80	0.2777	0.4163
46	5	6,809	0.0007	0.0016	0.0009	8.33	5.56	0.6004	0.9001
47	9	7,176	0.0013	0.0017	0.0010	9.46	6.31	0.9516	1.4266
48	5	7,659	0.0007	0.0018	0.0010	10.86	7.25	0.4603	0.6901
49	4	8,172	0.0005	0.0019	0.0011	12.37	8.25	0.3234	0.4848
50	5	8,563	0.0006	0.0020	0.0012	13.80	9.20	0.3624	0.5433
51	10	8,921	0.0011	0.0022	0.0013	15.44	10.30	0.6475	0.9707
52	12	9,148	0.0013	0.0024	0.0014	16.93	11.29	0.7089	1.0628
53	8	9,328	0.0009	0.0026	0.0015	18.35	12.24	0.4359	0.6535
54	12	9,459	0.0013	0.0028	0.0016	19.74	13.16	0.6080	0.9116
55	10	9,447	0.0011	0.0030	0.0017	20.82	13.89	0.4803	0.7201
56	6	9,352	0.0006	0.0032	0.0018	21.70	14.48	0.2765	0.4145
57	15	9,161	0.0016	0.0034	0.0019	22.34	14.90	0.6715	1.0067
58	14	8,762	0.0016	0.0036	0.0020	22.37	14.92	0.6259	0.9384
59	14	8,372	0.0017	0.0038	0.0021	22.36	14.91	0.6263	0.9389
60	16	8,008	0.0020	0.0040	0.0022	22.32	14.89	0.7167	1.0745
61	12	7,567	0.0016	0.0042	0.0023	21.93	14.63	0.5471	0.8203
62	10	6,687	0.0015	0.0044	0.0024	20.11	13.41	0.4973	0.7455
63	10	5,388	0.0019	0.0046	0.0025	16.87	11.25	0.5928	0.8888
64	7	4,583	0.0015	0.0048	0.0026	14.81	9.88	0.4726	0.7085
65	4	3,948	0.0010	0.0050	0.0027	13.25	8.84	0.3019	0.4526
66	9	3,230	0.0028	0.0054	0.0029	11.60	7.73	0.7761	1.1636
67	8	2,497	0.0032	0.0058	0.0031	9.57	6.38	0.8358	1.2530
68	7	2,025	0.0035	0.0062	0.0033	8.26	5.51	0.8475	1.2706
69	2	1,649	0.0012	0.0066	0.0035	7.13	4.75	0.2807	0.4208
70	2	1,321	0.0015	0.0066	0.0035	5.74	3.83	0.3486	0.5227
71	3	1,065	0.0028	0.0066	0.0035	4.68	3.12	0.6411	0.9611
72	4	854	0.0047	0.0066	0.0035	2.54	2.51	1.5758	1.5924
73	1	703	0.0014	0.0066	0.0035	3.10	2.07	0.3229	0.4841
74	1	564	0.0018	0.0066	0.0035	1.68	1.66	0.5967	0.6027
75	3	447	0.0067	0.0066	0.0035	1.96	1.31	1.5270	2.2894
76	1	378	0.0026	0.0066	0.0035	1.13	1.11	0.8831	0.9029
77	2	310	0.0065	0.0066	0.0035	1.37	0.91	1.4586	2.1868
78	1	243	0.0041	0.0066	0.0035	0.74	0.71	1.3565	1.4136
79	3	199	0.0151	0.0066	0.0035	0.86	0.58	3.4779	5.2142
80	0	159	0.0000	0.0066	0.0035	0.70	0.46	0.0000	0.0000
Total	253	244,537	0.0010			456.74	306.57	0.5539	0.8252

Bolton

**Board of Education Retirement System of the City of New York
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	28	22,434	41.27	0.6785	0.0012	0.0018
2009	8	23,206	42.98	0.1861	0.0003	0.0019
2010	0	23,299	43.82	0.0000	0.0000	0.0019
2011	36	23,324	44.64	0.8065	0.0015	0.0019
2012	39	23,131	44.51	0.8762	0.0017	0.0019
2013	26	27,840	50.58	0.5140	0.0009	0.0018
2014	31	25,848	48.14	0.6440	0.0012	0.0019
2015	34	25,182	47.94	0.7092	0.0014	0.0019
2016	32	24,903	48.01	0.6665	0.0013	0.0019
2017	21	25,865	50.56	0.4153	0.0008	0.0020
Total	255	245,032	462.45	0.5514	0.0010	0.0019

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 20 and above 74)

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 85% of the Current Rates

for EI	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
41	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
42	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
43	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
44	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
45	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
46	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
47	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
48	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
49	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
50	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
51	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
52	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
53	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
54	3	3	1.0000	0.4000	0.3400	1.20	1.02	2.5000	2.9412
55	4	34	0.1176	0.4000	0.3400	13.60	11.56	0.2941	0.3460
56	2	4	0.5000	0.4000	0.3400	1.60	1.36	1.2500	1.4706
57	1	5	0.2000	0.4000	0.3400	2.00	1.70	0.5000	0.5882
58	0	2	0.0000	0.4000	0.3400	0.80	0.68	0.0000	0.0000
59	1	1	1.0000	0.4000	0.3400	0.40	0.34	2.5000	2.9412
60	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
61	0	1	0.0000	0.4000	0.3400	0.40	0.34	0.0000	0.0000
62	1	3	0.3333	0.6000	0.5100	1.80	1.53	0.5556	0.6536
63	0	1	0.0000	0.4000	0.3400	0.40	0.34	0.0000	0.0000
64	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
65	0	0	N/A	0.6000	0.5100	0.00	0.00	N/A	N/A
66	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
67	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
68	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
69	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	12	54	0.2222			22.20	18.87	0.5405	0.6359

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 85% of the Current Rates

for El	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
41	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
42	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
43	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
44	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
45	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
46	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
47	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
48	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
49	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
50	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
51	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
52	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
53	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
54	2	2	1.0000	0.4000	0.3400	0.80	0.68	2.5000	2.9412
55	4	28	0.1429	0.4000	0.3400	11.20	9.52	0.3571	0.4202
56	0	2	0.0000	0.4000	0.3400	0.80	0.68	0.0000	0.0000
57	0	3	0.0000	0.4000	0.3400	1.20	1.02	0.0000	0.0000
58	0	3	0.0000	0.4000	0.3400	1.20	1.02	0.0000	0.0000
59	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
60	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
61	2	3	0.6667	0.4000	0.3400	1.20	1.02	1.6667	1.9608
62	2	16	0.1250	0.6000	0.5100	9.60	8.16	0.2083	0.2451
63	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
64	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
65	0	0	N/A	0.6000	0.5100	0.00	0.00	N/A	N/A
66	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
67	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
68	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
69	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	10	57	0.1754			26.00	22.10	0.3846	0.4525

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 4-Year Period Ending 2017

Proposed Assumptions are 85% of the Current Rates

for El	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
41	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
42	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
43	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
44	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
45	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
46	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
47	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
48	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
49	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
50	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
51	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
52	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
53	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
54	5	5	1.0000	0.4000	0.3400	2.00	1.70	2.5000	2.9412
55	8	62	0.1290	0.4000	0.3400	24.80	21.08	0.3226	0.3795
56	2	6	0.3333	0.4000	0.3400	2.40	2.04	0.8333	0.9804
57	1	8	0.1250	0.4000	0.3400	3.20	2.72	0.3125	0.3676
58	0	5	0.0000	0.4000	0.3400	2.00	1.70	0.0000	0.0000
59	1	1	1.0000	0.4000	0.3400	0.40	0.34	2.5000	2.9412
60	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
61	2	4	0.5000	0.4000	0.3400	1.60	1.36	1.2500	1.4706
62	3	19	0.1579	0.6000	0.5100	11.40	9.69	0.2632	0.3096
63	0	1	0.0000	0.4000	0.3400	0.40	0.34	0.0000	0.0000
64	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
65	0	0	N/A	0.6000	0.5100	0.00	0.00	N/A	N/A
66	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
67	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
68	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
69	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	22	111	0.1982			48.20	40.97	0.4564	0.5370

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1500	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
53	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
54	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
55	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
56	2	31	0.0645	0.2000	0.1500	6.20	4.65	0.3226	0.4301
57	2	25	0.0800	0.1500	0.1125	3.75	2.81	0.5333	0.7111
58	3	27	0.1111	0.1500	0.1125	4.05	3.04	0.7407	0.9877
59	2	32	0.0625	0.1500	0.1125	4.80	3.60	0.4167	0.5556
60	5	22	0.2273	0.1500	0.1125	3.30	2.48	1.5152	2.0202
61	3	19	0.1579	0.1500	0.1125	2.85	2.14	1.0526	1.4035
62	3	17	0.1765	0.2500	0.1875	4.25	3.19	0.7059	0.9412
63	2	10	0.2000	0.2000	0.1500	2.00	1.50	1.0000	1.3333
64	0	8	0.0000	0.2000	0.1500	1.60	1.20	0.0000	0.0000
65	1	8	0.1250	0.2500	0.1875	2.00	1.50	0.5000	0.6667
66	2	5	0.4000	0.2000	0.1500	1.00	0.75	2.0000	2.6667
67	0	3	0.0000	0.2000	0.1500	0.60	0.45	0.0000	0.0000
68	0	2	0.0000	0.2000	0.1500	0.40	0.30	0.0000	0.0000
69	1	2	0.5000	0.2000	0.1500	0.40	0.30	2.5000	3.3333
70	1	2	0.5000	1.0000	1.0000	2.00	2.00	0.5000	0.5000
71+	1	1	1.0000	1.0000	1.0000	1.00	1.00	1.0000	1.0000
Total	28	214	0.1308			40.20	30.90	0.6965	0.9061

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Elected Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1500	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
53	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
54	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
55	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
56	3	24	0.1250	0.2000	0.1500	4.80	3.60	0.6250	0.8333
57	1	24	0.0417	0.1500	0.1125	3.60	2.70	0.2778	0.3704
58	4	25	0.1600	0.1500	0.1125	3.75	2.81	1.0667	1.4222
59	3	26	0.1154	0.1500	0.1125	3.90	2.93	0.7692	1.0256
60	3	23	0.1304	0.1500	0.1125	3.45	2.59	0.8696	1.1594
61	3	21	0.1429	0.1500	0.1125	3.15	2.36	0.9524	1.2698
62	7	20	0.3500	0.2500	0.1875	5.00	3.75	1.4000	1.8667
63	2	28	0.0714	0.2000	0.1500	5.60	4.20	0.3571	0.4762
64	4	18	0.2222	0.2000	0.1500	3.60	2.70	1.1111	1.4815
65	2	10	0.2000	0.2500	0.1875	2.50	1.88	0.8000	1.0667
66	5	10	0.5000	0.2000	0.1500	2.00	1.50	2.5000	3.3333
67	0	3	0.0000	0.2000	0.1500	0.60	0.45	0.0000	0.0000
68	0	2	0.0000	0.2000	0.1500	0.40	0.30	0.0000	0.0000
69	0	3	0.0000	0.2000	0.1500	0.60	0.45	0.0000	0.0000
70	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
71+	1	5	0.2000	1.0000	1.0000	5.00	5.00	0.2000	0.2000
Total	38	244	0.1557			49.95	39.21	0.7608	0.9691

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 4-Year Period Ending 2017

Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1500	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
53	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
54	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
55	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
56	5	55	0.0909	0.2000	0.1500	11.00	8.25	0.4545	0.6061
57	3	49	0.0612	0.1500	0.1125	7.35	5.51	0.4082	0.5442
58	7	52	0.1346	0.1500	0.1125	7.80	5.85	0.8974	1.1966
59	5	58	0.0862	0.1500	0.1125	8.70	6.53	0.5747	0.7663
60	8	45	0.1778	0.1500	0.1125	6.75	5.06	1.1852	1.5802
61	6	40	0.1500	0.1500	0.1125	6.00	4.50	1.0000	1.3333
62	10	37	0.2703	0.2500	0.1875	9.25	6.94	1.0811	1.4414
63	4	38	0.1053	0.2000	0.1500	7.60	5.70	0.5263	0.7018
64	4	26	0.1538	0.2000	0.1500	5.20	3.90	0.7692	1.0256
65	3	18	0.1667	0.2500	0.1875	4.50	3.38	0.6667	0.8889
66	7	15	0.4667	0.2000	0.1500	3.00	2.25	2.3333	3.1111
67	0	6	0.0000	0.2000	0.1500	1.20	0.90	0.0000	0.0000
68	0	4	0.0000	0.2000	0.1500	0.80	0.60	0.0000	0.0000
69	1	5	0.2000	0.2000	0.1500	1.00	0.75	1.0000	1.3333
70	1	4	0.2500	1.0000	1.0000	4.00	4.00	0.2500	0.2500
71+	2	6	0.3333	1.0000	1.0000	6.00	6.00	0.3333	0.3333
Total	66	458	0.1441			90.15	70.11	0.7321	0.9413

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 85% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
41	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
42	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
43	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
44	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
45	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
46	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
47	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
48	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
49	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
50	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
51	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
52	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
53	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
54	8	8	1.0000	0.4000	0.3400	3.20	2.72	2.5000	2.9412
55	18	87	0.2069	0.4000	0.3400	34.80	29.58	0.5172	0.6085
56	3	12	0.2500	0.4000	0.3400	4.80	4.08	0.6250	0.7353
57	5	10	0.5000	0.4000	0.3400	4.00	3.40	1.2500	1.4706
58	0	2	0.0000	0.4000	0.3400	0.80	0.68	0.0000	0.0000
59	2	3	0.6667	0.4000	0.3400	1.20	1.02	1.6667	1.9608
60	0	1	0.0000	0.4000	0.3400	0.40	0.34	0.0000	0.0000
61	2	3	0.6667	0.4000	0.3400	1.20	1.02	1.6667	1.9608
62	1	8	0.1250	0.6000	0.5100	4.80	4.08	0.2083	0.2451
63	0	1	0.0000	0.4000	0.3400	0.40	0.34	0.0000	0.0000
64	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
65	0	0	N/A	0.6000	0.5100	0.00	0.00	N/A	N/A
66	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
67	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
68	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
69	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	39	135	0.2889			55.60	47.26	0.7014	0.8252

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 85% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
41	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
42	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
43	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
44	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
45	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
46	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
47	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
48	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
49	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
50	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
51	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
52	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
53	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
54	8	8	1.0000	0.4000	0.3400	3.20	2.72	2.5000	2.9412
55	16	74	0.2162	0.4000	0.3400	29.60	25.16	0.5405	0.6359
56	2	7	0.2857	0.4000	0.3400	2.80	2.38	0.7143	0.8403
57	1	9	0.1111	0.4000	0.3400	3.60	3.06	0.2778	0.3268
58	1	6	0.1667	0.4000	0.3400	2.40	2.04	0.4167	0.4902
59	2	2	1.0000	0.4000	0.3400	0.80	0.68	2.5000	2.9412
60	0	3	0.0000	0.4000	0.3400	1.20	1.02	0.0000	0.0000
61	5	8	0.6250	0.4000	0.3400	3.20	2.72	1.5625	1.8382
62	5	32	0.1563	0.6000	0.5100	19.20	16.32	0.2604	0.3064
63	0	1	0.0000	0.4000	0.3400	0.40	0.34	0.0000	0.0000
64	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
65	0	0	N/A	0.6000	0.5100	0.00	0.00	N/A	N/A
66	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
67	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
68	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
69	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	40	150	0.2667			66.40	56.44	0.6024	0.7087

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 85% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
41	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
42	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
43	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
44	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
45	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
46	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
47	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
48	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
49	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
50	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
51	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
52	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
53	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
54	16	16	1.0000	0.4000	0.3400	6.40	5.44	2.5000	2.9412
55	34	161	0.2112	0.4000	0.3400	64.40	54.74	0.5280	0.6211
56	5	19	0.2632	0.4000	0.3400	7.60	6.46	0.6579	0.7740
57	6	19	0.3158	0.4000	0.3400	7.60	6.46	0.7895	0.9288
58	1	8	0.1250	0.4000	0.3400	3.20	2.72	0.3125	0.3676
59	4	5	0.8000	0.4000	0.3400	2.00	1.70	2.0000	2.3529
60	0	4	0.0000	0.4000	0.3400	1.60	1.36	0.0000	0.0000
61	7	11	0.6364	0.4000	0.3400	4.40	3.74	1.5909	1.8717
62	6	40	0.1500	0.6000	0.5100	24.00	20.40	0.2500	0.2941
63	0	2	0.0000	0.4000	0.3400	0.80	0.68	0.0000	0.0000
64	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
65	0	0	N/A	0.6000	0.5100	0.00	0.00	N/A	N/A
66	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
67	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
68	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
69	0	0	N/A	0.4000	0.3400	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	79	285	0.2772			122.00	103.70	0.6475	0.7618

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1500	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
53	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
54	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
55	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
56	5	72	0.0694	0.2000	0.1500	14.40	10.80	0.3472	0.4630
57	10	77	0.1299	0.1500	0.1125	11.55	8.66	0.8658	1.1544
58	5	70	0.0714	0.1500	0.1125	10.50	7.88	0.4762	0.6349
59	11	62	0.1774	0.1500	0.1125	9.30	6.98	1.1828	1.5771
60	6	45	0.1333	0.1500	0.1125	6.75	5.06	0.8889	1.1852
61	9	38	0.2368	0.1500	0.1125	5.70	4.28	1.5789	2.1053
62	7	26	0.2692	0.2500	0.1875	6.50	4.88	1.0769	1.4359
63	4	20	0.2000	0.2000	0.1500	4.00	3.00	1.0000	1.3333
64	3	18	0.1667	0.2000	0.1500	3.60	2.70	0.8333	1.1111
65	3	18	0.1667	0.2500	0.1875	4.50	3.38	0.6667	0.8889
66	3	11	0.2727	0.2000	0.1500	2.20	1.65	1.3636	1.8182
67	0	7	0.0000	0.2000	0.1500	1.40	1.05	0.0000	0.0000
68	1	9	0.1111	0.2000	0.1500	1.80	1.35	0.5556	0.7407
69	1	6	0.1667	0.2000	0.1500	1.20	0.90	0.8333	1.1111
70	2	3	0.6667	1.0000	1.0000	3.00	3.00	0.6667	0.6667
71+	1	3	0.3333	1.0000	1.0000	3.00	3.00	0.3333	0.3333
Total	71	485	0.1464			89.40	68.55	0.7942	1.0357

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1500	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
53	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
54	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
55	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
56	7	60	0.1167	0.2000	0.1500	12.00	9.00	0.5833	0.7778
57	6	59	0.1017	0.1500	0.1125	8.85	6.64	0.6780	0.9040
58	6	58	0.1034	0.1500	0.1125	8.70	6.53	0.6897	0.9195
59	6	53	0.1132	0.1500	0.1125	7.95	5.96	0.7547	1.0063
60	5	43	0.1163	0.1500	0.1125	6.45	4.84	0.7752	1.0336
61	6	38	0.1579	0.1500	0.1125	5.70	4.28	1.0526	1.4035
62	12	32	0.3750	0.2500	0.1875	8.00	6.00	1.5000	2.0000
63	6	45	0.1333	0.2000	0.1500	9.00	6.75	0.6667	0.8889
64	6	34	0.1765	0.2000	0.1500	6.80	5.10	0.8824	1.1765
65	5	20	0.2500	0.2500	0.1875	5.00	3.75	1.0000	1.3333
66	7	13	0.5385	0.2000	0.1500	2.60	1.95	2.6923	3.5897
67	1	10	0.1000	0.2000	0.1500	2.00	1.50	0.5000	0.6667
68	2	6	0.3333	0.2000	0.1500	1.20	0.90	1.6667	2.2222
69	0	6	0.0000	0.2000	0.1500	1.20	0.90	0.0000	0.0000
70	1	5	0.2000	1.0000	1.0000	5.00	5.00	0.2000	0.2000
71+	1	9	0.1111	1.0000	1.0000	9.00	9.00	0.1111	0.1111
Total	77	491	0.1568			99.45	78.09	0.7743	0.9861

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Elected Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1500	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
53	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
54	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
55	0	0	N/A	0.1500	0.1125	0.00	0.00	N/A	N/A
56	12	132	0.0909	0.2000	0.1500	26.40	19.80	0.4545	0.6061
57	16	136	0.1176	0.1500	0.1125	20.40	15.30	0.7843	1.0458
58	11	128	0.0859	0.1500	0.1125	19.20	14.40	0.5729	0.7639
59	17	115	0.1478	0.1500	0.1125	17.25	12.94	0.9855	1.3140
60	11	88	0.1250	0.1500	0.1125	13.20	9.90	0.8333	1.1111
61	15	76	0.1974	0.1500	0.1125	11.40	8.55	1.3158	1.7544
62	19	58	0.3276	0.2500	0.1875	14.50	10.88	1.3103	1.7471
63	10	65	0.1538	0.2000	0.1500	13.00	9.75	0.7692	1.0256
64	9	52	0.1731	0.2000	0.1500	10.40	7.80	0.8654	1.1538
65	8	38	0.2105	0.2500	0.1875	9.50	7.13	0.8421	1.1228
66	10	24	0.4167	0.2000	0.1500	4.80	3.60	2.0833	2.7778
67	1	17	0.0588	0.2000	0.1500	3.40	2.55	0.2941	0.3922
68	3	15	0.2000	0.2000	0.1500	3.00	2.25	1.0000	1.3333
69	1	12	0.0833	0.2000	0.1500	2.40	1.80	0.4167	0.5556
70	3	8	0.3750	1.0000	1.0000	8.00	8.00	0.3750	0.3750
71+	2	12	0.1667	1.0000	1.0000	12.00	12.00	0.1667	0.1667
Total	148	976	0.1516			188.85	146.64	0.7837	1.0093

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Mandated Retirement Benefit
 4-Year Period Ending 2017

Proposed Assumptions are 67% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
42	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
43	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
44	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
45	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
46	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
47	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
48	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
49	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
51	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
52	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
53	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
54	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
55	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
56	6	6	1.0000	0.2000	0.1340	1.20	0.80	5.0000	7.4627
57	18	299	0.0602	0.2000	0.1340	59.80	40.07	0.3010	0.4493
58	0	15	0.0000	0.2000	0.1340	3.00	2.01	0.0000	0.0000
59	0	17	0.0000	0.2000	0.1340	3.40	2.28	0.0000	0.0000
60	1	17	0.0588	0.2000	0.1340	3.40	2.28	0.2941	0.4390
61	35	52	0.6731	0.2000	0.1340	10.40	6.97	3.3654	5.0230
62	73	265	0.2755	0.3000	0.2010	79.50	53.27	0.9182	1.3705
63	2	8	0.2500	0.2000	0.1340	1.60	1.07	1.2500	1.8657
64	1	14	0.0714	0.2000	0.1340	2.80	1.88	0.3571	0.5330
65	3	12	0.2500	0.3000	0.2010	3.60	2.41	0.8333	1.2438
66	0	5	0.0000	0.2000	0.1340	1.00	0.67	0.0000	0.0000
67	2	9	0.2222	0.2000	0.1340	1.80	1.21	1.1111	1.6584
68	1	7	0.1429	0.2000	0.1340	1.40	0.94	0.7143	1.0661
69	0	2	0.0000	0.2000	0.1340	0.40	0.27	0.0000	0.0000
70	0	4	0.0000	1.0000	1.0000	4.00	4.00	0.0000	0.0000
71+	5	18	0.2778	1.0000	1.0000	18.00	18.00	0.2778	0.2778
Total	147	752	0.1955			195.70	138.38	0.7511	1.0623

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 67% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
42	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
43	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
44	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
45	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
46	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
47	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
48	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
49	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
50	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
51	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
52	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
53	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
54	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
55	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
56	25	25	1.0000	0.2000	0.1340	5.00	3.35	5.0000	7.4627
57	82	1,576	0.0520	0.2000	0.1340	315.20	211.18	0.2602	0.3883
58	0	89	0.0000	0.2000	0.1340	17.80	11.93	0.0000	0.0000
59	1	83	0.0120	0.2000	0.1340	16.60	11.12	0.0602	0.0899
60	4	63	0.0635	0.2000	0.1340	12.60	8.44	0.3175	0.4738
61	106	150	0.7067	0.2000	0.1340	30.00	20.10	3.5333	5.2736
62	194	911	0.2130	0.3000	0.2010	273.30	183.11	0.7098	1.0595
63	5	41	0.1220	0.2000	0.1340	8.20	5.49	0.6098	0.9101
64	7	34	0.2059	0.2000	0.1340	6.80	4.56	1.0294	1.5364
65	3	34	0.0882	0.3000	0.2010	10.20	6.83	0.2941	0.4390
66	9	29	0.3103	0.2000	0.1340	5.80	3.89	1.5517	2.3160
67	3	24	0.1250	0.2000	0.1340	4.80	3.22	0.6250	0.9328
68	1	13	0.0769	0.2000	0.1340	2.60	1.74	0.3846	0.5741
69	5	16	0.3125	0.2000	0.1340	3.20	2.14	1.5625	2.3321
70	1	5	0.2000	1.0000	1.0000	5.00	5.00	0.2000	0.2000
71+	10	33	0.3030	1.0000	1.0000	33.00	33.00	0.3030	0.3030
Total	456	3,127	0.1458			750.30	515.24	0.6078	0.8850

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 4-Year Period Ending 2017
 Proposed Assumptions are 67% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
42	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
43	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
44	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
45	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
46	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
47	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
48	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
49	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
51	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
52	0	2	0.0000	0.2000	0.1340	0.40	0.27	0.0000	0.0000
53	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
54	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
55	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
56	31	31	1.0000	0.2000	0.1340	6.20	4.15	5.0000	7.4627
57	100	1875	0.0533	0.2000	0.1340	375.00	251.25	0.2667	0.3980
58	0	104	0.0000	0.2000	0.1340	20.80	13.94	0.0000	0.0000
59	1	100	0.0100	0.2000	0.1340	20.00	13.40	0.0500	0.0746
60	5	80	0.0625	0.2000	0.1340	16.00	10.72	0.3125	0.4664
61	141	202	0.6980	0.2000	0.1340	40.40	27.07	3.4901	5.2091
62	267	1176	0.2270	0.3000	0.2010	352.80	236.38	0.7568	1.1296
63	7	49	0.1429	0.2000	0.1340	9.80	6.57	0.7143	1.0661
64	8	48	0.1667	0.2000	0.1340	9.60	6.43	0.8333	1.2438
65	6	46	0.1304	0.3000	0.2010	13.80	9.25	0.4348	0.6489
66	9	34	0.2647	0.2000	0.1340	6.80	4.56	1.3235	1.9754
67	5	33	0.1515	0.2000	0.1340	6.60	4.42	0.7576	1.1307
68	2	20	0.1000	0.2000	0.1340	4.00	2.68	0.5000	0.7463
69	5	18	0.2778	0.2000	0.1340	3.60	2.41	1.3889	2.0730
70	1	9	0.1111	1.0000	1.0000	9.00	9.00	0.1111	0.1111
71+	15	51	0.2941	1.0000	1.0000	51.00	51.00	0.2941	0.2941
Total	603	3,879	0.1555			946.00	653.62	0.6374	0.9226

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Mandated Retirement Benefit
 4-Year Period Ending 2017

Proposed Assumptions are 65% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.1500	0.0750	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
51	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
52	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
53	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
54	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
55	1	3	0.3333	0.1000	0.0650	0.30	0.20	3.3333	5.1282
56	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
57	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
58	11	257	0.0428	0.1500	0.0750	38.55	19.28	0.2853	0.5707
59	6	234	0.0256	0.1000	0.0650	23.40	15.21	0.2564	0.3945
60	10	223	0.0448	0.1000	0.0650	22.30	14.50	0.4484	0.6899
61	10	197	0.0508	0.1500	0.0975	29.55	19.21	0.3384	0.5206
62	23	192	0.1198	0.2000	0.1300	38.40	24.96	0.5990	0.9215
63	53	350	0.1514	0.1500	0.0975	52.50	34.13	1.0095	1.5531
64	31	269	0.1152	0.1500	0.0975	40.35	26.23	0.7683	1.1820
65	44	255	0.1725	0.2000	0.1300	51.00	33.15	0.8627	1.3273
66	49	207	0.2367	0.1500	0.0975	31.05	20.18	1.5781	2.4278
67	21	162	0.1296	0.1500	0.0975	24.30	15.80	0.8642	1.3295
68	23	140	0.1643	0.1500	0.0975	21.00	13.65	1.0952	1.6850
69	12	103	0.1165	0.1500	0.0975	15.45	10.04	0.7767	1.1949
70	20	94	0.2128	0.2000	0.2000	18.80	18.80	1.0638	1.0638
71	15	99	0.1515	0.2000	0.2000	19.80	19.80	0.7576	0.7576
72	17	59	0.2881	0.2000	0.2000	11.80	11.80	1.4407	1.4407
73	8	44	0.1818	0.2000	0.2000	8.80	8.80	0.9091	0.9091
74	7	45	0.1556	0.2000	0.2000	9.00	9.00	0.7778	0.7778
75	5	37	0.1351	0.2000	0.2000	7.40	7.40	0.6757	0.6757
76	3	37	0.0811	0.2000	0.2000	7.40	7.40	0.4054	0.4054
77	6	32	0.1875	0.2000	0.2000	6.40	6.40	0.9375	0.9375
78	5	22	0.2273	0.2000	0.2000	4.40	4.40	1.1364	1.1364
79	3	14	0.2143	0.2000	0.2000	2.80	2.80	1.0714	1.0714
80	1	10	0.1000	1.0000	1.0000	10.00	10.00	0.1000	0.1000
81+	8	26	0.3077	1.0000	1.0000	26.00	26.00	0.3077	0.3077
Total	392	3,122	0.1256			521.85	379.83	0.7512	1.0320

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Women - Mandated Retirement Benefit
 4-Year Period Ending 2017

Proposed Assumptions are 65% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.1500	0.0750	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
52	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
53	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
54	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
55	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
56	1	1	1.0000	0.1000	0.0650	0.10	0.07	10.0000	15.3846
57	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
58	51	1,439	0.0354	0.1500	0.0750	215.85	107.93	0.2363	0.4726
59	48	1,361	0.0353	0.1000	0.0650	136.10	88.47	0.3527	0.5426
60	42	1,294	0.0325	0.1000	0.0650	129.40	84.11	0.3246	0.4993
61	81	1,223	0.0662	0.1500	0.0975	183.45	119.24	0.4415	0.6793
62	147	1,077	0.1365	0.2000	0.1300	215.40	140.01	0.6825	1.0499
63	167	1,582	0.1056	0.1500	0.0975	237.30	154.25	0.7038	1.0827
64	169	1,381	0.1224	0.1500	0.0975	207.15	134.65	0.8158	1.2551
65	199	1,170	0.1701	0.2000	0.1300	234.00	152.10	0.8504	1.3083
66	201	1,034	0.1944	0.1500	0.0975	155.10	100.82	1.2959	1.9938
67	130	794	0.1637	0.1500	0.0975	119.10	77.42	1.0915	1.6793
68	112	650	0.1723	0.1500	0.0975	97.50	63.38	1.1487	1.7673
69	57	505	0.1129	0.1500	0.0975	75.75	49.24	0.7525	1.1577
70	68	392	0.1735	0.2000	0.2000	78.40	78.40	0.8673	0.8673
71	72	337	0.2136	0.2000	0.2000	67.40	67.40	1.0682	1.0682
72	49	250	0.1960	0.2000	0.2000	50.00	50.00	0.9800	0.9800
73	40	203	0.1970	0.2000	0.2000	40.60	40.60	0.9852	0.9852
74	30	158	0.1899	0.2000	0.2000	31.60	31.60	0.9494	0.9494
75	23	116	0.1983	0.2000	0.2000	23.20	23.20	0.9914	0.9914
76	21	94	0.2234	0.2000	0.2000	18.80	18.80	1.1170	1.1170
77	9	72	0.1250	0.2000	0.2000	14.40	14.40	0.6250	0.6250
78	12	66	0.1818	0.2000	0.2000	13.20	13.20	0.9091	0.9091
79	10	53	0.1887	0.2000	0.2000	10.60	10.60	0.9434	0.9434
80	6	36	0.1667	1.0000	1.0000	36.00	36.00	0.1667	0.1667
81+	28	120	0.2333	1.0000	1.0000	120.00	120.00	0.2333	0.2333
Total	1,773	15,411	0.1150			2,510.70	1,776.05	0.7062	0.9983

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 4-Year Period Ending 2017

Proposed Assumptions are 65% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.1500	0.0750	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
51	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
52	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
53	0	3	0.0000	0.1000	0.0650	0.30	0.20	0.0000	0.0000
54	0	3	0.0000	0.1000	0.0650	0.30	0.20	0.0000	0.0000
55	1	4	0.2500	0.1000	0.0650	0.40	0.26	2.5000	3.8462
56	1	3	0.3333	0.1000	0.0650	0.30	0.20	3.3333	5.1282
57	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
58	62	1696	0.0366	0.1500	0.0750	254.40	127.20	0.2437	0.4874
59	54	1595	0.0339	0.1000	0.0650	159.50	103.68	0.3386	0.5209
60	52	1517	0.0343	0.1000	0.0650	151.70	98.61	0.3428	0.5274
61	91	1420	0.0641	0.1500	0.0975	213.00	138.45	0.4272	0.6573
62	170	1269	0.1340	0.2000	0.1300	253.80	164.97	0.6698	1.0305
63	220	1932	0.1139	0.1500	0.0975	289.80	188.37	0.7591	1.1679
64	200	1650	0.1212	0.1500	0.0975	247.50	160.88	0.8081	1.2432
65	243	1425	0.1705	0.2000	0.1300	285.00	185.25	0.8526	1.3117
66	250	1241	0.2015	0.1500	0.0975	186.15	121.00	1.3430	2.0662
67	151	956	0.1579	0.1500	0.0975	143.40	93.21	1.0530	1.6200
68	135	790	0.1709	0.1500	0.0975	118.50	77.03	1.1392	1.7527
69	69	608	0.1135	0.1500	0.0975	91.20	59.28	0.7566	1.1640
70	88	486	0.1811	0.2000	0.2000	97.20	97.20	0.9053	0.9053
71	87	436	0.1995	0.2000	0.2000	87.20	87.20	0.9977	0.9977
72	66	309	0.2136	0.2000	0.2000	61.80	61.80	1.0680	1.0680
73	48	247	0.1943	0.2000	0.2000	49.40	49.40	0.9717	0.9717
74	37	203	0.1823	0.2000	0.2000	40.60	40.60	0.9113	0.9113
75	28	153	0.1830	0.2000	0.2000	30.60	30.60	0.9150	0.9150
76	24	131	0.1832	0.2000	0.2000	26.20	26.20	0.9160	0.9160
77	15	104	0.1442	0.2000	0.2000	20.80	20.80	0.7212	0.7212
78	17	88	0.1932	0.2000	0.2000	17.60	17.60	0.9659	0.9659
79	13	67	0.1940	0.2000	0.2000	13.40	13.40	0.9701	0.9701
80	7	46	0.1522	1.0000	1.0000	46.00	46.00	0.1522	0.1522
81+	36	146	0.2466	1.0000	1.0000	146.00	146.00	0.2466	0.2466
Total	2,165	18,533	0.1168			3,032.55	2,155.88	0.7139	1.0042

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 67% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
42	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
43	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
44	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
45	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
46	1	1	1.0000	0.2000	0.1340	0.20	0.13	5.0000	7.4627
47	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
48	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
49	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
50	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
51	1	2	0.5000	0.2000	0.1340	0.40	0.27	2.5000	3.7313
52	0	2	0.0000	0.2000	0.1340	0.40	0.27	0.0000	0.0000
53	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
54	1	2	0.5000	0.2000	0.1340	0.40	0.27	2.5000	3.7313
55	4	8	0.5000	0.2000	0.1340	1.60	1.07	2.5000	3.7313
56	10	11	0.9091	0.2000	0.1340	2.20	1.47	4.5455	6.7843
57	34	588	0.0578	0.2000	0.1340	117.60	78.79	0.2891	0.4315
58	2	49	0.0408	0.2000	0.1340	9.80	6.57	0.2041	0.3046
59	1	43	0.0233	0.2000	0.1340	8.60	5.76	0.1163	0.1736
60	3	45	0.0667	0.2000	0.1340	9.00	6.03	0.3333	0.4975
61	75	119	0.6303	0.2000	0.1340	23.80	15.95	3.1513	4.7034
62	141	584	0.2414	0.3000	0.2010	175.20	117.38	0.8048	1.2012
63	4	28	0.1429	0.2000	0.1340	5.60	3.75	0.7143	1.0661
64	3	41	0.0732	0.2000	0.1340	8.20	5.49	0.3659	0.5461
65	6	22	0.2727	0.3000	0.2010	6.60	4.42	0.9091	1.3569
66	1	18	0.0556	0.2000	0.1340	3.60	2.41	0.2778	0.4146
67	6	20	0.3000	0.2000	0.1340	4.00	2.68	1.5000	2.2388
68	2	12	0.1667	0.2000	0.1340	2.40	1.61	0.8333	1.2438
69	2	8	0.2500	0.2000	0.1340	1.60	1.07	1.2500	1.8657
70	0	11	0.0000	1.0000	1.0000	11.00	11.00	0.0000	0.0000
71+	10	43	0.2326	1.0000	1.0000	43.00	43.00	0.2326	0.2326
Total	307	1,659	0.1851			435.60	309.67	0.7048	0.9914

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Women - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 67% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
42	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
43	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
44	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
45	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
46	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
47	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
48	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
49	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
50	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
51	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
52	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
53	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
54	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
55	4	14	0.2857	0.2000	0.1340	2.80	1.88	1.4286	2.1322
56	61	63	0.9683	0.2000	0.1340	12.60	8.44	4.8413	7.2258
57	172	3,427	0.0502	0.2000	0.1340	685.40	459.22	0.2509	0.3745
58	8	233	0.0343	0.2000	0.1340	46.60	31.22	0.1717	0.2562
59	10	227	0.0441	0.2000	0.1340	45.40	30.42	0.2203	0.3288
60	11	189	0.0582	0.2000	0.1340	37.80	25.33	0.2910	0.4343
61	250	369	0.6775	0.2000	0.1340	73.80	49.45	3.3875	5.0560
62	570	2,588	0.2202	0.3000	0.2010	776.40	520.19	0.7342	1.0958
63	16	117	0.1368	0.2000	0.1340	23.40	15.68	0.6838	1.0205
64	14	101	0.1386	0.2000	0.1340	20.20	13.53	0.6931	1.0344
65	16	88	0.1818	0.3000	0.2010	26.40	17.69	0.6061	0.9046
66	16	60	0.2667	0.2000	0.1340	12.00	8.04	1.3333	1.9900
67	7	50	0.1400	0.2000	0.1340	10.00	6.70	0.7000	1.0448
68	4	45	0.0889	0.2000	0.1340	9.00	6.03	0.4444	0.6633
69	7	42	0.1667	0.2000	0.1340	8.40	5.63	0.8333	1.2438
70	3	17	0.1765	1.0000	1.0000	17.00	17.00	0.1765	0.1765
71+	19	69	0.2754	1.0000	1.0000	69.00	69.00	0.2754	0.2754
Total	1,188	7,701	0.1543			1,876.60	1,285.70	0.6331	0.9240

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those in First Year of Eligibility
 Men and Women - Mandated Retirement Benefit
 10-Year Period Ending 2017
 Proposed Assumptions are 67% of the Current Rates

Age	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
41	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
42	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
43	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
44	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
45	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
46	1	1	1.0000	0.2000	0.1340	0.20	0.13	5.0000	7.4627
47	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
48	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
49	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
50	0	1	0.0000	0.2000	0.1340	0.20	0.13	0.0000	0.0000
51	1	3	0.3333	0.2000	0.1340	0.60	0.40	1.6667	2.4876
52	0	3	0.0000	0.2000	0.1340	0.60	0.40	0.0000	0.0000
53	0	0	N/A	0.2000	0.1340	0.00	0.00	N/A	N/A
54	1	2	0.5000	0.2000	0.1340	0.40	0.27	2.5000	3.7313
55	8	22	0.3636	0.2000	0.1340	4.40	2.95	1.8182	2.7137
56	71	74	0.9595	0.2000	0.1340	14.80	9.92	4.7973	7.1601
57	206	4,015	0.0513	0.2000	0.1340	803.00	538.01	0.2565	0.3829
58	10	282	0.0355	0.2000	0.1340	56.40	37.79	0.1773	0.2646
59	11	270	0.0407	0.2000	0.1340	54.00	36.18	0.2037	0.3040
60	14	234	0.0598	0.2000	0.1340	46.80	31.36	0.2991	0.4465
61	325	488	0.6660	0.2000	0.1340	97.60	65.39	3.3299	4.9700
62	711	3,172	0.2241	0.3000	0.2010	951.60	637.57	0.7472	1.1152
63	20	145	0.1379	0.2000	0.1340	29.00	19.43	0.6897	1.0293
64	17	142	0.1197	0.2000	0.1340	28.40	19.03	0.5986	0.8934
65	22	110	0.2000	0.3000	0.2010	33.00	22.11	0.6667	0.9950
66	17	78	0.2179	0.2000	0.1340	15.60	10.45	1.0897	1.6265
67	13	70	0.1857	0.2000	0.1340	14.00	9.38	0.9286	1.3859
68	6	57	0.1053	0.2000	0.1340	11.40	7.64	0.5263	0.7855
69	9	50	0.1800	0.2000	0.1340	10.00	6.70	0.9000	1.3433
70	3	28	0.1071	1.0000	1.0000	28.00	28.00	0.1071	0.1071
71+	29	112	0.2589	1.0000	1.0000	112.00	112.00	0.2589	0.2589
Total	1,495	9,360	0.1597			2,312.20	1,595.37	0.6466	0.9371

Bolton

Board of Education Retirement System of the City of New York
 Retirement Experience of those after First Year of Eligibility
 Men - Mandated Retirement Benefit
 10-Year Period Ending 2017

Proposed Assumptions are 65% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.1500	0.0750	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
51	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
52	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
53	1	5	0.2000	0.1000	0.0650	0.50	0.33	2.0000	3.0769
54	0	5	0.0000	0.1000	0.0650	0.50	0.33	0.0000	0.0000
55	1	6	0.1667	0.1000	0.0650	0.60	0.39	1.6667	2.5641
56	0	10	0.0000	0.1000	0.0650	1.00	0.65	0.0000	0.0000
57	2	16	0.1250	0.1000	0.0650	1.60	1.04	1.2500	1.9231
58	24	497	0.0483	0.1500	0.0750	74.55	37.28	0.3219	0.6439
59	17	478	0.0356	0.1000	0.0650	47.80	31.07	0.3556	0.5472
60	20	462	0.0433	0.1000	0.0650	46.20	30.03	0.4329	0.6660
61	31	422	0.0735	0.1500	0.0975	63.30	41.15	0.4897	0.7534
62	45	399	0.1128	0.2000	0.1300	79.80	51.87	0.5639	0.8676
63	126	765	0.1647	0.1500	0.0975	114.75	74.59	1.0980	1.6893
64	75	604	0.1242	0.1500	0.0975	90.60	58.89	0.8278	1.2736
65	87	550	0.1582	0.2000	0.1300	110.00	71.50	0.7909	1.2168
66	96	443	0.2167	0.1500	0.0975	66.45	43.19	1.4447	2.2226
67	55	347	0.1585	0.1500	0.0975	52.05	33.83	1.0567	1.6257
68	43	293	0.1468	0.1500	0.0975	43.95	28.57	0.9784	1.5052
69	33	239	0.1381	0.1500	0.0975	35.85	23.30	0.9205	1.4162
70	37	203	0.1823	0.2000	0.2000	40.60	40.60	0.9113	0.9113
71	33	214	0.1542	0.2000	0.2000	42.80	42.80	0.7710	0.7710
72	36	145	0.2483	0.2000	0.2000	29.00	29.00	1.2414	1.2414
73	17	113	0.1504	0.2000	0.2000	22.60	22.60	0.7522	0.7522
74	18	102	0.1765	0.2000	0.2000	20.40	20.40	0.8824	0.8824
75	12	80	0.1500	0.2000	0.2000	16.00	16.00	0.7500	0.7500
76	8	68	0.1176	0.2000	0.2000	13.60	13.60	0.5882	0.5882
77	14	55	0.2545	0.2000	0.2000	11.00	11.00	1.2727	1.2727
78	8	39	0.2051	0.2000	0.2000	7.80	7.80	1.0256	1.0256
79	5	30	0.1667	0.2000	0.2000	6.00	6.00	0.8333	0.8333
80	5	26	0.1923	1.0000	1.0000	26.00	26.00	0.1923	0.1923
81+	16	73	0.2192	1.0000	1.0000	73.00	73.00	0.2192	0.2192
Total	865	6,693	0.1292			1,138.70	837.05	0.7596	1.0334

Bolton

**Board of Education Retirement System of the City of New York
Retirement Experience of those after First Year of Eligibility
Women - Mandated Retirement Benefit
10-Year Period Ending 2017
Proposed Assumptions are 65% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.1500	0.0750	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
50	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
51	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
52	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
53	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
54	0	3	0.0000	0.1000	0.0650	0.30	0.20	0.0000	0.0000
55	0	2	0.0000	0.1000	0.0650	0.20	0.13	0.0000	0.0000
56	5	23	0.2174	0.1000	0.0650	2.30	1.50	2.1739	3.3445
57	7	29	0.2414	0.1000	0.0650	2.90	1.89	2.4138	3.7135
58	113	3,044	0.0371	0.1500	0.0750	456.60	228.30	0.2475	0.4950
59	117	2,875	0.0407	0.1000	0.0650	287.50	186.88	0.4070	0.6261
60	112	2,703	0.0414	0.1000	0.0650	270.30	175.70	0.4144	0.6375
61	180	2,514	0.0716	0.1500	0.0975	377.10	245.12	0.4773	0.7343
62	321	2,207	0.1454	0.2000	0.1300	441.40	286.91	0.7272	1.1188
63	463	3,727	0.1242	0.1500	0.0975	559.05	363.38	0.8282	1.2741
64	412	3,218	0.1280	0.1500	0.0975	482.70	313.76	0.8535	1.3131
65	504	2,784	0.1810	0.2000	0.1300	556.80	361.92	0.9052	1.3926
66	475	2,307	0.2059	0.1500	0.0975	346.05	224.93	1.3726	2.1117
67	302	1,783	0.1694	0.1500	0.0975	267.45	173.84	1.1292	1.7372
68	255	1,453	0.1755	0.1500	0.0975	217.95	141.67	1.1700	1.8000
69	176	1,194	0.1474	0.1500	0.0975	179.10	116.42	0.9827	1.5118
70	176	952	0.1849	0.2000	0.2000	190.40	190.40	0.9244	0.9244
71	158	794	0.1990	0.2000	0.2000	158.80	158.80	0.9950	0.9950
72	102	578	0.1765	0.2000	0.2000	115.60	115.60	0.8824	0.8824
73	93	477	0.1950	0.2000	0.2000	95.40	95.40	0.9748	0.9748
74	67	381	0.1759	0.2000	0.2000	76.20	76.20	0.8793	0.8793
75	63	309	0.2039	0.2000	0.2000	61.80	61.80	1.0194	1.0194
76	52	269	0.1933	0.2000	0.2000	53.80	53.80	0.9665	0.9665
77	40	218	0.1835	0.2000	0.2000	43.60	43.60	0.9174	0.9174
78	33	175	0.1886	0.2000	0.2000	35.00	35.00	0.9429	0.9429
79	30	149	0.2013	0.2000	0.2000	29.80	29.80	1.0067	1.0067
80	32	117	0.2735	1.0000	1.0000	117.00	117.00	0.2735	0.2735
81+	91	355	0.2563	1.0000	1.0000	355.00	355.00	0.2563	0.2563
Total	4,379	34,643	0.1264			5,780.40	4,155.11	0.7576	1.0539

Bolton

**Board of Education Retirement System of the City of New York
Retirement Experience of those after First Year of Eligibility
Men and Women - Mandated Retirement Benefit
10-Year Period Ending 2017
Proposed Assumptions are 65% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.1500	0.0750	0.00	0.00	N/A	N/A
42	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
43	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
44	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
45	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
46	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
47	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
48	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
49	0	0	N/A	0.1000	0.0650	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
51	0	1	0.0000	0.1000	0.0650	0.10	0.07	0.0000	0.0000
52	0	3	0.0000	0.1000	0.0650	0.30	0.20	0.0000	0.0000
53	1	7	0.1429	0.1000	0.0650	0.70	0.46	1.4286	2.1978
54	0	8	0.0000	0.1000	0.0650	0.80	0.52	0.0000	0.0000
55	1	8	0.1250	0.1000	0.0650	0.80	0.52	1.2500	1.9231
56	5	33	0.1515	0.1000	0.0650	3.30	2.15	1.5152	2.3310
57	9	45	0.2000	0.1000	0.0650	4.50	2.93	2.0000	3.0769
58	137	3,541	0.0387	0.1500	0.0750	531.15	265.58	0.2579	0.5159
59	134	3,353	0.0400	0.1000	0.0650	335.30	217.95	0.3996	0.6148
60	132	3,165	0.0417	0.1000	0.0650	316.50	205.73	0.4171	0.6416
61	211	2,936	0.0719	0.1500	0.0975	440.40	286.26	0.4791	0.7371
62	366	2,606	0.1404	0.2000	0.1300	521.20	338.78	0.7022	1.0803
63	589	4,492	0.1311	0.1500	0.0975	673.80	437.97	0.8741	1.3448
64	487	3,822	0.1274	0.1500	0.0975	573.30	372.65	0.8495	1.3069
65	591	3,334	0.1773	0.2000	0.1300	666.80	433.42	0.8863	1.3636
66	571	2,750	0.2076	0.1500	0.0975	412.50	268.13	1.3842	2.1296
67	357	2,130	0.1676	0.1500	0.0975	319.50	207.68	1.1174	1.7190
68	298	1,746	0.1707	0.1500	0.0975	261.90	170.24	1.1378	1.7505
69	209	1,433	0.1458	0.1500	0.0975	214.95	139.72	0.9723	1.4959
70	213	1,155	0.1844	0.2000	0.2000	231.00	231.00	0.9221	0.9221
71	191	1,008	0.1895	0.2000	0.2000	201.60	201.60	0.9474	0.9474
72	138	723	0.1909	0.2000	0.2000	144.60	144.60	0.9544	0.9544
73	110	590	0.1864	0.2000	0.2000	118.00	118.00	0.9322	0.9322
74	85	483	0.1760	0.2000	0.2000	96.60	96.60	0.8799	0.8799
75	75	389	0.1928	0.2000	0.2000	77.80	77.80	0.9640	0.9640
76	60	337	0.1780	0.2000	0.2000	67.40	67.40	0.8902	0.8902
77	54	273	0.1978	0.2000	0.2000	54.60	54.60	0.9890	0.9890
78	41	214	0.1916	0.2000	0.2000	42.80	42.80	0.9579	0.9579
79	35	179	0.1955	0.2000	0.2000	35.80	35.80	0.9777	0.9777
80	37	143	0.2587	1.0000	1.0000	143.00	143.00	0.2587	0.2587
81+	107	428	0.2500	1.0000	1.0000	428.00	428.00	0.2500	0.2500
Total	5,244	41,336	0.1269			6,919.10	4,992.16	0.7579	1.0504

Bolton

**Board of Education Retirement System of the City of New York
Normal Retirement Experience
Table 6G - Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Retirements	Life Years Exposed	Current Expected Retirements	Actual/Expected	Retirement Rate	
					Actual	Current
2008	536	3,960	1,085.00	0.4940	0.1354	0.2740
2009	585	4,335	1,183.65	0.4942	0.1349	0.2730
2010	532	4,793	1,278.20	0.4162	0.1110	0.2667
2011	790	5,199	1,382.10	0.5716	0.1520	0.2658
2012	715	5,348	1,391.35	0.5139	0.1337	0.2602
2013	952	5,341	1,406.05	0.6771	0.1782	0.2633
2014	788	5,343	1,361.95	0.5786	0.1475	0.2549
2015	705	5,552	1,374.90	0.5128	0.1270	0.2476
2016	712	5,831	1,426.90	0.4990	0.1221	0.2447
2017	651	6,255	1,561.90	0.4168	0.1041	0.2497
Total	6,966	51,957	13,452.00	0.5178	0.1341	0.2589

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 40)

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Men
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
42	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
45	1	2	0.5000	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
55	20	619	0.0323	0.0200	0.0250	12.38	15.48	1.6155	1.2924
56	18	628	0.0287	0.0200	0.0250	12.56	15.70	1.4331	1.1465
57	4	312	0.0128	0.0200	0.0250	6.24	7.80	0.6410	0.5128
58	5	298	0.0168	0.0200	0.0250	5.96	7.45	0.8389	0.6711
59	12	294	0.0408	0.0300	0.0375	8.82	11.03	1.3605	1.0884
60	7	299	0.0234	0.0400	0.0500	11.96	14.95	0.5853	0.4682
61	33	299	0.1104	0.0500	0.0625	14.95	18.69	2.2074	1.7659
62	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	102	2,778	0.0367			72.87	91.09	1.3998	1.1198

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Women
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
45	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
48	2	5	0.4000	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
55	49	2,355	0.0208	0.0200	0.0250	47.10	58.88	1.0403	0.8323
56	64	2,476	0.0258	0.0200	0.0250	49.52	61.90	1.2924	1.0339
57	34	886	0.0384	0.0200	0.0250	17.72	22.15	1.9187	1.5350
58	33	912	0.0362	0.0200	0.0250	18.24	22.80	1.8092	1.4474
59	45	944	0.0477	0.0300	0.0375	28.32	35.40	1.5890	1.2712
60	35	962	0.0364	0.0400	0.0500	38.48	48.10	0.9096	0.7277
61	115	1,006	0.1143	0.0500	0.0625	50.30	62.88	2.2863	1.8290
62	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	378	9,567	0.0395			249.68	312.10	1.5139	1.2112

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Men and Women
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
42	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
45	1	2	0.5000	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
47	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
48	2	8	0.2500	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
55	69	2,974	0.0232	0.0200	0.0250	59.48	74.35	1.1601	0.9280
56	82	3,104	0.0264	0.0200	0.0250	62.08	77.60	1.3209	1.0567
57	38	1,198	0.0317	0.0200	0.0250	23.96	29.95	1.5860	1.2688
58	38	1,210	0.0314	0.0200	0.0250	24.20	30.25	1.5702	1.2562
59	57	1,238	0.0460	0.0300	0.0375	37.14	46.43	1.5347	1.2278
60	42	1,261	0.0333	0.0400	0.0500	50.44	63.05	0.8327	0.6661
61	148	1,305	0.1134	0.0500	0.0625	65.25	81.56	2.2682	1.8146
62	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	1	2	0.5000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	480	12,345	0.0389			322.55	403.19	1.4881	1.1905

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Men
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	3	0.3333	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
42	1	2	0.5000	0.0000	0.0000	0.00	0.00	N/A	N/A
43	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
45	1	5	0.2000	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
47	1	4	0.2500	0.0000	0.0000	0.00	0.00	N/A	N/A
48	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
49	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
53	1	6	0.1667	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
55	52	1,447	0.0359	0.0200	0.0250	28.94	36.18	1.7968	1.4375
56	42	1,418	0.0296	0.0200	0.0250	28.36	35.45	1.4810	1.1848
57	30	792	0.0379	0.0200	0.0250	15.84	19.80	1.8939	1.5152
58	35	756	0.0463	0.0200	0.0250	15.12	18.90	2.3148	1.8519
59	29	731	0.0397	0.0300	0.0375	21.93	27.41	1.3224	1.0579
60	39	714	0.0546	0.0400	0.0500	28.56	35.70	1.3655	1.0924
61	81	663	0.1222	0.0500	0.0625	33.15	41.44	2.4434	1.9548
62	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	313	6,606	0.0474			171.90	214.88	1.8208	1.4567

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Total - Women
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
42	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
43	1	3	0.3333	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
45	1	8	0.1250	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
47	1	10	0.1000	0.0000	0.0000	0.00	0.00	N/A	N/A
48	2	9	0.2222	0.0000	0.0000	0.00	0.00	N/A	N/A
49	1	7	0.1429	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
53	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
55	218	5,899	0.0370	0.0200	0.0250	117.98	147.48	1.8478	1.4782
56	231	5,930	0.0390	0.0200	0.0250	118.60	148.25	1.9477	1.5582
57	110	2,470	0.0445	0.0200	0.0250	49.40	61.75	2.2267	1.7814
58	106	2,557	0.0415	0.0200	0.0250	51.14	63.93	2.0727	1.6582
59	133	2,593	0.0513	0.0300	0.0375	77.79	97.24	1.7097	1.3678
60	139	2,672	0.0520	0.0400	0.0500	106.88	133.60	1.3005	1.0404
61	300	2,714	0.1105	0.0500	0.0625	135.70	169.63	2.2108	1.7686
62	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	1	2	0.5000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,244	24,920	0.0499			657.49	821.86	1.8920	1.5136

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Men and Women
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	4	0.2500	0.0000	0.0000	0.00	0.00	N/A	N/A
41	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
42	1	5	0.2000	0.0000	0.0000	0.00	0.00	N/A	N/A
43	1	7	0.1429	0.0000	0.0000	0.00	0.00	N/A	N/A
44	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
45	2	13	0.1538	0.0000	0.0000	0.00	0.00	N/A	N/A
46	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
47	2	14	0.1429	0.0000	0.0000	0.00	0.00	N/A	N/A
48	2	17	0.1176	0.0000	0.0000	0.00	0.00	N/A	N/A
49	1	14	0.0714	0.0000	0.0000	0.00	0.00	N/A	N/A
50	0	12	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
51	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
52	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
53	1	9	0.1111	0.0000	0.0000	0.00	0.00	N/A	N/A
54	0	10	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
55	270	7,346	0.0368	0.0200	0.0250	146.92	183.65	1.8377	1.4702
56	273	7,348	0.0372	0.0200	0.0250	146.96	183.70	1.8576	1.4861
57	140	3,262	0.0429	0.0200	0.0250	65.24	81.55	2.1459	1.7167
58	141	3,313	0.0426	0.0200	0.0250	66.26	82.83	2.1280	1.7024
59	162	3,324	0.0487	0.0300	0.0375	99.72	124.65	1.6245	1.2996
60	178	3,386	0.0526	0.0400	0.0500	135.44	169.30	1.3142	1.0514
61	381	3,377	0.1128	0.0500	0.0625	168.85	211.06	2.2564	1.8052
62	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
63	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	1	3	0.3333	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71+	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,557	31,526	0.0494			829.39	1,036.74	1.8773	1.5018

Bolton

**Board of Education Retirement System of the City of New York
Early Retirement Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Retirements	Life Years Exposed	Current Expected Retirements	Actual/Expected	Retirement Rate	
					Actual	Current
2008	169	3,301	89.10	1.8967	0.0512	0.0270
2009	169	3,255	87.40	1.9336	0.0519	0.0269
2010	182	3,173	83.43	2.1815	0.0574	0.0263
2011	169	3,122	81.96	2.0620	0.0541	0.0263
2012	160	3,048	79.18	2.0207	0.0525	0.0260
2013	228	3,286	85.77	2.6583	0.0694	0.0261
2014	138	3,237	84.88	1.6258	0.0426	0.0262
2015	147	3,186	83.25	1.7658	0.0461	0.0261
2016	114	3,002	78.13	1.4591	0.0380	0.0260
2017	81	2,932	76.29	1.0617	0.0276	0.0260
Total	1,557	31,542	829.39	1.8773	0.0494	0.0263

Bolton

Board of Education Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Men
 4-Year Period Ending 2015

Proposed Assumptions are 140% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	199	2,309	0.0862	0.0600	0.0840	138.54	193.96	1.4364	1.0260
1	207	3,025	0.0684	0.0560	0.0784	169.40	237.16	1.2220	0.8728
2	173	2,781	0.0622	0.0520	0.0728	144.60	202.46	1.1964	0.8545
3	87	2,511	0.0346	0.0480	0.0672	120.53	168.74	0.7218	0.5156
4	95	2,847	0.0334	0.0440	0.0616	125.26	175.38	0.7584	0.5417
5	62	1,167	0.0531	0.0400	0.0560	46.68	65.35	1.3282	0.9487
6	59	1,311	0.0450	0.0370	0.0518	48.50	67.91	1.2165	0.8688
7	30	1,209	0.0248	0.0340	0.0476	41.10	57.55	0.7299	0.5213
8	25	1,200	0.0208	0.0310	0.0434	37.20	52.08	0.6720	0.4800
9	16	1,075	0.0149	0.0280	0.0392	30.10	42.14	0.5316	0.3797
10	20	975	0.0205	0.0250	0.0350	24.36	34.13	0.8210	0.5861
11	19	830	0.0229	0.0230	0.0322	19.09	26.73	0.9953	0.7109
12	8	781	0.0102	0.0210	0.0294	16.40	22.96	0.4878	0.3484
13	6	594	0.0101	0.0190	0.0266	11.29	15.80	0.5314	0.3797
14	8	668	0.0120	0.0170	0.0238	11.35	15.90	0.7048	0.5032
15	6	545	0.0110	0.0150	0.0210	8.17	11.45	0.7344	0.5242
16	3	523	0.0057	0.0140	0.0196	7.33	10.25	0.4093	0.2927
17	5	445	0.0112	0.0130	0.0182	5.78	8.10	0.8651	0.6174
18	3	395	0.0076	0.0120	0.0168	4.74	6.64	0.6329	0.4521
19	5	316	0.0158	0.0110	0.0154	3.48	4.87	1.4368	1.0275
20	5	254	0.0197	0.0100	0.0140	2.54	3.56	1.9685	1.4061
21	5	256	0.0195	0.0100	0.0140	2.56	3.58	1.9531	1.3951
22	1	291	0.0034	0.0100	0.0140	2.91	4.07	0.3436	0.2455
23	1	221	0.0045	0.0100	0.0140	2.21	3.09	0.4525	0.3232
24	4	229	0.0175	0.0100	0.0140	2.29	3.21	1.7467	1.2477
25	2	166	0.0120	0.0100	0.0140	1.66	2.32	1.2048	0.8606
26	0	156	0.0000	0.0100	0.0140	1.56	2.18	0.0000	0.0000
27	1	126	0.0079	0.0100	0.0140	1.26	1.76	0.7937	0.5669
28	0	81	0.0000	0.0100	0.0140	0.81	1.13	0.0000	0.0000
29	0	58	0.0000	0.0100	0.0140	0.58	0.81	0.0000	0.0000
30	1	35	0.0286	0.0100	0.0140	0.35	0.49	2.8571	2.0408
31+	2	60	0.0333	0.0100	0.0140	0.60	0.84	3.3333	2.3810
Total	1,058	27,440	0.0386			1,033.23	1,446.59	1.0240	0.7314

Bolton

Board of Education Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Women
 4-Year Period Ending 2015

Proposed Assumptions are 140% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	558	6,162	0.0906	0.0400	0.0560	246.48	345.07	2.2639	1.6171
1	514	8,331	0.0617	0.0380	0.0532	316.57	443.21	1.6237	1.1597
2	450	7,935	0.0567	0.0360	0.0504	285.67	399.92	1.5752	1.1252
3	255	7,076	0.0360	0.0340	0.0476	240.58	336.82	1.0599	0.7571
4	288	7,945	0.0362	0.0320	0.0448	254.23	355.94	1.1328	0.8091
5	145	3,449	0.0420	0.0300	0.0420	103.47	144.86	1.4014	1.0010
6	131	3,758	0.0349	0.0280	0.0392	105.23	147.31	1.2449	0.8893
7	82	3,398	0.0241	0.0260	0.0364	88.35	123.69	0.9281	0.6630
8	99	3,455	0.0287	0.0240	0.0336	82.92	116.09	1.1939	0.8528
9	65	2,942	0.0221	0.0220	0.0308	64.73	90.61	1.0042	0.7173
10	78	2,974	0.0262	0.0200	0.0280	59.48	83.27	1.3114	0.9367
11	51	2,676	0.0191	0.0190	0.0266	50.86	71.18	1.0028	0.7165
12	59	2,792	0.0211	0.0180	0.0252	50.26	70.36	1.1739	0.8386
13	49	2,222	0.0221	0.0170	0.0238	37.77	52.88	1.2973	0.9266
14	39	2,183	0.0179	0.0160	0.0224	34.92	48.90	1.1168	0.7976
15	31	1,678	0.0185	0.0150	0.0210	25.17	35.24	1.2316	0.8797
16	25	1,412	0.0177	0.0140	0.0196	19.77	27.68	1.2645	0.9033
17	21	1,037	0.0203	0.0130	0.0182	13.47	18.87	1.5590	1.1127
18	10	858	0.0117	0.0120	0.0168	10.29	14.41	0.9718	0.6938
19	11	585	0.0188	0.0110	0.0154	6.43	9.01	1.7107	1.2210
20	5	483	0.0104	0.0100	0.0140	4.83	6.76	1.0352	0.7394
21	4	378	0.0106	0.0100	0.0140	3.78	5.29	1.0582	0.7559
22	1	370	0.0027	0.0100	0.0140	3.70	5.18	0.2703	0.1931
23	1	288	0.0035	0.0100	0.0140	2.88	4.03	0.3472	0.2480
24	3	254	0.0118	0.0100	0.0140	2.54	3.56	1.1811	0.8436
25	3	192	0.0156	0.0100	0.0140	1.92	2.69	1.5625	1.1161
26	2	170	0.0118	0.0100	0.0140	1.70	2.38	1.1765	0.8403
27	0	153	0.0000	0.0100	0.0140	1.53	2.14	0.0000	0.0000
28	0	133	0.0000	0.0100	0.0140	1.33	1.86	0.0000	0.0000
29	1	101	0.0099	0.0100	0.0140	1.01	1.41	0.9901	0.7072
30	0	72	0.0000	0.0100	0.0140	0.72	1.01	0.0000	0.0000
31+	0	122	0.0000	0.0100	0.0140	1.22	1.71	0.0000	0.0000
Total	2,981	75,584	0.0394			2,123.81	2,973.35	1.4036	1.0026

Bolton

Board of Education Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Men and Women
 4-Year Period Ending 2015

Proposed Assumptions are 140% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	757	8,471	0.0894	0.0455	0.0636	385.02	539.03	1.9661	1.4044
1	721	11,356	0.0635	0.0428	0.0599	485.97	680.37	1.4836	1.0597
2	623	10,716	0.0581	0.0402	0.0562	430.27	602.38	1.4479	1.0342
3	342	9,587	0.0357	0.0377	0.0527	361.11	505.56	0.9471	0.6765
4	383	10,792	0.0355	0.0352	0.0492	379.49	531.31	1.0092	0.7209
5	207	4,616	0.0448	0.0325	0.0455	150.15	210.21	1.3786	0.9847
6	190	5,069	0.0375	0.0303	0.0425	153.73	215.22	1.2359	0.8828
7	112	4,607	0.0243	0.0281	0.0393	129.45	181.24	0.8652	0.6180
8	124	4,655	0.0266	0.0258	0.0361	120.12	168.17	1.0323	0.7374
9	81	4,017	0.0202	0.0236	0.0330	94.83	132.75	0.8542	0.6102
10	98	3,949	0.0248	0.0212	0.0297	83.84	117.40	1.1689	0.8348
11	70	3,506	0.0200	0.0199	0.0279	69.95	97.91	1.0007	0.7150
12	67	3,573	0.0188	0.0187	0.0261	66.66	93.32	1.0051	0.7180
13	55	2,816	0.0195	0.0174	0.0244	49.06	68.68	1.1211	0.8008
14	47	2,851	0.0165	0.0162	0.0227	46.27	64.80	1.0158	0.7253
15	37	2,223	0.0166	0.0150	0.0210	33.34	46.68	1.1098	0.7926
16	28	1,935	0.0145	0.0140	0.0196	27.10	37.93	1.0332	0.7383
17	26	1,482	0.0175	0.0130	0.0182	19.25	26.97	1.3506	0.9639
18	13	1,253	0.0104	0.0120	0.0168	15.03	21.05	0.8649	0.6176
19	16	901	0.0178	0.0110	0.0154	9.91	13.88	1.6145	1.1531
20	10	737	0.0136	0.0100	0.0140	7.37	10.32	1.3569	0.9692
21	9	634	0.0142	0.0100	0.0140	6.34	8.88	1.4196	1.0140
22	2	661	0.0030	0.0100	0.0140	6.61	9.25	0.3026	0.2161
23	2	509	0.0039	0.0100	0.0140	5.09	7.13	0.3929	0.2807
24	7	483	0.0145	0.0100	0.0140	4.83	6.76	1.4493	1.0352
25	5	358	0.0140	0.0100	0.0140	3.58	5.01	1.3966	0.9976
26	2	326	0.0061	0.0100	0.0140	3.26	4.56	0.6135	0.4382
27	1	279	0.0036	0.0100	0.0140	2.79	3.91	0.3584	0.2560
28	0	214	0.0000	0.0100	0.0140	2.14	3.00	0.0000	0.0000
29	1	159	0.0063	0.0100	0.0140	1.59	2.23	0.6289	0.4492
30	1	107	0.0093	0.0100	0.0140	1.07	1.50	0.9346	0.6676
31+	2	182	0.0110	0.0100	0.0140	1.82	2.55	1.0989	0.7849
Total	4,039	103,024	0.0392			3,157.04	4,419.94	1.2794	0.9138

Bolton

Board of Education Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Men
 8-Year Period Ending 2015

Proposed Assumptions are 140% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
				0	235	2,776	0.0847	0.0600	0.0840
1	305	4,506	0.0677	0.0560	0.0784	252.34	353.27	1.2087	0.8634
2	287	4,519	0.0635	0.0520	0.0728	234.98	328.98	1.2214	0.8724
3	185	3,944	0.0469	0.0480	0.0672	189.32	265.04	0.9772	0.6980
4	165	4,150	0.0398	0.0440	0.0616	182.59	255.64	0.9037	0.6454
5	107	2,051	0.0522	0.0400	0.0560	82.04	114.86	1.3042	0.9316
6	91	2,085	0.0436	0.0370	0.0518	77.14	108.00	1.1797	0.8426
7	60	1,878	0.0319	0.0340	0.0476	63.85	89.39	0.9397	0.6712
8	51	1,871	0.0273	0.0310	0.0434	58.00	81.20	0.8793	0.6281
9	42	1,638	0.0256	0.0280	0.0392	45.87	64.21	0.9156	0.6541
10	43	1,596	0.0269	0.0250	0.0350	39.88	55.86	1.0782	0.7698
11	36	1,333	0.0270	0.0230	0.0322	30.66	42.92	1.1742	0.8387
12	21	1,232	0.0170	0.0210	0.0294	25.87	36.22	0.8118	0.5798
13	18	1,008	0.0179	0.0190	0.0266	19.16	26.81	0.9395	0.6713
14	14	982	0.0143	0.0170	0.0238	16.69	23.37	0.8388	0.5990
15	13	835	0.0156	0.0150	0.0210	12.52	17.54	1.0383	0.7414
16	9	780	0.0115	0.0140	0.0196	10.93	15.29	0.8234	0.5887
17	13	727	0.0179	0.0130	0.0182	9.45	13.23	1.3757	0.9825
18	9	736	0.0122	0.0120	0.0168	8.83	12.36	1.0193	0.7279
19	9	647	0.0139	0.0110	0.0154	7.12	9.96	1.2640	0.9033
20	10	600	0.0167	0.0100	0.0140	6.00	8.40	1.6667	1.1905
21	10	520	0.0192	0.0100	0.0140	5.20	7.28	1.9231	1.3736
22	6	502	0.0120	0.0100	0.0140	5.02	7.03	1.1952	0.8537
23	5	405	0.0123	0.0100	0.0140	4.05	5.67	1.2346	0.8818
24	4	361	0.0111	0.0100	0.0140	3.61	5.05	1.1080	0.7915
25	4	269	0.0149	0.0100	0.0140	2.69	3.77	1.4870	1.0621
26	1	229	0.0044	0.0100	0.0140	2.29	3.21	0.4367	0.3119
27	1	175	0.0057	0.0100	0.0140	1.75	2.45	0.5714	0.4082
28	0	135	0.0000	0.0100	0.0140	1.35	1.89	0.0000	0.0000
29	3	96	0.0313	0.0100	0.0140	0.96	1.34	3.1250	2.2321
30	1	61	0.0164	0.0100	0.0140	0.61	0.85	1.6393	1.1710
31+	3	106	0.0283	0.0100	0.0140	1.06	1.48	2.8302	2.0216
Total	1,761	42,753	0.0412			1,568.39	2,195.77	1.1228	0.8020

Bolton

Board of Education Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Women
 8-Year Period Ending 2015
 Proposed Assumptions are 140% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	641	7,687	0.0834	0.0400	0.0560	307.48	430.47	2.0847	1.4891
1	743	12,666	0.0587	0.0380	0.0532	481.30	673.83	1.5437	1.1027
2	734	12,860	0.0571	0.0360	0.0504	462.97	648.14	1.5854	1.1325
3	495	11,491	0.0431	0.0340	0.0476	390.69	546.97	1.2670	0.9050
4	449	12,198	0.0368	0.0320	0.0448	390.34	546.47	1.1503	0.8216
5	264	6,405	0.0412	0.0300	0.0420	192.15	269.01	1.3739	0.9814
6	231	6,707	0.0344	0.0280	0.0392	187.80	262.91	1.2300	0.8786
7	177	6,180	0.0286	0.0260	0.0364	160.69	224.95	1.1015	0.7868
8	194	6,447	0.0301	0.0240	0.0336	154.74	216.62	1.2537	0.8956
9	171	5,725	0.0299	0.0220	0.0308	125.95	176.33	1.3577	0.9698
10	146	5,510	0.0265	0.0200	0.0280	110.20	154.28	1.3249	0.9463
11	99	4,479	0.0221	0.0190	0.0266	85.12	119.14	1.1631	0.8309
12	91	4,187	0.0217	0.0180	0.0252	75.37	105.51	1.2074	0.8625
13	83	3,337	0.0249	0.0170	0.0238	56.74	79.42	1.4628	1.0451
14	74	3,119	0.0237	0.0160	0.0224	49.90	69.87	1.4830	1.0592
15	53	2,474	0.0214	0.0150	0.0210	37.12	51.95	1.4278	1.0201
16	49	2,095	0.0234	0.0140	0.0196	29.33	41.06	1.6706	1.1933
17	35	1,550	0.0226	0.0130	0.0182	20.13	28.21	1.7387	1.2407
18	17	1,356	0.0125	0.0120	0.0168	16.27	22.78	1.0449	0.7462
19	24	1,010	0.0238	0.0110	0.0154	11.11	15.55	2.1602	1.5430
20	14	871	0.0161	0.0100	0.0140	8.71	12.19	1.6073	1.1481
21	8	656	0.0122	0.0100	0.0140	6.56	9.18	1.2195	0.8711
22	4	593	0.0067	0.0100	0.0140	5.93	8.30	0.6745	0.4818
23	4	483	0.0083	0.0100	0.0140	4.83	6.76	0.8282	0.5915
24	6	419	0.0143	0.0100	0.0140	4.19	5.87	1.4320	1.0228
25	7	350	0.0200	0.0100	0.0140	3.50	4.90	2.0000	1.4286
26	4	289	0.0138	0.0100	0.0140	2.89	4.05	1.3841	0.9886
27	1	237	0.0042	0.0100	0.0140	2.37	3.32	0.4219	0.3014
28	0	207	0.0000	0.0100	0.0140	2.07	2.90	0.0000	0.0000
29	2	151	0.0132	0.0100	0.0140	1.51	2.11	1.3245	0.9461
30	0	110	0.0000	0.0100	0.0140	1.10	1.54	0.0000	0.0000
31+	3	224	0.0134	0.0100	0.0140	2.24	3.14	1.3393	0.9566
Total	4,823	122,073	0.0395			3,391.30	4,747.76	1.4222	1.0158

Bolton

Board of Education Retirement System of the City of New York
 Withdrawal Experience of Active Members
 Men and Women
 8-Year Period Ending 2015

Proposed Assumptions are 140% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
				0	876	10,463	0.0837	0.0453	0.0634
1	1,048	17,172	0.0610	0.0427	0.0598	733.64	1,027.10	1.4285	1.0203
2	1,021	17,379	0.0587	0.0402	0.0562	697.95	977.13	1.4629	1.0449
3	680	15,435	0.0441	0.0376	0.0526	580.01	812.01	1.1724	0.8374
4	614	16,348	0.0376	0.0350	0.0491	572.93	802.11	1.0717	0.7655
5	371	8,456	0.0439	0.0324	0.0454	274.19	383.87	1.3531	0.9665
6	322	8,792	0.0366	0.0301	0.0422	264.94	370.92	1.2154	0.8681
7	237	8,058	0.0294	0.0279	0.0390	224.54	314.34	1.0555	0.7539
8	245	8,318	0.0295	0.0256	0.0358	212.74	297.82	1.1516	0.8226
9	213	7,363	0.0289	0.0233	0.0327	171.82	240.54	1.2397	0.8855
10	189	7,106	0.0266	0.0211	0.0296	150.08	210.14	1.2593	0.8994
11	135	5,812	0.0232	0.0199	0.0279	115.78	162.06	1.1660	0.8330
12	112	5,419	0.0207	0.0187	0.0262	101.24	141.73	1.1063	0.7902
13	101	4,345	0.0232	0.0175	0.0244	75.90	106.23	1.3307	0.9507
14	88	4,101	0.0215	0.0162	0.0227	66.59	93.24	1.3215	0.9438
15	66	3,309	0.0199	0.0150	0.0210	49.64	69.49	1.3296	0.9498
16	58	2,875	0.0202	0.0140	0.0196	40.26	56.35	1.4406	1.0293
17	48	2,277	0.0211	0.0130	0.0182	29.58	41.44	1.6227	1.1583
18	26	2,092	0.0124	0.0120	0.0168	25.10	35.15	1.0359	0.7398
19	33	1,657	0.0199	0.0110	0.0154	18.23	25.52	1.8102	1.2932
20	24	1,471	0.0163	0.0100	0.0140	14.71	20.59	1.6315	1.1654
21	18	1,176	0.0153	0.0100	0.0140	11.76	16.46	1.5306	1.0933
22	10	1,095	0.0091	0.0100	0.0140	10.95	15.33	0.9132	0.6523
23	9	888	0.0101	0.0100	0.0140	8.88	12.43	1.0135	0.7239
24	10	780	0.0128	0.0100	0.0140	7.80	10.92	1.2821	0.9158
25	11	619	0.0178	0.0100	0.0140	6.19	8.67	1.7771	1.2693
26	5	518	0.0097	0.0100	0.0140	5.18	7.25	0.9653	0.6895
27	2	412	0.0049	0.0100	0.0140	4.12	5.77	0.4854	0.3467
28	0	342	0.0000	0.0100	0.0140	3.42	4.79	0.0000	0.0000
29	5	247	0.0202	0.0100	0.0140	2.47	3.46	2.0243	1.4459
30	1	171	0.0058	0.0100	0.0140	1.71	2.39	0.5848	0.4177
31+	6	330	0.0182	0.0100	0.0140	3.30	4.62	1.8182	1.2987
Total	6,584	164,826	0.0399			4,959.69	6,943.53	1.3275	0.9482

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Board of Education Retirement System of the City of New York Withdrawal Experience of Active Members Men and Women 8-Year Period Ending 2015 </div> </div>						
(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Withdrawals	Life Years Exposed	Current Expected Withdrawals	Actual/Expected	Withdrawal Rate	
					Actual	Current Expected
2008	605	15,220	443.87	1.3630	0.0398	0.0292
2009	591	15,714	462.91	1.2767	0.0376	0.0295
2010	708	15,604	456.24	1.5518	0.0454	0.0292
2011	641	15,264	439.63	1.4580	0.0420	0.0288
2012	551	14,970	426.44	1.2921	0.0368	0.0285
2013	1,340	19,478	637.66	2.1014	0.0688	0.0327
2014	862	17,806	560.92	1.5368	0.0484	0.0315
2015	836	16,871	513.79	1.6271	0.0496	0.0305
Total	6,134	130,927	3,941.46	1.5563	0.0469	0.0301

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #003366; color: white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p style="margin: 0;">Board of Education Retirement System of the City of New York</p> <p style="margin: 0;">Ordinary Disability Experience of Active Members</p> <p style="margin: 0;">Men</p> <p style="margin: 0;">4-Year Period Ending 2017</p> <p style="margin: 0;">Proposed Assumptions are 100% of the Current Rates</p> </div> </div>											
(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(6) Expected Disabilities		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed	Current	Proposed
20	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
21	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
22	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
23	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
24	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
25	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
26	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
27	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
28	0	1	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000		
29	0	2	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000		
30	0	1	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000		
31	0	2	0.0000	0.0022	0.0022	0.00	0.00	0.0000	0.0000		
32	0	9	0.0000	0.0024	0.0024	0.02	0.02	0.0000	0.0000		
33	0	22	0.0000	0.0026	0.0026	0.06	0.06	0.0000	0.0000		
34	0	45	0.0000	0.0028	0.0028	0.13	0.13	0.0000	0.0000		
35	0	62	0.0000	0.0030	0.0030	0.19	0.19	0.0000	0.0000		
36	0	69	0.0000	0.0032	0.0032	0.22	0.22	0.0000	0.0000		
37	0	90	0.0000	0.0034	0.0034	0.31	0.31	0.0000	0.0000		
38	0	117	0.0000	0.0036	0.0036	0.42	0.42	0.0000	0.0000		
39	0	149	0.0000	0.0038	0.0038	0.57	0.57	0.0000	0.0000		
40	0	157	0.0000	0.0040	0.0040	0.63	0.63	0.0000	0.0000		
41	0	184	0.0000	0.0042	0.0042	0.77	0.77	0.0000	0.0000		
42	0	192	0.0000	0.0044	0.0044	0.84	0.84	0.0000	0.0000		
43	0	222	0.0000	0.0046	0.0046	1.02	1.02	0.0000	0.0000		
44	0	227	0.0000	0.0048	0.0048	1.09	1.09	0.0000	0.0000		
45	0	263	0.0000	0.0050	0.0050	1.32	1.32	0.0000	0.0000		
46	1	315	0.0032	0.0052	0.0052	1.64	1.64	0.6105	0.6105		
47	0	309	0.0000	0.0054	0.0054	1.67	1.67	0.0000	0.0000		
48	0	357	0.0000	0.0056	0.0056	2.00	2.00	0.0000	0.0000		
49	0	370	0.0000	0.0058	0.0058	2.15	2.15	0.0000	0.0000		
50	3	386	0.0078	0.0060	0.0060	2.32	2.32	1.2953	1.2953		
51	2	411	0.0049	0.0062	0.0062	2.55	2.55	0.7849	0.7849		
52	1	433	0.0023	0.0064	0.0064	2.77	2.77	0.3609	0.3609		
53	3	457	0.0066	0.0066	0.0066	3.02	3.02	0.9946	0.9946		
54	3	498	0.0060	0.0068	0.0068	3.39	3.39	0.8859	0.8859		
55	4	512	0.0078	0.0070	0.0070	3.58	3.58	1.1161	1.1161		
56	1	520	0.0019	0.0070	0.0070	3.64	3.64	0.2747	0.2747		
57	4	509	0.0079	0.0070	0.0070	3.56	3.56	1.1226	1.1226		
58	3	472	0.0064	0.0070	0.0070	3.30	3.30	0.9080	0.9080		
59	4	456	0.0088	0.0070	0.0070	3.19	3.19	1.2531	1.2531		
60	2	445	0.0045	0.0070	0.0070	3.12	3.12	0.6421	0.6421		
61	4	434	0.0092	0.0070	0.0070	3.04	3.04	1.3167	1.3167		
62	1	388	0.0026	0.0070	0.0070	2.72	2.72	0.3682	0.3682		
63	2	299	0.0067	0.0070	0.0070	2.09	2.09	0.9556	0.9556		
64	2	228	0.0088	0.0070	0.0070	1.60	1.60	1.2531	1.2531		
65	1	210	0.0048	0.0070	0.0070	1.47	1.47	0.6803	0.6803		
66	0	171	0.0000	0.0070	0.0070	1.20	1.20	0.0000	0.0000		
67	2	132	0.0152	0.0070	0.0070	0.92	0.92	2.1645	2.1645		
68	0	112	0.0000	0.0070	0.0070	0.78	0.78	0.0000	0.0000		
69	1	81	0.0123	0.0070	0.0070	0.57	0.57	1.7637	1.7637		
70	1	71	0.0141	0.0070	0.0070	0.50	0.50	2.0121	2.0121		
71	1	65	0.0154	0.0070	0.0070	0.46	0.46	2.1978	2.1978		
72	0	47	0.0000	0.0070	0.0070	0.33	0.33	0.0000	0.0000		
73	1	36	0.0278	0.0070	0.0070	0.25	0.25	3.9683	3.9683		
74	0	33	0.0000	0.0070	0.0070	0.23	0.23	0.0000	0.0000		
75	1	28	0.0357	0.0070	0.0070	0.20	0.20	5.1020	5.1020		
76	0	29	0.0000	0.0070	0.0070	0.20	0.20	0.0000	0.0000		
77	1	30	0.0333	0.0070	0.0070	0.21	0.21	4.7619	4.7619		
78	0	18	0.0000	0.0070	0.0070	0.13	0.13	0.0000	0.0000		
79	0	12	0.0000	0.0070	0.0070	0.08	0.08	0.0000	0.0000		
80	0	7	0.0000	0.0070	0.0070	0.05	0.05	0.0000	0.0000		
Total	49	10,695	0.0046			66.49	66.49	0.7369	0.7369		

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: white; padding: 5px; border: 1px solid black; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Ordinary Disability Experience of Active Members Women 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>											
(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected			
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed		
20	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
21	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
22	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
23	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
24	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
25	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
26	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
27	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
28	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
29	0	1	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000		
30	0	5	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000		
31	0	15	0.0000	0.0020	0.0020	0.03	0.03	0.0000	0.0000		
32	0	30	0.0000	0.0020	0.0020	0.06	0.06	0.0000	0.0000		
33	0	46	0.0000	0.0020	0.0020	0.09	0.09	0.0000	0.0000		
34	0	74	0.0000	0.0020	0.0020	0.15	0.15	0.0000	0.0000		
35	0	119	0.0000	0.0020	0.0020	0.24	0.24	0.0000	0.0000		
36	0	161	0.0000	0.0021	0.0021	0.34	0.34	0.0000	0.0000		
37	0	205	0.0000	0.0022	0.0022	0.45	0.45	0.0000	0.0000		
38	0	253	0.0000	0.0023	0.0023	0.58	0.58	0.0000	0.0000		
39	0	301	0.0000	0.0024	0.0024	0.72	0.72	0.0000	0.0000		
40	0	338	0.0000	0.0025	0.0025	0.85	0.85	0.0000	0.0000		
41	2	354	0.0056	0.0026	0.0026	0.92	0.92	2.1730	2.1730		
42	1	407	0.0025	0.0027	0.0027	1.10	1.10	0.9100	0.9100		
43	0	476	0.0000	0.0028	0.0028	1.33	1.33	0.0000	0.0000		
44	0	508	0.0000	0.0029	0.0029	1.47	1.47	0.0000	0.0000		
45	1	535	0.0019	0.0030	0.0030	1.61	1.61	0.6231	0.6231		
46	3	625	0.0048	0.0034	0.0034	2.13	2.13	1.4118	1.4118		
47	2	713	0.0028	0.0038	0.0038	2.71	2.71	0.7382	0.7382		
48	5	814	0.0061	0.0042	0.0042	3.42	3.42	1.4625	1.4625		
49	3	955	0.0031	0.0046	0.0046	4.39	4.39	0.6829	0.6829		
50	5	1,097	0.0046	0.0050	0.0050	5.49	5.49	0.9116	0.9116		
51	3	1,255	0.0024	0.0054	0.0054	6.78	6.78	0.4427	0.4427		
52	1	1,344	0.0007	0.0058	0.0058	7.80	7.80	0.1283	0.1283		
53	10	1,456	0.0069	0.0062	0.0062	9.03	9.03	1.1078	1.1078		
54	12	1,564	0.0077	0.0066	0.0066	10.32	10.32	1.1625	1.1625		
55	13	1,715	0.0076	0.0070	0.0070	12.01	12.01	1.0829	1.0829		
56	11	1,839	0.0060	0.0070	0.0070	12.87	12.87	0.8545	0.8545		
57	11	1,861	0.0059	0.0070	0.0070	13.03	13.03	0.8444	0.8444		
58	12	1,846	0.0065	0.0070	0.0070	12.92	12.92	0.9286	0.9286		
59	22	1,834	0.0120	0.0070	0.0070	12.84	12.84	1.7137	1.7137		
60	16	1,823	0.0088	0.0070	0.0070	12.76	12.76	1.2538	1.2538		
61	19	1,831	0.0104	0.0070	0.0070	12.82	12.82	1.4824	1.4824		
62	8	1,634	0.0049	0.0070	0.0070	11.44	11.44	0.6994	0.6994		
63	7	1,348	0.0052	0.0070	0.0070	9.44	9.44	0.7418	0.7418		
64	3	1,164	0.0026	0.0070	0.0070	8.15	8.15	0.3682	0.3682		
65	9	1,001	0.0090	0.0070	0.0070	7.01	7.01	1.2844	1.2844		
66	5	874	0.0057	0.0070	0.0070	6.12	6.12	0.8173	0.8173		
67	7	689	0.0102	0.0070	0.0070	4.82	4.82	1.4514	1.4514		
68	2	563	0.0036	0.0070	0.0070	3.94	3.94	0.5075	0.5075		
69	7	446	0.0157	0.0070	0.0070	3.12	3.12	2.2422	2.2422		
70	2	339	0.0059	0.0070	0.0070	2.37	2.37	0.8428	0.8428		
71	2	276	0.0072	0.0070	0.0070	1.93	1.93	1.0352	1.0352		
72	1	224	0.0045	0.0070	0.0070	1.57	1.57	0.6378	0.6378		
73	1	187	0.0053	0.0070	0.0070	1.31	1.31	0.7639	0.7639		
74	1	145	0.0069	0.0070	0.0070	1.02	1.02	0.9852	0.9852		
75	0	109	0.0000	0.0070	0.0070	0.76	0.76	0.0000	0.0000		
76	1	86	0.0116	0.0070	0.0070	0.60	0.60	1.6611	1.6611		
77	1	63	0.0159	0.0070	0.0070	0.44	0.44	2.2676	2.2676		
78	0	61	0.0000	0.0070	0.0070	0.43	0.43	0.0000	0.0000		
79	0	48	0.0000	0.0070	0.0070	0.34	0.34	0.0000	0.0000		
80	0	34	0.0000	0.0070	0.0070	0.24	0.24	0.0000	0.0000		
Total	209	35,691	0.0059			216.28	216.28	0.9663	0.9663		

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Board of Education Retirement System of the City of New York Ordinary Disability Experience of Active Members Men and Women 4-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	Assumed Probability		Expected Disabilities		Actual/Expected	
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
28	0	1	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000
29	0	3	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000
30	0	6	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000
31	0	17	0.0000	0.0020	0.0020	0.03	0.03	0.0000	0.0000
32	0	39	0.0000	0.0021	0.0021	0.08	0.08	0.0000	0.0000
33	0	68	0.0000	0.0022	0.0022	0.15	0.15	0.0000	0.0000
34	0	119	0.0000	0.0023	0.0023	0.27	0.27	0.0000	0.0000
35	0	181	0.0000	0.0023	0.0023	0.42	0.42	0.0000	0.0000
36	0	230	0.0000	0.0024	0.0024	0.56	0.56	0.0000	0.0000
37	0	295	0.0000	0.0026	0.0026	0.76	0.76	0.0000	0.0000
38	0	370	0.0000	0.0027	0.0027	1.00	1.00	0.0000	0.0000
39	0	450	0.0000	0.0029	0.0029	1.29	1.29	0.0000	0.0000
40	0	495	0.0000	0.0030	0.0030	1.47	1.47	0.0000	0.0000
41	2	538	0.0037	0.0031	0.0031	1.69	1.69	1.1812	1.1812
42	1	599	0.0017	0.0032	0.0032	1.94	1.94	0.5145	0.5145
43	0	698	0.0000	0.0034	0.0034	2.35	2.35	0.0000	0.0000
44	0	735	0.0000	0.0035	0.0035	2.56	2.56	0.0000	0.0000
45	1	798	0.0013	0.0037	0.0037	2.92	2.92	0.3425	0.3425
46	4	940	0.0043	0.0040	0.0040	3.76	3.76	1.0630	1.0630
47	2	1,022	0.0020	0.0043	0.0043	4.38	4.38	0.4568	0.4568
48	5	1,171	0.0043	0.0046	0.0046	5.42	5.42	0.9228	0.9228
49	3	1,325	0.0023	0.0049	0.0049	6.54	6.54	0.4588	0.4588
50	8	1,483	0.0054	0.0053	0.0053	7.80	7.80	1.0255	1.0255
51	5	1,666	0.0030	0.0056	0.0056	9.33	9.33	0.5362	0.5362
52	2	1,777	0.0011	0.0059	0.0059	10.57	10.57	0.1893	0.1893
53	13	1,913	0.0068	0.0063	0.0063	12.04	12.04	1.0794	1.0794
54	15	2,062	0.0073	0.0066	0.0066	13.71	13.71	1.0942	1.0942
55	17	2,227	0.0076	0.0070	0.0070	15.59	15.59	1.0905	1.0905
56	12	2,359	0.0051	0.0070	0.0070	16.51	16.51	0.7267	0.7267
57	15	2,370	0.0063	0.0070	0.0070	16.59	16.59	0.9042	0.9042
58	15	2,318	0.0065	0.0070	0.0070	16.23	16.23	0.9244	0.9244
59	26	2,290	0.0114	0.0070	0.0070	16.03	16.03	1.6220	1.6220
60	18	2,268	0.0079	0.0070	0.0070	15.88	15.88	1.1338	1.1338
61	23	2,265	0.0102	0.0070	0.0070	15.86	15.86	1.4506	1.4506
62	9	2,022	0.0045	0.0070	0.0070	14.15	14.15	0.6359	0.6359
63	9	1,647	0.0055	0.0070	0.0070	11.53	11.53	0.7806	0.7806
64	5	1,392	0.0036	0.0070	0.0070	9.74	9.74	0.5131	0.5131
65	10	1,211	0.0083	0.0070	0.0070	8.48	8.48	1.1797	1.1797
66	5	1,045	0.0048	0.0070	0.0070	7.32	7.32	0.6835	0.6835
67	9	821	0.0110	0.0070	0.0070	5.75	5.75	1.5660	1.5660
68	2	675	0.0030	0.0070	0.0070	4.73	4.73	0.4233	0.4233
69	8	527	0.0152	0.0070	0.0070	3.69	3.69	2.1686	2.1686
70	3	410	0.0073	0.0070	0.0070	2.87	2.87	1.0453	1.0453
71	3	341	0.0088	0.0070	0.0070	2.39	2.39	1.2568	1.2568
72	1	271	0.0037	0.0070	0.0070	1.90	1.90	0.5271	0.5271
73	2	223	0.0090	0.0070	0.0070	1.56	1.56	1.2812	1.2812
74	1	178	0.0056	0.0070	0.0070	1.25	1.25	0.8026	0.8026
75	1	137	0.0073	0.0070	0.0070	0.96	0.96	1.0428	1.0428
76	1	115	0.0087	0.0070	0.0070	0.80	0.80	1.2422	1.2422
77	2	93	0.0215	0.0070	0.0070	0.65	0.65	3.0722	3.0722
78	0	79	0.0000	0.0070	0.0070	0.55	0.55	0.0000	0.0000
79	0	60	0.0000	0.0070	0.0070	0.42	0.42	0.0000	0.0000
80	0	41	0.0000	0.0070	0.0070	0.29	0.29	0.0000	0.0000
Total	258	46,386	0.0056			282.78	282.78	0.9124	0.9124

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Ordinary Disability Experience of Active Members Men 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>									
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	1	1	1.0000	0.0020	0.0020	0.00	0.00	500.0000	500.0000
21	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A
28	0	3	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000
29	0	6	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000
30	0	10	0.0000	0.0020	0.0020	0.02	0.02	0.0000	0.0000
31	0	23	0.0000	0.0022	0.0022	0.05	0.05	0.0000	0.0000
32	0	39	0.0000	0.0024	0.0024	0.09	0.09	0.0000	0.0000
33	0	62	0.0000	0.0026	0.0026	0.16	0.16	0.0000	0.0000
34	0	94	0.0000	0.0028	0.0028	0.26	0.26	0.0000	0.0000
35	0	139	0.0000	0.0030	0.0030	0.42	0.42	0.0000	0.0000
36	0	157	0.0000	0.0032	0.0032	0.50	0.50	0.0000	0.0000
37	0	204	0.0000	0.0034	0.0034	0.69	0.69	0.0000	0.0000
38	0	238	0.0000	0.0036	0.0036	0.86	0.86	0.0000	0.0000
39	0	285	0.0000	0.0038	0.0038	1.08	1.08	0.0000	0.0000
40	0	344	0.0000	0.0040	0.0040	1.38	1.38	0.0000	0.0000
41	0	407	0.0000	0.0042	0.0042	1.71	1.71	0.0000	0.0000
42	0	470	0.0000	0.0044	0.0044	2.07	2.07	0.0000	0.0000
43	0	548	0.0000	0.0046	0.0046	2.52	2.52	0.0000	0.0000
44	0	608	0.0000	0.0048	0.0048	2.92	2.92	0.0000	0.0000
45	2	658	0.0030	0.0050	0.0050	3.29	3.29	0.6079	0.6079
46	1	749	0.0013	0.0052	0.0052	3.89	3.89	0.2568	0.2568
47	2	810	0.0025	0.0054	0.0054	4.37	4.37	0.4572	0.4572
48	4	928	0.0043	0.0056	0.0056	5.20	5.20	0.7697	0.7697
49	2	974	0.0021	0.0058	0.0058	5.65	5.65	0.3540	0.3540
50	3	1,038	0.0029	0.0060	0.0060	6.23	6.23	0.4817	0.4817
51	4	1,102	0.0036	0.0062	0.0062	6.83	6.83	0.5854	0.5854
52	5	1,137	0.0044	0.0064	0.0064	7.28	7.28	0.6871	0.6871
53	7	1,152	0.0061	0.0066	0.0066	7.60	7.60	0.9207	0.9207
54	7	1,180	0.0059	0.0068	0.0068	8.02	8.02	0.8724	0.8724
55	5	1,207	0.0041	0.0070	0.0070	8.45	8.45	0.5918	0.5918
56	2	1,187	0.0017	0.0070	0.0070	8.31	8.31	0.2407	0.2407
57	8	1,176	0.0068	0.0070	0.0070	8.23	8.23	0.9718	0.9718
58	6	1,084	0.0055	0.0070	0.0070	7.59	7.59	0.7907	0.7907
59	5	1,032	0.0048	0.0070	0.0070	7.22	7.22	0.6921	0.6921
60	5	993	0.0050	0.0070	0.0070	6.95	6.95	0.7193	0.7193
61	8	914	0.0088	0.0070	0.0070	6.40	6.40	1.2504	1.2504
62	3	790	0.0038	0.0070	0.0070	5.53	5.53	0.5425	0.5425
63	4	632	0.0063	0.0070	0.0070	4.42	4.42	0.9042	0.9042
64	3	490	0.0061	0.0070	0.0070	3.43	3.43	0.8746	0.8746
65	4	442	0.0090	0.0070	0.0070	3.09	3.09	1.2928	1.2928
66	1	359	0.0028	0.0070	0.0070	2.51	2.51	0.3979	0.3979
67	3	283	0.0106	0.0070	0.0070	1.98	1.98	1.5144	1.5144
68	1	233	0.0043	0.0070	0.0070	1.63	1.63	0.6131	0.6131
69	1	192	0.0052	0.0070	0.0070	1.34	1.34	0.7440	0.7440
70	1	154	0.0065	0.0070	0.0070	1.08	1.08	0.9276	0.9276
71	1	140	0.0071	0.0070	0.0070	0.98	0.98	1.0204	1.0204
72	1	114	0.0088	0.0070	0.0070	0.80	0.80	1.2531	1.2531
73	1	90	0.0111	0.0070	0.0070	0.63	0.63	1.5873	1.5873
74	0	75	0.0000	0.0070	0.0070	0.53	0.53	0.0000	0.0000
75	1	66	0.0152	0.0070	0.0070	0.46	0.46	2.1645	2.1645
76	0	58	0.0000	0.0070	0.0070	0.41	0.41	0.0000	0.0000
77	1	53	0.0189	0.0070	0.0070	0.37	0.37	2.6954	2.6954
78	2	33	0.0606	0.0070	0.0070	0.23	0.23	8.6580	8.6580
79	0	26	0.0000	0.0070	0.0070	0.18	0.18	0.0000	0.0000
80	0	21	0.0000	0.0070	0.0070	0.15	0.15	0.0000	0.0000
Total	105	25,210	0.0042			156.03	156.03	0.6729	0.6729

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: white; padding: 5px; border: 1px solid black; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>Board of Education Retirement System of the City of New York Ordinary Disability Experience of Active Members Women 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates</p> </div> </div>											
(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected			
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed		
20	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
21	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
22	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
23	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
24	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
25	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
26	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
27	0	1	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000		
28	0	3	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000		
29	0	8	0.0000	0.0020	0.0020	0.02	0.02	0.0000	0.0000		
30	0	25	0.0000	0.0020	0.0020	0.05	0.05	0.0000	0.0000		
31	0	48	0.0000	0.0020	0.0020	0.10	0.10	0.0000	0.0000		
32	0	61	0.0000	0.0020	0.0020	0.12	0.12	0.0000	0.0000		
33	0	103	0.0000	0.0020	0.0020	0.21	0.21	0.0000	0.0000		
34	0	170	0.0000	0.0020	0.0020	0.34	0.34	0.0000	0.0000		
35	1	265	0.0038	0.0020	0.0020	0.53	0.53	1.8868	1.8868		
36	0	349	0.0000	0.0021	0.0021	0.73	0.73	0.0000	0.0000		
37	0	446	0.0000	0.0022	0.0022	0.98	0.98	0.0000	0.0000		
38	1	539	0.0019	0.0023	0.0023	1.24	1.24	0.8066	0.8066		
39	0	636	0.0000	0.0024	0.0024	1.53	1.53	0.0000	0.0000		
40	1	742	0.0013	0.0025	0.0025	1.86	1.86	0.5391	0.5391		
41	2	823	0.0024	0.0026	0.0026	2.14	2.14	0.9347	0.9347		
42	2	959	0.0021	0.0027	0.0027	2.59	2.59	0.7724	0.7724		
43	0	1,116	0.0000	0.0028	0.0028	3.12	3.12	0.0000	0.0000		
44	2	1,262	0.0016	0.0029	0.0029	3.66	3.66	0.5465	0.5465		
45	2	1,420	0.0014	0.0030	0.0030	4.26	4.26	0.4695	0.4695		
46	3	1,621	0.0019	0.0034	0.0034	5.51	5.51	0.5443	0.5443		
47	4	1,829	0.0022	0.0038	0.0038	6.95	6.95	0.5755	0.5755		
48	8	2,078	0.0038	0.0042	0.0042	8.73	8.73	0.9166	0.9166		
49	5	2,420	0.0021	0.0046	0.0046	11.13	11.13	0.4492	0.4492		
50	9	2,732	0.0033	0.0050	0.0050	13.66	13.66	0.6589	0.6589		
51	14	3,038	0.0046	0.0054	0.0054	16.41	16.41	0.8534	0.8534		
52	6	3,306	0.0018	0.0058	0.0058	19.17	19.17	0.3129	0.3129		
53	16	3,610	0.0044	0.0062	0.0062	22.38	22.38	0.7149	0.7149		
54	29	3,851	0.0075	0.0066	0.0066	25.42	25.42	1.1410	1.1410		
55	23	4,040	0.0057	0.0070	0.0070	28.28	28.28	0.8133	0.8133		
56	22	4,184	0.0053	0.0070	0.0070	29.29	29.29	0.7512	0.7512		
57	22	4,221	0.0052	0.0070	0.0070	29.55	29.55	0.7446	0.7446		
58	20	4,244	0.0047	0.0070	0.0070	29.71	29.71	0.6732	0.6732		
59	31	4,241	0.0073	0.0070	0.0070	29.69	29.69	1.0442	1.0442		
60	26	4,230	0.0061	0.0070	0.0070	29.61	29.61	0.8781	0.8781		
61	38	4,201	0.0090	0.0070	0.0070	29.41	29.41	1.2922	1.2922		
62	22	3,813	0.0058	0.0070	0.0070	26.69	26.69	0.8242	0.8242		
63	24	3,069	0.0078	0.0070	0.0070	21.48	21.48	1.1172	1.1172		
64	9	2,646	0.0034	0.0070	0.0070	18.52	18.52	0.4859	0.4859		
65	14	2,311	0.0061	0.0070	0.0070	16.18	16.18	0.8654	0.8654		
66	8	1,923	0.0042	0.0070	0.0070	13.46	13.46	0.5943	0.5943		
67	13	1,489	0.0087	0.0070	0.0070	10.42	10.42	1.2472	1.2472		
68	5	1,217	0.0041	0.0070	0.0070	8.52	8.52	0.5869	0.5869		
69	10	1,014	0.0099	0.0070	0.0070	7.10	7.10	1.4088	1.4088		
70	4	813	0.0049	0.0070	0.0070	5.69	5.69	0.7029	0.7029		
71	3	649	0.0046	0.0070	0.0070	4.54	4.54	0.6604	0.6604		
72	3	521	0.0058	0.0070	0.0070	3.65	3.65	0.8226	0.8226		
73	2	436	0.0046	0.0070	0.0070	3.05	3.05	0.6553	0.6553		
74	2	357	0.0056	0.0070	0.0070	2.50	2.50	0.8003	0.8003		
75	0	289	0.0000	0.0070	0.0070	2.02	2.02	0.0000	0.0000		
76	3	243	0.0123	0.0070	0.0070	1.70	1.70	1.7637	1.7637		
77	3	200	0.0150	0.0070	0.0070	1.40	1.40	2.1429	2.1429		
78	1	166	0.0060	0.0070	0.0070	1.16	1.16	0.8606	0.8606		
79	1	142	0.0070	0.0070	0.0070	0.99	0.99	1.0060	1.0060		
80	0	112	0.0000	0.0070	0.0070	0.78	0.78	0.0000	0.0000		
Total	414	84,232	0.0049			508.23	508.23	0.8146	0.8146		

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> Board of Education Retirement System of the City of New York Ordinary Disability Experience of Active Members Men and Women 10-Year Period Ending 2017 Proposed Assumptions are 100% of the Current Rates for Men and 100% for Women </div> </div>											
(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(6) Expected Disabilities		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed	Current	Proposed
20	1	1	1.0000	0.0020	0.0020	0.00	0.00	500.0000	500.0000		
21	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
22	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
23	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
24	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
25	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
26	0	0	N/A	0.0020	0.0020	0.00	0.00	N/A	N/A		
27	0	1	0.0000	0.0020	0.0020	0.00	0.00	0.0000	0.0000		
28	0	6	0.0000	0.0020	0.0020	0.01	0.01	0.0000	0.0000		
29	0	14	0.0000	0.0020	0.0020	0.03	0.03	0.0000	0.0000		
30	0	35	0.0000	0.0020	0.0020	0.07	0.07	0.0000	0.0000		
31	0	71	0.0000	0.0021	0.0021	0.15	0.15	0.0000	0.0000		
32	0	100	0.0000	0.0022	0.0022	0.22	0.22	0.0000	0.0000		
33	0	165	0.0000	0.0022	0.0022	0.37	0.37	0.0000	0.0000		
34	0	264	0.0000	0.0023	0.0023	0.60	0.60	0.0000	0.0000		
35	1	404	0.0025	0.0023	0.0023	0.95	0.95	1.0560	1.0560		
36	0	506	0.0000	0.0024	0.0024	1.24	1.24	0.0000	0.0000		
37	0	650	0.0000	0.0026	0.0026	1.67	1.67	0.0000	0.0000		
38	1	777	0.0013	0.0027	0.0027	2.10	2.10	0.4770	0.4770		
39	0	921	0.0000	0.0028	0.0028	2.61	2.61	0.0000	0.0000		
40	1	1,086	0.0009	0.0030	0.0030	3.23	3.23	0.3095	0.3095		
41	2	1,230	0.0016	0.0031	0.0031	3.85	3.85	0.5196	0.5196		
42	2	1,429	0.0014	0.0033	0.0033	4.66	4.66	0.4294	0.4294		
43	0	1,664	0.0000	0.0034	0.0034	5.65	5.65	0.0000	0.0000		
44	2	1,870	0.0011	0.0035	0.0035	6.58	6.58	0.3040	0.3040		
45	4	2,078	0.0019	0.0036	0.0036	7.55	7.55	0.5298	0.5298		
46	4	2,370	0.0017	0.0040	0.0040	9.41	9.41	0.4253	0.4253		
47	6	2,639	0.0023	0.0043	0.0043	11.32	11.32	0.5298	0.5298		
48	12	3,006	0.0040	0.0046	0.0046	13.92	13.92	0.8618	0.8618		
49	7	3,394	0.0021	0.0049	0.0049	16.78	16.78	0.4171	0.4171		
50	12	3,770	0.0032	0.0053	0.0053	19.89	19.89	0.6034	0.6034		
51	18	4,140	0.0043	0.0056	0.0056	23.24	23.24	0.7746	0.7746		
52	11	4,443	0.0025	0.0060	0.0060	26.45	26.45	0.4159	0.4159		
53	23	4,762	0.0048	0.0063	0.0063	29.99	29.99	0.7670	0.7670		
54	36	5,031	0.0072	0.0066	0.0066	33.44	33.44	1.0765	1.0765		
55	28	5,247	0.0053	0.0070	0.0070	36.73	36.73	0.7623	0.7623		
56	24	5,371	0.0045	0.0070	0.0070	37.60	37.60	0.6383	0.6383		
57	30	5,397	0.0056	0.0070	0.0070	37.78	37.78	0.7941	0.7941		
58	26	5,328	0.0049	0.0070	0.0070	37.30	37.30	0.6971	0.6971		
59	36	5,273	0.0068	0.0070	0.0070	36.91	36.91	0.9753	0.9753		
60	31	5,223	0.0059	0.0070	0.0070	36.56	36.56	0.8479	0.8479		
61	46	5,115	0.0090	0.0070	0.0070	35.81	35.81	1.2847	1.2847		
62	25	4,603	0.0054	0.0070	0.0070	32.22	32.22	0.7759	0.7759		
63	28	3,701	0.0076	0.0070	0.0070	25.91	25.91	1.0808	1.0808		
64	12	3,136	0.0038	0.0070	0.0070	21.95	21.95	0.5466	0.5466		
65	18	2,753	0.0065	0.0070	0.0070	19.27	19.27	0.9340	0.9340		
66	9	2,282	0.0039	0.0070	0.0070	15.97	15.97	0.5634	0.5634		
67	16	1,772	0.0090	0.0070	0.0070	12.40	12.40	1.2899	1.2899		
68	6	1,450	0.0041	0.0070	0.0070	10.15	10.15	0.5911	0.5911		
69	11	1,206	0.0091	0.0070	0.0070	8.44	8.44	1.3030	1.3030		
70	5	967	0.0052	0.0070	0.0070	6.77	6.77	0.7387	0.7387		
71	4	789	0.0051	0.0070	0.0070	5.52	5.52	0.7242	0.7242		
72	4	635	0.0063	0.0070	0.0070	4.45	4.45	0.8999	0.8999		
73	3	526	0.0057	0.0070	0.0070	3.68	3.68	0.8148	0.8148		
74	2	432	0.0046	0.0070	0.0070	3.02	3.02	0.6614	0.6614		
75	1	355	0.0028	0.0070	0.0070	2.49	2.49	0.4024	0.4024		
76	3	301	0.0100	0.0070	0.0070	2.11	2.11	1.4238	1.4238		
77	4	253	0.0158	0.0070	0.0070	1.77	1.77	2.2586	2.2586		
78	3	199	0.0151	0.0070	0.0070	1.39	1.39	2.1536	2.1536		
79	1	168	0.0060	0.0070	0.0070	1.18	1.18	0.8503	0.8503		
80	0	133	0.0000	0.0070	0.0070	0.93	0.93	0.0000	0.0000		
Total	519	109,442	0.0047			664.26	664.26	0.7813	0.7813		

Bolton

**Board of Education Retirement System of the City of New York
Ordinary Disability Experience of Active Members
Table 9C - Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	30	9,195	55.53	0.5402	0.0033	0.0060
2009	29	9,657	58.48	0.4959	0.0030	0.0061
2010	37	10,371	62.67	0.5904	0.0036	0.0060
2011	46	11,166	67.50	0.6815	0.0041	0.0060
2012	48	11,437	69.27	0.6929	0.0042	0.0061
2013	71	11,504	69.90	1.0157	0.0062	0.0061
2014	71	11,187	68.17	1.0415	0.0063	0.0061
2015	58	11,496	69.94	0.8293	0.0050	0.0061
2016	70	11,751	71.65	0.9770	0.0060	0.0061
2017	62	12,092	74.06	0.8372	0.0051	0.0061
Total	522	109,856	667.17	0.7824	0.0048	0.0061

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 20 and above 74)

Bolton

Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men
4-Year Period Ending 2017
Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(6) Expected Disabilities		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed	Current	Proposed
				Actual/Expected		Current	Proposed	Current	Proposed		
20	0	13	0.0000	0.0004	0.0003	0.01	0.00	0.0000	0.0000		
21	0	31	0.0000	0.0004	0.0003	0.01	0.01	0.0000	0.0000		
22	0	54	0.0000	0.0004	0.0003	0.02	0.02	0.0000	0.0000		
23	0	80	0.0000	0.0004	0.0003	0.03	0.02	0.0000	0.0000		
24	0	117	0.0000	0.0004	0.0003	0.05	0.04	0.0000	0.0000		
25	0	163	0.0000	0.0004	0.0003	0.07	0.05	0.0000	0.0000		
26	0	193	0.0000	0.0004	0.0003	0.08	0.06	0.0000	0.0000		
27	0	233	0.0000	0.0004	0.0003	0.09	0.07	0.0000	0.0000		
28	0	274	0.0000	0.0004	0.0003	0.11	0.08	0.0000	0.0000		
29	0	334	0.0000	0.0004	0.0003	0.13	0.10	0.0000	0.0000		
30	0	351	0.0000	0.0004	0.0003	0.14	0.11	0.0000	0.0000		
31	0	383	0.0000	0.0004	0.0003	0.15	0.11	0.0000	0.0000		
32	0	428	0.0000	0.0004	0.0003	0.17	0.13	0.0000	0.0000		
33	0	426	0.0000	0.0004	0.0003	0.17	0.13	0.0000	0.0000		
34	0	442	0.0000	0.0004	0.0003	0.18	0.13	0.0000	0.0000		
35	0	469	0.0000	0.0004	0.0003	0.19	0.14	0.0000	0.0000		
36	0	447	0.0000	0.0004	0.0003	0.18	0.13	0.0000	0.0000		
37	0	501	0.0000	0.0004	0.0003	0.20	0.15	0.0000	0.0000		
38	0	538	0.0000	0.0004	0.0003	0.22	0.16	0.0000	0.0000		
39	0	556	0.0000	0.0004	0.0003	0.22	0.17	0.0000	0.0000		
40	0	582	0.0000	0.0004	0.0003	0.23	0.17	0.0000	0.0000		
41	0	593	0.0000	0.0004	0.0003	0.24	0.18	0.0000	0.0000		
42	0	585	0.0000	0.0004	0.0003	0.23	0.18	0.0000	0.0000		
43	0	622	0.0000	0.0004	0.0003	0.25	0.19	0.0000	0.0000		
44	0	617	0.0000	0.0004	0.0003	0.25	0.19	0.0000	0.0000		
45	0	672	0.0000	0.0004	0.0003	0.27	0.20	0.0000	0.0000		
46	0	708	0.0000	0.0004	0.0003	0.28	0.21	0.0000	0.0000		
47	0	665	0.0000	0.0004	0.0003	0.27	0.20	0.0000	0.0000		
48	0	717	0.0000	0.0004	0.0003	0.29	0.22	0.0000	0.0000		
49	0	747	0.0000	0.0004	0.0003	0.30	0.22	0.0000	0.0000		
50	2	777	0.0026	0.0004	0.0003	0.31	0.23	6.4350	8.5800		
51	0	786	0.0000	0.0004	0.0003	0.31	0.24	0.0000	0.0000		
52	1	816	0.0012	0.0004	0.0003	0.33	0.24	3.0637	4.0850		
53	0	820	0.0000	0.0004	0.0003	0.33	0.25	0.0000	0.0000		
54	0	842	0.0000	0.0004	0.0003	0.34	0.25	0.0000	0.0000		
55	0	844	0.0000	0.0004	0.0003	0.34	0.25	0.0000	0.0000		
56	0	833	0.0000	0.0004	0.0003	0.33	0.25	0.0000	0.0000		
57	0	817	0.0000	0.0004	0.0003	0.33	0.25	0.0000	0.0000		
58	0	764	0.0000	0.0004	0.0003	0.31	0.23	0.0000	0.0000		
59	0	720	0.0000	0.0004	0.0003	0.29	0.22	0.0000	0.0000		
60	0	702	0.0000	0.0004	0.0003	0.28	0.21	0.0000	0.0000		
61	0	649	0.0000	0.0004	0.0003	0.26	0.19	0.0000	0.0000		
62	0	574	0.0000	0.0004	0.0003	0.23	0.17	0.0000	0.0000		
63	1	450	0.0022	0.0004	0.0003	0.18	0.14	5.5556	7.4074		
64	0	362	0.0000	0.0004	0.0003	0.14	0.11	0.0000	0.0000		
65	0	332	0.0000	0.0004	0.0003	0.13	0.10	0.0000	0.0000		
66	0	267	0.0000	0.0004	0.0003	0.11	0.08	0.0000	0.0000		
67	0	212	0.0000	0.0004	0.0003	0.08	0.06	0.0000	0.0000		
68	0	178	0.0000	0.0004	0.0003	0.07	0.05	0.0000	0.0000		
69	0	133	0.0000	0.0004	0.0003	0.05	0.04	0.0000	0.0000		
70	0	117	0.0000	0.0004	0.0003	0.05	0.04	0.0000	0.0000		
71	0	100	0.0000	0.0004	0.0003	0.04	0.03	0.0000	0.0000		
72	0	76	0.0000	0.0004	0.0003	0.03	0.02	0.0000	0.0000		
73	0	62	0.0000	0.0004	0.0003	0.02	0.02	0.0000	0.0000		
74	0	57	0.0000	0.0004	0.0003	0.02	0.02	0.0000	0.0000		
75	0	45	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000		
76	0	44	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000		
77	0	39	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000		
78	0	26	0.0000	0.0004	0.0003	0.01	0.01	0.0000	0.0000		
79	0	16	0.0000	0.0004	0.0003	0.01	0.00	0.0000	0.0000		
80	0	12	0.0000	0.0004	0.0003	0.00	0.00	0.0000	0.0000		
Total	4	25,013	0.0002			10.01	7.50	0.3998	0.5331		

Bolton

**Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Women
4-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(7) Expected Disabilities		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
				(6) Assumed Probability		(8) Actual/Expected			
20	0	16	0.0000	0.00020	0.00025	0.00	0.00	0.0000	0.0000
21	0	38	0.0000	0.00020	0.00025	0.01	0.01	0.0000	0.0000
22	0	54	0.0000	0.00020	0.00025	0.01	0.01	0.0000	0.0000
23	0	104	0.0000	0.00020	0.00025	0.02	0.03	0.0000	0.0000
24	0	154	0.0000	0.00020	0.00025	0.03	0.04	0.0000	0.0000
25	0	262	0.0000	0.00020	0.00025	0.05	0.07	0.0000	0.0000
26	0	353	0.0000	0.00020	0.00025	0.07	0.09	0.0000	0.0000
27	0	453	0.0000	0.00020	0.00025	0.09	0.11	0.0000	0.0000
28	0	526	0.0000	0.00020	0.00025	0.11	0.13	0.0000	0.0000
29	0	597	0.0000	0.00020	0.00025	0.12	0.15	0.0000	0.0000
30	0	646	0.0000	0.00020	0.00025	0.13	0.16	0.0000	0.0000
31	0	714	0.0000	0.00020	0.00025	0.14	0.18	0.0000	0.0000
32	0	773	0.0000	0.00020	0.00025	0.15	0.19	0.0000	0.0000
33	0	873	0.0000	0.00020	0.00025	0.17	0.22	0.0000	0.0000
34	0	916	0.0000	0.00020	0.00025	0.18	0.23	0.0000	0.0000
35	0	937	0.0000	0.00020	0.00025	0.19	0.23	0.0000	0.0000
36	0	1,032	0.0000	0.00020	0.00025	0.21	0.26	0.0000	0.0000
37	0	1,099	0.0000	0.00020	0.00025	0.22	0.27	0.0000	0.0000
38	0	1,185	0.0000	0.00020	0.00025	0.24	0.30	0.0000	0.0000
39	0	1,222	0.0000	0.00020	0.00025	0.24	0.31	0.0000	0.0000
40	0	1,232	0.0000	0.00020	0.00025	0.25	0.31	0.0000	0.0000
41	1	1,307	0.0008	0.00020	0.00025	0.26	0.33	3.8256	3.0604
42	0	1,411	0.0000	0.00020	0.00025	0.28	0.35	0.0000	0.0000
43	0	1,548	0.0000	0.00020	0.00025	0.31	0.39	0.0000	0.0000
44	1	1,604	0.0006	0.00020	0.00025	0.32	0.40	3.1172	2.4938
45	0	1,700	0.0000	0.00020	0.00025	0.34	0.43	0.0000	0.0000
46	0	1,874	0.0000	0.00020	0.00025	0.37	0.47	0.0000	0.0000
47	0	1,954	0.0000	0.00020	0.00025	0.39	0.49	0.0000	0.0000
48	0	2,202	0.0000	0.00020	0.00025	0.44	0.55	0.0000	0.0000
49	0	2,398	0.0000	0.00020	0.00025	0.48	0.60	0.0000	0.0000
50	0	2,569	0.0000	0.00020	0.00025	0.51	0.64	0.0000	0.0000
51	0	2,774	0.0000	0.00020	0.00025	0.55	0.69	0.0000	0.0000
52	1	2,848	0.0004	0.00020	0.00025	0.57	0.71	1.7556	1.4045
53	0	2,901	0.0000	0.00020	0.00025	0.58	0.73	0.0000	0.0000
54	0	2,971	0.0000	0.00020	0.00025	0.59	0.74	0.0000	0.0000
55	3	3,038	0.0010	0.00020	0.00025	0.61	0.76	4.9375	3.9500
56	2	3,142	0.0006	0.00020	0.00025	0.63	0.79	3.1827	2.5461
57	0	3,124	0.0000	0.00020	0.00025	0.62	0.78	0.0000	0.0000
58	0	2,994	0.0000	0.00020	0.00025	0.60	0.75	0.0000	0.0000
59	2	2,897	0.0007	0.00020	0.00025	0.58	0.72	3.4518	2.7615
60	0	2,755	0.0000	0.00020	0.00025	0.55	0.69	0.0000	0.0000
61	4	2,671	0.0015	0.00020	0.00025	0.53	0.67	7.4878	5.9903
62	4	2,309	0.0017	0.00020	0.00025	0.46	0.58	8.6618	6.9294
63	0	1,900	0.0000	0.00020	0.00025	0.38	0.48	0.0000	0.0000
64	2	1,652	0.0012	0.00020	0.00025	0.33	0.41	6.0533	4.8426
65	2	1,402	0.0014	0.00020	0.00025	0.28	0.35	7.1327	5.7061
66	1	1,206	0.0008	0.00020	0.00025	0.24	0.30	4.1459	3.3167
67	0	917	0.0000	0.00020	0.00025	0.18	0.23	0.0000	0.0000
68	2	743	0.0027	0.00020	0.00025	0.15	0.19	13.4590	10.7672
69	2	571	0.0035	0.00020	0.00025	0.11	0.14	17.5131	14.0105
70	0	447	0.0000	0.00020	0.00025	0.09	0.11	0.0000	0.0000
71	1	358	0.0028	0.00020	0.00025	0.07	0.09	13.9665	11.1732
72	0	297	0.0000	0.00020	0.00025	0.06	0.07	0.0000	0.0000
73	0	241	0.0000	0.00020	0.00025	0.05	0.06	0.0000	0.0000
74	1	187	0.0053	0.00020	0.00025	0.04	0.05	26.7380	21.3904
75	0	137	0.0000	0.00020	0.00025	0.03	0.03	0.0000	0.0000
76	0	110	0.0000	0.00020	0.00025	0.02	0.03	0.0000	0.0000
77	0	85	0.0000	0.00020	0.00025	0.02	0.02	0.0000	0.0000
78	0	79	0.0000	0.00020	0.00025	0.02	0.02	0.0000	0.0000
79	0	61	0.0000	0.00020	0.00025	0.01	0.02	0.0000	0.0000
80	0	41	0.0000	0.00020	0.00025	0.01	0.01	0.0000	0.0000
Total	29	76,611	0.0004			15.32	19.15	1.8927	1.5141

Bolton

**Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men and Women
4-Year Period Ending 2017**

Proposed Assumptions are 75% of the Current Rates for Men and 125% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	Assumed Probability		Expected Disabilities		Actual/Expected	
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	29	0.0000	0.00029	0.00027	0.01	0.01	0.0000	0.0000
21	0	69	0.0000	0.00029	0.00027	0.02	0.02	0.0000	0.0000
22	0	108	0.0000	0.00030	0.00028	0.03	0.03	0.0000	0.0000
23	0	184	0.0000	0.00029	0.00027	0.05	0.05	0.0000	0.0000
24	0	271	0.0000	0.00029	0.00027	0.08	0.07	0.0000	0.0000
25	0	425	0.0000	0.00028	0.00027	0.12	0.11	0.0000	0.0000
26	0	546	0.0000	0.00027	0.00027	0.15	0.15	0.0000	0.0000
27	0	686	0.0000	0.00027	0.00027	0.18	0.18	0.0000	0.0000
28	0	800	0.0000	0.00027	0.00027	0.21	0.21	0.0000	0.0000
29	0	931	0.0000	0.00027	0.00027	0.25	0.25	0.0000	0.0000
30	0	997	0.0000	0.00027	0.00027	0.27	0.27	0.0000	0.0000
31	0	1,097	0.0000	0.00027	0.00027	0.30	0.29	0.0000	0.0000
32	0	1,201	0.0000	0.00027	0.00027	0.33	0.32	0.0000	0.0000
33	0	1,299	0.0000	0.00027	0.00027	0.35	0.35	0.0000	0.0000
34	0	1,358	0.0000	0.00027	0.00027	0.36	0.36	0.0000	0.0000
35	0	1,406	0.0000	0.00027	0.00027	0.38	0.37	0.0000	0.0000
36	0	1,479	0.0000	0.00026	0.00027	0.39	0.39	0.0000	0.0000
37	0	1,600	0.0000	0.00026	0.00027	0.42	0.43	0.0000	0.0000
38	0	1,723	0.0000	0.00026	0.00027	0.45	0.46	0.0000	0.0000
39	0	1,778	0.0000	0.00026	0.00027	0.47	0.47	0.0000	0.0000
40	0	1,814	0.0000	0.00026	0.00027	0.48	0.48	0.0000	0.0000
41	1	1,900	0.0005	0.00026	0.00027	0.50	0.50	2.0056	1.9816
42	0	1,996	0.0000	0.00026	0.00026	0.52	0.53	0.0000	0.0000
43	0	2,170	0.0000	0.00026	0.00026	0.56	0.57	0.0000	0.0000
44	1	2,221	0.0005	0.00026	0.00026	0.57	0.59	1.7618	1.7062
45	0	2,372	0.0000	0.00026	0.00026	0.61	0.63	0.0000	0.0000
46	0	2,582	0.0000	0.00025	0.00026	0.66	0.68	0.0000	0.0000
47	0	2,619	0.0000	0.00025	0.00026	0.66	0.69	0.0000	0.0000
48	0	2,919	0.0000	0.00025	0.00026	0.73	0.77	0.0000	0.0000
49	0	3,145	0.0000	0.00025	0.00026	0.78	0.82	0.0000	0.0000
50	2	3,346	0.0006	0.00025	0.00026	0.82	0.88	2.4254	2.2848
51	0	3,560	0.0000	0.00024	0.00026	0.87	0.93	0.0000	0.0000
52	2	3,664	0.0005	0.00024	0.00026	0.90	0.96	2.2321	2.0903
53	0	3,721	0.0000	0.00024	0.00026	0.91	0.97	0.0000	0.0000
54	0	3,813	0.0000	0.00024	0.00026	0.93	1.00	0.0000	0.0000
55	3	3,882	0.0008	0.00024	0.00026	0.95	1.01	3.1739	2.9624
56	2	3,975	0.0005	0.00024	0.00026	0.96	1.04	2.0799	1.9316
57	0	3,941	0.0000	0.00024	0.00026	0.95	1.03	0.0000	0.0000
58	0	3,758	0.0000	0.00024	0.00026	0.90	0.98	0.0000	0.0000
59	2	3,617	0.0006	0.00024	0.00026	0.87	0.94	2.3057	2.1271
60	0	3,457	0.0000	0.00024	0.00026	0.83	0.90	0.0000	0.0000
61	4	3,320	0.0012	0.00024	0.00026	0.79	0.86	5.0391	4.6380
62	4	2,883	0.0014	0.00024	0.00026	0.69	0.75	5.7854	5.3372
63	1	2,350	0.0004	0.00024	0.00026	0.56	0.61	1.7857	1.6393
64	2	2,014	0.0010	0.00024	0.00026	0.48	0.52	4.2088	3.8344
65	2	1,734	0.0012	0.00024	0.00026	0.41	0.45	4.8403	4.4435
66	1	1,473	0.0007	0.00024	0.00026	0.35	0.38	2.8736	2.6205
67	0	1,129	0.0000	0.00024	0.00026	0.27	0.29	0.0000	0.0000
68	2	921	0.0022	0.00024	0.00026	0.22	0.24	9.0992	8.3630
69	2	704	0.0028	0.00024	0.00026	0.17	0.18	11.9474	10.9499
70	0	564	0.0000	0.00024	0.00026	0.14	0.15	0.0000	0.0000
71	1	458	0.0022	0.00024	0.00026	0.11	0.12	8.9606	8.3682
72	0	373	0.0000	0.00024	0.00026	0.09	0.10	0.0000	0.0000
73	0	303	0.0000	0.00024	0.00026	0.07	0.08	0.0000	0.0000
74	1	244	0.0041	0.00025	0.00026	0.06	0.06	16.6113	15.6617
75	0	182	0.0000	0.00025	0.00026	0.05	0.05	0.0000	0.0000
76	0	154	0.0000	0.00026	0.00026	0.04	0.04	0.0000	0.0000
77	0	124	0.0000	0.00026	0.00027	0.03	0.03	0.0000	0.0000
78	0	105	0.0000	0.00025	0.00026	0.03	0.03	0.0000	0.0000
79	0	77	0.0000	0.00024	0.00026	0.02	0.02	0.0000	0.0000
80	0	53	0.0000	0.00025	0.00026	0.01	0.01	0.0000	0.0000
Total	33	101,624	0.0003			25.33	26.66	1.3029	1.2380

Bolton

Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men
10-Year Period Ending 2017
Proposed Assumptions are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(7) Expected Disabilities		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Actual/Expected	
								Current	Proposed
20	0	44	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000
21	0	84	0.0000	0.0004	0.0003	0.03	0.03	0.0000	0.0000
22	0	132	0.0000	0.0004	0.0003	0.05	0.04	0.0000	0.0000
23	0	191	0.0000	0.0004	0.0003	0.08	0.06	0.0000	0.0000
24	0	261	0.0000	0.0004	0.0003	0.10	0.08	0.0000	0.0000
25	0	315	0.0000	0.0004	0.0003	0.13	0.09	0.0000	0.0000
26	0	378	0.0000	0.0004	0.0003	0.15	0.11	0.0000	0.0000
27	0	483	0.0000	0.0004	0.0003	0.19	0.14	0.0000	0.0000
28	0	618	0.0000	0.0004	0.0003	0.25	0.19	0.0000	0.0000
29	0	705	0.0000	0.0004	0.0003	0.28	0.21	0.0000	0.0000
30	0	763	0.0000	0.0004	0.0003	0.31	0.23	0.0000	0.0000
31	0	831	0.0000	0.0004	0.0003	0.33	0.25	0.0000	0.0000
32	0	870	0.0000	0.0004	0.0003	0.35	0.26	0.0000	0.0000
33	0	921	0.0000	0.0004	0.0003	0.37	0.28	0.0000	0.0000
34	0	1,003	0.0000	0.0004	0.0003	0.40	0.30	0.0000	0.0000
35	0	1,066	0.0000	0.0004	0.0003	0.43	0.32	0.0000	0.0000
36	0	1,072	0.0000	0.0004	0.0003	0.43	0.32	0.0000	0.0000
37	0	1,177	0.0000	0.0004	0.0003	0.47	0.35	0.0000	0.0000
38	0	1,213	0.0000	0.0004	0.0003	0.49	0.36	0.0000	0.0000
39	0	1,275	0.0000	0.0004	0.0003	0.51	0.38	0.0000	0.0000
40	0	1,321	0.0000	0.0004	0.0003	0.53	0.40	0.0000	0.0000
41	0	1,368	0.0000	0.0004	0.0003	0.55	0.41	0.0000	0.0000
42	0	1,414	0.0000	0.0004	0.0003	0.57	0.42	0.0000	0.0000
43	0	1,517	0.0000	0.0004	0.0003	0.61	0.46	0.0000	0.0000
44	0	1,554	0.0000	0.0004	0.0003	0.62	0.47	0.0000	0.0000
45	0	1,620	0.0000	0.0004	0.0003	0.65	0.49	0.0000	0.0000
46	0	1,677	0.0000	0.0004	0.0003	0.67	0.50	0.0000	0.0000
47	0	1,694	0.0000	0.0004	0.0003	0.68	0.51	0.0000	0.0000
48	1	1,811	0.0006	0.0004	0.0003	0.72	0.54	1.3805	1.8406
49	1	1,858	0.0005	0.0004	0.0003	0.74	0.56	1.3455	1.7940
50	2	1,907	0.0010	0.0004	0.0003	0.76	0.57	2.6219	3.4959
51	0	1,952	0.0000	0.0004	0.0003	0.78	0.59	0.0000	0.0000
52	1	1,967	0.0005	0.0004	0.0003	0.79	0.59	1.2710	1.6946
53	0	1,955	0.0000	0.0004	0.0003	0.78	0.59	0.0000	0.0000
54	0	1,960	0.0000	0.0004	0.0003	0.78	0.59	0.0000	0.0000
55	0	1,927	0.0000	0.0004	0.0003	0.77	0.58	0.0000	0.0000
56	0	1,876	0.0000	0.0004	0.0003	0.75	0.56	0.0000	0.0000
57	1	1,820	0.0005	0.0004	0.0003	0.73	0.55	1.3736	1.8315
58	1	1,703	0.0006	0.0004	0.0003	0.68	0.51	1.4680	1.9573
59	0	1,616	0.0000	0.0004	0.0003	0.65	0.48	0.0000	0.0000
60	1	1,536	0.0007	0.0004	0.0003	0.61	0.46	1.6276	2.1701
61	0	1,412	0.0000	0.0004	0.0003	0.56	0.42	0.0000	0.0000
62	1	1,209	0.0008	0.0004	0.0003	0.48	0.36	2.0678	2.7571
63	1	990	0.0010	0.0004	0.0003	0.40	0.30	2.5253	3.3670
64	0	801	0.0000	0.0004	0.0003	0.32	0.24	0.0000	0.0000
65	0	703	0.0000	0.0004	0.0003	0.28	0.21	0.0000	0.0000
66	0	573	0.0000	0.0004	0.0003	0.23	0.17	0.0000	0.0000
67	0	451	0.0000	0.0004	0.0003	0.18	0.14	0.0000	0.0000
68	0	373	0.0000	0.0004	0.0003	0.15	0.11	0.0000	0.0000
69	0	307	0.0000	0.0004	0.0003	0.12	0.09	0.0000	0.0000
70	0	256	0.0000	0.0004	0.0003	0.10	0.08	0.0000	0.0000
71	0	226	0.0000	0.0004	0.0003	0.09	0.07	0.0000	0.0000
72	0	186	0.0000	0.0004	0.0003	0.07	0.06	0.0000	0.0000
73	0	152	0.0000	0.0004	0.0003	0.06	0.05	0.0000	0.0000
74	0	123	0.0000	0.0004	0.0003	0.05	0.04	0.0000	0.0000
75	0	95	0.0000	0.0004	0.0003	0.04	0.03	0.0000	0.0000
76	0	80	0.0000	0.0004	0.0003	0.03	0.02	0.0000	0.0000
77	0	69	0.0000	0.0004	0.0003	0.03	0.02	0.0000	0.0000
78	0	49	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000
79	0	38	0.0000	0.0004	0.0003	0.02	0.01	0.0000	0.0000
80	0	33	0.0000	0.0004	0.0003	0.01	0.01	0.0000	0.0000
Total	10	57,581	0.0002			23.03	17.27	0.4342	0.5789

Bolton

**Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Women
10-Year Period Ending 2017
Proposed Assumptions are 125% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(7) Expected Disabilities		(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
				Actual/Expected		Current	Proposed		
20	0	38	0.0000	0.00020	0.00025	0.01	0.01	0.0000	0.0000
21	0	79	0.0000	0.00020	0.00025	0.02	0.02	0.0000	0.0000
22	0	139	0.0000	0.00020	0.00025	0.03	0.03	0.0000	0.0000
23	0	236	0.0000	0.00020	0.00025	0.05	0.06	0.0000	0.0000
24	0	353	0.0000	0.00020	0.00025	0.07	0.09	0.0000	0.0000
25	0	547	0.0000	0.00020	0.00025	0.11	0.14	0.0000	0.0000
26	0	742	0.0000	0.00020	0.00025	0.15	0.19	0.0000	0.0000
27	0	953	0.0000	0.00020	0.00025	0.19	0.24	0.0000	0.0000
28	0	1,147	0.0000	0.00020	0.00025	0.23	0.29	0.0000	0.0000
29	0	1,354	0.0000	0.00020	0.00025	0.27	0.34	0.0000	0.0000
30	0	1,524	0.0000	0.00020	0.00025	0.30	0.38	0.0000	0.0000
31	0	1,663	0.0000	0.00020	0.00025	0.33	0.42	0.0000	0.0000
32	1	1,800	0.0006	0.00020	0.00025	0.36	0.45	2.7778	2.2222
33	0	1,958	0.0000	0.00020	0.00025	0.39	0.49	0.0000	0.0000
34	0	2,080	0.0000	0.00020	0.00025	0.42	0.52	0.0000	0.0000
35	0	2,218	0.0000	0.00020	0.00025	0.44	0.55	0.0000	0.0000
36	0	2,373	0.0000	0.00020	0.00025	0.47	0.59	0.0000	0.0000
37	0	2,519	0.0000	0.00020	0.00025	0.50	0.63	0.0000	0.0000
38	0	2,706	0.0000	0.00020	0.00025	0.54	0.68	0.0000	0.0000
39	0	2,848	0.0000	0.00020	0.00025	0.57	0.71	0.0000	0.0000
40	0	3,015	0.0000	0.00020	0.00025	0.60	0.75	0.0000	0.0000
41	1	3,257	0.0003	0.00020	0.00025	0.65	0.81	1.5352	1.2281
42	0	3,583	0.0000	0.00020	0.00025	0.72	0.90	0.0000	0.0000
43	0	3,958	0.0000	0.00020	0.00025	0.79	0.99	0.0000	0.0000
44	1	4,324	0.0002	0.00020	0.00025	0.86	1.08	1.1563	0.9251
45	0	4,773	0.0000	0.00020	0.00025	0.95	1.19	0.0000	0.0000
46	1	5,132	0.0002	0.00020	0.00025	1.03	1.28	0.9743	0.7794
47	1	5,482	0.0002	0.00020	0.00025	1.10	1.37	0.9121	0.7297
48	0	5,848	0.0000	0.00020	0.00025	1.17	1.46	0.0000	0.0000
49	1	6,314	0.0002	0.00020	0.00025	1.26	1.58	0.7919	0.6335
50	1	6,656	0.0002	0.00020	0.00025	1.33	1.66	0.7512	0.6010
51	1	6,969	0.0001	0.00020	0.00025	1.39	1.74	0.7175	0.5740
52	2	7,181	0.0003	0.00020	0.00025	1.44	1.80	1.3926	1.1141
53	1	7,373	0.0001	0.00020	0.00025	1.47	1.84	0.6782	0.5425
54	2	7,499	0.0003	0.00020	0.00025	1.50	1.87	1.3335	1.0668
55	4	7,520	0.0005	0.00020	0.00025	1.50	1.88	2.6596	2.1277
56	3	7,476	0.0004	0.00020	0.00025	1.50	1.87	2.0064	1.6051
57	7	7,341	0.0010	0.00020	0.00025	1.47	1.84	4.7677	3.8142
58	1	7,059	0.0001	0.00020	0.00025	1.41	1.76	0.7083	0.5667
59	2	6,756	0.0003	0.00020	0.00025	1.35	1.69	1.4802	1.1841
60	2	6,472	0.0003	0.00020	0.00025	1.29	1.62	1.5451	1.2361
61	8	6,155	0.0013	0.00020	0.00025	1.23	1.54	6.4988	5.1990
62	5	5,478	0.0009	0.00020	0.00025	1.10	1.37	4.5637	3.6510
63	0	4,398	0.0000	0.00020	0.00025	0.88	1.10	0.0000	0.0000
64	2	3,782	0.0005	0.00020	0.00025	0.76	0.95	2.6441	2.1153
65	3	3,245	0.0009	0.00020	0.00025	0.65	0.81	4.6225	3.6980
66	1	2,657	0.0004	0.00020	0.00025	0.53	0.66	1.8818	1.5055
67	1	2,046	0.0005	0.00020	0.00025	0.41	0.51	2.4438	1.9550
68	2	1,652	0.0012	0.00020	0.00025	0.33	0.41	6.0533	4.8426
69	2	1,342	0.0015	0.00020	0.00025	0.27	0.34	7.4516	5.9613
70	0	1,065	0.0000	0.00020	0.00025	0.21	0.27	0.0000	0.0000
71	3	839	0.0036	0.00020	0.00025	0.17	0.21	17.8784	14.3027
72	0	668	0.0000	0.00020	0.00025	0.13	0.17	0.0000	0.0000
73	1	551	0.0018	0.00020	0.00025	0.11	0.14	9.0744	7.2595
74	1	441	0.0023	0.00020	0.00025	0.09	0.11	11.3379	9.0703
75	0	352	0.0000	0.00020	0.00025	0.07	0.09	0.0000	0.0000
76	0	298	0.0000	0.00020	0.00025	0.06	0.07	0.0000	0.0000
77	1	241	0.0041	0.00020	0.00025	0.05	0.06	20.7469	16.5975
78	0	194	0.0000	0.00020	0.00025	0.04	0.05	0.0000	0.0000
79	0	161	0.0000	0.00020	0.00025	0.03	0.04	0.0000	0.0000
80	0	126	0.0000	0.00020	0.00025	0.03	0.03	0.0000	0.0000
Total	62	186,956	0.0003			37.39	46.74	1.6581	1.3265

Bolton

**Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

Proposed Assumptions are 75% of the Current Rates for Men and 125% for Women

(1)	(2)	(3)	(4) = (2)÷(3)	Assumed Probability		Expected Disabilities		Actual/Expected	
Age	Actual Disabilities	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	82	0.0000	0.00031	0.00028	0.03	0.02	0.0000	0.0000
21	0	163	0.0000	0.00030	0.00028	0.05	0.04	0.0000	0.0000
22	0	271	0.0000	0.00030	0.00027	0.08	0.07	0.0000	0.0000
23	0	427	0.0000	0.00029	0.00027	0.12	0.12	0.0000	0.0000
24	0	614	0.0000	0.00029	0.00027	0.18	0.17	0.0000	0.0000
25	0	862	0.0000	0.00027	0.00027	0.24	0.23	0.0000	0.0000
26	0	1,120	0.0000	0.00027	0.00027	0.30	0.30	0.0000	0.0000
27	0	1,436	0.0000	0.00027	0.00027	0.38	0.38	0.0000	0.0000
28	0	1,765	0.0000	0.00027	0.00027	0.48	0.47	0.0000	0.0000
29	0	2,059	0.0000	0.00027	0.00027	0.55	0.55	0.0000	0.0000
30	0	2,287	0.0000	0.00027	0.00027	0.61	0.61	0.0000	0.0000
31	0	2,494	0.0000	0.00027	0.00027	0.67	0.67	0.0000	0.0000
32	1	2,670	0.0004	0.00027	0.00027	0.71	0.71	1.4124	1.4065
33	0	2,879	0.0000	0.00026	0.00027	0.76	0.77	0.0000	0.0000
34	0	3,083	0.0000	0.00027	0.00027	0.82	0.82	0.0000	0.0000
35	0	3,284	0.0000	0.00026	0.00027	0.87	0.87	0.0000	0.0000
36	0	3,445	0.0000	0.00026	0.00027	0.90	0.91	0.0000	0.0000
37	0	3,696	0.0000	0.00026	0.00027	0.97	0.98	0.0000	0.0000
38	0	3,919	0.0000	0.00026	0.00027	1.03	1.04	0.0000	0.0000
39	0	4,123	0.0000	0.00026	0.00027	1.08	1.09	0.0000	0.0000
40	0	4,336	0.0000	0.00026	0.00027	1.13	1.15	0.0000	0.0000
41	1	4,625	0.0002	0.00026	0.00026	1.20	1.22	0.8343	0.8166
42	0	4,997	0.0000	0.00026	0.00026	1.28	1.32	0.0000	0.0000
43	0	5,475	0.0000	0.00026	0.00026	1.40	1.44	0.0000	0.0000
44	1	5,878	0.0002	0.00025	0.00026	1.49	1.55	0.6728	0.6463
45	0	6,393	0.0000	0.00025	0.00026	1.60	1.68	0.0000	0.0000
46	1	6,809	0.0001	0.00025	0.00026	1.70	1.79	0.5892	0.5599
47	1	7,176	0.0001	0.00025	0.00026	1.77	1.88	0.5637	0.5323
48	1	7,659	0.0001	0.00025	0.00026	1.89	2.01	0.5280	0.4987
49	2	8,172	0.0002	0.00025	0.00026	2.01	2.14	0.9970	0.9364
50	3	8,563	0.0004	0.00024	0.00026	2.09	2.24	1.4327	1.3416
51	1	8,921	0.0001	0.00024	0.00026	2.17	2.33	0.4599	0.4296
52	3	9,148	0.0003	0.00024	0.00026	2.22	2.39	1.3495	1.2577
53	1	9,328	0.0001	0.00024	0.00026	2.26	2.43	0.4431	0.4116
54	2	9,459	0.0002	0.00024	0.00026	2.28	2.46	0.8757	0.8121
55	4	9,447	0.0004	0.00024	0.00026	2.27	2.46	1.7584	1.6273
56	3	9,352	0.0003	0.00024	0.00026	2.25	2.43	1.3359	1.2337
57	8	9,161	0.0009	0.00024	0.00026	2.20	2.38	3.6427	3.3596
58	2	8,762	0.0002	0.00024	0.00026	2.09	2.28	0.9556	0.8789
59	2	8,372	0.0002	0.00024	0.00026	2.00	2.17	1.0012	0.9200
60	3	8,008	0.0004	0.00024	0.00026	1.91	2.08	1.5717	1.4431
61	8	7,567	0.0011	0.00024	0.00026	1.80	1.96	4.4548	4.0767
62	6	6,687	0.0009	0.00024	0.00026	1.58	1.73	3.7994	3.4638
63	1	5,388	0.0002	0.00024	0.00026	1.28	1.40	0.7839	0.7161
64	2	4,583	0.0004	0.00023	0.00026	1.08	1.19	1.8574	1.6866
65	3	3,948	0.0008	0.00024	0.00026	0.93	1.02	3.2251	2.9350
66	1	3,230	0.0003	0.00024	0.00026	0.76	0.84	1.3148	1.1960
67	1	2,497	0.0004	0.00024	0.00026	0.59	0.65	1.6961	1.5461
68	2	2,025	0.0010	0.00024	0.00026	0.48	0.52	4.1701	3.8102
69	2	1,649	0.0012	0.00024	0.00026	0.39	0.43	5.1125	4.6773
70	0	1,321	0.0000	0.00024	0.00026	0.32	0.34	0.0000	0.0000
71	3	1,065	0.0028	0.00024	0.00026	0.26	0.28	11.6189	10.8089
72	0	854	0.0000	0.00024	0.00026	0.21	0.22	0.0000	0.0000
73	1	703	0.0014	0.00024	0.00026	0.17	0.18	5.8480	5.4540
74	1	564	0.0018	0.00024	0.00026	0.14	0.15	7.2780	6.7958
75	0	447	0.0000	0.00024	0.00026	0.11	0.12	0.0000	0.0000
76	0	378	0.0000	0.00024	0.00026	0.09	0.10	0.0000	0.0000
77	1	310	0.0032	0.00024	0.00026	0.08	0.08	13.1926	12.3533
78	0	243	0.0000	0.00024	0.00026	0.06	0.06	0.0000	0.0000
79	0	199	0.0000	0.00024	0.00026	0.05	0.05	0.0000	0.0000
80	0	159	0.0000	0.00024	0.00026	0.04	0.04	0.0000	0.0000
Total	72	244,537	0.0003			60.42	64.01	1.1916	1.1248

Bolton

**Board of Education Retirement System of the City of New York
Accidental Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	3	22,434	5.38	0.5576	0.0001	0.0002
2009	8	23,206	5.62	1.4235	0.0003	0.0002
2010	5	23,299	5.71	0.8757	0.0002	0.0002
2011	8	23,324	5.68	1.4085	0.0003	0.0002
2012	10	23,131	5.62	1.7794	0.0004	0.0002
2013	5	27,840	6.85	0.7299	0.0002	0.0002
2014	7	25,848	6.45	1.0853	0.0003	0.0002
2015	10	25,182	6.27	1.5949	0.0004	0.0002
2016	9	24,903	6.16	1.4610	0.0004	0.0002
2017	7	25,865	6.37	1.0989	0.0003	0.0002
Total	72	245,032	60.11	1.1978	0.0003	0.0002

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 20 and above 74)

Bolton

**Board of Education Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
4-Year Period Ending 2017**

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Salary EOY	(7) Actual/Expected	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Expected %
0	1,967	70,479,668	81,516,117	9.00%	76,822,838	1.7399	15.66%	9.00%
1	7,888	275,169,231	296,963,802	8.00%	297,182,769	0.9901	7.92%	8.00%
2	7,313	265,710,194	287,948,578	7.00%	284,309,908	1.1956	8.37%	7.00%
3	6,458	248,891,369	260,881,724	6.00%	263,824,851	0.8029	4.82%	6.00%
4	6,609	264,407,329	275,061,240	5.50%	278,949,732	0.7326	4.03%	5.50%
5	3,650	155,681,539	163,663,974	5.00%	163,465,616	1.0255	5.13%	5.00%
6	4,124	177,178,291	183,600,941	4.90%	185,860,027	0.7398	3.62%	4.90%
7	4,042	179,572,627	186,399,731	4.80%	188,192,113	0.7921	3.80%	4.80%
8	4,309	189,876,054	197,442,267	4.70%	198,800,229	0.8478	3.98%	4.70%
9	4,299	199,387,336	207,329,719	4.60%	208,559,153	0.8660	3.98%	4.60%
10	3,925	178,470,956	185,816,322	4.50%	186,502,149	0.9146	4.12%	4.50%
11	3,494	157,982,365	164,475,641	4.50%	165,091,571	0.9134	4.11%	4.50%
12	3,553	152,855,164	159,153,610	4.50%	159,733,646	0.9157	4.12%	4.50%
13	3,356	136,454,061	142,268,357	4.50%	142,594,494	0.9469	4.26%	4.50%
14	3,751	145,753,812	151,786,830	4.50%	152,312,734	0.9198	4.14%	4.50%
15	3,481	133,578,647	139,591,576	4.50%	139,589,686	1.0003	4.50%	4.50%
16	3,334	136,554,786	139,908,047	4.45%	142,631,474	0.5518	2.46%	4.45%
17	2,562	109,039,775	112,899,426	4.40%	113,837,525	0.8045	3.54%	4.40%
18	2,025	91,468,023	94,775,138	4.35%	95,446,882	0.8312	3.62%	4.35%
19	1,708	79,780,813	82,809,935	4.30%	83,211,388	0.8830	3.80%	4.30%
20	1,442	64,561,801	66,693,216	4.25%	67,305,678	0.7768	3.30%	4.25%
21	1,239	55,998,359	58,053,000	4.20%	58,350,290	0.8736	3.67%	4.20%
22	1,096	51,658,540	53,113,604	4.15%	53,802,369	0.6787	2.82%	4.15%
23	964	49,860,440	50,563,371	4.10%	51,904,718	0.3439	1.41%	4.10%
24	1,075	54,784,508	55,996,614	4.05%	57,003,281	0.5463	2.21%	4.05%
25	952	51,072,273	53,145,226	4.00%	53,115,164	1.0147	4.06%	4.00%
26	913	52,279,613	53,407,658	4.00%	54,370,798	0.5394	2.16%	4.00%
27	722	41,569,737	43,205,526	4.00%	43,232,526	0.9838	3.94%	4.00%
28	527	33,227,254	33,838,016	4.00%	34,556,344	0.4595	1.84%	4.00%
29	449	30,621,648	31,399,432	4.00%	31,846,514	0.6350	2.54%	4.00%
30+	1,804	132,727,557	136,557,972	4.00%	138,036,659	0.7215	2.89%	4.00%
Total	93,031	3,966,653,770	4,150,266,610		4,170,443,127	0.9010	4.63%	5.14%

Bolton

Board of Education Retirement System of the City of New York
 Total Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Salary EOY	(7) Actual/Proposed	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Proposed %
0	1,967	70,479,668	81,516,117	9.00%	76,822,838	1.7399	15.66%	9.00%
1	7,888	275,169,231	296,963,802	8.00%	297,182,769	0.9901	7.92%	8.00%
2	7,313	265,710,194	287,948,578	7.00%	284,309,908	1.1956	8.37%	7.00%
3	6,458	248,891,369	260,881,724	6.00%	263,824,851	0.8029	4.82%	6.00%
4	6,609	264,407,329	275,061,240	5.50%	278,949,732	0.7326	4.03%	5.50%
5	3,650	155,681,539	163,663,974	5.00%	163,465,616	1.0255	5.13%	5.00%
6	4,124	177,178,291	183,600,941	4.90%	185,860,027	0.7398	3.62%	4.90%
7	4,042	179,572,627	186,399,731	4.80%	188,192,113	0.7921	3.80%	4.80%
8	4,309	189,876,054	197,442,267	4.70%	198,800,229	0.8478	3.98%	4.70%
9	4,299	199,387,336	207,329,719	4.60%	208,559,153	0.8660	3.98%	4.60%
10	3,925	178,470,956	185,816,322	4.50%	186,502,149	0.9146	4.12%	4.50%
11	3,494	157,982,365	164,475,641	4.50%	165,091,571	0.9134	4.11%	4.50%
12	3,553	152,855,164	159,153,610	4.50%	159,733,646	0.9157	4.12%	4.50%
13	3,356	136,454,061	142,268,357	4.50%	142,594,494	0.9469	4.26%	4.50%
14	3,751	145,753,812	151,786,830	4.50%	152,312,734	0.9198	4.14%	4.50%
15	3,481	133,578,647	139,591,576	4.50%	139,589,686	1.0003	4.50%	4.50%
16	3,334	136,554,786	139,908,047	4.45%	142,631,474	0.5518	2.46%	4.45%
17	2,562	109,039,775	112,899,426	4.40%	113,837,525	0.8045	3.54%	4.40%
18	2,025	91,468,023	94,775,138	4.35%	95,446,882	0.8312	3.62%	4.35%
19	1,708	79,780,813	82,809,935	4.30%	83,211,388	0.8830	3.80%	4.30%
20	1,442	64,561,801	66,693,216	4.25%	67,305,678	0.7768	3.30%	4.25%
21	1,239	55,998,359	58,053,000	4.20%	58,350,290	0.8736	3.67%	4.20%
22	1,096	51,658,540	53,113,604	4.15%	53,802,369	0.6787	2.82%	4.15%
23	964	49,860,440	50,563,371	4.10%	51,904,718	0.3439	1.41%	4.10%
24	1,075	54,784,508	55,996,614	4.05%	57,003,281	0.5463	2.21%	4.05%
25	952	51,072,273	53,145,226	4.00%	53,115,164	1.0147	4.06%	4.00%
26	913	52,279,613	53,407,658	4.00%	54,370,798	0.5394	2.16%	4.00%
27	722	41,569,737	43,205,526	4.00%	43,232,526	0.9838	3.94%	4.00%
28	527	33,227,254	33,838,016	4.00%	34,556,344	0.4595	1.84%	4.00%
29	449	30,621,648	31,399,432	4.00%	31,846,514	0.6350	2.54%	4.00%
30+	1,804	132,727,557	136,557,972	4.00%	138,036,659	0.7215	2.89%	4.00%
Total	93,031	3,966,653,770	4,150,266,610		4,170,443,127	0.9010	4.63%	5.14%

Bolton

**Board of Education Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Salary EOY	(7) Actual/Expected	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Expected %
0	9,096	272,358,208	308,178,243	9.00%	296,870,447	1.4613	13.15%	9.00%
1	15,271	538,543,414	579,472,020	8.00%	581,626,887	0.9500	7.60%	8.00%
2	15,657	574,856,789	612,385,147	7.00%	615,096,764	0.9326	6.53%	7.00%
3	13,849	518,118,670	542,721,365	6.00%	549,205,790	0.7914	4.75%	6.00%
4	14,874	582,390,982	604,417,297	5.50%	614,422,486	0.6876	3.78%	5.50%
5	10,596	423,020,594	438,334,077	5.00%	444,171,624	0.7240	3.62%	5.00%
6	11,520	453,079,354	465,729,161	4.90%	475,280,242	0.5698	2.79%	4.90%
7	11,131	433,151,228	446,454,323	4.80%	453,942,487	0.6398	3.07%	4.80%
8	11,904	452,015,141	466,791,630	4.70%	473,259,853	0.6955	3.27%	4.70%
9	10,962	424,772,012	437,628,101	4.60%	444,311,525	0.6580	3.03%	4.60%
10	11,028	421,582,002	433,378,180	4.50%	440,553,192	0.6218	2.80%	4.50%
11	9,345	358,704,760	368,378,098	4.50%	374,846,474	0.5993	2.70%	4.50%
12	9,335	355,342,359	364,810,684	4.50%	371,332,765	0.5921	2.66%	4.50%
13	7,961	297,255,791	306,924,358	4.50%	310,632,302	0.7228	3.25%	4.50%
14	8,009	299,950,387	309,402,173	4.50%	313,448,154	0.7002	3.15%	4.50%
15	6,887	261,626,602	270,853,072	4.50%	273,399,799	0.7837	3.53%	4.50%
16	6,373	249,663,029	255,104,129	4.45%	260,773,034	0.4897	2.18%	4.45%
17	5,279	215,887,950	222,011,870	4.40%	225,387,020	0.6447	2.84%	4.40%
18	5,152	216,639,816	223,075,198	4.35%	226,063,648	0.6829	2.97%	4.35%
19	4,355	191,389,441	197,019,218	4.30%	199,619,187	0.6841	2.94%	4.30%
20	3,988	179,533,483	183,334,714	4.25%	187,163,656	0.4982	2.12%	4.25%
21	3,398	157,914,685	161,608,420	4.20%	164,547,102	0.5569	2.34%	4.20%
22	3,263	159,085,972	161,549,420	4.15%	165,688,040	0.3731	1.55%	4.15%
23	2,602	133,583,723	135,991,739	4.10%	139,060,656	0.4397	1.80%	4.10%
24	2,397	128,445,696	131,163,393	4.05%	133,647,747	0.5224	2.12%	4.05%
25	1,916	108,414,912	111,313,728	4.00%	112,751,508	0.6685	2.67%	4.00%
26	1,745	102,532,096	104,550,757	4.00%	106,633,380	0.4922	1.97%	4.00%
27	1,385	83,914,995	86,379,098	4.00%	87,271,595	0.7341	2.94%	4.00%
28	1,133	73,857,887	74,995,297	4.00%	76,812,202	0.3850	1.54%	4.00%
29	856	59,132,970	60,466,539	4.00%	61,498,289	0.5638	2.26%	4.00%
30+	3,821	273,899,059	279,787,368	4.00%	284,855,021	0.5375	2.15%	4.00%
Total	225,088	9,000,664,007	9,344,208,817		9,464,172,875	0.7412	3.82%	5.15%

Bolton

Board of Education Retirement System of the City of New York
 Total Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Salary EOY	(7) Actual/Proposed	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Proposed %
0	9,096	272,358,208	308,178,243	9.00%	296,870,447	1.4613	13.15%	9.00%
1	15,271	538,543,414	579,472,020	8.00%	581,626,887	0.9500	7.60%	8.00%
2	15,657	574,856,789	612,385,147	7.00%	615,096,764	0.9326	6.53%	7.00%
3	13,849	518,118,670	542,721,365	6.00%	549,205,790	0.7914	4.75%	6.00%
4	14,874	582,390,982	604,417,297	5.50%	614,422,486	0.6876	3.78%	5.50%
5	10,596	423,020,594	438,334,077	5.00%	444,171,624	0.7240	3.62%	5.00%
6	11,520	453,079,354	465,729,161	4.90%	475,280,242	0.5698	2.79%	4.90%
7	11,131	433,151,228	446,454,323	4.80%	453,942,487	0.6398	3.07%	4.80%
8	11,904	452,015,141	466,791,630	4.70%	473,259,853	0.6955	3.27%	4.70%
9	10,962	424,772,012	437,628,101	4.60%	444,311,525	0.6580	3.03%	4.60%
10	11,028	421,582,002	433,378,180	4.50%	440,553,192	0.6218	2.80%	4.50%
11	9,345	358,704,760	368,378,098	4.50%	374,846,474	0.5993	2.70%	4.50%
12	9,335	355,342,359	364,810,684	4.50%	371,332,765	0.5921	2.66%	4.50%
13	7,961	297,255,791	306,924,358	4.50%	310,632,302	0.7228	3.25%	4.50%
14	8,009	299,950,387	309,402,173	4.50%	313,448,154	0.7002	3.15%	4.50%
15	6,887	261,626,602	270,853,072	4.50%	273,399,799	0.7837	3.53%	4.50%
16	6,373	249,663,029	255,104,129	4.45%	260,773,034	0.4897	2.18%	4.45%
17	5,279	215,887,950	222,011,870	4.40%	225,387,020	0.6447	2.84%	4.40%
18	5,152	216,639,816	223,075,198	4.35%	226,063,648	0.6829	2.97%	4.35%
19	4,355	191,389,441	197,019,218	4.30%	199,619,187	0.6841	2.94%	4.30%
20	3,988	179,533,483	183,334,714	4.25%	187,163,656	0.4982	2.12%	4.25%
21	3,398	157,914,685	161,608,420	4.20%	164,547,102	0.5569	2.34%	4.20%
22	3,263	159,085,972	161,549,420	4.15%	165,688,040	0.3731	1.55%	4.15%
23	2,602	133,583,723	135,991,739	4.10%	139,060,656	0.4397	1.80%	4.10%
24	2,397	128,445,696	131,163,393	4.05%	133,647,747	0.5224	2.12%	4.05%
25	1,916	108,414,912	111,313,728	4.00%	112,751,508	0.6685	2.67%	4.00%
26	1,745	102,532,096	104,550,757	4.00%	106,633,380	0.4922	1.97%	4.00%
27	1,385	83,914,995	86,379,098	4.00%	87,271,595	0.7341	2.94%	4.00%
28	1,133	73,857,887	74,995,297	4.00%	76,812,202	0.3850	1.54%	4.00%
29	856	59,132,970	60,466,539	4.00%	61,498,289	0.5638	2.26%	4.00%
30+	3,821	273,899,059	279,787,368	4.00%	284,855,021	0.5375	2.15%	4.00%
Total	225,088	9,000,664,007	9,344,208,817		9,464,172,875	0.7412	3.82%	5.15%

Bolton

**Board of Education Retirement System of the City of New York
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5)	(6)	(7) = [(4) ÷ (3)]-1	(8) = [(5) ÷ (3)]-1
Plan Year	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Expected Salary EOY	Actual/Expected	Increase %	
						Actual %	Expected %
2008	21,056	730,801,352	790,592,875	768,143,536	1.6012	0.0818	0.0511
2009	21,666	808,244,425	855,947,377	849,685,382	1.1511	0.0590	0.0513
2010	21,684	859,006,382	851,088,996	902,761,404	-0.1809	-0.0092	0.0509
2011	21,478	844,124,616	859,751,354	886,891,976	0.3654	0.0185	0.0507
2012	21,399	857,038,973	840,712,663	900,275,567	-0.3776	-0.0190	0.0504
2013	24,774	934,794,489	995,848,942	985,971,884	1.1930	0.0653	0.0547
2014	23,715	958,993,670	968,711,048	1,009,725,548	0.1915	0.0101	0.0529
2015	23,091	937,520,639	1,029,712,184	985,592,086	1.9178	0.0983	0.0513
2016	22,875	1,013,407,332	1,056,260,248	1,064,638,916	0.8365	0.0423	0.0506
2017	23,351	1,056,758,285	1,095,610,582	1,110,486,577	0.7231	0.0368	0.0508
Total	225,089	9,000,690,163	9,344,236,269	9,464,172,875	0.7412	0.0382	0.0515

Bolton

Board of Education Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Merit Salary EOY	(7) Actual/Expected	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Expected %
0	1,967	70,479,668	80,311,445	6.00%	74,708,448	2.3250	13.95%	6.00%
1	7,888	275,169,231	292,575,174	5.00%	288,927,693	1.2651	6.33%	5.00%
2	7,313	265,710,194	283,693,180	4.00%	276,338,602	1.6920	6.77%	4.00%
3	6,458	248,891,369	257,026,329	3.00%	256,358,110	1.0895	3.27%	3.00%
4	6,609	264,407,329	270,996,296	2.50%	271,017,512	0.9968	2.49%	2.50%
5	3,650	155,681,539	161,245,295	2.00%	158,795,170	1.7869	3.57%	2.00%
6	4,124	177,178,291	180,887,627	1.90%	180,544,679	1.1019	2.09%	1.90%
7	4,042	179,572,627	183,645,055	1.80%	182,804,934	1.2599	2.27%	1.80%
8	4,309	189,876,054	194,524,401	1.70%	193,103,947	1.4401	2.45%	1.70%
9	4,299	199,387,336	204,265,733	1.60%	202,577,533	1.5292	2.45%	1.60%
10	3,925	178,470,956	183,070,268	1.50%	181,148,020	1.7180	2.58%	1.50%
11	3,494	157,982,365	162,044,967	1.50%	160,352,100	1.7144	2.57%	1.50%
12	3,553	152,855,164	156,801,586	1.50%	155,147,991	1.7212	2.58%	1.50%
13	3,356	136,454,061	140,165,869	1.50%	138,500,872	1.8135	2.72%	1.50%
14	3,751	145,753,812	149,543,675	1.50%	147,940,119	1.7335	2.60%	1.50%
15	3,481	133,578,647	137,528,646	1.50%	135,582,327	1.9714	2.96%	1.50%
16	3,334	136,554,786	137,840,440	1.45%	138,534,830	0.6493	0.94%	1.45%
17	2,562	109,039,775	111,230,962	1.40%	110,566,332	1.4354	2.01%	1.40%
18	2,025	91,468,023	93,374,520	1.35%	92,702,841	1.5439	2.08%	1.35%
19	1,708	79,780,813	81,586,143	1.30%	80,817,964	1.7407	2.26%	1.30%
20	1,442	64,561,801	65,707,602	1.25%	65,368,824	1.4198	1.77%	1.25%
21	1,239	55,998,359	57,195,074	1.20%	56,670,339	1.7809	2.14%	1.20%
22	1,096	51,658,540	52,328,674	1.15%	52,252,613	1.1280	1.30%	1.15%
23	964	49,860,440	49,816,129	1.10%	50,408,905	-0.0808	-0.09%	1.10%
24	1,075	54,784,508	55,169,078	1.05%	55,359,745	0.6685	0.70%	1.05%
25	952	51,072,273	52,359,829	1.00%	51,582,996	2.5210	2.52%	1.00%
26	913	52,279,613	52,618,382	1.00%	52,802,409	0.6480	0.65%	1.00%
27	722	41,569,737	42,567,021	1.00%	41,985,434	2.3991	2.40%	1.00%
28	527	33,227,254	33,337,947	1.00%	33,559,527	0.3331	0.33%	1.00%
29	449	30,621,648	30,935,401	1.00%	30,927,864	1.0246	1.02%	1.00%
30+	1,804	132,727,557	134,539,874	1.00%	134,054,833	1.3654	1.37%	1.00%
Total	93,031	3,966,653,770	4,088,932,621		4,051,443,514	1.4421	3.08%	2.14%

Bolton

Board of Education Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

Proposed Assumptions are 100% of the Current Rates

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Proposed %
0	1,967	70,479,668	80,311,445	6.00%	74,708,448	2.3250	13.95%	6.00%
1	7,888	275,169,231	292,575,174	5.00%	288,927,693	1.2651	6.33%	5.00%
2	7,313	265,710,194	283,693,180	4.00%	276,338,602	1.6920	6.77%	4.00%
3	6,458	248,891,369	257,026,329	3.00%	256,358,110	1.0895	3.27%	3.00%
4	6,609	264,407,329	270,996,296	2.50%	271,017,512	0.9968	2.49%	2.50%
5	3,650	155,681,539	161,245,295	2.00%	158,795,170	1.7869	3.57%	2.00%
6	4,124	177,178,291	180,887,627	1.90%	180,544,679	1.1019	2.09%	1.90%
7	4,042	179,572,627	183,645,055	1.80%	182,804,934	1.2599	2.27%	1.80%
8	4,309	189,876,054	194,524,401	1.70%	193,103,947	1.4401	2.45%	1.70%
9	4,299	199,387,336	204,265,733	1.60%	202,577,533	1.5292	2.45%	1.60%
10	3,925	178,470,956	183,070,268	1.50%	181,148,020	1.7180	2.58%	1.50%
11	3,494	157,982,365	162,044,967	1.50%	160,352,100	1.7144	2.57%	1.50%
12	3,553	152,855,164	156,801,586	1.50%	155,147,991	1.7212	2.58%	1.50%
13	3,356	136,454,061	140,165,869	1.50%	138,500,872	1.8135	2.72%	1.50%
14	3,751	145,753,812	149,543,675	1.50%	147,940,119	1.7335	2.60%	1.50%
15	3,481	133,578,647	137,528,646	1.50%	135,582,327	1.9714	2.96%	1.50%
16	3,334	136,554,786	137,840,440	1.45%	138,534,830	0.6493	0.94%	1.45%
17	2,562	109,039,775	111,230,962	1.40%	110,566,332	1.4354	2.01%	1.40%
18	2,025	91,468,023	93,374,520	1.35%	92,702,841	1.5439	2.08%	1.35%
19	1,708	79,780,813	81,586,143	1.30%	80,817,964	1.7407	2.26%	1.30%
20	1,442	64,561,801	65,707,602	1.25%	65,368,824	1.4198	1.77%	1.25%
21	1,239	55,998,359	57,195,074	1.20%	56,670,339	1.7809	2.14%	1.20%
22	1,096	51,658,540	52,328,674	1.15%	52,252,613	1.1280	1.30%	1.15%
23	964	49,860,440	49,816,129	1.10%	50,408,905	-0.0808	-0.09%	1.10%
24	1,075	54,784,508	55,169,078	1.05%	55,359,745	0.6685	0.70%	1.05%
25	952	51,072,273	52,359,829	1.00%	51,582,996	2.5210	2.52%	1.00%
26	913	52,279,613	52,618,382	1.00%	52,802,409	0.6480	0.65%	1.00%
27	722	41,569,737	42,567,021	1.00%	41,985,434	2.3991	2.40%	1.00%
28	527	33,227,254	33,337,947	1.00%	33,559,527	0.3331	0.33%	1.00%
29	449	30,621,648	30,935,401	1.00%	30,927,864	1.0246	1.02%	1.00%
30+	1,804	132,727,557	134,539,874	1.00%	134,054,833	1.3654	1.37%	1.00%
Total	93,031	3,966,653,770	4,088,932,621		4,051,443,514	1.4421	3.08%	2.14%

Bolton

Board of Education Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women

10-Year Period Ending 2017

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Merit Salary EOY	(7) Actual/Expected	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Expected %
0	9,096	272,358,208	303,623,885	6.00%	288,699,700	1.9133	11.48%	6.00%
1	15,271	538,543,414	570,908,394	5.00%	565,470,585	1.2019	6.01%	5.00%
2	15,657	574,856,789	603,335,120	4.00%	597,851,061	1.2385	4.95%	4.00%
3	13,849	518,118,670	534,700,852	3.00%	533,662,230	1.0668	3.20%	3.00%
4	14,874	582,390,982	595,485,022	2.50%	596,950,757	0.8993	2.25%	2.50%
5	10,596	423,020,594	431,856,233	2.00%	431,481,006	1.0444	2.09%	2.00%
6	11,520	453,079,354	458,846,464	1.90%	461,687,862	0.6699	1.27%	1.90%
7	11,131	433,151,228	439,856,476	1.80%	440,947,950	0.8600	1.55%	1.80%
8	11,904	452,015,141	459,893,232	1.70%	459,699,398	1.0252	1.74%	1.70%
9	10,962	424,772,012	431,160,691	1.60%	431,568,364	0.9400	1.50%	1.60%
10	11,028	421,582,002	426,973,576	1.50%	427,905,732	0.8526	1.28%	1.50%
11	9,345	358,704,760	362,934,087	1.50%	364,085,331	0.7860	1.18%	1.50%
12	9,335	355,342,359	359,419,393	1.50%	360,672,494	0.7649	1.15%	1.50%
13	7,961	297,255,791	302,388,530	1.50%	301,714,628	1.1511	1.73%	1.50%
14	8,009	299,950,387	304,829,727	1.50%	304,449,643	1.0845	1.63%	1.50%
15	6,887	261,626,602	266,850,317	1.50%	265,551,001	1.3311	2.00%	1.50%
16	6,373	249,663,029	251,334,117	1.45%	253,283,143	0.4616	0.67%	1.45%
17	5,279	215,887,950	218,730,906	1.40%	218,910,381	0.9406	1.32%	1.40%
18	5,152	216,639,816	219,778,520	1.35%	219,564,454	1.0732	1.45%	1.35%
19	4,355	191,389,441	194,107,604	1.30%	193,877,504	1.0925	1.42%	1.30%
20	3,988	179,533,483	180,625,334	1.25%	181,777,652	0.4865	0.61%	1.25%
21	3,398	157,914,685	159,220,118	1.20%	159,809,661	0.6889	0.83%	1.20%
22	3,263	159,085,972	159,161,990	1.15%	160,915,461	0.0416	0.05%	1.15%
23	2,602	133,583,723	133,982,009	1.10%	135,053,144	0.2710	0.30%	1.10%
24	2,397	128,445,696	129,225,018	1.05%	129,794,376	0.5778	0.61%	1.05%
25	1,916	108,414,912	109,668,698	1.00%	109,499,061	1.1565	1.16%	1.00%
26	1,745	102,532,096	103,005,672	1.00%	103,557,417	0.4619	0.46%	1.00%
27	1,385	83,914,995	85,102,560	1.00%	84,754,145	1.4152	1.42%	1.00%
28	1,133	73,857,887	73,886,992	1.00%	74,596,466	0.0394	0.04%	1.00%
29	856	59,132,970	59,572,945	1.00%	59,724,300	0.7440	0.74%	1.00%
30+	3,821	273,899,059	275,652,579	1.00%	276,638,050	0.6402	0.64%	1.00%
Total	225,088	9,000,664,007	9,206,117,061		9,194,152,955	1.0618	2.28%	2.15%

Bolton

Board of Education Retirement System of the City of New York
 Merit Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017


Proposed Assumptions are 100% of the Current Rates

(1) Service	(2) Life Years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual %	Proposed %
0	9,096	272,358,208	303,623,885	6.00%	288,699,700	1.9133	11.48%	6.00%
1	15,271	538,543,414	570,908,394	5.00%	565,470,585	1.2019	6.01%	5.00%
2	15,657	574,856,789	603,335,120	4.00%	597,851,061	1.2385	4.95%	4.00%
3	13,849	518,118,670	534,700,852	3.00%	533,662,230	1.0668	3.20%	3.00%
4	14,874	582,390,982	595,485,022	2.50%	596,950,757	0.8993	2.25%	2.50%
5	10,596	423,020,594	431,856,233	2.00%	431,481,006	1.0444	2.09%	2.00%
6	11,520	453,079,354	458,846,464	1.90%	461,687,862	0.6699	1.27%	1.90%
7	11,131	433,151,228	439,856,476	1.80%	440,947,950	0.8600	1.55%	1.80%
8	11,904	452,015,141	459,893,232	1.70%	459,699,398	1.0252	1.74%	1.70%
9	10,962	424,772,012	431,160,691	1.60%	431,568,364	0.9400	1.50%	1.60%
10	11,028	421,582,002	426,973,576	1.50%	427,905,732	0.8526	1.28%	1.50%
11	9,345	358,704,760	362,934,087	1.50%	364,085,331	0.7860	1.18%	1.50%
12	9,335	355,342,359	359,419,393	1.50%	360,672,494	0.7649	1.15%	1.50%
13	7,961	297,255,791	302,388,530	1.50%	301,714,628	1.1511	1.73%	1.50%
14	8,009	299,950,387	304,829,727	1.50%	304,449,643	1.0845	1.63%	1.50%
15	6,887	261,626,602	266,850,317	1.50%	265,551,001	1.3311	2.00%	1.50%
16	6,373	249,663,029	251,334,117	1.45%	253,283,143	0.4616	0.67%	1.45%
17	5,279	215,887,950	218,730,906	1.40%	218,910,381	0.9406	1.32%	1.40%
18	5,152	216,639,816	219,778,520	1.35%	219,564,454	1.0732	1.45%	1.35%
19	4,355	191,389,441	194,107,604	1.30%	193,877,504	1.0925	1.42%	1.30%
20	3,988	179,533,483	180,625,334	1.25%	181,777,652	0.4865	0.61%	1.25%
21	3,398	157,914,685	159,220,118	1.20%	159,809,661	0.6889	0.83%	1.20%
22	3,263	159,085,972	159,161,990	1.15%	160,915,461	0.0416	0.05%	1.15%
23	2,602	133,583,723	133,982,009	1.10%	135,053,144	0.2710	0.30%	1.10%
24	2,397	128,445,696	129,225,018	1.05%	129,794,376	0.5778	0.61%	1.05%
25	1,916	108,414,912	109,668,698	1.00%	109,499,061	1.1565	1.16%	1.00%
26	1,745	102,532,096	103,005,672	1.00%	103,557,417	0.4619	0.46%	1.00%
27	1,385	83,914,995	85,102,560	1.00%	84,754,145	1.4152	1.42%	1.00%
28	1,133	73,857,887	73,886,992	1.00%	74,596,466	0.0394	0.04%	1.00%
29	856	59,132,970	59,572,945	1.00%	59,724,300	0.7440	0.74%	1.00%
30+	3,821	273,899,059	275,652,579	1.00%	276,638,050	0.6402	0.64%	1.00%
Total	225,088	9,000,664,007	9,206,117,061		9,194,152,955	1.0618	2.28%	2.15%

Police

Bolton				New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men 4-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates			
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	62	0.0000	0.00	0.00	N/A	N/A
42	2	335	0.0060	0.40	0.40	5.0000	5.0000
43	0	782	0.0000	0.90	0.90	0.0000	0.0000
44	5	1,310	0.0038	1.50	1.50	3.3333	3.3333
45	4	1,787	0.0022	2.20	2.20	1.8182	1.8182
46	1	2,232	0.0004	3.20	3.20	0.3125	0.3125
47	4	2,635	0.0015	4.00	4.00	1.0000	1.0000
48	7	3,206	0.0022	5.40	5.40	1.2963	1.2963
49	6	3,761	0.0016	6.70	6.70	0.8955	0.8955
50	6	4,190	0.0014	8.00	8.00	0.7500	0.7500
51	12	4,519	0.0027	11.60	11.60	1.0345	1.0345
52	8	4,690	0.0017	15.30	15.30	0.5229	0.5229
53	8	4,749	0.0017	18.70	18.70	0.4278	0.4278
54	11	4,662	0.0024	21.60	21.60	0.5093	0.5093
55	13	4,476	0.0029	22.70	22.70	0.5727	0.5727
56	9	4,015	0.0022	22.70	22.70	0.3965	0.3965
57	12	3,534	0.0034	22.00	22.00	0.5455	0.5455
58	23	3,105	0.0074	20.90	20.90	1.1005	1.1005
59	11	2,602	0.0042	18.70	18.70	0.5882	0.5882
60	19	2,236	0.0085	16.90	16.90	1.1243	1.1243
61	10	1,968	0.0051	16.20	16.20	0.6173	0.6173
62	16	1,778	0.0090	15.90	15.90	1.0063	1.0063
63	8	1,741	0.0046	16.80	16.80	0.4762	0.4762
64	14	1,816	0.0077	18.80	18.80	0.7447	0.7447
65	15	1,891	0.0079	20.90	20.90	0.7177	0.7177
66	21	2,077	0.0101	24.30	24.30	0.8642	0.8642
67	25	2,267	0.0110	28.30	28.30	0.8834	0.8834
68	36	2,381	0.0151	33.90	33.90	1.0619	1.0619
69	32	2,475	0.0129	39.70	39.70	0.8060	0.8060
70	43	2,691	0.0160	48.20	48.20	0.8921	0.8921
71	68	2,914	0.0233	57.90	57.90	1.1744	1.1744
72	61	3,010	0.0203	65.80	65.80	0.9271	0.9271
73	64	2,990	0.0214	72.80	72.80	0.8791	0.8791
74	58	2,724	0.0213	73.20	73.20	0.7923	0.7923
75	64	2,360	0.0271	69.80	69.80	0.9169	0.9169
76	61	2,009	0.0304	64.90	64.90	0.9399	0.9399
77	92	1,805	0.0510	63.50	63.50	1.4488	1.4488
78	74	1,594	0.0464	63.70	63.70	1.1617	1.1617
79	52	1,392	0.0374	62.30	62.30	0.8347	0.8347
80	79	1,280	0.0617	63.70	63.70	1.2402	1.2402
81	64	1,085	0.0590	58.60	58.60	1.0922	1.0922
82	56	973	0.0576	56.80	56.80	0.9859	0.9859
83	76	907	0.0838	60.30	60.30	1.2604	1.2604
84	69	939	0.0735	70.20	70.20	0.9829	0.9829
85	68	915	0.0743	75.80	75.80	0.8971	0.8971
86	84	845	0.0994	76.90	76.90	1.0923	1.0923
87	92	766	0.1201	75.90	75.90	1.2121	1.2121
88	91	605	0.1504	68.00	68.00	1.3382	1.3382
89	76	485	0.1567	61.00	61.00	1.2459	1.2459
90	80	407	0.1966	56.70	56.70	1.4109	1.4109
91	68	367	0.1853	57.10	57.10	1.1909	1.1909
92	68	305	0.2230	52.30	52.30	1.3002	1.3002
93	57	232	0.2457	43.50	43.50	1.3103	1.3103
94	50	183	0.2732	37.30	37.30	1.3405	1.3405
95	27	120	0.2250	26.70	26.70	1.0112	1.0112
96	26	93	0.2796	22.50	22.50	1.1556	1.1556
97	16	68	0.2353	17.70	17.70	0.9040	0.9040
98	24	50	0.4800	13.90	13.90	1.7266	1.7266
99	11	29	0.3793	8.50	8.50	1.2941	1.2941
100+	7	30	0.2333	9.40	9.40	0.7447	0.7447
Total	2,164	111,455	0.0194	2,093.10	2,093.10	1.0339	1.0339

Bolton				New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Mortality By Lives - Women 4-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates			
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	21	0.0000	0.00	0.00	N/A	N/A
42	0	87	0.0000	0.00	0.00	N/A	N/A
43	0	200	0.0000	0.10	0.10	0.0000	0.0000
44	0	309	0.0000	0.30	0.30	0.0000	0.0000
45	0	388	0.0000	0.40	0.40	0.0000	0.0000
46	0	461	0.0000	0.40	0.40	0.0000	0.0000
47	0	539	0.0000	0.70	0.70	0.0000	0.0000
48	1	645	0.0016	1.00	1.00	1.0000	1.0000
49	0	834	0.0000	1.50	1.50	0.0000	0.0000
50	1	951	0.0011	1.80	1.80	0.5556	0.5556
51	2	1,001	0.0020	2.10	2.10	0.9524	0.9524
52	1	1,077	0.0009	2.40	2.40	0.4167	0.4167
53	2	1,045	0.0019	2.20	2.20	0.9091	0.9091
54	1	988	0.0010	2.70	2.70	0.3704	0.3704
55	0	917	0.0000	3.10	3.10	0.0000	0.0000
56	6	778	0.0077	3.00	3.00	2.0000	2.0000
57	5	694	0.0072	2.90	2.90	1.7241	1.7241
58	2	630	0.0032	2.90	2.90	0.6897	0.6897
59	1	537	0.0019	2.60	2.60	0.3846	0.3846
60	1	453	0.0022	2.40	2.40	0.4167	0.4167
61	0	344	0.0000	1.90	1.90	0.0000	0.0000
62	0	258	0.0000	1.50	1.50	0.0000	0.0000
63	1	212	0.0047	1.40	1.40	0.7143	0.7143
64	1	151	0.0066	1.00	1.00	1.0000	1.0000
65	0	108	0.0000	0.80	0.80	0.0000	0.0000
66	0	83	0.0000	0.70	0.70	0.0000	0.0000
67	0	71	0.0000	0.70	0.70	0.0000	0.0000
68	2	72	0.0278	0.80	0.80	2.5000	2.5000
69	0	67	0.0000	0.80	0.80	0.0000	0.0000
70	0	71	0.0000	0.80	0.80	0.0000	0.0000
71	2	67	0.0299	0.90	0.90	2.2222	2.2222
72	1	77	0.0130	1.10	1.10	0.9091	0.9091
73	2	66	0.0303	1.20	1.20	1.6667	1.6667
74	2	55	0.0364	1.00	1.00	2.0000	2.0000
75	0	47	0.0000	1.10	1.10	0.0000	0.0000
76	1	29	0.0345	0.80	0.80	1.2500	1.2500
77	0	33	0.0000	0.80	0.80	0.0000	0.0000
78	1	34	0.0294	1.00	1.00	1.0000	1.0000
79	3	28	0.1071	0.90	0.90	3.3333	3.3333
80	0	28	0.0000	1.00	1.00	0.0000	0.0000
81	1	23	0.0435	1.00	1.00	1.0000	1.0000
82	1	18	0.0556	0.80	0.80	1.2500	1.2500
83	1	14	0.0714	0.80	0.80	1.2500	1.2500
84	0	15	0.0000	0.90	0.90	0.0000	0.0000
85	0	11	0.0000	0.70	0.70	0.0000	0.0000
86	0	16	0.0000	1.10	1.10	0.0000	0.0000
87	2	19	0.1053	1.50	1.50	1.3333	1.3333
88	3	14	0.2143	1.10	1.10	2.7273	2.7273
89	0	10	0.0000	1.00	1.00	0.0000	0.0000
90	0	9	0.0000	0.90	0.90	0.0000	0.0000
91	0	8	0.0000	0.80	0.80	0.0000	0.0000
92	2	8	0.2500	1.10	1.10	1.8182	1.8182
93	0	6	0.0000	0.80	0.80	0.0000	0.0000
94	0	3	0.0000	0.50	0.50	0.0000	0.0000
95	0	2	0.0000	0.30	0.30	0.0000	0.0000
96	0	0	N/A	0.00	0.00	N/A	N/A
97	0	0	N/A	0.00	0.00	N/A	N/A
98	0	0	N/A	0.00	0.00	N/A	N/A
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	49	14,632	0.0033	66.00	66.00	0.7424	0.7424

				New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men and Women 4-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates			
				(1)	(2)	(3)	(4) = (2)÷(3)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	83	0.0000	0.00	0.00	N/A	N/A
42	2	422	0.0047	0.40	0.40	5.0000	5.0000
43	0	982	0.0000	1.00	1.00	0.0000	0.0000
44	5	1,619	0.0031	1.80	1.80	2.7778	2.7778
45	4	2,175	0.0018	2.60	2.60	1.5385	1.5385
46	1	2,693	0.0004	3.60	3.60	0.2778	0.2778
47	4	3,174	0.0013	4.70	4.70	0.8511	0.8511
48	8	3,851	0.0021	6.40	6.40	1.2500	1.2500
49	6	4,595	0.0013	8.20	8.20	0.7317	0.7317
50	7	5,141	0.0014	9.80	9.80	0.7143	0.7143
51	14	5,520	0.0025	13.70	13.70	1.0219	1.0219
52	9	5,767	0.0016	17.70	17.70	0.5085	0.5085
53	10	5,794	0.0017	20.90	20.90	0.4785	0.4785
54	12	5,650	0.0021	24.30	24.30	0.4938	0.4938
55	13	5,393	0.0024	25.80	25.80	0.5039	0.5039
56	15	4,793	0.0031	25.70	25.70	0.5837	0.5837
57	17	4,228	0.0040	24.90	24.90	0.6827	0.6827
58	25	3,735	0.0067	23.80	23.80	1.0504	1.0504
59	12	3,139	0.0038	21.30	21.30	0.5634	0.5634
60	20	2,689	0.0074	19.30	19.30	1.0363	1.0363
61	10	2,312	0.0043	18.10	18.10	0.5525	0.5525
62	16	2,036	0.0079	17.40	17.40	0.9195	0.9195
63	9	1,953	0.0046	18.20	18.20	0.4945	0.4945
64	15	1,967	0.0076	19.80	19.80	0.7576	0.7576
65	15	1,999	0.0075	21.70	21.70	0.6912	0.6912
66	21	2,160	0.0097	25.00	25.00	0.8400	0.8400
67	25	2,338	0.0107	29.00	29.00	0.8621	0.8621
68	38	2,453	0.0155	34.70	34.70	1.0951	1.0951
69	32	2,542	0.0126	40.50	40.50	0.7901	0.7901
70	43	2,762	0.0156	49.00	49.00	0.8776	0.8776
71	70	2,981	0.0235	58.80	58.80	1.1905	1.1905
72	62	3,087	0.0201	66.90	66.90	0.9268	0.9268
73	66	3,056	0.0216	74.00	74.00	0.8919	0.8919
74	60	2,779	0.0216	74.20	74.20	0.8086	0.8086
75	64	2,407	0.0266	70.90	70.90	0.9027	0.9027
76	62	2,038	0.0304	65.70	65.70	0.9437	0.9437
77	92	1,838	0.0501	64.30	64.30	1.4308	1.4308
78	75	1,628	0.0461	64.70	64.70	1.1592	1.1592
79	55	1,420	0.0387	63.20	63.20	0.8703	0.8703
80	79	1,308	0.0604	64.70	64.70	1.2210	1.2210
81	65	1,108	0.0587	59.60	59.60	1.0906	1.0906
82	57	991	0.0575	57.60	57.60	0.9896	0.9896
83	77	921	0.0836	61.10	61.10	1.2602	1.2602
84	69	954	0.0723	71.10	71.10	0.9705	0.9705
85	68	926	0.0734	76.50	76.50	0.8889	0.8889
86	84	861	0.0976	78.00	78.00	1.0769	1.0769
87	94	785	0.1197	77.40	77.40	1.2145	1.2145
88	94	619	0.1519	69.10	69.10	1.3603	1.3603
89	76	495	0.1535	62.00	62.00	1.2258	1.2258
90	80	416	0.1923	57.60	57.60	1.3889	1.3889
91	68	375	0.1813	57.90	57.90	1.1744	1.1744
92	70	313	0.2236	53.40	53.40	1.3109	1.3109
93	57	238	0.2395	44.30	44.30	1.2867	1.2867
94	50	186	0.2688	37.80	37.80	1.3228	1.3228
95	27	122	0.2213	27.00	27.00	1.0000	1.0000
96	26	93	0.2796	22.50	22.50	1.1556	1.1556
97	16	68	0.2353	17.70	17.70	0.9040	0.9040
98	24	50	0.4800	13.90	13.90	1.7266	1.7266
99	11	29	0.3793	8.50	8.50	1.2941	1.2941
100+	7	30	0.2333	9.40	9.40	0.7447	0.7447
Total	2,213	126,087	0.0176	2,159.10	2,159.10	1.0250	1.0250

Bolton		New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Men 4-Year Period Ending 2017 Proposed Rates are 91% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)-(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 3,506,988	0.0000	\$ 3,253	\$ 2,960	0.0000	0.0000	
42	\$ 120,690	\$ 17,849,310	0.0068	\$ 18,133	\$ 16,501	6.6560	7.3143	
43	\$ -	\$ 42,791,110	0.0000	\$ 47,046	\$ 42,812	0.0000	0.0000	
44	\$ 298,741	\$ 71,963,862	0.0042	\$ 85,515	\$ 77,819	3.4934	3.8389	
45	\$ 209,891	\$ 100,551,748	0.0021	\$ 128,937	\$ 117,332	1.6279	1.7889	
46	\$ 47,880	\$ 126,548,686	0.0004	\$ 176,277	\$ 160,412	0.2716	0.2985	
47	\$ 203,475	\$ 149,655,612	0.0014	\$ 226,498	\$ 206,113	0.8984	0.9872	
48	\$ 378,515	\$ 181,131,111	0.0021	\$ 297,429	\$ 270,660	1.2726	1.3985	
49	\$ 319,798	\$ 208,497,200	0.0015	\$ 369,727	\$ 336,452	0.8650	0.9505	
50	\$ 276,801	\$ 226,752,565	0.0012	\$ 433,330	\$ 394,330	0.6388	0.7020	
51	\$ 603,573	\$ 238,086,106	0.0025	\$ 611,139	\$ 556,137	0.9876	1.0853	
52	\$ 366,718	\$ 241,529,404	0.0015	\$ 784,194	\$ 713,617	0.4676	0.5139	
53	\$ 351,476	\$ 238,516,027	0.0015	\$ 939,549	\$ 854,990	0.3741	0.4111	
54	\$ 447,665	\$ 229,861,871	0.0019	\$ 1,064,907	\$ 969,065	0.4204	0.4620	
55	\$ 528,351	\$ 217,976,721	0.0024	\$ 1,101,634	\$ 1,002,487	0.4796	0.5270	
56	\$ 347,574	\$ 193,000,767	0.0018	\$ 1,088,291	\$ 990,344	0.3194	0.3510	
57	\$ 617,809	\$ 168,217,639	0.0037	\$ 1,042,762	\$ 948,913	0.5925	0.6511	
58	\$ 862,218	\$ 146,247,781	0.0059	\$ 981,649	\$ 893,301	0.8783	0.9652	
59	\$ 482,082	\$ 120,690,428	0.0040	\$ 865,707	\$ 787,794	0.5569	0.6119	
60	\$ 651,279	\$ 102,628,313	0.0063	\$ 777,531	\$ 707,553	0.8376	0.9205	
61	\$ 384,734	\$ 87,431,195	0.0044	\$ 723,289	\$ 658,193	0.5319	0.5845	
62	\$ 671,117	\$ 77,341,186	0.0087	\$ 691,988	\$ 629,709	0.9698	1.0658	
63	\$ 402,180	\$ 75,176,072	0.0053	\$ 723,233	\$ 658,142	0.5561	0.6111	
64	\$ 470,040	\$ 76,697,419	0.0061	\$ 789,656	\$ 718,587	0.5952	0.6541	
65	\$ 693,074	\$ 76,817,671	0.0090	\$ 844,839	\$ 768,804	0.8204	0.9015	
66	\$ 672,157	\$ 81,519,031	0.0082	\$ 956,857	\$ 870,740	0.7025	0.7719	
67	\$ 899,738	\$ 86,275,756	0.0104	\$ 1,080,020	\$ 982,818	0.8331	0.9155	
68	\$ 1,176,704	\$ 87,175,726	0.0135	\$ 1,239,524	\$ 1,127,966	0.9493	1.0432	
69	\$ 1,001,148	\$ 87,036,310	0.0115	\$ 1,392,355	\$ 1,267,043	0.7190	0.7901	
70	\$ 1,373,086	\$ 91,056,631	0.0151	\$ 1,629,528	\$ 1,482,870	0.8426	0.9260	
71	\$ 1,938,303	\$ 93,068,374	0.0208	\$ 1,850,371	\$ 1,683,838	1.0475	1.1511	
72	\$ 1,648,258	\$ 93,341,772	0.0177	\$ 2,044,567	\$ 1,860,556	0.8062	0.8859	
73	\$ 1,681,993	\$ 89,114,265	0.0189	\$ 2,165,314	\$ 1,970,436	0.7768	0.8536	
74	\$ 1,336,463	\$ 77,662,746	0.0172	\$ 2,084,329	\$ 1,896,739	0.6412	0.7046	
75	\$ 1,556,656	\$ 64,349,453	0.0242	\$ 1,899,785	\$ 1,728,804	0.8194	0.9004	
76	\$ 1,424,368	\$ 51,429,967	0.0277	\$ 1,661,646	\$ 1,512,098	0.8572	0.9420	
77	\$ 2,185,504	\$ 44,129,755	0.0495	\$ 1,554,483	\$ 1,414,580	1.4059	1.5450	
78	\$ 1,589,480	\$ 36,431,414	0.0436	\$ 1,452,184	\$ 1,321,487	1.0945	1.2028	
79	\$ 959,588	\$ 29,858,998	0.0321	\$ 1,335,418	\$ 1,215,230	0.7186	0.7896	
80	\$ 1,539,275	\$ 26,234,301	0.0587	\$ 1,303,264	\$ 1,185,970	1.1811	1.2979	
81	\$ 1,345,720	\$ 21,247,848	0.0633	\$ 1,147,751	\$ 1,044,453	1.1725	1.2884	
82	\$ 953,388	\$ 17,814,296	0.0535	\$ 1,040,865	\$ 947,188	0.9160	1.0065	
83	\$ 1,376,021	\$ 15,491,334	0.0888	\$ 1,029,755	\$ 937,077	1.3363	1.4684	
84	\$ 1,151,432	\$ 15,301,046	0.0753	\$ 1,143,517	\$ 1,040,600	1.0069	1.1065	
85	\$ 1,052,284	\$ 14,218,015	0.0740	\$ 1,177,319	\$ 1,071,360	0.8938	0.9822	
86	\$ 1,383,315	\$ 12,810,949	0.1080	\$ 1,164,521	\$ 1,059,714	1.1879	1.3054	
87	\$ 1,384,913	\$ 11,108,814	0.1247	\$ 1,099,388	\$ 1,000,443	1.2597	1.3843	
88	\$ 1,164,748	\$ 8,068,505	0.1444	\$ 905,888	\$ 824,358	1.2858	1.4129	
89	\$ 912,229	\$ 6,065,547	0.1504	\$ 762,224	\$ 693,624	1.1968	1.3152	
90	\$ 886,064	\$ 4,632,780	0.1913	\$ 645,763	\$ 587,644	1.3721	1.5078	
91	\$ 756,245	\$ 3,901,620	0.1938	\$ 606,540	\$ 551,870	1.2470	1.3703	
92	\$ 735,937	\$ 3,095,018	0.2378	\$ 529,744	\$ 482,067	1.3892	1.5266	
93	\$ 551,316	\$ 2,202,251	0.2503	\$ 412,820	\$ 375,666	1.3355	1.4676	
94	\$ 496,948	\$ 1,744,733	0.2848	\$ 356,519	\$ 324,432	1.3939	1.5317	
95	\$ 222,891	\$ 1,065,016	0.2093	\$ 236,827	\$ 215,513	0.9412	1.0342	
96	\$ 211,313	\$ 808,272	0.2614	\$ 194,861	\$ 177,324	1.0844	1.1917	
97	\$ 154,239	\$ 605,774	0.2546	\$ 157,012	\$ 142,881	0.9823	1.0795	
98	\$ 225,334	\$ 435,543	0.5174	\$ 121,060	\$ 110,165	1.8613	2.0454	
99	\$ 113,739	\$ 232,897	0.4884	\$ 68,459	\$ 62,298	1.6614	1.8257	
100+	\$ 65,145	\$ 170,837	0.3813	\$ 54,208	\$ 49,329	1.2018	1.3206	
Total	\$ 45,861,623	\$ 4,599,172,386	0.0100	\$ 51,321,108	\$ 46,702,209	0.8936	0.9820	

Bolton

New York City Police Pension Fund
 Service Retirees' Mortality Assumption and Experience
 Liability Weighted Mortality - Women
 4-Year Period Ending 2017
 Proposed Rates are 91% of the Current Rates

(1)	(2)	(3)	(4) = (2)-(3)	(5)		(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 1,034,035	0.0000	\$ 625	\$ 569	0.0000	0.0000	
42	\$ -	\$ 3,933,828	0.0000	\$ 2,610	\$ 2,375	0.0000	0.0000	
43	\$ -	\$ 9,330,150	0.0000	\$ 6,918	\$ 6,295	0.0000	0.0000	
44	\$ -	\$ 14,959,727	0.0000	\$ 12,577	\$ 11,445	0.0000	0.0000	
45	\$ -	\$ 19,114,282	0.0000	\$ 18,486	\$ 16,822	0.0000	0.0000	
46	\$ -	\$ 22,724,498	0.0000	\$ 25,708	\$ 23,394	0.0000	0.0000	
47	\$ -	\$ 26,198,170	0.0000	\$ 34,620	\$ 31,504	0.0000	0.0000	
48	\$ 33,573	\$ 31,140,025	0.0011	\$ 48,006	\$ 43,685	0.6994	0.7685	
49	\$ -	\$ 40,080,685	0.0000	\$ 70,368	\$ 64,035	0.0000	0.0000	
50	\$ 51,714	\$ 45,159,229	0.0011	\$ 85,493	\$ 77,799	0.6049	0.6647	
51	\$ 92,930	\$ 46,965,397	0.0020	\$ 94,823	\$ 86,289	0.9800	1.0770	
52	\$ 47,284	\$ 49,408,973	0.0010	\$ 104,800	\$ 95,368	0.4512	0.4958	
53	\$ 52,928	\$ 47,082,752	0.0011	\$ 103,900	\$ 94,549	0.5094	0.5598	
54	\$ 33,643	\$ 43,841,831	0.0008	\$ 124,056	\$ 112,891	0.2712	0.2980	
55	\$ -	\$ 40,189,531	0.0000	\$ 136,029	\$ 123,786	0.0000	0.0000	
56	\$ 257,060	\$ 33,766,682	0.0076	\$ 131,429	\$ 119,600	1.9559	2.1493	
57	\$ 218,150	\$ 29,993,246	0.0073	\$ 130,614	\$ 118,859	1.6702	1.8354	
58	\$ 66,985	\$ 27,133,555	0.0025	\$ 124,071	\$ 112,905	0.5399	0.5933	
59	\$ 32,648	\$ 22,761,432	0.0014	\$ 112,110	\$ 102,020	0.2912	0.3200	
60	\$ 30,731	\$ 18,693,607	0.0016	\$ 98,336	\$ 89,485	0.3125	0.3434	
61	\$ -	\$ 14,051,174	0.0000	\$ 78,622	\$ 71,546	0.0000	0.0000	
62	\$ -	\$ 10,254,762	0.0000	\$ 60,534	\$ 55,086	0.0000	0.0000	
63	\$ 30,415	\$ 8,334,087	0.0036	\$ 51,760	\$ 47,102	0.5876	0.6457	
64	\$ 27,712	\$ 6,095,099	0.0045	\$ 41,716	\$ 37,961	0.6643	0.7300	
65	\$ -	\$ 4,132,539	0.0000	\$ 31,100	\$ 28,301	0.0000	0.0000	
66	\$ -	\$ 2,937,666	0.0000	\$ 24,455	\$ 22,254	0.0000	0.0000	
67	\$ -	\$ 2,458,968	0.0000	\$ 22,439	\$ 20,419	0.0000	0.0000	
68	\$ 73,799	\$ 2,465,347	0.0299	\$ 24,449	\$ 22,248	3.0185	3.3171	
69	\$ -	\$ 2,166,890	0.0000	\$ 23,647	\$ 21,518	0.0000	0.0000	
70	\$ -	\$ 2,293,381	0.0000	\$ 27,128	\$ 24,686	0.0000	0.0000	
71	\$ 74,373	\$ 2,068,373	0.0360	\$ 28,240	\$ 25,698	2.6336	2.8941	
72	\$ 38,903	\$ 2,449,761	0.0159	\$ 38,322	\$ 34,873	1.0152	1.1156	
73	\$ 63,609	\$ 2,078,727	0.0306	\$ 36,532	\$ 33,244	1.7412	1.9134	
74	\$ 80,412	\$ 1,748,283	0.0460	\$ 34,214	\$ 31,134	2.3503	2.5827	
75	\$ -	\$ 1,497,258	0.0000	\$ 32,722	\$ 29,777	0.0000	0.0000	
76	\$ 22,439	\$ 834,371	0.0269	\$ 20,559	\$ 18,709	1.0914	1.1994	
77	\$ -	\$ 952,966	0.0000	\$ 26,017	\$ 23,676	0.0000	0.0000	
78	\$ 21,341	\$ 978,762	0.0218	\$ 29,577	\$ 26,915	0.7215	0.7929	
79	\$ 50,429	\$ 782,608	0.0644	\$ 25,875	\$ 23,546	1.9489	2.1417	
80	\$ -	\$ 785,996	0.0000	\$ 28,434	\$ 25,875	0.0000	0.0000	
81	\$ 12,955	\$ 566,680	0.0229	\$ 23,408	\$ 21,301	0.5534	0.6082	
82	\$ 14,185	\$ 422,683	0.0336	\$ 19,582	\$ 17,820	0.7244	0.7960	
83	\$ 20,993	\$ 318,849	0.0658	\$ 16,391	\$ 14,916	1.2808	1.4074	
84	\$ -	\$ 231,369	0.0000	\$ 13,035	\$ 11,862	0.0000	0.0000	
85	\$ -	\$ 128,309	0.0000	\$ 7,833	\$ 7,128	0.0000	0.0000	
86	\$ -	\$ 171,856	0.0000	\$ 11,825	\$ 10,761	0.0000	0.0000	
87	\$ 19,566	\$ 199,695	0.0980	\$ 15,263	\$ 13,889	1.2819	1.4087	
88	\$ 27,719	\$ 149,413	0.1855	\$ 12,673	\$ 11,532	2.1873	2.4036	
89	\$ -	\$ 110,984	0.0000	\$ 10,146	\$ 9,233	0.0000	0.0000	
90	\$ -	\$ 94,432	0.0000	\$ 9,480	\$ 8,627	0.0000	0.0000	
91	\$ -	\$ 84,047	0.0000	\$ 9,618	\$ 8,752	0.0000	0.0000	
92	\$ 19,136	\$ 75,694	0.2528	\$ 9,738	\$ 8,861	1.9651	2.1595	
93	\$ -	\$ 56,558	0.0000	\$ 7,920	\$ 7,207	0.0000	0.0000	
94	\$ -	\$ 29,981	0.0000	\$ 4,627	\$ 4,211	0.0000	0.0000	
95	\$ -	\$ 17,687	0.0000	\$ 2,928	\$ 2,664	0.0000	0.0000	
96	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
97	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
98	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
99	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
100+	\$ -	\$ -	N/A	\$ -	\$ -	N/A	N/A	
Total	\$ 1,515,632	\$ 645,536,890	0.0023	\$ 2,326,383	\$ 2,117,009	0.6515	0.7159	

Bolton		New York City Police Pension Fund						
		Service Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Men and Women 4-Year Period Ending 2017 Proposed Rates are 91% of the Current Rates						
(1)	(2)	(3)	(4) = (2)-(3)	(5)		(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 4,541,023	0.0000	\$ 3,878	\$ 3,529	0.0000	0.0000	
42	\$ 120,690	\$ 21,783,138	0.0055	\$ 20,743	\$ 18,876	5.8184	6.3938	
43	\$ -	\$ 52,121,260	0.0000	\$ 53,964	\$ 49,108	0.0000	0.0000	
44	\$ 298,741	\$ 86,923,589	0.0034	\$ 98,093	\$ 89,264	3.0455	3.3467	
45	\$ 209,891	\$ 119,666,030	0.0018	\$ 147,422	\$ 134,154	1.4237	1.5646	
46	\$ 47,880	\$ 149,273,184	0.0003	\$ 201,985	\$ 183,806	0.2370	0.2605	
47	\$ 203,475	\$ 175,853,782	0.0012	\$ 261,118	\$ 237,618	0.7792	0.8563	
48	\$ 412,088	\$ 212,271,136	0.0019	\$ 345,434	\$ 314,345	1.1930	1.3109	
49	\$ 319,798	\$ 248,577,885	0.0013	\$ 440,096	\$ 400,487	0.7267	0.7985	
50	\$ 328,515	\$ 271,911,794	0.0012	\$ 518,823	\$ 472,129	0.6332	0.6958	
51	\$ 696,503	\$ 285,051,503	0.0024	\$ 705,963	\$ 642,426	0.9866	1.0842	
52	\$ 414,002	\$ 290,938,377	0.0014	\$ 888,995	\$ 808,985	0.4657	0.5118	
53	\$ 404,404	\$ 285,598,779	0.0014	\$ 1,043,449	\$ 949,538	0.3876	0.4259	
54	\$ 481,308	\$ 273,703,702	0.0018	\$ 1,188,963	\$ 1,081,956	0.4048	0.4448	
55	\$ 528,351	\$ 258,166,252	0.0020	\$ 1,237,663	\$ 1,126,273	0.4269	0.4691	
56	\$ 604,634	\$ 226,767,449	0.0027	\$ 1,219,719	\$ 1,109,944	0.4957	0.5447	
57	\$ 835,959	\$ 198,210,885	0.0042	\$ 1,173,376	\$ 1,067,773	0.7124	0.7829	
58	\$ 929,203	\$ 173,381,336	0.0054	\$ 1,105,721	\$ 1,006,206	0.8404	0.9235	
59	\$ 514,730	\$ 143,451,860	0.0036	\$ 977,817	\$ 889,813	0.5264	0.5785	
60	\$ 682,010	\$ 121,321,920	0.0056	\$ 875,867	\$ 797,039	0.7787	0.8557	
61	\$ 384,734	\$ 101,482,369	0.0038	\$ 801,910	\$ 729,738	0.4798	0.5272	
62	\$ 671,117	\$ 87,595,948	0.0077	\$ 752,523	\$ 684,796	0.8918	0.9800	
63	\$ 432,595	\$ 83,510,159	0.0052	\$ 774,993	\$ 705,243	0.5582	0.6134	
64	\$ 497,752	\$ 82,792,518	0.0060	\$ 831,371	\$ 756,548	0.5987	0.6579	
65	\$ 693,074	\$ 80,950,210	0.0086	\$ 875,939	\$ 797,105	0.7912	0.8695	
66	\$ 672,157	\$ 84,456,697	0.0080	\$ 981,312	\$ 892,994	0.6850	0.7527	
67	\$ 899,738	\$ 88,734,724	0.0101	\$ 1,102,459	\$ 1,003,237	0.8161	0.8968	
68	\$ 1,250,503	\$ 89,641,073	0.0140	\$ 1,263,972	\$ 1,150,215	0.9893	1.0872	
69	\$ 1,001,148	\$ 89,203,200	0.0112	\$ 1,416,001	\$ 1,288,561	0.7070	0.7770	
70	\$ 1,373,086	\$ 93,350,012	0.0147	\$ 1,656,655	\$ 1,507,556	0.8288	0.9108	
71	\$ 2,012,676	\$ 95,136,747	0.0212	\$ 1,878,611	\$ 1,709,536	1.0714	1.1773	
72	\$ 1,687,161	\$ 95,791,533	0.0176	\$ 2,082,889	\$ 1,895,429	0.8100	0.8901	
73	\$ 1,745,602	\$ 91,192,992	0.0191	\$ 2,201,847	\$ 2,003,680	0.7928	0.8712	
74	\$ 1,416,875	\$ 79,411,029	0.0178	\$ 2,118,543	\$ 1,927,874	0.6688	0.7349	
75	\$ 1,556,656	\$ 65,846,711	0.0236	\$ 1,932,507	\$ 1,758,581	0.8055	0.8852	
76	\$ 1,446,807	\$ 52,264,338	0.0277	\$ 1,682,205	\$ 1,530,807	0.8601	0.9451	
77	\$ 2,185,504	\$ 45,082,721	0.0485	\$ 1,580,500	\$ 1,438,255	1.3828	1.5196	
78	\$ 1,610,821	\$ 37,410,176	0.0431	\$ 1,481,760	\$ 1,348,402	1.0871	1.1946	
79	\$ 1,010,017	\$ 30,641,606	0.0330	\$ 1,361,293	\$ 1,238,777	0.7420	0.8153	
80	\$ 1,539,275	\$ 27,020,297	0.0570	\$ 1,331,698	\$ 1,211,845	1.1559	1.2702	
81	\$ 1,358,675	\$ 21,814,528	0.0623	\$ 1,171,159	\$ 1,065,754	1.1601	1.2748	
82	\$ 967,573	\$ 18,236,979	0.0531	\$ 1,060,448	\$ 965,007	0.9124	1.0027	
83	\$ 1,397,014	\$ 15,810,183	0.0884	\$ 1,046,146	\$ 951,993	1.3354	1.4675	
84	\$ 1,151,432	\$ 15,532,415	0.0741	\$ 1,156,551	\$ 1,052,462	0.9956	1.0940	
85	\$ 1,052,284	\$ 14,346,324	0.0733	\$ 1,185,152	\$ 1,078,488	0.8879	0.9757	
86	\$ 1,383,315	\$ 12,982,805	0.1065	\$ 1,176,346	\$ 1,070,475	1.1759	1.2922	
87	\$ 1,404,479	\$ 11,308,509	0.1242	\$ 1,114,651	\$ 1,014,332	1.2600	1.3846	
88	\$ 1,192,467	\$ 8,217,918	0.1451	\$ 918,561	\$ 835,890	1.2982	1.4266	
89	\$ 912,229	\$ 6,176,531	0.1477	\$ 772,370	\$ 702,856	1.1811	1.2979	
90	\$ 886,064	\$ 4,727,212	0.1874	\$ 655,242	\$ 596,271	1.3523	1.4860	
91	\$ 756,245	\$ 3,985,667	0.1897	\$ 616,068	\$ 560,622	1.2275	1.3489	
92	\$ 755,073	\$ 3,170,712	0.2381	\$ 539,481	\$ 490,928	1.3996	1.5381	
93	\$ 551,316	\$ 2,258,809	0.2441	\$ 420,740	\$ 382,873	1.3103	1.4399	
94	\$ 496,948	\$ 1,774,714	0.2800	\$ 361,146	\$ 328,643	1.3760	1.5121	
95	\$ 222,891	\$ 1,082,703	0.2059	\$ 239,755	\$ 218,177	0.9297	1.0216	
96	\$ 211,313	\$ 808,272	0.2614	\$ 194,861	\$ 177,324	1.0844	1.1917	
97	\$ 154,239	\$ 605,774	0.2546	\$ 157,012	\$ 142,881	0.9823	1.0795	
98	\$ 225,334	\$ 435,543	0.5174	\$ 121,060	\$ 110,165	1.8613	2.0454	
99	\$ 113,739	\$ 232,897	0.4884	\$ 68,459	\$ 62,298	1.6614	1.8257	
100+	\$ 65,145	\$ 170,837	0.3813	\$ 54,208	\$ 49,329	1.2018	1.3206	
Total	\$ 47,377,255	\$ 5,244,709,276	0.0090	\$ 53,647,492	\$ 48,819,217	0.8831	0.9705	

Bolton				New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Men 10-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates			
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	706	0.0000	0.60	0.60	0.0000	0.0000
42	4	1,695	0.0024	2.00	2.00	2.0000	2.0000
43	2	2,976	0.0007	3.70	3.70	0.5405	0.5405
44	6	4,411	0.0014	6.00	6.00	1.0000	1.0000
45	9	5,753	0.0016	8.30	8.30	1.0843	1.0843
46	7	7,039	0.0010	11.20	11.20	0.6250	0.6250
47	9	8,087	0.0011	13.60	13.60	0.6618	0.6618
48	18	8,925	0.0020	16.40	16.40	1.0976	1.0976
49	17	9,587	0.0018	18.60	18.60	0.9140	0.9140
50	17	9,917	0.0017	20.40	20.40	0.8333	0.8333
51	25	9,942	0.0025	27.20	27.20	0.9191	0.9191
52	23	9,637	0.0024	32.90	32.90	0.6991	0.6991
53	22	9,108	0.0024	37.40	37.40	0.5882	0.5882
54	23	8,475	0.0027	40.50	40.50	0.5679	0.5679
55	24	7,806	0.0031	40.40	40.40	0.5941	0.5941
56	19	7,017	0.0027	40.30	40.30	0.4715	0.4715
57	23	6,320	0.0036	40.00	40.00	0.5750	0.5750
58	34	5,798	0.0059	39.50	39.50	0.8608	0.8608
59	27	5,355	0.0050	39.00	39.00	0.6923	0.6923
60	34	5,203	0.0065	40.10	40.10	0.8479	0.8479
61	32	5,172	0.0062	43.70	43.70	0.7323	0.7323
62	43	5,221	0.0082	48.10	48.10	0.8940	0.8940
63	41	5,412	0.0076	53.90	53.90	0.7607	0.7607
64	59	5,874	0.0100	63.10	63.10	0.9350	0.9350
65	59	6,324	0.0093	73.20	73.20	0.8060	0.8060
66	71	6,672	0.0106	82.40	82.40	0.8617	0.8617
67	96	6,846	0.0140	90.40	90.40	1.0619	1.0619
68	98	6,912	0.0142	103.60	103.60	0.9459	0.9459
69	116	6,890	0.0168	116.30	116.30	0.9974	0.9974
70	107	6,655	0.0161	125.20	125.20	0.8546	0.8546
71	126	6,436	0.0196	133.90	133.90	0.9410	0.9410
72	141	6,187	0.0228	141.70	141.70	0.9951	0.9951
73	137	5,826	0.0235	148.00	148.00	0.9257	0.9257
74	146	5,288	0.0276	148.50	148.50	0.9832	0.9832
75	128	4,653	0.0275	143.80	143.80	0.8901	0.8901
76	146	4,186	0.0349	141.90	141.90	1.0289	1.0289
77	169	3,805	0.0444	140.50	140.50	1.2028	1.2028
78	173	3,582	0.0483	150.70	150.70	1.1480	1.1480
79	158	3,333	0.0474	157.60	157.60	1.0025	1.0025
80	203	3,153	0.0644	165.60	165.60	1.2258	1.2258
81	180	2,900	0.0621	165.50	165.50	1.0876	1.0876
82	181	2,716	0.0666	167.60	167.60	1.0800	1.0800
83	201	2,538	0.0792	177.70	177.70	1.1311	1.1311
84	196	2,354	0.0833	184.50	184.50	1.0623	1.0623
85	185	2,237	0.0827	194.50	194.50	0.9512	0.9512
86	242	2,046	0.1183	195.10	195.10	1.2404	1.2404
87	204	1,797	0.1135	186.40	186.40	1.0944	1.0944
88	226	1,507	0.1500	177.30	177.30	1.2747	1.2747
89	189	1,244	0.1519	164.00	164.00	1.1524	1.1524
90	191	1,056	0.1809	154.10	154.10	1.2395	1.2395
91	160	848	0.1887	137.30	137.30	1.1653	1.1653
92	138	673	0.2051	120.10	120.10	1.1490	1.1490
93	122	506	0.2411	98.50	98.50	1.2386	1.2386
94	92	357	0.2577	75.30	75.30	1.2218	1.2218
95	59	239	0.2469	55.00	55.00	1.0727	1.0727
96	35	157	0.2229	38.90	38.90	0.8997	0.8997
97	28	110	0.2545	29.30	29.30	0.9556	0.9556
98	30	69	0.4348	19.50	19.50	1.5385	1.5385
99	14	42	0.3333	12.50	12.50	1.1200	1.1200
100+	15	48	0.3125	15.60	15.60	0.9615	0.9615
Total	5,280	265,628	0.0199	5,118.90	5,118.90	1.0315	1.0315

Bolton				New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Women 10-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates			
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	1	137	0.0000	0.00	0.00	N/A	N/A
42	0	357	0.0000	0.10	0.10	0.0000	0.0000
43	0	636	0.0000	0.50	0.50	0.0000	0.0000
44	2	917	0.0022	1.00	1.00	2.0000	2.0000
45	0	1,162	0.0000	1.30	1.30	0.0000	0.0000
46	1	1,416	0.0007	1.70	1.70	0.5882	0.5882
47	1	1,644	0.0006	2.30	2.30	0.4348	0.4348
48	3	1,807	0.0017	2.90	2.90	1.0345	1.0345
49	0	1,957	0.0000	3.70	3.70	0.0000	0.0000
50	2	2,051	0.0010	4.00	4.00	0.5000	0.5000
51	3	2,100	0.0014	4.40	4.40	0.6818	0.6818
52	1	2,071	0.0005	4.60	4.60	0.2174	0.2174
53	2	1,894	0.0011	4.10	4.10	0.4878	0.4878
54	3	1,748	0.0017	4.90	4.90	0.6122	0.6122
55	2	1,575	0.0013	5.40	5.40	0.3704	0.3704
56	7	1,326	0.0053	5.20	5.20	1.3462	1.3462
57	6	1,107	0.0054	4.70	4.70	1.2766	1.2766
58	2	931	0.0021	4.30	4.30	0.4651	0.4651
59	3	786	0.0038	3.90	3.90	0.7692	0.7692
60	3	644	0.0047	3.40	3.40	0.8824	0.8824
61	0	487	0.0000	2.70	2.70	0.0000	0.0000
62	0	378	0.0000	2.20	2.20	0.0000	0.0000
63	3	322	0.0093	2.00	2.00	1.5000	1.5000
64	2	263	0.0076	1.90	1.90	1.0526	1.0526
65	0	212	0.0000	1.60	1.60	0.0000	0.0000
66	1	200	0.0050	1.80	1.80	0.5556	0.5556
67	1	175	0.0057	1.80	1.80	0.5556	0.5556
68	3	168	0.0179	1.90	1.90	1.5789	1.5789
69	2	155	0.0129	1.80	1.80	1.1111	1.1111
70	1	146	0.0068	1.70	1.70	0.5882	0.5882
71	3	139	0.0216	2.00	2.00	1.5000	1.5000
72	2	130	0.0154	2.00	2.00	1.0000	1.0000
73	2	116	0.0172	2.20	2.20	0.9091	0.9091
74	3	105	0.0286	2.10	2.10	1.4286	1.4286
75	1	94	0.0106	2.20	2.20	0.4545	0.4545
76	2	70	0.0286	1.80	1.80	1.1111	1.1111
77	0	63	0.0000	1.60	1.60	0.0000	0.0000
78	3	64	0.0469	2.00	2.00	1.5000	1.5000
79	3	55	0.0545	1.80	1.80	1.6667	1.6667
80	0	55	0.0000	2.00	2.00	0.0000	0.0000
81	2	49	0.0408	2.10	2.10	0.9524	0.9524
82	2	48	0.0417	2.30	2.30	0.8696	0.8696
83	3	42	0.0714	2.40	2.40	1.2500	1.2500
84	4	41	0.0976	2.40	2.40	1.6667	1.6667
85	1	35	0.0286	2.30	2.30	0.4348	0.4348
86	2	36	0.0556	2.60	2.60	0.7692	0.7692
87	3	36	0.0833	2.90	2.90	1.0345	1.0345
88	4	28	0.1429	2.50	2.50	1.6000	1.6000
89	1	25	0.0400	2.50	2.50	0.4000	0.4000
90	4	21	0.1905	2.10	2.10	1.9048	1.9048
91	2	15	0.1333	1.60	1.60	1.2500	1.2500
92	3	10	0.3000	1.30	1.30	2.3077	2.3077
93	0	7	0.0000	1.00	1.00	0.0000	0.0000
94	1	4	0.2500	0.70	0.70	1.4286	1.4286
95	0	3	0.0000	0.50	0.50	0.0000	0.0000
96	1	2	0.5000	0.40	0.40	2.5000	2.5000
97	0	2	0.0000	0.40	0.40	0.0000	0.0000
98	0	1	0.0000	0.20	0.20	0.0000	0.0000
99	0	1	0.0000	0.20	0.20	0.0000	0.0000
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	107	30,069	0.0036	131.90	131.90	0.8112	0.8112

Bolton				New York City Police Pension Fund Service Retirees' Mortality Assumption and Experience Men and Women 10-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates			
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	1	843	0.0000	0.60	0.60	1.6667	1.6667
42	4	2,052	0.0019	2.10	2.10	1.9048	1.9048
43	2	3,612	0.0006	4.20	4.20	0.4762	0.4762
44	8	5,328	0.0015	7.00	7.00	1.1429	1.1429
45	9	6,915	0.0013	9.60	9.60	0.9375	0.9375
46	8	8,455	0.0009	12.90	12.90	0.6202	0.6202
47	10	9,731	0.0010	15.90	15.90	0.6289	0.6289
48	21	10,732	0.0020	19.30	19.30	1.0881	1.0881
49	17	11,544	0.0015	22.30	22.30	0.7623	0.7623
50	19	11,968	0.0016	24.40	24.40	0.7787	0.7787
51	28	12,042	0.0023	31.60	31.60	0.8861	0.8861
52	24	11,708	0.0020	37.50	37.50	0.6400	0.6400
53	24	11,002	0.0022	41.50	41.50	0.5783	0.5783
54	26	10,223	0.0025	45.40	45.40	0.5727	0.5727
55	26	9,381	0.0028	45.80	45.80	0.5677	0.5677
56	26	8,343	0.0031	45.50	45.50	0.5714	0.5714
57	29	7,427	0.0039	44.70	44.70	0.6488	0.6488
58	36	6,729	0.0053	43.80	43.80	0.8219	0.8219
59	30	6,141	0.0049	42.90	42.90	0.6993	0.6993
60	37	5,847	0.0063	43.50	43.50	0.8506	0.8506
61	32	5,659	0.0057	46.40	46.40	0.6897	0.6897
62	43	5,599	0.0077	50.30	50.30	0.8549	0.8549
63	44	5,734	0.0077	55.90	55.90	0.7871	0.7871
64	61	6,137	0.0099	65.00	65.00	0.9385	0.9385
65	59	6,536	0.0090	74.80	74.80	0.7888	0.7888
66	72	6,872	0.0105	84.20	84.20	0.8551	0.8551
67	97	7,021	0.0138	92.20	92.20	1.0521	1.0521
68	101	7,080	0.0143	105.50	105.50	0.9573	0.9573
69	118	7,045	0.0167	118.10	118.10	0.9992	0.9992
70	108	6,801	0.0159	126.90	126.90	0.8511	0.8511
71	129	6,575	0.0196	135.90	135.90	0.9492	0.9492
72	143	6,317	0.0226	143.70	143.70	0.9951	0.9951
73	139	5,942	0.0234	150.20	150.20	0.9254	0.9254
74	149	5,393	0.0276	150.60	150.60	0.9894	0.9894
75	129	4,747	0.0272	146.00	146.00	0.8836	0.8836
76	148	4,256	0.0348	143.70	143.70	1.0299	1.0299
77	169	3,868	0.0437	142.10	142.10	1.1893	1.1893
78	176	3,646	0.0483	152.70	152.70	1.1526	1.1526
79	161	3,388	0.0475	159.40	159.40	1.0100	1.0100
80	203	3,208	0.0633	167.60	167.60	1.2112	1.2112
81	182	2,949	0.0617	167.60	167.60	1.0859	1.0859
82	183	2,764	0.0662	169.90	169.90	1.0771	1.0771
83	204	2,580	0.0791	180.10	180.10	1.1327	1.1327
84	200	2,395	0.0835	186.90	186.90	1.0701	1.0701
85	186	2,272	0.0819	196.80	196.80	0.9451	0.9451
86	244	2,082	0.1172	197.70	197.70	1.2342	1.2342
87	207	1,833	0.1129	189.30	189.30	1.0935	1.0935
88	230	1,535	0.1498	179.80	179.80	1.2792	1.2792
89	190	1,269	0.1497	166.50	166.50	1.1411	1.1411
90	195	1,077	0.1811	156.20	156.20	1.2484	1.2484
91	162	863	0.1877	138.90	138.90	1.1663	1.1663
92	141	683	0.2064	121.40	121.40	1.1614	1.1614
93	122	513	0.2378	99.50	99.50	1.2261	1.2261
94	93	361	0.2576	76.00	76.00	1.2237	1.2237
95	59	242	0.2438	55.50	55.50	1.0631	1.0631
96	36	159	0.2264	39.30	39.30	0.9160	0.9160
97	28	112	0.2500	29.70	29.70	0.9428	0.9428
98	30	70	0.4286	19.70	19.70	1.5228	1.5228
99	14	43	0.3256	12.70	12.70	1.1024	1.1024
100+	15	48	0.3125	15.60	15.60	0.9615	0.9615
Total	5,387	295,697	0.0182	5,250.80	5,250.80	1.0259	1.0259

Bolton

**New York City Police Pension Fund
Service Retirees' Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	532	27,485	502.30	1.0591	0.0194	0.0183
2009	526	27,773	507.60	1.0362	0.0189	0.0183
2010	502	27,648	512.60	0.9793	0.0182	0.0185
2011	551	27,947	518.40	1.0629	0.0197	0.0185
2012	506	29,002	521.10	0.9710	0.0174	0.0180
2013	557	29,890	529.80	1.0513	0.0186	0.0177
2014	529	30,200	531.70	0.9949	0.0175	0.0176
2015	593	31,454	538.40	1.1014	0.0189	0.0171
2016	538	32,011	539.50	0.9972	0.0168	0.0169
2017	553	32,425	549.50	1.0064	0.0171	0.0169
Total	5,387	295,835	5,250.90	1.0259	0.0182	0.0177

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 41)

New York City Police Pension Fund Disability Retirees' Mortality Assumption and Experience Mortality By Lives - Men 4-Year Period Ending 2017 Proposed Rates are 97% of the Current Rates							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	446	0.0000	0.60	0.58	0.0000	0.0000
42	2	640	0.0031	1.10	1.07	1.8182	1.8744
43	3	882	0.0034	1.50	1.46	2.0000	2.0619
44	0	1,148	0.0000	2.10	2.04	0.0000	0.0000
45	4	1,369	0.0029	2.80	2.72	1.4286	1.4728
46	3	1,468	0.0020	3.10	3.01	0.9677	0.9977
47	4	1,514	0.0026	3.30	3.20	1.2121	1.2496
48	7	1,566	0.0045	3.60	3.49	1.9444	2.0046
49	4	1,610	0.0025	4.90	4.75	0.8163	0.8416
50	1	1,689	0.0006	6.30	6.11	0.1587	0.1636
51	8	1,725	0.0046	7.60	7.37	1.0526	1.0852
52	8	1,675	0.0048	8.40	8.15	0.9524	0.9818
53	4	1,618	0.0025	8.60	8.34	0.4651	0.4795
54	9	1,534	0.0059	8.70	8.44	1.0345	1.0665
55	4	1,356	0.0029	8.40	8.15	0.4762	0.4909
56	6	1,252	0.0048	8.40	8.15	0.7143	0.7364
57	4	1,111	0.0036	8.10	7.86	0.4938	0.5091
58	4	959	0.0042	7.40	7.18	0.5405	0.5573
59	8	818	0.0098	7.10	6.89	1.1268	1.1616
60	9	656	0.0137	6.10	5.92	1.4754	1.5210
61	4	600	0.0067	6.10	5.92	0.6557	0.6760
62	3	616	0.0049	6.70	6.50	0.4478	0.4616
63	9	720	0.0125	8.20	7.95	1.0976	1.1315
64	12	935	0.0128	11.50	11.16	1.0435	1.0758
65	14	1,101	0.0127	14.30	13.87	0.9790	1.0093
66	14	1,299	0.0108	18.90	18.33	0.7407	0.7637
67	19	1,497	0.0127	24.20	23.47	0.7851	0.8094
68	40	1,598	0.0250	28.70	27.84	1.3937	1.4368
69	26	1,648	0.0158	32.70	31.72	0.7951	0.8197
70	39	1,750	0.0223	38.50	37.35	1.0130	1.0443
71	39	1,814	0.0215	44.30	42.97	0.8804	0.9076
72	35	1,798	0.0195	48.30	46.85	0.7246	0.7470
73	47	1,704	0.0276	50.50	48.99	0.9307	0.9595
74	39	1,448	0.0269	46.90	45.49	0.8316	0.8573
75	37	1,152	0.0321	40.40	39.19	0.9158	0.9442
76	37	991	0.0373	39.80	38.61	0.9296	0.9584
77	30	848	0.0354	38.10	36.96	0.7874	0.8118
78	43	766	0.0561	38.10	36.96	1.1286	1.1635
79	37	676	0.0547	36.70	35.60	1.0082	1.0394
80	32	583	0.0549	34.20	33.17	0.9357	0.9646
81	34	546	0.0623	36.20	35.11	0.9392	0.9683
82	40	521	0.0768	38.70	37.54	1.0336	1.0656
83	49	504	0.0972	41.50	40.26	1.1807	1.2172
84	46	502	0.0916	45.30	43.94	1.0155	1.0469
85	31	512	0.0605	50.60	49.08	0.6126	0.6316
86	45	495	0.0909	55.90	54.22	0.8050	0.8299
87	63	479	0.1315	60.00	58.20	1.0500	1.0825
88	56	407	0.1376	56.40	54.71	0.9929	1.0236
89	43	310	0.1387	47.90	46.46	0.8977	0.9255
90	41	251	0.1633	42.70	41.42	0.9602	0.9899
91	26	186	0.1398	34.50	33.47	0.7536	0.7769
92	29	135	0.2148	27.20	26.38	1.0662	1.0992
93	20	93	0.2151	20.50	19.89	0.9756	1.0058
94	20	71	0.2817	17.00	16.49	1.1765	1.2129
95	13	41	0.3171	10.50	10.19	1.2381	1.2764
96	6	31	0.1935	8.50	8.25	0.7059	0.7277
97	3	25	0.1200	7.40	7.18	0.4054	0.4179
98	5	13	0.3846	3.90	3.78	1.2821	1.3217
99	4	10	0.4000	3.30	3.20	1.2121	1.2496
100+	3	9	0.3333	3.20	3.10	0.9375	0.9665
Total	1,225	53,721	0.0228	1,326.40	1,286.61	0.9236	0.9521

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q_x as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: white; padding: 5px; border: 1px solid black; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> New York City Police Pension Fund Disability Retirees' Mortality Assumption and Experience Mortality By Lives - Women 4-Year Period Ending 2017 Proposed Rates are 97% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(6)		(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	88	0.0000	0.00	0.00	N/A	N/A
42	0	133	0.0000	0.00	0.00	N/A	N/A
43	0	169	0.0000	0.10	0.10	0.0000	0.0000
44	0	203	0.0000	0.30	0.29	0.0000	0.0000
45	1	256	0.0039	0.40	0.39	2.5000	2.5773
46	0	268	0.0000	0.40	0.39	0.0000	0.0000
47	0	295	0.0000	0.40	0.39	0.0000	0.0000
48	1	322	0.0031	0.60	0.58	1.6667	1.7182
49	1	353	0.0028	0.80	0.78	1.2500	1.2887
50	2	388	0.0052	1.00	0.97	2.0000	2.0619
51	5	403	0.0124	1.20	1.16	4.1667	4.2955
52	1	393	0.0025	1.30	1.26	0.7692	0.7930
53	1	367	0.0027	1.30	1.26	0.7692	0.7930
54	0	315	0.0000	1.30	1.26	0.0000	0.0000
55	1	286	0.0035	1.40	1.36	0.7143	0.7364
56	1	260	0.0038	1.30	1.26	0.7692	0.7930
57	4	219	0.0183	1.20	1.16	3.3333	3.4364
58	2	195	0.0103	1.10	1.07	1.8182	1.8744
59	0	150	0.0000	0.80	0.78	0.0000	0.0000
60	1	120	0.0083	0.70	0.68	1.4286	1.4728
61	1	94	0.0106	0.60	0.58	1.6667	1.7182
62	0	76	0.0000	0.60	0.58	0.0000	0.0000
63	1	72	0.0139	0.50	0.49	2.0000	2.0619
64	1	58	0.0172	0.50	0.49	2.0000	2.0619
65	0	53	0.0000	0.50	0.49	0.0000	0.0000
66	1	53	0.0189	0.50	0.49	2.0000	2.0619
67	0	45	0.0000	0.40	0.39	0.0000	0.0000
68	1	48	0.0208	0.50	0.49	2.0000	2.0619
69	2	45	0.0444	0.60	0.58	3.3333	3.4364
70	0	42	0.0000	0.60	0.58	0.0000	0.0000
71	1	47	0.0213	0.80	0.78	1.2500	1.2887
72	0	45	0.0000	1.00	0.97	0.0000	0.0000
73	1	38	0.0263	0.80	0.78	1.2500	1.2887
74	0	29	0.0000	0.60	0.58	0.0000	0.0000
75	0	19	0.0000	0.40	0.39	0.0000	0.0000
76	1	10	0.1000	0.20	0.19	5.0000	5.1546
77	0	18	0.0000	0.50	0.49	0.0000	0.0000
78	0	20	0.0000	0.70	0.68	0.0000	0.0000
79	1	19	0.0526	0.80	0.78	1.2500	1.2887
80	0	17	0.0000	0.80	0.78	0.0000	0.0000
81	0	9	0.0000	0.50	0.49	0.0000	0.0000
82	1	9	0.1111	0.50	0.49	2.0000	2.0619
83	1	6	0.1667	0.40	0.39	2.5000	2.5773
84	0	7	0.0000	0.50	0.49	0.0000	0.0000
85	0	8	0.0000	0.70	0.68	0.0000	0.0000
86	1	10	0.1000	0.80	0.78	1.2500	1.2887
87	1	11	0.0909	1.10	1.07	0.9091	0.9372
88	1	9	0.1111	0.90	0.87	1.1111	1.1455
89	1	11	0.0909	1.10	1.07	0.9091	0.9372
90	2	9	0.2222	1.20	1.16	1.6667	1.7182
91	0	5	0.0000	0.70	0.68	0.0000	0.0000
92	0	3	0.0000	0.40	0.39	0.0000	0.0000
93	0	1	0.0000	0.20	0.19	0.0000	0.0000
94	2	2	1.0000	0.40	0.39	5.0000	5.1546
95	0	2	0.0000	0.40	0.39	0.0000	0.0000
96	2	2	1.0000	0.40	0.39	5.0000	5.1546
97	0	0	N/A	0.00	0.00	N/A	N/A
98	0	0	N/A	0.00	0.00	N/A	N/A
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	44	6,135	0.0072	37.70	36.57	1.1671	1.2032

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q_x 's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> New York City Police Pension Fund Disability Retirees' Mortality Assumption and Experience Mortality By Lives - Men and Women 4-Year Period Ending 2017 Proposed Rates are 97% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	534	0.0000	0.60	0.58	0.0000	0.0000
42	2	773	0.0026	1.10	1.07	1.8182	1.8744
43	3	1,051	0.0029	1.60	1.55	1.8750	1.9330
44	0	1,351	0.0000	2.40	2.33	0.0000	0.0000
45	5	1,625	0.0031	3.20	3.10	1.5625	1.6108
46	3	1,736	0.0017	3.50	3.40	0.8571	0.8837
47	4	1,809	0.0022	3.70	3.59	1.0811	1.1145
48	8	1,888	0.0042	4.20	4.07	1.9048	1.9637
49	5	1,963	0.0025	5.70	5.53	0.8772	0.9043
50	3	2,077	0.0014	7.30	7.08	0.4110	0.4237
51	13	2,128	0.0061	8.80	8.54	1.4773	1.5230
52	9	2,068	0.0044	9.70	9.41	0.9278	0.9565
53	5	1,985	0.0025	9.90	9.60	0.5051	0.5207
54	9	1,849	0.0049	10.00	9.70	0.9000	0.9278
55	5	1,642	0.0030	9.80	9.51	0.5102	0.5260
56	7	1,512	0.0046	9.70	9.41	0.7216	0.7440
57	8	1,330	0.0060	9.30	9.02	0.8602	0.8868
58	6	1,154	0.0052	8.50	8.25	0.7059	0.7277
59	8	968	0.0083	7.90	7.66	1.0127	1.0440
60	10	776	0.0129	6.80	6.60	1.4706	1.5161
61	5	694	0.0072	6.70	6.50	0.7463	0.7693
62	3	692	0.0043	7.30	7.08	0.4110	0.4237
63	10	792	0.0126	8.70	8.44	1.1494	1.1850
64	13	993	0.0131	12.00	11.64	1.0833	1.1168
65	14	1,154	0.0121	14.80	14.36	0.9459	0.9752
66	15	1,352	0.0111	19.40	18.82	0.7732	0.7971
67	19	1,542	0.0123	24.60	23.86	0.7724	0.7962
68	41	1,646	0.0249	29.20	28.32	1.4041	1.4475
69	28	1,693	0.0165	33.30	32.30	0.8408	0.8668
70	39	1,792	0.0218	39.10	37.93	0.9974	1.0283
71	40	1,861	0.0215	45.10	43.75	0.8869	0.9143
72	35	1,843	0.0190	49.30	47.82	0.7099	0.7319
73	48	1,742	0.0276	51.30	49.76	0.9357	0.9646
74	39	1,477	0.0264	47.50	46.08	0.8211	0.8464
75	37	1,171	0.0316	40.80	39.58	0.9069	0.9349
76	38	1,001	0.0380	40.00	38.80	0.9500	0.9794
77	30	866	0.0346	38.60	37.44	0.7772	0.8012
78	43	786	0.0547	38.80	37.64	1.1082	1.1425
79	38	695	0.0547	37.50	36.38	1.0133	1.0447
80	32	600	0.0533	35.00	33.95	0.9143	0.9426
81	34	555	0.0613	36.70	35.60	0.9264	0.9551
82	41	530	0.0774	39.20	38.02	1.0459	1.0783
83	50	510	0.0980	41.90	40.64	1.1933	1.2302
84	46	509	0.0904	45.80	44.43	1.0044	1.0354
85	31	520	0.0596	51.30	49.76	0.6043	0.6230
86	46	505	0.0911	56.70	55.00	0.8113	0.8364
87	64	490	0.1306	61.10	59.27	1.0475	1.0799
88	57	416	0.1370	57.30	55.58	0.9948	1.0255
89	44	321	0.1371	49.00	47.53	0.8980	0.9257
90	43	260	0.1654	43.90	42.58	0.9795	1.0098
91	26	191	0.1361	35.20	34.14	0.7386	0.7615
92	29	138	0.2101	27.60	26.77	1.0507	1.0832
93	20	94	0.2128	20.70	20.08	0.9662	0.9961
94	22	73	0.3014	17.40	16.88	1.2644	1.3035
95	13	43	0.3023	10.90	10.57	1.1927	1.2295
96	8	33	0.2424	8.90	8.63	0.8989	0.9267
97	3	25	0.1200	7.40	7.18	0.4054	0.4179
98	5	13	0.3846	3.90	3.78	1.2821	1.3217
99	4	10	0.4000	3.30	3.20	1.2121	1.2496
100+	3	9	0.3333	3.20	3.10	0.9375	0.9665
Total	1,269	59,856	0.0212	1,364.10	1,323.18	0.9303	0.9591

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q_x as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton

New York City Police Pension Fund
 Disability Retirees' Mortality Assumption and Experience
 Liability Weighted Mortality - Men
 4-Year Period Ending 2017
 Proposed Rates are 85% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	\$ -	\$ 29,679,896	0.0000	\$ 43,404	\$ 39,498	0.0000	0.0000
42	\$ 89,572	\$ 41,824,758	0.0021	\$ 66,371	\$ 60,398	1.3496	1.4830
43	\$ 157,526	\$ 58,129,142	0.0027	\$ 99,848	\$ 90,862	1.5777	1.7337
44	\$ -	\$ 77,385,209	0.0000	\$ 143,442	\$ 130,532	0.0000	0.0000
45	\$ 277,167	\$ 92,037,101	0.0030	\$ 183,928	\$ 167,375	1.5069	1.6560
46	\$ 188,264	\$ 99,991,078	0.0019	\$ 209,073	\$ 190,256	0.9005	0.9895
47	\$ 205,689	\$ 101,944,458	0.0020	\$ 223,786	\$ 203,645	0.9191	1.0100
48	\$ 399,445	\$ 104,434,168	0.0038	\$ 240,527	\$ 218,880	1.6607	1.8250
49	\$ 350,991	\$ 105,281,315	0.0033	\$ 316,672	\$ 288,171	1.1084	1.2180
50	\$ 44,733	\$ 106,992,550	0.0004	\$ 394,967	\$ 359,420	0.1133	0.1245
51	\$ 535,423	\$ 105,987,750	0.0051	\$ 462,581	\$ 420,949	1.1575	1.2719
52	\$ 474,448	\$ 99,330,934	0.0048	\$ 497,027	\$ 452,295	0.9546	1.0490
53	\$ 238,141	\$ 93,399,587	0.0025	\$ 497,535	\$ 452,756	0.4786	0.5260
54	\$ 654,288	\$ 86,933,941	0.0075	\$ 498,540	\$ 453,671	1.3124	1.4422
55	\$ 126,652	\$ 74,990,353	0.0017	\$ 461,741	\$ 420,184	0.2743	0.3014
56	\$ 378,059	\$ 67,269,586	0.0056	\$ 455,057	\$ 414,102	0.8308	0.9130
57	\$ 138,016	\$ 58,508,407	0.0024	\$ 426,714	\$ 388,309	0.3234	0.3554
58	\$ 238,482	\$ 49,679,490	0.0048	\$ 385,705	\$ 350,991	0.6183	0.6795
59	\$ 343,060	\$ 43,294,413	0.0079	\$ 372,956	\$ 339,390	0.9198	1.0108
60	\$ 523,358	\$ 34,316,163	0.0153	\$ 321,796	\$ 292,834	1.6264	1.7872
61	\$ 215,967	\$ 29,785,219	0.0073	\$ 301,335	\$ 274,215	0.7167	0.7876
62	\$ 138,136	\$ 27,717,770	0.0050	\$ 300,142	\$ 273,129	0.4602	0.5058
63	\$ 338,954	\$ 29,642,499	0.0114	\$ 339,803	\$ 309,221	0.9975	1.0962
64	\$ 280,272	\$ 36,458,159	0.0077	\$ 446,054	\$ 405,909	0.6283	0.6905
65	\$ 375,586	\$ 39,786,482	0.0094	\$ 515,551	\$ 469,151	0.7285	0.8006
66	\$ 416,386	\$ 45,207,654	0.0092	\$ 654,230	\$ 595,349	0.6365	0.6994
67	\$ 459,188	\$ 50,564,717	0.0091	\$ 818,472	\$ 744,810	0.5610	0.6165
68	\$ 1,345,403	\$ 51,589,799	0.0261	\$ 927,333	\$ 843,873	1.4508	1.5943
69	\$ 954,228	\$ 51,296,636	0.0186	\$ 1,016,855	\$ 925,338	0.9384	1.0312
70	\$ 762,200	\$ 51,895,558	0.0147	\$ 1,139,692	\$ 1,037,120	0.6688	0.7349
71	\$ 1,096,587	\$ 53,403,759	0.0205	\$ 1,303,683	\$ 1,186,352	0.8411	0.9243
72	\$ 903,512	\$ 53,554,466	0.0169	\$ 1,440,677	\$ 1,311,016	0.6271	0.6892
73	\$ 1,091,771	\$ 50,887,273	0.0215	\$ 1,506,596	\$ 1,371,003	0.7247	0.7963
74	\$ 1,207,638	\$ 43,470,345	0.0278	\$ 1,403,877	\$ 1,277,528	0.8602	0.9453
75	\$ 932,561	\$ 34,371,069	0.0271	\$ 1,208,121	\$ 1,099,390	0.7719	0.8483
76	\$ 1,020,886	\$ 29,302,080	0.0348	\$ 1,174,776	\$ 1,069,047	0.8690	0.9550
77	\$ 853,475	\$ 26,056,114	0.0328	\$ 1,170,678	\$ 1,065,317	0.7290	0.8011
78	\$ 1,104,468	\$ 24,424,134	0.0452	\$ 1,219,586	\$ 1,109,824	0.9056	0.9952
79	\$ 970,439	\$ 22,007,485	0.0441	\$ 1,190,535	\$ 1,083,387	0.8151	0.8957
80	\$ 788,184	\$ 19,573,613	0.0403	\$ 1,146,456	\$ 1,043,275	0.6875	0.7555
81	\$ 1,284,419	\$ 18,450,636	0.0696	\$ 1,221,095	\$ 1,111,196	1.0519	1.1559
82	\$ 1,287,172	\$ 17,438,837	0.0738	\$ 1,297,069	\$ 1,180,333	0.9924	1.0905
83	\$ 1,202,242	\$ 17,126,368	0.0702	\$ 1,410,278	\$ 1,283,353	0.8525	0.9368
84	\$ 1,256,836	\$ 16,952,336	0.0741	\$ 1,527,753	\$ 1,390,256	0.8227	0.9040
85	\$ 999,078	\$ 17,421,112	0.0573	\$ 1,724,571	\$ 1,569,360	0.5793	0.6366
86	\$ 1,440,459	\$ 15,935,912	0.0904	\$ 1,797,152	\$ 1,635,409	0.8015	0.8808
87	\$ 1,859,469	\$ 15,357,386	0.1211	\$ 1,922,649	\$ 1,749,611	0.9671	1.0628
88	\$ 1,436,917	\$ 12,680,884	0.1133	\$ 1,757,618	\$ 1,599,432	0.8175	0.8984
89	\$ 1,135,826	\$ 9,187,003	0.1236	\$ 1,414,205	\$ 1,286,926	0.8032	0.8826
90	\$ 1,123,337	\$ 7,204,872	0.1559	\$ 1,222,706	\$ 1,112,663	0.9187	1.0096
91	\$ 647,407	\$ 5,009,407	0.1292	\$ 932,663	\$ 848,724	0.6941	0.7628
92	\$ 564,884	\$ 3,410,547	0.1656	\$ 687,186	\$ 625,340	0.8220	0.9033
93	\$ 540,468	\$ 2,509,426	0.2154	\$ 553,328	\$ 503,528	0.9768	1.0734
94	\$ 544,053	\$ 1,889,226	0.2880	\$ 451,513	\$ 410,877	1.2050	1.3241
95	\$ 224,820	\$ 982,101	0.2289	\$ 251,393	\$ 228,767	0.8943	0.9827
96	\$ 120,231	\$ 774,852	0.1552	\$ 213,155	\$ 193,971	0.5641	0.6198
97	\$ 50,434	\$ 570,947	0.0883	\$ 165,178	\$ 150,312	0.3053	0.3355
98	\$ 164,508	\$ 305,694	0.5381	\$ 93,121	\$ 84,740	1.7666	1.9413
99	\$ 58,820	\$ 138,952	0.4233	\$ 44,712	\$ 40,688	1.3155	1.4456
100+	\$ 39,178	\$ 142,322	0.2753	\$ 48,661	\$ 44,282	0.8051	0.8847
Total	\$ 36,599,713	\$ 2,465,893,950	0.0148	\$ 44,262,127	\$ 40,278,535	0.8269	0.9087

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton		New York City Police Pension Fund Disability Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Women 4-Year Period Ending 2017 Proposed Rates are 85% of the Current Rates						
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount	Current Assumption	Proposed Assumption	Current	Proposed
41	\$ -	\$ 4,556,865	0.0000	\$ 3,417	\$ 3,417	\$ 3,109	0.0000	0.0000
42	\$ -	\$ 6,878,451	0.0000	\$ 5,777	\$ 5,777	\$ 5,257	0.0000	0.0000
43	\$ -	\$ 8,970,331	0.0000	\$ 8,559	\$ 8,559	\$ 7,789	0.0000	0.0000
44	\$ -	\$ 10,547,695	0.0000	\$ 11,570	\$ 11,570	\$ 10,529	0.0000	0.0000
45	\$ 111,278	\$ 13,305,771	0.0084	\$ 16,839	\$ 16,839	\$ 15,323	6.6085	7.2621
46	\$ -	\$ 13,875,362	0.0000	\$ 20,298	\$ 20,298	\$ 18,471	0.0000	0.0000
47	\$ -	\$ 14,812,470	0.0000	\$ 25,015	\$ 25,015	\$ 22,763	0.0000	0.0000
48	\$ 52,281	\$ 16,088,382	0.0032	\$ 31,182	\$ 31,182	\$ 28,375	1.6767	1.8425
49	\$ 28,107	\$ 17,558,744	0.0016	\$ 39,509	\$ 39,509	\$ 35,953	0.7114	0.7818
50	\$ 183,381	\$ 19,122,499	0.0096	\$ 49,443	\$ 49,443	\$ 44,993	3.7089	4.0758
51	\$ 223,642	\$ 20,530,795	0.0109	\$ 58,342	\$ 58,342	\$ 53,091	3.8333	4.2124
52	\$ 54,449	\$ 19,651,355	0.0028	\$ 65,315	\$ 65,315	\$ 59,437	0.8336	0.9161
53	\$ 48,326	\$ 17,872,521	0.0027	\$ 66,386	\$ 66,386	\$ 60,411	0.7280	0.8000
54	\$ -	\$ 15,112,615	0.0000	\$ 64,577	\$ 64,577	\$ 58,765	0.0000	0.0000
55	\$ 46,262	\$ 13,300,502	0.0035	\$ 64,319	\$ 64,319	\$ 58,530	0.7193	0.7904
56	\$ 36,656	\$ 11,861,925	0.0031	\$ 62,547	\$ 62,547	\$ 56,917	0.5861	0.6440
57	\$ 166,746	\$ 9,529,620	0.0175	\$ 51,405	\$ 51,405	\$ 46,778	3.2438	3.5646
58	\$ 35,263	\$ 8,255,990	0.0043	\$ 45,960	\$ 45,960	\$ 41,823	0.7673	0.8431
59	\$ -	\$ 6,004,777	0.0000	\$ 35,455	\$ 35,455	\$ 32,264	0.0000	0.0000
60	\$ 42,912	\$ 4,660,099	0.0092	\$ 28,877	\$ 28,877	\$ 26,278	1.4861	1.6330
61	\$ 43,386	\$ 3,756,835	0.0115	\$ 24,326	\$ 24,326	\$ 22,137	1.7835	1.9599
62	\$ -	\$ 3,069,709	0.0000	\$ 21,766	\$ 21,766	\$ 19,807	0.0000	0.0000
63	\$ 38,139	\$ 2,838,642	0.0134	\$ 21,855	\$ 21,855	\$ 19,888	1.7451	1.9177
64	\$ 46,993	\$ 2,002,557	0.0235	\$ 16,834	\$ 16,834	\$ 15,319	2.7915	3.0676
65	\$ -	\$ 1,617,601	0.0000	\$ 14,732	\$ 14,732	\$ 13,406	0.0000	0.0000
66	\$ 24,990	\$ 1,388,771	0.0180	\$ 13,706	\$ 13,706	\$ 12,472	1.8233	2.0037
67	\$ -	\$ 1,066,075	0.0000	\$ 11,563	\$ 11,563	\$ 10,522	0.0000	0.0000
68	\$ 44,502	\$ 1,167,374	0.0381	\$ 13,716	\$ 13,716	\$ 12,481	3.2446	3.5655
69	\$ 39,087	\$ 1,103,557	0.0354	\$ 14,802	\$ 14,802	\$ 13,470	2.6406	2.9017
70	\$ -	\$ 1,082,439	0.0000	\$ 16,532	\$ 16,532	\$ 15,044	0.0000	0.0000
71	\$ 8,287	\$ 1,193,630	0.0069	\$ 20,672	\$ 20,672	\$ 18,812	0.4009	0.4405
72	\$ -	\$ 1,292,204	0.0000	\$ 25,089	\$ 25,089	\$ 22,831	0.0000	0.0000
73	\$ 12,520	\$ 1,096,670	0.0114	\$ 23,571	\$ 23,571	\$ 21,450	0.5312	0.5837
74	\$ -	\$ 868,783	0.0000	\$ 20,724	\$ 20,724	\$ 18,859	0.0000	0.0000
75	\$ -	\$ 533,128	0.0000	\$ 14,221	\$ 14,221	\$ 12,941	0.0000	0.0000
76	\$ 25,092	\$ 251,704	0.0997	\$ 7,638	\$ 7,638	\$ 6,951	3.2851	3.6100
77	\$ -	\$ 382,483	0.0000	\$ 12,683	\$ 12,683	\$ 11,542	0.0000	0.0000
78	\$ -	\$ 411,398	0.0000	\$ 14,796	\$ 14,796	\$ 13,464	0.0000	0.0000
79	\$ 60,630	\$ 371,270	0.1633	\$ 15,116	\$ 15,116	\$ 13,756	4.0109	4.4076
80	\$ -	\$ 305,731	0.0000	\$ 14,024	\$ 14,024	\$ 12,762	0.0000	0.0000
81	\$ -	\$ 139,036	0.0000	\$ 7,181	\$ 7,181	\$ 6,535	0.0000	0.0000
82	\$ 9,475	\$ 142,668	0.0664	\$ 8,026	\$ 8,026	\$ 7,303	1.1806	1.2974
83	\$ 9,304	\$ 166,228	0.0560	\$ 10,179	\$ 10,179	\$ 9,263	0.9141	1.0045
84	\$ -	\$ 199,789	0.0000	\$ 13,959	\$ 13,959	\$ 12,702	0.0000	0.0000
85	\$ -	\$ 261,792	0.0000	\$ 20,282	\$ 20,282	\$ 18,456	0.0000	0.0000
86	\$ 47,525	\$ 349,064	0.1361	\$ 29,682	\$ 29,682	\$ 27,011	1.6011	1.7595
87	\$ 10,540	\$ 318,008	0.0331	\$ 29,453	\$ 29,453	\$ 26,802	0.3579	0.3933
88	\$ 62,003	\$ 283,934	0.2184	\$ 28,603	\$ 28,603	\$ 26,029	2.1677	2.3821
89	\$ 20,322	\$ 290,813	0.0699	\$ 33,045	\$ 33,045	\$ 30,071	0.6150	0.6758
90	\$ 17,932	\$ 213,160	0.0841	\$ 27,006	\$ 27,006	\$ 24,575	0.6640	0.7297
91	\$ -	\$ 119,546	0.0000	\$ 16,685	\$ 16,685	\$ 15,183	0.0000	0.0000
92	\$ -	\$ 91,454	0.0000	\$ 13,576	\$ 13,576	\$ 12,354	0.0000	0.0000
93	\$ -	\$ 31,626	0.0000	\$ 5,008	\$ 5,008	\$ 4,557	0.0000	0.0000
94	\$ 4,409	\$ 4,409	1.0000	\$ 779	\$ 779	\$ 709	5.6613	6.2212
95	\$ -	\$ 67,176	0.0000	\$ 12,603	\$ 12,603	\$ 11,469	0.0000	0.0000
96	\$ 67,176	\$ 67,176	1.0000	\$ 13,096	\$ 13,096	\$ 11,918	5.1294	5.6367
97	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	N/A	N/A
98	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	N/A	N/A
99	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	N/A	N/A
100+	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	N/A	N/A
Total	\$ 1,621,615	\$ 281,043,209	0.0058	\$ 1,362,317	\$ 1,362,317	\$ 1,239,708	1.1903	1.3081

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton

New York City Police Pension Fund
 Disability Retirees' Mortality Assumption and Experience
 Liability Weighted Mortality - Men and Women
 4-Year Period Ending 2017
 Proposed Rates are 85% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	\$ -	\$ 34,236,761	0.0000	\$ 46,821	\$ 42,607	0.0000	0.0000
42	\$ 89,572	\$ 48,703,209	0.0018	\$ 72,148	\$ 65,654	1.2415	1.3643
43	\$ 157,526	\$ 67,099,473	0.0023	\$ 108,407	\$ 98,650	1.4531	1.5968
44	\$ -	\$ 87,932,904	0.0000	\$ 155,012	\$ 141,061	0.0000	0.0000
45	\$ 388,445	\$ 105,342,872	0.0037	\$ 200,767	\$ 182,698	1.9348	2.1262
46	\$ 188,264	\$ 113,866,440	0.0017	\$ 229,371	\$ 208,727	0.8208	0.9020
47	\$ 205,689	\$ 116,756,928	0.0018	\$ 248,800	\$ 226,408	0.8267	0.9085
48	\$ 451,726	\$ 120,522,550	0.0037	\$ 271,709	\$ 247,255	1.6625	1.8270
49	\$ 379,098	\$ 122,840,059	0.0031	\$ 356,181	\$ 324,125	1.0643	1.1696
50	\$ 228,114	\$ 126,115,049	0.0018	\$ 444,410	\$ 404,413	0.5133	0.5641
51	\$ 759,065	\$ 126,518,545	0.0060	\$ 520,923	\$ 474,039	1.4572	1.6013
52	\$ 528,897	\$ 118,982,289	0.0044	\$ 562,342	\$ 511,731	0.9405	1.0335
53	\$ 286,467	\$ 111,272,108	0.0026	\$ 563,920	\$ 513,167	0.5080	0.5582
54	\$ 654,288	\$ 102,046,556	0.0064	\$ 563,117	\$ 512,436	1.1619	1.2768
55	\$ 172,914	\$ 88,290,855	0.0020	\$ 526,060	\$ 478,715	0.3287	0.3612
56	\$ 414,715	\$ 79,131,511	0.0052	\$ 517,604	\$ 471,019	0.8012	0.8805
57	\$ 304,762	\$ 68,038,027	0.0045	\$ 478,118	\$ 435,088	0.6374	0.7005
58	\$ 273,745	\$ 57,935,480	0.0047	\$ 431,664	\$ 392,815	0.6342	0.6969
59	\$ 343,060	\$ 49,299,190	0.0070	\$ 408,411	\$ 371,654	0.8400	0.9231
60	\$ 566,270	\$ 38,976,262	0.0145	\$ 350,672	\$ 319,112	1.6148	1.7745
61	\$ 259,353	\$ 33,542,054	0.0077	\$ 325,661	\$ 296,352	0.7964	0.8752
62	\$ 138,136	\$ 30,787,479	0.0045	\$ 321,907	\$ 292,936	0.4291	0.4716
63	\$ 377,093	\$ 32,481,141	0.0116	\$ 361,658	\$ 329,109	1.0427	1.1458
64	\$ 327,265	\$ 38,460,716	0.0085	\$ 462,888	\$ 421,228	0.7070	0.7769
65	\$ 375,586	\$ 41,404,083	0.0091	\$ 530,283	\$ 482,558	0.7083	0.7783
66	\$ 441,376	\$ 46,596,425	0.0095	\$ 667,935	\$ 607,821	0.6608	0.7262
67	\$ 459,188	\$ 51,630,792	0.0089	\$ 830,035	\$ 755,332	0.5532	0.6079
68	\$ 1,389,905	\$ 52,757,173	0.0263	\$ 941,049	\$ 856,355	1.4770	1.6230
69	\$ 993,315	\$ 52,400,193	0.0190	\$ 1,031,658	\$ 938,808	0.9628	1.0581
70	\$ 762,200	\$ 52,977,997	0.0144	\$ 1,156,224	\$ 1,052,164	0.6592	0.7244
71	\$ 1,104,874	\$ 54,597,389	0.0202	\$ 1,324,355	\$ 1,205,163	0.8343	0.9168
72	\$ 903,512	\$ 54,846,670	0.0165	\$ 1,465,766	\$ 1,333,847	0.6164	0.6774
73	\$ 1,104,291	\$ 51,983,943	0.0212	\$ 1,530,167	\$ 1,392,452	0.7217	0.7931
74	\$ 1,207,638	\$ 44,339,128	0.0272	\$ 1,424,601	\$ 1,296,387	0.8477	0.9315
75	\$ 932,561	\$ 34,904,197	0.0267	\$ 1,222,341	\$ 1,112,330	0.7629	0.8384
76	\$ 1,045,978	\$ 29,553,784	0.0354	\$ 1,182,415	\$ 1,075,997	0.8846	0.9721
77	\$ 853,475	\$ 26,438,597	0.0323	\$ 1,183,361	\$ 1,076,859	0.7212	0.7926
78	\$ 1,104,468	\$ 24,835,532	0.0445	\$ 1,234,382	\$ 1,123,288	0.8948	0.9832
79	\$ 1,031,069	\$ 22,378,755	0.0461	\$ 1,205,651	\$ 1,097,143	0.8552	0.9398
80	\$ 788,184	\$ 19,879,344	0.0396	\$ 1,160,480	\$ 1,056,037	0.6792	0.7464
81	\$ 1,284,419	\$ 18,589,672	0.0691	\$ 1,228,276	\$ 1,117,731	1.0457	1.1491
82	\$ 1,296,647	\$ 17,581,505	0.0738	\$ 1,305,095	\$ 1,187,636	0.9935	1.0918
83	\$ 1,211,546	\$ 17,292,596	0.0701	\$ 1,420,457	\$ 1,292,616	0.8529	0.9373
84	\$ 1,256,836	\$ 17,152,125	0.0733	\$ 1,541,712	\$ 1,402,958	0.8152	0.8958
85	\$ 999,078	\$ 17,682,904	0.0565	\$ 1,744,853	\$ 1,587,816	0.5726	0.6292
86	\$ 1,487,984	\$ 16,284,976	0.0914	\$ 1,826,835	\$ 1,662,419	0.8145	0.8951
87	\$ 1,870,009	\$ 15,675,394	0.1193	\$ 1,952,102	\$ 1,776,413	0.9579	1.0527
88	\$ 1,498,920	\$ 12,964,818	0.1156	\$ 1,786,221	\$ 1,625,461	0.8392	0.9222
89	\$ 1,156,148	\$ 9,477,816	0.1220	\$ 1,447,250	\$ 1,316,998	0.7989	0.8779
90	\$ 1,141,269	\$ 7,418,032	0.1539	\$ 1,249,712	\$ 1,137,238	0.9132	1.0035
91	\$ 647,407	\$ 5,128,953	0.1262	\$ 949,348	\$ 863,907	0.6819	0.7494
92	\$ 564,884	\$ 3,502,001	0.1613	\$ 700,762	\$ 637,694	0.8061	0.8858
93	\$ 540,468	\$ 2,541,052	0.2127	\$ 558,336	\$ 508,086	0.9680	1.0637
94	\$ 548,462	\$ 1,893,635	0.2896	\$ 452,292	\$ 411,586	1.2126	1.3326
95	\$ 224,820	\$ 1,049,277	0.2143	\$ 263,996	\$ 240,236	0.8516	0.9358
96	\$ 187,407	\$ 842,028	0.2226	\$ 226,251	\$ 205,888	0.8283	0.9102
97	\$ 50,434	\$ 570,947	0.0883	\$ 165,178	\$ 150,312	0.3053	0.3355
98	\$ 164,508	\$ 305,694	0.5381	\$ 93,121	\$ 84,740	1.7666	1.9413
99	\$ 58,820	\$ 138,952	0.4233	\$ 44,712	\$ 40,688	1.3155	1.4456
100+	\$ 39,178	\$ 142,322	0.2753	\$ 48,661	\$ 44,282	0.8051	0.8847
Total	\$ 38,221,328	\$ 2,746,937,159	0.0139	\$ 45,624,444	\$ 41,518,244	0.8377	0.9206

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

New York City Police Pension Fund							
Disability Retirees' Mortality Assumption and Experience							
Men							
10-Year Period Ending 2017							
Proposed Rates are 97% of the Current Rates							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	6	1,891	0.0032	2.90	2.81	2.0690	2.1330
42	5	2,315	0.0022	4.20	4.07	1.1905	1.2273
43	5	2,709	0.0018	5.20	5.04	0.9615	0.9913
44	3	3,094	0.0010	6.30	6.11	0.4762	0.4909
45	9	3,485	0.0026	7.70	7.47	1.1688	1.2050
46	7	3,701	0.0019	8.60	8.34	0.8140	0.8391
47	13	3,767	0.0035	9.10	8.83	1.4286	1.4728
48	16	3,798	0.0042	9.50	9.22	1.6842	1.7363
49	14	3,742	0.0037	12.30	11.93	1.1382	1.1734
50	7	3,694	0.0019	14.60	14.16	0.4795	0.4943
51	12	3,546	0.0034	16.50	16.01	0.7273	0.7498
52	13	3,332	0.0039	17.40	16.88	0.7471	0.7702
53	16	3,058	0.0052	17.00	16.49	0.9412	0.9703
54	18	2,751	0.0065	16.10	15.62	1.1180	1.1526
55	9	2,474	0.0036	15.70	15.23	0.5732	0.5910
56	14	2,302	0.0061	15.80	15.33	0.8861	0.9135
57	11	2,174	0.0051	16.20	15.71	0.6790	0.7000
58	10	2,179	0.0046	17.30	16.78	0.5780	0.5959
59	24	2,262	0.0106	20.00	19.40	1.2000	1.2371
60	27	2,415	0.0112	23.10	22.41	1.1688	1.2050
61	24	2,638	0.0091	27.50	26.68	0.8727	0.8997
62	25	2,904	0.0086	32.50	31.53	0.7692	0.7930
63	33	3,206	0.0103	38.10	36.96	0.8661	0.8929
64	56	3,628	0.0154	46.40	45.01	1.2069	1.2442
65	56	3,971	0.0141	54.00	52.38	1.0370	1.0691
66	55	4,199	0.0131	64.00	62.08	0.8594	0.8860
67	69	4,296	0.0161	73.10	70.91	0.9439	0.9731
68	95	4,221	0.0225	79.70	77.31	1.1920	1.2288
69	72	4,038	0.0178	84.00	81.48	0.8571	0.8837
70	83	3,883	0.0214	89.30	86.62	0.9295	0.9582
71	81	3,600	0.0225	91.70	88.95	0.8833	0.9106
72	77	3,353	0.0230	93.90	91.08	0.8200	0.8454
73	87	3,054	0.0285	94.20	91.37	0.9236	0.9521
74	88	2,692	0.0327	90.90	88.17	0.9681	0.9980
75	75	2,329	0.0322	85.80	83.23	0.8741	0.9012
76	80	2,090	0.0383	88.10	85.46	0.9081	0.9361
77	77	1,921	0.0401	90.90	88.17	0.8471	0.8733
78	103	1,852	0.0556	97.60	94.67	1.0553	1.0880
79	103	1,817	0.0567	104.70	101.56	0.9838	1.0142
80	120	1,726	0.0695	107.50	104.28	1.1163	1.1508
81	113	1,642	0.0688	115.40	111.94	0.9792	1.0095
82	108	1,568	0.0689	123.10	119.41	0.8773	0.9045
83	125	1,483	0.0843	128.70	124.84	0.9713	1.0013
84	130	1,375	0.0945	130.10	126.20	0.9992	1.0301
85	98	1,244	0.0788	128.60	124.74	0.7621	0.7856
86	119	1,111	0.1071	130.50	126.59	0.9119	0.9401
87	131	983	0.1333	128.00	124.16	1.0234	1.0551
88	102	795	0.1283	114.20	110.77	0.8932	0.9208
89	96	636	0.1509	102.00	98.94	0.9412	0.9703
90	83	501	0.1657	88.40	85.75	0.9389	0.9680
91	66	372	0.1774	71.80	69.65	0.9192	0.9476
92	58	269	0.2156	56.20	54.51	1.0320	1.0639
93	40	183	0.2186	41.60	40.35	0.9615	0.9913
94	40	129	0.3101	31.80	30.85	1.2579	1.2968
95	22	74	0.2973	19.50	18.92	1.1282	1.1631
96	10	46	0.2174	12.90	12.51	0.7752	0.7992
97	5	33	0.1515	9.80	9.51	0.5102	0.5260
98	6	18	0.3333	5.40	5.24	1.1111	1.1455
99	4	11	0.3636	3.60	3.49	1.1111	1.1455
100+	3	10	0.3000	3.50	3.40	0.8571	0.8837
Total	3,057	132,590	0.0231	3,234.50	3,137.47	0.9451	0.9744

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

New York City Police Pension Fund							
Disability Retirees' Mortality Assumption and Experience							
Women							
10-Year Period Ending 2017							
Proposed Rates are 97% of the Current Rates							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	1	393	0.0025	0.10	0.10	10.0000	10.3093
42	1	491	0.0020	0.30	0.29	3.3333	3.4364
43	2	574	0.0035	0.70	0.68	2.8571	2.9455
44	3	656	0.0046	0.90	0.87	3.3333	3.4364
45	1	730	0.0014	1.00	0.97	1.0000	1.0309
46	2	780	0.0026	1.10	1.07	1.8182	1.8744
47	4	823	0.0049	1.50	1.46	2.6667	2.7491
48	5	816	0.0061	1.70	1.65	2.9412	3.0321
49	1	804	0.0012	1.80	1.75	0.5556	0.5727
50	2	807	0.0025	2.20	2.13	0.9091	0.9372
51	6	778	0.0077	2.40	2.33	2.5000	2.5773
52	4	718	0.0056	2.40	2.33	1.6667	1.7182
53	2	637	0.0031	2.30	2.23	0.8696	0.8965
54	1	560	0.0018	2.40	2.33	0.4167	0.4296
55	1	487	0.0021	2.40	2.33	0.4167	0.4296
56	2	414	0.0048	2.10	2.04	0.9524	0.9818
57	4	348	0.0115	2.00	1.94	2.0000	2.0619
58	3	306	0.0098	1.80	1.75	1.6667	1.7182
59	2	249	0.0080	1.50	1.46	1.3333	1.3746
60	2	203	0.0099	1.30	1.26	1.5385	1.5860
61	4	175	0.0229	1.20	1.16	3.3333	3.4364
62	1	156	0.0064	1.20	1.16	0.8333	0.8591
63	2	142	0.0141	1.10	1.07	1.8182	1.8744
64	1	126	0.0079	1.10	1.07	0.9091	0.9372
65	1	127	0.0079	1.20	1.16	0.8333	0.8591
66	1	127	0.0079	1.40	1.36	0.7143	0.7364
67	1	109	0.0092	1.20	1.16	0.8333	0.8591
68	2	97	0.0206	1.10	1.07	1.8182	1.8744
69	2	89	0.0225	1.20	1.16	1.6667	1.7182
70	0	81	0.0000	1.20	1.16	0.0000	0.0000
71	1	82	0.0122	1.40	1.36	0.7143	0.7364
72	0	69	0.0000	1.40	1.36	0.0000	0.0000
73	3	66	0.0455	1.40	1.36	2.1429	2.2091
74	1	57	0.0175	1.40	1.36	0.7143	0.7364
75	1	44	0.0227	1.20	1.16	0.8333	0.8591
76	1	33	0.0303	1.00	0.97	1.0000	1.0309
77	1	32	0.0313	1.00	0.97	1.0000	1.0309
78	1	35	0.0286	1.30	1.26	0.7692	0.7930
79	1	31	0.0323	1.30	1.26	0.7692	0.7930
80	0	31	0.0000	1.50	1.46	0.0000	0.0000
81	0	24	0.0000	1.40	1.36	0.0000	0.0000
82	1	26	0.0385	1.60	1.55	0.6250	0.6443
83	1	25	0.0400	1.80	1.75	0.5556	0.5727
84	0	27	0.0000	2.00	1.94	0.0000	0.0000
85	1	27	0.0370	2.10	2.04	0.4762	0.4909
86	2	25	0.0800	2.30	2.23	0.8696	0.8965
87	4	22	0.1818	2.20	2.13	1.8182	1.8744
88	1	18	0.0556	1.80	1.75	0.5556	0.5727
89	3	20	0.1500	2.20	2.13	1.3636	1.4058
90	3	15	0.2000	2.00	1.94	1.5000	1.5464
91	0	10	0.0000	1.50	1.46	0.0000	0.0000
92	1	9	0.1111	1.40	1.36	0.7143	0.7364
93	0	6	0.0000	1.00	0.97	0.0000	0.0000
94	3	5	0.6000	1.00	0.97	3.0000	3.0928
95	0	2	0.0000	0.40	0.39	0.0000	0.0000
96	2	2	1.0000	0.40	0.39	5.0000	5.1546
97	0	0	N/A	0.00	0.00	N/A	N/A
98	0	0	N/A	0.00	0.00	N/A	N/A
99	0	0	N/A	0.00	0.00	N/A	N/A
100+	0	0	N/A	0.00	0.00	N/A	N/A
Total	96	13,546	0.0071	81.80	79.35	1.1736	1.2099

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>New York City Police Pension Fund Disability Retirees' Mortality Assumption and Experience Men and Women 10-Year Period Ending 2017 Proposed Rates are 97% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	7	2,284	0.0031	3.00	2.91	2.3333	2.4055
42	6	2,806	0.0021	4.50	4.37	1.3333	1.3746
43	7	3,283	0.0021	5.90	5.72	1.1864	1.2231
44	6	3,750	0.0016	7.20	6.98	0.8333	0.8591
45	10	4,215	0.0024	8.70	8.44	1.1494	1.1850
46	9	4,481	0.0020	9.70	9.41	0.9278	0.9565
47	17	4,590	0.0037	10.60	10.28	1.6038	1.6534
48	21	4,614	0.0046	11.20	10.86	1.8750	1.9330
49	15	4,546	0.0033	14.10	13.68	1.0638	1.0967
50	9	4,501	0.0020	16.80	16.30	0.5357	0.5523
51	18	4,324	0.0042	18.90	18.33	0.9524	0.9818
52	17	4,050	0.0042	19.80	19.21	0.8586	0.8851
53	18	3,695	0.0049	19.30	18.72	0.9326	0.9615
54	19	3,311	0.0057	18.50	17.95	1.0270	1.0588
55	10	2,961	0.0034	18.10	17.56	0.5525	0.5696
56	16	2,716	0.0059	17.90	17.36	0.8939	0.9215
57	15	2,522	0.0059	18.20	17.65	0.8242	0.8497
58	13	2,485	0.0052	19.10	18.53	0.6806	0.7017
59	26	2,511	0.0104	21.50	20.86	1.2093	1.2467
60	29	2,618	0.0111	24.40	23.67	1.1885	1.2253
61	28	2,813	0.0100	28.70	27.84	0.9756	1.0058
62	26	3,060	0.0085	33.70	32.69	0.7715	0.7954
63	35	3,348	0.0105	39.20	38.02	0.8929	0.9205
64	57	3,754	0.0152	47.50	46.08	1.2000	1.2371
65	57	4,098	0.0139	55.20	53.54	1.0326	1.0645
66	56	4,326	0.0129	65.40	63.44	0.8563	0.8828
67	70	4,405	0.0159	74.30	72.07	0.9421	0.9713
68	97	4,318	0.0225	80.80	78.38	1.2005	1.2376
69	74	4,127	0.0179	85.20	82.64	0.8685	0.8954
70	83	3,964	0.0209	90.50	87.79	0.9171	0.9455
71	82	3,682	0.0223	93.10	90.31	0.8808	0.9080
72	77	3,422	0.0225	95.30	92.44	0.8080	0.8330
73	90	3,120	0.0288	95.60	92.73	0.9414	0.9705
74	89	2,749	0.0324	92.30	89.53	0.9642	0.9941
75	76	2,373	0.0320	87.00	84.39	0.8736	0.9006
76	81	2,123	0.0382	89.10	86.43	0.9091	0.9372
77	78	1,953	0.0399	91.90	89.14	0.8487	0.8750
78	104	1,887	0.0551	98.90	95.93	1.0516	1.0841
79	104	1,848	0.0563	106.00	102.82	0.9811	1.0115
80	120	1,757	0.0683	109.00	105.73	1.1009	1.1350
81	113	1,666	0.0678	116.80	113.30	0.9675	0.9974
82	109	1,594	0.0684	124.70	120.96	0.8741	0.9011
83	126	1,508	0.0836	130.50	126.59	0.9655	0.9954
84	130	1,402	0.0927	132.10	128.14	0.9841	1.0145
85	99	1,271	0.0779	130.70	126.78	0.7575	0.7809
86	121	1,136	0.1065	132.80	128.82	0.9111	0.9393
87	135	1,005	0.1343	130.20	126.29	1.0369	1.0689
88	103	813	0.1267	116.00	112.52	0.8879	0.9154
89	99	656	0.1509	104.20	101.07	0.9501	0.9795
90	86	516	0.1667	90.40	87.69	0.9513	0.9807
91	66	382	0.1728	73.30	71.10	0.9004	0.9283
92	59	278	0.2122	57.60	55.87	1.0243	1.0560
93	40	189	0.2116	42.60	41.32	0.9390	0.9680
94	43	134	0.3209	32.80	31.82	1.3110	1.3515
95	22	76	0.2895	19.90	19.30	1.1055	1.1397
96	12	48	0.2500	13.30	12.90	0.9023	0.9302
97	5	33	0.1515	9.80	9.51	0.5102	0.5260
98	6	18	0.3333	5.40	5.24	1.1111	1.1455
99	4	11	0.3636	3.60	3.49	1.1111	1.1455
100+	3	10	0.3000	3.50	3.40	0.8571	0.8837
Total	3,153	146,136	0.0216	3,316.30	3,216.81	0.9508	0.9802

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Police experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton

**New York City Police Pension Fund
Disability Retirees' Mortality Assumption and Experience
Men and Women Eligible for WTC Benefits
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	293	15,061	314.40	0.9319	0.0195	0.0209
2009	314	15,163	318.90	0.9846	0.0207	0.0210
2010	296	15,276	324.70	0.9116	0.0194	0.0213
2011	310	15,345	329.60	0.9405	0.0202	0.0215
2012	335	15,449	333.00	1.0060	0.0217	0.0216
2013	343	15,477	336.90	1.0181	0.0222	0.0218
2014	295	15,496	337.50	0.8741	0.0190	0.0218
2015	357	15,572	343.20	1.0402	0.0229	0.0220
2016	315	15,508	341.00	0.9238	0.0203	0.0220
2017	303	15,498	343.70	0.8816	0.0196	0.0222
Total	3,161	153,845	3,322.90	0.9513	0.0205	0.0216

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 41)

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Men
4-Year Period Ending 2017**

Proposed Rates are 100% of the Current Rates for males and 100% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
22	0	360	0.0000	0.0004	0.0004	0.14	0.14	0.0000	0.0000
23	0	1,015	0.0000	0.0004	0.0004	0.41	0.41	0.0000	0.0000
24	0	1,845	0.0000	0.0004	0.0004	0.74	0.74	0.0000	0.0000
25	2	2,561	0.0008	0.0004	0.0004	1.02	1.02	1.9524	1.9524
26	0	3,278	0.0000	0.0004	0.0004	1.31	1.31	0.0000	0.0000
27	1	3,775	0.0003	0.0004	0.0004	1.51	1.51	0.6623	0.6623
28	1	4,243	0.0002	0.0004	0.0004	1.70	1.70	0.5892	0.5892
29	2	4,598	0.0004	0.0004	0.0004	1.84	1.84	1.0874	1.0874
30	3	4,799	0.0006	0.0004	0.0004	1.92	1.92	1.5628	1.5628
31	2	4,961	0.0004	0.0004	0.0004	1.98	1.98	1.0079	1.0079
32	1	4,973	0.0002	0.0004	0.0004	1.99	1.99	0.5027	0.5027
33	1	4,988	0.0002	0.0004	0.0004	2.00	2.00	0.5012	0.5012
34	3	4,923	0.0006	0.0004	0.0004	1.97	1.97	1.5235	1.5235
35	1	4,710	0.0002	0.0004	0.0004	1.88	1.88	0.5308	0.5308
36	4	4,581	0.0009	0.0004	0.0004	1.92	1.92	2.0790	2.0790
37	2	4,390	0.0005	0.0004	0.0004	1.93	1.93	1.0354	1.0354
38	1	4,338	0.0002	0.0005	0.0005	2.00	2.00	0.5011	0.5011
39	2	4,212	0.0005	0.0005	0.0005	2.02	2.02	0.9892	0.9892
40	1	4,109	0.0002	0.0005	0.0005	2.05	2.05	0.4867	0.4867
41	2	4,160	0.0005	0.0006	0.0006	2.50	2.50	0.8013	0.8013
42	2	4,315	0.0005	0.0007	0.0007	3.02	3.02	0.6621	0.6621
43	1	4,437	0.0002	0.0008	0.0008	3.55	3.55	0.2817	0.2817
44	3	4,388	0.0007	0.0009	0.0009	3.95	3.95	0.7596	0.7596
45	5	4,149	0.0012	0.0010	0.0010	4.15	4.15	1.2051	1.2051
46	3	3,812	0.0008	0.0011	0.0011	4.19	4.19	0.7154	0.7154
47	2	3,366	0.0006	0.0012	0.0012	4.04	4.04	0.4951	0.4951
48	3	2,971	0.0010	0.0013	0.0013	3.86	3.86	0.7767	0.7767
49	1	2,594	0.0004	0.0014	0.0014	3.63	3.63	0.2754	0.2754
50	3	2,120	0.0014	0.0015	0.0015	3.18	3.18	0.9434	0.9434
51	0	1,700	0.0000	0.0016	0.0016	2.72	2.72	0.0000	0.0000
52	2	1,330	0.0015	0.0017	0.0017	2.26	2.26	0.8846	0.8846
53	2	1,032	0.0019	0.0018	0.0018	1.86	1.86	1.0767	1.0767
54	0	780	0.0000	0.0019	0.0019	1.48	1.48	0.0000	0.0000
55	1	579	0.0017	0.0020	0.0020	1.16	1.16	0.8636	0.8636
56	1	457	0.0022	0.0022	0.0022	1.01	1.01	0.9946	0.9946
57	1	344	0.0029	0.0024	0.0024	0.83	0.83	1.2112	1.2112
58	0	263	0.0000	0.0026	0.0026	0.68	0.68	0.0000	0.0000
59	0	199	0.0000	0.0028	0.0028	0.56	0.56	0.0000	0.0000
60	0	133	0.0000	0.0030	0.0030	0.40	0.40	0.0000	0.0000
61	0	100	0.0000	0.0032	0.0032	0.32	0.32	0.0000	0.0000
62	2	77	0.0260	0.0034	0.0034	0.26	0.26	7.6394	7.6394
63	0	28	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	61	116,042	0.0005			79.94	79.94	0.7631	0.7631

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Women
4-Year Period Ending 2017**

Proposed Rates are 100% of the Current Rates for males and 100% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
22	0	45	0.0000	0.0004	0.0004	0.02	0.02	0.0000	0.0000
23	0	164	0.0000	0.0004	0.0004	0.07	0.07	0.0000	0.0000
24	0	251	0.0000	0.0004	0.0004	0.10	0.10	0.0000	0.0000
25	2	430	0.0047	0.0004	0.0004	0.17	0.17	11.6279	11.6279
26	1	601	0.0017	0.0004	0.0004	0.24	0.24	4.1597	4.1597
27	2	686	0.0029	0.0004	0.0004	0.27	0.27	7.2886	7.2886
28	1	805	0.0012	0.0004	0.0004	0.32	0.32	3.1056	3.1056
29	1	871	0.0011	0.0004	0.0004	0.35	0.35	2.8703	2.8703
30	0	908	0.0000	0.0004	0.0004	0.36	0.36	0.0000	0.0000
31	1	956	0.0010	0.0004	0.0004	0.38	0.38	2.6151	2.6151
32	0	1,008	0.0000	0.0004	0.0004	0.40	0.40	0.0000	0.0000
33	0	1,071	0.0000	0.0004	0.0004	0.43	0.43	0.0000	0.0000
34	0	1,089	0.0000	0.0004	0.0004	0.44	0.44	0.0000	0.0000
35	0	1,071	0.0000	0.0004	0.0004	0.43	0.43	0.0000	0.0000
36	1	1,130	0.0009	0.0004	0.0004	0.47	0.47	2.1070	2.1070
37	2	1,089	0.0018	0.0004	0.0004	0.48	0.48	4.1740	4.1740
38	2	1,058	0.0019	0.0005	0.0005	0.49	0.49	4.1095	4.1095
39	0	1,042	0.0000	0.0005	0.0005	0.50	0.50	0.0000	0.0000
40	0	943	0.0000	0.0005	0.0005	0.47	0.47	0.0000	0.0000
41	1	925	0.0011	0.0006	0.0006	0.56	0.56	1.8018	1.8018
42	1	936	0.0011	0.0007	0.0007	0.66	0.66	1.5263	1.5263
43	0	900	0.0000	0.0008	0.0008	0.72	0.72	0.0000	0.0000
44	0	906	0.0000	0.0009	0.0009	0.82	0.82	0.0000	0.0000
45	0	816	0.0000	0.0010	0.0010	0.82	0.82	0.0000	0.0000
46	1	742	0.0013	0.0011	0.0011	0.82	0.82	1.2252	1.2252
47	0	603	0.0000	0.0012	0.0012	0.72	0.72	0.0000	0.0000
48	0	493	0.0000	0.0013	0.0013	0.64	0.64	0.0000	0.0000
49	0	443	0.0000	0.0014	0.0014	0.62	0.62	0.0000	0.0000
50	0	360	0.0000	0.0015	0.0015	0.54	0.54	0.0000	0.0000
51	0	320	0.0000	0.0016	0.0016	0.51	0.51	0.0000	0.0000
52	0	269	0.0000	0.0017	0.0017	0.46	0.46	0.0000	0.0000
53	1	189	0.0053	0.0018	0.0018	0.34	0.34	2.9394	2.9394
54	0	133	0.0000	0.0019	0.0019	0.25	0.25	0.0000	0.0000
55	2	91	0.0220	0.0020	0.0020	0.18	0.18	10.9890	10.9890
56	1	67	0.0149	0.0022	0.0022	0.15	0.15	6.7843	6.7843
57	0	43	0.0000	0.0024	0.0024	0.10	0.10	0.0000	0.0000
58	0	29	0.0000	0.0026	0.0026	0.08	0.08	0.0000	0.0000
59	0	18	0.0000	0.0028	0.0028	0.05	0.05	0.0000	0.0000
60	0	7	0.0000	0.0030	0.0030	0.02	0.02	0.0000	0.0000
61	0	6	0.0000	0.0032	0.0032	0.02	0.02	0.0000	0.0000
62	0	5	0.0000	0.0034	0.0034	0.02	0.02	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	20	23,520	0.0009			15.47	15.47	1.2924	1.2924

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Men and Women
4-Year Period Ending 2017**

Proposed Rates are 100% of the Current Rates for males and 100% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
22	0	405	0.0000	0.0004	0.0004	0.16	0.16	0.0000	0.0000
23	0	1,179	0.0000	0.0004	0.0004	0.47	0.47	0.0000	0.0000
24	0	2,096	0.0000	0.0004	0.0004	0.84	0.84	0.0000	0.0000
25	4	2,991	0.0013	0.0004	0.0004	1.20	1.20	3.3434	3.3434
26	1	3,879	0.0003	0.0004	0.0004	1.55	1.55	0.6445	0.6445
27	3	4,461	0.0007	0.0004	0.0004	1.78	1.78	1.6812	1.6812
28	2	5,048	0.0004	0.0004	0.0004	2.02	2.02	0.9905	0.9905
29	3	5,469	0.0005	0.0004	0.0004	2.19	2.19	1.3714	1.3714
30	3	5,707	0.0005	0.0004	0.0004	2.28	2.28	1.3142	1.3142
31	3	5,917	0.0005	0.0004	0.0004	2.37	2.37	1.2675	1.2675
32	1	5,981	0.0002	0.0004	0.0004	2.39	2.39	0.4180	0.4180
33	1	6,059	0.0002	0.0004	0.0004	2.42	2.42	0.4126	0.4126
34	3	6,012	0.0005	0.0004	0.0004	2.40	2.40	1.2475	1.2475
35	1	5,781	0.0002	0.0004	0.0004	2.31	2.31	0.4325	0.4325
36	5	5,711	0.0009	0.0004	0.0004	2.40	2.40	2.0845	2.0845
37	4	5,479	0.0007	0.0004	0.0004	2.41	2.41	1.6592	1.6592
38	3	5,396	0.0006	0.0005	0.0005	2.48	2.48	1.2086	1.2086
39	2	5,254	0.0004	0.0005	0.0005	2.52	2.52	0.7930	0.7930
40	1	5,052	0.0002	0.0005	0.0005	2.53	2.53	0.3959	0.3959
41	3	5,085	0.0006	0.0006	0.0006	3.05	3.05	0.9833	0.9833
42	3	5,251	0.0006	0.0007	0.0007	3.68	3.68	0.8162	0.8162
43	1	5,337	0.0002	0.0008	0.0008	4.27	4.27	0.2342	0.2342
44	3	5,294	0.0006	0.0009	0.0009	4.76	4.76	0.6296	0.6296
45	5	4,965	0.0010	0.0010	0.0010	4.97	4.97	1.0070	1.0070
46	4	4,554	0.0009	0.0011	0.0011	5.01	5.01	0.7985	0.7985
47	2	3,969	0.0005	0.0012	0.0012	4.76	4.76	0.4199	0.4199
48	3	3,464	0.0009	0.0013	0.0013	4.50	4.50	0.6662	0.6662
49	1	3,037	0.0003	0.0014	0.0014	4.25	4.25	0.2352	0.2352
50	3	2,480	0.0012	0.0015	0.0015	3.72	3.72	0.8065	0.8065
51	0	2,020	0.0000	0.0016	0.0016	3.23	3.23	0.0000	0.0000
52	2	1,599	0.0013	0.0017	0.0017	2.72	2.72	0.7358	0.7358
53	3	1,221	0.0025	0.0018	0.0018	2.20	2.20	1.3650	1.3650
54	0	913	0.0000	0.0019	0.0019	1.73	1.73	0.0000	0.0000
55	3	670	0.0045	0.0020	0.0020	1.34	1.34	2.2388	2.2388
56	2	524	0.0038	0.0022	0.0022	1.15	1.15	1.7349	1.7349
57	1	387	0.0026	0.0024	0.0024	0.93	0.93	1.0767	1.0767
58	0	292	0.0000	0.0026	0.0026	0.76	0.76	0.0000	0.0000
59	0	217	0.0000	0.0028	0.0028	0.61	0.61	0.0000	0.0000
60	0	140	0.0000	0.0030	0.0030	0.42	0.42	0.0000	0.0000
61	0	106	0.0000	0.0032	0.0032	0.34	0.34	0.0000	0.0000
62	2	82	0.0244	0.0034	0.0034	0.28	0.28	7.1736	7.1736
63	0	29	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	81	139,562	0.0006			95.42	95.42	0.8489	0.8489

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Men**

10-Year Period Ending 2017

Proposed Rates are 100% of the Current Rates for males and 100% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
21	0	15	0.0000	0.0004	0.0004	0.01	0.01	0.0000	0.0000
22	1	1,052	0.0010	0.0004	0.0004	0.42	0.42	2.3764	2.3764
23	0	3,130	0.0000	0.0004	0.0004	1.25	1.25	0.0000	0.0000
24	5	5,249	0.0010	0.0004	0.0004	2.10	2.10	2.3814	2.3814
25	6	7,116	0.0008	0.0004	0.0004	2.85	2.85	2.1079	2.1079
26	1	8,746	0.0001	0.0004	0.0004	3.50	3.50	0.2858	0.2858
27	7	9,768	0.0007	0.0004	0.0004	3.91	3.91	1.7916	1.7916
28	7	10,474	0.0007	0.0004	0.0004	4.19	4.19	1.6708	1.6708
29	6	10,948	0.0005	0.0004	0.0004	4.38	4.38	1.3701	1.3701
30	6	11,337	0.0005	0.0004	0.0004	4.53	4.53	1.3231	1.3231
31	6	11,380	0.0005	0.0004	0.0004	4.55	4.55	1.3181	1.3181
32	3	11,308	0.0003	0.0004	0.0004	4.52	4.52	0.6632	0.6632
33	3	11,258	0.0003	0.0004	0.0004	4.50	4.50	0.6662	0.6662
34	6	11,294	0.0005	0.0004	0.0004	4.52	4.52	1.3281	1.3281
35	2	11,231	0.0002	0.0004	0.0004	4.49	4.49	0.4452	0.4452
36	7	11,608	0.0006	0.0004	0.0004	4.88	4.88	1.4358	1.4358
37	4	12,087	0.0003	0.0004	0.0004	5.32	5.32	0.7521	0.7521
38	3	12,622	0.0002	0.0005	0.0005	5.81	5.81	0.5167	0.5167
39	6	12,899	0.0005	0.0005	0.0005	6.19	6.19	0.9691	0.9691
40	6	13,235	0.0005	0.0005	0.0005	6.62	6.62	0.9067	0.9067
41	6	13,155	0.0005	0.0006	0.0006	7.89	7.89	0.7602	0.7602
42	7	12,773	0.0005	0.0007	0.0007	8.94	8.94	0.7829	0.7829
43	6	11,999	0.0005	0.0008	0.0008	9.60	9.60	0.6251	0.6251
44	8	11,034	0.0007	0.0009	0.0009	9.93	9.93	0.8056	0.8056
45	7	9,902	0.0007	0.0010	0.0010	9.90	9.90	0.7069	0.7069
46	5	8,577	0.0006	0.0011	0.0011	9.43	9.43	0.5300	0.5300
47	5	7,209	0.0007	0.0012	0.0012	8.65	8.65	0.5780	0.5780
48	8	6,012	0.0013	0.0013	0.0013	7.82	7.82	1.0236	1.0236
49	3	4,986	0.0006	0.0014	0.0014	6.98	6.98	0.4298	0.4298
50	5	3,964	0.0013	0.0015	0.0015	5.95	5.95	0.8409	0.8409
51	3	3,089	0.0010	0.0016	0.0016	4.94	4.94	0.6070	0.6070
52	3	2,365	0.0013	0.0017	0.0017	4.02	4.02	0.7462	0.7462
53	2	1,826	0.0011	0.0018	0.0018	3.29	3.29	0.6085	0.6085
54	0	1,381	0.0000	0.0019	0.0019	2.62	2.62	0.0000	0.0000
55	1	1,034	0.0010	0.0020	0.0020	2.07	2.07	0.4836	0.4836
56	1	791	0.0013	0.0022	0.0022	1.74	1.74	0.5746	0.5746
57	1	596	0.0017	0.0024	0.0024	1.43	1.43	0.6991	0.6991
58	0	467	0.0000	0.0026	0.0026	1.21	1.21	0.0000	0.0000
59	1	346	0.0029	0.0028	0.0028	0.97	0.97	1.0322	1.0322
60	1	248	0.0040	0.0030	0.0030	0.74	0.74	1.3441	1.3441
61	1	205	0.0049	0.0032	0.0032	0.66	0.66	1.5244	1.5244
62	2	158	0.0127	0.0034	0.0034	0.54	0.54	3.7230	3.7230
63	0	61	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	17	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	161	289,010	0.0006			187.86	187.86	0.8570	0.8570

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Women
10-Year Period Ending 2017**

Proposed Rates are 100% of the Current Rates for males and 100% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
21	0	1	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
22	0	140	0.0000	0.0004	0.0004	0.06	0.06	0.0000	0.0000
23	0	523	0.0000	0.0004	0.0004	0.21	0.21	0.0000	0.0000
24	0	879	0.0000	0.0004	0.0004	0.35	0.35	0.0000	0.0000
25	2	1,276	0.0016	0.0004	0.0004	0.51	0.51	3.9185	3.9185
26	2	1,642	0.0012	0.0004	0.0004	0.66	0.66	3.0451	3.0451
27	2	1,880	0.0011	0.0004	0.0004	0.75	0.75	2.6596	2.6596
28	1	2,100	0.0005	0.0004	0.0004	0.84	0.84	1.1905	1.1905
29	1	2,256	0.0004	0.0004	0.0004	0.90	0.90	1.1082	1.1082
30	0	2,401	0.0000	0.0004	0.0004	0.96	0.96	0.0000	0.0000
31	1	2,457	0.0004	0.0004	0.0004	0.98	0.98	1.0175	1.0175
32	0	2,517	0.0000	0.0004	0.0004	1.01	1.01	0.0000	0.0000
33	0	2,577	0.0000	0.0004	0.0004	1.03	1.03	0.0000	0.0000
34	1	2,599	0.0004	0.0004	0.0004	1.04	1.04	0.9619	0.9619
35	0	2,589	0.0000	0.0004	0.0004	1.04	1.04	0.0000	0.0000
36	2	2,681	0.0007	0.0004	0.0004	1.13	1.13	1.7762	1.7762
37	2	2,738	0.0007	0.0004	0.0004	1.20	1.20	1.6601	1.6601
38	2	2,823	0.0007	0.0005	0.0005	1.30	1.30	1.5401	1.5401
39	0	2,805	0.0000	0.0005	0.0005	1.35	1.35	0.0000	0.0000
40	5	2,758	0.0018	0.0005	0.0005	1.38	1.38	3.6258	3.6258
41	1	2,646	0.0004	0.0006	0.0006	1.59	1.59	0.6299	0.6299
42	2	2,511	0.0008	0.0007	0.0007	1.76	1.76	1.1379	1.1379
43	1	2,361	0.0004	0.0008	0.0008	1.89	1.89	0.5294	0.5294
44	0	2,202	0.0000	0.0009	0.0009	1.98	1.98	0.0000	0.0000
45	2	1,986	0.0010	0.0010	0.0010	1.99	1.99	1.0070	1.0070
46	1	1,760	0.0006	0.0011	0.0011	1.94	1.94	0.5165	0.5165
47	0	1,466	0.0000	0.0012	0.0012	1.76	1.76	0.0000	0.0000
48	0	1,191	0.0000	0.0013	0.0013	1.55	1.55	0.0000	0.0000
49	1	972	0.0010	0.0014	0.0014	1.36	1.36	0.7349	0.7349
50	0	758	0.0000	0.0015	0.0015	1.14	1.14	0.0000	0.0000
51	0	591	0.0000	0.0016	0.0016	0.95	0.95	0.0000	0.0000
52	0	442	0.0000	0.0017	0.0017	0.75	0.75	0.0000	0.0000
53	1	305	0.0033	0.0018	0.0018	0.55	0.55	1.8215	1.8215
54	0	205	0.0000	0.0019	0.0019	0.39	0.39	0.0000	0.0000
55	2	140	0.0143	0.0020	0.0020	0.28	0.28	7.1429	7.1429
56	1	95	0.0105	0.0022	0.0022	0.21	0.21	4.7847	4.7847
57	0	61	0.0000	0.0024	0.0024	0.15	0.15	0.0000	0.0000
58	0	40	0.0000	0.0026	0.0026	0.10	0.10	0.0000	0.0000
59	0	24	0.0000	0.0028	0.0028	0.07	0.07	0.0000	0.0000
60	0	12	0.0000	0.0030	0.0030	0.04	0.04	0.0000	0.0000
61	0	7	0.0000	0.0032	0.0032	0.02	0.02	0.0000	0.0000
62	0	6	0.0000	0.0034	0.0034	0.02	0.02	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	33	59,424	0.0006			37.15	37.15	0.8882	0.8882

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

Proposed Rates are 100% of the Current Rates for males and 100% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0004	0.00	0.00	N/A	N/A
21	0	16	0.0000	0.0004	0.0004	0.01	0.01	0.0000	0.0000
22	1	1,192	0.0008	0.0004	0.0004	0.48	0.48	2.0973	2.0973
23	0	3,653	0.0000	0.0004	0.0004	1.46	1.46	0.0000	0.0000
24	5	6,128	0.0008	0.0004	0.0004	2.45	2.45	2.0398	2.0398
25	8	8,392	0.0010	0.0004	0.0004	3.36	3.36	2.3832	2.3832
26	3	10,388	0.0003	0.0004	0.0004	4.16	4.16	0.7220	0.7220
27	9	11,648	0.0008	0.0004	0.0004	4.66	4.66	1.9317	1.9317
28	8	12,574	0.0006	0.0004	0.0004	5.03	5.03	1.5906	1.5906
29	7	13,204	0.0005	0.0004	0.0004	5.28	5.28	1.3254	1.3254
30	6	13,738	0.0004	0.0004	0.0004	5.50	5.50	1.0919	1.0919
31	7	13,837	0.0005	0.0004	0.0004	5.53	5.53	1.2647	1.2647
32	3	13,825	0.0002	0.0004	0.0004	5.53	5.53	0.5425	0.5425
33	3	13,835	0.0002	0.0004	0.0004	5.53	5.53	0.5421	0.5421
34	7	13,893	0.0005	0.0004	0.0004	5.56	5.56	1.2596	1.2596
35	2	13,820	0.0001	0.0004	0.0004	5.53	5.53	0.3618	0.3618
36	9	14,289	0.0006	0.0004	0.0004	6.00	6.00	1.4997	1.4997
37	6	14,825	0.0004	0.0004	0.0004	6.52	6.52	0.9198	0.9198
38	5	15,445	0.0003	0.0005	0.0005	7.10	7.10	0.7038	0.7038
39	6	15,704	0.0004	0.0005	0.0005	7.54	7.54	0.7960	0.7960
40	11	15,993	0.0007	0.0005	0.0005	8.00	8.00	1.3756	1.3756
41	7	15,801	0.0004	0.0006	0.0006	9.48	9.48	0.7383	0.7383
42	9	15,284	0.0006	0.0007	0.0007	10.70	10.70	0.8412	0.8412
43	7	14,360	0.0005	0.0008	0.0008	11.49	11.49	0.6093	0.6093
44	8	13,236	0.0006	0.0009	0.0009	11.91	11.91	0.6716	0.6716
45	9	11,888	0.0008	0.0010	0.0010	11.89	11.89	0.7571	0.7571
46	6	10,337	0.0006	0.0011	0.0011	11.37	11.37	0.5277	0.5277
47	5	8,675	0.0006	0.0012	0.0012	10.41	10.41	0.4803	0.4803
48	8	7,203	0.0011	0.0013	0.0013	9.36	9.36	0.8543	0.8543
49	4	5,958	0.0007	0.0014	0.0014	8.34	8.34	0.4795	0.4795
50	5	4,722	0.0011	0.0015	0.0015	7.08	7.08	0.7059	0.7059
51	3	3,680	0.0008	0.0016	0.0016	5.89	5.89	0.5095	0.5095
52	3	2,807	0.0011	0.0017	0.0017	4.77	4.77	0.6287	0.6287
53	3	2,131	0.0014	0.0018	0.0018	3.84	3.84	0.7821	0.7821
54	0	1,586	0.0000	0.0019	0.0019	3.01	3.01	0.0000	0.0000
55	3	1,174	0.0026	0.0020	0.0020	2.35	2.35	1.2777	1.2777
56	2	886	0.0023	0.0022	0.0022	1.95	1.95	1.0261	1.0261
57	1	657	0.0015	0.0024	0.0024	1.58	1.58	0.6342	0.6342
58	0	507	0.0000	0.0026	0.0026	1.32	1.32	0.0000	0.0000
59	1	370	0.0027	0.0028	0.0028	1.04	1.04	0.9653	0.9653
60	1	260	0.0038	0.0030	0.0030	0.78	0.78	1.2821	1.2821
61	1	212	0.0047	0.0032	0.0032	0.68	0.68	1.4741	1.4741
62	2	164	0.0122	0.0034	0.0034	0.56	0.56	3.5868	3.5868
63	0	62	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	17	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	194	348,434	0.0006			225.01	225.01	0.8622	0.8622

Bolton

**New York City Police Pension Fund
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	17	35,337	19.08	0.8910	0.0005	0.0005
2009	27	35,424	19.87	1.3588	0.0008	0.0006
2010	24	35,589	20.76	1.1561	0.0007	0.0006
2011	10	34,595	21.06	0.4748	0.0003	0.0006
2012	18	33,703	21.11	0.8527	0.0005	0.0006
2013	17	34,237	21.65	0.7852	0.0005	0.0006
2014	17	34,772	22.45	0.7572	0.0005	0.0006
2015	23	34,402	22.43	1.0254	0.0007	0.0007
2016	12	34,435	22.65	0.5298	0.0003	0.0007
2017	30	35,961	23.66	1.2680	0.0008	0.0007
Total	195	348,455	214.72	0.9082	0.0006	0.0006

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75)

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Men**

4-Year Period Ending 2017

Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0001	0.0001	0.00	0.00	0.0000	0.0000
22	0	360	0.0000	0.0001	0.0001	0.04	0.04	0.0000	0.0000
23	0	1,015	0.0000	0.0001	0.0001	0.10	0.10	0.0000	0.0000
24	0	1,845	0.0000	0.0001	0.0001	0.18	0.18	0.0000	0.0000
25	1	2,561	0.0004	0.0001	0.0001	0.26	0.26	3.9047	3.9047
26	0	3,278	0.0000	0.0001	0.0001	0.33	0.33	0.0000	0.0000
27	0	3,775	0.0000	0.0001	0.0001	0.38	0.38	0.0000	0.0000
28	0	4,243	0.0000	0.0001	0.0001	0.42	0.42	0.0000	0.0000
29	0	4,598	0.0000	0.0001	0.0001	0.46	0.46	0.0000	0.0000
30	0	4,799	0.0000	0.0001	0.0001	0.48	0.48	0.0000	0.0000
31	0	4,961	0.0000	0.0001	0.0001	0.55	0.55	0.0000	0.0000
32	1	4,973	0.0002	0.0001	0.0001	0.60	0.60	1.6757	1.6757
33	2	4,988	0.0004	0.0001	0.0001	0.65	0.65	3.0843	3.0843
34	0	4,923	0.0000	0.0001	0.0001	0.69	0.69	0.0000	0.0000
35	0	4,710	0.0000	0.0002	0.0002	0.71	0.71	0.0000	0.0000
36	0	4,581	0.0000	0.0002	0.0002	0.73	0.73	0.0000	0.0000
37	0	4,390	0.0000	0.0002	0.0002	0.75	0.75	0.0000	0.0000
38	1	4,338	0.0002	0.0002	0.0002	0.78	0.78	1.2807	1.2807
39	0	4,212	0.0000	0.0002	0.0002	0.80	0.80	0.0000	0.0000
40	1	4,109	0.0002	0.0002	0.0002	0.82	0.82	1.2168	1.2168
41	1	4,160	0.0002	0.0002	0.0002	0.87	0.87	1.1447	1.1447
42	0	4,315	0.0000	0.0002	0.0002	0.95	0.95	0.0000	0.0000
43	0	4,437	0.0000	0.0002	0.0002	1.02	1.02	0.0000	0.0000
44	2	4,388	0.0005	0.0002	0.0002	1.05	1.05	1.8991	1.8991
45	1	4,149	0.0002	0.0003	0.0003	1.04	1.04	0.9641	0.9641
46	0	3,812	0.0000	0.0003	0.0003	0.99	0.99	0.0000	0.0000
47	1	3,366	0.0003	0.0003	0.0003	0.91	0.91	1.1003	1.1003
48	2	2,971	0.0007	0.0003	0.0003	0.83	0.83	2.4042	2.4042
49	1	2,594	0.0004	0.0003	0.0003	0.75	0.75	1.3293	1.3293
50	0	2,120	0.0000	0.0003	0.0003	0.64	0.64	0.0000	0.0000
51	0	1,700	0.0000	0.0003	0.0003	0.53	0.53	0.0000	0.0000
52	0	1,330	0.0000	0.0003	0.0003	0.43	0.43	0.0000	0.0000
53	0	1,032	0.0000	0.0003	0.0003	0.34	0.34	0.0000	0.0000
54	1	780	0.0013	0.0003	0.0003	0.27	0.27	3.7707	3.7707
55	1	579	0.0017	0.0004	0.0004	0.20	0.20	4.9346	4.9346
56	0	457	0.0000	0.0004	0.0004	0.16	0.16	0.0000	0.0000
57	0	344	0.0000	0.0004	0.0004	0.13	0.13	0.0000	0.0000
58	0	263	0.0000	0.0004	0.0004	0.10	0.10	0.0000	0.0000
59	1	199	0.0050	0.0004	0.0004	0.08	0.08	12.8849	12.8849
60	0	133	0.0000	0.0004	0.0004	0.05	0.05	0.0000	0.0000
61	0	100	0.0000	0.0004	0.0004	0.04	0.04	0.0000	0.0000
62	0	77	0.0000	0.0004	0.0004	0.03	0.03	0.0000	0.0000
63	0	28	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	17	116,042	0.0001			21.13	21.13	0.8046	0.8046

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Women
4-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
22	0	45	0.0000	0.0001	0.0001	0.00	0.00	0.0000	0.0000
23	0	164	0.0000	0.0001	0.0001	0.02	0.02	0.0000	0.0000
24	0	251	0.0000	0.0001	0.0001	0.03	0.03	0.0000	0.0000
25	0	430	0.0000	0.0001	0.0001	0.04	0.04	0.0000	0.0000
26	0	601	0.0000	0.0001	0.0001	0.06	0.06	0.0000	0.0000
27	0	686	0.0000	0.0001	0.0001	0.07	0.07	0.0000	0.0000
28	0	805	0.0000	0.0001	0.0001	0.08	0.08	0.0000	0.0000
29	0	871	0.0000	0.0001	0.0001	0.09	0.09	0.0000	0.0000
30	0	908	0.0000	0.0001	0.0001	0.09	0.09	0.0000	0.0000
31	0	956	0.0000	0.0001	0.0001	0.11	0.11	0.0000	0.0000
32	0	1,008	0.0000	0.0001	0.0001	0.12	0.12	0.0000	0.0000
33	0	1,071	0.0000	0.0001	0.0001	0.14	0.14	0.0000	0.0000
34	0	1,089	0.0000	0.0001	0.0001	0.15	0.15	0.0000	0.0000
35	0	1,071	0.0000	0.0002	0.0002	0.16	0.16	0.0000	0.0000
36	0	1,130	0.0000	0.0002	0.0002	0.18	0.18	0.0000	0.0000
37	0	1,089	0.0000	0.0002	0.0002	0.19	0.19	0.0000	0.0000
38	0	1,058	0.0000	0.0002	0.0002	0.19	0.19	0.0000	0.0000
39	0	1,042	0.0000	0.0002	0.0002	0.20	0.20	0.0000	0.0000
40	0	943	0.0000	0.0002	0.0002	0.19	0.19	0.0000	0.0000
41	0	925	0.0000	0.0002	0.0002	0.19	0.19	0.0000	0.0000
42	0	936	0.0000	0.0002	0.0002	0.21	0.21	0.0000	0.0000
43	0	900	0.0000	0.0002	0.0002	0.21	0.21	0.0000	0.0000
44	0	906	0.0000	0.0002	0.0002	0.22	0.22	0.0000	0.0000
45	0	816	0.0000	0.0003	0.0003	0.20	0.20	0.0000	0.0000
46	0	742	0.0000	0.0003	0.0003	0.19	0.19	0.0000	0.0000
47	0	603	0.0000	0.0003	0.0003	0.16	0.16	0.0000	0.0000
48	0	493	0.0000	0.0003	0.0003	0.14	0.14	0.0000	0.0000
49	0	443	0.0000	0.0003	0.0003	0.13	0.13	0.0000	0.0000
50	0	360	0.0000	0.0003	0.0003	0.11	0.11	0.0000	0.0000
51	1	320	0.0031	0.0003	0.0003	0.10	0.10	10.0806	10.0806
52	0	269	0.0000	0.0003	0.0003	0.09	0.09	0.0000	0.0000
53	0	189	0.0000	0.0003	0.0003	0.06	0.06	0.0000	0.0000
54	0	133	0.0000	0.0003	0.0003	0.05	0.05	0.0000	0.0000
55	0	91	0.0000	0.0004	0.0004	0.03	0.03	0.0000	0.0000
56	0	67	0.0000	0.0004	0.0004	0.02	0.02	0.0000	0.0000
57	0	43	0.0000	0.0004	0.0004	0.02	0.02	0.0000	0.0000
58	0	29	0.0000	0.0004	0.0004	0.01	0.01	0.0000	0.0000
59	0	18	0.0000	0.0004	0.0004	0.01	0.01	0.0000	0.0000
60	0	7	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
61	0	6	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
62	0	5	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1	23,520	0.0000			4.25	4.25	0.2355	0.2355

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Men and Women
4-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0001	0.0001	0.00	0.00	0.0000	0.0000
22	0	405	0.0000	0.0001	0.0001	0.04	0.04	0.0000	0.0000
23	0	1,179	0.0000	0.0001	0.0001	0.12	0.12	0.0000	0.0000
24	0	2,096	0.0000	0.0001	0.0001	0.21	0.21	0.0000	0.0000
25	1	2,991	0.0003	0.0001	0.0001	0.30	0.30	3.3434	3.3434
26	0	3,879	0.0000	0.0001	0.0001	0.39	0.39	0.0000	0.0000
27	0	4,461	0.0000	0.0001	0.0001	0.45	0.45	0.0000	0.0000
28	0	5,048	0.0000	0.0001	0.0001	0.50	0.50	0.0000	0.0000
29	0	5,469	0.0000	0.0001	0.0001	0.55	0.55	0.0000	0.0000
30	0	5,707	0.0000	0.0001	0.0001	0.57	0.57	0.0000	0.0000
31	0	5,917	0.0000	0.0001	0.0001	0.65	0.65	0.0000	0.0000
32	1	5,981	0.0002	0.0001	0.0001	0.72	0.72	1.3933	1.3933
33	2	6,059	0.0003	0.0001	0.0001	0.79	0.79	2.5391	2.5391
34	0	6,012	0.0000	0.0001	0.0001	0.84	0.84	0.0000	0.0000
35	0	5,781	0.0000	0.0002	0.0002	0.87	0.87	0.0000	0.0000
36	0	5,711	0.0000	0.0002	0.0002	0.91	0.91	0.0000	0.0000
37	0	5,479	0.0000	0.0002	0.0002	0.93	0.93	0.0000	0.0000
38	1	5,396	0.0002	0.0002	0.0002	0.97	0.97	1.0296	1.0296
39	0	5,254	0.0000	0.0002	0.0002	1.00	1.00	0.0000	0.0000
40	1	5,052	0.0002	0.0002	0.0002	1.01	1.01	0.9897	0.9897
41	1	5,085	0.0002	0.0002	0.0002	1.07	1.07	0.9365	0.9365
42	0	5,251	0.0000	0.0002	0.0002	1.16	1.16	0.0000	0.0000
43	0	5,337	0.0000	0.0002	0.0002	1.23	1.23	0.0000	0.0000
44	2	5,294	0.0004	0.0002	0.0002	1.27	1.27	1.5741	1.5741
45	1	4,965	0.0002	0.0003	0.0003	1.24	1.24	0.8056	0.8056
46	0	4,554	0.0000	0.0003	0.0003	1.18	1.18	0.0000	0.0000
47	1	3,969	0.0003	0.0003	0.0003	1.07	1.07	0.9332	0.9332
48	2	3,464	0.0006	0.0003	0.0003	0.97	0.97	2.0620	2.0620
49	1	3,037	0.0003	0.0003	0.0003	0.88	0.88	1.1354	1.1354
50	0	2,480	0.0000	0.0003	0.0003	0.74	0.74	0.0000	0.0000
51	1	2,020	0.0005	0.0003	0.0003	0.63	0.63	1.5969	1.5969
52	0	1,599	0.0000	0.0003	0.0003	0.51	0.51	0.0000	0.0000
53	0	1,221	0.0000	0.0003	0.0003	0.40	0.40	0.0000	0.0000
54	1	913	0.0011	0.0003	0.0003	0.31	0.31	3.2214	3.2214
55	1	670	0.0015	0.0004	0.0004	0.23	0.23	4.2644	4.2644
56	0	524	0.0000	0.0004	0.0004	0.19	0.19	0.0000	0.0000
57	0	387	0.0000	0.0004	0.0004	0.14	0.14	0.0000	0.0000
58	0	292	0.0000	0.0004	0.0004	0.11	0.11	0.0000	0.0000
59	1	217	0.0046	0.0004	0.0004	0.08	0.08	11.8161	11.8161
60	0	140	0.0000	0.0004	0.0004	0.06	0.06	0.0000	0.0000
61	0	106	0.0000	0.0004	0.0004	0.04	0.04	0.0000	0.0000
62	0	82	0.0000	0.0004	0.0004	0.03	0.03	0.0000	0.0000
63	0	29	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	18	139,562	0.0001			25.37	25.37	0.7094	0.7094

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Men
10-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	15	0.0000	0.0001	0.0001	0.00	0.00	0.0000	0.0000
22	0	1,052	0.0000	0.0001	0.0001	0.11	0.11	0.0000	0.0000
23	0	3,130	0.0000	0.0001	0.0001	0.31	0.31	0.0000	0.0000
24	1	5,249	0.0002	0.0001	0.0001	0.52	0.52	1.9051	1.9051
25	1	7,116	0.0001	0.0001	0.0001	0.71	0.71	1.4053	1.4053
26	0	8,746	0.0000	0.0001	0.0001	0.87	0.87	0.0000	0.0000
27	0	9,768	0.0000	0.0001	0.0001	0.98	0.98	0.0000	0.0000
28	0	10,474	0.0000	0.0001	0.0001	1.05	1.05	0.0000	0.0000
29	0	10,948	0.0000	0.0001	0.0001	1.09	1.09	0.0000	0.0000
30	0	11,337	0.0000	0.0001	0.0001	1.13	1.13	0.0000	0.0000
31	0	11,380	0.0000	0.0001	0.0001	1.25	1.25	0.0000	0.0000
32	1	11,308	0.0001	0.0001	0.0001	1.36	1.36	0.7369	0.7369
33	2	11,258	0.0002	0.0001	0.0001	1.46	1.46	1.3665	1.3665
34	0	11,294	0.0000	0.0001	0.0001	1.58	1.58	0.0000	0.0000
35	0	11,231	0.0000	0.0002	0.0002	1.68	1.68	0.0000	0.0000
36	0	11,608	0.0000	0.0002	0.0002	1.86	1.86	0.0000	0.0000
37	0	12,087	0.0000	0.0002	0.0002	2.05	2.05	0.0000	0.0000
38	2	12,622	0.0002	0.0002	0.0002	2.27	2.27	0.8803	0.8803
39	2	12,899	0.0002	0.0002	0.0002	2.45	2.45	0.8161	0.8161
40	2	13,235	0.0002	0.0002	0.0002	2.65	2.65	0.7556	0.7556
41	2	13,155	0.0002	0.0002	0.0002	2.76	2.76	0.7240	0.7240
42	1	12,773	0.0001	0.0002	0.0002	2.81	2.81	0.3559	0.3559
43	2	11,999	0.0002	0.0002	0.0002	2.76	2.76	0.7247	0.7247
44	3	11,034	0.0003	0.0002	0.0002	2.65	2.65	1.1329	1.1329
45	1	9,902	0.0001	0.0003	0.0003	2.48	2.48	0.4040	0.4040
46	1	8,577	0.0001	0.0003	0.0003	2.23	2.23	0.4484	0.4484
47	3	7,209	0.0004	0.0003	0.0003	1.95	1.95	1.5413	1.5413
48	2	6,012	0.0003	0.0003	0.0003	1.68	1.68	1.1881	1.1881
49	4	4,986	0.0008	0.0003	0.0003	1.45	1.45	2.7664	2.7664
50	0	3,964	0.0000	0.0003	0.0003	1.19	1.19	0.0000	0.0000
51	1	3,089	0.0003	0.0003	0.0003	0.96	0.96	1.0443	1.0443
52	0	2,365	0.0000	0.0003	0.0003	0.76	0.76	0.0000	0.0000
53	0	1,826	0.0000	0.0003	0.0003	0.60	0.60	0.0000	0.0000
54	1	1,381	0.0007	0.0003	0.0003	0.47	0.47	2.1297	2.1297
55	1	1,034	0.0010	0.0004	0.0004	0.36	0.36	2.7632	2.7632
56	0	791	0.0000	0.0004	0.0004	0.28	0.28	0.0000	0.0000
57	0	596	0.0000	0.0004	0.0004	0.22	0.22	0.0000	0.0000
58	0	467	0.0000	0.0004	0.0004	0.18	0.18	0.0000	0.0000
59	1	346	0.0029	0.0004	0.0004	0.13	0.13	7.4107	7.4107
60	0	248	0.0000	0.0004	0.0004	0.10	0.10	0.0000	0.0000
61	1	205	0.0049	0.0004	0.0004	0.08	0.08	11.8977	11.8977
62	0	158	0.0000	0.0004	0.0004	0.07	0.07	0.0000	0.0000
63	0	61	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	17	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	35	289,010	0.0001			51.57	51.57	0.6787	0.6787

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Women
10-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	1	0.0000	0.0001	0.0001	0.00	0.00	0.0000	0.0000
22	0	140	0.0000	0.0001	0.0001	0.01	0.01	0.0000	0.0000
23	0	523	0.0000	0.0001	0.0001	0.05	0.05	0.0000	0.0000
24	0	879	0.0000	0.0001	0.0001	0.09	0.09	0.0000	0.0000
25	0	1,276	0.0000	0.0001	0.0001	0.13	0.13	0.0000	0.0000
26	0	1,642	0.0000	0.0001	0.0001	0.16	0.16	0.0000	0.0000
27	0	1,880	0.0000	0.0001	0.0001	0.19	0.19	0.0000	0.0000
28	0	2,100	0.0000	0.0001	0.0001	0.21	0.21	0.0000	0.0000
29	0	2,256	0.0000	0.0001	0.0001	0.23	0.23	0.0000	0.0000
30	0	2,401	0.0000	0.0001	0.0001	0.24	0.24	0.0000	0.0000
31	0	2,457	0.0000	0.0001	0.0001	0.27	0.27	0.0000	0.0000
32	0	2,517	0.0000	0.0001	0.0001	0.30	0.30	0.0000	0.0000
33	0	2,577	0.0000	0.0001	0.0001	0.34	0.34	0.0000	0.0000
34	0	2,599	0.0000	0.0001	0.0001	0.36	0.36	0.0000	0.0000
35	0	2,589	0.0000	0.0002	0.0002	0.39	0.39	0.0000	0.0000
36	0	2,681	0.0000	0.0002	0.0002	0.43	0.43	0.0000	0.0000
37	0	2,738	0.0000	0.0002	0.0002	0.47	0.47	0.0000	0.0000
38	0	2,823	0.0000	0.0002	0.0002	0.51	0.51	0.0000	0.0000
39	0	2,805	0.0000	0.0002	0.0002	0.53	0.53	0.0000	0.0000
40	0	2,758	0.0000	0.0002	0.0002	0.55	0.55	0.0000	0.0000
41	0	2,646	0.0000	0.0002	0.0002	0.56	0.56	0.0000	0.0000
42	0	2,511	0.0000	0.0002	0.0002	0.55	0.55	0.0000	0.0000
43	0	2,361	0.0000	0.0002	0.0002	0.54	0.54	0.0000	0.0000
44	0	2,202	0.0000	0.0002	0.0002	0.53	0.53	0.0000	0.0000
45	0	1,986	0.0000	0.0003	0.0003	0.50	0.50	0.0000	0.0000
46	0	1,760	0.0000	0.0003	0.0003	0.46	0.46	0.0000	0.0000
47	0	1,466	0.0000	0.0003	0.0003	0.40	0.40	0.0000	0.0000
48	0	1,191	0.0000	0.0003	0.0003	0.33	0.33	0.0000	0.0000
49	0	972	0.0000	0.0003	0.0003	0.28	0.28	0.0000	0.0000
50	0	758	0.0000	0.0003	0.0003	0.23	0.23	0.0000	0.0000
51	1	591	0.0017	0.0003	0.0003	0.18	0.18	5.4582	5.4582
52	0	442	0.0000	0.0003	0.0003	0.14	0.14	0.0000	0.0000
53	0	305	0.0000	0.0003	0.0003	0.10	0.10	0.0000	0.0000
54	0	205	0.0000	0.0003	0.0003	0.07	0.07	0.0000	0.0000
55	0	140	0.0000	0.0004	0.0004	0.05	0.05	0.0000	0.0000
56	0	95	0.0000	0.0004	0.0004	0.03	0.03	0.0000	0.0000
57	0	61	0.0000	0.0004	0.0004	0.02	0.02	0.0000	0.0000
58	0	40	0.0000	0.0004	0.0004	0.02	0.02	0.0000	0.0000
59	0	24	0.0000	0.0004	0.0004	0.01	0.01	0.0000	0.0000
60	0	12	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
61	0	7	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
62	0	6	0.0000	0.0004	0.0004	0.00	0.00	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1	59,424	0.0000			10.46	10.46	0.0956	0.0956

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0001	0.00	0.00	N/A	N/A
21	0	16	0.0000	0.0001	0.0001	0.00	0.00	0.0000	0.0000
22	0	1,192	0.0000	0.0001	0.0001	0.12	0.12	0.0000	0.0000
23	0	3,653	0.0000	0.0001	0.0001	0.37	0.37	0.0000	0.0000
24	1	6,128	0.0002	0.0001	0.0001	0.61	0.61	1.6319	1.6319
25	1	8,392	0.0001	0.0001	0.0001	0.84	0.84	1.1916	1.1916
26	0	10,388	0.0000	0.0001	0.0001	1.04	1.04	0.0000	0.0000
27	0	11,648	0.0000	0.0001	0.0001	1.16	1.16	0.0000	0.0000
28	0	12,574	0.0000	0.0001	0.0001	1.26	1.26	0.0000	0.0000
29	0	13,204	0.0000	0.0001	0.0001	1.32	1.32	0.0000	0.0000
30	0	13,738	0.0000	0.0001	0.0001	1.37	1.37	0.0000	0.0000
31	0	13,837	0.0000	0.0001	0.0001	1.52	1.52	0.0000	0.0000
32	1	13,825	0.0001	0.0001	0.0001	1.66	1.66	0.6028	0.6028
33	2	13,835	0.0001	0.0001	0.0001	1.80	1.80	1.1120	1.1120
34	0	13,893	0.0000	0.0001	0.0001	1.95	1.95	0.0000	0.0000
35	0	13,820	0.0000	0.0002	0.0002	2.07	2.07	0.0000	0.0000
36	0	14,289	0.0000	0.0002	0.0002	2.29	2.29	0.0000	0.0000
37	0	14,825	0.0000	0.0002	0.0002	2.52	2.52	0.0000	0.0000
38	2	15,445	0.0001	0.0002	0.0002	2.78	2.78	0.7194	0.7194
39	2	15,704	0.0001	0.0002	0.0002	2.98	2.98	0.6703	0.6703
40	2	15,993	0.0001	0.0002	0.0002	3.20	3.20	0.6253	0.6253
41	2	15,801	0.0001	0.0002	0.0002	3.32	3.32	0.6027	0.6027
42	1	15,284	0.0001	0.0002	0.0002	3.36	3.36	0.2974	0.2974
43	2	14,360	0.0001	0.0002	0.0002	3.30	3.30	0.6055	0.6055
44	3	13,236	0.0002	0.0002	0.0002	3.18	3.18	0.9444	0.9444
45	1	11,888	0.0001	0.0003	0.0003	2.97	2.97	0.3365	0.3365
46	1	10,337	0.0001	0.0003	0.0003	2.69	2.69	0.3721	0.3721
47	3	8,675	0.0003	0.0003	0.0003	2.34	2.34	1.2808	1.2808
48	2	7,203	0.0003	0.0003	0.0003	2.02	2.02	0.9917	0.9917
49	4	5,958	0.0007	0.0003	0.0003	1.73	1.73	2.3151	2.3151
50	0	4,722	0.0000	0.0003	0.0003	1.42	1.42	0.0000	0.0000
51	2	3,680	0.0005	0.0003	0.0003	1.14	1.14	1.7532	1.7532
52	0	2,807	0.0000	0.0003	0.0003	0.90	0.90	0.0000	0.0000
53	0	2,131	0.0000	0.0003	0.0003	0.70	0.70	0.0000	0.0000
54	1	1,586	0.0006	0.0003	0.0003	0.54	0.54	1.8545	1.8545
55	1	1,174	0.0009	0.0004	0.0004	0.41	0.41	2.4337	2.4337
56	0	886	0.0000	0.0004	0.0004	0.32	0.32	0.0000	0.0000
57	0	657	0.0000	0.0004	0.0004	0.24	0.24	0.0000	0.0000
58	0	507	0.0000	0.0004	0.0004	0.19	0.19	0.0000	0.0000
59	1	370	0.0027	0.0004	0.0004	0.14	0.14	6.9300	6.9300
60	0	260	0.0000	0.0004	0.0004	0.10	0.10	0.0000	0.0000
61	1	212	0.0047	0.0004	0.0004	0.09	0.09	11.5048	11.5048
62	0	164	0.0000	0.0004	0.0004	0.07	0.07	0.0000	0.0000
63	0	62	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	17	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	36	348,434	0.0001			62.03	62.03	0.5803	0.5803

Bolton

**New York City Police Pension Fund
Active Accidental Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	6	35,337	5.75	1.0435	0.0002	0.0002
2009	1	35,424	5.90	0.1695	0.0000	0.0002
2010	3	35,589	6.07	0.4942	0.0001	0.0002
2011	2	34,595	6.09	0.3284	0.0001	0.0002
2012	3	33,703	5.99	0.5008	0.0001	0.0002
2013	3	34,237	6.07	0.4942	0.0001	0.0002
2014	5	34,772	6.20	0.8065	0.0001	0.0002
2015	6	34,402	6.15	0.9756	0.0002	0.0002
2016	2	34,435	6.16	0.3247	0.0001	0.0002
2017	5	35,961	6.42	0.7788	0.0001	0.0002
Total	36	348,455	60.80	0.5921	0.0001	0.0002

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75)

Bolton

New York City Police Pension Fund
 Retirement Experience of those in First Year of Eligibility
 Men
 4-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	41	74	0.5541	0.6000	0.4200	44.40	31.08	0.9234	1.3192
41	118	331	0.3565	0.6000	0.4200	198.60	139.02	0.5942	0.8488
42	189	492	0.3841	0.6000	0.4200	295.20	206.64	0.6402	0.9146
43	203	603	0.3367	0.6000	0.4200	361.80	253.26	0.5611	0.8015
44	202	554	0.3646	0.6000	0.4200	332.40	232.68	0.6077	0.8681
45	174	499	0.3487	0.6000	0.4200	299.40	209.58	0.5812	0.8302
46	179	454	0.3943	0.6000	0.4200	272.40	190.68	0.6571	0.9387
47	137	374	0.3663	0.6000	0.4200	224.40	157.08	0.6105	0.8722
48	129	315	0.4095	0.6000	0.4200	189.00	132.30	0.6825	0.9751
49	109	278	0.3921	0.6000	0.4200	166.80	116.76	0.6535	0.9335
50	86	217	0.3963	0.6000	0.4200	130.20	91.14	0.6605	0.9436
51	57	125	0.4560	0.6000	0.4200	75.00	52.50	0.7600	1.0857
52	57	133	0.4286	0.6000	0.4200	79.80	55.86	0.7143	1.0204
53	32	73	0.4384	0.6000	0.4200	43.80	30.66	0.7306	1.0437
54	16	36	0.4444	0.6000	0.4200	21.60	15.12	0.7407	1.0582
55	22	35	0.6286	0.6000	0.4200	21.00	14.70	1.0476	1.4966
56	20	34	0.5882	0.6000	0.4200	20.40	14.28	0.9804	1.4006
57	12	22	0.5455	0.6000	0.4200	13.20	9.24	0.9091	1.2987
58	5	8	0.6250	0.6000	0.4200	4.80	3.36	1.0417	1.4881
59	3	4	0.7500	0.6000	0.4200	2.40	1.68	1.2500	1.7857
60	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
61	1	2	0.5000	0.6000	0.4200	1.20	0.84	0.8333	1.1905
62	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
63	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	1,792	4,668	0.3839			2,802.00	1,962.30	0.6395	0.9132

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York City Police Pension Fund
 Retirement Experience of those in First Year of Eligibility
 Women
 4-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	14	17	0.8235	0.6000	0.4200	10.20	7.14	1.3725	1.9608
41	31	54	0.5741	0.6000	0.4200	32.40	22.68	0.9568	1.3668
42	48	98	0.4898	0.6000	0.4200	58.80	41.16	0.8163	1.1662
43	51	103	0.4951	0.6000	0.4200	61.80	43.26	0.8252	1.1789
44	36	86	0.4186	0.6000	0.4200	51.60	36.12	0.6977	0.9967
45	54	114	0.4737	0.6000	0.4200	68.40	47.88	0.7895	1.1278
46	32	79	0.4051	0.6000	0.4200	47.40	33.18	0.6751	0.9644
47	28	64	0.4375	0.6000	0.4200	38.40	26.88	0.7292	1.0417
48	37	62	0.5968	0.6000	0.4200	37.20	26.04	0.9946	1.4209
49	23	46	0.5000	0.6000	0.4200	27.60	19.32	0.8333	1.1905
50	15	36	0.4167	0.6000	0.4200	21.60	15.12	0.6944	0.9921
51	22	40	0.5500	0.6000	0.4200	24.00	16.80	0.9167	1.3095
52	25	44	0.5682	0.6000	0.4200	26.40	18.48	0.9470	1.3528
53	15	29	0.5172	0.6000	0.4200	17.40	12.18	0.8621	1.2315
54	2	6	0.3333	0.6000	0.4200	3.60	2.52	0.5556	0.7937
55	3	5	0.6000	0.6000	0.4200	3.00	2.10	1.0000	1.4286
56	6	7	0.8571	0.6000	0.4200	4.20	2.94	1.4286	2.0408
57	2	4	0.5000	0.6000	0.4200	2.40	1.68	0.8333	1.1905
58	3	5	0.6000	0.6000	0.4200	3.00	2.10	1.0000	1.4286
59	1	1	1.0000	0.6000	0.4200	0.60	0.42	1.6667	2.3810
60	0	0	N/A	0.6000	0.4200	0.00	0.00	N/A	N/A
61	0	0	N/A	0.6000	0.4200	0.00	0.00	N/A	N/A
62	0	0	N/A	0.6000	0.4200	0.00	0.00	N/A	N/A
63	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	448	900	0.4978			540.00	378.00	0.8296	1.1852

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York City Police Pension Fund
 Retirement Experience of those in First Year of Eligibility
 Men and Women
 4-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	55	91	0.6044	0.6000	0.4200	54.60	38.22	1.0073	1.4390
41	149	385	0.3870	0.6000	0.4200	231.00	161.70	0.6450	0.9215
42	237	590	0.4017	0.6000	0.4200	354.00	247.80	0.6695	0.9564
43	254	706	0.3598	0.6000	0.4200	423.60	296.52	0.5996	0.8566
44	238	640	0.3719	0.6000	0.4200	384.00	268.80	0.6198	0.8854
45	228	613	0.3719	0.6000	0.4200	367.80	257.46	0.6199	0.8856
46	211	533	0.3959	0.6000	0.4200	319.80	223.86	0.6598	0.9426
47	165	438	0.3767	0.6000	0.4200	262.80	183.96	0.6279	0.8969
48	166	377	0.4403	0.6000	0.4200	226.20	158.34	0.7339	1.0484
49	132	324	0.4074	0.6000	0.4200	194.40	136.08	0.6790	0.9700
50	101	253	0.3992	0.6000	0.4200	151.80	106.26	0.6653	0.9505
51	79	165	0.4788	0.6000	0.4200	99.00	69.30	0.7980	1.1400
52	82	177	0.4633	0.6000	0.4200	106.20	74.34	0.7721	1.1030
53	47	102	0.4608	0.6000	0.4200	61.20	42.84	0.7680	1.0971
54	18	42	0.4286	0.6000	0.4200	25.20	17.64	0.7143	1.0204
55	25	40	0.6250	0.6000	0.4200	24.00	16.80	1.0417	1.4881
56	26	41	0.6341	0.6000	0.4200	24.60	17.22	1.0569	1.5099
57	14	26	0.5385	0.6000	0.4200	15.60	10.92	0.8974	1.2821
58	8	13	0.6154	0.6000	0.4200	7.80	5.46	1.0256	1.4652
59	4	5	0.8000	0.6000	0.4200	3.00	2.10	1.3333	1.9048
60	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
61	1	2	0.5000	0.6000	0.4200	1.20	0.84	0.8333	1.1905
62	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
63	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	2,240	5,568	0.4023			3,342.00	2,340.30	0.6703	0.9571

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York City Police Pension Fund
 Retirement Experience of those after First Year of Eligibility
 Men
 4-Year Period Ending 2017
 Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	4	0.2500	0.1000	0.1000	0.40	0.40	2.5000	2.5000
41	2	37	0.0541	0.1000	0.1000	3.70	3.70	0.5405	0.5405
42	41	380	0.1079	0.1000	0.1000	38.00	38.00	1.0789	1.0789
43	85	807	0.1053	0.1000	0.1000	80.70	80.70	1.0533	1.0533
44	111	1216	0.0913	0.1000	0.1000	121.60	121.60	0.9128	0.9128
45	182	1496	0.1217	0.1000	0.1000	149.60	149.60	1.2166	1.2166
46	203	1608	0.1262	0.1100	0.1100	176.88	176.88	1.1477	1.1477
47	191	1604	0.1191	0.1200	0.1200	192.48	192.48	0.9923	0.9923
48	190	1570	0.1210	0.1300	0.1300	204.10	204.10	0.9309	0.9309
49	197	1509	0.1306	0.1400	0.1400	211.26	211.26	0.9325	0.9325
50	179	1329	0.1347	0.1500	0.1500	199.35	199.35	0.8979	0.8979
51	143	1145	0.1249	0.1500	0.1500	171.75	171.75	0.8326	0.8326
52	134	925	0.1449	0.1500	0.1500	138.75	138.75	0.9658	0.9658
53	102	781	0.1306	0.1500	0.1500	117.15	117.15	0.8707	0.8707
54	104	616	0.1688	0.1500	0.1500	92.40	92.40	1.1255	1.1255
55	64	458	0.1397	0.1500	0.1500	68.70	68.70	0.9316	0.9316
56	59	372	0.1586	0.1500	0.1500	55.80	55.80	1.0573	1.0573
57	36	291	0.1237	0.1500	0.1500	43.65	43.65	0.8247	0.8247
58	28	235	0.1191	0.1500	0.1500	35.25	35.25	0.7943	0.7943
59	37	182	0.2033	0.1500	0.1500	27.30	27.30	1.3553	1.3553
60	23	119	0.1933	0.2000	0.2000	23.80	23.80	0.9664	0.9664
61	17	91	0.1868	0.3000	0.3000	27.30	27.30	0.6227	0.6227
62	36	68	0.5294	0.5000	0.5000	34.00	34.00	1.0588	1.0588
63	15	20	0.7500	1.0000	1.0000	20.00	20.00	0.7500	0.7500
64	2	5	0.4000	1.0000	1.0000	5.00	5.00	0.4000	0.4000
65	1	4	0.2500	1.0000	1.0000	4.00	4.00	0.2500	0.2500
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	2	2	1.0000	1.0000	1.0000	2.00	2.00	1.0000	1.0000
Total	2,185	16,875	0.1295			2,245.92	2,245.92	0.9729	0.9729

Bolton

New York City Police Pension Fund
Retirement Experience of those after First Year of Eligibility
Women
4-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	0	N/A	0.1000	0.1000	0.00	0.00	N/A	N/A
41	1	3	0.3333	0.1000	0.1000	0.30	0.30	3.3333	3.3333
42	4	27	0.1481	0.1000	0.1000	2.70	2.70	1.4815	1.4815
43	12	87	0.1379	0.1000	0.1000	8.70	8.70	1.3793	1.3793
44	24	144	0.1667	0.1000	0.1000	14.40	14.40	1.6667	1.6667
45	23	170	0.1353	0.1000	0.1000	17.00	17.00	1.3529	1.3529
46	21	198	0.1061	0.1100	0.1100	21.78	21.78	0.9642	0.9642
47	30	191	0.1571	0.1200	0.1200	22.92	22.92	1.3089	1.3089
48	28	185	0.1514	0.1300	0.1300	24.05	24.05	1.1642	1.1642
49	35	200	0.1750	0.1400	0.1400	28.00	28.00	1.2500	1.2500
50	26	185	0.1405	0.1500	0.1500	27.75	27.75	0.9369	0.9369
51	19	174	0.1092	0.1500	0.1500	26.10	26.10	0.7280	0.7280
52	22	164	0.1341	0.1500	0.1500	24.60	24.60	0.8943	0.8943
53	24	137	0.1752	0.1500	0.1500	20.55	20.55	1.1679	1.1679
54	17	109	0.1560	0.1500	0.1500	16.35	16.35	1.0398	1.0398
55	15	70	0.2143	0.1500	0.1500	10.50	10.50	1.4286	1.4286
56	9	45	0.2000	0.1500	0.1500	6.75	6.75	1.3333	1.3333
57	3	30	0.1000	0.1500	0.1500	4.50	4.50	0.6667	0.6667
58	3	22	0.1364	0.1500	0.1500	3.30	3.30	0.9091	0.9091
59	6	17	0.3529	0.1500	0.1500	2.55	2.55	2.3529	2.3529
60	0	7	0.0000	0.2000	0.2000	1.40	1.40	0.0000	0.0000
61	0	6	0.0000	0.3000	0.3000	1.80	1.80	0.0000	0.0000
62	4	5	0.8000	0.5000	0.5000	2.50	2.50	1.6000	1.6000
63	1	1	1.0000	1.0000	1.0000	1.00	1.00	1.0000	1.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	327	2,177	0.1502			289.50	289.50	1.1295	1.1295

Bolton

New York City Police Pension Fund
 Retirement Experience of those after First Year of Eligibility
 Men and Women
 4-Year Period Ending 2017
 Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	4	0.2500	0.1000	0.1000	0.40	0.40	2.5000	2.5000
41	3	40	0.0750	0.1000	0.1000	4.00	4.00	0.7500	0.7500
42	45	407	0.1106	0.1000	0.1000	40.70	40.70	1.1057	1.1057
43	97	894	0.1085	0.1000	0.1000	89.40	89.40	1.0850	1.0850
44	135	1360	0.0993	0.1000	0.1000	136.00	136.00	0.9926	0.9926
45	205	1666	0.1230	0.1000	0.1000	166.60	166.60	1.2305	1.2305
46	224	1806	0.1240	0.1100	0.1100	198.66	198.66	1.1276	1.1276
47	221	1795	0.1231	0.1200	0.1200	215.40	215.40	1.0260	1.0260
48	218	1755	0.1242	0.1300	0.1300	228.15	228.15	0.9555	0.9555
49	232	1709	0.1358	0.1400	0.1400	239.26	239.26	0.9697	0.9697
50	205	1514	0.1354	0.1500	0.1500	227.10	227.10	0.9027	0.9027
51	162	1319	0.1228	0.1500	0.1500	197.85	197.85	0.8188	0.8188
52	156	1089	0.1433	0.1500	0.1500	163.35	163.35	0.9550	0.9550
53	126	918	0.1373	0.1500	0.1500	137.70	137.70	0.9150	0.9150
54	121	725	0.1669	0.1500	0.1500	108.75	108.75	1.1126	1.1126
55	79	528	0.1496	0.1500	0.1500	79.20	79.20	0.9975	0.9975
56	68	417	0.1631	0.1500	0.1500	62.55	62.55	1.0871	1.0871
57	39	321	0.1215	0.1500	0.1500	48.15	48.15	0.8100	0.8100
58	31	257	0.1206	0.1500	0.1500	38.55	38.55	0.8042	0.8042
59	43	199	0.2161	0.1500	0.1500	29.85	29.85	1.4405	1.4405
60	23	126	0.1825	0.2000	0.2000	25.20	25.20	0.9127	0.9127
61	17	97	0.1753	0.3000	0.3000	29.10	29.10	0.5842	0.5842
62	40	73	0.5479	0.5000	0.5000	36.50	36.50	1.0959	1.0959
63	16	21	0.7619	1.0000	1.0000	21.00	21.00	0.7619	0.7619
64	2	5	0.4000	1.0000	1.0000	5.00	5.00	0.4000	0.4000
65	1	4	0.2500	1.0000	1.0000	4.00	4.00	0.2500	0.2500
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	2	2	1.0000	1.0000	1.0000	2.00	2.00	1.0000	1.0000
Total	2,512	19,052	0.1318			2,535.42	2,535.42	0.9908	0.9908

Bolton

New York City Police Pension Fund
 Retirement Experience of those in First Year of Eligibility
 Men
 10-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	364	618	0.5890	0.6000	0.4200	370.80	259.56	0.9817	1.4024
41	467	1318	0.3543	0.6000	0.4200	790.80	553.56	0.5905	0.8436
42	569	1447	0.3932	0.6000	0.4200	868.20	607.74	0.6554	0.9363
43	576	1487	0.3874	0.6000	0.4200	892.20	624.54	0.6456	0.9223
44	482	1283	0.3757	0.6000	0.4200	769.80	538.86	0.6261	0.8945
45	426	1122	0.3797	0.6000	0.4200	673.20	471.24	0.6328	0.9040
46	395	954	0.4140	0.6000	0.4200	572.40	400.68	0.6901	0.9858
47	280	734	0.3815	0.6000	0.4200	440.40	308.28	0.6358	0.9083
48	242	599	0.4040	0.6000	0.4200	359.40	251.58	0.6733	0.9619
49	214	520	0.4115	0.6000	0.4200	312.00	218.40	0.6859	0.9799
50	136	365	0.3726	0.6000	0.4200	219.00	153.30	0.6210	0.8871
51	99	222	0.4459	0.6000	0.4200	133.20	93.24	0.7432	1.0618
52	75	173	0.4335	0.6000	0.4200	103.80	72.66	0.7225	1.0322
53	41	99	0.4141	0.6000	0.4200	59.40	41.58	0.6902	0.9861
54	19	45	0.4222	0.6000	0.4200	27.00	18.90	0.7037	1.0053
55	25	40	0.6250	0.6000	0.4200	24.00	16.80	1.0417	1.4881
56	22	37	0.5946	0.6000	0.4200	22.20	15.54	0.9910	1.4157
57	13	24	0.5417	0.6000	0.4200	14.40	10.08	0.9028	1.2897
58	5	9	0.5556	0.6000	0.4200	5.40	3.78	0.9259	1.3228
59	4	5	0.8000	0.6000	0.4200	3.00	2.10	1.3333	1.9048
60	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
61	2	3	0.6667	0.6000	0.4200	1.80	1.26	1.1111	1.5873
62	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
63	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	4,456	11,110	0.4011			6667.6	4668.52	0.6683	0.9545

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York City Police Pension Fund
 Retirement Experience of those in First Year of Eligibility
 Women
 10-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	61	87	0.7011	0.6000	0.4200	52.20	36.54	1.1686	1.6694
41	125	210	0.5952	0.6000	0.4200	126.00	88.20	0.9921	1.4172
42	124	234	0.5299	0.6000	0.4200	140.40	98.28	0.8832	1.2617
43	127	244	0.5205	0.6000	0.4200	146.40	102.48	0.8675	1.2393
44	116	235	0.4936	0.6000	0.4200	141.00	98.70	0.8227	1.1753
45	117	247	0.4737	0.6000	0.4200	148.20	103.74	0.7895	1.1278
46	99	189	0.5238	0.6000	0.4200	113.40	79.38	0.8730	1.2472
47	89	179	0.4972	0.6000	0.4200	107.40	75.18	0.8287	1.1838
48	91	173	0.5260	0.6000	0.4200	103.80	72.66	0.8767	1.2524
49	62	119	0.5210	0.6000	0.4200	71.40	49.98	0.8683	1.2405
50	56	107	0.5234	0.6000	0.4200	64.20	44.94	0.8723	1.2461
51	45	89	0.5056	0.6000	0.4200	53.40	37.38	0.8427	1.2039
52	30	61	0.4918	0.6000	0.4200	36.60	25.62	0.8197	1.1710
53	17	32	0.5313	0.6000	0.4200	19.20	13.44	0.8854	1.2649
54	2	8	0.2500	0.6000	0.4200	4.80	3.36	0.4167	0.5952
55	3	5	0.6000	0.6000	0.4200	3.00	2.10	1.0000	1.4286
56	6	7	0.8571	0.6000	0.4200	4.20	2.94	1.4286	2.0408
57	2	4	0.5000	0.6000	0.4200	2.40	1.68	0.8333	1.1905
58	3	5	0.6000	0.6000	0.4200	3.00	2.10	1.0000	1.4286
59	1	1	1.0000	0.6000	0.4200	0.60	0.42	1.6667	2.3810
60	0	0	N/A	0.6000	0.4200	0.00	0.00	N/A	N/A
61	0	0	N/A	0.6000	0.4200	0.00	0.00	N/A	N/A
62	0	0	N/A	0.6000	0.4200	0.00	0.00	N/A	N/A
63	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	1,176	2,236	0.5259			1341.6	939.12	0.8766	1.2522

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York City Police Pension Fund
 Retirement Experience of those in First Year of Eligibility
 Men and Women
 10-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	425	705	0.6028	0.6000	0.4200	423.00	296.10	1.0047	1.4353
41	592	1528	0.3874	0.6000	0.4200	916.80	641.76	0.6457	0.9225
42	693	1681	0.4123	0.6000	0.4200	1008.60	706.02	0.6871	0.9816
43	703	1731	0.4061	0.6000	0.4200	1038.60	727.02	0.6769	0.9670
44	598	1518	0.3939	0.6000	0.4200	910.80	637.56	0.6566	0.9380
45	543	1369	0.3966	0.6000	0.4200	821.40	574.98	0.6611	0.9444
46	494	1143	0.4322	0.6000	0.4200	685.80	480.06	0.7203	1.0290
47	369	913	0.4042	0.6000	0.4200	547.80	383.46	0.6736	0.9623
48	333	772	0.4313	0.6000	0.4200	463.20	324.24	0.7189	1.0270
49	276	639	0.4319	0.6000	0.4200	383.40	268.38	0.7199	1.0284
50	192	472	0.4068	0.6000	0.4200	283.20	198.24	0.6780	0.9685
51	144	311	0.4630	0.6000	0.4200	186.60	130.62	0.7717	1.1024
52	105	234	0.4487	0.6000	0.4200	140.40	98.28	0.7479	1.0684
53	58	131	0.4427	0.6000	0.4200	78.60	55.02	0.7379	1.0542
54	21	53	0.3962	0.6000	0.4200	31.80	22.26	0.6604	0.9434
55	28	45	0.6222	0.6000	0.4200	27.00	18.90	1.0370	1.4815
56	28	44	0.6364	0.6000	0.4200	26.40	18.48	1.0606	1.5152
57	15	28	0.5357	0.6000	0.4200	16.80	11.76	0.8929	1.2755
58	8	14	0.5714	0.6000	0.4200	8.40	5.88	0.9524	1.3605
59	5	6	0.8333	0.6000	0.4200	3.60	2.52	1.3889	1.9841
60	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
61	2	3	0.6667	0.6000	0.4200	1.80	1.26	1.1111	1.5873
62	0	1	0.0000	0.6000	0.4200	0.60	0.42	0.0000	0.0000
63	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	5,632	13,346	0.4220			8009.2	5607.64	0.7032	1.0043

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York City Police Pension Fund
Retirement Experience of those after First Year of Eligibility
Men
10-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	2	14	0.1429	0.1000	0.1000	1.40	1.40	1.4286	1.4286
41	27	294	0.0918	0.1000	0.1000	29.40	29.40	0.9184	0.9184
42	136	1220	0.1115	0.1000	0.1000	122.00	122.00	1.1148	1.1148
43	204	2066	0.0987	0.1000	0.1000	206.60	206.60	0.9874	0.9874
44	267	2776	0.0962	0.1000	0.1000	277.60	277.60	0.9618	0.9618
45	365	3198	0.1141	0.1000	0.1000	319.80	319.80	1.1413	1.1413
46	375	3279	0.1144	0.1100	0.1100	360.69	360.69	1.0397	1.0397
47	355	3205	0.1108	0.1200	0.1200	384.60	384.60	0.9230	0.9230
48	333	3001	0.1110	0.1300	0.1300	390.13	390.13	0.8536	0.8536
49	328	2783	0.1179	0.1400	0.1400	389.62	389.62	0.8418	0.8418
50	307	2466	0.1245	0.1500	0.1500	369.90	369.90	0.8300	0.8300
51	247	2123	0.1163	0.1500	0.1500	318.45	318.45	0.7756	0.7756
52	221	1733	0.1275	0.1500	0.1500	259.95	259.95	0.8502	0.8502
53	172	1436	0.1198	0.1500	0.1500	215.40	215.40	0.7985	0.7985
54	167	1137	0.1469	0.1500	0.1500	170.55	170.55	0.9792	0.9792
55	100	858	0.1166	0.1500	0.1500	128.70	128.70	0.7770	0.7770
56	87	675	0.1289	0.1500	0.1500	101.25	101.25	0.8593	0.8593
57	64	523	0.1224	0.1500	0.1500	78.45	78.45	0.8158	0.8158
58	51	424	0.1203	0.1500	0.1500	63.60	63.60	0.8019	0.8019
59	55	316	0.1741	0.1500	0.1500	47.40	47.40	1.1603	1.1603
60	28	224	0.1250	0.2000	0.2000	44.80	44.80	0.6250	0.6250
61	24	185	0.1297	0.3000	0.3000	55.50	55.50	0.4324	0.4324
62	71	144	0.4931	0.5000	0.5000	72.00	72.00	0.9861	0.9861
63	37	48	0.7708	1.0000	1.0000	48.00	48.00	0.7708	0.7708
64	3	6	0.5000	1.0000	1.0000	6.00	6.00	0.5000	0.5000
65	1	4	0.2500	1.0000	1.0000	4.00	4.00	0.2500	0.2500
66	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
69	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
70	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
71+	2	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	4,029	34,146	0.1180			4473.79	4473.79	0.9006	0.9006

Bolton

New York City Police Pension Fund
 Retirement Experience of those after First Year of Eligibility
 Women
 10-Year Period Ending 2017
 Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	1	2	0.5000	0.1000	0.1000	0.20	0.20	5.0000	5.0000
41	7	29	0.2414	0.1000	0.1000	2.90	2.90	2.4138	2.4138
42	15	115	0.1304	0.1000	0.1000	11.50	11.50	1.3043	1.3043
43	32	209	0.1531	0.1000	0.1000	20.90	20.90	1.5311	1.5311
44	42	295	0.1424	0.1000	0.1000	29.50	29.50	1.4237	1.4237
45	50	368	0.1359	0.1000	0.1000	36.80	36.80	1.3587	1.3587
46	53	408	0.1299	0.1100	0.1100	44.88	44.88	1.1809	1.1809
47	72	397	0.1814	0.1200	0.1200	47.64	47.64	1.5113	1.5113
48	59	374	0.1578	0.1300	0.1300	48.62	48.62	1.2135	1.2135
49	64	371	0.1725	0.1400	0.1400	51.94	51.94	1.2322	1.2322
50	48	329	0.1459	0.1500	0.1500	49.35	49.35	0.9726	0.9726
51	43	308	0.1396	0.1500	0.1500	46.20	46.20	0.9307	0.9307
52	41	280	0.1464	0.1500	0.1500	42.00	42.00	0.9762	0.9762
53	41	224	0.1830	0.1500	0.1500	33.60	33.60	1.2202	1.2202
54	26	163	0.1595	0.1500	0.1500	24.45	24.45	1.0634	1.0634
55	21	109	0.1927	0.1500	0.1500	16.35	16.35	1.2844	1.2844
56	15	72	0.2083	0.1500	0.1500	10.80	10.80	1.3889	1.3889
57	6	48	0.1250	0.1500	0.1500	7.20	7.20	0.8333	0.8333
58	5	33	0.1515	0.1500	0.1500	4.95	4.95	1.0101	1.0101
59	7	23	0.3043	0.1500	0.1500	3.45	3.45	2.0290	2.0290
60	1	12	0.0833	0.2000	0.2000	2.40	2.40	0.4167	0.4167
61	0	7	0.0000	0.3000	0.3000	2.10	2.10	0.0000	0.0000
62	4	6	0.6667	0.5000	0.5000	3.00	3.00	1.3333	1.3333
63	1	1	1.0000	1.0000	1.0000	1.00	1.00	1.0000	1.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	654	4,183	0.1563			541.73	541.73	1.2072	1.2072

Bolton

New York City Police Pension Fund
Retirement Experience of those after First Year of Eligibility
Men and Women
10-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	3	16	0.1875	0.1000	0.1000	1.60	1.60	1.8750	1.8750
41	34	323	0.1053	0.1000	0.1000	32.30	32.30	1.0526	1.0526
42	151	1335	0.1131	0.1000	0.1000	133.50	133.50	1.1311	1.1311
43	236	2275	0.1037	0.1000	0.1000	227.50	227.50	1.0374	1.0374
44	309	3071	0.1006	0.1000	0.1000	307.10	307.10	1.0062	1.0062
45	415	3566	0.1164	0.1000	0.1000	356.60	356.60	1.1638	1.1638
46	428	3687	0.1161	0.1100	0.1100	405.57	405.57	1.0553	1.0553
47	427	3602	0.1185	0.1200	0.1200	432.24	432.24	0.9879	0.9879
48	392	3375	0.1161	0.1300	0.1300	438.75	438.75	0.8934	0.8934
49	392	3154	0.1243	0.1400	0.1400	441.56	441.56	0.8878	0.8878
50	355	2795	0.1270	0.1500	0.1500	419.25	419.25	0.8468	0.8468
51	290	2431	0.1193	0.1500	0.1500	364.65	364.65	0.7953	0.7953
52	262	2013	0.1302	0.1500	0.1500	301.95	301.95	0.8677	0.8677
53	213	1660	0.1283	0.1500	0.1500	249.00	249.00	0.8554	0.8554
54	193	1300	0.1485	0.1500	0.1500	195.00	195.00	0.9897	0.9897
55	121	967	0.1251	0.1500	0.1500	145.05	145.05	0.8342	0.8342
56	102	747	0.1365	0.1500	0.1500	112.05	112.05	0.9103	0.9103
57	70	571	0.1226	0.1500	0.1500	85.65	85.65	0.8173	0.8173
58	56	457	0.1225	0.1500	0.1500	68.55	68.55	0.8169	0.8169
59	62	339	0.1829	0.1500	0.1500	50.85	50.85	1.2193	1.2193
60	29	236	0.1229	0.2000	0.2000	47.20	47.20	0.6144	0.6144
61	24	192	0.1250	0.3000	0.3000	57.60	57.60	0.4167	0.4167
62	75	150	0.5000	0.5000	0.5000	75.00	75.00	1.0000	1.0000
63	38	49	0.7755	1.0000	1.0000	49.00	49.00	0.7755	0.7755
64	3	6	0.5000	1.0000	1.0000	6.00	6.00	0.5000	0.5000
65	1	4	0.2500	1.0000	1.0000	4.00	4.00	0.2500	0.2500
66	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
69	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
70	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
71+	2	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
Total	4,683	38,329	0.1222			5015.52	5015.52	0.9337	0.9337

Bolton

**New York City Police Pension Fund
Normal Retirement Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Retirements *	Life Years Exposed *	Expected Retirements	Actual/Expected	Retirement Rate	
					Actual	Current
2008	790	3,709	881.54	0.8962	0.2130	0.2377
2009	392	3,504	753.01	0.5206	0.1119	0.2149
2010	791	4,086	933.99	0.8469	0.1936	0.2286
2011	1,505	5,472	1,493.49	1.0077	0.2750	0.2729
2012	1,327	5,203	999.28	1.3280	0.2550	0.1921
2013	815	5,168	1,304.24	0.6249	0.1577	0.2524
2014	1,583	6,430	1,598.06	0.9906	0.2462	0.2485
2015	1,086	6,165	1,298.37	0.8364	0.1762	0.2106
2016	942	6,005	1,303.85	0.7225	0.1569	0.2171
2017	1,145	6,040	1,218.90	0.9394	0.1896	0.2018
Total	10,376	51,782	11,784.73	0.8805	0.2004	0.2276

* The total exposures and actuals shown above include experience for first, second, and after year 2 retirement eligibility at all age ranges (including ages under 40 not shown in the prior tables)

Bolton

New York Police Department Pension Fund
 Withdrawal Experience of Active Members
 Men

4-Year Period Ending 2017

Proposed Rates are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	51	3,016	0.0169	0.0400	0.0300	120.64	90.48	0.4227	0.5637
1	180	6,607	0.0272	0.0300	0.0225	198.21	148.66	0.9081	1.2108
2	143	5,567	0.0257	0.0200	0.0150	111.34	83.51	1.2844	1.7125
3	86	5,281	0.0163	0.0200	0.0150	105.62	79.22	0.8142	1.0857
4	69	4,061	0.0170	0.0200	0.0150	81.22	60.92	0.8495	1.1327
5	59	4,166	0.0142	0.0200	0.0150	83.32	62.49	0.7081	0.9442
6	38	4,399	0.0086	0.0180	0.0135	79.18	59.39	0.4799	0.6399
7	27	5,177	0.0052	0.0160	0.0120	82.83	62.12	0.3260	0.4346
8	37	6,928	0.0053	0.0140	0.0105	96.99	72.74	0.3815	0.5086
9	30	6,732	0.0045	0.0120	0.0090	80.78	60.59	0.3714	0.4951
10	34	6,180	0.0055	0.0100	0.0075	61.80	46.35	0.5502	0.7335
11	21	5,743	0.0037	0.0080	0.0060	45.94	34.46	0.4571	0.6094
12	16	4,401	0.0036	0.0060	0.0045	26.41	19.80	0.6059	0.8079
13	10	4,282	0.0023	0.0050	0.0038	21.41	16.06	0.4671	0.6228
14	5	3,875	0.0013	0.0040	0.0030	15.50	11.63	0.3226	0.4301
15	9	3,632	0.0025	0.0030	0.0023	10.90	8.17	0.8260	1.1013
16	4	3,907	0.0010	0.0020	0.0015	7.81	5.86	0.5119	0.6825
17	3	3,405	0.0009	0.0020	0.0015	6.81	5.11	0.4405	0.5874
18	8	3,896	0.0021	0.0020	0.0015	7.79	5.84	1.0267	1.3689
19	12	3,490	0.0034	0.0020	0.0015	6.98	5.24	1.7192	2.2923
Total	842	94,745	0.0089			1,251.49	938.62	0.6728	0.8971

Bolton

New York Police Department Pension Fund
 Withdrawal Experience of Active Members
 Women

4-Year Period Ending 2017

Proposed Rates are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	12	686	0.0175	0.0400	0.0300	27.44	20.58	0.4373	0.5831
1	14	1,381	0.0101	0.0300	0.0225	41.43	31.07	0.3379	0.4506
2	14	1,040	0.0135	0.0200	0.0150	20.80	15.60	0.6731	0.8974
3	7	979	0.0072	0.0200	0.0150	19.58	14.69	0.3575	0.4767
4	2	761	0.0026	0.0200	0.0150	15.22	11.42	0.1314	0.1752
5	3	780	0.0038	0.0200	0.0150	15.60	11.70	0.1923	0.2564
6	4	937	0.0043	0.0180	0.0135	16.87	12.65	0.2372	0.3162
7	6	1,192	0.0050	0.0160	0.0120	19.07	14.30	0.3146	0.4195
8	7	1,604	0.0044	0.0140	0.0105	22.46	16.84	0.3117	0.4156
9	5	1,585	0.0032	0.0120	0.0090	19.02	14.27	0.2629	0.3505
10	8	1,409	0.0057	0.0100	0.0075	14.09	10.57	0.5678	0.7570
11	7	1,314	0.0053	0.0080	0.0060	10.51	7.88	0.6659	0.8879
12	2	1,026	0.0019	0.0060	0.0045	6.16	4.62	0.3249	0.4332
13	3	1,092	0.0027	0.0050	0.0038	5.46	4.10	0.5495	0.7326
14	1	1,041	0.0010	0.0040	0.0030	4.16	3.12	0.2402	0.3202
15	2	916	0.0022	0.0030	0.0023	2.75	2.06	0.7278	0.9704
16	3	889	0.0034	0.0020	0.0015	1.78	1.33	1.6873	2.2497
17	0	689	0.0000	0.0020	0.0015	1.38	1.03	0.0000	0.0000
18	1	761	0.0013	0.0020	0.0015	1.52	1.14	0.6570	0.8760
19	0	609	0.0000	0.0020	0.0015	1.22	0.91	0.0000	0.0000
Total	101	20,691	0.0049			266.51	199.88	0.3790	0.5053

Bolton

New York Police Department Pension Fund
 Withdrawal Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

Proposed Rates are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	63	3,702	0.0170	0.0400	0.0300	148.08	111.06	0.4254	0.5673
1	194	7,988	0.0243	0.0300	0.0225	239.64	179.73	0.8095	1.0794
2	157	6,607	0.0238	0.0200	0.0150	132.14	99.11	1.1881	1.5842
3	93	6,260	0.0149	0.0200	0.0150	125.20	93.90	0.7428	0.9904
4	71	4,822	0.0147	0.0200	0.0150	96.44	72.33	0.7362	0.9816
5	62	4,946	0.0125	0.0200	0.0150	98.92	74.19	0.6268	0.8357
6	42	5,336	0.0079	0.0180	0.0135	96.05	72.04	0.4373	0.5830
7	33	6,369	0.0052	0.0160	0.0120	101.90	76.43	0.3238	0.4318
8	44	8,532	0.0052	0.0140	0.0105	119.45	89.59	0.3684	0.4911
9	35	8,317	0.0042	0.0120	0.0090	99.80	74.85	0.3507	0.4676
10	42	7,589	0.0055	0.0100	0.0075	75.89	56.92	0.5534	0.7379
11	28	7,057	0.0040	0.0080	0.0060	56.46	42.34	0.4960	0.6613
12	18	5,427	0.0033	0.0060	0.0045	32.56	24.42	0.5528	0.7371
13	13	5,374	0.0024	0.0050	0.0038	26.87	20.15	0.4838	0.6451
14	6	4,916	0.0012	0.0040	0.0030	19.66	14.75	0.3051	0.4068
15	11	4,548	0.0024	0.0030	0.0023	13.64	10.23	0.8062	1.0750
16	7	4,796	0.0015	0.0020	0.0015	9.59	7.19	0.7298	0.9730
17	3	4,094	0.0007	0.0020	0.0015	8.19	6.14	0.3664	0.4885
18	9	4,657	0.0019	0.0020	0.0015	9.31	6.99	0.9663	1.2884
19	12	4,099	0.0029	0.0020	0.0015	8.20	6.15	1.4638	1.9517
Total	943	115,436	0.0082			1,518.00	1,138.50	0.6212	0.8283

Bolton

New York Police Department Pension Fund
 Withdrawal Experience of Active Members
 Men

10-Year Period Ending 2017

Proposed Rates are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	94	5,470	0.0172	0.0400	0.0300	218.80	164.10	0.4296	0.5728
1	388	14,815	0.0262	0.0300	0.0225	444.45	333.34	0.8730	1.1640
2	367	14,293	0.0257	0.0200	0.0150	285.86	214.40	1.2838	1.7118
3	288	16,062	0.0179	0.0200	0.0150	321.24	240.93	0.8965	1.1954
4	192	14,001	0.0137	0.0200	0.0150	280.02	210.02	0.6857	0.9142
5	163	13,711	0.0119	0.0200	0.0150	274.22	205.67	0.5944	0.7926
6	103	13,151	0.0078	0.0180	0.0135	236.72	177.54	0.4351	0.5802
7	118	13,474	0.0088	0.0160	0.0120	215.58	161.69	0.5474	0.7298
8	89	13,462	0.0066	0.0140	0.0105	188.47	141.35	0.4722	0.6296
9	83	12,920	0.0064	0.0120	0.0090	155.04	116.28	0.5353	0.7138
10	84	12,647	0.0066	0.0100	0.0075	126.47	94.85	0.6642	0.8856
11	40	11,704	0.0034	0.0080	0.0060	93.63	70.22	0.4272	0.5696
12	36	10,770	0.0033	0.0060	0.0045	64.62	48.47	0.5571	0.7428
13	39	10,694	0.0036	0.0050	0.0038	53.47	40.10	0.7294	0.9725
14	22	11,159	0.0020	0.0040	0.0030	44.64	33.48	0.4929	0.6572
15	30	11,189	0.0027	0.0030	0.0023	33.57	25.18	0.8937	1.1916
16	21	11,752	0.0018	0.0020	0.0015	23.50	17.63	0.8935	1.1913
17	16	11,709	0.0014	0.0020	0.0015	23.42	17.56	0.6832	0.9110
18	24	11,662	0.0021	0.0020	0.0015	23.32	17.49	1.0290	1.3720
19	29	9,467	0.0031	0.0020	0.0015	18.93	14.20	1.5316	2.0422
Total	2,226	244,112	0.0091			3,125.98	2,344.48	0.7121	0.9495

Bolton

New York Police Department Pension Fund
 Withdrawal Experience of Active Members
 Women

10-Year Period Ending 2017

Proposed Rates are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	35	1,275	0.0275	0.0400	0.0300	51.00	38.25	0.6863	0.9150
1	60	3,046	0.0197	0.0300	0.0225	91.38	68.54	0.6566	0.8755
2	50	3,013	0.0166	0.0200	0.0150	60.26	45.20	0.8297	1.1063
3	37	3,328	0.0111	0.0200	0.0150	66.56	49.92	0.5559	0.7412
4	19	2,929	0.0065	0.0200	0.0150	58.58	43.94	0.3243	0.4325
5	22	2,997	0.0073	0.0200	0.0150	59.94	44.96	0.3670	0.4894
6	24	3,045	0.0079	0.0180	0.0135	54.81	41.11	0.4379	0.5838
7	20	3,182	0.0063	0.0160	0.0120	50.91	38.18	0.3928	0.5238
8	16	3,194	0.0050	0.0140	0.0105	44.72	33.54	0.3578	0.4771
9	19	3,110	0.0061	0.0120	0.0090	37.32	27.99	0.5091	0.6788
10	14	2,952	0.0047	0.0100	0.0075	29.52	22.14	0.4743	0.6323
11	12	2,651	0.0045	0.0080	0.0060	21.21	15.91	0.5658	0.7544
12	7	2,373	0.0029	0.0060	0.0045	14.24	10.68	0.4916	0.6555
13	9	2,334	0.0039	0.0050	0.0038	11.67	8.75	0.7712	1.0283
14	5	2,441	0.0020	0.0040	0.0030	9.76	7.32	0.5121	0.6828
15	2	2,376	0.0008	0.0030	0.0023	7.13	5.35	0.2806	0.3741
16	9	2,523	0.0036	0.0020	0.0015	5.05	3.78	1.7836	2.3781
17	1	2,436	0.0004	0.0020	0.0015	4.87	3.65	0.2053	0.2737
18	4	2,409	0.0017	0.0020	0.0015	4.82	3.61	0.8302	1.1070
19	1	1,790	0.0006	0.0020	0.0015	3.58	2.69	0.2793	0.3724
Total	366	53,404	0.0069			687.32	515.49	0.5325	0.7100

*

Bolton

New York Police Department Pension Fund
 Withdrawal Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

Proposed Rates are 75% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	129	6,745	0.0191	0.0400	0.0300	269.80	202.35	0.4781	0.6375
1	448	17,861	0.0251	0.0300	0.0225	535.83	401.87	0.8361	1.1148
2	417	17,306	0.0241	0.0200	0.0150	346.12	259.59	1.2048	1.6064
3	325	19,390	0.0168	0.0200	0.0150	387.80	290.85	0.8381	1.1174
4	211	16,930	0.0125	0.0200	0.0150	338.60	253.95	0.6232	0.8309
5	185	16,708	0.0111	0.0200	0.0150	334.16	250.62	0.5536	0.7382
6	127	16,196	0.0078	0.0180	0.0135	291.53	218.65	0.4356	0.5808
7	138	16,656	0.0083	0.0160	0.0120	266.50	199.87	0.5178	0.6904
8	105	16,656	0.0063	0.0140	0.0105	233.18	174.89	0.4503	0.6004
9	102	16,030	0.0064	0.0120	0.0090	192.36	144.27	0.5303	0.7070
10	98	15,599	0.0063	0.0100	0.0075	155.99	116.99	0.6282	0.8377
11	52	14,355	0.0036	0.0080	0.0060	114.84	86.13	0.4528	0.6037
12	43	13,143	0.0033	0.0060	0.0045	78.86	59.14	0.5453	0.7270
13	48	13,028	0.0037	0.0050	0.0038	65.14	48.86	0.7369	0.9825
14	27	13,600	0.0020	0.0040	0.0030	54.40	40.80	0.4963	0.6618
15	32	13,565	0.0024	0.0030	0.0023	40.70	30.52	0.7863	1.0484
16	30	14,275	0.0021	0.0020	0.0015	28.55	21.41	1.0508	1.4011
17	17	14,145	0.0012	0.0020	0.0015	28.29	21.22	0.6009	0.8012
18	28	14,071	0.0020	0.0020	0.0015	28.14	21.11	0.9950	1.3266
19	30	11,257	0.0027	0.0020	0.0015	22.51	16.89	1.3325	1.7767
Total	2,592	297,516	0.0087			3,813.30	2,859.97	0.6797	0.9063

*

Bolton

**New York Police Department Pension Fund
Withdrawal Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Withdrawals	Life Years Exposed	Expected Withdrawals	Actual/Expected	Withdrawal Rate	
					Actual	Expected
2008	639	31,632	415.25	1.5388	0.0202	0.0131
2009	278	31,938	418.36	0.6645	0.0087	0.0131
2010	216	31,606	397.05	0.5440	0.0068	0.0126
2011	139	29,203	347.28	0.4003	0.0048	0.0119
2012	155	28,575	342.35	0.4528	0.0054	0.0120
2013	222	29,126	375.01	0.5920	0.0076	0.0129
2014	231	28,429	376.01	0.6143	0.0081	0.0132
2015	298	28,312	365.99	0.8142	0.0105	0.0129
2016	243	28,507	362.89	0.6696	0.0085	0.0127
2017	171	30,188	413.12	0.4139	0.0057	0.0137
Total	2,592	297,516	3,813.31	0.6797	0.0087	0.0128

*The total exposures and actuals shown above include experience less than 20 years of service

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Men
4-Year Period Ending 2017
Proposed Rates are 80% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0004	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0006	0.0004	0.00	0.00	0.0000	0.0000
22	0	360	0.0000	0.0006	0.0005	0.22	0.17	0.0000	0.0000
23	0	1,015	0.0000	0.0007	0.0005	0.66	0.53	0.0000	0.0000
24	0	1,845	0.0000	0.0007	0.0006	1.29	1.03	0.0000	0.0000
25	0	2,561	0.0000	0.0008	0.0006	1.92	1.54	0.0000	0.0000
26	0	3,278	0.0000	0.0008	0.0006	2.62	2.10	0.0000	0.0000
27	0	3,775	0.0000	0.0009	0.0007	3.21	2.57	0.0000	0.0000
28	0	4,243	0.0000	0.0009	0.0007	3.82	3.05	0.0000	0.0000
29	2	4,598	0.0004	0.0010	0.0008	4.37	3.49	0.4579	0.5723
30	0	4,799	0.0000	0.0010	0.0008	4.80	3.84	0.0000	0.0000
31	2	4,961	0.0004	0.0011	0.0008	5.21	4.17	0.3839	0.4799
32	1	4,973	0.0002	0.0011	0.0009	5.47	4.38	0.1828	0.2285
33	5	4,988	0.0010	0.0012	0.0009	5.74	4.59	0.8717	1.0896
34	7	4,923	0.0014	0.0012	0.0010	5.91	4.73	1.1849	1.4811
35	9	4,710	0.0019	0.0013	0.0010	5.89	4.71	1.5287	1.9108
36	7	4,581	0.0015	0.0013	0.0010	5.96	4.76	1.1754	1.4693
37	8	4,390	0.0018	0.0014	0.0011	5.93	4.74	1.3499	1.6873
38	4	4,338	0.0009	0.0014	0.0011	6.07	4.86	0.6586	0.8233
39	5	4,212	0.0012	0.0015	0.0012	6.11	4.89	0.8187	1.0233
40	3	4,109	0.0007	0.0015	0.0012	6.16	4.93	0.4867	0.6084
41	5	4,160	0.0012	0.0016	0.0012	6.45	5.16	0.7754	0.9693
42	7	4,315	0.0016	0.0016	0.0013	6.90	5.52	1.0139	1.2674
43	5	4,437	0.0011	0.0017	0.0013	7.32	5.86	0.6830	0.8537
44	5	4,388	0.0011	0.0017	0.0014	7.46	5.97	0.6703	0.8378
45	2	4,149	0.0005	0.0018	0.0014	7.26	5.81	0.2755	0.3443
46	5	3,812	0.0013	0.0018	0.0014	6.86	5.49	0.7287	0.9109
47	4	3,366	0.0012	0.0019	0.0015	6.23	4.98	0.6424	0.8029
48	1	2,971	0.0003	0.0019	0.0015	5.64	4.52	0.1772	0.2214
49	4	2,594	0.0015	0.0020	0.0016	5.06	4.05	0.7908	0.9885
50	1	2,120	0.0005	0.0020	0.0016	4.24	3.39	0.2358	0.2948
51	0	1,700	0.0000	0.0025	0.0020	4.25	3.40	0.0000	0.0000
52	2	1,330	0.0015	0.0030	0.0024	3.99	3.19	0.5013	0.6266
53	1	1,032	0.0010	0.0040	0.0032	4.13	3.30	0.2422	0.3028
54	0	780	0.0000	0.0060	0.0048	4.68	3.74	0.0000	0.0000
55	0	579	0.0000	0.0080	0.0064	4.63	3.71	0.0000	0.0000
56	0	457	0.0000	0.0100	0.0080	4.57	3.66	0.0000	0.0000
57	1	344	0.0029	0.0200	0.0160	6.88	5.50	0.1453	0.1817
58	0	263	0.0000	0.0300	0.0240	7.89	6.31	0.0000	0.0000
59	0	199	0.0000	0.0400	0.0320	7.96	6.37	0.0000	0.0000
60	1	133	0.0075	0.0600	0.0480	7.98	6.38	0.1253	0.1566
61	0	100	0.0000	0.0800	0.0640	8.00	6.40	0.0000	0.0000
62	0	77	0.0000	0.1000	0.0800	7.70	6.16	0.0000	0.0000
63	0	28	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	97	116,042	0.0008			217.43	173.94	0.4461	0.5577

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Women
4-Year Period Ending 2017
Proposed Rates are 80% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0004	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0006	0.0004	0.00	0.00	N/A	N/A
22	0	45	0.0000	0.0006	0.0005	0.03	0.02	0.0000	0.0000
23	0	164	0.0000	0.0007	0.0005	0.11	0.09	0.0000	0.0000
24	0	251	0.0000	0.0007	0.0006	0.18	0.14	0.0000	0.0000
25	0	430	0.0000	0.0008	0.0006	0.32	0.26	0.0000	0.0000
26	0	601	0.0000	0.0008	0.0006	0.48	0.38	0.0000	0.0000
27	0	686	0.0000	0.0009	0.0007	0.58	0.47	0.0000	0.0000
28	0	805	0.0000	0.0009	0.0007	0.72	0.58	0.0000	0.0000
29	2	871	0.0023	0.0010	0.0008	0.83	0.66	2.4171	3.0213
30	0	908	0.0000	0.0010	0.0008	0.91	0.73	0.0000	0.0000
31	0	956	0.0000	0.0011	0.0008	1.00	0.80	0.0000	0.0000
32	1	1,008	0.0010	0.0011	0.0009	1.11	0.89	0.9019	1.1273
33	0	1,071	0.0000	0.0012	0.0009	1.23	0.99	0.0000	0.0000
34	1	1,089	0.0009	0.0012	0.0010	1.31	1.05	0.7652	0.9565
35	3	1,071	0.0028	0.0013	0.0010	1.34	1.07	2.2409	2.8011
36	4	1,130	0.0035	0.0013	0.0010	1.47	1.18	2.7229	3.4037
37	2	1,089	0.0018	0.0014	0.0011	1.47	1.18	1.3604	1.7005
38	6	1,058	0.0057	0.0014	0.0011	1.48	1.18	4.0508	5.0635
39	5	1,042	0.0048	0.0015	0.0012	1.51	1.21	3.3093	4.1366
40	3	943	0.0032	0.0015	0.0012	1.41	1.13	2.1209	2.6511
41	7	925	0.0076	0.0016	0.0012	1.43	1.15	4.8823	6.1029
42	0	936	0.0000	0.0016	0.0013	1.50	1.20	0.0000	0.0000
43	3	900	0.0033	0.0017	0.0013	1.49	1.19	2.0202	2.5253
44	2	906	0.0022	0.0017	0.0014	1.54	1.23	1.2985	1.6232
45	2	816	0.0025	0.0018	0.0014	1.43	1.14	1.4006	1.7507
46	4	742	0.0054	0.0018	0.0014	1.34	1.07	2.9949	3.7436
47	1	603	0.0017	0.0019	0.0015	1.12	0.89	0.8964	1.1205
48	2	493	0.0041	0.0019	0.0015	0.94	0.75	2.1352	2.6689
49	1	443	0.0023	0.0020	0.0016	0.86	0.69	1.1576	1.4470
50	2	360	0.0056	0.0020	0.0016	0.72	0.58	2.7778	3.4722
51	0	320	0.0000	0.0025	0.0020	0.80	0.64	0.0000	0.0000
52	0	269	0.0000	0.0030	0.0024	0.81	0.65	0.0000	0.0000
53	0	189	0.0000	0.0040	0.0032	0.76	0.60	0.0000	0.0000
54	0	133	0.0000	0.0060	0.0048	0.80	0.64	0.0000	0.0000
55	0	91	0.0000	0.0080	0.0064	0.73	0.58	0.0000	0.0000
56	0	67	0.0000	0.0100	0.0080	0.67	0.54	0.0000	0.0000
57	0	43	0.0000	0.0200	0.0160	0.86	0.69	0.0000	0.0000
58	0	29	0.0000	0.0300	0.0240	0.87	0.70	0.0000	0.0000
59	0	18	0.0000	0.0400	0.0320	0.72	0.58	0.0000	0.0000
60	0	7	0.0000	0.0600	0.0480	0.42	0.34	0.0000	0.0000
61	0	6	0.0000	0.0800	0.0640	0.48	0.38	0.0000	0.0000
62	0	5	0.0000	0.1000	0.0800	0.50	0.40	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	51	23,520	0.0022			38.26	30.61	1.3331	1.6664

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Men and Women
4-Year Period Ending 2017
Proposed Rates are 80% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0004	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0006	0.0004	0.00	0.00	0.0000	0.0000
22	0	405	0.0000	0.0006	0.0005	0.24	0.19	0.0000	0.0000
23	0	1,179	0.0000	0.0007	0.0005	0.77	0.61	0.0000	0.0000
24	0	2,096	0.0000	0.0007	0.0006	1.47	1.17	0.0000	0.0000
25	0	2,991	0.0000	0.0008	0.0006	2.24	1.79	0.0000	0.0000
26	0	3,879	0.0000	0.0008	0.0006	3.10	2.48	0.0000	0.0000
27	0	4,461	0.0000	0.0009	0.0007	3.79	3.03	0.0000	0.0000
28	0	5,048	0.0000	0.0009	0.0007	4.54	3.63	0.0000	0.0000
29	4	5,469	0.0007	0.0010	0.0008	5.20	4.16	0.7699	0.9624
30	0	5,707	0.0000	0.0010	0.0008	5.71	4.57	0.0000	0.0000
31	2	5,917	0.0003	0.0011	0.0008	6.21	4.97	0.3219	0.4024
32	2	5,981	0.0003	0.0011	0.0009	6.58	5.26	0.3040	0.3800
33	5	6,059	0.0008	0.0012	0.0009	6.97	5.57	0.7176	0.8970
34	8	6,012	0.0013	0.0012	0.0010	7.21	5.77	1.1089	1.3861
35	12	5,781	0.0021	0.0013	0.0010	7.23	5.78	1.6606	2.0758
36	11	5,711	0.0019	0.0013	0.0010	7.42	5.94	1.4816	1.8520
37	10	5,479	0.0018	0.0014	0.0011	7.40	5.92	1.3520	1.6900
38	10	5,396	0.0019	0.0014	0.0011	7.55	6.04	1.3237	1.6547
39	10	5,254	0.0019	0.0015	0.0012	7.62	6.09	1.3126	1.6408
40	6	5,052	0.0012	0.0015	0.0012	7.58	6.06	0.7918	0.9897
41	12	5,085	0.0024	0.0016	0.0012	7.88	6.31	1.5225	1.9031
42	7	5,251	0.0013	0.0016	0.0013	8.40	6.72	0.8332	1.0415
43	8	5,337	0.0015	0.0017	0.0013	8.81	7.04	0.9085	1.1356
44	7	5,294	0.0013	0.0017	0.0014	9.00	7.20	0.7778	0.9722
45	4	4,965	0.0008	0.0018	0.0014	8.69	6.95	0.4604	0.5755
46	9	4,554	0.0020	0.0018	0.0014	8.20	6.56	1.0979	1.3724
47	5	3,969	0.0013	0.0019	0.0015	7.34	5.87	0.6810	0.8512
48	3	3,464	0.0009	0.0019	0.0015	6.58	5.27	0.4558	0.5698
49	5	3,037	0.0016	0.0020	0.0016	5.92	4.74	0.8443	1.0554
50	3	2,480	0.0012	0.0020	0.0016	4.96	3.97	0.6048	0.7560
51	0	2,020	0.0000	0.0025	0.0020	5.05	4.04	0.0000	0.0000
52	2	1,599	0.0013	0.0030	0.0024	4.80	3.84	0.4169	0.5212
53	1	1,221	0.0008	0.0040	0.0032	4.88	3.91	0.2048	0.2559
54	0	913	0.0000	0.0060	0.0048	5.48	4.38	0.0000	0.0000
55	0	670	0.0000	0.0080	0.0064	5.36	4.29	0.0000	0.0000
56	0	524	0.0000	0.0100	0.0080	5.24	4.19	0.0000	0.0000
57	1	387	0.0026	0.0200	0.0160	7.74	6.19	0.1292	0.1615
58	0	292	0.0000	0.0300	0.0240	8.76	7.01	0.0000	0.0000
59	0	217	0.0000	0.0400	0.0320	8.68	6.94	0.0000	0.0000
60	1	140	0.0071	0.0600	0.0480	8.40	6.72	0.1190	0.1488
61	0	106	0.0000	0.0800	0.0640	8.48	6.78	0.0000	0.0000
62	0	82	0.0000	0.1000	0.0800	8.20	6.56	0.0000	0.0000
63	0	29	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	11	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	148	139,562	0.0011			255.68	204.55	0.5788	0.7235

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Men
10-Year Period Ending 2017
Proposed Rates are 80% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0004	0.00	0.00	N/A	N/A
21	0	15	0.0000	0.0006	0.0004	0.01	0.01	0.0000	0.0000
22	0	1,052	0.0000	0.0006	0.0005	0.63	0.50	0.0000	0.0000
23	0	3,130	0.0000	0.0007	0.0005	2.03	1.63	0.0000	0.0000
24	0	5,249	0.0000	0.0007	0.0006	3.67	2.94	0.0000	0.0000
25	0	7,116	0.0000	0.0008	0.0006	5.34	4.27	0.0000	0.0000
26	1	8,746	0.0001	0.0008	0.0006	7.00	5.60	0.1429	0.1787
27	1	9,768	0.0001	0.0009	0.0007	8.30	6.64	0.1204	0.1506
28	4	10,474	0.0004	0.0009	0.0007	9.43	7.54	0.4243	0.5304
29	4	10,948	0.0004	0.0010	0.0008	10.40	8.32	0.3846	0.4807
30	4	11,337	0.0004	0.0010	0.0008	11.34	9.07	0.3528	0.4410
31	4	11,380	0.0004	0.0011	0.0008	11.95	9.56	0.3348	0.4184
32	6	11,308	0.0005	0.0011	0.0009	12.44	9.95	0.4824	0.6030
33	7	11,258	0.0006	0.0012	0.0009	12.95	10.36	0.5407	0.6758
34	15	11,294	0.0013	0.0012	0.0010	13.55	10.84	1.1068	1.3835
35	21	11,231	0.0019	0.0013	0.0010	14.04	11.23	1.4959	1.8698
36	14	11,608	0.0012	0.0013	0.0010	15.09	12.07	0.9277	1.1597
37	20	12,087	0.0017	0.0014	0.0011	16.32	13.05	1.2257	1.5321
38	15	12,622	0.0012	0.0014	0.0011	17.67	14.14	0.8489	1.0611
39	31	12,899	0.0024	0.0015	0.0012	18.70	14.96	1.6574	2.0718
40	19	13,235	0.0014	0.0015	0.0012	19.85	15.88	0.9571	1.1963
41	19	13,155	0.0014	0.0016	0.0012	20.39	16.31	0.9318	1.1648
42	22	12,773	0.0017	0.0016	0.0013	20.44	16.35	1.0765	1.3456
43	11	11,999	0.0009	0.0017	0.0013	19.80	15.84	0.5556	0.6945
44	12	11,034	0.0011	0.0017	0.0014	18.76	15.01	0.6397	0.7997
45	11	9,902	0.0011	0.0018	0.0014	17.33	13.86	0.6348	0.7935
46	13	8,577	0.0015	0.0018	0.0014	15.44	12.35	0.8420	1.0526
47	12	7,209	0.0017	0.0019	0.0015	13.34	10.67	0.8998	1.1247
48	7	6,012	0.0012	0.0019	0.0015	11.42	9.14	0.6128	0.7660
49	5	4,986	0.0010	0.0020	0.0016	9.72	7.78	0.5143	0.6428
50	3	3,964	0.0008	0.0020	0.0016	7.93	6.34	0.3784	0.4730
51	0	3,089	0.0000	0.0025	0.0020	7.72	6.18	0.0000	0.0000
52	3	2,365	0.0013	0.0030	0.0024	7.10	5.68	0.4228	0.5285
53	1	1,826	0.0005	0.0040	0.0032	7.30	5.84	0.1369	0.1711
54	0	1,381	0.0000	0.0060	0.0048	8.29	6.63	0.0000	0.0000
55	0	1,034	0.0000	0.0080	0.0064	8.27	6.62	0.0000	0.0000
56	0	791	0.0000	0.0100	0.0080	7.91	6.33	0.0000	0.0000
57	1	596	0.0017	0.0200	0.0160	11.92	9.54	0.0839	0.1049
58	2	467	0.0043	0.0300	0.0240	14.01	11.21	0.1428	0.1784
59	1	346	0.0029	0.0400	0.0320	13.84	11.07	0.0723	0.0903
60	3	248	0.0121	0.0600	0.0480	14.88	11.90	0.2016	0.2520
61	0	205	0.0000	0.0800	0.0640	16.40	13.12	0.0000	0.0000
62	3	158	0.0190	0.1000	0.0800	15.80	12.64	0.1899	0.2373
63	3	61	0.0492	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	17	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	298	289,010	0.0010			498.71	398.97	0.5975	0.7469

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Women
10-Year Period Ending 2017
Proposed Rates are 80% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0004	0.00	0.00	N/A	N/A
21	0	1	0.0000	0.0006	0.0004	0.00	0.00	0.0000	0.0000
22	0	140	0.0000	0.0006	0.0005	0.08	0.07	0.0000	0.0000
23	0	523	0.0000	0.0007	0.0005	0.34	0.27	0.0000	0.0000
24	2	879	0.0023	0.0007	0.0006	0.62	0.49	3.2504	4.0631
25	0	1,276	0.0000	0.0008	0.0006	0.96	0.77	0.0000	0.0000
26	0	1,642	0.0000	0.0008	0.0006	1.31	1.05	0.0000	0.0000
27	0	1,880	0.0000	0.0009	0.0007	1.60	1.28	0.0000	0.0000
28	0	2,100	0.0000	0.0009	0.0007	1.89	1.51	0.0000	0.0000
29	2	2,256	0.0009	0.0010	0.0008	2.14	1.71	0.9332	1.1665
30	0	2,401	0.0000	0.0010	0.0008	2.40	1.92	0.0000	0.0000
31	3	2,457	0.0012	0.0011	0.0008	2.58	2.06	1.1629	1.4536
32	2	2,517	0.0008	0.0011	0.0009	2.77	2.21	0.7224	0.9030
33	1	2,577	0.0004	0.0012	0.0009	2.96	2.37	0.3374	0.4218
34	4	2,599	0.0015	0.0012	0.0010	3.12	2.50	1.2825	1.6032
35	8	2,589	0.0031	0.0013	0.0010	3.24	2.59	2.4720	3.0900
36	13	2,681	0.0048	0.0013	0.0010	3.49	2.79	3.7300	4.6624
37	8	2,738	0.0029	0.0014	0.0011	3.70	2.96	2.1643	2.7054
38	16	2,823	0.0057	0.0014	0.0011	3.95	3.16	4.0484	5.0605
39	15	2,805	0.0053	0.0015	0.0012	4.07	3.25	3.6880	4.6100
40	10	2,758	0.0036	0.0015	0.0012	4.14	3.31	2.4172	3.0215
41	14	2,646	0.0053	0.0016	0.0012	4.10	3.28	3.4136	4.2669
42	7	2,511	0.0028	0.0016	0.0013	4.02	3.21	1.7423	2.1779
43	8	2,361	0.0034	0.0017	0.0013	3.90	3.12	2.0536	2.5670
44	8	2,202	0.0036	0.0017	0.0014	3.74	2.99	2.1371	2.6714
45	3	1,986	0.0015	0.0018	0.0014	3.48	2.78	0.8632	1.0790
46	5	1,760	0.0028	0.0018	0.0014	3.17	2.53	1.5783	1.9729
47	5	1,466	0.0034	0.0019	0.0015	2.71	2.17	1.8436	2.3045
48	3	1,191	0.0025	0.0019	0.0015	2.26	1.81	1.3257	1.6572
49	3	972	0.0031	0.0020	0.0016	1.90	1.52	1.5828	1.9785
50	3	758	0.0040	0.0020	0.0016	1.52	1.21	1.9789	2.4736
51	0	591	0.0000	0.0025	0.0020	1.48	1.18	0.0000	0.0000
52	0	442	0.0000	0.0030	0.0024	1.33	1.06	0.0000	0.0000
53	0	305	0.0000	0.0040	0.0032	1.22	0.98	0.0000	0.0000
54	0	205	0.0000	0.0060	0.0048	1.23	0.98	0.0000	0.0000
55	0	140	0.0000	0.0080	0.0064	1.12	0.90	0.0000	0.0000
56	0	95	0.0000	0.0100	0.0080	0.95	0.76	0.0000	0.0000
57	0	61	0.0000	0.0200	0.0160	1.22	0.98	0.0000	0.0000
58	0	40	0.0000	0.0300	0.0240	1.20	0.96	0.0000	0.0000
59	0	24	0.0000	0.0400	0.0320	0.96	0.77	0.0000	0.0000
60	0	12	0.0000	0.0600	0.0480	0.72	0.58	0.0000	0.0000
61	0	7	0.0000	0.0800	0.0640	0.56	0.45	0.0000	0.0000
62	0	6	0.0000	0.1000	0.0800	0.60	0.48	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	143	59,424	0.0024			88.72	70.98	1.6118	2.0148

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017
Proposed Rates are 80% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0004	0.00	0.00	N/A	N/A
21	0	16	0.0000	0.0006	0.0004	0.01	0.01	0.0000	0.0000
22	0	1,192	0.0000	0.0006	0.0005	0.72	0.57	0.0000	0.0000
23	0	3,653	0.0000	0.0007	0.0005	2.37	1.90	0.0000	0.0000
24	2	6,128	0.0003	0.0007	0.0006	4.29	3.43	0.4662	0.5828
25	0	8,392	0.0000	0.0008	0.0006	6.29	5.04	0.0000	0.0000
26	1	10,388	0.0001	0.0008	0.0006	8.31	6.65	0.1203	0.1504
27	1	11,648	0.0001	0.0009	0.0007	9.90	7.92	0.1010	0.1263
28	4	12,574	0.0003	0.0009	0.0007	11.32	9.05	0.3535	0.4418
29	6	13,204	0.0005	0.0010	0.0008	12.54	10.04	0.4783	0.5979
30	4	13,738	0.0003	0.0010	0.0008	13.74	10.99	0.2912	0.3640
31	7	13,837	0.0005	0.0011	0.0008	14.53	11.62	0.4818	0.6023
32	8	13,825	0.0006	0.0011	0.0009	15.21	12.17	0.5261	0.6576
33	8	13,835	0.0006	0.0012	0.0009	15.91	12.73	0.5028	0.6285
34	19	13,893	0.0014	0.0012	0.0010	16.67	13.34	1.1397	1.4246
35	29	13,820	0.0021	0.0013	0.0010	17.28	13.82	1.6787	2.0984
36	27	14,289	0.0019	0.0013	0.0010	18.58	14.86	1.4535	1.8169
37	28	14,825	0.0019	0.0014	0.0011	20.01	16.01	1.3990	1.7488
38	31	15,445	0.0020	0.0014	0.0011	21.62	17.30	1.4337	1.7921
39	46	15,704	0.0029	0.0015	0.0012	22.77	18.22	2.0201	2.5252
40	29	15,993	0.0018	0.0015	0.0012	23.99	19.19	1.2089	1.5111
41	33	15,801	0.0021	0.0016	0.0012	24.49	19.59	1.3474	1.6843
42	29	15,284	0.0019	0.0016	0.0013	24.45	19.56	1.1859	1.4824
43	19	14,360	0.0013	0.0017	0.0013	23.69	18.96	0.8019	1.0024
44	20	13,236	0.0015	0.0017	0.0014	22.50	18.00	0.8888	1.1111
45	14	11,888	0.0012	0.0018	0.0014	20.80	16.64	0.6729	0.8412
46	18	10,337	0.0017	0.0018	0.0014	18.61	14.89	0.9674	1.2092
47	17	8,675	0.0020	0.0019	0.0015	16.05	12.84	1.0593	1.3241
48	10	7,203	0.0014	0.0019	0.0015	13.69	10.95	0.7307	0.9134
49	8	5,958	0.0013	0.0020	0.0016	11.62	9.29	0.6886	0.8607
50	6	4,722	0.0013	0.0020	0.0016	9.44	7.56	0.6353	0.7942
51	0	3,680	0.0000	0.0025	0.0020	9.20	7.36	0.0000	0.0000
52	3	2,807	0.0011	0.0030	0.0024	8.42	6.74	0.3563	0.4453
53	1	2,131	0.0005	0.0040	0.0032	8.52	6.82	0.1173	0.1466
54	0	1,586	0.0000	0.0060	0.0048	9.52	7.61	0.0000	0.0000
55	0	1,174	0.0000	0.0080	0.0064	9.39	7.51	0.0000	0.0000
56	0	886	0.0000	0.0100	0.0080	8.86	7.09	0.0000	0.0000
57	1	657	0.0015	0.0200	0.0160	13.14	10.51	0.0761	0.0951
58	2	507	0.0039	0.0300	0.0240	15.21	12.17	0.1315	0.1644
59	1	370	0.0027	0.0400	0.0320	14.80	11.84	0.0676	0.0845
60	3	260	0.0115	0.0600	0.0480	15.60	12.48	0.1923	0.2404
61	0	212	0.0000	0.0800	0.0640	16.96	13.57	0.0000	0.0000
62	3	164	0.0183	0.1000	0.0800	16.40	13.12	0.1829	0.2287
63	3	62	0.0484	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	17	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	14	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	441	348,434	0.0013			587.43	469.94	0.7507	0.9384

Bolton

**New York City Police Pension Fund
Ordinary Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	39	35,337	53.45	0.7297	0.0011	0.0015
2009	54	35,424	54.69	0.9874	0.0015	0.0015
2010	62	35,589	56.15	1.1042	0.0017	0.0016
2011	52	34,595	56.59	0.9189	0.0015	0.0016
2012	40	33,703	57.83	0.6917	0.0012	0.0017
2013	46	34,237	59.40	0.7744	0.0013	0.0017
2014	31	34,772	62.60	0.4952	0.0009	0.0018
2015	39	34,402	63.81	0.6112	0.0011	0.0019
2016	39	34,435	65.89	0.5919	0.0011	0.0019
2017	39	35,961	70.75	0.5512	0.0011	0.0020
Total	441	348,455	601.16	0.7336	0.0013	0.0017

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75)

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 60% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0030	0.0018	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0032	0.0019	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0034	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0036	0.0022	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0038	0.0023	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0040	0.0024	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0052	0.0031	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0064	0.0038	0.00	0.00	N/A	N/A
28	0	0	N/A	0.0076	0.0046	0.00	0.00	N/A	N/A
29	0	0	N/A	0.0088	0.0053	0.00	0.00	N/A	N/A
30	0	0	N/A	0.0100	0.0060	0.00	0.00	N/A	N/A
31	0	0	N/A	0.0120	0.0072	0.00	0.00	N/A	N/A
32	0	2	0.0000	0.0140	0.0084	0.03	0.02	0.0000	0.0000
33	0	22	0.0000	0.0160	0.0096	0.35	0.21	0.0000	0.0000
34	0	88	0.0000	0.0180	0.0108	1.58	0.95	0.0000	0.0000
35	0	247	0.0000	0.0200	0.0120	4.94	2.96	0.0000	0.0000
36	5	518	0.0097	0.0210	0.0126	10.88	6.53	0.4596	0.7661
37	10	840	0.0119	0.0220	0.0132	18.48	11.09	0.5411	0.9019
38	15	1,234	0.0122	0.0230	0.0138	28.38	17.03	0.5285	0.8808
39	20	1,567	0.0128	0.0240	0.0144	37.61	22.56	0.5318	0.8863
40	22	1,884	0.0117	0.0250	0.0150	47.10	28.26	0.4671	0.7785
41	18	2,204	0.0082	0.0260	0.0156	57.30	34.38	0.3141	0.5235
42	26	2,535	0.0103	0.0270	0.0162	68.45	41.07	0.3799	0.6331
43	42	2,769	0.0152	0.0280	0.0168	77.53	46.52	0.5417	0.9029
44	37	2,842	0.0130	0.0290	0.0174	82.42	49.45	0.4489	0.7482
45	50	2,809	0.0178	0.0300	0.0180	84.27	50.56	0.5933	0.9889
46	30	2,667	0.0112	0.0320	0.0192	85.34	51.21	0.3515	0.5859
47	34	2,447	0.0139	0.0340	0.0204	83.20	49.92	0.4087	0.6811
48	34	2,239	0.0152	0.0360	0.0216	80.60	48.36	0.4218	0.7030
49	41	2,010	0.0204	0.0380	0.0228	76.38	45.83	0.5368	0.8946
50	24	1,701	0.0141	0.0400	0.0240	68.04	40.82	0.3527	0.5879
51	28	1,379	0.0203	0.0440	0.0264	60.68	36.41	0.4615	0.7691
52	15	1,085	0.0138	0.0480	0.0288	52.08	31.25	0.2880	0.4800
53	12	855	0.0140	0.0520	0.0312	44.46	26.68	0.2699	0.4498
54	6	640	0.0094	0.0560	0.0336	35.84	21.50	0.1674	0.2790
55	1	479	0.0021	0.0600	0.0360	28.74	17.24	0.0348	0.0580
56	3	370	0.0081	0.0680	0.0408	25.16	15.10	0.1192	0.1987
57	5	278	0.0180	0.0760	0.0456	21.13	12.68	0.2367	0.3944
58	5	212	0.0236	0.0840	0.0504	17.81	10.68	0.2808	0.4680
59	4	158	0.0253	0.0920	0.0552	14.54	8.72	0.2752	0.4586
60	0	107	0.0000	0.1000	0.0600	10.70	6.42	0.0000	0.0000
61	0	84	0.0000	0.1200	0.0720	10.08	6.05	0.0000	0.0000
62	5	61	0.0820	0.1400	0.0840	8.54	5.12	0.5855	0.9758
63	0	19	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	493	36,378	0.0136			1,242.64	745.58	0.3967	0.6612

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Women Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 60% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0030	0.0018	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0032	0.0019	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0034	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0036	0.0022	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0038	0.0023	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0040	0.0024	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0052	0.0031	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0064	0.0038	0.00	0.00	N/A	N/A
28	0	0	N/A	0.0076	0.0046	0.00	0.00	N/A	N/A
29	0	0	N/A	0.0088	0.0053	0.00	0.00	N/A	N/A
30	0	0	N/A	0.0100	0.0060	0.00	0.00	N/A	N/A
31	0	0	N/A	0.0120	0.0072	0.00	0.00	N/A	N/A
32	0	0	N/A	0.0140	0.0084	0.00	0.00	N/A	N/A
33	0	3	0.0000	0.0160	0.0096	0.05	0.03	0.0000	0.0000
34	0	21	0.0000	0.0180	0.0108	0.38	0.23	0.0000	0.0000
35	0	59	0.0000	0.0200	0.0120	1.18	0.71	0.0000	0.0000
36	0	135	0.0000	0.0210	0.0126	2.84	1.70	0.0000	0.0000
37	1	206	0.0049	0.0220	0.0132	4.53	2.72	0.2207	0.3678
38	2	273	0.0073	0.0230	0.0138	6.28	3.77	0.3185	0.5309
39	2	321	0.0062	0.0240	0.0144	7.70	4.62	0.2596	0.4327
40	2	357	0.0056	0.0250	0.0150	8.93	5.36	0.2241	0.3735
41	5	396	0.0126	0.0260	0.0156	10.30	6.18	0.4856	0.8094
42	3	429	0.0070	0.0270	0.0162	11.58	6.95	0.2590	0.4317
43	7	464	0.0151	0.0280	0.0168	12.99	7.80	0.5388	0.8980
44	7	485	0.0144	0.0290	0.0174	14.07	8.44	0.4977	0.8295
45	5	475	0.0105	0.0300	0.0180	14.25	8.55	0.3509	0.5848
46	4	454	0.0088	0.0320	0.0192	14.53	8.72	0.2753	0.4589
47	0	385	0.0000	0.0340	0.0204	13.09	7.85	0.0000	0.0000
48	4	342	0.0117	0.0360	0.0216	12.31	7.39	0.3249	0.5415
49	8	322	0.0248	0.0380	0.0228	12.24	7.34	0.6538	1.0897
50	9	271	0.0332	0.0400	0.0240	10.84	6.50	0.8303	1.3838
51	3	248	0.0121	0.0440	0.0264	10.91	6.55	0.2749	0.4582
52	3	206	0.0146	0.0480	0.0288	9.89	5.93	0.3034	0.5057
53	4	151	0.0265	0.0520	0.0312	7.85	4.71	0.5094	0.8490
54	3	103	0.0291	0.0560	0.0336	5.77	3.46	0.5201	0.8669
55	3	67	0.0448	0.0600	0.0360	4.02	2.41	0.7463	1.2438
56	0	45	0.0000	0.0680	0.0408	3.06	1.84	0.0000	0.0000
57	0	24	0.0000	0.0760	0.0456	1.82	1.09	0.0000	0.0000
58	1	20	0.0500	0.0840	0.0504	1.68	1.01	0.5952	0.9921
59	0	12	0.0000	0.0920	0.0552	1.10	0.66	0.0000	0.0000
60	0	5	0.0000	0.1000	0.0600	0.50	0.30	0.0000	0.0000
61	0	6	0.0000	0.1200	0.0720	0.72	0.43	0.0000	0.0000
62	0	5	0.0000	0.1400	0.0840	0.70	0.42	0.0000	0.0000
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	76	6,291	0.0121			206.10	123.66	0.3688	0.6146

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men and Women Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 60% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0030	0.0018	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0032	0.0019	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0034	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0036	0.0022	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0038	0.0023	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0040	0.0024	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0052	0.0031	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0064	0.0038	0.00	0.00	N/A	N/A
28	0	0	N/A	0.0076	0.0046	0.00	0.00	N/A	N/A
29	0	0	N/A	0.0088	0.0053	0.00	0.00	N/A	N/A
30	0	0	N/A	0.0100	0.0060	0.00	0.00	N/A	N/A
31	0	0	N/A	0.0120	0.0072	0.00	0.00	N/A	N/A
32	0	2	0.0000	0.0140	0.0084	0.03	0.02	0.0000	0.0000
33	0	25	0.0000	0.0160	0.0096	0.40	0.24	0.0000	0.0000
34	0	109	0.0000	0.0180	0.0108	1.96	1.18	0.0000	0.0000
35	0	306	0.0000	0.0200	0.0120	6.12	3.67	0.0000	0.0000
36	5	653	0.0077	0.0210	0.0126	13.71	8.23	0.3646	0.6077
37	11	1,046	0.0105	0.0220	0.0132	23.01	13.81	0.4780	0.7967
38	17	1,507	0.0113	0.0230	0.0138	34.66	20.80	0.4905	0.8174
39	22	1,888	0.0117	0.0240	0.0144	45.31	27.19	0.4855	0.8092
40	24	2,241	0.0107	0.0250	0.0150	56.03	33.62	0.4284	0.7140
41	23	2,600	0.0088	0.0260	0.0156	67.60	40.56	0.3402	0.5671
42	29	2,964	0.0098	0.0270	0.0162	80.03	48.02	0.3624	0.6040
43	49	3,233	0.0152	0.0280	0.0168	90.52	54.31	0.5413	0.9022
44	44	3,327	0.0132	0.0290	0.0174	96.48	57.89	0.4560	0.7601
45	55	3,284	0.0167	0.0300	0.0180	98.52	59.11	0.5583	0.9304
46	34	3,121	0.0109	0.0320	0.0192	99.87	59.92	0.3404	0.5674
47	34	2,832	0.0120	0.0340	0.0204	96.29	57.77	0.3531	0.5885
48	38	2,581	0.0147	0.0360	0.0216	92.92	55.75	0.4090	0.6816
49	49	2,332	0.0210	0.0380	0.0228	88.62	53.17	0.5529	0.9216
50	33	1,972	0.0167	0.0400	0.0240	78.88	47.33	0.4184	0.6973
51	31	1,627	0.0191	0.0440	0.0264	71.59	42.95	0.4330	0.7217
52	18	1,291	0.0139	0.0480	0.0288	61.97	37.18	0.2905	0.4841
53	16	1,006	0.0159	0.0520	0.0312	52.31	31.39	0.3059	0.5098
54	9	743	0.0121	0.0560	0.0336	41.61	24.96	0.2163	0.3605
55	4	546	0.0073	0.0600	0.0360	32.76	19.66	0.1221	0.2035
56	3	415	0.0072	0.0680	0.0408	28.22	16.93	0.1063	0.1772
57	5	302	0.0166	0.0760	0.0456	22.95	13.77	0.2178	0.3631
58	6	232	0.0259	0.0840	0.0504	19.49	11.69	0.3079	0.5131
59	4	170	0.0235	0.0920	0.0552	15.64	9.38	0.2558	0.4263
60	0	112	0.0000	0.1000	0.0600	11.20	6.72	0.0000	0.0000
61	0	90	0.0000	0.1200	0.0720	10.80	6.48	0.0000	0.0000
62	5	66	0.0758	0.1400	0.0840	9.24	5.54	0.5411	0.9019
63	0	20	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	569	42,669	0.0133			1,448.74	869.24	0.3928	0.6546

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 60% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0030	0.0018	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0032	0.0019	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0034	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0036	0.0022	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0038	0.0023	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0040	0.0024	0.00	0.00	N/A	N/A
26	0	2	0.0000	0.0052	0.0031	0.01	0.01	0.0000	0.0000
27	0	24	0.0000	0.0064	0.0038	0.15	0.09	0.0000	0.0000
28	2	96	0.0208	0.0076	0.0046	0.73	0.44	2.7412	4.5687
29	2	267	0.0075	0.0088	0.0053	2.35	1.41	0.8512	1.4187
30	2	562	0.0036	0.0100	0.0060	5.62	3.37	0.3559	0.5931
31	6	934	0.0064	0.0120	0.0072	11.21	6.72	0.5353	0.8922
32	16	1,424	0.0112	0.0140	0.0084	19.94	11.96	0.8026	1.3376
33	17	1,955	0.0087	0.0160	0.0096	31.28	18.77	0.5435	0.9058
34	32	2,613	0.0122	0.0180	0.0108	47.03	28.22	0.6804	1.1339
35	27	3,337	0.0081	0.0200	0.0120	66.74	40.04	0.4046	0.6743
36	53	4,368	0.0121	0.0210	0.0126	91.73	55.04	0.5778	0.9630
37	56	5,495	0.0102	0.0220	0.0132	120.89	72.53	0.4632	0.7721
38	96	6,582	0.0146	0.0230	0.0138	151.39	90.83	0.6341	1.0569
39	107	7,475	0.0143	0.0240	0.0144	179.40	107.64	0.5964	0.9941
40	126	8,320	0.0151	0.0250	0.0150	208.00	124.80	0.6058	1.0096
41	155	8,773	0.0177	0.0260	0.0156	228.10	136.86	0.6795	1.1326
42	144	8,858	0.0163	0.0270	0.0162	239.17	143.50	0.6021	1.0035
43	145	8,527	0.0170	0.0280	0.0168	238.76	143.25	0.6073	1.0122
44	147	7,989	0.0184	0.0290	0.0174	231.68	139.01	0.6345	1.0575
45	136	7,291	0.0187	0.0300	0.0180	218.73	131.24	0.6218	1.0363
46	82	6,418	0.0128	0.0320	0.0192	205.38	123.23	0.3993	0.6654
47	86	5,496	0.0156	0.0340	0.0204	186.86	112.12	0.4602	0.7670
48	68	4,674	0.0145	0.0360	0.0216	168.26	100.96	0.4041	0.6735
49	67	3,948	0.0170	0.0380	0.0228	150.02	90.01	0.4466	0.7443
50	51	3,189	0.0160	0.0400	0.0240	127.56	76.54	0.3998	0.6664
51	45	2,511	0.0179	0.0440	0.0264	110.48	66.29	0.4073	0.6788
52	25	1,929	0.0130	0.0480	0.0288	92.59	55.56	0.2700	0.4500
53	20	1,503	0.0133	0.0520	0.0312	78.16	46.89	0.2559	0.4265
54	11	1,122	0.0098	0.0560	0.0336	62.83	37.70	0.1751	0.2918
55	4	840	0.0048	0.0600	0.0360	50.40	30.24	0.0794	0.1323
56	7	631	0.0111	0.0680	0.0408	42.91	25.74	0.1631	0.2719
57	6	475	0.0126	0.0760	0.0456	36.10	21.66	0.1662	0.2770
58	7	370	0.0189	0.0840	0.0504	31.08	18.65	0.2252	0.3754
59	7	266	0.0263	0.0920	0.0552	24.47	14.68	0.2860	0.4767
60	1	193	0.0052	0.1000	0.0600	19.30	11.58	0.0518	0.0864
61	4	159	0.0252	0.1200	0.0720	19.08	11.45	0.2096	0.3494
62	12	118	0.1017	0.1400	0.0840	16.52	9.91	0.7264	1.2107
63	0	39	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,773	118,813	0.0149			3,514.91	2,108.94	0.5044	0.8407

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Women Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 60% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0030	0.0018	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0032	0.0019	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0034	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0036	0.0022	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0038	0.0023	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0040	0.0024	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0052	0.0031	0.00	0.00	N/A	N/A
27	0	4	0.0000	0.0064	0.0038	0.03	0.02	0.0000	0.0000
28	1	23	0.0435	0.0076	0.0046	0.17	0.10	5.7208	9.5347
29	0	66	0.0000	0.0088	0.0053	0.58	0.35	0.0000	0.0000
30	1	142	0.0070	0.0100	0.0060	1.42	0.85	0.7042	1.1737
31	0	226	0.0000	0.0120	0.0072	2.71	1.63	0.0000	0.0000
32	3	314	0.0096	0.0140	0.0084	4.40	2.64	0.6824	1.1374
33	4	414	0.0097	0.0160	0.0096	6.62	3.97	0.6039	1.0064
34	3	533	0.0056	0.0180	0.0108	9.59	5.76	0.3127	0.5212
35	2	649	0.0031	0.0200	0.0120	12.98	7.79	0.1541	0.2568
36	5	830	0.0060	0.0210	0.0126	17.43	10.46	0.2869	0.4781
37	12	1,031	0.0116	0.0220	0.0132	22.68	13.61	0.5291	0.8818
38	8	1,215	0.0066	0.0230	0.0138	27.95	16.77	0.2863	0.4771
39	14	1,335	0.0105	0.0240	0.0144	32.04	19.22	0.4370	0.7283
40	15	1,441	0.0104	0.0250	0.0150	36.03	21.62	0.4164	0.6940
41	21	1,471	0.0143	0.0260	0.0156	38.25	22.95	0.5491	0.9151
42	16	1,467	0.0109	0.0270	0.0162	39.61	23.77	0.4039	0.6732
43	23	1,456	0.0158	0.0280	0.0168	40.77	24.46	0.5642	0.9403
44	17	1,386	0.0123	0.0290	0.0174	40.19	24.12	0.4229	0.7049
45	18	1,311	0.0137	0.0300	0.0180	39.33	23.60	0.4577	0.7628
46	23	1,199	0.0192	0.0320	0.0192	38.37	23.02	0.5995	0.9991
47	5	1,031	0.0048	0.0340	0.0204	35.05	21.03	0.1426	0.2377
48	12	863	0.0139	0.0360	0.0216	31.07	18.64	0.3862	0.6437
49	13	725	0.0179	0.0380	0.0228	27.55	16.53	0.4719	0.7864
50	17	576	0.0295	0.0400	0.0240	23.04	13.82	0.7378	1.2297
51	7	449	0.0156	0.0440	0.0264	19.76	11.85	0.3543	0.5905
52	6	336	0.0179	0.0480	0.0288	16.13	9.68	0.3720	0.6200
53	6	233	0.0258	0.0520	0.0312	12.12	7.27	0.4952	0.8254
54	6	153	0.0392	0.0560	0.0336	8.57	5.14	0.7003	1.1671
55	3	103	0.0291	0.0600	0.0360	6.18	3.71	0.4854	0.8091
56	0	68	0.0000	0.0680	0.0408	4.62	2.77	0.0000	0.0000
57	0	40	0.0000	0.0760	0.0456	3.04	1.82	0.0000	0.0000
58	1	30	0.0333	0.0840	0.0504	2.52	1.51	0.3968	0.6614
59	0	18	0.0000	0.0920	0.0552	1.66	0.99	0.0000	0.0000
60	1	10	0.1000	0.1000	0.0600	1.00	0.60	1.0000	1.6667
61	0	7	0.0000	0.1200	0.0720	0.84	0.50	0.0000	0.0000
62	1	6	0.1667	0.1400	0.0840	0.84	0.50	1.1905	1.9841
63	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	264	21,162	0.0125			605.12	363.07	0.4363	0.7271

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men and Women Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 60% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0030	0.0018	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0032	0.0019	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0034	0.0020	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0036	0.0022	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0038	0.0023	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0040	0.0024	0.00	0.00	N/A	N/A
26	0	2	0.0000	0.0052	0.0031	0.01	0.01	0.0000	0.0000
27	0	28	0.0000	0.0064	0.0038	0.18	0.11	0.0000	0.0000
28	3	119	0.0252	0.0076	0.0046	0.90	0.54	3.3171	5.5285
29	2	333	0.0060	0.0088	0.0053	2.93	1.76	0.6825	1.1375
30	3	704	0.0043	0.0100	0.0060	7.04	4.22	0.4261	0.7102
31	6	1,160	0.0052	0.0120	0.0072	13.92	8.35	0.4310	0.7184
32	19	1,738	0.0109	0.0140	0.0084	24.33	14.60	0.7809	1.3014
33	21	2,369	0.0089	0.0160	0.0096	37.90	22.74	0.5540	0.9234
34	35	3,146	0.0111	0.0180	0.0108	56.63	33.98	0.6181	1.0301
35	29	3,986	0.0073	0.0200	0.0120	79.72	47.83	0.3638	0.6063
36	58	5,198	0.0112	0.0210	0.0126	109.16	65.49	0.5313	0.8856
37	68	6,526	0.0104	0.0220	0.0132	143.57	86.14	0.4736	0.7894
38	104	7,797	0.0133	0.0230	0.0138	179.33	107.60	0.5799	0.9666
39	121	8,810	0.0137	0.0240	0.0144	211.44	126.86	0.5723	0.9538
40	141	9,761	0.0144	0.0250	0.0150	244.03	146.42	0.5778	0.9630
41	176	10,244	0.0172	0.0260	0.0156	266.34	159.81	0.6608	1.1013
42	160	10,325	0.0155	0.0270	0.0162	278.78	167.27	0.5739	0.9566
43	168	9,983	0.0168	0.0280	0.0168	279.52	167.71	0.6010	1.0017
44	164	9,375	0.0175	0.0290	0.0174	271.88	163.13	0.6032	1.0054
45	154	8,602	0.0179	0.0300	0.0180	258.06	154.84	0.5968	0.9946
46	105	7,617	0.0138	0.0320	0.0192	243.74	146.25	0.4308	0.7180
47	91	6,527	0.0139	0.0340	0.0204	221.92	133.15	0.4101	0.6834
48	80	5,537	0.0144	0.0360	0.0216	199.33	119.60	0.4013	0.6689
49	80	4,673	0.0171	0.0380	0.0228	177.57	106.54	0.4505	0.7509
50	68	3,765	0.0181	0.0400	0.0240	150.60	90.36	0.4515	0.7525
51	52	2,960	0.0176	0.0440	0.0264	130.24	78.14	0.3993	0.6654
52	31	2,265	0.0137	0.0480	0.0288	108.72	65.23	0.2851	0.4752
53	26	1,736	0.0150	0.0520	0.0312	90.27	54.16	0.2880	0.4800
54	17	1,275	0.0133	0.0560	0.0336	71.40	42.84	0.2381	0.3968
55	7	943	0.0074	0.0600	0.0360	56.58	33.95	0.1237	0.2062
56	7	699	0.0100	0.0680	0.0408	47.53	28.52	0.1473	0.2454
57	6	515	0.0117	0.0760	0.0456	39.14	23.48	0.1533	0.2555
58	8	400	0.0200	0.0840	0.0504	33.60	20.16	0.2381	0.3968
59	7	284	0.0246	0.0920	0.0552	26.13	15.68	0.2679	0.4465
60	2	203	0.0099	0.1000	0.0600	20.30	12.18	0.0985	0.1642
61	4	166	0.0241	0.1200	0.0720	19.92	11.95	0.2008	0.3347
62	13	124	0.1048	0.1400	0.0840	17.36	10.42	0.7488	1.2481
63	0	40	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	8	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	1	1	1.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	2,037	139,975	0.0146			4,120.03	2,472.02	0.4944	0.8240

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men Not Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 70% of the Current Rates**

(1)	(2)	(3)	(4) = (2)-(3)	(5)	(6)	(7)	(8)	(9) = (2)-(7)	(10) = (2)-(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0015	0.0011	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0016	0.0011	0.00	0.00	0.0000	0.0000
22	0	360	0.0000	0.0017	0.0012	0.61	0.43	0.0000	0.0000
23	0	1,015	0.0000	0.0018	0.0013	1.83	1.28	0.0000	0.0000
24	0	1,845	0.0000	0.0019	0.0013	3.51	2.45	0.0000	0.0000
25	0	2,561	0.0000	0.0020	0.0014	5.12	3.59	0.0000	0.0000
26	0	3,278	0.0000	0.0026	0.0018	8.52	5.97	0.0000	0.0000
27	3	3,775	0.0008	0.0032	0.0022	12.08	8.46	0.2483	0.3548
28	4	4,243	0.0009	0.0038	0.0027	16.12	11.29	0.2481	0.3544
29	9	4,598	0.0020	0.0044	0.0031	20.23	14.16	0.4449	0.6355
30	13	4,799	0.0027	0.0050	0.0035	24.00	16.80	0.5418	0.7740
31	22	4,961	0.0044	0.0060	0.0042	29.77	20.84	0.7391	1.0559
32	26	4,971	0.0052	0.0070	0.0049	34.80	24.36	0.7472	1.0674
33	23	4,966	0.0046	0.0080	0.0056	39.73	27.81	0.5789	0.8271
34	30	4,835	0.0062	0.0090	0.0063	43.52	30.46	0.6894	0.9849
35	24	4,463	0.0054	0.0100	0.0070	44.63	31.24	0.5378	0.7682
36	30	4,063	0.0074	0.0105	0.0074	42.66	29.86	0.7032	1.0046
37	28	3,550	0.0079	0.0110	0.0077	39.05	27.34	0.7170	1.0243
38	18	3,104	0.0058	0.0115	0.0081	35.70	24.99	0.5043	0.7204
39	22	2,645	0.0083	0.0120	0.0084	31.74	22.22	0.6931	0.9902
40	18	2,225	0.0081	0.0125	0.0088	27.81	19.47	0.6472	0.9246
41	13	1,956	0.0066	0.0130	0.0091	25.43	17.80	0.5112	0.7304
42	21	1,780	0.0118	0.0135	0.0095	24.03	16.82	0.8739	1.2484
43	20	1,668	0.0120	0.0140	0.0098	23.35	16.35	0.8565	1.2235
44	15	1,546	0.0097	0.0145	0.0102	22.42	15.69	0.6691	0.9559
45	17	1,340	0.0127	0.0150	0.0105	20.10	14.07	0.8458	1.2082
46	15	1,145	0.0131	0.0160	0.0112	18.32	12.82	0.8188	1.1697
47	10	919	0.0109	0.0170	0.0119	15.62	10.94	0.6401	0.9144
48	6	732	0.0082	0.0180	0.0126	13.18	9.22	0.4554	0.6505
49	5	584	0.0086	0.0190	0.0133	11.10	7.77	0.4506	0.6437
50	4	419	0.0095	0.0200	0.0140	8.38	5.87	0.4773	0.6819
51	1	321	0.0031	0.0220	0.0154	7.06	4.94	0.1416	0.2023
52	3	245	0.0122	0.0240	0.0168	5.88	4.12	0.5102	0.7289
53	1	177	0.0056	0.0260	0.0182	4.60	3.22	0.2173	0.3104
54	1	140	0.0071	0.0280	0.0196	3.92	2.74	0.2551	0.3644
55	1	100	0.0100	0.0300	0.0210	3.00	2.10	0.3333	0.4762
56	0	87	0.0000	0.0340	0.0238	2.96	2.07	0.0000	0.0000
57	1	66	0.0152	0.0380	0.0266	2.51	1.76	0.3987	0.5696
58	0	51	0.0000	0.0420	0.0294	2.14	1.50	0.0000	0.0000
59	0	41	0.0000	0.0460	0.0322	1.89	1.32	0.0000	0.0000
60	0	26	0.0000	0.0500	0.0350	1.30	0.91	0.0000	0.0000
61	0	16	0.0000	0.0600	0.0420	0.96	0.67	0.0000	0.0000
62	1	16	0.0625	0.0700	0.0490	1.12	0.78	0.8929	1.2755
63	1	9	0.1111	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	406	79,664	0.0051			680.68	476.48	0.5965	0.8521

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Women Not Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 70% of the Current Rates**

(1)	(2)	(3)	(4) = (2)-(3)	(5)	(6)	(7)	(8)	(9) = (2)-(7)	(10) = (2)-(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0015	0.0011	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0016	0.0011	0.00	0.00	N/A	N/A
22	0	45	0.0000	0.0017	0.0012	0.08	0.05	0.0000	0.0000
23	0	164	0.0000	0.0018	0.0013	0.30	0.21	0.0000	0.0000
24	0	251	0.0000	0.0019	0.0013	0.48	0.33	0.0000	0.0000
25	0	430	0.0000	0.0020	0.0014	0.86	0.60	0.0000	0.0000
26	0	601	0.0000	0.0026	0.0018	1.56	1.09	0.0000	0.0000
27	0	686	0.0000	0.0032	0.0022	2.20	1.54	0.0000	0.0000
28	1	805	0.0012	0.0038	0.0027	3.06	2.14	0.3269	0.4670
29	1	871	0.0011	0.0044	0.0031	3.83	2.68	0.2609	0.3728
30	4	908	0.0044	0.0050	0.0035	4.54	3.18	0.8811	1.2587
31	0	956	0.0000	0.0060	0.0042	5.74	4.02	0.0000	0.0000
32	6	1,008	0.0060	0.0070	0.0049	7.06	4.94	0.8503	1.2148
33	4	1,068	0.0037	0.0080	0.0056	8.54	5.98	0.4682	0.6688
34	6	1,068	0.0056	0.0090	0.0063	9.61	6.73	0.6242	0.8917
35	6	1,012	0.0059	0.0100	0.0070	10.12	7.08	0.5929	0.8470
36	7	995	0.0070	0.0105	0.0074	10.45	7.31	0.6700	0.9572
37	7	883	0.0079	0.0110	0.0077	9.71	6.80	0.7207	1.0295
38	3	785	0.0038	0.0115	0.0081	9.03	6.32	0.3323	0.4747
39	1	721	0.0014	0.0120	0.0084	8.65	6.06	0.1156	0.1651
40	4	586	0.0068	0.0125	0.0088	7.33	5.13	0.5461	0.7801
41	3	529	0.0057	0.0130	0.0091	6.88	4.81	0.4362	0.6232
42	4	507	0.0079	0.0135	0.0095	6.84	4.79	0.5844	0.8349
43	3	436	0.0069	0.0140	0.0098	6.10	4.27	0.4915	0.7021
44	6	421	0.0143	0.0145	0.0102	6.10	4.27	0.9829	1.4041
45	1	341	0.0029	0.0150	0.0105	5.12	3.58	0.1955	0.2793
46	9	288	0.0313	0.0160	0.0112	4.61	3.23	1.9531	2.7902
47	3	218	0.0138	0.0170	0.0119	3.71	2.59	0.8095	1.1564
48	0	151	0.0000	0.0180	0.0126	2.72	1.90	0.0000	0.0000
49	0	121	0.0000	0.0190	0.0133	2.30	1.61	0.0000	0.0000
50	1	89	0.0112	0.0200	0.0140	1.78	1.25	0.5618	0.8026
51	0	72	0.0000	0.0220	0.0154	1.58	1.11	0.0000	0.0000
52	0	63	0.0000	0.0240	0.0168	1.51	1.06	0.0000	0.0000
53	1	38	0.0263	0.0260	0.0182	0.99	0.69	1.0121	1.4459
54	0	30	0.0000	0.0280	0.0196	0.84	0.59	0.0000	0.0000
55	0	24	0.0000	0.0300	0.0210	0.72	0.50	0.0000	0.0000
56	0	22	0.0000	0.0340	0.0238	0.75	0.52	0.0000	0.0000
57	1	19	0.0526	0.0380	0.0266	0.72	0.51	1.3850	1.9786
58	0	9	0.0000	0.0420	0.0294	0.38	0.26	0.0000	0.0000
59	0	6	0.0000	0.0460	0.0322	0.28	0.19	0.0000	0.0000
60	0	2	0.0000	0.0500	0.0350	0.10	0.07	0.0000	0.0000
61	0	0	N/A	0.0600	0.0420	0.00	0.00	N/A	N/A
62	0	0	N/A	0.0700	0.0490	0.00	0.00	N/A	N/A
63	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	82	17,229	0.0048			157.15	110.01	0.5218	0.7454

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men and Women Not Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 70% of the Current Rates**

(1)	(2)	(3)	(4) = (2)-(3)	(5)	(6)	(7)	(8)	(9) = (2)-(7)	(10) = (2)-(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0015	0.0011	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0016	0.0011	0.00	0.00	0.0000	0.0000
22	0	405	0.0000	0.0017	0.0012	0.69	0.48	0.0000	0.0000
23	0	1,179	0.0000	0.0018	0.0013	2.12	1.49	0.0000	0.0000
24	0	2,096	0.0000	0.0019	0.0013	3.98	2.79	0.0000	0.0000
25	0	2,991	0.0000	0.0020	0.0014	5.98	4.19	0.0000	0.0000
26	0	3,879	0.0000	0.0026	0.0018	10.09	7.06	0.0000	0.0000
27	3	4,461	0.0007	0.0032	0.0022	14.28	9.99	0.2102	0.3002
28	5	5,048	0.0010	0.0038	0.0027	19.18	13.43	0.2607	0.3724
29	10	5,469	0.0018	0.0044	0.0031	24.06	16.84	0.4156	0.5937
30	17	5,707	0.0030	0.0050	0.0035	28.54	19.97	0.5958	0.8511
31	22	5,917	0.0037	0.0060	0.0042	35.50	24.85	0.6197	0.8853
32	32	5,979	0.0054	0.0070	0.0049	41.85	29.30	0.7646	1.0923
33	27	6,034	0.0045	0.0080	0.0056	48.27	33.79	0.5593	0.7990
34	36	5,903	0.0061	0.0090	0.0063	53.13	37.19	0.6776	0.9680
35	30	5,475	0.0055	0.0100	0.0070	54.75	38.33	0.5479	0.7828
36	37	5,058	0.0073	0.0105	0.0074	53.11	37.18	0.6967	0.9953
37	35	4,433	0.0079	0.0110	0.0077	48.76	34.13	0.7178	1.0254
38	21	3,889	0.0054	0.0115	0.0081	44.72	31.31	0.4696	0.6708
39	23	3,366	0.0068	0.0120	0.0084	40.39	28.27	0.5694	0.8135
40	22	2,811	0.0078	0.0125	0.0088	35.14	24.60	0.6261	0.8944
41	16	2,485	0.0064	0.0130	0.0091	32.31	22.61	0.4953	0.7075
42	25	2,287	0.0109	0.0135	0.0095	30.87	21.61	0.8097	1.1568
43	23	2,104	0.0109	0.0140	0.0098	29.46	20.62	0.7808	1.1155
44	21	1,967	0.0107	0.0145	0.0102	28.52	19.97	0.7363	1.0518
45	18	1,681	0.0107	0.0150	0.0105	25.22	17.65	0.7139	1.0198
46	24	1,433	0.0167	0.0160	0.0112	22.93	16.05	1.0468	1.4954
47	13	1,137	0.0114	0.0170	0.0119	19.33	13.53	0.6726	0.9608
48	6	883	0.0068	0.0180	0.0126	15.89	11.13	0.3775	0.5393
49	5	705	0.0071	0.0190	0.0133	13.40	9.38	0.3733	0.5332
50	5	508	0.0098	0.0200	0.0140	10.16	7.11	0.4921	0.7030
51	1	393	0.0025	0.0220	0.0154	8.65	6.05	0.1157	0.1652
52	3	308	0.0097	0.0240	0.0168	7.39	5.17	0.4058	0.5798
53	2	215	0.0093	0.0260	0.0182	5.59	3.91	0.3578	0.5111
54	1	170	0.0059	0.0280	0.0196	4.76	3.33	0.2101	0.3001
55	1	124	0.0081	0.0300	0.0210	3.72	2.60	0.2688	0.3840
56	0	109	0.0000	0.0340	0.0238	3.71	2.59	0.0000	0.0000
57	2	85	0.0235	0.0380	0.0266	3.23	2.26	0.6192	0.8846
58	0	60	0.0000	0.0420	0.0294	2.52	1.76	0.0000	0.0000
59	0	47	0.0000	0.0460	0.0322	2.16	1.51	0.0000	0.0000
60	0	28	0.0000	0.0500	0.0350	1.40	0.98	0.0000	0.0000
61	0	16	0.0000	0.0600	0.0420	0.96	0.67	0.0000	0.0000
62	1	16	0.0625	0.0700	0.0490	1.12	0.78	0.8929	1.2755
63	1	9	0.1111	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	6	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	488	96,893	0.0050			837.83	586.48	0.5825	0.8321

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men Not Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 70% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0015	0.0011	0.00	0.00	N/A	N/A
21	0	15	0.0000	0.0016	0.0011	0.02	0.02	0.0000	0.0000
22	0	1,052	0.0000	0.0017	0.0012	1.79	1.25	0.0000	0.0000
23	0	3,130	0.0000	0.0018	0.0013	5.63	3.94	0.0000	0.0000
24	0	5,249	0.0000	0.0019	0.0013	9.97	6.98	0.0000	0.0000
25	1	7,116	0.0001	0.0020	0.0014	14.23	9.96	0.0703	0.1004
26	1	8,744	0.0001	0.0026	0.0018	22.73	15.91	0.0440	0.0628
27	11	9,744	0.0011	0.0032	0.0022	31.18	21.83	0.3528	0.5040
28	17	10,378	0.0016	0.0038	0.0027	39.44	27.61	0.4311	0.6158
29	19	10,681	0.0018	0.0044	0.0031	47.00	32.90	0.4043	0.5776
30	25	10,775	0.0023	0.0050	0.0035	53.88	37.71	0.4640	0.6629
31	47	10,446	0.0045	0.0060	0.0042	62.68	43.87	0.7499	1.0713
32	37	9,884	0.0037	0.0070	0.0049	69.19	48.43	0.5348	0.7640
33	43	9,303	0.0046	0.0080	0.0056	74.42	52.10	0.5778	0.8254
34	50	8,681	0.0058	0.0090	0.0063	78.13	54.69	0.6400	0.9142
35	46	7,894	0.0058	0.0100	0.0070	78.94	55.26	0.5827	0.8325
36	50	7,240	0.0069	0.0105	0.0074	76.02	53.21	0.6577	0.9396
37	47	6,592	0.0071	0.0110	0.0077	72.51	50.76	0.6482	0.9260
38	43	6,040	0.0071	0.0115	0.0081	69.46	48.62	0.6191	0.8844
39	55	5,424	0.0101	0.0120	0.0084	65.09	45.56	0.8450	1.2072
40	50	4,915	0.0102	0.0125	0.0088	61.44	43.01	0.8138	1.1626
41	39	4,382	0.0089	0.0130	0.0091	56.97	39.88	0.6846	0.9780
42	51	3,915	0.0130	0.0135	0.0095	52.85	37.00	0.9649	1.3785
43	45	3,472	0.0130	0.0140	0.0098	48.61	34.03	0.9258	1.3225
44	44	3,045	0.0144	0.0145	0.0102	44.15	30.91	0.9965	1.4236
45	40	2,611	0.0153	0.0150	0.0105	39.17	27.42	1.0213	1.4590
46	32	2,159	0.0148	0.0160	0.0112	34.54	24.18	0.9264	1.3234
47	21	1,713	0.0123	0.0170	0.0119	29.12	20.38	0.7211	1.0302
48	13	1,338	0.0097	0.0180	0.0126	24.08	16.86	0.5398	0.7711
49	12	1,038	0.0116	0.0190	0.0133	19.72	13.81	0.6085	0.8692
50	10	775	0.0129	0.0200	0.0140	15.50	10.85	0.6452	0.9217
51	8	578	0.0138	0.0220	0.0154	12.72	8.90	0.6291	0.8988
52	8	436	0.0183	0.0240	0.0168	10.46	7.32	0.7645	1.0922
53	5	323	0.0155	0.0260	0.0182	8.40	5.88	0.5954	0.8505
54	2	259	0.0077	0.0280	0.0196	7.25	5.08	0.2758	0.3940
55	2	194	0.0103	0.0300	0.0210	5.82	4.07	0.3436	0.4909
56	1	160	0.0063	0.0340	0.0238	5.44	3.81	0.1838	0.2626
57	2	121	0.0165	0.0380	0.0266	4.60	3.22	0.4350	0.6214
58	0	97	0.0000	0.0420	0.0294	4.07	2.85	0.0000	0.0000
59	1	80	0.0125	0.0460	0.0322	3.68	2.58	0.2717	0.3882
60	0	55	0.0000	0.0500	0.0350	2.75	1.93	0.0000	0.0000
61	1	46	0.0217	0.0600	0.0420	2.76	1.93	0.3623	0.5176
62	4	40	0.1000	0.0700	0.0490	2.80	1.96	1.4286	2.0408
63	2	22	0.0909	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	885	170,197	0.0052			1,369.22	958.45	0.6464	0.9234

Bolton

New York City Police Pension Fund
 Accidental Disability Experience of Active Members
 Women Not Eligible for WTC Benefits
 10-Year Period Ending 2017
 Proposed Rates are 70% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0015	0.0011	0.00	0.00	N/A	N/A
21	0	1	0.0000	0.0016	0.0011	0.00	0.00	0.0000	0.0000
22	0	140	0.0000	0.0017	0.0012	0.24	0.17	0.0000	0.0000
23	0	523	0.0000	0.0018	0.0013	0.94	0.66	0.0000	0.0000
24	0	879	0.0000	0.0019	0.0013	1.67	1.17	0.0000	0.0000
25	0	1,276	0.0000	0.0020	0.0014	2.55	1.79	0.0000	0.0000
26	0	1,642	0.0000	0.0026	0.0018	4.27	2.99	0.0000	0.0000
27	4	1,876	0.0021	0.0032	0.0022	6.00	4.20	0.6663	0.9519
28	2	2,077	0.0010	0.0038	0.0027	7.89	5.52	0.2534	0.3620
29	5	2,190	0.0023	0.0044	0.0031	9.64	6.75	0.5189	0.7413
30	11	2,259	0.0049	0.0050	0.0035	11.30	7.91	0.9739	1.3913
31	3	2,231	0.0013	0.0060	0.0042	13.39	9.37	0.2241	0.3202
32	8	2,203	0.0036	0.0070	0.0049	15.42	10.79	0.5188	0.7411
33	8	2,163	0.0037	0.0080	0.0056	17.30	12.11	0.4623	0.6605
34	10	2,066	0.0048	0.0090	0.0063	18.59	13.02	0.5378	0.7683
35	8	1,940	0.0041	0.0100	0.0070	19.40	13.58	0.4124	0.5891
36	11	1,851	0.0059	0.0105	0.0074	19.44	13.60	0.5660	0.8085
37	14	1,707	0.0082	0.0110	0.0077	18.78	13.14	0.7456	1.0651
38	7	1,608	0.0044	0.0115	0.0081	18.49	12.94	0.3785	0.5408
39	6	1,470	0.0041	0.0120	0.0084	17.64	12.35	0.3401	0.4859
40	9	1,317	0.0068	0.0125	0.0088	16.46	11.52	0.5467	0.7810
41	11	1,175	0.0094	0.0130	0.0091	15.28	10.69	0.7201	1.0288
42	10	1,044	0.0096	0.0135	0.0095	14.09	9.87	0.7095	1.0136
43	5	905	0.0055	0.0140	0.0098	12.67	8.87	0.3946	0.5638
44	8	816	0.0098	0.0145	0.0102	11.83	8.28	0.6761	0.9659
45	6	675	0.0089	0.0150	0.0105	10.13	7.09	0.5926	0.8466
46	16	561	0.0285	0.0160	0.0112	8.98	6.28	1.7825	2.5465
47	6	435	0.0138	0.0170	0.0119	7.40	5.18	0.8114	1.1591
48	1	328	0.0030	0.0180	0.0126	5.90	4.13	0.1694	0.2420
49	0	247	0.0000	0.0190	0.0133	4.69	3.29	0.0000	0.0000
50	1	182	0.0055	0.0200	0.0140	3.64	2.55	0.2747	0.3925
51	1	142	0.0070	0.0220	0.0154	3.12	2.19	0.3201	0.4573
52	2	106	0.0189	0.0240	0.0168	2.54	1.78	0.7862	1.1231
53	1	72	0.0139	0.0260	0.0182	1.87	1.31	0.5342	0.7631
54	0	52	0.0000	0.0280	0.0196	1.46	1.02	0.0000	0.0000
55	0	37	0.0000	0.0300	0.0210	1.11	0.78	0.0000	0.0000
56	0	27	0.0000	0.0340	0.0238	0.92	0.64	0.0000	0.0000
57	1	21	0.0476	0.0380	0.0266	0.80	0.56	1.2531	1.7902
58	0	10	0.0000	0.0420	0.0294	0.42	0.29	0.0000	0.0000
59	0	6	0.0000	0.0460	0.0322	0.28	0.19	0.0000	0.0000
60	0	2	0.0000	0.0500	0.0350	0.10	0.07	0.0000	0.0000
61	0	0	N/A	0.0600	0.0420	0.00	0.00	N/A	N/A
62	0	0	N/A	0.0700	0.0490	0.00	0.00	N/A	N/A
63	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	175	38,262	0.0046			326.63	228.64	0.5358	0.7654

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men and Women Not Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 70% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0015	0.0011	0.00	0.00	N/A	N/A
21	0	16	0.0000	0.0016	0.0011	0.03	0.02	0.0000	0.0000
22	0	1,192	0.0000	0.0017	0.0012	2.03	1.42	0.0000	0.0000
23	0	3,653	0.0000	0.0018	0.0013	6.58	4.60	0.0000	0.0000
24	0	6,128	0.0000	0.0019	0.0013	11.64	8.15	0.0000	0.0000
25	1	8,392	0.0001	0.0020	0.0014	16.78	11.75	0.0596	0.0851
26	1	10,386	0.0001	0.0026	0.0018	27.00	18.90	0.0370	0.0529
27	15	11,620	0.0013	0.0032	0.0022	37.18	26.03	0.4034	0.5763
28	19	12,455	0.0015	0.0038	0.0027	47.33	33.13	0.4014	0.5735
29	24	12,871	0.0019	0.0044	0.0031	56.63	39.64	0.4238	0.6054
30	36	13,034	0.0028	0.0050	0.0035	65.17	45.62	0.5524	0.7891
31	50	12,677	0.0039	0.0060	0.0042	76.06	53.24	0.6574	0.9391
32	45	12,087	0.0037	0.0070	0.0049	84.61	59.23	0.5319	0.7598
33	51	11,466	0.0044	0.0080	0.0056	91.73	64.21	0.5560	0.7943
34	60	10,747	0.0056	0.0090	0.0063	96.72	67.71	0.6203	0.8862
35	54	9,834	0.0055	0.0100	0.0070	98.34	68.84	0.5491	0.7845
36	61	9,091	0.0067	0.0105	0.0074	95.46	66.82	0.6390	0.9129
37	61	8,299	0.0074	0.0110	0.0077	91.29	63.90	0.6682	0.9546
38	50	7,648	0.0065	0.0115	0.0081	87.95	61.57	0.5685	0.8121
39	61	6,894	0.0088	0.0120	0.0084	82.73	57.91	0.7374	1.0534
40	59	6,232	0.0095	0.0125	0.0088	77.90	54.53	0.7574	1.0820
41	50	5,557	0.0090	0.0130	0.0091	72.24	50.57	0.6921	0.9888
42	61	4,959	0.0123	0.0135	0.0095	66.95	46.86	0.9112	1.3017
43	50	4,377	0.0114	0.0140	0.0098	61.28	42.89	0.8160	1.1656
44	52	3,861	0.0135	0.0145	0.0102	55.98	39.19	0.9288	1.3269
45	46	3,286	0.0140	0.0150	0.0105	49.29	34.50	0.9333	1.3332
46	48	2,720	0.0176	0.0160	0.0112	43.52	30.46	1.1029	1.5756
47	27	2,148	0.0126	0.0170	0.0119	36.52	25.56	0.7394	1.0563
48	14	1,666	0.0084	0.0180	0.0126	29.99	20.99	0.4669	0.6669
49	12	1,285	0.0093	0.0190	0.0133	24.42	17.09	0.4915	0.7021
50	11	957	0.0115	0.0200	0.0140	19.14	13.40	0.5747	0.8210
51	9	720	0.0125	0.0220	0.0154	15.84	11.09	0.5682	0.8117
52	10	542	0.0185	0.0240	0.0168	13.01	9.11	0.7688	1.0982
53	6	395	0.0152	0.0260	0.0182	10.27	7.19	0.5842	0.8346
54	2	311	0.0064	0.0280	0.0196	8.71	6.10	0.2297	0.3281
55	2	231	0.0087	0.0300	0.0210	6.93	4.85	0.2886	0.4123
56	1	187	0.0053	0.0340	0.0238	6.36	4.45	0.1573	0.2247
57	3	142	0.0211	0.0380	0.0266	5.40	3.78	0.5560	0.7942
58	0	107	0.0000	0.0420	0.0294	4.49	3.15	0.0000	0.0000
59	1	86	0.0116	0.0460	0.0322	3.96	2.77	0.2528	0.3611
60	0	57	0.0000	0.0500	0.0350	2.85	2.00	0.0000	0.0000
61	1	46	0.0217	0.0600	0.0420	2.76	1.93	0.3623	0.5176
62	4	40	0.1000	0.0700	0.0490	2.80	1.96	1.4286	2.0408
63	2	22	0.0909	0.0000	0.0000	0.00	0.00	N/A	N/A
64	0	9	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
65	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,060	208,459	0.0051			1,695.85	1,187.09	0.6251	0.8929

Bolton

**New York City Police Pension Fund
Accidental Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	357	35,337	579.81	0.6157	0.0101	0.0164
2009	372	35,424	585.33	0.6355	0.0105	0.0165
2010	311	35,589	599.43	0.5188	0.0087	0.0168
2011	362	34,595	602.71	0.6006	0.0105	0.0174
2012	322	33,703	588.02	0.5476	0.0096	0.0174
2013	316	34,237	580.60	0.5443	0.0092	0.0170
2014	332	34,772	587.72	0.5649	0.0095	0.0169
2015	251	34,402	570.41	0.4400	0.0073	0.0166
2016	265	34,435	565.85	0.4683	0.0077	0.0164
2017	209	35,961	569.78	0.3668	0.0058	0.0158
Total	3,097	348,455	5,829.66	0.5312	0.0089	0.0167

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75) and regardless of WTC eligibility

Bolton		New York City Police Pension Fund Total Salary Experience of Active Members Men and Women 4-Year Period Ending 2017						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Expected Salary EOY	Actual/Expected	Actual	Expected
0	3,474	149,974,269	171,228,417	1.50%	152,223,883	9.4479	0.1417	0.0150
1	7,612	354,432,654	391,812,227	5.50%	373,926,450	1.9175	0.1055	0.0550
2	6,310	313,577,905	357,632,266	11.50%	349,639,364	1.2216	0.1405	0.1150
3	6,048	334,748,247	376,816,564	13.50%	379,939,260	0.9309	0.1257	0.1350
4	4,667	284,022,943	313,322,485	19.50%	339,407,417	0.5290	0.1032	0.1950
5	4,829	313,867,678	452,611,491	34.50%	422,152,027	1.2813	0.4420	0.3450
6	5,231	453,898,090	491,802,920	2.90%	467,061,134	2.8796	0.0835	0.0290
7	6,239	568,180,637	585,213,683	3.10%	585,794,237	0.9670	0.0300	0.0310
8	8,368	771,627,451	799,217,818	3.30%	797,091,157	1.0835	0.0358	0.0330
9	8,166	763,216,231	792,592,956	4.70%	799,087,394	0.8190	0.0385	0.0470
10	7,397	705,173,761	738,326,765	3.50%	729,854,842	1.3433	0.0470	0.0350
11	6,893	672,467,631	699,960,479	3.40%	695,331,531	1.2025	0.0409	0.0340
12	5,316	524,696,826	541,639,822	3.30%	542,011,821	0.9785	0.0323	0.0330
13	5,264	519,924,794	537,465,757	3.20%	536,562,387	1.0543	0.0337	0.0320
14	4,832	485,778,005	500,436,119	4.40%	507,152,237	0.6858	0.0302	0.0440
15	4,465	452,413,253	473,527,871	3.00%	465,985,651	1.5557	0.0467	0.0300
16	4,717	494,732,307	511,186,771	2.90%	509,079,544	1.1469	0.0333	0.0290
17	4,029	429,267,076	440,168,016	2.80%	441,286,554	0.9069	0.0254	0.0280
18	4,596	492,203,797	507,778,707	2.70%	505,493,300	1.1720	0.0316	0.0270
19	4,006	435,243,622	447,801,375	3.90%	452,218,123	0.7398	0.0289	0.0390
20	3,217	355,137,977	367,268,192	2.50%	364,016,427	1.3663	0.0342	0.0250
21	3,141	353,540,383	363,819,552	2.40%	362,025,352	1.2115	0.0291	0.0240
22	2,604	298,895,084	307,068,780	2.30%	305,769,671	1.1890	0.0273	0.0230
23	2,451	286,076,912	295,126,716	2.20%	292,370,604	1.4379	0.0316	0.0220
24	1,794	213,659,196	219,308,392	2.10%	218,146,040	1.2591	0.0264	0.0210
25	1,142	139,108,849	142,838,561	2.00%	141,891,026	1.3406	0.0268	0.0200
26	1,010	123,600,884	127,836,284	2.00%	126,072,901	1.7133	0.0343	0.0200
27	818	102,324,207	104,526,089	2.00%	104,370,691	1.0759	0.0215	0.0200
28	738	93,289,861	95,539,230	2.00%	95,155,659	1.2056	0.0241	0.0200
29	685	88,596,745	90,966,808	2.00%	90,368,680	1.3376	0.0268	0.0200
30+	1,867	261,767,346	267,996,140	2.00%	267,002,693	1.1898	0.0238	0.0200
Total	131,926	11,835,444,625	12,512,837,254		12,418,488,060	1.1618	0.0572	0.0493

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Police Pension Fund
Total Salary Experience of Active Members
Men and Women
4-Year Period Ending 2017

Proposed Merit Increases are 115 % of Current Assumption

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Proposed Salary EOY	Actual/Proposed	Increase %	
							Actual	Expected
0	3,474	149,974,269	171,228,417	1.50%	152,223,883	9.4479	0.1417	0.0150
1	7,612	354,432,654	391,812,227	6.10%	376,053,046	1.7289	0.1055	0.0610
2	6,310	313,577,905	357,632,266	13.00%	354,343,033	1.0807	0.1405	0.1300
3	6,048	334,748,247	376,816,564	15.30%	385,964,729	0.8214	0.1257	0.1530
4	4,667	284,022,943	313,322,485	22.20%	347,076,037	0.4647	0.1032	0.2220
5	4,829	313,867,678	452,611,491	39.45%	437,688,477	1.1205	0.4420	0.3945
6	5,231	453,898,090	491,802,920	3.11%	468,014,320	2.6852	0.0835	0.0311
7	6,239	568,180,637	585,213,683	3.34%	587,157,871	0.8976	0.0300	0.0334
8	8,368	771,627,451	799,217,818	3.57%	799,174,551	1.0016	0.0358	0.0357
9	8,166	763,216,231	792,592,956	5.18%	802,750,832	0.7431	0.0385	0.0518
10	7,397	705,173,761	738,326,765	3.80%	731,970,364	1.2372	0.0470	0.0380
11	6,893	672,467,631	699,960,479	3.69%	697,248,064	1.1095	0.0409	0.0369
12	5,316	524,696,826	541,639,822	3.57%	543,428,503	0.9045	0.0323	0.0357
13	5,264	519,924,794	537,465,757	3.46%	537,888,196	0.9765	0.0337	0.0346
14	4,832	485,778,005	500,436,119	4.84%	509,265,372	0.6241	0.0302	0.0483
15	4,465	452,413,253	473,527,871	3.23%	467,003,580	1.4472	0.0467	0.0322
16	4,717	494,732,307	511,186,771	3.11%	510,118,482	1.0694	0.0333	0.0311
17	4,029	429,267,076	440,168,016	3.00%	442,123,625	0.8479	0.0254	0.0299
18	4,596	492,203,797	507,778,707	2.88%	506,379,267	1.0987	0.0316	0.0288
19	4,006	435,243,622	447,801,375	4.26%	453,785,000	0.6773	0.0289	0.0426
20	3,217	355,137,977	367,268,192	2.65%	364,549,134	1.2889	0.0342	0.0265
21	3,141	353,540,383	363,819,552	2.54%	362,502,631	1.1469	0.0291	0.0254
22	2,604	298,895,084	307,068,780	2.42%	306,128,345	1.1300	0.0273	0.0242
23	2,451	286,076,912	295,126,716	2.31%	292,670,985	1.3724	0.0316	0.0231
24	1,794	213,659,196	219,308,392	2.19%	218,338,333	1.2073	0.0264	0.0219
25	1,142	139,108,849	142,838,561	2.08%	141,995,358	1.2921	0.0268	0.0208
26	1,010	123,600,884	127,836,284	2.08%	126,165,602	1.6514	0.0343	0.0208
27	818	102,324,207	104,526,089	2.08%	104,447,435	1.0370	0.0215	0.0208
28	738	93,289,861	95,539,230	2.08%	95,225,626	1.1620	0.0241	0.0208
29	685	88,596,745	90,966,808	2.08%	90,435,128	1.2892	0.0268	0.0208
30+	1,867	261,767,346	267,996,140	2.08%	267,199,019	1.1468	0.0238	0.0208
Total	131,926	11,835,444,625	12,512,837,254		12,479,314,825	1.0521	0.0572	0.0544

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton		New York City Police Pension Fund						
		Total Salary Experience of Active Members						
		Men and Women						
		10-Year Period Ending 2017						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) Increase %	
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Expected Salary EOY	Actual/Expected	Actual	Expected
0	6,313	238,594,863	305,414,522	1.50%	242,173,786	18.6703	0.2801	0.0150
1	17,187	731,180,345	815,203,827	5.50%	771,395,264	2.0894	0.1149	0.0550
2	16,700	762,540,723	873,222,628	11.50%	850,232,907	1.2622	0.1451	0.1150
3	18,880	970,820,642	1,093,141,925	13.50%	1,101,881,428	0.9333	0.1260	0.1350
4	16,561	944,332,505	1,092,400,211	19.50%	1,128,477,344	0.8041	0.1568	0.1950
5	16,384	1,044,368,450	1,376,948,535	34.50%	1,404,675,566	0.9230	0.3185	0.3450
6	15,873	1,293,904,497	1,389,349,180	2.90%	1,331,427,728	2.5436	0.0738	0.0290
7	16,289	1,373,724,010	1,431,265,707	3.10%	1,416,309,455	1.3512	0.0419	0.0310
8	16,344	1,413,488,706	1,474,624,012	3.30%	1,460,133,833	1.3106	0.0433	0.0330
9	15,706	1,368,701,604	1,442,983,131	4.70%	1,433,030,580	1.1547	0.0543	0.0470
10	15,206	1,349,095,110	1,424,439,927	3.50%	1,396,313,438	1.5957	0.0558	0.0350
11	14,042	1,274,836,917	1,338,003,737	3.40%	1,318,181,372	1.4573	0.0495	0.0340
12	12,859	1,166,257,591	1,223,785,426	3.30%	1,204,744,092	1.4948	0.0493	0.0330
13	12,742	1,156,085,045	1,212,039,190	3.20%	1,193,079,767	1.5125	0.0484	0.0320
14	13,307	1,213,026,943	1,276,130,462	4.40%	1,266,400,129	1.1823	0.0520	0.0440
15	13,271	1,218,130,509	1,294,131,108	3.00%	1,254,674,424	2.0797	0.0624	0.0300
16	13,987	1,313,504,022	1,384,825,996	2.90%	1,351,595,638	1.8724	0.0543	0.0290
17	13,870	1,316,543,084	1,385,711,814	2.80%	1,353,406,291	1.8764	0.0525	0.0280
18	13,821	1,352,508,010	1,413,293,758	2.70%	1,389,025,726	1.6646	0.0449	0.0270
19	10,938	1,098,589,738	1,151,330,531	3.90%	1,141,434,738	1.2310	0.0480	0.0390
20	7,421	776,212,997	811,871,184	2.50%	795,618,322	1.8375	0.0459	0.0250
21	6,250	670,831,605	695,596,768	2.40%	686,931,564	1.5382	0.0369	0.0240
22	5,759	616,981,730	644,420,540	2.30%	631,172,309	1.9336	0.0445	0.0230
23	4,664	515,614,680	540,715,783	2.20%	526,958,203	2.2128	0.0487	0.0220
24	3,814	430,908,431	448,639,756	2.10%	439,957,508	1.9595	0.0411	0.0210
25	2,838	328,162,761	341,740,966	2.00%	334,726,016	2.0688	0.0414	0.0200
26	2,322	275,555,705	286,774,609	2.00%	281,066,819	2.0357	0.0407	0.0200
27	1,774	216,854,340	223,874,415	2.00%	221,191,427	1.6186	0.0324	0.0200
28	1,477	185,338,598	191,871,021	2.00%	189,045,370	1.7623	0.0352	0.0200
29	1,178	153,567,892	157,747,283	2.00%	156,639,250	1.3608	0.0272	0.0200
30+	2,926	410,520,073	420,832,864	2.00%	418,730,474	1.2561	0.0251	0.0200
Total	330,703	27,180,782,127	29,162,330,818		28,690,630,767	1.3124	0.0729	0.0555

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Police Pension Fund
 Total Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017
 Proposed Merit Increases are 115 % of Current Assumption

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Proposed Salary EOY	Actual/Proposed	Increase %		
							Actual	Expected	
0	6,313	238,594,863	305,414,522	1.50%	242,173,786	18.6703	0.2801	0.0150	
1	17,187	731,180,345	815,203,827	6.10%	775,782,346	1.8839	0.1149	0.0610	
2	16,700	762,540,723	873,222,628	13.00%	861,671,018	1.1165	0.1451	0.1300	
3	18,880	970,820,642	1,093,141,925	15.30%	1,119,356,200	0.8235	0.1260	0.1530	
4	16,561	944,332,505	1,092,400,211	22.20%	1,153,974,321	0.7063	0.1568	0.2220	
5	16,384	1,044,368,450	1,376,948,535	39.45%	1,456,371,804	0.8072	0.3185	0.3945	
6	15,873	1,293,904,497	1,389,349,180	3.11%	1,334,144,927	2.3719	0.0738	0.0311	
7	16,289	1,373,724,010	1,431,265,707	3.34%	1,419,606,392	1.2541	0.0419	0.0334	
8	16,344	1,413,488,706	1,474,624,012	3.57%	1,463,950,253	1.2115	0.0433	0.0357	
9	15,706	1,368,701,604	1,442,983,131	5.18%	1,439,600,347	1.0477	0.0543	0.0518	
10	15,206	1,349,095,110	1,424,439,927	3.80%	1,400,360,724	1.4697	0.0558	0.0380	
11	14,042	1,274,836,917	1,338,003,737	3.69%	1,321,814,657	1.3446	0.0495	0.0369	
12	12,859	1,166,257,591	1,223,785,426	3.57%	1,207,892,987	1.3817	0.0493	0.0357	
13	12,742	1,156,085,045	1,212,039,190	3.46%	1,196,027,784	1.4009	0.0484	0.0346	
14	13,307	1,213,026,943	1,276,130,462	4.84%	1,271,676,796	1.0759	0.0520	0.0483	
15	13,271	1,218,130,509	1,294,131,108	3.23%	1,257,415,218	1.9346	0.0624	0.0322	
16	13,987	1,313,504,022	1,384,825,996	3.11%	1,354,353,997	1.7459	0.0543	0.0311	
17	13,870	1,316,543,084	1,385,711,814	3.00%	1,355,973,550	1.7542	0.0525	0.0299	
18	13,821	1,352,508,010	1,413,293,758	2.88%	1,391,460,240	1.5605	0.0449	0.0288	
19	10,938	1,098,589,738	1,151,330,531	4.26%	1,145,389,661	1.1269	0.0480	0.0426	
20	7,421	776,212,997	811,871,184	2.65%	796,782,642	1.7335	0.0459	0.0265	
21	6,250	670,831,605	695,596,768	2.54%	687,837,186	1.4563	0.0369	0.0254	
22	5,759	616,981,730	644,420,540	2.42%	631,912,687	1.8377	0.0445	0.0242	
23	4,664	515,614,680	540,715,783	2.31%	527,499,598	2.1120	0.0487	0.0231	
24	3,814	430,908,431	448,639,756	2.19%	440,345,326	1.8789	0.0411	0.0219	
25	2,838	328,162,761	341,740,966	2.08%	334,972,138	1.9940	0.0414	0.0208	
26	2,322	275,555,705	286,774,609	2.08%	281,273,485	1.9621	0.0407	0.0208	
27	1,774	216,854,340	223,874,415	2.08%	221,354,068	1.5601	0.0324	0.0208	
28	1,477	185,338,598	191,871,021	2.08%	189,184,374	1.6986	0.0352	0.0208	
29	1,178	153,567,892	157,747,283	2.08%	156,754,425	1.3116	0.0272	0.0208	
30+	2,926	410,520,073	420,832,864	2.08%	419,038,364	1.2107	0.0251	0.0208	
Total	330,703	27,180,782,127	29,162,330,818		28,855,951,303	1.1829	0.0729	0.0616	

Bolton

**New York City Police Pension Fund
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Plan Year	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Expected Salary EOY	Actual/Expected	Increase %	
						Actual	Expected
2008	33,476	2,114,645,501	2,349,315,410	2,274,623,609	1.4669	0.1110	0.0757
2009	34,214	2,329,368,783	2,495,493,091	2,494,904,487	1.0036	0.0713	0.0711
2010	34,109	2,431,611,212	2,926,146,969	2,624,456,296	2.5644	0.2034	0.0793
2011	32,460	2,746,604,140	2,976,171,167	2,977,183,641	0.9956	0.0836	0.0840
2012	31,786	2,837,818,837	2,921,381,762	3,046,661,592	0.4001	0.0294	0.0736
2013	32,732	2,885,289,029	2,980,985,164	3,084,493,145	0.4804	0.0332	0.0690
2014	32,508	2,851,325,824	3,070,674,284	3,040,122,488	1.1618	0.0769	0.0662
2015	32,636	2,979,663,427	3,031,328,978	3,156,848,693	0.2916	0.0173	0.0595
2016	32,750	2,946,455,003	3,102,663,915	3,137,130,461	0.8192	0.0530	0.0647
2017	34,032	3,058,000,370	3,308,170,077	3,261,918,087	1.2268	0.0818	0.0667
Total	330,703	27,180,782,127	29,162,330,818	29,098,342,499	1.0334	0.0729	0.0705

Bolton		New York City Police Pension Fund Merit Salary Experience of Active Members Men and Women 4-Year Period Ending 2017						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Total Salary BOY	Actual Merit Salary EOY	Annual Rates of Salary Increase	Expected Merit Salary EOY	Actual/Expected	Increase %	
							Actual	Expected
0	3,474	149,974,269	168,697,948	0.00%	149,974,269	N/A	0.1248	-
1	7,612	354,432,654	386,021,898	4.00%	368,609,960	2.2282	0.0891	0.0400
2	6,310	313,577,905	352,347,060	10.00%	344,935,696	1.2363	0.1236	0.1000
3	6,048	334,748,247	371,247,847	12.00%	374,918,037	0.9086	0.1090	0.1200
4	4,667	284,022,943	308,692,104	18.00%	335,147,073	0.4825	0.0869	0.1800
5	4,829	313,867,678	445,922,652	33.00%	417,444,012	1.2750	0.4207	0.3300
6	5,231	453,898,090	484,534,897	1.40%	460,252,663	4.8212	0.0675	0.0140
7	6,239	568,180,637	576,565,205	1.60%	577,271,528	0.9223	0.0148	0.0160
8	8,368	771,627,451	787,406,717	1.80%	785,516,745	1.1361	0.0204	0.0180
9	8,166	763,216,231	780,879,759	3.20%	787,639,151	0.7232	0.0231	0.0320
10	7,397	705,173,761	727,415,532	2.00%	719,277,236	1.5770	0.0315	0.0200
11	6,893	672,467,631	689,616,236	1.90%	685,244,516	1.3422	0.0255	0.0190
12	5,316	524,696,826	533,635,292	1.80%	534,141,369	0.9464	0.0170	0.0180
13	5,264	519,924,794	529,522,914	1.70%	528,763,515	1.0859	0.0185	0.0170
14	4,832	485,778,005	493,040,511	2.90%	499,865,567	0.5155	0.0150	0.0290
15	4,465	452,413,253	466,529,922	1.50%	459,199,452	2.0802	0.0312	0.0150
16	4,717	494,732,307	503,632,287	1.40%	501,658,559	1.2850	0.0180	0.0140
17	4,029	429,267,076	433,663,070	1.30%	434,847,548	0.7877	0.0102	0.0130
18	4,596	492,203,797	500,274,588	1.20%	498,110,243	1.3664	0.0164	0.0120
19	4,006	435,243,622	441,183,621	2.40%	445,689,469	0.5686	0.0136	0.0240
20	3,217	355,137,977	361,840,584	1.00%	358,689,357	1.8873	0.0189	0.0100
21	3,141	353,540,383	358,442,908	0.90%	356,722,246	1.5408	0.0139	0.0090
22	2,604	298,895,084	302,530,818	0.80%	301,286,245	1.5205	0.0122	0.0080
23	2,451	286,076,912	290,765,237	0.70%	288,079,451	2.3412	0.0164	0.0070
24	1,794	213,659,196	216,067,382	0.60%	214,941,152	1.8785	0.0113	0.0060
25	1,142	139,108,849	140,727,646	0.50%	139,804,393	2.3274	0.0116	0.0050
26	1,010	123,600,884	125,947,078	0.50%	124,218,888	3.7964	0.0190	0.0050
27	818	102,324,207	102,981,368	0.50%	102,835,828	1.2845	0.0064	0.0050
28	738	93,289,861	94,127,320	0.50%	93,756,311	1.7954	0.0090	0.0050
29	685	88,596,745	89,622,470	0.50%	89,039,729	2.3155	0.0116	0.0050
30+	1,867	261,767,346	264,035,606	0.50%	263,076,183	1.7330	0.0087	0.0050
Total	131,926	11,835,444,625	12,327,918,477		12,240,956,391	1.2145	0.0416	0.0343

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50%

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton

New York City Police Pension Fund
 Merit Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

Proposed Merit Increases are 115 % of Current Assumption

(1)	(2)	(3)	(4)	(5)	(5)	(6)	(7)	(8)
Service	Life years Exposed	Total Salary BOY	Actual Merit Salary EOY	Annual Rates of Salary Increase	Proposed Merit Salary EOY	Actual/Proposed	Increase %	
							Actual	Expected
0	3,474	149,974,269	168,697,948	0.00%	149,974,269	N/A	0.1248	-
1	7,612	354,432,654	386,021,898	4.60%	370,736,556	1.9375	0.0891	0.0460
2	6,310	313,577,905	352,347,060	11.50%	349,639,364	1.0751	0.1236	0.1150
3	6,048	334,748,247	371,247,847	13.80%	380,943,505	0.7901	0.1090	0.1380
4	4,667	284,022,943	308,692,104	20.70%	342,815,693	0.4196	0.0869	0.2070
5	4,829	313,867,678	445,922,652	37.95%	432,980,462	1.1087	0.4207	0.3795
6	5,231	453,898,090	484,534,897	1.61%	461,205,849	4.1924	0.0675	0.0161
7	6,239	568,180,637	576,565,205	1.84%	578,635,161	0.8020	0.0148	0.0184
8	8,368	771,627,451	787,406,717	2.07%	787,600,140	0.9879	0.0204	0.0207
9	8,166	763,216,231	780,879,759	3.68%	791,302,589	0.6289	0.0231	0.0368
10	7,397	705,173,761	727,415,532	2.30%	721,392,757	1.3713	0.0315	0.0230
11	6,893	672,467,631	689,616,236	2.19%	687,161,049	1.1671	0.0255	0.0218
12	5,316	524,696,826	533,635,292	2.07%	535,558,050	0.8230	0.0170	0.0207
13	5,264	519,924,794	529,522,914	1.96%	530,089,324	0.9443	0.0185	0.0196
14	4,832	485,778,005	493,040,511	3.34%	501,978,702	0.4483	0.0150	0.0334
15	4,465	452,413,253	466,529,922	1.73%	460,217,382	1.8089	0.0312	0.0173
16	4,717	494,732,307	503,632,287	1.61%	502,697,497	1.1174	0.0180	0.0161
17	4,029	429,267,076	433,663,070	1.50%	435,684,618	0.6850	0.0102	0.0150
18	4,596	492,203,797	500,274,588	1.38%	498,996,210	1.1882	0.0164	0.0138
19	4,006	435,243,622	441,183,621	2.76%	447,256,346	0.4945	0.0136	0.0276
20	3,217	355,137,977	361,840,584	1.15%	359,222,064	1.6412	0.0189	0.0115
21	3,141	353,540,383	358,442,908	1.04%	357,199,526	1.3398	0.0139	0.0104
22	2,604	298,895,084	302,530,818	0.92%	301,644,919	1.3222	0.0122	0.0092
23	2,451	286,076,912	290,765,237	0.81%	288,379,831	2.0358	0.0164	0.0080
24	1,794	213,659,196	216,067,382	0.69%	215,133,445	1.6335	0.0113	0.0069
25	1,142	139,108,849	140,727,646	0.58%	139,908,725	2.0238	0.0116	0.0057
26	1,010	123,600,884	125,947,078	0.58%	124,311,589	3.3012	0.0190	0.0057
27	818	102,324,207	102,981,368	0.58%	102,912,571	1.1169	0.0064	0.0057
28	738	93,289,861	94,127,320	0.58%	93,826,278	1.5612	0.0090	0.0057
29	685	88,596,745	89,622,470	0.58%	89,106,177	2.0135	0.0116	0.0057
30+	1,867	261,767,346	264,035,606	0.58%	263,272,508	1.5070	0.0087	0.0057
Total	131,926	11,835,444,625	12,327,918,477		12,301,783,156	1.0560	0.0416	0.0394

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50%

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton

New York City Police Pension Fund
 Merit Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

(1) Service	(2) Life years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Merit Salary EOY	(7) Actual/Expected	(8) Increase %	
							Actual	Expected
0	6,313	238,594,863	300,901,007	0.00%	238,594,863	N/A	0.2611	-
1	17,187	731,180,345	803,156,480	4.00%	760,427,559	2.4610	0.0984	0.0400
2	16,700	762,540,723	860,317,860	10.00%	838,794,796	1.2823	0.1282	0.1000
3	18,880	970,820,642	1,076,987,119	12.00%	1,087,319,119	0.9113	0.1094	0.1200
4	16,561	944,332,505	1,076,256,366	18.00%	1,114,312,356	0.7761	0.1397	0.1800
5	16,384	1,044,368,450	1,356,599,542	33.00%	1,389,010,039	0.9060	0.2990	0.3300
6	15,873	1,293,904,497	1,368,816,926	1.40%	1,312,019,160	4.1355	0.0579	0.0140
7	16,289	1,373,724,010	1,410,113,997	1.60%	1,395,703,595	1.6556	0.0265	0.0160
8	16,344	1,413,488,706	1,452,831,539	1.80%	1,438,931,503	1.5463	0.0278	0.0180
9	15,706	1,368,701,604	1,421,658,257	3.20%	1,412,500,056	1.2091	0.0387	0.0320
10	15,206	1,349,095,110	1,403,389,091	2.00%	1,376,077,012	2.0122	0.0402	0.0200
11	14,042	1,274,836,917	1,318,230,283	1.90%	1,299,058,818	1.7915	0.0340	0.0190
12	12,859	1,166,257,591	1,205,699,927	1.80%	1,187,250,228	1.8789	0.0338	0.0180
13	12,742	1,156,085,045	1,194,127,281	1.70%	1,175,738,491	1.9357	0.0329	0.0170
14	13,307	1,213,026,943	1,257,271,391	2.90%	1,248,204,725	1.2577	0.0365	0.0290
15	13,271	1,218,130,509	1,275,006,018	1.50%	1,236,402,466	3.1127	0.0467	0.0150
16	13,987	1,313,504,022	1,364,360,587	1.40%	1,331,893,078	2.7656	0.0387	0.0140
17	13,870	1,316,543,084	1,365,233,315	1.30%	1,333,658,144	2.8449	0.0370	0.0130
18	13,821	1,352,508,010	1,392,407,643	1.20%	1,368,738,106	2.4584	0.0295	0.0120
19	10,938	1,098,589,738	1,134,315,794	2.40%	1,124,955,892	1.3550	0.0325	0.0240
20	7,421	776,212,997	799,873,088	1.00%	783,975,127	3.0481	0.0305	0.0100
21	6,250	670,831,605	685,317,013	0.90%	676,869,090	2.3992	0.0216	0.0090
22	5,759	616,981,730	634,897,084	0.80%	621,917,583	3.6296	0.0290	0.0080
23	4,664	515,614,680	532,724,910	0.70%	519,223,983	4.7406	0.0332	0.0070
24	3,814	430,908,431	442,009,612	0.60%	433,493,882	4.2937	0.0258	0.0060
25	2,838	328,162,761	336,690,607	0.50%	329,803,575	5.1973	0.0260	0.0050
26	2,322	275,555,705	282,536,561	0.50%	276,933,483	5.0667	0.0253	0.0050
27	1,774	216,854,340	220,565,926	0.50%	217,938,612	3.4231	0.0171	0.0050
28	1,477	185,338,598	189,035,488	0.50%	186,265,291	3.9893	0.0199	0.0050
29	1,178	153,567,892	155,416,042	0.50%	154,335,731	2.4069	0.0120	0.0050
30+	2,926	410,520,073	414,613,659	0.50%	412,572,673	1.9943	0.0100	0.0050
Total	330,703	27,180,782,127	28,731,360,412		28,282,919,035	1.4069	0.0570	0.0405

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50%

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton

New York City Police Pension Fund
 Merit Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

Proposed Merit Increases are 115 % of Current Assumption

(1) Service	(2) Life years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) Increase %	
							Actual	Expected
0	6,313	238,594,863	300,901,007	0.00%	238,594,863	N/A	0.2611	-
1	17,187	731,180,345	803,156,480	4.60%	764,814,641	2.1400	0.0984	0.0460
2	16,700	762,540,723	860,317,860	11.50%	850,232,907	1.1150	0.1282	0.1150
3	18,880	970,820,642	1,076,987,119	13.80%	1,104,793,890	0.7924	0.1094	0.1380
4	16,561	944,332,505	1,076,256,366	20.70%	1,139,809,334	0.6749	0.1397	0.2070
5	16,384	1,044,368,450	1,356,599,542	37.95%	1,440,706,277	0.7878	0.2990	0.3795
6	15,873	1,293,904,497	1,368,816,926	1.61%	1,314,736,360	3.5961	0.0579	0.0161
7	16,289	1,373,724,010	1,410,113,997	1.84%	1,399,000,532	1.4397	0.0265	0.0184
8	16,344	1,413,488,706	1,452,831,539	2.07%	1,442,747,922	1.3446	0.0278	0.0207
9	15,706	1,368,701,604	1,421,658,257	3.68%	1,419,069,823	1.0514	0.0387	0.0368
10	15,206	1,349,095,110	1,403,389,091	2.30%	1,380,124,297	1.7498	0.0402	0.0230
11	14,042	1,274,836,917	1,318,230,283	2.19%	1,302,692,103	1.5578	0.0340	0.0218
12	12,859	1,166,257,591	1,205,699,927	2.07%	1,190,399,123	1.6338	0.0338	0.0207
13	12,742	1,156,085,045	1,194,127,281	1.96%	1,178,686,508	1.6832	0.0329	0.0196
14	13,307	1,213,026,943	1,257,271,391	3.34%	1,253,481,392	1.0937	0.0365	0.0334
15	13,271	1,218,130,509	1,275,006,018	1.73%	1,239,143,260	2.7067	0.0467	0.0173
16	13,987	1,313,504,022	1,364,360,587	1.61%	1,334,651,436	2.4049	0.0387	0.0161
17	13,870	1,316,543,084	1,365,233,315	1.50%	1,336,225,403	2.4738	0.0370	0.0150
18	13,821	1,352,508,010	1,392,407,643	1.38%	1,371,172,620	2.1377	0.0295	0.0138
19	10,938	1,098,589,738	1,134,315,794	2.76%	1,128,910,815	1.1783	0.0325	0.0276
20	7,421	776,212,997	799,873,088	1.15%	785,139,447	2.6506	0.0305	0.0115
21	6,250	670,831,605	685,317,013	1.04%	677,774,712	2.0863	0.0216	0.0104
22	5,759	616,981,730	634,897,084	0.92%	622,657,961	3.1562	0.0290	0.0092
23	4,664	515,614,680	532,724,910	0.81%	519,765,378	4.1223	0.0332	0.0080
24	3,814	430,908,431	442,009,612	0.69%	433,881,699	3.7337	0.0258	0.0069
25	2,838	328,162,761	336,690,607	0.58%	330,049,697	4.5194	0.0260	0.0057
26	2,322	275,555,705	282,536,561	0.58%	277,140,150	4.4059	0.0253	0.0057
27	1,774	216,854,340	220,565,926	0.58%	218,101,252	2.9766	0.0171	0.0057
28	1,477	185,338,598	189,035,488	0.58%	186,404,295	3.4690	0.0199	0.0057
29	1,178	153,567,892	155,416,042	0.58%	154,450,907	2.0930	0.0120	0.0057
30+	2,926	410,520,073	414,613,659	0.58%	412,880,563	1.7342	0.0100	0.0057
Total	330,703	27,180,782,127	28,731,360,412		28,448,239,571	1.2234	0.0570	0.0466

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50%

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton		New York City Police Pension Fund Overtime Pay Experience for All Years Men and Women 4-Year Period Ending 2016						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime Assumption as % of Base Pay	Expected Overtime	Actual/Expected	Increase %	
							Actual	Expected
0	4,303	197,735,686	22,552,558	15.00%	29,660,353	0.7604	0.1141	0.1500
1	9,069	442,279,350	54,239,587	15.00%	66,341,903	0.8176	0.1226	0.1500
2	7,546	399,075,986	56,913,334	15.00%	59,861,398	0.9508	0.1426	0.1500
3	6,559	385,526,906	56,380,496	15.00%	57,829,036	0.9750	0.1462	0.1500
4	6,674	423,651,307	65,931,621	15.00%	63,547,696	1.0375	0.1556	0.1500
5	6,630	512,083,815	85,442,814	15.00%	76,812,572	1.1124	0.1669	0.1500
6	7,394	652,780,018	109,785,803	15.00%	97,917,003	1.1212	0.1682	0.1500
7	8,901	815,071,666	131,943,465	15.00%	122,260,750	1.0792	0.1619	0.1500
8	10,047	937,407,864	151,635,616	15.00%	140,611,180	1.0784	0.1618	0.1500
9	9,133	866,315,147	145,656,957	15.00%	129,947,272	1.1209	0.1681	0.1500
10	8,890	861,327,231	147,792,347	15.00%	129,199,085	1.1439	0.1716	0.1500
11	7,860	778,034,975	133,549,409	15.00%	116,705,246	1.1443	0.1716	0.1500
12	6,910	686,591,262	120,805,446	15.00%	102,988,689	1.1730	0.1759	0.1500
13	5,945	595,413,462	105,521,759	15.00%	89,312,019	1.1815	0.1772	0.1500
14	5,984	608,176,467	111,125,875	15.00%	91,226,470	1.2181	0.1827	0.1500
15	5,677	588,812,327	108,772,921	15.00%	88,321,849	1.2316	0.1847	0.1500
16	5,524	587,238,503	110,904,272	15.00%	88,085,775	1.2590	0.1889	0.1500
17	5,284	564,519,389	110,758,164	15.00%	84,677,908	1.3080	0.1962	0.1500
18	5,098	553,661,396	112,564,379	15.00%	83,049,209	1.3554	0.2033	0.1500
19	4,297	476,261,740	101,439,813	15.00%	71,439,261	1.4199	0.2130	0.1500
20	3,689	413,967,282	88,811,496	15.00%	62,095,092	1.4302	0.2145	0.1500
21	3,292	377,106,331	80,190,567	15.00%	56,565,950	1.4176	0.2126	0.1500
22	3,068	355,907,579	75,994,296	15.00%	53,386,137	1.4235	0.2135	0.1500
23	2,444	290,545,130	60,177,215	14.00%	40,676,318	1.4794	0.2071	0.1400
24	1,699	206,279,259	42,606,692	13.00%	26,816,304	1.5888	0.2065	0.1300
25	1,276	156,890,650	31,434,315	12.00%	18,826,878	1.6697	0.2004	0.1200
26	1,192	148,947,292	28,671,838	11.00%	16,384,202	1.7500	0.1925	0.1100
27	888	112,029,412	21,041,843	10.00%	11,202,941	1.8782	0.1878	0.1000
28	810	103,905,069	18,130,173	9.00%	9,351,456	1.9388	0.1745	0.0900
29	690	90,133,010	15,148,491	8.00%	7,210,641	2.1009	0.1681	0.0800
30	557	74,457,757	11,661,722	7.00%	5,212,043	2.2375	0.1566	0.0700
31	450	62,164,586	8,428,752	6.00%	3,729,875	2.2598	0.1356	0.0600
32	337	48,438,874	5,456,171	6.00%	2,906,332	1.8773	0.1126	0.0600
33	231	34,425,062	3,294,468	6.00%	2,065,504	1.5950	0.0957	0.0600
34	149	23,329,407	1,846,197	6.00%	1,399,764	1.3189	0.0791	0.0600
35	97	15,718,733	1,063,602	6.00%	943,124	1.1277	0.0677	0.0600
36	43	7,255,171	346,070	6.00%	435,310	0.7950	0.0477	0.0600
37	21	3,492,505	124,092	6.00%	209,550	0.5922	0.0355	0.0600
38	11	1,702,340	75,859	6.00%	102,140	0.7427	0.0446	0.0600
39	11	1,696,473	111,895	6.00%	101,788	1.0993	0.0660	0.0600
40	6	847,497	83,995	6.00%	50,850	1.6518	0.0991	0.0600
41	0	0	0	6.00%	0	N/A	N/A	N/A
42	1	135,931	0	6.00%	8,156	0.0000	-	0.0600
43	1	135,851	0	6.00%	8,151	0.0000	-	0.0600
44	0	0	0	6.00%	0	N/A	N/A	N/A
45	0	0	0	6.00%	0	N/A	N/A	N/A
Total	158,688	14,461,475,699	2,538,416,385		2,109,483,183	1.2033	0.1755	0.1459

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

**New York City Police Pension Fund
Overtime Pay Experience for All Years
Men and Women
4-Year Period Ending 2016
Proposed Rates are 115% of the Current Rates**

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime Assumption as % of Base Pay	(6) Proposed Overtime	(7) Actual/Expected	(8) Increase %	
							Actual %	Expected %
0	4,303	197,735,686	22,552,558	17.25%	34,109,406	0.6612	11.41%	17.25%
1	9,069	442,279,350	54,239,587	17.25%	76,293,188	0.7109	12.26%	17.25%
2	7,546	399,075,986	56,913,334	17.25%	68,840,608	0.8267	14.26%	17.25%
3	6,559	385,526,906	56,380,496	17.25%	66,503,391	0.8478	14.62%	17.25%
4	6,674	423,651,307	65,931,621	17.25%	73,079,851	0.9022	15.56%	17.25%
5	6,630	512,083,815	85,442,814	17.25%	88,334,458	0.9673	16.69%	17.25%
6	7,394	652,780,018	109,785,803	17.25%	112,604,553	0.9750	16.82%	17.25%
7	8,901	815,071,666	131,943,465	17.25%	140,599,862	0.9384	16.19%	17.25%
8	10,047	937,407,864	151,635,616	17.25%	161,702,857	0.9377	16.18%	17.25%
9	9,133	866,315,147	145,656,957	17.25%	149,439,363	0.9747	16.81%	17.25%
10	8,890	861,327,231	147,792,347	17.25%	148,578,947	0.9947	17.16%	17.25%
11	7,860	778,034,975	133,549,409	17.25%	134,211,033	0.9951	17.16%	17.25%
12	6,910	686,591,262	120,805,446	17.25%	118,436,993	1.0200	17.59%	17.25%
13	5,945	595,413,462	105,521,759	17.25%	102,708,822	1.0274	17.72%	17.25%
14	5,984	608,176,467	111,125,875	17.25%	104,910,441	1.0592	18.27%	17.25%
15	5,677	588,812,327	108,772,921	17.25%	101,570,126	1.0709	18.47%	17.25%
16	5,524	587,238,503	110,904,272	17.25%	101,298,642	1.0948	18.89%	17.25%
17	5,284	564,519,389	110,758,164	17.25%	97,379,595	1.1374	19.62%	17.25%
18	5,098	553,661,396	112,564,379	17.25%	95,506,591	1.1786	20.33%	17.25%
19	4,297	476,261,740	101,439,813	17.25%	82,155,150	1.2347	21.30%	17.25%
20	3,689	413,967,282	88,811,496	17.25%	71,409,356	1.2437	21.45%	17.25%
21	3,292	377,106,331	80,190,567	17.25%	65,050,842	1.2327	21.26%	17.25%
22	3,068	355,907,579	75,994,296	17.25%	61,394,057	1.2378	21.35%	17.25%
23	2,444	290,545,130	60,177,215	16.10%	46,777,766	1.2864	20.71%	16.10%
24	1,699	206,279,259	42,606,692	14.95%	30,838,749	1.3816	20.65%	14.95%
25	1,276	156,890,650	31,434,315	13.80%	21,650,910	1.4519	20.04%	13.80%
26	1,192	148,947,292	28,671,838	12.65%	18,841,832	1.5217	19.25%	12.65%
27	888	112,029,412	21,041,843	11.50%	12,883,382	1.6333	18.78%	11.50%
28	810	103,905,069	18,130,173	10.35%	10,754,175	1.6859	17.45%	10.35%
29	690	90,133,010	15,148,491	9.20%	8,292,237	1.8268	16.81%	9.20%
30	557	74,457,757	11,661,722	8.05%	5,993,849	1.9456	15.66%	8.05%
31	450	62,164,586	8,428,752	6.90%	4,289,356	1.9650	13.56%	6.90%
32	337	48,438,874	5,456,171	6.90%	3,342,282	1.6325	11.26%	6.90%
33	231	34,425,062	3,294,468	6.90%	2,375,329	1.3870	9.57%	6.90%
34	149	23,329,407	1,846,197	6.90%	1,609,729	1.1469	7.91%	6.90%
35	97	15,718,733	1,063,602	6.90%	1,084,593	0.9806	6.77%	6.90%
36	43	7,255,171	346,070	6.90%	500,607	0.6913	4.77%	6.90%
37	21	3,492,505	124,092	6.90%	240,983	0.5149	3.55%	6.90%
38	11	1,702,340	75,859	6.90%	117,461	0.6458	4.46%	6.90%
39	11	1,696,473	111,895	6.90%	117,057	0.9559	6.60%	6.90%
40	6	847,497	83,995	6.90%	58,477	1.4364	9.91%	6.90%
41	0	0	0	6.90%	0	N/A	N/A	N/A
42	1	135,931	0	6.90%	9,379	0.0000	0.00%	6.90%
43	1	135,851	0	6.90%	9,374	0.0000	0.00%	6.90%
44	0	0	0	6.90%	0	N/A	N/A	N/A
45	0	0	0	6.90%	0	N/A	N/A	N/A
Total	158,688	14,461,475,699	2,538,416,385		2,425,905,660	1.0464	17.55%	16.77%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

New York City Retirement Systems

Bolton

New York City Police Pension Fund
Overtime Pay Experience for All Years
Men and Women
9-Year Period Ending 2016

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime Assumption as % of Base Pay	(6) Expected Overtime	(7) Actual/Expected	(8) Increase %	
							(8) Actual %	(9) Expected %
							0	6,290
1	17,170	772,679,148	92,759,856	15.00%	115,901,872	0.8003	12.00%	15.00%
2	16,678	817,233,928	113,219,634	15.00%	122,585,089	0.9236	13.85%	15.00%
3	18,850	1,030,852,726	152,061,570	15.00%	154,627,909	0.9834	14.75%	15.00%
4	16,521	1,016,089,646	153,556,933	15.00%	152,413,447	1.0075	15.11%	15.00%
5	16,283	1,203,438,948	202,973,920	15.00%	180,515,842	1.1244	16.87%	15.00%
6	15,755	1,332,027,467	215,719,730	15.00%	199,804,120	1.0797	16.19%	15.00%
7	16,172	1,392,473,801	225,402,441	15.00%	208,863,745	1.0792	16.19%	15.00%
8	16,217	1,433,280,201	231,111,610	15.00%	214,992,030	1.0750	16.12%	15.00%
9	15,504	1,388,478,122	232,644,536	15.00%	208,271,718	1.1170	16.76%	15.00%
10	15,044	1,372,505,316	233,702,403	15.00%	205,875,797	1.1352	17.03%	15.00%
11	13,889	1,293,339,988	221,143,053	15.00%	194,000,998	1.1399	17.10%	15.00%
12	12,688	1,180,265,977	205,695,629	15.00%	177,039,897	1.1619	17.43%	15.00%
13	12,545	1,166,809,711	206,127,548	15.00%	175,021,457	1.1777	17.67%	15.00%
14	13,116	1,227,794,014	224,127,203	15.00%	184,169,102	1.2170	18.25%	15.00%
15	13,031	1,234,917,853	228,713,894	15.00%	185,237,678	1.2347	18.52%	15.00%
16	13,719	1,324,427,927	250,583,770	15.00%	198,664,189	1.2613	18.92%	15.00%
17	13,640	1,329,742,374	261,356,137	15.00%	199,461,356	1.3103	19.65%	15.00%
18	11,441	1,154,175,778	236,042,570	15.00%	173,126,367	1.3634	20.45%	15.00%
19	7,864	830,170,071	174,286,993	15.00%	124,525,511	1.3996	20.99%	15.00%
20	6,376	685,365,590	143,618,231	15.00%	102,783,809	1.3973	20.95%	15.00%
21	5,580	612,176,722	127,439,748	15.00%	91,764,569	1.3888	20.82%	14.99%
22	5,254	575,290,909	118,877,303	15.00%	86,260,733	1.3781	20.66%	14.99%
23	4,126	469,251,153	93,342,184	14.00%	65,685,727	1.4210	19.89%	14.00%
24	3,141	365,006,105	70,903,273	13.00%	47,450,794	1.4942	19.43%	13.00%
25	2,493	294,698,779	54,682,031	12.00%	35,363,853	1.5463	18.56%	12.00%
26	2,086	253,155,848	44,462,119	11.00%	27,847,143	1.5966	17.56%	11.00%
27	1,571	195,492,830	31,887,678	10.00%	19,535,164	1.6323	16.31%	9.99%
28	1,297	166,222,101	24,942,908	9.00%	14,953,999	1.6680	15.01%	9.00%
29	1,006	133,326,641	19,019,983	8.00%	10,666,131	1.7832	14.27%	8.00%
30	756	102,982,890	13,763,535	7.00%	7,208,802	1.9093	13.36%	7.00%
31	537	75,229,252	9,108,933	6.00%	4,513,755	2.0180	12.11%	6.00%
32	383	55,286,127	5,853,111	6.00%	3,317,168	1.7645	10.59%	6.00%
33	257	37,747,527	3,620,563	6.00%	2,264,852	1.5986	9.59%	6.00%
34	201	29,958,441	2,376,319	6.00%	1,797,506	1.3220	7.93%	6.00%
35	137	20,820,661	1,538,940	6.00%	1,249,240	1.2319	7.39%	6.00%
36	72	11,295,305	690,070	6.00%	677,718	1.0182	6.11%	6.00%
37	54	8,137,739	483,038	6.00%	488,264	0.9893	5.94%	6.00%
38	41	6,110,005	381,417	6.00%	366,600	1.0404	6.24%	6.00%
39	32	4,683,824	271,029	6.00%	281,029	0.9644	5.79%	6.00%
40	29	4,245,784	217,278	6.00%	254,747	0.8529	5.12%	6.00%
41	17	2,585,733	70,239	6.00%	155,144	0.4527	2.72%	6.00%
42	12	1,774,754	64,764	6.00%	106,485	0.6082	3.65%	6.00%
43	4	633,635	0	6.00%	38,018	0.0000	0.00%	6.00%
44	1	135,358	0	6.00%	8,121	0.0000	0.00%	6.00%
45	1	141,638	0	6.00%	8,498	0.0000	0.00%	6.00%
Total	317,881	26,883,839,569	4,663,567,750		3,940,853,180	1.1834	17.35%	14.66%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Police Pension Fund
 Overtime Pay Experience for All Years
 Men and Women
 9-Year Period Ending 2016
 Proposed Rates are 115% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime Assumption as % of Base Pay	(6) Proposed Overtime	(7) Actual/Expected	(8) Increase %	
							Actual %	Expected %
0	6,290	271,381,223	34,723,626	17.25%	46,813,261	0.7417	12.80%	17.25%
1	17,170	772,679,148	92,759,856	17.25%	133,287,153	0.6959	12.00%	17.25%
2	16,678	817,233,928	113,219,634	17.25%	140,972,853	0.8031	13.85%	17.25%
3	18,850	1,030,852,726	152,061,570	17.25%	177,822,095	0.8551	14.75%	17.25%
4	16,521	1,016,089,646	153,556,933	17.25%	175,275,464	0.8761	15.11%	17.25%
5	16,283	1,203,438,948	202,973,920	17.25%	207,593,219	0.9777	16.87%	17.25%
6	15,755	1,332,027,467	215,719,730	17.25%	229,774,738	0.9388	16.19%	17.25%
7	16,172	1,392,473,801	225,402,441	17.25%	240,201,731	0.9384	16.19%	17.25%
8	16,217	1,433,280,201	231,111,610	17.25%	247,240,835	0.9348	16.12%	17.25%
9	15,504	1,388,478,122	232,644,536	17.25%	239,512,476	0.9713	16.76%	17.25%
10	15,044	1,372,505,316	233,702,403	17.25%	236,757,167	0.9871	17.03%	17.25%
11	13,889	1,293,339,988	221,143,053	17.25%	223,101,148	0.9912	17.10%	17.25%
12	12,688	1,180,265,977	205,695,629	17.25%	203,595,881	1.0103	17.43%	17.25%
13	12,545	1,166,809,711	206,127,548	17.25%	201,274,675	1.0241	17.67%	17.25%
14	13,116	1,227,794,014	224,127,203	17.25%	211,794,467	1.0582	18.25%	17.25%
15	13,031	1,234,917,853	228,713,894	17.25%	213,023,330	1.0737	18.52%	17.25%
16	13,719	1,324,427,927	250,583,770	17.25%	228,463,817	1.0968	18.92%	17.25%
17	13,640	1,329,742,374	261,356,137	17.25%	229,380,559	1.1394	19.65%	17.25%
18	11,441	1,154,175,778	236,042,570	17.25%	199,095,322	1.1856	20.45%	17.25%
19	7,864	830,170,071	174,286,993	17.25%	143,204,337	1.2171	20.99%	17.25%
20	6,376	685,365,590	143,618,231	17.25%	118,225,564	1.2148	20.95%	17.25%
21	5,580	612,176,722	127,439,748	17.25%	105,600,485	1.2068	20.82%	17.25%
22	5,254	575,290,909	118,877,303	17.25%	99,237,682	1.1979	20.66%	17.25%
23	4,126	469,251,153	93,342,184	16.10%	75,549,436	1.2355	19.89%	16.10%
24	3,141	365,006,105	70,903,273	14.95%	54,568,413	1.2993	19.43%	14.95%
25	2,493	294,698,779	54,682,031	13.80%	40,668,432	1.3446	18.56%	13.80%
26	2,086	253,155,848	44,462,119	12.65%	32,024,215	1.3884	17.56%	12.65%
27	1,571	195,492,830	31,887,678	11.50%	22,481,675	1.4184	16.31%	11.50%
28	1,297	166,222,101	24,942,908	10.35%	17,203,987	1.4498	15.01%	10.35%
29	1,006	133,326,641	19,019,983	9.20%	12,266,051	1.5506	14.27%	9.20%
30	756	102,982,890	13,763,535	8.05%	8,290,123	1.6602	13.36%	8.05%
31	537	75,229,252	9,108,933	6.90%	5,190,818	1.7548	12.11%	6.90%
32	383	55,286,127	5,853,111	6.90%	3,814,743	1.5343	10.59%	6.90%
33	257	37,747,527	3,620,563	6.90%	2,604,579	1.3901	9.59%	6.90%
34	201	29,958,441	2,376,319	6.90%	2,067,132	1.1496	7.93%	6.90%
35	137	20,820,661	1,538,940	6.90%	1,436,626	1.0712	7.39%	6.90%
36	72	11,295,305	690,070	6.90%	779,376	0.8854	6.11%	6.90%
37	54	8,137,739	483,038	6.90%	561,504	0.8603	5.94%	6.90%
38	41	6,110,005	381,417	6.90%	421,590	0.9047	6.24%	6.90%
39	32	4,683,824	271,029	6.90%	323,184	0.8386	5.79%	6.90%
40	29	4,245,784	217,278	6.90%	292,959	0.7417	5.12%	6.90%
41	17	2,585,733	70,239	6.90%	178,416	0.3937	2.72%	6.90%
42	12	1,774,754	64,764	6.90%	122,458	0.5289	3.65%	6.90%
43	4	633,635	0	6.90%	43,721	0.0000	0.00%	6.90%
44	1	135,358	0	6.90%	9,340	0.0000	0.00%	6.90%
45	1	141,638	0	6.90%	9,773	0.0000	0.00%	6.90%
Total	317,881	26,883,839,569	4,663,567,750		4,532,156,808	1.0290	17.35%	16.86%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton		New York City Police Pension Fund Overtime Pay Experience for All Years Men and Women 9-Year Period Ending 2016					
		(1)	(2)	(3)	(4)	(5)	(6)
Plan Year	Life Years Exposed	Salary during the Year	Actual Overtime	Expected Overtime	Actual/Expected	Increase %	
						Actual %	Expected %
2008	32,568	2,163,668,122	403,359,766	320,495,383	1.2586	18.64%	14.81%
2009	33,050	2,315,021,708	404,914,723	342,449,016	1.1824	17.49%	14.79%
2010	32,193	2,503,300,576	418,111,304	369,146,621	1.1326	16.70%	14.75%
2011	30,774	2,686,336,153	423,108,939	395,240,850	1.0705	15.75%	14.71%
2012	30,609	2,754,182,369	475,656,633	404,199,571	1.1768	17.27%	14.68%
2013	30,790	2,729,907,029	489,999,504	399,883,663	1.2254	17.95%	14.65%
2014	31,128	2,811,399,632	444,451,227	411,040,041	1.0813	15.81%	14.62%
2015	31,387	2,867,214,064	557,708,615	418,612,609	1.3323	19.45%	14.60%
2016	31,358	2,870,692,005	505,874,744	418,322,532	1.2093	17.62%	14.57%
2017	34,030	3,182,999,544	540,382,295	461,515,791	1.1709	16.98%	14.50%
Total	317,887	26,884,721,201	4,663,567,750	3,940,906,078	1.1834	17.35%	14.66%

New York City Police Pension Fund									
Overtime Pay Experience before Service Retirement									
Men and Women									
4-Year Period Ending 2016									
Bolton									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime - Tiers I/II	Overtime - Tier III	Expected Overtime	Actual/Expected	Increase %	
								Actual	Expected
0	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
1	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
2	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
3	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
4	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
5	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
6	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
7	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
8	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
9	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
10	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
11	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
12	9	851,619	152,896	18.00%	17.00%	153,291	0.9974	0.1795	0.1800
13	10	1,099,743	206,625	18.00%	17.00%	197,954	1.0438	0.1879	0.1800
14	3	303,250	50,358	18.00%	17.00%	54,585	0.9226	0.1661	0.1800
15	23	2,318,191	399,027	18.00%	17.00%	417,274	0.9563	0.1721	0.1800
16	35	3,458,290	628,208	18.00%	17.00%	622,492	1.0092	0.1817	0.1800
17	28	2,909,970	514,804	18.00%	17.00%	523,795	0.9828	0.1769	0.1800
18	917	93,196,164	17,629,067	18.00%	17.00%	16,775,310	1.0509	0.1892	0.1800
19	1250	128,755,772	25,307,358	18.00%	17.00%	23,176,039	1.0920	0.1966	0.1800
20	468	50,702,294	10,526,881	18.00%	17.00%	9,126,413	1.1535	0.2076	0.1800
21	310	34,363,634	7,579,759	18.00%	17.00%	6,185,454	1.2254	0.2206	0.1800
22	233	26,883,481	5,600,843	18.00%	17.00%	4,839,027	1.1574	0.2083	0.1800
23	305	34,445,684	7,587,474	17.00%	16.00%	5,855,766	1.2957	0.2203	0.1700
24	325	36,880,511	7,970,810	16.00%	15.00%	5,900,882	1.3508	0.2161	0.1600
25	162	19,475,016	4,000,500	15.00%	14.00%	2,921,252	1.3694	0.2054	0.1500
26	112	13,277,616	2,811,677	14.00%	13.00%	1,850,956	1.5190	0.2118	0.1394
27	109	13,363,763	2,625,078	13.00%	12.00%	1,737,289	1.5110	0.1964	0.1300
28	110	13,961,803	2,745,237	12.00%	11.00%	1,675,416	1.6385	0.1966	0.1200
29	108	13,809,819	2,533,958	11.00%	10.00%	1,519,080	1.6681	0.1835	0.1100
30	55	7,033,623	1,286,626	10.00%	9.00%	703,362	1.8293	0.1829	0.1000
31	53	6,962,923	1,174,813	9.00%	8.00%	626,663	1.8747	0.1687	0.0900
32	42	5,736,263	852,018	8.00%	7.00%	458,901	1.8566	0.1485	0.0800
33	33	4,649,615	529,022	8.00%	7.00%	371,969	1.4222	0.1138	0.0800
34	17	2,507,374	280,276	8.00%	7.00%	200,590	1.3973	0.1118	0.0800
35	9	1,294,935	167,124	8.00%	7.00%	103,595	1.6132	0.1291	0.0800
36	4	657,237	63,463	8.00%	7.00%	52,579	1.2070	0.0966	0.0800
37	2	280,307	73,646	8.00%	7.00%	22,425	3.2842	0.2627	0.0800
38	2	255,078	37,293	8.00%	7.00%	20,406	1.8275	0.1462	0.0800
39	6	929,207	61,456	8.00%	7.00%	74,337	0.8267	0.0661	0.0800
40	4	690,029	36,667	8.00%	7.00%	55,202	0.6642	0.0531	0.0800
41	4	597,453	42,717	8.00%	7.00%	47,796	0.8937	0.0715	0.0800
42	2	325,193	16,559	8.00%	7.00%	26,015	0.6365	0.0509	0.0800
43	0	0	0	8.00%	7.00%	0	N/A	N/A	N/A
44	2	382,611	0	8.00%	7.00%	30,609	0.0000	-	0.0800
45	0	0	0	8.00%	7.00%	0	N/A	N/A	N/A
Total	4,752	522,358,471	103,492,240			86,326,726	1.1988	0.1981	0.1653

Bolton

New York City Police Pension Fund
 Overtime Pay Experience before Service Retirement
 Men and Women
 4-Year Period Ending 2016
 Proposed Rates are 115% of the Current Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime - Tiers I/II	Overtime - Tier III	Proposed Overtime	Actual/Proposed	Increase %	
								Actual %	Expected %
0	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
1	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
2	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
3	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
4	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
5	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
6	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
7	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
8	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
9	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
10	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
11	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
12	9	851,619	152,896	20.70%	19.55%	176,285	0.8673	17.95%	20.70%
13	10	1,099,743	206,625	20.70%	19.55%	227,647	0.9077	18.79%	20.70%
14	3	303,250	50,358	20.70%	19.55%	62,773	0.8022	16.61%	20.70%
15	23	2,318,191	399,027	20.70%	19.55%	479,866	0.8315	17.21%	20.70%
16	35	3,458,290	628,208	20.70%	19.55%	715,866	0.8775	18.17%	20.70%
17	28	2,909,970	514,804	20.70%	19.55%	602,364	0.8546	17.69%	20.70%
18	917	93,196,164	17,629,067	20.70%	19.55%	19,291,606	0.9138	18.92%	20.70%
19	1,250	128,755,772	25,307,358	20.70%	19.55%	26,652,445	0.9495	19.66%	20.70%
20	468	50,702,294	10,526,881	20.70%	19.55%	10,495,375	1.0030	20.76%	20.70%
21	310	34,363,634	7,579,759	20.70%	19.55%	7,113,272	1.0656	22.06%	20.70%
22	233	26,883,481	5,600,843	20.70%	19.55%	5,564,881	1.0065	20.83%	20.70%
23	305	34,445,684	7,587,474	19.55%	18.40%	6,734,131	1.1267	22.03%	19.55%
24	325	36,880,511	7,970,810	18.40%	17.25%	6,786,014	1.1746	21.61%	18.40%
25	162	19,475,016	4,000,500	17.25%	16.10%	3,359,440	1.1908	20.54%	17.25%
26	112	13,277,616	2,811,677	16.10%	14.95%	2,128,600	1.3209	21.18%	16.03%
27	109	13,363,763	2,625,078	14.95%	13.80%	1,997,883	1.3139	19.64%	14.95%
28	110	13,961,803	2,745,237	13.80%	12.65%	1,926,729	1.4248	19.66%	13.80%
29	108	13,809,819	2,533,958	12.65%	11.50%	1,746,942	1.4505	18.35%	12.65%
30	55	7,033,623	1,286,626	11.50%	10.35%	808,867	1.5907	18.29%	11.50%
31	53	6,962,923	1,174,813	10.35%	9.20%	720,662	1.6302	16.87%	10.35%
32	42	5,736,263	852,018	9.20%	8.05%	527,736	1.6145	14.85%	9.20%
33	33	4,649,615	529,022	9.20%	8.05%	427,765	1.2367	11.38%	9.20%
34	17	2,507,374	280,276	9.20%	8.05%	230,678	1.2150	11.18%	9.20%
35	9	1,294,935	167,124	9.20%	8.05%	119,134	1.4028	12.91%	9.20%
36	4	657,237	63,463	9.20%	8.05%	60,466	1.0496	9.66%	9.20%
37	2	280,307	73,646	9.20%	8.05%	25,788	2.8558	26.27%	9.20%
38	2	255,078	37,293	9.20%	8.05%	23,467	1.5892	14.62%	9.20%
39	6	929,207	61,456	9.20%	8.05%	85,487	0.7189	6.61%	9.20%
40	4	690,029	36,667	9.20%	8.05%	63,483	0.5776	5.31%	9.20%
41	4	597,453	42,717	9.20%	8.05%	54,966	0.7772	7.15%	9.20%
42	2	325,193	16,559	9.20%	8.05%	29,918	0.5535	5.09%	9.20%
43	0	0	0	9.20%	8.05%	0	N/A	N/A	N/A
44	2	382,611	0	9.20%	8.05%	35,200	0.0000	0.00%	9.20%
45	0	0	0	9.20%	8.05%	0	N/A	N/A	N/A
Total	4,752	522,358,471	103,492,240			99,275,735	1.0425	19.81%	19.01%

Bolton

New York City Police Pension Fund
Overtime Pay Experience before Service Retirement
Men and Women
9-Year Period Ending 2016

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Expected Overtime	(8) Actual/Expected	(9) Increase %	
								Actual	Expected
0	5	212,943	60,612	18.00%	17.00%	38,330	1.5813	0.2846	0.1800
1	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
2	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
3	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
4	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
5	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
6	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
7	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
8	1	132,408	31,619	18.00%	17.00%	23,833	1.3267	0.2388	0.1800
9	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
10	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
11	0	0	0	18.00%	17.00%	0	N/A	N/A	N/A
12	10	929,964	164,630	18.00%	17.00%	167,394	0.9835	0.1770	0.1800
13	12	1,278,220	232,160	18.00%	17.00%	230,080	1.0090	0.1816	0.1800
14	8	741,477	115,668	18.00%	17.00%	133,466	0.8666	0.1560	0.1800
15	59	5,480,542	1,130,027	18.00%	17.00%	986,498	1.1455	0.2062	0.1800
16	81	7,509,294	1,494,160	18.00%	17.00%	1,351,673	1.1054	0.1990	0.1800
17	56	5,461,901	977,568	18.00%	17.00%	983,142	0.9943	0.1790	0.1800
18	2144	205,777,072	39,195,140	18.00%	17.00%	37,039,873	1.0582	0.1905	0.1800
19	2807	267,772,362	53,081,592	18.00%	17.00%	48,199,025	1.1013	0.1982	0.1800
20	926	96,376,877	19,862,599	18.00%	17.00%	17,347,838	1.1450	0.2061	0.1800
21	583	61,768,814	12,917,025	18.00%	17.00%	11,118,386	1.1618	0.2091	0.1800
22	420	46,218,145	9,705,896	18.00%	17.00%	8,319,266	1.1667	0.2100	0.1800
23	500	54,576,900	12,102,740	17.00%	16.00%	9,278,073	1.3044	0.2218	0.1700
24	612	67,617,414	13,593,499	16.00%	15.00%	10,818,786	1.2565	0.2010	0.1600
25	311	36,070,936	7,080,750	15.00%	14.00%	5,410,640	1.3087	0.1963	0.1500
26	215	25,452,303	4,844,982	14.00%	13.00%	3,555,413	1.3627	0.1904	0.1397
27	172	20,926,229	4,039,322	13.00%	12.00%	2,720,410	1.4848	0.1930	0.1300
28	163	20,210,490	3,847,419	12.00%	11.00%	2,425,259	1.5864	0.1904	0.1200
29	157	20,245,226	3,232,805	11.00%	10.00%	2,226,975	1.4517	0.1597	0.1100
30	79	10,289,565	1,617,254	10.00%	9.00%	1,028,957	1.5717	0.1572	0.1000
31	62	8,250,146	1,283,639	9.00%	8.00%	742,513	1.7288	0.1556	0.0900
32	44	5,966,123	887,465	8.00%	7.00%	477,290	1.8594	0.1488	0.0800
33	37	5,162,341	621,442	8.00%	7.00%	412,987	1.5047	0.1204	0.0800
34	22	3,086,832	420,906	8.00%	7.00%	246,947	1.7044	0.1364	0.0800
35	16	2,285,585	216,623	8.00%	7.00%	182,847	1.1847	0.0948	0.0800
36	16	2,148,033	208,391	8.00%	7.00%	171,843	1.2127	0.0970	0.0800
37	8	996,194	160,123	8.00%	7.00%	79,696	2.0092	0.1607	0.0800
38	10	1,226,380	157,617	8.00%	7.00%	98,110	1.6065	0.1285	0.0800
39	12	1,759,177	76,259	8.00%	7.00%	140,734	0.5419	0.0433	0.0800
40	6	910,828	58,033	8.00%	7.00%	72,866	0.7964	0.0637	0.0800
41	7	1,081,527	83,360	8.00%	7.00%	86,522	0.9635	0.0771	0.0800
42	7	1,126,044	51,400	8.00%	7.00%	90,084	0.5706	0.0456	0.0800
43	7	1,071,637	85,331	8.00%	7.00%	85,731	0.9953	0.0796	0.0800
44	2	382,611	0	8.00%	7.00%	30,609	-	-	0.0800
45	0	0	0	8.00%	7.00%	0	N/A	N/A	N/A
Total	9,577	990,502,541	193,638,056			166,322,094	1.1642	0.1955	0.1679

Bolton

**New York City Police Pension Fund
Overtime Pay Experience before Service Retirement
Men and Women
9-Year Period Ending 2016
Proposed Rates are 115% of the Current Rates**

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Proposed Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual %	Expected %
0	5	212,943	60,612	20.70%	19.55%	44,079	1.3751	28.46%	20.70%
1	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
2	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
3	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
4	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
5	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
6	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
7	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
8	1	132,408	31,619	20.70%	19.55%	27,409	1.1536	23.88%	20.70%
9	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
10	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
11	0	0	0	20.70%	19.55%	0	N/A	N/A	N/A
12	10	929,964	164,630	20.70%	19.55%	192,503	0.8552	17.70%	20.70%
13	12	1,278,220	232,160	20.70%	19.55%	264,592	0.8774	18.16%	20.70%
14	8	741,477	115,668	20.70%	19.55%	153,486	0.7536	15.60%	20.70%
15	59	5,480,542	1,130,027	20.70%	19.55%	1,134,472	0.9961	20.62%	20.70%
16	81	7,509,294	1,494,160	20.70%	19.55%	1,554,424	0.9612	19.90%	20.70%
17	56	5,461,901	977,568	20.70%	19.55%	1,130,614	0.8646	17.90%	20.70%
18	2,144	205,777,072	39,195,140	20.70%	19.55%	42,595,854	0.9202	19.05%	20.70%
19	2,807	267,772,362	53,081,592	20.70%	19.55%	55,428,879	0.9577	19.82%	20.70%
20	926	96,376,877	19,862,599	20.70%	19.55%	19,950,013	0.9956	20.61%	20.70%
21	583	61,768,814	12,917,025	20.70%	19.55%	12,786,144	1.0102	20.91%	20.70%
22	420	46,218,145	9,705,896	20.70%	19.55%	9,567,156	1.0145	21.00%	20.70%
23	500	54,576,900	12,102,740	19.55%	18.40%	10,669,784	1.1343	22.18%	19.55%
24	612	67,617,414	13,593,499	18.40%	17.25%	12,441,604	1.0926	20.10%	18.40%
25	311	36,070,936	7,080,750	17.25%	16.10%	6,222,236	1.1380	19.63%	17.25%
26	215	25,452,303	4,844,982	16.10%	14.95%	4,088,724	1.1850	19.04%	16.06%
27	172	20,926,229	4,039,322	14.95%	13.80%	3,128,471	1.2911	19.30%	14.95%
28	163	20,210,490	3,847,419	13.80%	12.65%	2,789,048	1.3795	19.04%	13.80%
29	157	20,245,226	3,232,805	12.65%	11.50%	2,561,021	1.2623	15.97%	12.65%
30	79	10,289,565	1,617,254	11.50%	10.35%	1,183,300	1.3667	15.72%	11.50%
31	62	8,250,146	1,283,639	10.35%	9.20%	853,890	1.5033	15.56%	10.35%
32	44	5,966,123	887,465	9.20%	8.05%	548,883	1.6169	14.88%	9.20%
33	37	5,162,341	621,442	9.20%	8.05%	474,935	1.3085	12.04%	9.20%
34	22	3,086,832	420,906	9.20%	8.05%	283,989	1.4821	13.64%	9.20%
35	16	2,285,585	216,623	9.20%	8.05%	210,274	1.0302	9.48%	9.20%
36	16	2,148,033	208,391	9.20%	8.05%	197,619	1.0545	9.70%	9.20%
37	8	996,194	160,123	9.20%	8.05%	91,650	1.7471	16.07%	9.20%
38	10	1,226,380	157,617	9.20%	8.05%	112,827	1.3970	12.85%	9.20%
39	12	1,759,177	76,259	9.20%	8.05%	161,844	0.4712	4.33%	9.20%
40	6	910,828	58,033	9.20%	8.05%	83,796	0.6925	6.37%	9.20%
41	7	1,081,527	83,360	9.20%	8.05%	99,501	0.8378	7.71%	9.20%
42	7	1,126,044	51,400	9.20%	8.05%	103,596	0.4962	4.56%	9.20%
43	7	1,071,637	85,331	9.20%	8.05%	98,591	0.8655	7.96%	9.20%
44	2	382,611	0	9.20%	8.05%	35,200	0.0000	0.00%	9.20%
45	0	0	0	9.20%	8.05%	0	N/A	N/A	N/A
Total	9,577	990,502,541	193,638,056			191,270,408	1.0124	19.55%	19.31%

New York City Retirement Systems

New York City Police Pension Fund Overtime Pay Experience before Disability Retirement Men and Women 4-Year Period Ending 2016										
Bolton	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime - Tiers I/II	Overtime - Tier III	Expected Overtime	Actual/Proposed	Increase %		
								Actual	Expected	
0	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A	N/A
1	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A	N/A
2	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A	N/A
3	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A	N/A
4	6	381,119	23,484	8.00%	12.00%	32,974	0.7122	0.0616	0.0865	
5	32	2,468,286	164,478	8.00%	12.00%	200,503	0.8203	0.0666	0.0812	
6	45	3,908,350	132,508	8.00%	12.00%	312,668	0.4238	0.0339	0.0800	
7	63	5,736,910	261,020	8.00%	12.00%	458,953	0.5687	0.0455	0.0800	
8	61	5,620,728	335,504	8.00%	12.00%	449,658	0.7461	0.0597	0.0800	
9	104	9,674,720	752,328	8.00%	12.00%	773,978	0.9720	0.0778	0.0800	
10	87	8,254,090	478,367	8.00%	12.00%	660,327	0.7244	0.0580	0.0800	
11	45	4,320,261	380,366	8.00%	12.00%	345,621	1.1005	0.0880	0.0800	
12	66	6,390,013	619,327	8.00%	12.00%	511,201	1.2115	0.0969	0.0800	
13	60	5,699,938	434,552	8.00%	12.00%	455,995	0.9530	0.0762	0.0800	
14	58	5,627,527	285,577	8.00%	12.00%	450,202	0.6343	0.0507	0.0800	
15	51	4,991,380	307,056	8.00%	12.00%	399,310	0.7690	0.0615	0.0800	
16	46	4,586,693	410,370	9.00%	12.00%	412,802	0.9941	0.0895	0.0900	
17	37	3,794,387	396,654	10.00%	13.00%	379,439	1.0454	0.1045	0.1000	
18	70	7,020,360	683,463	11.00%	13.00%	772,240	0.8850	0.0974	0.1100	
19	105	11,441,989	1,376,224	12.00%	14.00%	1,373,039	1.0023	0.1203	0.1200	
20	52	5,588,457	616,146	12.00%	14.00%	670,615	0.9188	0.1103	0.1200	
21	46	5,226,811	773,405	12.00%	14.00%	627,217	1.2331	0.1480	0.1200	
22	44	5,027,442	597,839	12.00%	14.00%	603,293	0.9910	0.1189	0.1200	
23	15	1,817,309	251,585	11.00%	13.00%	199,904	1.2585	0.1384	0.1100	
24	20	2,527,045	503,889	10.00%	12.00%	252,704	1.9940	0.1994	0.1000	
25	17	2,197,019	279,839	9.00%	11.00%	197,732	1.4152	0.1274	0.0900	
26	9	1,149,194	183,355	8.00%	10.00%	91,936	1.9944	0.1596	0.0800	
27	21	2,676,301	332,547	7.00%	9.00%	187,341	1.7751	0.1243	0.0700	
28	13	1,594,569	334,682	6.00%	8.00%	95,674	3.4981	0.2099	0.0600	
29	10	1,369,040	171,497	6.00%	7.00%	82,142	2.0878	0.1253	0.0600	
30	2	215,738	3,009	6.00%	6.00%	12,944	0.2325	0.0139	0.0600	
31	6	711,864	142,932	6.00%	6.00%	42,712	3.3464	0.2008	0.0600	
32	2	341,137	0	6.00%	6.00%	20,468	-	-	0.0600	
33	3	486,491	20,052	6.00%	6.00%	29,189	0.6870	0.0412	0.0600	
34	2	329,983	27,716	6.00%	6.00%	19,799	1.3999	0.0840	0.0600	
35	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
36	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
37	1	183,214	0	6.00%	6.00%	10,993	-	-	0.0600	
38	1	141,738	7,228	6.00%	6.00%	8,504	0.8499	0.0510	0.0600	
39	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
40	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
41	1	122,118	7,443	6.00%	6.00%	7,327	1.0158	0.0609	0.0600	
42	1	107,783	0	6.00%	6.00%	6,467	-	-	0.0600	
43	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
44	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
45	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A	
Total	1,202	121,730,004	11,294,442			11,155,872	1.0124	0.0928	0.0916	

Bolton

New York City Police Pension Fund
 Overtime Pay Experience before Disability Retirement
 Men and Women
 4-Year Period Ending 2016
 Proposed Rates are 100% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Proposed Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual %	Expected %
0	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A
1	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A
2	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A
3	0	0	0	8.00%	12.00%	0	N/A	N/A	N/A
4	6	381,119	23,484	8.00%	12.00%	32,974	0.7122	6.16%	8.65%
5	32	2,468,286	164,478	8.00%	12.00%	200,503	0.8203	6.66%	8.12%
6	45	3,908,350	132,508	8.00%	12.00%	312,668	0.4238	3.39%	8.00%
7	63	5,736,910	261,020	8.00%	12.00%	458,953	0.5687	4.55%	8.00%
8	61	5,620,728	335,504	8.00%	12.00%	449,658	0.7461	5.97%	8.00%
9	104	9,674,720	752,328	8.00%	12.00%	773,978	0.9720	7.78%	8.00%
10	87	8,254,090	478,367	8.00%	12.00%	660,327	0.7244	5.80%	8.00%
11	45	4,320,261	380,366	8.00%	12.00%	345,621	1.1005	8.80%	8.00%
12	66	6,390,013	619,327	8.00%	12.00%	511,201	1.2115	9.69%	8.00%
13	60	5,699,938	434,552	8.00%	12.00%	455,995	0.9530	7.62%	8.00%
14	58	5,627,527	285,577	8.00%	12.00%	450,202	0.6343	5.07%	8.00%
15	51	4,991,380	307,056	8.00%	12.00%	399,310	0.7690	6.15%	8.00%
16	46	4,586,693	410,370	9.00%	12.00%	412,802	0.9941	8.95%	9.00%
17	37	3,794,387	396,654	10.00%	13.00%	379,439	1.0454	10.45%	10.00%
18	70	7,020,360	683,463	11.00%	13.00%	772,240	0.8850	9.74%	11.00%
19	105	11,441,989	1,376,224	12.00%	14.00%	1,373,039	1.0023	12.03%	12.00%
20	52	5,588,457	616,146	12.00%	14.00%	670,615	0.9188	11.03%	12.00%
21	46	5,226,811	773,405	12.00%	14.00%	627,217	1.2331	14.80%	12.00%
22	44	5,027,442	597,839	12.00%	14.00%	603,293	0.9910	11.89%	12.00%
23	15	1,817,309	251,585	11.00%	13.00%	199,904	1.2585	13.84%	11.00%
24	20	2,527,045	503,889	10.00%	12.00%	252,704	1.9940	19.94%	10.00%
25	17	2,197,019	279,839	9.00%	11.00%	197,732	1.4152	12.74%	9.00%
26	9	1,149,194	183,355	8.00%	10.00%	91,936	1.9944	15.96%	8.00%
27	21	2,676,301	332,547	7.00%	9.00%	187,341	1.7751	12.43%	7.00%
28	13	1,594,569	334,682	6.00%	8.00%	95,674	3.4981	20.99%	6.00%
29	10	1,369,040	171,497	6.00%	7.00%	82,142	2.0878	12.53%	6.00%
30	2	215,738	3,009	6.00%	6.00%	12,944	0.2325	1.39%	6.00%
31	6	711,864	142,932	6.00%	6.00%	42,712	3.3464	20.08%	6.00%
32	2	341,137	0	6.00%	6.00%	20,468	0.0000	0.00%	6.00%
33	3	486,491	20,052	6.00%	6.00%	29,189	0.6870	4.12%	6.00%
34	2	329,983	27,716	6.00%	6.00%	19,799	1.3999	8.40%	6.00%
35	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
36	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
37	1	183,214	0	6.00%	6.00%	10,993	0.0000	0.00%	6.00%
38	1	141,738	7,228	6.00%	6.00%	8,504	0.8499	5.10%	6.00%
39	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
40	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
41	1	122,118	7,443	6.00%	6.00%	7,327	1.0158	6.09%	6.00%
42	1	107,783	0	6.00%	6.00%	6,467	0.0000	0.00%	6.00%
43	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
44	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
45	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
Total	1,202	121,730,004	11,294,442			11,155,872	1.0124	9.25%	9.16%

New York City Police Pension Fund									
Overtime Pay Experience before Disability Retirement									
Men and Women									
9-Year Period Ending 2016									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime - Tiers I/II	Overtime - Tier III	Expected Overtime	Actual/Proposed	Increase %	
								Actual	Expected
0	8	324,847	66,452	8.00%	12.00%	25,988	2.5570	0.2046	0.0800
1	3	244,262	4,736	8.00%	12.00%	19,541	0.2424	0.0194	0.0800
2	9	375,607	15,529	8.00%	12.00%	30,049	0.5168	0.0413	0.0800
3	15	781,933	48,006	8.00%	12.00%	62,555	0.7674	0.0614	0.0800
4	34	2,071,705	76,578	8.00%	12.00%	168,221	0.4552	0.0370	0.0812
5	97	7,057,230	315,871	8.00%	12.00%	567,619	0.5565	0.0448	0.0804
6	114	9,470,114	356,066	8.00%	12.00%	757,609	0.4700	0.0376	0.0800
7	112	9,659,297	423,170	8.00%	12.00%	772,744	0.5476	0.0438	0.0800
8	122	10,510,193	638,259	8.00%	12.00%	840,815	0.7591	0.0607	0.0800
9	199	17,189,697	1,203,791	8.00%	12.00%	1,375,176	0.8754	0.0700	0.0800
10	160	14,195,059	887,835	8.00%	12.00%	1,135,605	0.7818	0.0625	0.0800
11	147	12,769,762	787,115	8.00%	12.00%	1,021,581	0.7705	0.0616	0.0800
12	158	13,716,072	1,063,303	8.00%	12.00%	1,097,286	0.9690	0.0775	0.0800
13	182	15,767,783	978,072	8.00%	12.00%	1,261,423	0.7754	0.0620	0.0800
14	179	15,904,819	869,197	8.00%	12.00%	1,272,385	0.6831	0.0546	0.0800
15	178	15,621,658	1,185,304	8.00%	12.00%	1,249,733	0.9484	0.0759	0.0800
16	187	17,227,787	1,360,561	9.00%	12.00%	1,550,501	0.8775	0.0790	0.0900
17	173	15,891,082	1,522,886	10.00%	13.00%	1,589,108	0.9583	0.0958	0.1000
18	236	22,948,033	2,285,464	11.00%	13.00%	2,524,284	0.9054	0.0996	0.1100
19	267	27,017,701	3,469,398	12.00%	14.00%	3,242,124	1.0701	0.1284	0.1200
20	119	12,299,624	1,409,486	12.00%	14.00%	1,475,955	0.9550	0.1146	0.1200
21	87	9,268,651	1,266,763	12.00%	14.00%	1,112,238	1.1389	0.1367	0.1200
22	84	9,156,508	1,299,988	12.00%	14.00%	1,098,781	1.1831	0.1420	0.1200
23	38	4,337,179	587,353	11.00%	13.00%	477,090	1.2311	0.1354	0.1100
24	61	7,150,574	1,126,701	10.00%	12.00%	715,057	1.5757	0.1576	0.1000
25	34	4,182,148	413,401	9.00%	11.00%	376,393	1.0983	0.0988	0.0900
26	21	2,557,006	349,219	8.00%	10.00%	204,561	1.7072	0.1366	0.0800
27	31	3,945,319	398,487	7.00%	9.00%	276,172	1.4429	0.1010	0.0700
28	17	2,172,218	351,973	6.00%	8.00%	130,333	2.7006	0.1620	0.0600
29	15	2,085,721	225,340	6.00%	7.00%	125,143	1.8007	0.1080	0.0600
30	5	702,714	27,092	6.00%	6.00%	42,163	0.6426	0.0386	0.0600
31	7	818,440	142,932	6.00%	6.00%	49,106	2.9107	0.1746	0.0600
32	2	341,137	0	6.00%	6.00%	20,468	-	-	0.0600
33	6	801,863	21,061	6.00%	6.00%	48,112	0.4378	0.0263	0.0600
34	4	519,554	46,276	6.00%	6.00%	31,173	1.4845	0.0891	0.0600
35	4	641,985	0	6.00%	6.00%	38,519	-	-	0.0600
36	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
37	3	473,670	0	6.00%	6.00%	28,420	-	-	0.0600
38	4	621,011	7,228	6.00%	6.00%	37,261	0.1940	0.0116	0.0600
39	3	451,418	0	6.00%	6.00%	27,085	-	-	0.0600
40	4	648,412	21,785	6.00%	6.00%	38,905	0.5600	0.0336	0.0600
41	3	417,805	41,142	6.00%	6.00%	25,068	1.6412	0.0985	0.0600
42	4	548,822	0	6.00%	6.00%	32,929	-	-	0.0600
43	1	110,500	409	6.00%	6.00%	6,630	0.0617	0.0037	0.0600
44	1	185,808	0	6.00%	6.00%	11,149	-	-	0.0600
45	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
Total	3,138	293,182,729	25,294,229			26,993,056	0.9371	0.0863	0.0921

Bolton

New York City Police Pension Fund
Overtime Pay Experience before Disability Retirement
Men and Women
9-Year Period Ending 2016
Proposed Rates are 100% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Proposed Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual %	Expected %
0	8	324,847	66,452	8.00%	12.00%	25,988	2.5570	20.46%	8.00%
1	3	244,262	4,736	8.00%	12.00%	19,541	0.2424	1.94%	8.00%
2	9	375,607	15,529	8.00%	12.00%	30,049	0.5168	4.13%	8.00%
3	15	781,933	48,006	8.00%	12.00%	62,555	0.7674	6.14%	8.00%
4	34	2,071,705	76,578	8.00%	12.00%	168,221	0.4552	3.70%	8.12%
5	97	7,057,230	315,871	8.00%	12.00%	567,619	0.5565	4.48%	8.04%
6	114	9,470,114	356,066	8.00%	12.00%	757,609	0.4700	3.76%	8.00%
7	112	9,659,297	423,170	8.00%	12.00%	772,744	0.5476	4.38%	8.00%
8	122	10,510,193	638,259	8.00%	12.00%	840,815	0.7591	6.07%	8.00%
9	199	17,189,697	1,203,791	8.00%	12.00%	1,375,176	0.8754	7.00%	8.00%
10	160	14,195,059	887,835	8.00%	12.00%	1,135,605	0.7818	6.25%	8.00%
11	147	12,769,762	787,115	8.00%	12.00%	1,021,581	0.7705	6.16%	8.00%
12	158	13,716,072	1,063,303	8.00%	12.00%	1,097,286	0.9690	7.75%	8.00%
13	182	15,767,783	978,072	8.00%	12.00%	1,261,423	0.7754	6.20%	8.00%
14	179	15,904,819	869,197	8.00%	12.00%	1,272,385	0.6831	5.46%	8.00%
15	178	15,621,658	1,185,304	8.00%	12.00%	1,249,733	0.9484	7.59%	8.00%
16	187	17,227,787	1,360,561	9.00%	12.00%	1,550,501	0.8775	7.90%	9.00%
17	173	15,891,082	1,522,886	10.00%	13.00%	1,589,108	0.9583	9.58%	10.00%
18	236	22,948,033	2,285,464	11.00%	13.00%	2,524,284	0.9054	9.96%	11.00%
19	267	27,017,701	3,469,398	12.00%	14.00%	3,242,124	1.0701	12.84%	12.00%
20	119	12,299,624	1,409,486	12.00%	14.00%	1,475,955	0.9550	11.46%	12.00%
21	87	9,268,651	1,266,763	12.00%	14.00%	1,112,238	1.1389	13.67%	12.00%
22	84	9,156,508	1,299,988	12.00%	14.00%	1,098,781	1.1831	14.20%	12.00%
23	38	4,337,179	587,353	11.00%	13.00%	477,090	1.2311	13.54%	11.00%
24	61	7,150,574	1,126,701	10.00%	12.00%	715,057	1.5757	15.76%	10.00%
25	34	4,182,148	413,401	9.00%	11.00%	376,393	1.0983	9.88%	9.00%
26	21	2,557,006	349,219	8.00%	10.00%	204,561	1.7072	13.66%	8.00%
27	31	3,945,319	398,487	7.00%	9.00%	276,172	1.4429	10.10%	7.00%
28	17	2,172,218	351,973	6.00%	8.00%	130,333	2.7006	16.20%	6.00%
29	15	2,085,721	225,340	6.00%	7.00%	125,143	1.8007	10.80%	6.00%
30	5	702,714	27,092	6.00%	6.00%	42,163	0.6426	3.86%	6.00%
31	7	818,440	142,932	6.00%	6.00%	49,106	2.9107	17.46%	6.00%
32	2	341,137	0	6.00%	6.00%	20,468	0.0000	0.00%	6.00%
33	6	801,863	21,061	6.00%	6.00%	48,112	0.4378	2.63%	6.00%
34	4	519,554	46,276	6.00%	6.00%	31,173	1.4845	8.91%	6.00%
35	4	641,985	0	6.00%	6.00%	38,519	0.0000	0.00%	6.00%
36	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
37	3	473,670	0	6.00%	6.00%	28,420	0.0000	0.00%	6.00%
38	4	621,011	7,228	6.00%	6.00%	37,261	0.1940	1.16%	6.00%
39	3	451,418	0	6.00%	6.00%	27,085	0.0000	0.00%	6.00%
40	4	648,412	21,785	6.00%	6.00%	38,905	0.5600	3.36%	6.00%
41	3	417,805	41,142	6.00%	6.00%	25,068	1.6412	9.85%	6.00%
42	4	548,822	0	6.00%	6.00%	32,929	0.0000	0.00%	6.00%
43	1	110,500	409	6.00%	6.00%	6,630	0.0617	0.37%	6.00%
44	1	185,808	0	6.00%	6.00%	11,149	0.0000	0.00%	6.00%
45	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
Total	3,138	293,182,729	25,294,229			26,993,056	0.9371	8.63%	9.21%

Fire

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #003366; color: white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> New York Fire Department Pension Fund Service Retirees' Mortality Assumption and Experience Mortality By Lives - Men 4-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	2	0.0000	0.00	0.00	N/A	N/A
42	0	3	0.0000	0.00	0.00	N/A	N/A
43	0	7	0.0000	0.00	0.00	N/A	N/A
44	0	9	0.0000	0.00	0.00	N/A	N/A
45	0	19	0.0000	0.00	0.00	N/A	N/A
46	0	25	0.0000	0.00	0.00	N/A	N/A
47	0	37	0.0000	0.00	0.00	N/A	N/A
48	0	46	0.0000	0.00	0.00	N/A	N/A
49	0	71	0.0000	0.10	0.10	0.0000	0.0000
50	0	93	0.0000	0.20	0.20	0.0000	0.0000
51	0	126	0.0000	0.40	0.40	0.0000	0.0000
52	0	149	0.0000	0.40	0.40	0.0000	0.0000
53	0	167	0.0000	0.70	0.70	0.0000	0.0000
54	2	227	0.0088	1.00	1.00	2.0000	2.0000
55	1	321	0.0031	1.50	1.50	0.6667	0.6667
56	1	428	0.0023	2.30	2.30	0.4348	0.4348
57	3	516	0.0058	2.90	2.90	1.0345	1.0345
58	2	559	0.0036	3.30	3.30	0.6061	0.6061
59	1	535	0.0019	3.30	3.30	0.3030	0.3030
60	1	501	0.0020	3.40	3.40	0.2941	0.2941
61	3	498	0.0060	3.40	3.40	0.8824	0.8824
62	1	474	0.0021	3.50	3.50	0.2857	0.2857
63	2	460	0.0043	3.60	3.60	0.5556	0.5556
64	3	458	0.0066	4.00	4.00	0.7500	0.7500
65	5	437	0.0114	4.30	4.30	1.1628	1.1628
66	2	463	0.0043	4.70	4.70	0.4255	0.4255
67	8	551	0.0145	6.00	6.00	1.3333	1.3333
68	2	561	0.0036	6.50	6.50	0.3077	0.3077
69	7	590	0.0119	7.00	7.00	1.0000	1.0000
70	7	605	0.0116	8.10	8.10	0.8642	0.8642
71	11	616	0.0179	9.30	9.30	1.1828	1.1828
72	9	668	0.0135	11.10	11.10	0.8108	0.8108
73	15	730	0.0205	13.70	13.70	1.0949	1.0949
74	18	797	0.0226	16.60	16.60	1.0843	1.0843
75	21	817	0.0257	18.90	18.90	1.1111	1.1111
76	20	817	0.0245	20.70	20.70	0.9662	0.9662
77	32	838	0.0382	23.30	23.30	1.3734	1.3734
78	34	796	0.0427	25.40	25.40	1.3386	1.3386
79	22	741	0.0297	26.70	26.70	0.8240	0.8240
80	35	727	0.0481	29.30	29.30	1.1945	1.1945
81	34	632	0.0538	28.50	28.50	1.1930	1.1930
82	31	581	0.0534	29.20	29.20	1.0616	1.0616
83	31	503	0.0616	29.70	29.70	1.0438	1.0438
84	26	440	0.0591	30.10	30.10	0.8638	0.8638
85	32	394	0.0812	30.70	30.70	1.0423	1.0423
86	28	330	0.0848	29.00	29.00	0.9655	0.9655
87	24	308	0.0779	30.20	30.20	0.7947	0.7947
88	36	278	0.1295	29.70	29.70	1.2121	1.2121
89	27	236	0.1144	27.30	27.30	0.9890	0.9890
90	27	210	0.1286	26.20	26.20	1.0305	1.0305
91	25	168	0.1488	23.30	23.30	1.0730	1.0730
92	24	124	0.1935	19.10	19.10	1.2565	1.2565
93	28	106	0.2642	19.10	19.10	1.4660	1.4660
94	10	74	0.1351	15.10	15.10	0.6623	0.6623
95	17	62	0.2742	14.10	14.10	1.2057	1.2057
96	11	51	0.2157	12.60	12.60	0.8730	0.8730
97	9	36	0.2500	9.40	9.40	0.9574	0.9574
98	9	26	0.3462	7.30	7.30	1.2329	1.2329
99	7	22	0.3182	6.60	6.60	1.0606	1.0606
100+	12	28	0.4286	9.10	9.10	1.3187	1.3187
Total	716	21,094	0.0339	691.90	691.90	1.0348	1.0348

Bolton

**New York Fire Department Pension Fund
Service Retirees' Mortality Assumption and Experience
Liability Weighted Mortality - Men
4-Year Period Ending 2017
Proposed Rates are 91% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)		(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 54,877	0.0000	\$ 61	\$ 56	0.0000	0.0000	
42	\$ -	\$ 114,635	0.0000	\$ 139	\$ 126	0.0000	0.0000	
43	\$ -	\$ 422,265	0.0000	\$ 544	\$ 495	0.0000	0.0000	
44	\$ -	\$ 602,360	0.0000	\$ 810	\$ 737	0.0000	0.0000	
45	\$ -	\$ 1,339,646	0.0000	\$ 1,983	\$ 1,805	0.0000	0.0000	
46	\$ -	\$ 1,540,783	0.0000	\$ 2,496	\$ 2,271	0.0000	0.0000	
47	\$ -	\$ 2,301,406	0.0000	\$ 4,021	\$ 3,659	0.0000	0.0000	
48	\$ -	\$ 3,006,979	0.0000	\$ 5,571	\$ 5,069	0.0000	0.0000	
49	\$ -	\$ 4,684,535	0.0000	\$ 9,514	\$ 8,658	0.0000	0.0000	
50	\$ -	\$ 6,323,924	0.0000	\$ 13,976	\$ 12,719	0.0000	0.0000	
51	\$ -	\$ 8,920,291	0.0000	\$ 24,400	\$ 22,204	0.0000	0.0000	
52	\$ -	\$ 10,588,215	0.0000	\$ 34,419	\$ 31,322	0.0000	0.0000	
53	\$ -	\$ 12,001,108	0.0000	\$ 45,003	\$ 40,953	0.0000	0.0000	
54	\$ 114,106	\$ 15,573,708	0.0073	\$ 66,423	\$ 60,445	1.7179	1.8878	
55	\$ 64,550	\$ 21,748,453	0.0030	\$ 102,386	\$ 93,171	0.6305	0.6928	
56	\$ 42,729	\$ 28,776,082	0.0015	\$ 149,031	\$ 135,618	0.2867	0.3151	
57	\$ 159,433	\$ 34,996,932	0.0046	\$ 195,919	\$ 178,286	0.8138	0.8943	
58	\$ 161,312	\$ 37,776,170	0.0043	\$ 225,528	\$ 205,230	0.7153	0.7860	
59	\$ 46,179	\$ 36,173,279	0.0013	\$ 226,789	\$ 206,378	0.2036	0.2238	
60	\$ 47,983	\$ 33,978,505	0.0014	\$ 220,941	\$ 201,056	0.2172	0.2387	
61	\$ 162,556	\$ 32,965,201	0.0049	\$ 230,468	\$ 209,726	0.7053	0.7751	
62	\$ 46,720	\$ 31,685,550	0.0015	\$ 236,148	\$ 214,894	0.1978	0.2174	
63	\$ 104,482	\$ 30,729,715	0.0034	\$ 246,614	\$ 224,419	0.4237	0.4656	
64	\$ 164,229	\$ 29,473,866	0.0056	\$ 258,427	\$ 235,169	0.6355	0.6983	
65	\$ 227,862	\$ 27,660,777	0.0082	\$ 265,736	\$ 241,820	0.8575	0.9423	
66	\$ 133,586	\$ 29,080,076	0.0046	\$ 295,398	\$ 268,812	0.4522	0.4969	
67	\$ 395,937	\$ 33,843,296	0.0117	\$ 365,250	\$ 332,378	1.0840	1.1912	
68	\$ 87,155	\$ 34,610,876	0.0025	\$ 396,154	\$ 360,501	0.2200	0.2418	
69	\$ 302,687	\$ 35,694,255	0.0085	\$ 426,917	\$ 388,495	0.7090	0.7791	
70	\$ 310,199	\$ 35,743,001	0.0087	\$ 475,011	\$ 432,260	0.6530	0.7176	
71	\$ 492,226	\$ 35,426,734	0.0139	\$ 529,650	\$ 481,982	0.9293	1.0213	
72	\$ 394,908	\$ 37,517,227	0.0105	\$ 621,571	\$ 565,630	0.6353	0.6982	
73	\$ 699,488	\$ 40,192,302	0.0174	\$ 752,940	\$ 685,176	0.9290	1.0209	
74	\$ 774,325	\$ 43,064,242	0.0180	\$ 900,914	\$ 819,832	0.8595	0.9445	
75	\$ 1,016,458	\$ 43,217,245	0.0235	\$ 1,000,191	\$ 910,174	1.0163	1.1168	
76	\$ 801,568	\$ 42,317,041	0.0189	\$ 1,072,694	\$ 976,151	0.7472	0.8212	
77	\$ 1,560,027	\$ 42,548,389	0.0367	\$ 1,176,379	\$ 1,070,505	1.3261	1.4573	
78	\$ 1,416,672	\$ 39,446,575	0.0359	\$ 1,255,016	\$ 1,142,064	1.1288	1.2404	
79	\$ 930,434	\$ 36,236,183	0.0257	\$ 1,305,819	\$ 1,188,295	0.7125	0.7830	
80	\$ 1,381,909	\$ 34,921,607	0.0396	\$ 1,406,253	\$ 1,279,690	0.9827	1.0799	
81	\$ 1,626,465	\$ 29,975,478	0.0543	\$ 1,352,548	\$ 1,230,818	1.2025	1.3215	
82	\$ 1,229,514	\$ 27,182,058	0.0452	\$ 1,362,231	\$ 1,239,630	0.9026	0.9918	
83	\$ 1,315,333	\$ 23,591,110	0.0558	\$ 1,394,066	\$ 1,268,600	0.9435	1.0368	
84	\$ 1,039,642	\$ 20,537,016	0.0506	\$ 1,406,472	\$ 1,279,889	0.7392	0.8123	
85	\$ 1,189,326	\$ 18,117,707	0.0656	\$ 1,413,138	\$ 1,285,956	0.8416	0.9249	
86	\$ 1,066,579	\$ 14,906,088	0.0716	\$ 1,311,189	\$ 1,193,182	0.8134	0.8939	
87	\$ 956,279	\$ 13,765,000	0.0695	\$ 1,349,972	\$ 1,228,474	0.7084	0.7784	
88	\$ 1,357,026	\$ 12,136,627	0.1118	\$ 1,296,150	\$ 1,179,496	1.0470	1.1505	
89	\$ 1,076,284	\$ 10,356,099	0.1039	\$ 1,196,527	\$ 1,088,840	0.8995	0.9885	
90	\$ 952,920	\$ 8,952,739	0.1064	\$ 1,115,211	\$ 1,014,842	0.8545	0.9390	
91	\$ 901,679	\$ 7,195,867	0.1253	\$ 996,125	\$ 906,474	0.9052	0.9947	
92	\$ 861,905	\$ 5,216,744	0.1652	\$ 803,438	\$ 731,128	1.0728	1.1789	
93	\$ 989,874	\$ 4,203,646	0.2355	\$ 755,871	\$ 687,842	1.3096	1.4391	
94	\$ 308,386	\$ 2,905,045	0.1062	\$ 594,066	\$ 540,600	0.5191	0.5705	
95	\$ 648,876	\$ 2,411,244	0.2691	\$ 547,310	\$ 498,052	1.1856	1.3028	
96	\$ 339,492	\$ 1,866,592	0.1819	\$ 458,094	\$ 416,865	0.7411	0.8144	
97	\$ 262,118	\$ 1,058,946	0.2475	\$ 276,873	\$ 251,955	0.9467	1.0403	
98	\$ 215,121	\$ 581,621	0.3699	\$ 162,584	\$ 147,952	1.3231	1.4540	
99	\$ 85,846	\$ 363,269	0.2363	\$ 106,834	\$ 97,219	0.8035	0.8830	
100+	\$ 66,441	\$ 273,297	0.2431	\$ 86,452	\$ 78,671	0.7685	0.8445	
Total	\$ 28,528,826	\$ 1,182,894,504	0.0241	\$ 32,532,652	\$ 29,604,713	0.8769	0.9637	

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> <p>New York Fire Department Pension Fund Service Retirees' Mortality Assumption and Experience Men 10-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates</p> </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	10	0.0000	0.00	0.00	N/A	N/A
42	0	16	0.0000	0.00	0.00	N/A	N/A
43	0	32	0.0000	0.00	0.00	N/A	N/A
44	0	55	0.0000	0.00	0.00	N/A	N/A
45	0	86	0.0000	0.00	0.00	N/A	N/A
46	0	111	0.0000	0.00	0.00	N/A	N/A
47	0	139	0.0000	0.00	0.00	N/A	N/A
48	0	229	0.0000	0.30	0.30	0.0000	0.0000
49	1	337	0.0030	0.90	0.90	1.1111	1.1111
50	0	453	0.0000	1.20	1.20	0.0000	0.0000
51	2	567	0.0035	1.80	1.80	1.1111	1.1111
52	1	698	0.0014	2.40	2.40	0.4167	0.4167
53	1	798	0.0013	3.30	3.30	0.3030	0.3030
54	5	864	0.0058	3.90	3.90	1.2821	1.2821
55	4	992	0.0040	4.80	4.80	0.8333	0.8333
56	6	1,104	0.0054	5.90	5.90	1.0169	1.0169
57	3	1,172	0.0026	6.70	6.70	0.4478	0.4478
58	6	1,202	0.0050	7.20	7.20	0.8333	0.8333
59	5	1,199	0.0042	7.60	7.60	0.6579	0.6579
60	5	1,205	0.0041	8.10	8.10	0.6173	0.6173
61	7	1,249	0.0056	8.80	8.80	0.7955	0.7955
62	5	1,248	0.0040	9.50	9.50	0.5263	0.5263
63	9	1,292	0.0070	10.60	10.60	0.8491	0.8491
64	16	1,350	0.0119	12.30	12.30	1.3008	1.3008
65	17	1,417	0.0120	14.30	14.30	1.1888	1.1888
66	13	1,498	0.0087	16.00	16.00	0.8125	0.8125
67	15	1,616	0.0093	18.40	18.40	0.8152	0.8152
68	15	1,743	0.0086	21.40	21.40	0.7009	0.7009
69	25	1,875	0.0133	23.90	23.90	1.0460	1.0460
70	33	1,936	0.0170	27.50	27.50	1.2000	1.2000
71	37	1,998	0.0185	31.80	31.80	1.1635	1.1635
72	39	2,076	0.0188	36.60	36.60	1.0656	1.0656
73	44	2,109	0.0209	42.00	42.00	1.0476	1.0476
74	55	2,130	0.0258	47.10	47.10	1.1677	1.1677
75	65	2,066	0.0315	50.30	50.30	1.2922	1.2922
76	52	2,004	0.0259	53.50	53.50	0.9720	0.9720
77	60	1,887	0.0318	54.90	54.90	1.0929	1.0929
78	82	1,774	0.0462	59.20	59.20	1.3851	1.3851
79	63	1,619	0.0389	61.10	61.10	1.0311	1.0311
80	72	1,526	0.0472	64.30	64.30	1.1198	1.1198
81	77	1,375	0.0560	65.00	65.00	1.1846	1.1846
82	67	1,253	0.0535	65.90	65.90	1.0167	1.0167
83	83	1,147	0.0724	71.00	71.00	1.1690	1.1690
84	63	1,021	0.0617	73.20	73.20	0.8607	0.8607
85	77	917	0.0840	74.70	74.70	1.0308	1.0308
86	80	798	0.1003	73.50	73.50	1.0884	1.0884
87	83	737	0.1126	75.60	75.60	1.0979	1.0979
88	89	629	0.1415	70.10	70.10	1.2696	1.2696
89	71	530	0.1340	63.90	63.90	1.1111	1.1111
90	57	440	0.1295	57.20	57.20	0.9965	0.9965
91	62	377	0.1645	54.50	54.50	1.1376	1.1376
92	60	319	0.1881	51.60	51.60	1.1628	1.1628
93	54	265	0.2038	50.00	50.00	1.0800	1.0800
94	36	210	0.1714	45.20	45.20	0.7965	0.7965
95	46	173	0.2659	41.30	41.30	1.1138	1.1138
96	28	128	0.2188	33.00	33.00	0.8485	0.8485
97	20	98	0.2041	26.80	26.80	0.7463	0.7463
98	24	70	0.3429	20.30	20.30	1.1823	1.1823
99	16	45	0.3556	13.60	13.60	1.1765	1.1765
100+	22	52	0.4231	17.10	17.10	1.2865	1.2865
Total	1,878	56,266	0.0334	1,761.10	1,761.10	1.0664	1.0664

Bolton

**New York Fire Department Pension Fund
Service Retirees' Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	200	6,251	183.10	1.0923	0.0320	0.0293
2009	188	6,093	183.30	1.0256	0.0309	0.0301
2010	191	5,940	180.20	1.0599	0.0322	0.0303
2011	204	5,791	177.20	1.1512	0.0352	0.0306
2012	179	5,668	175.60	1.0194	0.0316	0.0310
2013	219	5,533	175.40	1.2486	0.0396	0.0317
2014	156	5,385	172.40	0.9049	0.0290	0.0320
2015	187	5,342	175.20	1.0674	0.0350	0.0328
2016	189	5,249	172.30	1.0969	0.0360	0.0328
2017	185	5,148	172.00	1.0756	0.0359	0.0334
Total	1,898	56,400	1,766.70	1.0743	0.0337	0.0313

*The total exposures and actuals shown above include experience at all age ranges (ie ages under 41)

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #003366; color: white; padding: 5px; font-weight: bold; font-size: 1.2em;">Bolton</div> <div style="text-align: right;"> New York Fire Department Pension Fund Disability Retirees' Mortality Assumption and Experience Mortality By Lives - Men 4-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates </div> </div>							
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8) = (2)÷(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	0	190	0.0000	0.20	0.20	0.0000	0.0000
42	0	263	0.0000	0.30	0.30	0.0000	0.0000
43	2	341	0.0059	0.40	0.40	5.0000	5.0000
44	2	389	0.0051	0.70	0.70	2.8571	2.8571
45	0	468	0.0000	0.80	0.80	0.0000	0.0000
46	0	495	0.0000	0.90	0.90	0.0000	0.0000
47	1	547	0.0018	1.10	1.10	0.9091	0.9091
48	0	640	0.0000	1.30	1.30	0.0000	0.0000
49	2	748	0.0027	1.90	1.90	1.0526	1.0526
50	2	879	0.0023	2.30	2.30	0.8696	0.8696
51	2	991	0.0020	3.20	3.20	0.6250	0.6250
52	2	1,055	0.0019	4.00	4.00	0.5000	0.5000
53	5	1,089	0.0046	4.90	4.90	1.0204	1.0204
54	0	1,166	0.0000	5.90	5.90	0.0000	0.0000
55	3	1,310	0.0023	7.60	7.60	0.3947	0.3947
56	13	1,462	0.0089	9.20	9.20	1.4130	1.4130
57	3	1,621	0.0019	11.30	11.30	0.2655	0.2655
58	10	1,639	0.0061	12.00	12.00	0.8333	0.8333
59	11	1,568	0.0070	12.30	12.30	0.8943	0.8943
60	11	1,424	0.0077	11.80	11.80	0.9322	0.9322
61	9	1,237	0.0073	11.10	11.10	0.8108	0.8108
62	6	1,104	0.0054	10.50	10.50	0.5714	0.5714
63	7	942	0.0074	9.70	9.70	0.7216	0.7216
64	10	836	0.0120	9.30	9.30	1.0753	1.0753
65	9	777	0.0116	9.20	9.20	0.9783	0.9783
66	15	753	0.0199	9.70	9.70	1.5464	1.5464
67	9	745	0.0121	10.00	10.00	0.9000	0.9000
68	4	752	0.0053	11.20	11.20	0.3571	0.3571
69	10	719	0.0139	11.90	11.90	0.8403	0.8403
70	15	717	0.0209	13.00	13.00	1.1538	1.1538
71	8	764	0.0105	15.20	15.20	0.5263	0.5263
72	16	789	0.0203	17.10	17.10	0.9357	0.9357
73	7	857	0.0082	20.20	20.20	0.3465	0.3465
74	22	902	0.0244	22.70	22.70	0.9692	0.9692
75	23	919	0.0250	25.00	25.00	0.9200	0.9200
76	32	961	0.0333	29.70	29.70	1.0774	1.0774
77	33	967	0.0341	33.40	33.40	0.9880	0.9880
78	37	960	0.0385	36.60	36.60	1.0109	1.0109
79	48	895	0.0536	37.40	37.40	1.2834	1.2834
80	44	806	0.0546	36.90	36.90	1.1924	1.1924
81	40	733	0.0546	39.20	39.20	1.0204	1.0204
82	32	666	0.0480	40.90	40.90	0.7824	0.7824
83	68	599	0.1135	41.40	41.40	1.6425	1.6425
84	38	486	0.0782	37.30	37.30	1.0188	1.0188
85	42	401	0.1047	34.00	34.00	1.2353	1.2353
86	34	349	0.0974	32.40	32.40	1.0494	1.0494
87	42	313	0.1342	31.50	31.50	1.3333	1.3333
88	30	271	0.1107	29.30	29.30	1.0239	1.0239
89	26	238	0.1092	27.80	27.80	0.9353	0.9353
90	29	188	0.1543	23.70	23.70	1.2236	1.2236
91	28	142	0.1972	21.20	21.20	1.3208	1.3208
92	21	118	0.1780	20.30	20.30	1.0345	1.0345
93	28	93	0.3011	18.10	18.10	1.5470	1.5470
94	12	63	0.1905	13.50	13.50	0.8889	0.8889
95	10	42	0.2381	9.80	9.80	1.0204	1.0204
96	4	27	0.1481	6.80	6.80	0.5882	0.5882
97	3	22	0.1364	6.00	6.00	0.5000	0.5000
98	11	18	0.6111	5.00	5.00	2.2000	2.2000
99	3	6	0.5000	1.80	1.80	1.6667	1.6667
100+	3	4	0.7500	1.20	1.20	2.5000	2.5000
Total	937	40,466	0.0232	913.10	913.10	1.0262	1.0262

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Fire experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton		New York Fire Department Pension Fund Disability Retirees' Mortality Assumption and Experience Liability Weighted Mortality - Men 4-Year Period Ending 2017						
		Proposed Rates are 83% of Current Rates to age 85, Above 85 Are Same As Ordinary Retirees						
(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7) = (2)÷(5)	(8)=(2)÷(6)	
Age	Pension Amount of Actual Deaths	Total Pension Amounts	Actual Rate	Expected Reduction in Pension Amount		Actual/Expected		
				Current Assumption	Proposed Assumption	Current	Proposed	
41	\$ -	\$ 15,750,205	0.0000	\$ 27,153	\$ 22,537	0.0000	0.0000	
42	\$ -	\$ 22,162,089	0.0000	\$ 39,440	\$ 32,736	0.0000	0.0000	
43	\$ 111,787	\$ 28,687,755	0.0039	\$ 52,612	\$ 43,668	2.1248	2.5599	
44	\$ 132,893	\$ 33,128,953	0.0040	\$ 63,132	\$ 52,400	2.1050	2.5361	
45	\$ -	\$ 40,275,585	0.0000	\$ 80,629	\$ 66,922	0.0000	0.0000	
46	\$ -	\$ 42,093,580	0.0000	\$ 89,102	\$ 73,954	0.0000	0.0000	
47	\$ 80,462	\$ 47,302,375	0.0017	\$ 106,311	\$ 88,238	0.7569	0.9119	
48	\$ -	\$ 56,089,590	0.0000	\$ 134,601	\$ 111,719	0.0000	0.0000	
49	\$ 148,936	\$ 66,247,999	0.0022	\$ 169,925	\$ 141,037	0.8765	1.0560	
50	\$ 132,623	\$ 77,757,535	0.0017	\$ 214,265	\$ 177,840	0.6190	0.7457	
51	\$ 124,135	\$ 89,124,241	0.0014	\$ 293,944	\$ 243,974	0.4223	0.5088	
52	\$ 241,680	\$ 95,278,476	0.0025	\$ 369,252	\$ 306,479	0.6545	0.7886	
53	\$ 356,105	\$ 100,153,500	0.0036	\$ 448,129	\$ 371,947	0.7946	0.9574	
54	\$ -	\$ 107,248,808	0.0000	\$ 547,853	\$ 454,718	0.0000	0.0000	
55	\$ 162,471	\$ 119,677,619	0.0014	\$ 685,990	\$ 569,372	0.2368	0.2854	
56	\$ 627,879	\$ 132,374,630	0.0047	\$ 838,014	\$ 695,551	0.7492	0.9027	
57	\$ 139,079	\$ 145,407,848	0.0010	\$ 1,002,593	\$ 832,152	0.1387	0.1671	
58	\$ 767,995	\$ 146,463,982	0.0052	\$ 1,084,743	\$ 900,337	0.7080	0.8530	
59	\$ 784,345	\$ 139,071,862	0.0056	\$ 1,093,549	\$ 907,646	0.7172	0.8642	
60	\$ 975,952	\$ 124,250,805	0.0079	\$ 1,036,532	\$ 860,322	0.9416	1.1344	
61	\$ 536,448	\$ 108,505,859	0.0049	\$ 967,469	\$ 802,999	0.5545	0.6681	
62	\$ 324,619	\$ 96,621,896	0.0034	\$ 930,580	\$ 772,381	0.3488	0.4203	
63	\$ 447,536	\$ 79,792,296	0.0056	\$ 829,483	\$ 688,471	0.5395	0.6500	
64	\$ 523,721	\$ 67,993,743	0.0077	\$ 763,500	\$ 633,705	0.6859	0.8264	
65	\$ 597,887	\$ 61,153,543	0.0098	\$ 732,705	\$ 608,145	0.8160	0.9831	
66	\$ 737,211	\$ 57,836,867	0.0127	\$ 741,230	\$ 615,221	0.9946	1.1983	
67	\$ 485,720	\$ 56,024,002	0.0087	\$ 755,871	\$ 627,373	0.6426	0.7742	
68	\$ 241,403	\$ 55,117,309	0.0044	\$ 831,065	\$ 689,784	0.2905	0.3500	
69	\$ 500,379	\$ 51,295,280	0.0098	\$ 853,459	\$ 708,371	0.5863	0.7064	
70	\$ 651,462	\$ 49,374,848	0.0132	\$ 891,023	\$ 739,549	0.7311	0.8809	
71	\$ 597,410	\$ 50,247,536	0.0119	\$ 1,004,743	\$ 833,937	0.5946	0.7164	
72	\$ 688,026	\$ 50,105,551	0.0137	\$ 1,093,331	\$ 907,464	0.6293	0.7582	
73	\$ 230,210	\$ 52,733,663	0.0044	\$ 1,241,714	\$ 1,030,622	0.1854	0.2234	
74	\$ 862,168	\$ 53,241,264	0.0162	\$ 1,342,258	\$ 1,114,074	0.6423	0.7739	
75	\$ 1,187,631	\$ 53,213,348	0.0223	\$ 1,446,916	\$ 1,200,940	0.8208	0.9889	
76	\$ 1,436,142	\$ 53,528,430	0.0268	\$ 1,653,849	\$ 1,372,695	0.8684	1.0462	
77	\$ 1,578,416	\$ 52,382,469	0.0301	\$ 1,810,049	\$ 1,502,341	0.8720	1.0506	
78	\$ 1,497,029	\$ 50,690,902	0.0295	\$ 1,933,033	\$ 1,604,418	0.7744	0.9331	
79	\$ 2,050,152	\$ 45,148,970	0.0454	\$ 1,883,551	\$ 1,563,347	1.0885	1.3114	
80	\$ 1,855,070	\$ 39,886,402	0.0465	\$ 1,825,180	\$ 1,514,900	1.0164	1.2245	
81	\$ 1,638,909	\$ 35,155,650	0.0466	\$ 1,879,946	\$ 1,560,355	0.8718	1.0503	
82	\$ 1,383,399	\$ 31,952,593	0.0433	\$ 1,958,272	\$ 1,625,366	0.7064	0.8511	
83	\$ 2,700,558	\$ 28,509,438	0.0947	\$ 1,970,607	\$ 1,635,604	1.3704	1.6511	
84	\$ 1,503,791	\$ 23,425,800	0.0642	\$ 1,801,638	\$ 1,495,359	0.8347	1.0056	
85	\$ 1,776,213	\$ 19,308,047	0.0920	\$ 1,638,540	\$ 1,368,696	1.0840	1.2977	
86	\$ 1,579,720	\$ 16,644,900	0.0949	\$ 1,542,498	\$ 1,332,788	1.0241	1.1853	
87	\$ 1,669,667	\$ 14,268,475	0.1170	\$ 1,435,459	\$ 1,276,156	1.1632	1.3084	
88	\$ 1,215,392	\$ 12,233,280	0.0994	\$ 1,327,799	\$ 1,188,758	0.9153	1.0224	
89	\$ 955,385	\$ 10,691,117	0.0894	\$ 1,248,838	\$ 1,121,639	0.7650	0.8518	
90	\$ 1,214,164	\$ 8,455,272	0.1436	\$ 1,064,300	\$ 956,906	1.1408	1.2688	
91	\$ 935,894	\$ 6,445,176	0.1452	\$ 962,901	\$ 813,088	0.9720	1.1510	
92	\$ 937,160	\$ 5,385,007	0.1740	\$ 926,834	\$ 756,696	1.0111	1.2385	
93	\$ 1,115,365	\$ 4,015,476	0.2778	\$ 777,443	\$ 656,990	1.4347	1.6977	
94	\$ 389,445	\$ 2,505,565	0.1554	\$ 535,766	\$ 464,510	0.7269	0.8384	
95	\$ 376,484	\$ 1,592,444	0.2364	\$ 371,157	\$ 327,682	1.0144	1.1489	
96	\$ 121,376	\$ 1,038,117	0.1169	\$ 260,282	\$ 230,722	0.4663	0.5261	
97	\$ 109,120	\$ 784,707	0.1391	\$ 210,873	\$ 187,641	0.5175	0.5815	
98	\$ 172,693	\$ 464,991	0.3714	\$ 131,164	\$ 118,327	1.3166	1.4595	
99	\$ 116,574	\$ 240,478	0.4848	\$ 71,227	\$ 64,459	1.6366	1.8085	
100+	\$ 124,084	\$ 163,234	0.7602	\$ 50,686	\$ 46,124	2.4481	2.6902	
Total	\$ 41,850,375	\$ 3,036,721,382	0.0138	\$ 52,075,009	\$ 43,712,154	0.8037	0.9574	

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q's as of 2004 were provided by the Office of The Actuary based on Fire experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.

Bolton		New York Fire Department Pension Fund Disability Retirees' Mortality Assumption and Experience Men 10-Year Period Ending 2017 Proposed Rates are 100% of the Current Rates					
		(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)
Age	Actual Deaths	Total Exposed	Actual Rate	Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current	Proposed
41	2	590	0.0034	0.80	0.80	2.5000	2.5000
42	1	717	0.0014	0.90	0.90	1.1111	1.1111
43	2	895	0.0022	1.60	1.60	1.2500	1.2500
44	3	1,115	0.0027	2.30	2.30	1.3043	1.3043
45	4	1,299	0.0031	2.70	2.70	1.4815	1.4815
46	2	1,437	0.0014	3.20	3.20	0.6250	0.6250
47	3	1,614	0.0019	3.80	3.80	0.7895	0.7895
48	4	1,867	0.0021	4.60	4.60	0.8696	0.8696
49	7	2,147	0.0033	5.90	5.90	1.1864	1.1864
50	3	2,425	0.0012	6.90	6.90	0.4348	0.4348
51	13	2,741	0.0047	9.70	9.70	1.3402	1.3402
52	10	2,948	0.0034	12.10	12.10	0.8264	0.8264
53	12	3,113	0.0039	14.50	14.50	0.8276	0.8276
54	9	3,167	0.0028	16.70	16.70	0.5389	0.5389
55	9	3,196	0.0028	19.00	19.00	0.4737	0.4737
56	21	3,207	0.0065	20.70	20.70	1.0145	1.0145
57	13	3,159	0.0041	22.10	22.10	0.5882	0.5882
58	18	3,049	0.0059	22.60	22.60	0.7965	0.7965
59	25	2,845	0.0088	22.40	22.40	1.1161	1.1161
60	17	2,625	0.0065	21.90	21.90	0.7763	0.7763
61	16	2,403	0.0067	21.70	21.70	0.7373	0.7373
62	15	2,261	0.0066	22.00	22.00	0.6818	0.6818
63	19	2,062	0.0092	21.60	21.60	0.8796	0.8796
64	22	1,984	0.0111	22.80	22.80	0.9649	0.9649
65	25	1,997	0.0125	24.70	24.70	1.0121	1.0121
66	30	2,009	0.0149	27.00	27.00	1.1111	1.1111
67	31	2,033	0.0152	28.80	28.80	1.0764	1.0764
68	27	2,095	0.0129	33.10	33.10	0.8157	0.8157
69	33	2,193	0.0150	38.70	38.70	0.8527	0.8527
70	40	2,257	0.0177	43.50	43.50	0.9195	0.9195
71	34	2,315	0.0147	49.30	49.30	0.6897	0.6897
72	44	2,386	0.0184	55.20	55.20	0.7971	0.7971
73	32	2,442	0.0131	61.00	61.00	0.5246	0.5246
74	67	2,456	0.0273	65.40	65.40	1.0245	1.0245
75	77	2,387	0.0323	68.60	68.60	1.1224	1.1224
76	86	2,332	0.0369	75.80	75.80	1.1346	1.1346
77	75	2,208	0.0340	80.20	80.20	0.9352	0.9352
78	78	2,049	0.0381	81.80	81.80	0.9535	0.9535
79	85	1,861	0.0457	81.10	81.10	1.0481	1.0481
80	96	1,729	0.0555	82.90	82.90	1.1580	1.1580
81	88	1,566	0.0562	87.50	87.50	1.0057	1.0057
82	82	1,410	0.0582	90.40	90.40	0.9071	0.9071
83	114	1,270	0.0898	91.80	91.80	1.2418	1.2418
84	91	1,100	0.0827	88.40	88.40	1.0294	1.0294
85	101	944	0.1070	83.80	83.80	1.2053	1.2053
86	84	807	0.1041	78.20	78.20	1.0742	1.0742
87	93	704	0.1321	73.90	73.90	1.2585	1.2585
88	79	598	0.1321	67.50	67.50	1.1704	1.1704
89	65	508	0.1280	61.90	61.90	1.0501	1.0501
90	57	408	0.1397	53.50	53.50	1.0654	1.0654
91	64	330	0.1939	51.40	51.40	1.2451	1.2451
92	61	262	0.2328	46.90	46.90	1.3006	1.3006
93	50	186	0.2688	37.60	37.60	1.3298	1.3298
94	27	133	0.2030	29.80	29.80	0.9060	0.9060
95	29	98	0.2959	23.90	23.90	1.2134	1.2134
96	14	61	0.2295	16.10	16.10	0.8696	0.8696
97	11	43	0.2558	11.90	11.90	0.9244	0.9244
98	15	27	0.5556	7.70	7.70	1.9481	1.9481
99	6	10	0.6000	3.00	3.00	2.0000	2.0000
100+	5	8	0.6250	2.50	2.50	2.0000	2.0000
Total	2,246	98,088	0.0229	2,207.30	2,207.30	1.0175	1.0175

* The q_x are not displayed because of the generational mortality assumption, which changes the rates by year in addition to age. Base q 's as of 2004 were provided by the Office of The Actuary based on Fire experience and the MP2015 mortality improvement table was used to project the q_x from 2004 to the exposure year.



**New York Fire Department Pension Fund
Disability Retirees' Mortality Assumption and Experience
Men and Women Eligible for WTC Benefits
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	212	9,489	211.60	1.0019	0.0223	0.0223
2009	222	9,664	214.40	1.0354	0.0230	0.0222
2010	205	9,780	216.40	0.9473	0.0210	0.0221
2011	251	9,911	218.00	1.1514	0.0253	0.0220
2012	217	9,994	218.90	0.9913	0.0217	0.0219
2013	210	10,098	219.90	0.9550	0.0208	0.0218
2014	202	10,175	223.20	0.9050	0.0199	0.0219
2015	245	10,265	228.30	1.0731	0.0239	0.0222
2016	255	10,344	229.70	1.1101	0.0247	0.0222
2017	238	10,436	232.00	1.0259	0.0228	0.0222
Total	2,257	100,156	2,212.40	1.0202	0.0225	0.0221

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 41)

Bolton

**New York Fire Department Pension Fund
Active Ordinary Mortality Assumption and Experience
Men and Women
4-Year Period Ending 2017**

Proposed Rates are 50% of the Current Rates for males and 50% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0004	0.0002	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0004	0.0002	0.00	0.00	0.0000	0.0000
22	0	42	0.0000	0.0004	0.0002	0.02	0.01	0.0000	0.0000
23	0	149	0.0000	0.0004	0.0002	0.06	0.03	0.0000	0.0000
24	0	237	0.0000	0.0004	0.0002	0.09	0.05	0.0000	0.0000
25	0	304	0.0000	0.0004	0.0002	0.12	0.06	0.0000	0.0000
26	0	389	0.0000	0.0004	0.0002	0.16	0.08	0.0000	0.0000
27	0	535	0.0000	0.0004	0.0002	0.21	0.11	0.0000	0.0000
28	0	660	0.0000	0.0004	0.0002	0.26	0.13	0.0000	0.0000
29	0	875	0.0000	0.0004	0.0002	0.35	0.18	0.0000	0.0000
30	1	1,127	0.0009	0.0004	0.0002	0.45	0.23	2.2183	4.4366
31	1	1,388	0.0007	0.0004	0.0002	0.56	0.28	1.8012	3.6023
32	1	1,548	0.0006	0.0004	0.0002	0.62	0.31	1.6150	3.2300
33	0	1,647	0.0000	0.0004	0.0002	0.66	0.33	0.0000	0.0000
34	0	1,692	0.0000	0.0004	0.0002	0.68	0.34	0.0000	0.0000
35	0	1,807	0.0000	0.0004	0.0002	0.72	0.36	0.0000	0.0000
36	0	1,939	0.0000	0.0004	0.0002	0.81	0.41	0.0000	0.0000
37	1	1,959	0.0005	0.0004	0.0002	0.86	0.43	1.1601	2.3203
38	0	1,900	0.0000	0.0005	0.0002	0.87	0.44	0.0000	0.0000
39	2	1,841	0.0011	0.0005	0.0002	0.88	0.44	2.2633	4.5265
40	0	1,747	0.0000	0.0005	0.0003	0.87	0.44	0.0000	0.0000
41	0	1,688	0.0000	0.0006	0.0003	1.01	0.51	0.0000	0.0000
42	0	1,686	0.0000	0.0007	0.0004	1.18	0.59	0.0000	0.0000
43	0	1,610	0.0000	0.0008	0.0004	1.29	0.64	0.0000	0.0000
44	0	1,529	0.0000	0.0009	0.0005	1.38	0.69	0.0000	0.0000
45	0	1,383	0.0000	0.0010	0.0005	1.38	0.69	0.0000	0.0000
46	0	1,317	0.0000	0.0011	0.0006	1.45	0.72	0.0000	0.0000
47	0	1,196	0.0000	0.0012	0.0006	1.44	0.72	0.0000	0.0000
48	1	1,167	0.0009	0.0013	0.0007	1.52	0.76	0.6592	1.3183
49	0	1,181	0.0000	0.0014	0.0007	1.65	0.83	0.0000	0.0000
50	0	1,155	0.0000	0.0015	0.0008	1.73	0.87	0.0000	0.0000
51	0	1,068	0.0000	0.0016	0.0008	1.71	0.85	0.0000	0.0000
52	0	942	0.0000	0.0017	0.0009	1.60	0.80	0.0000	0.0000
53	0	795	0.0000	0.0018	0.0009	1.43	0.72	0.0000	0.0000
54	0	672	0.0000	0.0019	0.0010	1.28	0.64	0.0000	0.0000
55	0	610	0.0000	0.0020	0.0010	1.22	0.61	0.0000	0.0000
56	1	539	0.0019	0.0022	0.0011	1.19	0.59	0.8433	1.6866
57	0	468	0.0000	0.0024	0.0012	1.12	0.56	0.0000	0.0000
58	0	390	0.0000	0.0026	0.0013	1.01	0.51	0.0000	0.0000
59	0	307	0.0000	0.0028	0.0014	0.86	0.43	0.0000	0.0000
60	0	245	0.0000	0.0030	0.0015	0.74	0.37	0.0000	0.0000
61	0	189	0.0000	0.0032	0.0016	0.60	0.30	0.0000	0.0000
62	0	127	0.0000	0.0034	0.0017	0.43	0.22	0.0000	0.0000
63	0	81	0.0000	0.0034	0.0017	0.28	0.14	0.0000	0.0000
64	0	55	0.0000	0.0034	0.0017	0.19	0.09	0.0000	0.0000
65	0	29	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	8	42,232	0.0002			36.95	18.48	0.2165	0.4330

Bolton

New York Fire Department Pension Fund
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017

Proposed Rates are 50% of the Current Rates for males and 50% of the Current Rates for females

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	1	0.0000	0.0004	0.0002	0.00	0.00	0.0000	0.0000
21	0	4	0.0000	0.0004	0.0002	0.00	0.00	0.0000	0.0000
22	0	63	0.0000	0.0004	0.0002	0.03	0.01	0.0000	0.0000
23	0	339	0.0000	0.0004	0.0002	0.14	0.07	0.0000	0.0000
24	0	710	0.0000	0.0004	0.0002	0.28	0.14	0.0000	0.0000
25	0	1,109	0.0000	0.0004	0.0002	0.44	0.22	0.0000	0.0000
26	0	1,546	0.0000	0.0004	0.0002	0.62	0.31	0.0000	0.0000
27	1	2,106	0.0005	0.0004	0.0002	0.84	0.42	1.1871	2.3742
28	0	2,639	0.0000	0.0004	0.0002	1.06	0.53	0.0000	0.0000
29	1	3,179	0.0003	0.0004	0.0002	1.27	0.64	0.7864	1.5728
30	2	3,684	0.0005	0.0004	0.0002	1.47	0.74	1.3572	2.7144
31	2	4,122	0.0005	0.0004	0.0002	1.65	0.82	1.2130	2.4260
32	3	4,368	0.0007	0.0004	0.0002	1.75	0.87	1.7170	3.4341
33	2	4,495	0.0004	0.0004	0.0002	1.80	0.90	1.1123	2.2247
34	0	4,566	0.0000	0.0004	0.0002	1.83	0.91	0.0000	0.0000
35	1	4,620	0.0002	0.0004	0.0002	1.85	0.92	0.5411	1.0823
36	1	4,703	0.0002	0.0004	0.0002	1.98	0.99	0.5063	1.0125
37	1	4,684	0.0002	0.0004	0.0002	2.06	1.03	0.4852	0.9704
38	1	4,590	0.0002	0.0005	0.0002	2.11	1.06	0.4736	0.9472
39	3	4,410	0.0007	0.0005	0.0002	2.12	1.06	1.4172	2.8345
40	1	4,249	0.0002	0.0005	0.0003	2.12	1.06	0.4707	0.9414
41	1	4,074	0.0002	0.0006	0.0003	2.44	1.22	0.4091	0.8182
42	2	4,028	0.0005	0.0007	0.0004	2.82	1.41	0.7093	1.4186
43	2	3,910	0.0005	0.0008	0.0004	3.13	1.56	0.6394	1.2788
44	0	3,785	0.0000	0.0009	0.0005	3.41	1.70	0.0000	0.0000
45	1	3,607	0.0003	0.0010	0.0005	3.61	1.80	0.2772	0.5545
46	1	3,421	0.0003	0.0011	0.0006	3.76	1.88	0.2657	0.5315
47	1	3,184	0.0003	0.0012	0.0006	3.82	1.91	0.2617	0.5235
48	3	3,014	0.0010	0.0013	0.0007	3.92	1.96	0.7657	1.5313
49	2	2,890	0.0007	0.0014	0.0007	4.05	2.02	0.4943	0.9886
50	0	2,702	0.0000	0.0015	0.0008	4.05	2.03	0.0000	0.0000
51	1	2,493	0.0004	0.0016	0.0008	3.99	1.99	0.2507	0.5014
52	0	2,214	0.0000	0.0017	0.0009	3.76	1.88	0.0000	0.0000
53	2	1,896	0.0011	0.0018	0.0009	3.41	1.71	0.5860	1.1721
54	1	1,622	0.0006	0.0019	0.0010	3.08	1.54	0.3245	0.6490
55	0	1,359	0.0000	0.0020	0.0010	2.72	1.36	0.0000	0.0000
56	1	1,116	0.0009	0.0022	0.0011	2.46	1.23	0.4073	0.8146
57	0	905	0.0000	0.0024	0.0012	2.17	1.09	0.0000	0.0000
58	0	692	0.0000	0.0026	0.0013	1.80	0.90	0.0000	0.0000
59	0	518	0.0000	0.0028	0.0014	1.45	0.73	0.0000	0.0000
60	0	398	0.0000	0.0030	0.0015	1.19	0.60	0.0000	0.0000
61	0	300	0.0000	0.0032	0.0016	0.96	0.48	0.0000	0.0000
62	0	195	0.0000	0.0034	0.0017	0.66	0.33	0.0000	0.0000
63	0	131	0.0000	0.0034	0.0017	0.45	0.22	0.0000	0.0000
64	0	90	0.0000	0.0034	0.0017	0.31	0.15	0.0000	0.0000
65	0	44	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	37	108,799	0.0003			88.83	44.41	0.4165	0.8331

Bolton

**New York Fire Department Pension Fund
Active Ordinary Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	5	11,529	8.34	0.5995	0.0004	0.0007
2009	7	11,585	8.58	0.8159	0.0006	0.0007
2010	4	11,459	8.64	0.4630	0.0003	0.0008
2011	6	11,079	8.67	0.6920	0.0005	0.0008
2012	7	10,649	8.62	0.8121	0.0007	0.0008
2013	0	10,266	8.70	0.0000	0.0000	0.0008
2014	1	10,183	8.84	0.1131	0.0001	0.0009
2015	4	10,319	9.09	0.4400	0.0004	0.0009
2016	1	10,780	9.39	0.1065	0.0001	0.0009
2017	2	10,951	9.50	0.2105	0.0002	0.0009
Total	37	108,800	88.37	0.4187	0.0003	0.0008

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75)



New York Fire Department Pension Fund
Active Accidental Mortality Assumption and Experience
Men and Women
4-Year Period Ending 2017
Proposed Rates are 50% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0002	0.0001	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0002	0.0001	0.00	0.00	0.0000	0.0000
22	0	42	0.0000	0.0002	0.0001	0.01	0.00	0.0000	0.0000
23	0	149	0.0000	0.0002	0.0001	0.03	0.01	0.0000	0.0000
24	0	237	0.0000	0.0002	0.0001	0.05	0.02	0.0000	0.0000
25	0	304	0.0000	0.0002	0.0001	0.06	0.03	0.0000	0.0000
26	0	389	0.0000	0.0002	0.0001	0.08	0.04	0.0000	0.0000
27	0	535	0.0000	0.0002	0.0001	0.11	0.05	0.0000	0.0000
28	0	660	0.0000	0.0002	0.0001	0.13	0.07	0.0000	0.0000
29	0	875	0.0000	0.0002	0.0001	0.18	0.09	0.0000	0.0000
30	0	1,127	0.0000	0.0002	0.0001	0.23	0.11	0.0000	0.0000
31	0	1,388	0.0000	0.0002	0.0001	0.28	0.14	0.0000	0.0000
32	0	1,548	0.0000	0.0002	0.0001	0.31	0.15	0.0000	0.0000
33	0	1,647	0.0000	0.0002	0.0001	0.33	0.16	0.0000	0.0000
34	0	1,692	0.0000	0.0002	0.0001	0.34	0.17	0.0000	0.0000
35	0	1,807	0.0000	0.0002	0.0001	0.36	0.18	0.0000	0.0000
36	0	1,939	0.0000	0.0002	0.0001	0.39	0.19	0.0000	0.0000
37	0	1,959	0.0000	0.0002	0.0001	0.39	0.20	0.0000	0.0000
38	1	1,900	0.0005	0.0002	0.0001	0.38	0.19	2.6316	5.2632
39	0	1,841	0.0000	0.0002	0.0001	0.37	0.18	0.0000	0.0000
40	0	1,747	0.0000	0.0002	0.0001	0.35	0.17	0.0000	0.0000
41	1	1,688	0.0006	0.0003	0.0001	0.44	0.22	2.2785	4.5571
42	2	1,686	0.0012	0.0003	0.0002	0.54	0.27	3.7070	7.4140
43	1	1,610	0.0006	0.0004	0.0002	0.61	0.31	1.6345	3.2690
44	1	1,529	0.0007	0.0004	0.0002	0.67	0.34	1.4864	2.9728
45	0	1,383	0.0000	0.0005	0.0003	0.69	0.35	0.0000	0.0000
46	0	1,317	0.0000	0.0006	0.0003	0.79	0.40	0.0000	0.0000
47	0	1,196	0.0000	0.0007	0.0004	0.84	0.42	0.0000	0.0000
48	0	1,167	0.0000	0.0008	0.0004	0.93	0.47	0.0000	0.0000
49	0	1,181	0.0000	0.0009	0.0005	1.06	0.53	0.0000	0.0000
50	0	1,155	0.0000	0.0010	0.0005	1.16	0.58	0.0000	0.0000
51	0	1,068	0.0000	0.0012	0.0006	1.28	0.64	0.0000	0.0000
52	0	942	0.0000	0.0014	0.0007	1.32	0.66	0.0000	0.0000
53	0	795	0.0000	0.0016	0.0008	1.27	0.64	0.0000	0.0000
54	0	672	0.0000	0.0018	0.0009	1.21	0.60	0.0000	0.0000
55	0	610	0.0000	0.0020	0.0010	1.22	0.61	0.0000	0.0000
56	0	539	0.0000	0.0022	0.0011	1.19	0.59	0.0000	0.0000
57	0	468	0.0000	0.0024	0.0012	1.12	0.56	0.0000	0.0000
58	0	390	0.0000	0.0026	0.0013	1.01	0.51	0.0000	0.0000
59	0	307	0.0000	0.0028	0.0014	0.86	0.43	0.0000	0.0000
60	0	245	0.0000	0.0030	0.0015	0.74	0.37	0.0000	0.0000
61	0	189	0.0000	0.0040	0.0020	0.76	0.38	0.0000	0.0000
62	0	127	0.0000	0.0050	0.0025	0.64	0.32	0.0000	0.0000
63	0	81	0.0000	0.0050	0.0025	0.41	0.20	0.0000	0.0000
64	0	55	0.0000	0.0050	0.0025	0.28	0.14	0.0000	0.0000
65	0	29	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	6	42,232	0.0001			25.38	12.69	0.2364	0.4728

Bolton

**New York Fire Department Pension Fund
Active Accidental Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017
Proposed Rates are 50% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Deaths	Total Exposed	Actual Rate	Assumed Probability		Expected Deaths		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	1	0.0000	0.0002	0.0001	0.00	0.00	0.0000	0.0000
21	0	4	0.0000	0.0002	0.0001	0.00	0.00	0.0000	0.0000
22	0	63	0.0000	0.0002	0.0001	0.01	0.01	0.0000	0.0000
23	0	339	0.0000	0.0002	0.0001	0.07	0.03	0.0000	0.0000
24	0	710	0.0000	0.0002	0.0001	0.14	0.07	0.0000	0.0000
25	0	1,109	0.0000	0.0002	0.0001	0.22	0.11	0.0000	0.0000
26	0	1,546	0.0000	0.0002	0.0001	0.31	0.15	0.0000	0.0000
27	0	2,106	0.0000	0.0002	0.0001	0.42	0.21	0.0000	0.0000
28	0	2,639	0.0000	0.0002	0.0001	0.53	0.26	0.0000	0.0000
29	0	3,179	0.0000	0.0002	0.0001	0.64	0.32	0.0000	0.0000
30	0	3,684	0.0000	0.0002	0.0001	0.74	0.37	0.0000	0.0000
31	0	4,122	0.0000	0.0002	0.0001	0.82	0.41	0.0000	0.0000
32	0	4,368	0.0000	0.0002	0.0001	0.87	0.44	0.0000	0.0000
33	0	4,495	0.0000	0.0002	0.0001	0.90	0.45	0.0000	0.0000
34	1	4,566	0.0002	0.0002	0.0001	0.91	0.46	1.0951	2.1901
35	1	4,620	0.0002	0.0002	0.0001	0.92	0.46	1.0823	2.1645
36	0	4,703	0.0000	0.0002	0.0001	0.94	0.47	0.0000	0.0000
37	1	4,684	0.0002	0.0002	0.0001	0.94	0.47	1.0675	2.1349
38	1	4,590	0.0002	0.0002	0.0001	0.92	0.46	1.0893	2.1786
39	0	4,410	0.0000	0.0002	0.0001	0.88	0.44	0.0000	0.0000
40	1	4,249	0.0002	0.0002	0.0001	0.85	0.42	1.1767	2.3535
41	1	4,074	0.0002	0.0003	0.0001	1.06	0.53	0.9441	1.8881
42	3	4,028	0.0007	0.0003	0.0002	1.29	0.64	2.3275	4.6549
43	1	3,910	0.0003	0.0004	0.0002	1.49	0.74	0.6730	1.3461
44	3	3,785	0.0008	0.0004	0.0002	1.67	0.83	1.8014	3.6027
45	0	3,607	0.0000	0.0005	0.0003	1.80	0.90	0.0000	0.0000
46	2	3,421	0.0006	0.0006	0.0003	2.05	1.03	0.9744	1.9487
47	1	3,184	0.0003	0.0007	0.0004	2.23	1.11	0.4487	0.8973
48	1	3,014	0.0003	0.0008	0.0004	2.41	1.21	0.4147	0.8295
49	0	2,890	0.0000	0.0009	0.0005	2.60	1.30	0.0000	0.0000
50	2	2,702	0.0007	0.0010	0.0005	2.70	1.35	0.7402	1.4804
51	2	2,493	0.0008	0.0012	0.0006	2.99	1.50	0.6685	1.3371
52	1	2,214	0.0005	0.0014	0.0007	3.10	1.55	0.3226	0.6452
53	1	1,896	0.0005	0.0016	0.0008	3.03	1.52	0.3296	0.6593
54	3	1,622	0.0018	0.0018	0.0009	2.92	1.46	1.0275	2.0551
55	0	1,359	0.0000	0.0020	0.0010	2.72	1.36	0.0000	0.0000
56	0	1,116	0.0000	0.0022	0.0011	2.46	1.23	0.0000	0.0000
57	0	905	0.0000	0.0024	0.0012	2.17	1.09	0.0000	0.0000
58	0	692	0.0000	0.0026	0.0013	1.80	0.90	0.0000	0.0000
59	0	518	0.0000	0.0028	0.0014	1.45	0.73	0.0000	0.0000
60	0	398	0.0000	0.0030	0.0015	1.19	0.60	0.0000	0.0000
61	0	300	0.0000	0.0040	0.0020	1.20	0.60	0.0000	0.0000
62	0	195	0.0000	0.0050	0.0025	0.98	0.49	0.0000	0.0000
63	0	131	0.0000	0.0050	0.0025	0.66	0.33	0.0000	0.0000
64	0	90	0.0000	0.0050	0.0025	0.45	0.23	0.0000	0.0000
65	0	44	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	26	108,799	0.0002			58.45	29.22	0.4448	0.8897

Bolton

**New York Fire Department Pension Fund
Active Accidental Mortality Assumption and Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Deaths	Life Years Exposed	Expected Deaths	Actual/Expected	Mortality Rate	
					Actual	Current
2008	5	11,529	5.02	0.9960	0.0004	0.0004
2009	2	11,585	5.29	0.3781	0.0002	0.0005
2010	5	11,459	5.42	0.9225	0.0004	0.0005
2011	1	11,079	5.60	0.1786	0.0001	0.0005
2012	3	10,649	5.65	0.5310	0.0003	0.0005
2013	4	10,266	5.82	0.6873	0.0004	0.0006
2014	0	10,183	6.00	0.0000	0.0000	0.0006
2015	3	10,319	6.23	0.4815	0.0003	0.0006
2016	0	10,780	6.43	0.0000	0.0000	0.0006
2017	3	10,951	6.56	0.4573	0.0003	0.0006
Total	26	108,800	58.02	0.4481	0.0002	0.0005

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75)



New York Fire Department Pension Fund
Retirement Experience of those in First Year of Eligibility
Men and Women
4-Year Period Ending 2017
Proposed Rates are 50% of the Current Rates

(1)	(2)	(3)	(4) = (2)÷(3)	(5) Assumed Probability		(6) Expected Retirements		(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Actual/Expected			
								Current	Proposed	Current	Proposed
40	0	8	0.0000	0.1000	0.0500	0.80	0.40	0.0000	0.0000		
41	0	44	0.0000	0.1000	0.0500	4.40	2.20	0.0000	0.0000		
42	3	67	0.0448	0.1000	0.0500	6.70	3.35	0.4478	0.8955		
43	2	84	0.0238	0.1000	0.0500	8.40	4.20	0.2381	0.4762		
44	5	103	0.0485	0.1000	0.0500	10.30	5.15	0.4854	0.9709		
45	3	103	0.0291	0.1000	0.0500	10.30	5.15	0.2913	0.5825		
46	7	131	0.0534	0.1100	0.0550	14.41	7.21	0.4858	0.9715		
47	2	97	0.0206	0.1200	0.0600	11.64	5.82	0.1718	0.3436		
48	6	102	0.0588	0.1300	0.0650	13.26	6.63	0.4525	0.9050		
49	7	116	0.0603	0.1400	0.0700	16.24	8.12	0.4310	0.8621		
50	7	112	0.0625	0.1500	0.0750	16.80	8.40	0.4167	0.8333		
51	2	71	0.0282	0.1600	0.0800	11.36	5.68	0.1761	0.3521		
52	5	58	0.0862	0.1700	0.0850	9.86	4.93	0.5071	1.0142		
53	2	44	0.0455	0.1800	0.0900	7.92	3.96	0.2525	0.5051		
54	3	31	0.0968	0.1900	0.0950	5.89	2.95	0.5093	1.0187		
55	2	16	0.1250	0.2000	0.1000	3.20	1.60	0.6250	1.2500		
56	1	7	0.1429	0.2000	0.1000	1.40	0.70	0.7143	1.4286		
57	0	3	0.0000	0.2000	0.1000	0.60	0.30	0.0000	0.0000		
58	0	0	N/A	0.2000	0.1000	0.00	0.00	N/A	N/A		
59	0	0	N/A	0.2000	0.1000	0.00	0.00	N/A	N/A		
60	0	0	N/A	0.2000	0.1000	0.00	0.00	N/A	N/A		
61	0	0	N/A	0.3000	0.1500	0.00	0.00	N/A	N/A		
62	0	0	N/A	0.4000	0.2000	0.00	0.00	N/A	N/A		
63	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000		
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A		
71+	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000		
Total	57	1,200	0.0475			156.48	79.74	0.3643	0.7148		

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

New York Fire Department Pension Fund
 Retirement Experience of those after First Year of Eligibility
 Men and Women
 4-Year Period Ending 2017
 Proposed is 75% of Current Assumption

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	3	0.0000	0.0200	0.0150	0.06	0.05	0.0000	0.0000
41	0	15	0.0000	0.0200	0.0150	0.30	0.23	0.0000	0.0000
42	1	75	0.0133	0.0200	0.0150	1.50	1.13	0.6667	0.8889
43	4	142	0.0282	0.0200	0.0150	2.84	2.13	1.4085	1.8779
44	4	216	0.0185	0.0200	0.0150	4.32	3.24	0.9259	1.2346
45	1	292	0.0034	0.0200	0.0150	5.84	4.38	0.1712	0.2283
46	6	366	0.0164	0.0200	0.0150	7.32	5.49	0.8197	1.0929
47	6	432	0.0139	0.0200	0.0150	8.64	6.48	0.6944	0.9259
48	12	505	0.0238	0.0200	0.0150	10.10	7.58	1.1881	1.5842
49	10	578	0.0173	0.0200	0.0150	11.56	8.67	0.8651	1.1534
50	17	675	0.0252	0.0200	0.0150	13.50	10.13	1.2593	1.6790
51	18	738	0.0244	0.0200	0.0150	14.76	11.07	1.2195	1.6260
52	24	729	0.0329	0.0300	0.0225	21.87	16.40	1.0974	1.4632
53	6	662	0.0091	0.0400	0.0300	26.48	19.86	0.2266	0.3021
54	27	610	0.0443	0.0500	0.0375	30.50	22.88	0.8852	1.1803
55	29	578	0.0502	0.0600	0.0450	34.68	26.01	0.8362	1.1150
56	26	526	0.0494	0.0700	0.0525	36.82	27.62	0.7061	0.9415
57	32	464	0.0690	0.0800	0.0600	37.12	27.84	0.8621	1.1494
58	27	388	0.0696	0.0900	0.0675	34.92	26.19	0.7732	1.0309
59	7	306	0.0229	0.1000	0.0750	30.60	22.95	0.2288	0.3050
60	15	244	0.0615	0.1200	0.0900	29.28	21.96	0.5123	0.6831
61	18	186	0.0968	0.1500	0.1125	27.90	20.93	0.6452	0.8602
62	15	124	0.1210	0.2000	0.1500	24.80	18.60	0.6048	0.8065
63	5	77	0.0649	0.2000	0.2500	15.40	19.25	0.3247	0.2597
64	14	53	0.2642	0.2000	0.2500	10.60	13.25	1.3208	1.0566
65	15	28	0.5357	1.0000	1.0000	28.00	28.00	0.5357	0.5357
66	1	3	0.3333	1.0000	1.0000	3.00	3.00	0.3333	0.3333
67	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
68	2	3	0.6667	1.0000	1.0000	3.00	3.00	0.6667	0.6667
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	1	1	1.0000	1.0000	1.0000	1.00	1.00	1.0000	1.0000
Total	343	9,020	0.0380			477.71	380.28	0.7180	0.9020

Bolton

**New York Fire Department Pension Fund
Retirement Experience of those in First Year of Eligibility
Men and Women
10-Year Period Ending 2017
Proposed Rates are 50% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7) = (3) x (5)	(8) = (3) x (6)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	2	48	0.0417	0.1000	0.0500	4.80	2.40	0.4167	0.8333
41	3	141	0.0213	0.1000	0.0500	14.10	7.05	0.2128	0.4255
42	3	154	0.0195	0.1000	0.0500	15.40	7.70	0.1948	0.3896
43	7	197	0.0355	0.1000	0.0500	19.70	9.85	0.3553	0.7107
44	7	240	0.0292	0.1000	0.0500	24.00	12.00	0.2917	0.5833
45	7	256	0.0273	0.1000	0.0500	25.60	12.80	0.2734	0.5469
46	10	333	0.0300	0.1100	0.0550	36.63	18.32	0.2730	0.5460
47	8	279	0.0287	0.1200	0.0600	33.48	16.74	0.2389	0.4779
48	12	267	0.0449	0.1300	0.0650	34.71	17.36	0.3457	0.6914
49	11	236	0.0466	0.1400	0.0700	33.04	16.52	0.3329	0.6659
50	9	220	0.0409	0.1500	0.0750	33.00	16.50	0.2727	0.5455
51	4	145	0.0276	0.1600	0.0800	23.20	11.60	0.1724	0.3448
52	14	131	0.1069	0.1700	0.0850	22.27	11.14	0.6286	1.2573
53	3	80	0.0375	0.1800	0.0900	14.40	7.20	0.2083	0.4167
54	7	58	0.1207	0.1900	0.0950	11.02	5.51	0.6352	1.2704
55	4	28	0.1429	0.2000	0.1000	5.60	2.80	0.7143	1.4286
56	3	16	0.1875	0.2000	0.1000	3.20	1.60	0.9375	1.8750
57	0	3	0.0000	0.2000	0.1000	0.60	0.30	0.0000	0.0000
58	0	0	N/A	0.2000	0.1000	0.00	0.00	N/A	N/A
59	0	0	N/A	0.2000	0.1000	0.00	0.00	N/A	N/A
60	0	0	N/A	0.2000	0.1000	0.00	0.00	N/A	N/A
61	0	0	N/A	0.3000	0.1500	0.00	0.00	N/A	N/A
62	0	1	0.0000	0.4000	0.2000	0.40	0.20	0.0000	0.0000
63	0	2	0.0000	1.0000	1.0000	2.00	2.00	0.0000	0.0000
64	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
65	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
66	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	0	1	0.0000	1.0000	1.0000	1.00	1.00	0.0000	0.0000
Total	114	2,836	0.0402			358.15	180.58	0.3183	0.6313

*All columns include decrements of employees who retired with less than 19.5 years of service at the beginning of the year.

Bolton

**New York Fire Department Pension Fund
Retirement Experience of those after First Year of Eligibility
Men and Women
10-Year Period Ending 2017
Proposed is 75% of Current Assumption**

(1)	(2)	(3)	(4) = (2)÷(3)	(5) / (6)		(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Retirements	Total Exposed	Actual Rate	Assumed Probability		Expected Retirements		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
40	0	9	0.0000	0.0200	0.0150	0.18	0.14	0.0000	0.0000
41	0	57	0.0000	0.0200	0.0150	1.14	0.86	0.0000	0.0000
42	1	222	0.0045	0.0200	0.0150	4.44	3.33	0.2252	0.3003
43	5	386	0.0130	0.0200	0.0150	7.72	5.79	0.6477	0.8636
44	10	578	0.0173	0.0200	0.0150	11.56	8.67	0.8651	1.1534
45	5	789	0.0063	0.0200	0.0150	15.78	11.84	0.3169	0.4225
46	8	992	0.0081	0.0200	0.0150	19.84	14.88	0.4032	0.5376
47	11	1220	0.0090	0.0200	0.0150	24.40	18.30	0.4508	0.6011
48	24	1438	0.0167	0.0200	0.0150	28.76	21.57	0.8345	1.1127
49	28	1652	0.0169	0.0200	0.0150	33.04	24.78	0.8475	1.1299
50	31	1789	0.0173	0.0200	0.0150	35.78	26.84	0.8664	1.1552
51	36	1839	0.0196	0.0200	0.0150	36.78	27.59	0.9788	1.3051
52	50	1783	0.0280	0.0300	0.0225	53.49	40.12	0.9348	1.2463
53	23	1654	0.0139	0.0400	0.0300	66.16	49.62	0.3476	0.4635
54	49	1498	0.0327	0.0500	0.0375	74.90	56.18	0.6542	0.8723
55	56	1301	0.0430	0.0600	0.0450	78.06	58.55	0.7174	0.9565
56	47	1090	0.0431	0.0700	0.0525	76.30	57.23	0.6160	0.8213
57	44	895	0.0492	0.0800	0.0600	71.60	53.70	0.6145	0.8194
58	37	685	0.0540	0.0900	0.0675	61.65	46.24	0.6002	0.8002
59	12	513	0.0234	0.1000	0.0750	51.30	38.48	0.2339	0.3119
60	18	391	0.0460	0.1200	0.0900	46.92	35.19	0.3836	0.5115
61	25	293	0.0853	0.1500	0.1125	43.95	32.96	0.5688	0.7584
62	18	189	0.0952	0.2000	0.1500	37.80	28.35	0.4762	0.6349
63	7	126	0.0556	0.2000	0.2500	25.20	31.50	0.2778	0.2222
64	21	87	0.2414	0.2000	0.2500	17.40	21.75	1.2069	0.9655
65	20	42	0.4762	1.0000	1.0000	42.00	42.00	0.4762	0.4762
66	1	5	0.2000	1.0000	1.0000	5.00	5.00	0.2000	0.2000
67	0	3	0.0000	1.0000	1.0000	3.00	3.00	0.0000	0.0000
68	2	3	0.6667	1.0000	1.0000	3.00	3.00	0.6667	0.6667
69	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	1.0000	1.0000	0.00	0.00	N/A	N/A
71+	1	1	1.0000	1.0000	1.0000	1.00	1.00	1.0000	1.0000
Total	590	21,530	0.0274			978.15	768.41	0.6032	0.7678

Bolton

**New York Fire Department Pension Fund
Normal Retirement Experience
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Retirements *	Life Years Exposed *	Expected Retirements	Actual/Expected	Retirement Rate	
					Actual	Current
2008	38	2,292	108.29	0.3509	0.0166	0.0472
2009	33	2,213	102.99	0.3204	0.0149	0.0465
2010	37	2,231	116.60	0.3173	0.0166	0.0523
2011	79	2,514	156.43	0.5050	0.0314	0.0622
2012	47	2,486	143.77	0.3269	0.0189	0.0578
2013	70	2,425	138.77	0.5044	0.0289	0.0572
2014	108	2,475	159.16	0.6786	0.0436	0.0643
2015	88	2,550	182.26	0.4828	0.0345	0.0715
2016	85	2,613	196.37	0.4329	0.0325	0.0752
2017	120	2,590	198.24	0.6053	0.0463	0.0765
Total	705	24,389	1,502.88	0.4691	0.0289	0.0616

* The total exposures and actuals shown above include experience for first, second, and after year 2 retirement eligibility at all age ranges (including ages under 40 not shown in the prior tables)

Bolton

New York Fire Department Pension Fund
 Withdrawal Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	29	1,168	0.0248	0.0200	0.0200	23.36	23.36	1.2414	1.2414
1	9	1,681	0.0054	0.0080	0.0080	13.45	13.45	0.6692	0.6692
2	2	1,090	0.0018	0.0040	0.0040	4.36	4.36	0.4587	0.4587
3	1	327	0.0031	0.0040	0.0040	1.31	1.31	0.7645	0.7645
4	1	30	0.0333	0.0040	0.0040	0.12	0.12	8.3333	8.3333
5	0	494	0.0000	0.0040	0.0040	1.98	1.98	0.0000	0.0000
6	5	976	0.0051	0.0036	0.0036	3.51	3.51	1.4230	1.4230
7	4	1,585	0.0025	0.0032	0.0032	5.07	5.07	0.7886	0.7886
8	2	2,214	0.0009	0.0028	0.0028	6.20	6.20	0.3226	0.3226
9	4	2,343	0.0017	0.0024	0.0024	5.62	5.62	0.7113	0.7113
10	3	2,782	0.0011	0.0020	0.0020	5.56	5.56	0.5392	0.5392
11	6	2,742	0.0022	0.0018	0.0018	4.94	4.94	1.2157	1.2157
12	6	2,586	0.0023	0.0016	0.0016	4.14	4.14	1.4501	1.4501
13	1	2,431	0.0004	0.0014	0.0014	3.40	3.40	0.2938	0.2938
14	0	2,026	0.0000	0.0012	0.0012	2.43	2.43	0.0000	0.0000
15	2	1,791	0.0011	0.0010	0.0010	1.79	1.79	1.1167	1.1167
16	2	1,586	0.0013	0.0010	0.0010	1.59	1.59	1.2610	1.2610
17	0	1,516	0.0000	0.0010	0.0010	1.52	1.52	0.0000	0.0000
18	1	1,394	0.0007	0.0010	0.0010	1.39	1.39	0.7174	0.7174
19	0	1,286	0.0000	0.0010	0.0010	1.29	1.29	0.0000	0.0000
Total	78	32,048	0.0024			93.02	93.02	0.8385	0.8385

Bolton

New York Fire Department Pension Fund
 Withdrawal Experience of Active Members
 Men and Women
 10-Year Period Ending 2017
 No Change to Assumption Suggested

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Service	Actual Withdrawals	Total Exposed	Actual Rate	Assumed Probability		Expected Withdrawals		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
0	42	1,711	0.0245	0.0200	0.0200	34.22	34.22	1.2274	1.2274
1	30	3,315	0.0090	0.0080	0.0080	26.52	26.52	1.1312	1.1312
2	10	3,233	0.0031	0.0040	0.0040	12.93	12.93	0.7733	0.7733
3	11	3,071	0.0036	0.0040	0.0040	12.28	12.28	0.8955	0.8955
4	14	3,725	0.0038	0.0040	0.0040	14.90	14.90	0.9396	0.9396
5	12	4,443	0.0027	0.0040	0.0040	17.77	17.77	0.6752	0.6752
6	10	4,949	0.0020	0.0036	0.0036	17.82	17.82	0.5613	0.5613
7	17	5,327	0.0032	0.0032	0.0032	17.05	17.05	0.9973	0.9973
8	9	5,831	0.0015	0.0028	0.0028	16.33	16.33	0.5512	0.5512
9	6	5,852	0.0010	0.0024	0.0024	14.04	14.04	0.4272	0.4272
10	5	5,826	0.0009	0.0020	0.0020	11.65	11.65	0.4291	0.4291
11	9	5,389	0.0017	0.0018	0.0018	9.70	9.70	0.9278	0.9278
12	9	5,134	0.0018	0.0016	0.0016	8.21	8.21	1.0956	1.0956
13	4	5,031	0.0008	0.0014	0.0014	7.04	7.04	0.5679	0.5679
14	0	4,334	0.0000	0.0012	0.0012	5.20	5.20	0.0000	0.0000
15	6	3,812	0.0016	0.0010	0.0010	3.81	3.81	1.5740	1.5740
16	2	3,565	0.0006	0.0010	0.0010	3.57	3.57	0.5610	0.5610
17	2	3,613	0.0006	0.0010	0.0010	3.61	3.61	0.5536	0.5536
18	3	3,349	0.0009	0.0010	0.0010	3.35	3.35	0.8958	0.8958
19	0	3,004	0.0000	0.0010	0.0010	3.00	3.00	0.0000	0.0000
Total	201	84,514	0.0024			243.02	243.02	0.8271	0.8271

Bolton

**New York Fire Department Pension Fund
Withdrawal Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Withdrawals	Life Years Exposed	Expected Withdrawals	Actual/Expected	Withdrawal Rate	
					Actual	Expected
2008	47	9,236	32.30	1.4551	0.0051	0.0035
2009	27	9,382	31.80	0.8491	0.0029	0.0034
2010	16	9,250	26.40	0.6061	0.0017	0.0029
2011	11	8,577	21.90	0.5023	0.0013	0.0026
2012	9	8,174	19.40	0.4639	0.0011	0.0024
2013	13	7,847	17.40	0.7471	0.0017	0.0022
2014	21	7,718	20.70	1.0145	0.0027	0.0027
2015	11	7,778	21.10	0.5213	0.0014	0.0027
2016	25	8,177	25.20	0.9921	0.0031	0.0031
2017	21	8,375	25.20	0.8333	0.0025	0.0030
Total	201	84,514	241.40	0.8326	0.0024	0.0029

*The total exposures and actuals shown above include experience less than 20 years of service

Bolton

**New York Fire Department Pension Fund
Ordinary Disability Experience of Active Members
Men and Women
4-Year Period Ending 2017
Ordinary Disability Rate-Men and Wome**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0001	0.0000	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0001	0.0000	0.00	0.00	0.0000	0.0000
22	0	42	0.0000	0.0001	0.0000	0.00	0.00	0.0000	0.0000
23	0	149	0.0000	0.0001	0.0000	0.01	0.00	0.0000	0.0000
24	0	237	0.0000	0.0001	0.0000	0.02	0.01	0.0000	0.0000
25	0	304	0.0000	0.0001	0.0000	0.03	0.01	0.0000	0.0000
26	0	389	0.0000	0.0001	0.0000	0.04	0.01	0.0000	0.0000
27	0	535	0.0000	0.0002	0.0001	0.11	0.03	0.0000	0.0000
28	0	660	0.0000	0.0003	0.0001	0.20	0.05	0.0000	0.0000
29	0	875	0.0000	0.0004	0.0001	0.35	0.09	0.0000	0.0000
30	0	1,127	0.0000	0.0005	0.0001	0.56	0.14	0.0000	0.0000
31	0	1,388	0.0000	0.0006	0.0002	0.83	0.21	0.0000	0.0000
32	0	1,548	0.0000	0.0007	0.0002	1.08	0.27	0.0000	0.0000
33	0	1,647	0.0000	0.0008	0.0002	1.32	0.33	0.0000	0.0000
34	1	1,692	0.0006	0.0009	0.0002	1.52	0.38	0.6567	2.6267
35	0	1,807	0.0000	0.0010	0.0003	1.81	0.45	0.0000	0.0000
36	0	1,939	0.0000	0.0011	0.0003	2.13	0.53	0.0000	0.0000
37	0	1,959	0.0000	0.0012	0.0003	2.35	0.59	0.0000	0.0000
38	0	1,900	0.0000	0.0013	0.0003	2.47	0.62	0.0000	0.0000
39	1	1,841	0.0005	0.0014	0.0004	2.58	0.64	0.3880	1.5520
40	1	1,747	0.0006	0.0015	0.0004	2.62	0.66	0.3816	1.5264
41	1	1,688	0.0006	0.0016	0.0004	2.70	0.68	0.3703	1.4810
42	0	1,686	0.0000	0.0017	0.0004	2.87	0.72	0.0000	0.0000
43	1	1,610	0.0006	0.0018	0.0005	2.90	0.72	0.3451	1.3803
44	0	1,529	0.0000	0.0019	0.0005	2.91	0.73	0.0000	0.0000
45	0	1,383	0.0000	0.0020	0.0005	2.77	0.69	0.0000	0.0000
46	1	1,317	0.0008	0.0022	0.0006	2.90	0.72	0.3451	1.3805
47	0	1,196	0.0000	0.0024	0.0006	2.87	0.72	0.0000	0.0000
48	0	1,167	0.0000	0.0026	0.0007	3.03	0.76	0.0000	0.0000
49	1	1,181	0.0008	0.0028	0.0007	3.31	0.83	0.3024	1.2096
50	0	1,155	0.0000	0.0030	0.0008	3.47	0.87	0.0000	0.0000
51	0	1,068	0.0000	0.0044	0.0011	4.70	1.17	0.0000	0.0000
52	0	942	0.0000	0.0058	0.0015	5.46	1.37	0.0000	0.0000
53	0	795	0.0000	0.0072	0.0018	5.72	1.43	0.0000	0.0000
54	0	672	0.0000	0.0086	0.0022	5.78	1.44	0.0000	0.0000
55	0	610	0.0000	0.0100	0.0025	6.10	1.53	0.0000	0.0000
56	0	539	0.0000	0.0200	0.0050	10.78	2.70	0.0000	0.0000
57	0	468	0.0000	0.0300	0.0075	14.04	3.51	0.0000	0.0000
58	0	390	0.0000	0.0400	0.0100	15.60	3.90	0.0000	0.0000
59	0	307	0.0000	0.0500	0.0125	15.35	3.84	0.0000	0.0000
60	0	245	0.0000	0.0600	0.0150	14.70	3.68	0.0000	0.0000
61	0	189	0.0000	0.0800	0.0200	15.12	3.78	0.0000	0.0000
62	0	127	0.0000	0.1000	0.0250	12.70	3.18	0.0000	0.0000
63	0	81	0.0000	0.1000	0.0250	8.10	2.03	0.0000	0.0000
64	0	55	0.0000	0.1000	0.0250	5.50	1.38	0.0000	0.0000
65	0	29	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	7	42,232	0.0002			189.41	47.35	0.0370	0.1478

Bolton

New York Fire Department Pension Fund
 Ordinary Disability Experience of Active Members
 Men and Women
 10-Year Period Ending 2017
 Ordinary Disability Rate-Men and Wome

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	1	0.0000	0.0001	0.0000	0.00	0.00	0.0000	0.0000
21	0	4	0.0000	0.0001	0.0000	0.00	0.00	0.0000	0.0000
22	0	63	0.0000	0.0001	0.0000	0.01	0.00	0.0000	0.0000
23	0	339	0.0000	0.0001	0.0000	0.03	0.01	0.0000	0.0000
24	0	710	0.0000	0.0001	0.0000	0.07	0.02	0.0000	0.0000
25	0	1,109	0.0000	0.0001	0.0000	0.11	0.03	0.0000	0.0000
26	0	1,546	0.0000	0.0001	0.0000	0.15	0.04	0.0000	0.0000
27	0	2,106	0.0000	0.0002	0.0001	0.42	0.11	0.0000	0.0000
28	0	2,639	0.0000	0.0003	0.0001	0.79	0.20	0.0000	0.0000
29	0	3,179	0.0000	0.0004	0.0001	1.27	0.32	0.0000	0.0000
30	1	3,684	0.0003	0.0005	0.0001	1.84	0.46	0.5429	2.1716
31	0	4,122	0.0000	0.0006	0.0002	2.47	0.62	0.0000	0.0000
32	0	4,368	0.0000	0.0007	0.0002	3.06	0.76	0.0000	0.0000
33	0	4,495	0.0000	0.0008	0.0002	3.60	0.90	0.0000	0.0000
34	3	4,566	0.0007	0.0009	0.0002	4.11	1.03	0.7300	2.9201
35	0	4,620	0.0000	0.0010	0.0003	4.62	1.16	0.0000	0.0000
36	0	4,703	0.0000	0.0011	0.0003	5.17	1.29	0.0000	0.0000
37	0	4,684	0.0000	0.0012	0.0003	5.62	1.41	0.0000	0.0000
38	0	4,590	0.0000	0.0013	0.0003	5.97	1.49	0.0000	0.0000
39	1	4,410	0.0002	0.0014	0.0004	6.17	1.54	0.1620	0.6479
40	3	4,249	0.0007	0.0015	0.0004	6.37	1.59	0.4707	1.8828
41	2	4,074	0.0005	0.0016	0.0004	6.52	1.63	0.3068	1.2273
42	0	4,028	0.0000	0.0017	0.0004	6.85	1.71	0.0000	0.0000
43	2	3,910	0.0005	0.0018	0.0005	7.04	1.76	0.2842	1.1367
44	1	3,785	0.0003	0.0019	0.0005	7.19	1.80	0.1391	0.5562
45	0	3,607	0.0000	0.0020	0.0005	7.21	1.80	0.0000	0.0000
46	1	3,421	0.0003	0.0022	0.0006	7.53	1.88	0.1329	0.5315
47	0	3,184	0.0000	0.0024	0.0006	7.64	1.91	0.0000	0.0000
48	0	3,014	0.0000	0.0026	0.0007	7.84	1.96	0.0000	0.0000
49	1	2,890	0.0003	0.0028	0.0007	8.09	2.02	0.1236	0.4943
50	0	2,702	0.0000	0.0030	0.0008	8.11	2.03	0.0000	0.0000
51	0	2,493	0.0000	0.0044	0.0011	10.97	2.74	0.0000	0.0000
52	0	2,214	0.0000	0.0058	0.0015	12.84	3.21	0.0000	0.0000
53	0	1,896	0.0000	0.0072	0.0018	13.65	3.41	0.0000	0.0000
54	0	1,622	0.0000	0.0086	0.0022	13.95	3.49	0.0000	0.0000
55	0	1,359	0.0000	0.0100	0.0025	13.59	3.40	0.0000	0.0000
56	0	1,116	0.0000	0.0200	0.0050	22.32	5.58	0.0000	0.0000
57	0	905	0.0000	0.0300	0.0075	27.15	6.79	0.0000	0.0000
58	0	692	0.0000	0.0400	0.0100	27.68	6.92	0.0000	0.0000
59	0	518	0.0000	0.0500	0.0125	25.90	6.48	0.0000	0.0000
60	2	398	0.0050	0.0600	0.0150	23.88	5.97	0.0838	0.3350
61	0	300	0.0000	0.0800	0.0200	24.00	6.00	0.0000	0.0000
62	0	195	0.0000	0.1000	0.0250	19.50	4.88	0.0000	0.0000
63	1	131	0.0076	0.1000	0.0250	13.10	3.28	0.0763	0.3053
64	0	90	0.0000	0.1000	0.0250	9.00	2.25	0.0000	0.0000
65	1	44	0.0227	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	7	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	19	108,799	0.0002			383.41	95.85	0.0496	0.1982



**New York Fire Department Pension Fund
Ordinary Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	4	11,529	26.45	0.1512	0.0003	0.0023
2009	3	11,585	28.46	0.1054	0.0003	0.0025
2010	1	11,459	30.91	0.0324	0.0001	0.0027
2011	1	11,079	33.76	0.0296	0.0001	0.0030
2012	3	10,649	36.67	0.0818	0.0003	0.0034
2013	0	10,266	40.08	0.0000	0.0000	0.0039
2014	1	10,183	43.99	0.0227	0.0001	0.0043
2015	1	10,319	47.28	0.0212	0.0001	0.0046
2016	3	10,780	49.35	0.0608	0.0003	0.0046
2017	2	10,951	51.87	0.0386	0.0002	0.0047
Total	19	108,800	388.82	0.0489	0.0002	0.0036

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75)

Bolton

**New York Fire Department Pension Fund
Accidental Disability Experience of Active Members
Men and Women Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
26	0	0	N/A	0.0009	0.0009	0.00	0.00	N/A	N/A
27	0	0	N/A	0.0013	0.0013	0.00	0.00	N/A	N/A
28	0	0	N/A	0.0017	0.0017	0.00	0.00	N/A	N/A
29	0	0	N/A	0.0021	0.0021	0.00	0.00	N/A	N/A
30	0	0	N/A	0.0025	0.0025	0.00	0.00	N/A	N/A
31	0	0	N/A	0.0040	0.0040	0.00	0.00	N/A	N/A
32	0	5	0.0000	0.0055	0.0055	0.03	0.03	0.0000	0.0000
33	0	31	0.0000	0.0070	0.0070	0.22	0.22	0.0000	0.0000
34	0	75	0.0000	0.0085	0.0085	0.64	0.64	0.0000	0.0000
35	1	157	0.0064	0.0100	0.0100	1.57	1.57	0.6369	0.6369
36	6	281	0.0214	0.0120	0.0120	3.37	3.37	1.7794	1.7794
37	10	362	0.0276	0.0140	0.0140	5.07	5.07	1.9732	1.9732
38	10	443	0.0226	0.0160	0.0160	7.09	7.09	1.4108	1.4108
39	13	527	0.0247	0.0180	0.0180	9.49	9.49	1.3704	1.3704
40	13	615	0.0211	0.0200	0.0200	12.30	12.30	1.0569	1.0569
41	20	757	0.0264	0.0220	0.0220	16.65	16.65	1.2009	1.2009
42	36	912	0.0395	0.0240	0.0240	21.89	21.89	1.6447	1.6447
43	31	1,002	0.0309	0.0260	0.0260	26.05	26.05	1.1899	1.1899
44	54	1,088	0.0496	0.0280	0.0280	30.46	30.46	1.7726	1.7726
45	29	1,091	0.0266	0.0300	0.0300	32.73	32.73	0.8860	0.8860
46	43	1,148	0.0375	0.0340	0.0340	39.03	39.03	1.1017	1.1017
47	45	1,143	0.0394	0.0380	0.0380	43.43	43.43	1.0361	1.0361
48	52	1,150	0.0452	0.0420	0.0420	48.30	48.30	1.0766	1.0766
49	61	1,170	0.0521	0.0460	0.0460	53.82	53.82	1.1334	1.1334
50	69	1,147	0.0602	0.0500	0.0500	57.35	57.35	1.2031	1.2031
51	78	1,063	0.0734	0.0560	0.0560	59.53	59.53	1.3103	1.3103
52	61	936	0.0652	0.0620	0.0620	58.03	58.03	1.0511	1.0511
53	67	786	0.0852	0.0680	0.0680	53.45	53.45	1.2536	1.2536
54	52	663	0.0784	0.0740	0.0740	49.06	49.06	1.0599	1.0599
55	43	603	0.0713	0.0800	0.0800	48.24	48.24	0.8914	0.8914
56	43	534	0.0805	0.1000	0.1000	53.40	53.40	0.8052	0.8052
57	53	467	0.1135	0.1200	0.1200	56.04	56.04	0.9458	0.9458
58	28	388	0.0722	0.1500	0.1500	58.20	58.20	0.4811	0.4811
59	30	304	0.0987	0.1800	0.1800	54.72	54.72	0.5482	0.5482
60	28	243	0.1152	0.2100	0.2100	51.03	51.03	0.5487	0.5487
61	15	185	0.0811	0.2500	0.2500	46.25	46.25	0.3243	0.3243
62	14	122	0.1148	0.3000	0.3000	36.60	36.60	0.3825	0.3825
63	10	75	0.1333	0.3000	0.3000	22.50	22.50	0.4444	0.4444
64	7	50	0.1400	0.3000	0.3000	15.00	15.00	0.4667	0.4667
65	9	26	0.3462	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	1,031	19,561	0.0527			1,071.54	1,071.54	0.9622	0.9622

Bolton

**New York Fire Department Pension Fund
Accidental Disability Experience of Active Members
Men and Women Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 100% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10)=(2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
21	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
22	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
23	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
24	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
25	0	0	N/A	0.0005	0.0005	0.00	0.00	N/A	N/A
26	0	5	0.0000	0.0009	0.0009	0.00	0.00	0.0000	0.0000
27	0	31	0.0000	0.0013	0.0013	0.04	0.04	0.0000	0.0000
28	0	76	0.0000	0.0017	0.0017	0.13	0.13	0.0000	0.0000
29	0	163	0.0000	0.0021	0.0021	0.34	0.34	0.0000	0.0000
30	0	300	0.0000	0.0025	0.0025	0.75	0.75	0.0000	0.0000
31	2	416	0.0048	0.0040	0.0040	1.66	1.66	1.2019	1.2019
32	5	552	0.0091	0.0055	0.0055	3.04	3.04	1.6469	1.6469
33	5	731	0.0068	0.0070	0.0070	5.12	5.12	0.9771	0.9771
34	6	982	0.0061	0.0085	0.0085	8.35	8.35	0.7188	0.7188
35	15	1,266	0.0118	0.0100	0.0100	12.66	12.66	1.1848	1.1848
36	31	1,592	0.0195	0.0120	0.0120	19.10	19.10	1.6227	1.6227
37	40	1,872	0.0214	0.0140	0.0140	26.21	26.21	1.5263	1.5263
38	52	2,171	0.0240	0.0160	0.0160	34.74	34.74	1.4970	1.4970
39	64	2,408	0.0266	0.0180	0.0180	43.34	43.34	1.4766	1.4766
40	78	2,636	0.0296	0.0200	0.0200	52.72	52.72	1.4795	1.4795
41	83	2,819	0.0294	0.0220	0.0220	62.02	62.02	1.3383	1.3383
42	116	3,061	0.0379	0.0240	0.0240	73.46	73.46	1.5790	1.5790
43	136	3,230	0.0421	0.0260	0.0260	83.98	83.98	1.6194	1.6194
44	144	3,318	0.0434	0.0280	0.0280	92.90	92.90	1.5500	1.5500
45	117	3,285	0.0356	0.0300	0.0300	98.55	98.55	1.1872	1.1872
46	160	3,223	0.0496	0.0340	0.0340	109.58	109.58	1.4601	1.4601
47	151	3,105	0.0486	0.0380	0.0380	117.99	117.99	1.2798	1.2798
48	161	2,970	0.0542	0.0420	0.0420	124.74	124.74	1.2907	1.2907
49	157	2,851	0.0551	0.0460	0.0460	131.15	131.15	1.1971	1.1971
50	172	2,667	0.0645	0.0500	0.0500	133.35	133.35	1.2898	1.2898
51	189	2,465	0.0767	0.0560	0.0560	138.04	138.04	1.3692	1.3692
52	177	2,189	0.0809	0.0620	0.0620	135.72	135.72	1.3042	1.3042
53	150	1,869	0.0803	0.0680	0.0680	127.09	127.09	1.1802	1.1802
54	132	1,598	0.0826	0.0740	0.0740	118.25	118.25	1.1163	1.1163
55	114	1,338	0.0852	0.0800	0.0800	107.04	107.04	1.0650	1.0650
56	93	1,099	0.0846	0.1000	0.1000	109.90	109.90	0.8462	0.8462
57	102	889	0.1147	0.1200	0.1200	106.68	106.68	0.9561	0.9561
58	61	678	0.0900	0.1500	0.1500	101.70	101.70	0.5998	0.5998
59	53	506	0.1047	0.1800	0.1800	91.08	91.08	0.5819	0.5819
60	37	388	0.0954	0.2100	0.2100	81.48	81.48	0.4541	0.4541
61	34	291	0.1168	0.2500	0.2500	72.75	72.75	0.4674	0.4674
62	20	187	0.1070	0.3000	0.3000	56.10	56.10	0.3565	0.3565
63	16	122	0.1311	0.3000	0.3000	36.60	36.60	0.4372	0.4372
64	16	83	0.1928	0.3000	0.3000	24.90	24.90	0.6426	0.6426
65	14	40	0.3500	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	5	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	1	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	2,903	59,494	0.0488			2,543.26	2,543.26	1.1414	1.1414

Bolton

**New York Fire Department Pension Fund
Accidental Disability Experience of Active Members
Men and Women Not Eligible for WTC Benefits
4-Year Period Ending 2017
Proposed Rates are 115% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	0	N/A	0.0003	0.0003	0.00	0.00	N/A	N/A
21	0	3	0.0000	0.0003	0.0003	0.00	0.00	0.0000	0.0000
22	0	42	0.0000	0.0003	0.0003	0.01	0.01	0.0000	0.0000
23	0	149	0.0000	0.0003	0.0003	0.04	0.05	0.0000	0.0000
24	0	237	0.0000	0.0003	0.0003	0.07	0.08	0.0000	0.0000
25	0	304	0.0000	0.0003	0.0003	0.09	0.10	0.0000	0.0000
26	0	389	0.0000	0.0004	0.0005	0.16	0.18	0.0000	0.0000
27	0	535	0.0000	0.0005	0.0006	0.27	0.31	0.0000	0.0000
28	0	660	0.0000	0.0007	0.0008	0.46	0.53	0.0000	0.0000
29	1	875	0.0011	0.0010	0.0012	0.88	1.01	1.1429	0.9938
30	1	1,127	0.0009	0.0015	0.0017	1.69	1.94	0.5915	0.5144
31	4	1,388	0.0029	0.0024	0.0028	3.33	3.83	1.2008	1.0441
32	7	1,543	0.0045	0.0033	0.0038	5.09	5.86	1.3747	1.1954
33	12	1,616	0.0074	0.0042	0.0048	6.79	7.81	1.7680	1.5374
34	9	1,617	0.0056	0.0051	0.0059	8.25	9.48	1.0913	0.9490
35	17	1,650	0.0103	0.0060	0.0069	9.90	11.39	1.7172	1.4932
36	20	1,658	0.0121	0.0072	0.0083	11.94	13.73	1.6754	1.4569
37	19	1,597	0.0119	0.0085	0.0098	13.57	15.61	1.3997	1.2171
38	15	1,457	0.0103	0.0099	0.0114	14.42	16.59	1.0399	0.9043
39	23	1,314	0.0175	0.0114	0.0131	14.98	17.23	1.5354	1.3351
40	20	1,132	0.0177	0.0130	0.0150	14.72	16.92	1.3591	1.1818
41	20	931	0.0215	0.0144	0.0166	13.41	15.42	1.4918	1.2972
42	24	774	0.0310	0.0158	0.0182	12.23	14.06	1.9625	1.7065
43	6	608	0.0099	0.0172	0.0198	10.46	12.03	0.5737	0.4989
44	9	441	0.0204	0.0186	0.0214	8.20	9.43	1.0972	0.9541
45	8	292	0.0274	0.0200	0.0230	5.84	6.72	1.3699	1.1912
46	4	169	0.0237	0.0230	0.0265	3.89	4.47	1.0291	0.8948
47	3	53	0.0566	0.0260	0.0299	1.38	1.58	2.1771	1.8931
48	0	17	0.0000	0.0290	0.0334	0.49	0.57	0.0000	0.0000
49	0	11	0.0000	0.0320	0.0368	0.35	0.40	0.0000	0.0000
50	1	8	0.1250	0.0350	0.0403	0.28	0.32	3.5714	3.1056
51	0	5	0.0000	0.0380	0.0437	0.19	0.22	0.0000	0.0000
52	0	6	0.0000	0.0410	0.0472	0.25	0.28	0.0000	0.0000
53	0	9	0.0000	0.0440	0.0506	0.40	0.46	0.0000	0.0000
54	0	9	0.0000	0.0470	0.0541	0.42	0.49	0.0000	0.0000
55	0	7	0.0000	0.0500	0.0575	0.35	0.40	0.0000	0.0000
56	0	5	0.0000	0.0700	0.0805	0.35	0.40	0.0000	0.0000
57	0	1	0.0000	0.0900	0.1035	0.09	0.10	0.0000	0.0000
58	0	2	0.0000	0.1100	0.1265	0.22	0.25	0.0000	0.0000
59	1	3	0.3333	0.1300	0.1495	0.39	0.45	2.5641	2.2297
60	0	2	0.0000	0.1500	0.1725	0.30	0.35	0.0000	0.0000
61	0	4	0.0000	0.1700	0.1955	0.68	0.78	0.0000	0.0000
62	0	5	0.0000	0.1900	0.2185	0.95	1.09	0.0000	0.0000
63	0	6	0.0000	0.1900	0.2185	1.14	1.31	0.0000	0.0000
64	0	5	0.0000	0.1900	0.2185	0.95	1.09	0.0000	0.0000
65	0	3	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	224	22,671	0.0099			169.86	195.34	1.3187	1.1467

Bolton

**New York Fire Department Pension Fund
Accidental Disability Experience of Active Members
Men and Women Not Eligible for WTC Benefits
10-Year Period Ending 2017
Proposed Rates are 115% of the Current Rates**

(1)	(2)	(3)	(4) = (2)÷(3)	(5)	(6)	(7)	(8)	(9) = (2)÷(7)	(10) = (2)÷(8)
Age	Actual Disabilities	Total Exposed	Actual Rate	Assumed Probability		Expected Disabilities		Actual/Expected	
				Current Assumption	Proposed Assumption	Current Assumption	Proposed Assumption	Current	Proposed
20	0	1	0.0000	0.0003	0.0003	0.00	0.00	0.0000	0.0000
21	0	4	0.0000	0.0003	0.0003	0.00	0.00	0.0000	0.0000
22	0	63	0.0000	0.0003	0.0003	0.02	0.02	0.0000	0.0000
23	0	339	0.0000	0.0003	0.0003	0.10	0.12	0.0000	0.0000
24	0	710	0.0000	0.0003	0.0003	0.21	0.24	0.0000	0.0000
25	0	1,109	0.0000	0.0003	0.0003	0.33	0.38	0.0000	0.0000
26	0	1,541	0.0000	0.0004	0.0005	0.62	0.71	0.0000	0.0000
27	2	2,075	0.0010	0.0005	0.0006	1.04	1.19	1.9277	1.6763
28	0	2,563	0.0000	0.0007	0.0008	1.79	2.06	0.0000	0.0000
29	1	3,016	0.0003	0.0010	0.0012	3.02	3.47	0.3316	0.2883
30	4	3,384	0.0012	0.0015	0.0017	5.08	5.84	0.7880	0.6852
31	10	3,706	0.0027	0.0024	0.0028	8.89	10.23	1.1243	0.9777
32	12	3,816	0.0031	0.0033	0.0038	12.59	14.48	0.9529	0.8286
33	22	3,764	0.0058	0.0042	0.0048	15.81	18.18	1.3916	1.2101
34	19	3,584	0.0053	0.0051	0.0059	18.28	21.02	1.0395	0.9039
35	26	3,354	0.0078	0.0060	0.0069	20.12	23.14	1.2920	1.1235
36	33	3,111	0.0106	0.0072	0.0083	22.40	25.76	1.4733	1.2811
37	32	2,812	0.0114	0.0085	0.0098	23.90	27.49	1.3388	1.1642
38	19	2,419	0.0079	0.0099	0.0114	23.95	27.54	0.7934	0.6899
39	27	2,002	0.0135	0.0114	0.0131	22.82	26.25	1.1830	1.0287
40	23	1,613	0.0143	0.0130	0.0150	20.97	24.11	1.0969	0.9538
41	27	1,255	0.0215	0.0144	0.0166	18.07	20.78	1.4940	1.2992
42	26	967	0.0269	0.0158	0.0182	15.28	17.57	1.7017	1.4798
43	9	680	0.0132	0.0172	0.0198	11.70	13.45	0.7695	0.6691
44	10	467	0.0214	0.0186	0.0214	8.69	9.99	1.1513	1.0011
45	8	322	0.0248	0.0200	0.0230	6.44	7.41	1.2422	1.0802
46	5	198	0.0253	0.0230	0.0265	4.55	5.24	1.0979	0.9547
47	3	79	0.0380	0.0260	0.0299	2.05	2.36	1.4606	1.2701
48	2	44	0.0455	0.0290	0.0334	1.28	1.47	1.5674	1.3630
49	2	39	0.0513	0.0320	0.0368	1.25	1.44	1.6026	1.3935
50	2	35	0.0571	0.0350	0.0403	1.23	1.41	1.6327	1.4197
51	1	28	0.0357	0.0380	0.0437	1.06	1.22	0.9398	0.8173
52	2	25	0.0800	0.0410	0.0472	1.03	1.18	1.9512	1.6967
53	2	27	0.0741	0.0440	0.0506	1.19	1.37	1.6835	1.4639
54	0	24	0.0000	0.0470	0.0541	1.13	1.30	0.0000	0.0000
55	2	21	0.0952	0.0500	0.0575	1.05	1.21	1.9048	1.6563
56	0	17	0.0000	0.0700	0.0805	1.19	1.37	0.0000	0.0000
57	1	16	0.0625	0.0900	0.1035	1.44	1.66	0.6944	0.6039
58	0	14	0.0000	0.1100	0.1265	1.54	1.77	0.0000	0.0000
59	2	12	0.1667	0.1300	0.1495	1.56	1.79	1.2821	1.1148
60	0	10	0.0000	0.1500	0.1725	1.50	1.73	0.0000	0.0000
61	0	9	0.0000	0.1700	0.1955	1.53	1.76	0.0000	0.0000
62	0	8	0.0000	0.1900	0.2185	1.52	1.75	0.0000	0.0000
63	1	9	0.1111	0.1900	0.2185	1.71	1.97	0.5848	0.5085
64	1	7	0.1429	0.1900	0.2185	1.33	1.53	0.7519	0.6538
65	0	4	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
66	0	2	0.0000	0.0000	0.0000	0.00	0.00	N/A	N/A
67	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
68	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
69	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
70	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
71	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
72	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
73	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
74	0	0	N/A	0.0000	0.0000	0.00	0.00	N/A	N/A
Total	336	49,305	0.0068			291.25	334.94	1.1536	1.0032

Bolton

**New York Fire Department Pension Fund
Accidental Disability Experience of Active Members
Men and Women
10-Year Period Ending 2017**

(1)	(2)	(3)	(4)	(5) = (2) ÷ (4)	(6) = (2) ÷ (3)	(7) = (4) ÷ (3)
Plan Year	Actual Disabilities	Life Years Exposed	Expected Disabilities	Actual/Expected	Disability Rate	
					Actual	Current
2008	383	11,529	245.52	1.5600	0.0332	0.0213
2009	335	11,585	252.80	1.3252	0.0289	0.0218
2010	328	11,459	261.08	1.2563	0.0286	0.0228
2011	333	11,079	271.41	1.2269	0.0301	0.0245
2012	319	10,649	279.25	1.1423	0.0300	0.0262
2013	286	10,266	290.35	0.9850	0.0279	0.0283
2014	277	10,183	302.38	0.9161	0.0272	0.0297
2015	321	10,319	311.26	1.0313	0.0311	0.0302
2016	340	10,780	315.33	1.0782	0.0315	0.0293
2017	317	10,951	319.75	0.9914	0.0289	0.0292
Total	3,239	108,800	2,849.13	1.1368	0.0298	0.0262

*The total exposures and actuals shown above include experience at all age ranges (i.e. ages under 20 and over 75) and regardless of WTC eligibility

Bolton		New York City Fire Department Pension Fund Total Salary Experience of Active Members Men and Women 4-Year Period Ending 2017						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Expected Salary EOY	Actual/Expected	Increase %	
							Actual	Expected
0	1,135	40,198,885	52,732,803	0.0650	42,811,813	4.7969	31.18%	6.50%
1	1,665	72,069,040	81,278,254	0.1050	79,636,289	1.2170	12.78%	10.50%
2	1,084	52,137,861	58,779,098	0.1150	58,133,715	1.1076	12.74%	11.50%
3	326	17,414,783	19,743,858	0.1150	19,417,483	1.1630	13.37%	11.50%
4	29	1,442,186	1,606,863	0.4750	2,127,224	0.2404	11.42%	47.50%
5	486	33,213,686	41,256,401	0.0250	34,044,028	9.6860	24.22%	2.50%
6	967	81,255,664	84,779,807	0.0260	83,368,312	1.6681	4.34%	2.60%
7	1,571	135,965,757	141,454,625	0.0270	139,636,833	1.4952	4.04%	2.70%
8	2,182	194,883,561	202,571,044	0.0280	200,340,301	1.4088	3.94%	2.80%
9	2,304	209,518,202	216,844,466	0.0420	218,317,966	0.8326	3.50%	4.20%
10	2,739	252,047,077	262,789,003	0.0300	259,608,489	1.4206	4.26%	3.00%
11	2,695	252,377,275	261,565,134	0.0310	260,200,970	1.1744	3.64%	3.10%
12	2,533	241,655,821	250,351,133	0.0320	249,388,807	1.1244	3.60%	3.20%
13	2,371	230,496,837	238,314,831	0.0330	238,103,233	1.0278	3.39%	3.30%
14	1,970	193,177,286	200,314,421	0.0460	202,063,441	0.8032	3.69%	4.60%
15	1,726	170,793,914	177,799,739	0.0350	176,771,701	1.1720	4.10%	3.50%
16	1,531	153,705,665	158,933,071	0.0340	158,931,658	1.0003	3.40%	3.40%
17	1,466	150,354,088	154,418,584	0.0330	155,315,773	0.8192	2.70%	3.30%
18	1,356	141,157,228	145,768,112	0.0320	145,674,259	1.0208	3.27%	3.20%
19	1,235	129,985,050	134,106,963	0.0430	135,574,407	0.7375	3.17%	4.30%
20	1,061	113,691,179	118,861,931	0.0300	117,101,914	1.5160	4.55%	3.00%
21	927	102,166,125	105,652,986	0.0290	105,128,942	1.1769	3.41%	2.90%
22	802	89,675,746	92,926,552	0.0280	92,186,667	1.2947	3.63%	2.80%
23	852	96,619,028	100,192,841	0.0270	99,227,742	1.3700	3.70%	2.70%
24	772	88,436,375	91,211,057	0.0260	90,735,721	1.2067	3.14%	2.60%
25	679	79,182,327	81,665,972	0.0250	81,161,885	1.2546	3.14%	2.50%
26	605	70,768,104	73,444,145	0.0240	72,466,539	1.5756	3.78%	2.40%
27	403	47,499,464	49,023,182	0.0230	48,591,952	1.3947	3.21%	2.30%
28	426	51,592,644	53,532,897	0.0220	52,727,682	1.7094	3.76%	2.20%
29	448	55,135,994	56,992,824	0.0210	56,293,850	1.6037	3.37%	2.10%
30+	2,098	281,243,007	289,284,048	0.0200	286,867,867	1.4296	2.86%	2.00%
Total	40,444	3,829,859,857	3,998,196,647		3,961,957,461	1.2743	4.40%	3.45%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Fire Department Pension Fund
 Total Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017
 Current Rates

(1) Service	(2) Life years Exposed	(3) Total Salary BOY	(4) Actual Salary EOY	(5) Annual Rates of Salary Increase	(6) Expected Salary EOY	(7) Actual/Expected	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual	Expected
0	1,659	57,281,107	72,410,879	0.0650	61,004,379	4.0636	26.41%	6.50%
1	3,272	130,296,897	148,616,844	0.1050	143,978,071	1.3391	14.06%	10.50%
2	3,211	143,713,221	163,894,497	0.1150	160,240,242	1.2211	14.04%	11.50%
3	3,045	150,500,426	171,027,258	0.1150	167,807,975	1.1860	13.64%	11.50%
4	3,698	200,026,901	257,878,986	0.4750	295,039,679	0.6089	28.92%	47.50%
5	4,397	297,709,248	351,904,265	0.0250	305,151,979	7.2816	18.20%	2.50%
6	4,905	381,401,189	404,870,684	0.0260	391,317,620	2.3667	6.15%	2.60%
7	5,258	425,159,946	447,662,131	0.0270	436,639,264	1.9602	5.29%	2.70%
8	5,747	478,508,162	501,308,448	0.0280	491,906,390	1.7017	4.76%	2.80%
9	5,756	487,084,994	508,623,717	0.0420	507,542,563	1.0528	4.42%	4.20%
10	5,706	492,819,957	517,822,138	0.0300	507,604,556	1.6911	5.07%	3.00%
11	5,284	465,496,902	487,185,676	0.0310	479,927,306	1.5030	4.66%	3.10%
12	5,011	446,992,500	467,453,073	0.0320	461,296,260	1.4304	4.58%	3.20%
13	4,881	440,829,853	459,918,157	0.0330	455,377,239	1.3121	4.33%	3.30%
14	4,210	383,760,650	403,094,643	0.0460	401,413,640	1.0952	5.04%	4.60%
15	3,682	342,096,970	360,480,696	0.0350	354,070,364	1.5354	5.37%	3.50%
16	3,423	323,889,007	338,311,940	0.0340	334,901,234	1.3097	4.45%	3.40%
17	3,482	328,298,486	341,429,276	0.0330	339,132,336	1.2120	4.00%	3.30%
18	3,237	308,441,072	321,015,757	0.0320	318,311,186	1.2740	4.08%	3.20%
19	2,871	277,373,153	292,248,738	0.0430	289,300,199	1.2472	5.36%	4.30%
20	2,484	245,319,899	259,965,299	0.0300	252,679,496	1.9900	5.97%	3.00%
21	2,293	233,126,382	243,008,541	0.0290	239,887,047	1.4617	4.24%	2.90%
22	2,099	213,852,858	223,987,179	0.0280	219,840,738	1.6925	4.74%	2.80%
23	1,959	201,052,527	210,883,240	0.0270	206,480,946	1.8110	4.89%	2.70%
24	1,866	193,643,073	203,365,517	0.0260	198,677,793	1.9311	5.02%	2.60%
25	1,747	185,009,197	194,054,334	0.0250	189,634,427	1.9556	4.89%	2.50%
26	1,659	178,134,060	186,519,793	0.0240	182,409,277	1.9615	4.71%	2.40%
27	1,309	143,745,489	149,685,705	0.0230	147,051,635	1.7967	4.13%	2.30%
28	1,258	142,044,891	148,709,017	0.0220	145,169,879	2.1325	4.69%	2.20%
29	1,125	132,434,039	136,231,042	0.0210	135,215,154	1.3653	2.87%	2.10%
30+	3,949	514,058,261	530,039,777	0.0200	524,339,426	1.5544	3.11%	2.00%
Total	104,483	8,944,101,317	9,503,607,244		9,343,348,298	1.4014	6.26%	4.46%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Fire Department Pension Fund
Total Salary Experience of Active Members
Men and Women
4-Year Period Ending 2017

Average Proposed Merit Increases are 133 % of Current Assumption

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1	
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Proposed Salary EOY	Actual/Proposed	Increase %	
							Actual	Expected
0	1,135	40,198,885	52,732,803	0.2150	48,841,646	1.4502	31.18%	21.50%
1	1,665	72,069,040	81,278,254	0.1350	81,798,339	0.9465	12.78%	13.50%
2	1,084	52,137,861	58,779,098	0.1350	59,176,472	0.9435	12.74%	13.50%
3	326	17,414,783	19,743,858	0.1350	19,765,778	0.9907	13.37%	13.50%
4	29	1,442,186	1,606,863	0.2850	1,853,211	0.4007	11.42%	28.50%
5	486	33,213,686	41,256,401	0.1750	39,026,081	1.3837	24.22%	17.50%
6	967	81,255,664	84,779,807	0.0315	83,815,218	1.3769	4.34%	3.15%
7	1,571	135,965,757	141,454,625	0.0330	140,452,627	1.2233	4.04%	3.30%
8	2,182	194,883,561	202,571,044	0.0345	201,607,044	1.1434	3.94%	3.45%
9	2,304	209,518,202	216,844,466	0.0555	221,146,462	0.6300	3.50%	5.55%
10	2,739	252,047,077	262,789,003	0.0375	261,498,842	1.1365	4.26%	3.75%
11	2,695	252,377,275	261,565,134	0.0390	262,219,988	0.9335	3.64%	3.90%
12	2,533	241,655,821	250,351,133	0.0405	251,442,882	0.8884	3.60%	4.05%
13	2,371	230,496,837	238,314,831	0.0420	240,177,705	0.8076	3.39%	4.20%
14	1,970	193,177,286	200,314,421	0.0615	205,057,689	0.6007	3.69%	6.15%
15	1,726	170,793,914	177,799,739	0.0450	178,479,640	0.9115	4.10%	4.50%
16	1,531	153,705,665	158,933,071	0.0435	160,391,862	0.7818	3.40%	4.35%
17	1,466	150,354,088	154,418,584	0.0420	156,668,960	0.6436	2.70%	4.20%
18	1,356	141,157,228	145,768,112	0.0405	146,874,095	0.8065	3.27%	4.05%
19	1,235	129,985,050	134,106,963	0.0570	137,394,197	0.5563	3.17%	5.70%
20	1,061	113,691,179	118,861,931	0.0375	117,954,598	1.2128	4.55%	3.75%
21	927	102,166,125	105,652,986	0.0360	105,844,105	0.9480	3.41%	3.60%
22	802	89,675,746	92,926,552	0.0345	92,769,559	1.0507	3.63%	3.45%
23	852	96,619,028	100,192,841	0.0330	99,807,456	1.1209	3.70%	3.30%
24	772	88,436,375	91,211,057	0.0315	91,222,121	0.9960	3.14%	3.15%
25	679	79,182,327	81,665,972	0.0300	81,557,796	1.0455	3.14%	3.00%
26	605	70,768,104	73,444,145	0.0285	72,784,995	1.3268	3.78%	2.85%
27	403	47,499,464	49,023,182	0.0270	48,781,949	1.1881	3.21%	2.70%
28	426	51,592,644	53,532,897	0.0255	52,908,256	1.4748	3.76%	2.55%
29	448	55,135,994	56,992,824	0.0240	56,459,258	1.4032	3.37%	2.40%
30+	2,098	281,243,007	289,284,048	0.0225	287,570,974	1.2707	2.86%	2.25%
Total	40,444	3,829,859,857	3,998,196,647		4,005,349,807	0.9592	4.40%	4.58%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Fire Department Pension Fund
Total Salary Experience of Active Members
Men and Women
10-Year Period Ending 2017

Average Proposed Merit Increases are 133 % of Current Assumption

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1	
Service	Life years Exposed	Total Salary BOY	Actual Salary EOY	Annual Rates of Salary Increase	Proposed Salary EOY	Actual/Proposed	Increase %	
							Actual	Expected
0	1,659	57,281,107	72,410,879	0.2150	69,596,545	1.2285	26.41%	21.50%
1	3,272	130,296,897	148,616,844	0.1350	147,886,939	1.0415	14.06%	13.50%
2	3,211	143,713,221	163,894,497	0.1350	163,114,506	1.0402	14.04%	13.50%
3	3,045	150,500,426	171,027,258	0.1350	170,817,983	1.0103	13.64%	13.50%
4	3,698	200,026,901	257,878,986	0.2850	257,034,888	1.0148	28.92%	28.50%
5	4,397	297,709,248	351,904,265	0.1750	349,808,366	1.0402	18.20%	17.50%
6	4,905	381,401,189	404,870,684	0.0315	393,415,327	1.9535	6.15%	3.15%
7	5,258	425,159,946	447,662,131	0.0330	439,190,224	1.6038	5.29%	3.30%
8	5,747	478,508,162	501,308,448	0.0345	495,016,693	1.3811	4.76%	3.45%
9	5,756	487,084,994	508,623,717	0.0555	514,118,211	0.7968	4.42%	5.55%
10	5,706	492,819,957	517,822,138	0.0375	511,300,706	1.3529	5.07%	3.75%
11	5,284	465,496,902	487,185,676	0.0390	483,651,282	1.1947	4.66%	3.90%
12	5,011	446,992,500	467,453,073	0.0405	465,095,696	1.1302	4.58%	4.05%
13	4,881	440,829,853	459,918,157	0.0420	459,344,707	1.0310	4.33%	4.20%
14	4,210	383,760,650	403,094,643	0.0615	407,361,930	0.8192	5.04%	6.15%
15	3,682	342,096,970	360,480,696	0.0450	357,491,333	1.1942	5.37%	4.50%
16	3,423	323,889,007	338,311,940	0.0435	337,978,179	1.0237	4.45%	4.35%
17	3,482	328,298,486	341,429,276	0.0420	342,087,023	0.9523	4.00%	4.20%
18	3,237	308,441,072	321,015,757	0.0405	320,932,935	1.0066	4.08%	4.05%
19	2,871	277,373,153	292,248,738	0.0570	293,183,423	0.9409	5.36%	5.70%
20	2,484	245,319,899	259,965,299	0.0375	254,519,396	1.5920	5.97%	3.75%
21	2,293	233,126,382	243,008,541	0.0360	241,518,932	1.1775	4.24%	3.60%
22	2,099	213,852,858	223,987,179	0.0345	221,230,781	1.3736	4.74%	3.45%
23	1,959	201,052,527	210,883,240	0.0330	207,687,261	1.4817	4.89%	3.30%
24	1,866	193,643,073	203,365,517	0.0315	199,742,830	1.5939	5.02%	3.15%
25	1,747	185,009,197	194,054,334	0.0300	190,559,473	1.6297	4.89%	3.00%
26	1,659	178,134,060	186,519,793	0.0285	183,210,880	1.6518	4.71%	2.85%
27	1,309	143,745,489	149,685,705	0.0270	147,626,617	1.5305	4.13%	2.70%
28	1,258	142,044,891	148,709,017	0.0255	145,667,036	1.8398	4.69%	2.55%
29	1,125	132,434,039	136,231,042	0.0240	135,612,456	1.1946	2.87%	2.40%
30+	3,949	514,058,261	530,039,777	0.0225	525,624,571	1.3817	3.11%	2.25%
Total	104,483	8,944,101,317	9,503,607,244		9,431,427,128	1.1481	6.26%	5.45%

Bolton

New York City Fire Department Pension Fund
 Total Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017
 Current Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7) = [(4) ÷ (3)]-1	(8) = [(5) ÷ (3)]-1
Plan Year	Life Years Exposed	Total Salary BOY	Actual Salary EOY	Expected Salary EOY	Actual/Expected	Increase %	
						Actual	Expected
2008	11,039	716,496,740	801,763,507	765,686,517	1.7334	11.90%	6.87%
2009	11,162	785,437,748	831,659,056	830,279,225	1.0308	5.88%	5.71%
2010	11,059	808,748,226	971,109,187	853,978,467	3.5897	20.08%	5.59%
2011	10,638	929,498,071	983,218,159	976,766,050	1.1365	5.78%	5.09%
2012	10,258	944,858,528	967,366,619	986,928,370	0.5350	2.38%	4.45%
2013	9,883	929,202,147	950,294,069	967,752,209	0.5471	2.27%	4.15%
2014	9,771	915,105,292	979,408,687	943,315,434	2.2794	7.03%	3.08%
2015	9,882	960,306,063	982,723,245	991,391,857	0.7211	2.33%	3.24%
2016	10,314	970,903,020	1,005,338,918	1,005,558,482	0.9937	3.55%	3.57%
2017	10,477	983,545,482	1,030,725,798	1,021,691,688	1.2368	4.80%	3.88%
Total	104,483	8,944,101,317	9,503,607,244	9,343,348,298	1.4014	6.26%	4.46%

Bolton		New York City Fire Department Pension Fund Merit Salary Experience of Active Members Men and Women 4-Year Period Ending 2017						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Total Salary BOY	Actual Merit Salary EOY	Annual Rates of Salary Increase	Expected Merit Salary EOY	Actual/Expected	Increase %	
							Actual	Expected
0	1,135	40,198,885	51,953,501	0.0500	42,208,829	5.8482	29.24%	5.00%
1	1,665	72,069,040	80,077,097	0.0900	78,555,254	1.2346	11.11%	9.00%
2	1,084	52,137,861	57,910,442	0.1000	57,351,647	1.1072	11.07%	10.00%
3	326	17,414,783	19,452,077	0.1000	19,156,261	1.1699	11.70%	10.00%
4	29	1,442,186	1,583,117	0.4600	2,105,592	0.2124	9.77%	46.00%
5	486	33,213,686	40,646,700	0.0100	33,545,823	22.3794	22.38%	1.00%
6	967	81,255,664	83,526,903	0.0110	82,149,477	2.5411	2.80%	1.10%
7	1,571	135,965,757	139,364,163	0.0120	137,597,346	2.0829	2.50%	1.20%
8	2,182	194,883,561	199,577,384	0.0130	197,417,047	1.8527	2.41%	1.30%
9	2,304	209,518,202	213,639,868	0.0270	215,175,193	0.7286	1.97%	2.70%
10	2,739	252,047,077	258,905,421	0.0150	255,827,783	1.8140	2.72%	1.50%
11	2,695	252,377,275	257,699,639	0.0160	256,415,311	1.3181	2.11%	1.60%
12	2,533	241,655,821	246,651,363	0.0170	245,763,970	1.2160	2.07%	1.70%
13	2,371	230,496,837	234,792,936	0.0180	234,645,780	1.0355	1.86%	1.80%
14	1,970	193,177,286	197,354,110	0.0310	199,165,782	0.6975	2.16%	3.10%
15	1,726	170,793,914	175,172,156	0.0200	174,209,792	1.2817	2.56%	2.00%
16	1,531	153,705,665	156,584,307	0.0190	156,626,073	0.9857	1.87%	1.90%
17	1,466	150,354,088	152,136,536	0.0180	153,060,461	0.6586	1.19%	1.80%
18	1,356	141,157,228	143,613,903	0.0170	143,556,900	1.0238	1.74%	1.70%
19	1,235	129,985,050	132,125,087	0.0280	133,624,631	0.5880	1.65%	2.80%
20	1,061	113,691,179	117,105,351	0.0150	115,396,546	2.0020	3.00%	1.50%
21	927	102,166,125	104,091,612	0.0140	103,596,451	1.3462	1.88%	1.40%
22	802	89,675,746	91,553,254	0.0130	90,841,530	1.6105	2.09%	1.30%
23	852	96,619,028	98,712,159	0.0120	97,778,456	1.8053	2.17%	1.20%
24	772	88,436,375	89,863,110	0.0110	89,409,176	1.4666	1.61%	1.10%
25	679	79,182,327	80,459,086	0.0100	79,974,150	1.6124	1.61%	1.00%
26	605	70,768,104	72,358,763	0.0090	71,405,017	2.4975	2.25%	0.90%
27	403	47,499,464	48,298,701	0.0080	47,879,460	2.1033	1.68%	0.80%
28	426	51,592,644	52,741,770	0.0070	51,953,792	3.1819	2.23%	0.70%
29	448	55,135,994	56,150,566	0.0060	55,466,810	3.0669	1.84%	0.60%
30+	2,098	281,243,007	285,008,914	0.0050	282,649,222	2.6780	1.34%	0.50%
Total	40,444	3,829,859,857	3,939,109,997		3,904,509,563	1.4635	2.85%	1.95%

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50% Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton		New York City Fire Department Pension Fund Merit Salary Experience of Active Members Men and Women 10-Year Period Ending 2017						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Total Salary BOY	Actual Merit Salary EOY	Annual Rates of Salary Increase	Expected Merit Salary EOY	Actual/Expected	Increase %	
							Actual	Expected
0	1,659	57,281,107	71,340,767	0.0500	60,145,162	4.9090	24.55%	5.00%
1	3,272	130,296,897	146,420,536	0.0900	142,023,618	1.3749	12.37%	9.00%
2	3,211	143,713,221	161,472,411	0.1000	158,084,543	1.2357	12.36%	10.00%
3	3,045	150,500,426	168,499,761	0.1000	165,550,468	1.1960	11.96%	10.00%
4	3,698	200,026,901	254,067,966	0.4600	292,039,275	0.5873	27.02%	46.00%
5	4,397	297,709,248	346,703,709	0.0100	300,686,340	16.4572	16.46%	1.00%
6	4,905	381,401,189	398,887,373	0.0110	385,596,602	4.1679	4.58%	1.10%
7	5,258	425,159,946	441,046,434	0.0120	430,261,865	3.1138	3.74%	1.20%
8	5,747	478,508,162	493,899,949	0.0130	484,728,768	2.4743	3.22%	1.30%
9	5,756	487,084,994	501,107,110	0.0270	500,236,289	1.0662	2.88%	2.70%
10	5,706	492,819,957	510,169,594	0.0150	500,212,257	2.3470	3.52%	1.50%
11	5,284	465,496,902	479,985,888	0.0160	472,944,853	1.9454	3.11%	1.60%
12	5,011	446,992,500	460,544,899	0.0170	454,591,372	1.7835	3.03%	1.70%
13	4,881	440,829,853	453,121,337	0.0180	448,764,791	1.5490	2.79%	1.80%
14	4,210	383,760,650	397,137,579	0.0310	395,657,230	1.1244	3.49%	3.10%
15	3,682	342,096,970	355,153,395	0.0200	348,938,909	1.9083	3.82%	2.00%
16	3,423	323,889,007	333,312,256	0.0190	330,042,899	1.5313	2.91%	1.90%
17	3,482	328,298,486	336,383,523	0.0180	334,207,859	1.3682	2.46%	1.80%
18	3,237	308,441,072	316,271,682	0.0170	313,684,570	1.4934	2.54%	1.70%
19	2,871	277,373,153	287,929,791	0.0280	285,139,601	1.3593	3.81%	2.80%
20	2,484	245,319,899	256,123,447	0.0150	248,999,698	2.9359	4.40%	1.50%
21	2,293	233,126,382	239,417,282	0.0140	236,390,151	1.9275	2.70%	1.40%
22	2,099	213,852,858	220,677,024	0.0130	216,632,945	2.4547	3.19%	1.30%
23	1,959	201,052,527	207,766,739	0.0120	203,465,158	2.7829	3.34%	1.20%
24	1,866	193,643,073	200,360,115	0.0110	195,773,147	3.1534	3.47%	1.10%
25	1,747	185,009,197	191,186,536	0.0100	186,859,289	3.3389	3.34%	1.00%
26	1,659	178,134,060	183,763,343	0.0090	179,737,266	3.5113	3.16%	0.90%
27	1,309	143,745,489	147,473,601	0.0080	144,895,453	3.2419	2.59%	0.80%
28	1,258	142,044,891	146,511,347	0.0070	143,039,205	4.4920	3.14%	0.70%
29	1,125	132,434,039	134,217,775	0.0060	133,228,643	2.2448	1.35%	0.60%
30+	3,949	514,058,261	522,206,677	0.0050	516,628,552	3.1702	1.59%	0.50%
Total	104,483	8,944,101,317	9,363,159,846		9,209,186,779	1.5808	4.69%	2.96%

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50% Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton

New York City Fire Department Pension Fund
 Merit Salary Experience of Active Members
 Men and Women
 4-Year Period Ending 2017

Average Proposed Merit Increases are 133 % of Current Assumption

(1) Service	(2) Life years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1	
							Increase %	
							Actual	Expected
0	1,135	40,198,885	51,953,501	0.2000	48,238,662	1.4621	29.24%	20.00%
1	1,665	72,069,040	80,077,097	0.1200	80,717,303	0.9260	11.11%	12.00%
2	1,084	52,137,861	57,910,442	0.1200	58,394,404	0.9226	11.07%	12.00%
3	326	17,414,783	19,452,077	0.1200	19,504,557	0.9749	11.70%	12.00%
4	29	1,442,186	1,583,117	0.2700	1,831,579	0.3619	9.77%	27.00%
5	486	33,213,686	40,646,700	0.1600	38,527,876	1.3987	22.38%	16.00%
6	967	81,255,664	83,526,903	0.0165	82,596,383	1.6940	2.80%	1.65%
7	1,571	135,965,757	139,364,163	0.0180	138,413,141	1.3886	2.50%	1.80%
8	2,182	194,883,561	199,577,384	0.0195	198,683,790	1.2351	2.41%	1.95%
9	2,304	209,518,202	213,639,868	0.0405	218,003,689	0.4857	1.97%	4.05%
10	2,739	252,047,077	258,905,421	0.0225	257,718,136	1.2094	2.72%	2.25%
11	2,695	252,377,275	257,699,639	0.0240	258,434,329	0.8787	2.11%	2.40%
12	2,533	241,655,821	246,651,363	0.0255	247,818,044	0.8107	2.07%	2.55%
13	2,371	230,496,837	234,792,936	0.0270	236,720,252	0.6903	1.86%	2.70%
14	1,970	193,177,286	197,354,110	0.0465	202,160,030	0.4650	2.16%	4.65%
15	1,726	170,793,914	175,172,156	0.0300	175,917,731	0.8545	2.56%	3.00%
16	1,531	153,705,665	156,584,307	0.0285	158,086,277	0.6571	1.87%	2.85%
17	1,466	150,354,088	152,136,536	0.0270	154,413,648	0.4391	1.19%	2.70%
18	1,356	141,157,228	143,613,903	0.0255	144,756,737	0.6825	1.74%	2.55%
19	1,235	129,985,050	132,125,087	0.0420	135,444,422	0.3920	1.65%	4.20%
20	1,061	113,691,179	117,105,351	0.0225	116,249,230	1.3347	3.00%	2.25%
21	927	102,166,125	104,091,612	0.0210	104,311,613	0.8975	1.88%	2.10%
22	802	89,675,746	91,553,254	0.0195	91,424,423	1.0737	2.09%	1.95%
23	852	96,619,028	98,712,159	0.0180	98,358,170	1.2035	2.17%	1.80%
24	772	88,436,375	89,863,110	0.0165	89,895,576	0.9778	1.61%	1.65%
25	679	79,182,327	80,459,086	0.0150	80,370,061	1.0750	1.61%	1.50%
26	605	70,768,104	72,358,763	0.0135	71,723,474	1.6650	2.25%	1.35%
27	403	47,499,464	48,298,701	0.0120	48,069,458	1.4022	1.68%	1.20%
28	426	51,592,644	52,741,770	0.0105	52,134,366	2.1212	2.23%	1.05%
29	448	55,135,994	56,150,566	0.0090	55,632,218	2.0446	1.84%	0.90%
30+	2,098	281,243,007	285,008,914	0.0075	283,352,329	1.7854	1.34%	0.75%
Total	40,444	3,829,859,857	3,939,109,997		3,947,901,909	0.9255	2.85%	3.08%

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50% Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton

New York City Fire Department Pension Fund
 Merit Salary Experience of Active Members
 Men and Women
 10-Year Period Ending 2017

Average Proposed Merit Increases are 133 % of Current Assumption

(1) Service	(2) Life years Exposed	(3) Total Salary BOY	(4) Actual Merit Salary EOY	(5) Annual Rates of Salary Increase	(6) Proposed Merit Salary EOY	(7) Actual/Proposed	(8) = [(4) ÷ (3)]-1 (9) = [(6) ÷ (3)]-1 Increase %	
							Actual	Expected
0	1,659	57,281,107	71,340,767	0.2000	68,737,329	1.2273	24.55%	20.00%
1	3,272	130,296,897	146,420,536	0.1200	145,932,485	1.0312	12.37%	12.00%
2	3,211	143,713,221	161,472,411	0.1200	160,958,808	1.0298	12.36%	12.00%
3	3,045	150,500,426	168,499,761	0.1200	168,560,477	0.9966	11.96%	12.00%
4	3,698	200,026,901	254,067,966	0.2700	254,034,484	1.0006	27.02%	27.00%
5	4,397	297,709,248	346,703,709	0.1600	345,342,727	1.0286	16.46%	16.00%
6	4,905	381,401,189	398,887,373	0.0165	387,694,309	2.7786	4.58%	1.65%
7	5,258	425,159,946	441,046,434	0.0180	432,812,825	2.0759	3.74%	1.80%
8	5,747	478,508,162	493,899,949	0.0195	487,839,071	1.6495	3.22%	1.95%
9	5,756	487,084,994	501,107,110	0.0405	506,811,936	0.7108	2.88%	4.05%
10	5,706	492,819,957	510,169,594	0.0225	503,908,406	1.5647	3.52%	2.25%
11	5,284	465,496,902	479,985,888	0.0240	476,668,828	1.2969	3.11%	2.40%
12	5,011	446,992,500	460,544,899	0.0255	458,390,809	1.1890	3.03%	2.55%
13	4,881	440,829,853	453,121,337	0.0270	452,732,259	1.0327	2.79%	2.70%
14	4,210	383,760,650	397,137,579	0.0465	401,605,521	0.7496	3.49%	4.65%
15	3,682	342,096,970	355,153,395	0.0300	352,359,879	1.2722	3.82%	3.00%
16	3,423	323,889,007	333,312,256	0.0285	333,119,844	1.0208	2.91%	2.85%
17	3,482	328,298,486	336,383,523	0.0270	337,162,545	0.9121	2.46%	2.70%
18	3,237	308,441,072	316,271,682	0.0255	316,306,319	0.9956	2.54%	2.55%
19	2,871	277,373,153	287,929,791	0.0420	289,022,825	0.9062	3.81%	4.20%
20	2,484	245,319,899	256,123,447	0.0225	250,839,597	1.9573	4.40%	2.25%
21	2,293	233,126,382	239,417,282	0.0210	238,022,036	1.2850	2.70%	2.10%
22	2,099	213,852,858	220,677,024	0.0195	218,022,989	1.6364	3.19%	1.95%
23	1,959	201,052,527	207,766,739	0.0180	204,671,473	1.8553	3.34%	1.80%
24	1,866	193,643,073	200,360,115	0.0165	196,838,184	2.1023	3.47%	1.65%
25	1,747	185,009,197	191,186,536	0.0150	187,784,335	2.2260	3.34%	1.50%
26	1,659	178,134,060	183,763,343	0.0135	180,538,869	2.3408	3.16%	1.35%
27	1,309	143,745,489	147,473,601	0.0120	145,470,435	2.1613	2.59%	1.20%
28	1,258	142,044,891	146,511,347	0.0105	143,536,362	2.9947	3.14%	1.05%
29	1,125	132,434,039	134,217,775	0.0090	133,625,945	1.4965	1.35%	0.90%
30+	3,949	514,058,261	522,206,677	0.0075	517,913,697	2.1135	1.59%	0.75%
Total	104,483	8,944,101,317	9,363,159,846		9,297,265,609	1.1866	4.69%	3.95%

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of 1.50%. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

Bolton

New York City Fire Department Pension Fund
Overtime Pay Experience for All Years - Excluding Dual OT
Men and Women
4-Year Period Ending 2016

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime Assumption as % of Base Pay	Expected Overtime	Actual/Expected	Increase %	
							Actual	Expected
0	830	32,602,915	10,925,126	15.00%	4,890,437	2.2340	33.51%	15.00%
1	1,106	50,244,188	16,836,382	15.00%	7,536,628	2.2339	33.51%	15.00%
2	314	16,017,052	5,138,079	15.00%	2,402,558	2.1386	32.08%	15.00%
3	15	783,591	202,801	15.00%	117,539	1.7254	25.88%	15.00%
4	421	26,605,328	8,844,720	15.00%	3,990,799	2.2163	33.24%	15.00%
5	949	73,709,813	26,922,815	15.00%	11,056,472	2.4350	36.53%	15.00%
6	1,556	133,831,860	45,616,671	15.00%	20,074,779	2.2723	34.09%	15.00%
7	2,120	187,822,020	59,923,566	15.00%	28,173,303	2.1270	31.90%	15.00%
8	2,335	210,019,090	66,731,228	15.00%	31,502,864	2.1183	31.77%	15.00%
9	2,675	243,205,824	77,458,643	15.00%	36,480,874	2.1233	31.85%	15.00%
10	2,667	246,108,746	75,270,298	15.00%	36,916,312	2.0389	30.58%	15.00%
11	2,562	241,013,416	72,008,036	15.00%	36,152,012	1.9918	29.88%	15.00%
12	2,325	222,744,050	65,918,735	15.00%	33,411,608	1.9729	29.59%	15.00%
13	1,963	190,044,134	54,754,718	15.00%	28,506,620	1.9208	28.81%	15.00%
14	1,728	168,594,362	49,336,137	15.00%	25,289,154	1.9509	29.26%	15.00%
15	1,515	149,790,096	43,594,209	15.00%	22,468,514	1.9402	29.10%	15.00%
16	1,502	152,086,985	44,124,168	15.00%	22,813,048	1.9342	29.01%	15.00%
17	1,309	135,100,167	38,677,424	15.00%	20,265,025	1.9086	28.63%	15.00%
18	1,240	129,002,842	37,375,737	16.00%	20,640,455	1.8108	28.97%	16.00%
19	1,083	114,649,292	32,143,175	17.00%	19,490,380	1.6492	28.04%	17.00%
20	906	98,227,405	26,847,298	18.00%	17,680,933	1.5184	27.33%	18.00%
21	796	87,801,104	23,342,383	17.00%	14,926,188	1.5639	26.59%	17.00%
22	846	94,876,856	23,863,759	16.00%	15,180,297	1.5720	25.15%	16.00%
23	772	87,123,811	22,161,047	15.00%	13,068,572	1.6958	25.44%	15.00%
24	676	77,890,730	19,355,716	14.00%	10,904,702	1.7750	24.85%	14.00%
25	606	70,011,131	17,296,590	13.00%	9,101,447	1.9004	24.71%	13.00%
26	400	46,469,701	11,254,755	12.00%	5,576,364	2.0183	24.22%	12.00%
27	425	50,941,507	11,567,140	11.00%	5,603,566	2.0642	22.71%	11.00%
28	447	54,237,336	11,920,289	10.00%	5,423,734	2.1978	21.98%	10.00%
29	402	49,994,346	10,897,514	9.00%	4,499,491	2.4219	21.80%	9.00%
30	381	48,303,178	10,247,774	8.00%	3,864,254	2.6519	21.22%	8.00%
31	326	41,719,951	8,287,092	7.00%	2,920,397	2.8377	19.86%	7.00%
32	240	31,644,528	5,618,936	6.00%	1,898,672	2.9594	17.76%	6.00%
33	238	32,797,681	4,885,285	5.00%	1,639,884	2.9790	14.90%	5.00%
34	196	28,074,762	3,706,846	5.00%	1,403,738	2.6407	13.20%	5.00%
35	134	19,274,919	2,428,866	5.00%	963,746	2.5202	12.60%	5.00%
36	97	13,996,909	1,661,692	5.00%	699,845	2.3744	11.87%	5.00%
37	38	5,499,630	695,467	5.00%	274,981	2.5291	12.65%	5.00%
38	9	1,355,017	123,060	5.00%	67,751	1.8164	9.08%	5.00%
39	18	2,619,167	207,157	5.00%	130,958	1.5819	7.91%	5.00%
40	13	1,954,413	153,751	5.00%	97,721	1.5734	7.87%	5.00%
41	5	778,623	87,178	5.00%	38,931	2.2393	11.20%	5.00%
42	1	107,638	37,482	5.00%	5,382	6.9645	34.82%	5.00%
43	0	0	0	5.00%	0	N/A	N/A	N/A
44	0	0	0	5.00%	0	N/A	N/A	N/A
45	0	0	0	5.00%	0	N/A	N/A	N/A
Total	38,187	3,669,676,113	1,048,449,745		528,150,933	1.9851	28.57%	14.39%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton		New York City Fire Department Pension Fund Overtime Pay Experience for All Years - Excluding Dual OT Men and Women 9-Year Period Ending 2016						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime Assumption as % of Base Pay	Expected Overtime	Actual/Expected	Actual	Expected
0	1,351	50,784,002	13,030,835	15.00%	7,617,600	1.7106	25.66%	15.00%
1	2,712	112,923,437	25,636,704	15.00%	16,938,516	1.5135	22.70%	15.00%
2	2,441	114,362,431	21,894,233	15.00%	17,154,365	1.2763	19.14%	15.00%
3	2,731	142,804,388	26,263,307	15.00%	21,420,658	1.2261	18.39%	15.00%
4	3,676	227,757,863	42,813,605	15.00%	34,163,679	1.2532	18.80%	15.00%
5	4,365	322,645,233	74,979,163	15.00%	48,396,785	1.5493	23.24%	15.00%
6	4,866	390,268,776	96,132,686	15.00%	58,540,316	1.6422	24.63%	15.00%
7	5,153	429,368,102	106,331,437	15.00%	64,405,215	1.6510	24.76%	15.00%
8	5,270	446,603,835	113,299,342	15.00%	66,990,575	1.6913	25.37%	15.00%
9	5,234	449,640,951	117,838,195	15.00%	67,446,143	1.7471	26.21%	15.00%
10	4,916	429,512,399	110,199,086	15.00%	64,426,860	1.7105	25.66%	15.00%
11	4,576	407,862,882	103,501,974	15.00%	61,179,432	1.6918	25.38%	15.00%
12	4,385	396,380,072	99,968,353	15.00%	59,457,011	1.6814	25.22%	15.00%
13	3,903	353,917,089	85,677,971	15.00%	53,087,563	1.6139	24.21%	15.00%
14	3,467	318,676,617	76,390,902	15.00%	47,801,493	1.5981	23.97%	15.00%
15	3,075	288,913,711	70,510,217	15.00%	43,337,057	1.6270	24.41%	15.00%
16	2,989	287,340,685	70,644,472	15.00%	43,101,103	1.6390	24.59%	15.00%
17	2,943	279,904,805	66,583,107	15.00%	41,985,721	1.5859	23.79%	15.00%
18	2,681	258,003,409	62,073,399	16.00%	41,280,545	1.5037	24.06%	16.00%
19	2,290	226,007,218	53,425,736	17.00%	38,421,227	1.3905	23.64%	17.00%
20	2,081	209,891,518	48,898,757	18.00%	37,780,473	1.2943	23.30%	18.00%
21	1,847	189,261,579	43,323,710	17.00%	32,174,468	1.3465	22.89%	17.00%
22	1,703	176,263,018	39,797,720	16.00%	28,202,083	1.4112	22.58%	16.00%
23	1,654	172,064,846	37,927,008	15.00%	25,809,727	1.4695	22.04%	15.00%
24	1,544	163,677,228	35,084,310	14.00%	22,914,812	1.5311	21.44%	14.00%
25	1,433	154,003,666	31,844,862	13.00%	20,020,477	1.5906	20.68%	13.00%
26	1,265	136,287,683	26,311,210	12.00%	16,354,522	1.6088	19.31%	12.00%
27	1,079	121,361,880	22,975,530	11.00%	13,349,807	1.7210	18.93%	11.00%
28	1,043	120,834,614	21,549,861	10.00%	12,083,461	1.7834	17.83%	10.00%
29	902	108,346,368	18,438,115	9.00%	9,751,173	1.8909	17.02%	9.00%
30	776	96,541,034	15,856,569	8.00%	7,723,283	2.0531	16.42%	8.00%
31	585	75,204,882	11,621,753	7.00%	5,264,342	2.2076	15.45%	7.00%
32	439	58,525,690	8,633,650	6.00%	3,511,541	2.4586	14.75%	6.00%
33	334	45,597,964	6,335,295	5.00%	2,279,898	2.7788	13.89%	5.00%
34	261	36,255,135	4,431,290	5.00%	1,812,757	2.4445	12.22%	5.00%
35	179	24,773,658	2,859,854	5.00%	1,238,683	2.3088	11.54%	5.00%
36	130	18,302,667	1,989,089	5.00%	915,133	2.1736	10.87%	5.00%
37	70	9,794,970	1,055,093	5.00%	489,749	2.1544	10.77%	5.00%
38	36	4,854,548	440,427	5.00%	242,727	1.8145	9.07%	5.00%
39	29	4,041,485	253,190	5.00%	202,074	1.2530	6.26%	5.00%
40	22	3,048,487	200,580	5.00%	152,424	1.3159	6.58%	5.00%
41	14	1,914,213	160,796	5.00%	95,711	1.6800	8.40%	5.00%
42	7	993,723	46,788	5.00%	49,686	0.9417	4.71%	5.00%
43	4	651,555	0	5.00%	32,578	0.0000	0.00%	5.00%
44	2	309,561	0	5.00%	15,478	0.0000	0.00%	5.00%
45	1	160,620	0	5.00%	8,031	0.0000	0.00%	5.00%
Total	90,464	7,866,640,498	1,817,230,181		1,139,626,963	1.5946	23.10%	14.49%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Fire Department Pension Fund
 Overtime Pay Experience for All Years - Excluding Dual OT
 Men and Women
 4-Year Period Ending 2016
 Proposed Rates are 133% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime Assumption as % of Base Pay	(6) Proposed Overtime	(7) Actual/Expected	(8) Increase %	
							Actual	Expected
0	830	32,602,915	10,925,126	19.95%	6,504,282	1.6797	33.51%	19.95%
1	1,106	50,244,188	16,836,382	19.95%	10,023,716	1.6797	33.51%	19.95%
2	314	16,017,052	5,138,079	19.95%	3,195,402	1.6080	32.08%	19.95%
3	15	783,591	202,801	19.95%	156,326	1.2973	25.88%	19.95%
4	421	26,605,328	8,844,720	19.95%	5,307,763	1.6664	33.24%	19.95%
5	949	73,709,813	26,922,815	19.95%	14,705,108	1.8308	36.53%	19.95%
6	1,556	133,831,860	45,616,671	19.95%	26,699,456	1.7085	34.09%	19.95%
7	2,120	187,822,020	59,923,566	19.95%	37,470,493	1.5992	31.90%	19.95%
8	2,335	210,019,090	66,731,228	19.95%	41,898,808	1.5927	31.77%	19.95%
9	2,675	243,205,824	77,458,643	19.95%	48,519,562	1.5964	31.85%	19.95%
10	2,667	246,108,746	75,270,298	19.95%	49,098,695	1.5330	30.58%	19.95%
11	2,562	241,013,416	72,008,036	19.95%	48,082,177	1.4976	29.88%	19.95%
12	2,325	222,744,050	65,918,735	19.95%	44,437,438	1.4834	29.59%	19.95%
13	1,963	190,044,134	54,754,718	19.95%	37,913,805	1.4442	28.81%	19.95%
14	1,728	168,594,362	49,336,137	19.95%	33,634,575	1.4668	29.26%	19.95%
15	1,515	149,790,096	43,594,209	19.95%	29,883,124	1.4588	29.10%	19.95%
16	1,502	152,086,985	44,124,168	19.95%	30,341,354	1.4543	29.01%	19.95%
17	1,309	135,100,167	38,677,424	19.95%	26,952,483	1.4350	28.63%	19.95%
18	1,240	129,002,842	37,375,737	21.28%	27,451,805	1.3615	28.97%	21.28%
19	1,083	114,649,292	32,143,175	22.61%	25,922,205	1.2400	28.04%	22.61%
20	906	98,227,405	26,847,298	23.94%	23,515,641	1.1417	27.33%	23.94%
21	796	87,801,104	23,342,383	22.61%	19,851,830	1.1758	26.59%	22.61%
22	846	94,876,856	23,863,759	21.28%	20,189,795	1.1820	25.15%	21.28%
23	772	87,123,811	22,161,047	19.95%	17,381,200	1.2750	25.44%	19.95%
24	676	77,890,730	19,355,716	18.62%	14,503,254	1.3346	24.85%	18.62%
25	606	70,011,131	17,296,590	17.29%	12,104,924	1.4289	24.71%	17.29%
26	400	46,469,701	11,254,755	15.96%	7,416,564	1.5175	24.22%	15.96%
27	425	50,941,507	11,567,140	14.63%	7,452,742	1.5521	22.71%	14.63%
28	447	54,237,336	11,920,289	13.30%	7,213,566	1.6525	21.98%	13.30%
29	402	49,994,346	10,897,514	11.97%	5,984,323	1.8210	21.80%	11.97%
30	381	48,303,178	10,247,774	10.64%	5,139,458	1.9939	21.22%	10.64%
31	326	41,719,951	8,287,092	9.31%	3,884,127	2.1336	19.86%	9.31%
32	240	31,644,528	5,618,936	7.98%	2,525,233	2.2251	17.76%	7.98%
33	238	32,797,681	4,885,285	6.65%	2,181,046	2.2399	14.90%	6.65%
34	196	28,074,762	3,706,846	6.65%	1,866,972	1.9855	13.20%	6.65%
35	134	19,274,919	2,428,866	6.65%	1,281,782	1.8949	12.60%	6.65%
36	97	13,996,909	1,661,692	6.65%	930,794	1.7852	11.87%	6.65%
37	38	5,499,630	695,467	6.65%	365,725	1.9016	12.65%	6.65%
38	9	1,355,017	123,060	6.65%	90,109	1.3657	9.08%	6.65%
39	18	2,619,167	207,157	6.65%	174,175	1.1894	7.91%	6.65%
40	13	1,954,413	153,751	6.65%	129,968	1.1830	7.87%	6.65%
41	5	778,623	87,178	6.65%	51,778	1.6837	11.20%	6.65%
42	1	107,638	37,482	6.65%	7,158	5.2365	34.82%	6.65%
43	0	0	0	6.65%	0	N/A	N/A	N/A
44	0	0	0	6.65%	0	N/A	N/A	N/A
45	0	0	0	6.65%	0	N/A	N/A	N/A
Total	38,187	3,669,676,113	1,048,449,745		702,440,742	1.4926	28.57%	19.14%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton

New York City Fire Department Pension Fund
 Overtime Pay Experience for All Years - Excluding Dual OT
 Men and Women
 9-Year Period Ending 2016
 Proposed Rates are 133% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime Assumption as % of Base Pay	(6) Proposed Overtime	(7) Actual/Expected	(8) Increase %	
							Actual	Expected
0	1,351	50,784,002	13,030,835	19.95%	10,131,408	1.2862	25.66%	19.95%
1	2,712	112,923,437	25,636,704	19.95%	22,528,226	1.1380	22.70%	19.95%
2	2,441	114,362,431	21,894,233	19.95%	22,815,305	0.9596	19.14%	19.95%
3	2,731	142,804,388	26,263,307	19.95%	28,489,475	0.9219	18.39%	19.95%
4	3,676	227,757,863	42,813,605	19.95%	45,437,694	0.9422	18.80%	19.95%
5	4,365	322,645,233	74,979,163	19.95%	64,367,724	1.1649	23.24%	19.95%
6	4,866	390,268,776	96,132,686	19.95%	77,858,621	1.2347	24.63%	19.95%
7	5,153	429,368,102	106,331,437	19.95%	85,658,936	1.2413	24.76%	19.95%
8	5,270	446,603,835	113,299,342	19.95%	89,097,465	1.2716	25.37%	19.95%
9	5,234	449,640,951	117,838,195	19.95%	89,703,370	1.3136	26.21%	19.95%
10	4,916	429,512,399	110,199,086	19.95%	85,687,724	1.2861	25.66%	19.95%
11	4,576	407,862,882	103,501,974	19.95%	81,368,645	1.2720	25.38%	19.95%
12	4,385	396,380,072	99,968,353	19.95%	79,077,824	1.2642	25.22%	19.95%
13	3,903	353,917,089	85,677,971	19.95%	70,606,459	1.2135	24.21%	19.95%
14	3,467	318,676,617	76,390,902	19.95%	63,575,985	1.2016	23.97%	19.95%
15	3,075	288,913,711	70,510,217	19.95%	57,638,285	1.2233	24.41%	19.95%
16	2,989	287,340,685	70,644,472	19.95%	57,324,467	1.2324	24.59%	19.95%
17	2,943	279,904,805	66,583,107	19.95%	55,841,009	1.1924	23.79%	19.95%
18	2,681	258,003,409	62,073,399	21.28%	54,903,125	1.1306	24.06%	21.28%
19	2,290	226,007,218	53,425,736	22.61%	51,100,232	1.0455	23.64%	22.61%
20	2,081	209,891,518	48,898,757	23.94%	50,248,029	0.9731	23.30%	23.94%
21	1,847	189,261,579	43,323,710	22.61%	42,792,043	1.0124	22.89%	22.61%
22	1,703	176,263,018	39,797,720	21.28%	37,508,770	1.0610	22.58%	21.28%
23	1,654	172,064,846	37,927,008	19.95%	34,326,937	1.1049	22.04%	19.95%
24	1,544	163,677,228	35,084,310	18.62%	30,476,700	1.1512	21.44%	18.62%
25	1,433	154,003,666	31,844,862	17.29%	26,627,234	1.1960	20.68%	17.29%
26	1,265	136,287,683	26,311,210	15.96%	21,751,514	1.2096	19.31%	15.96%
27	1,079	121,361,880	22,975,530	14.63%	17,755,243	1.2940	18.93%	14.63%
28	1,043	120,834,614	21,549,861	13.30%	16,071,004	1.3409	17.83%	13.30%
29	902	108,346,368	18,438,115	11.97%	12,969,060	1.4217	17.02%	11.97%
30	776	96,541,034	15,856,569	10.64%	10,271,966	1.5437	16.42%	10.64%
31	585	75,204,882	11,621,753	9.31%	7,001,575	1.6599	15.45%	9.31%
32	439	58,525,690	8,633,650	7.98%	4,670,350	1.8486	14.75%	7.98%
33	334	45,597,964	6,335,295	6.65%	3,032,265	2.0893	13.89%	6.65%
34	261	36,255,135	4,431,290	6.65%	2,410,966	1.8380	12.22%	6.65%
35	179	24,773,658	2,859,854	6.65%	1,647,448	1.7359	11.54%	6.65%
36	130	18,302,667	1,989,089	6.65%	1,217,127	1.6342	10.87%	6.65%
37	70	9,794,970	1,055,093	6.65%	651,366	1.6198	10.77%	6.65%
38	36	4,854,548	440,427	6.65%	322,827	1.3643	9.07%	6.65%
39	29	4,041,485	253,190	6.65%	268,759	0.9421	6.26%	6.65%
40	22	3,048,487	200,580	6.65%	202,724	0.9894	6.58%	6.65%
41	14	1,914,213	160,796	6.65%	127,295	1.2632	8.40%	6.65%
42	7	993,723	46,788	6.65%	66,083	0.7080	4.71%	6.65%
43	4	651,555	0	6.65%	43,328	0.0000	0.00%	6.65%
44	2	309,561	0	6.65%	20,586	0.0000	0.00%	6.65%
45	1	160,620	0	6.65%	10,681	0.0000	0.00%	6.65%
Total	90,464	7,866,640,498	1,817,230,181		1,515,703,860	1.1989	23.10%	19.27%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

Bolton		New York City Fire Department Pension Fund Overtime Pay Experience for All Years - Including Dual OT Men and Women 9-Year Period Ending 2016					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Plan Year	Life Years Exposed	Salary during the Year	Actual Overtime	Expected Overtime	Actual/Expected	Increase %	
						Actual	Expected
2008	11,035	758,862,611	126,317,821	110,958,610	1.1384	16.65%	14.62%
2009	11,162	808,548,402	117,882,871	117,938,222	0.9995	14.58%	14.59%
2010	11,059	889,928,707	149,525,128	129,310,655	1.1563	16.80%	14.53%
2011	10,638	956,358,115	188,590,274	138,579,792	1.3609	19.72%	14.49%
2012	10,258	956,112,573	221,012,429	137,722,257	1.6048	23.12%	14.40%
2013	9,883	939,748,108	272,902,813	134,616,501	2.0273	29.04%	14.32%
2014	9,771	947,256,989	281,882,696	135,431,595	2.0814	29.76%	14.30%
2015	9,882	971,514,654	270,070,019	138,887,158	1.9445	27.80%	14.30%
2016	10,313	988,079,923	269,001,090	141,306,546	1.9037	27.22%	14.30%
Total	94,001	8,216,410,082	1,897,185,141	1,184,751,335	1.6013	23.09%	14.42%

*The values for 2015 includes everyone, and all other years exclude individuals who retired (regular or disabled) the following year

New York City Fire Department Pension Fund Overtime Pay Experience before Service Retirement Men and Women 4-Year Period Ending 2016									
Bolton									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) Increase %	
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime - Tiers I/II	Overtime - Tier III	Expected Overtime	Actual/Expected	Actual	Expected
0	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
1	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
2	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
3	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
4	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
5	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
6	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
7	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
8	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
9	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
10	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
11	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
12	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
13	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
14	0	0	0	17.00%	16.00%	0	N/A	N/A	N/A
15	0	0	0	18.00%	16.00%	0	N/A	N/A	N/A
16	3	305,117	208,586	19.00%	17.00%	57,972	3.5980	68.36%	19.00%
17	0	0	0	20.00%	18.00%	0	N/A	N/A	N/A
18	21	2,124,248	674,603	21.00%	19.00%	446,092	1.5123	31.76%	21.00%
19	35	3,419,599	1,378,074	22.00%	20.00%	752,312	1.8318	40.30%	22.00%
20	18	1,895,773	548,496	23.00%	21.00%	436,028	1.2579	28.93%	23.00%
21	19	1,937,410	821,495	22.00%	20.00%	426,230	1.9274	42.40%	22.00%
22	18	1,838,885	661,811	21.00%	19.00%	386,166	1.7138	35.99%	21.00%
23	18	1,937,468	669,435	20.00%	18.00%	387,494	1.7276	34.55%	20.00%
24	29	2,998,664	1,030,038	19.00%	17.00%	569,746	1.8079	34.35%	19.00%
25	24	2,585,454	833,298	18.00%	16.00%	465,382	1.7906	32.23%	18.00%
26	16	1,703,214	696,647	16.00%	14.00%	272,514	2.5564	40.90%	16.00%
27	20	2,021,714	630,374	14.00%	13.00%	283,040	2.2272	31.18%	14.00%
28	17	1,692,429	576,257	12.00%	11.00%	203,092	2.8374	34.05%	12.00%
29	29	3,031,089	940,693	11.00%	10.00%	333,420	2.8213	31.03%	11.00%
30	20	1,995,743	621,055	10.00%	9.00%	199,574	3.1119	31.12%	10.00%
31	30	3,368,582	933,213	9.00%	8.00%	303,172	3.0782	27.70%	9.00%
32	16	1,806,973	538,951	8.00%	7.00%	144,558	3.7283	29.83%	8.00%
33	25	2,973,799	737,728	7.00%	6.00%	208,166	3.5439	24.81%	7.00%
34	12	1,632,373	314,589	6.00%	6.00%	97,942	3.2120	19.27%	6.00%
35	6	842,002	151,291	6.00%	6.00%	50,520	2.9947	17.97%	6.00%
36	7	985,944	129,899	6.00%	6.00%	59,157	2.1958	13.18%	6.00%
37	4	464,150	106,971	6.00%	6.00%	27,849	3.8411	23.05%	6.00%
38	3	449,709	30,740	6.00%	6.00%	26,983	1.1393	6.84%	6.00%
39	1	132,552	66,737	6.00%	6.00%	7,953	8.3913	50.35%	6.00%
40	1	117,221	38,999	6.00%	6.00%	7,033	5.5449	33.27%	6.00%
41	6	774,419	48,756	6.00%	6.00%	46,465	1.0493	6.30%	6.00%
42	2	211,260	90,475	6.00%	6.00%	12,676	7.1377	42.83%	6.00%
43	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
44	2	355,849	0	6.00%	6.00%	21,351	0.0000	0.00%	6.00%
45	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
Total	402	43,601,639	13,479,211			6,232,886	2.1626	30.91%	14.30%

New York City Retirement Systems

Bolton

New York City Fire Department Pension Fund
Overtime Pay Experience before Service Retirement
Men and Women
9-Year Period Ending 2016

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Expected Overtime	(8) Actual/Expected	(9) Increase %	
								Actual	Expected
0	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
1	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
2	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
3	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
4	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
5	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
6	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
7	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
8	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
9	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
10	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
11	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
12	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
13	0	0	0	16.00%	16.00%	0	N/A	N/A	N/A
14	0	0	0	17.00%	16.00%	0	N/A	N/A	N/A
15	0	0	0	18.00%	16.00%	0	N/A	N/A	N/A
16	3	305,117	208,586	19.00%	17.00%	57,972	3.5980	68.36%	19.00%
17	2	186,239	68,102	20.00%	18.00%	37,248	1.8283	36.57%	20.00%
18	37	3,447,189	982,794	21.00%	19.00%	723,910	1.3576	28.51%	21.00%
19	69	6,271,321	2,258,091	22.00%	20.00%	1,379,691	1.6367	36.01%	22.00%
20	29	2,875,454	821,736	23.00%	21.00%	661,354	1.2425	28.58%	23.00%
21	39	3,874,712	1,397,497	22.00%	20.00%	852,437	1.6394	36.07%	22.00%
22	29	2,843,411	891,814	21.00%	19.00%	597,116	1.4935	31.36%	21.00%
23	25	2,551,432	761,964	20.00%	18.00%	510,286	1.4932	29.86%	20.00%
24	50	4,864,093	1,410,610	19.00%	17.00%	924,178	1.5263	29.00%	19.00%
25	43	4,354,551	1,278,288	18.00%	16.00%	783,819	1.6308	29.36%	18.00%
26	36	3,572,103	1,138,640	16.00%	14.00%	571,536	1.9922	31.88%	16.00%
27	34	3,343,837	946,320	14.00%	13.00%	468,137	2.0215	28.30%	14.00%
28	36	3,548,135	998,417	12.00%	11.00%	425,776	2.3449	28.14%	12.00%
29	44	4,501,643	1,212,039	11.00%	10.00%	495,181	2.4477	26.92%	11.00%
30	38	3,865,418	1,049,146	10.00%	9.00%	386,542	2.7142	27.14%	10.00%
31	37	4,245,997	1,076,080	9.00%	8.00%	382,140	2.8159	25.34%	9.00%
32	27	3,107,888	703,625	8.00%	7.00%	248,631	2.8300	22.64%	8.00%
33	32	3,901,006	869,203	7.00%	6.00%	273,070	3.1831	22.28%	7.00%
34	16	2,056,054	391,739	6.00%	6.00%	123,363	3.1755	19.05%	6.00%
35	7	925,397	160,034	6.00%	6.00%	55,524	2.8823	17.29%	6.00%
36	9	1,203,373	160,769	6.00%	6.00%	72,202	2.2266	13.36%	6.00%
37	6	648,319	170,026	6.00%	6.00%	38,899	4.3709	26.23%	6.00%
38	6	798,137	107,992	6.00%	6.00%	47,888	2.2551	13.53%	6.00%
39	2	309,476	66,737	6.00%	6.00%	18,569	3.5941	21.56%	6.00%
40	1	117,221	38,999	6.00%	6.00%	7,033	5.5449	33.27%	6.00%
41	7	851,904	67,680	6.00%	6.00%	51,114	1.3241	7.94%	6.00%
42	2	211,260	90,475	6.00%	6.00%	12,676	7.1377	42.83%	6.00%
43	1	119,275	17,515	6.00%	6.00%	7,157	2.4474	14.68%	6.00%
44	2	355,849	0	6.00%	6.00%	21,351	-	0.00%	6.00%
45	0	0	0	6.00%	6.00%	0	N/A	N/A	N/A
Total	669	69,255,811	19,344,918			10,234,801	1.8901	27.93%	14.78%

Bolton

New York City Fire Department Pension Fund
 Overtime Pay Experience before Service Retirement
 Men and Women
 4-Year Period Ending 2016
 Proposed Rates are 133% of the Current Rates

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Service	Life years Exposed	Salary during the Year	Actual Overtime	Overtime - Tiers I/II	Overtime - Tier III	Proposed Overtime	Actual/Proposed	Increase %	
								Actual	Expected
0	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
1	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
2	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
3	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
4	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
5	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
6	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
7	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
8	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
9	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
10	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
11	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
12	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
13	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
14	0	0	0	22.61%	21.28%	0	N/A	N/A	N/A
15	0	0	0	23.94%	21.28%	0	N/A	N/A	N/A
16	3	305,117	208,586	25.27%	22.61%	77,103	2.7053	68.36%	25.27%
17	0	0	0	26.60%	23.94%	0	N/A	N/A	N/A
18	21	2,124,248	674,603	27.93%	25.27%	593,303	1.1370	31.76%	27.93%
19	35	3,419,599	1,378,074	29.26%	26.60%	1,000,575	1.3773	40.30%	29.26%
20	18	1,895,773	548,496	30.59%	27.93%	579,917	0.9458	28.93%	30.59%
21	19	1,937,410	821,495	29.26%	26.60%	566,886	1.4491	42.40%	29.26%
22	18	1,838,885	661,811	27.93%	25.27%	513,601	1.2886	35.99%	27.93%
23	18	1,937,468	669,435	26.60%	23.94%	515,366	1.2989	34.55%	26.60%
24	29	2,998,664	1,030,038	25.27%	22.61%	757,762	1.3593	34.35%	25.27%
25	24	2,585,454	833,298	23.94%	21.28%	618,958	1.3463	32.23%	23.94%
26	16	1,703,214	696,647	21.28%	18.62%	362,444	1.9221	40.90%	21.28%
27	20	2,021,714	630,374	18.62%	17.29%	376,443	1.6746	31.18%	18.62%
28	17	1,692,429	576,257	15.96%	14.63%	270,112	2.1334	34.05%	15.96%
29	29	3,031,089	940,693	14.63%	13.30%	443,448	2.1213	31.03%	14.63%
30	20	1,995,743	621,055	13.30%	11.97%	265,434	2.3398	31.12%	13.30%
31	30	3,368,582	933,213	11.97%	10.64%	403,219	2.3144	27.70%	11.97%
32	16	1,806,973	538,951	10.64%	9.31%	192,262	2.8032	29.83%	10.64%
33	25	2,973,799	737,728	9.31%	7.98%	276,861	2.6646	24.81%	9.31%
34	12	1,632,373	314,589	7.98%	7.98%	130,263	2.4150	19.27%	7.98%
35	6	842,002	151,291	7.98%	7.98%	67,192	2.2516	17.97%	7.98%
36	7	985,944	129,899	7.98%	7.98%	78,678	1.6510	13.18%	7.98%
37	4	464,150	106,971	7.98%	7.98%	37,039	2.8881	23.05%	7.98%
38	3	449,709	30,740	7.98%	7.98%	35,887	0.8566	6.84%	7.98%
39	1	132,552	66,737	7.98%	7.98%	10,578	6.3093	50.35%	7.98%
40	1	117,221	38,999	7.98%	7.98%	9,354	4.1691	33.27%	7.98%
41	6	774,419	48,756	7.98%	7.98%	61,799	0.7889	6.30%	7.98%
42	2	211,260	90,475	7.98%	7.98%	16,859	5.3667	42.83%	7.98%
43	0	0	0	7.98%	7.98%	0	N/A	N/A	N/A
44	2	355,849	0	7.98%	7.98%	28,397	0.0000	0.00%	7.98%
45	0	0	0	7.98%	7.98%	0	N/A	N/A	N/A
Total	402	43,601,639	13,479,211			8,289,738	1.6260	30.91%	19.01%

Bolton

New York City Fire Department Pension Fund
 Overtime Pay Experience before Service Retirement
 Men and Women
 9-Year Period Ending 2016
 Proposed Rates are 133% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Proposed Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual	Expected
0	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
1	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
2	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
3	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
4	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
5	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
6	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
7	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
8	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
9	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
10	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
11	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
12	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
13	0	0	0	21.28%	21.28%	0	N/A	N/A	N/A
14	0	0	0	22.61%	21.28%	0	N/A	N/A	N/A
15	0	0	0	23.94%	21.28%	0	N/A	N/A	N/A
16	3	305,117	208,586	25.27%	22.61%	77,103	2.7053	68.36%	25.27%
17	2	186,239	68,102	26.60%	23.94%	49,540	1.3747	36.57%	26.60%
18	37	3,447,189	982,794	27.93%	25.27%	962,800	1.0208	28.51%	27.93%
19	69	6,271,321	2,258,091	29.26%	26.60%	1,834,989	1.2306	36.01%	29.26%
20	29	2,875,454	821,736	30.59%	27.93%	879,601	0.9342	28.58%	30.59%
21	39	3,874,712	1,397,497	29.26%	26.60%	1,133,741	1.2326	36.07%	29.26%
22	29	2,843,411	891,814	27.93%	25.27%	794,165	1.1230	31.36%	27.93%
23	25	2,551,432	761,964	26.60%	23.94%	678,681	1.1227	29.86%	26.60%
24	50	4,864,093	1,410,610	25.27%	22.61%	1,229,156	1.1476	29.00%	25.27%
25	43	4,354,551	1,278,288	23.94%	21.28%	1,042,480	1.2262	29.36%	23.94%
26	36	3,572,103	1,138,640	21.28%	18.62%	760,144	1.4979	31.88%	21.28%
27	34	3,343,837	946,320	18.62%	17.29%	622,622	1.5199	28.30%	18.62%
28	36	3,548,135	998,417	15.96%	14.63%	566,282	1.7631	28.14%	15.96%
29	44	4,501,643	1,212,039	14.63%	13.30%	658,590	1.8404	26.92%	14.63%
30	38	3,865,418	1,049,146	13.30%	11.97%	514,101	2.0407	27.14%	13.30%
31	37	4,245,997	1,076,080	11.97%	10.64%	508,246	2.1172	25.34%	11.97%
32	27	3,107,888	703,625	10.64%	9.31%	330,679	2.1278	22.64%	10.64%
33	32	3,901,006	869,203	9.31%	7.98%	363,184	2.3933	22.28%	9.31%
34	16	2,056,054	391,739	7.98%	7.98%	164,073	2.3876	19.05%	7.98%
35	7	925,397	160,034	7.98%	7.98%	73,847	2.1671	17.29%	7.98%
36	9	1,203,373	160,769	7.98%	7.98%	96,029	1.6742	13.36%	7.98%
37	6	648,319	170,026	7.98%	7.98%	51,736	3.2864	26.23%	7.98%
38	6	798,137	107,992	7.98%	7.98%	63,691	1.6956	13.53%	7.98%
39	2	309,476	66,737	7.98%	7.98%	24,696	2.7023	21.56%	7.98%
40	1	117,221	38,999	7.98%	7.98%	9,354	4.1691	33.27%	7.98%
41	7	851,904	67,680	7.98%	7.98%	67,982	0.9956	7.94%	7.98%
42	2	211,260	90,475	7.98%	7.98%	16,859	5.3667	42.83%	7.98%
43	1	119,275	17,515	7.98%	7.98%	9,518	1.8402	14.68%	7.98%
44	2	355,849	0	7.98%	7.98%	28,397	-	0.00%	7.98%
45	0	0	0	7.98%	7.98%	0	N/A	N/A	N/A
Total	669	69,255,811	19,344,918			13,612,285	1.4211	27.93%	19.66%

New York City Retirement Systems

Bolton

New York City Fire Department Pension Fund
Overtime Pay Experience before Disability Retirement
Men and Women
4-Year Period Ending 2016

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Expected Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual	Expected
0	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
1	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
2	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
3	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
4	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
5	3	235,378	78,855	15.00%	15.00%	35,307	2.2334	33.50%	15.00%
6	4	357,277	104,841	15.00%	15.00%	53,592	1.9563	29.34%	15.00%
7	14	1,232,521	303,771	15.00%	15.00%	184,878	1.6431	24.65%	15.00%
8	27	2,478,476	528,810	15.00%	15.00%	371,771	1.4224	21.34%	15.00%
9	35	3,170,993	876,838	15.00%	15.00%	475,649	1.8435	27.65%	15.00%
10	34	3,114,568	703,432	15.00%	15.00%	467,185	1.5057	22.59%	15.00%
11	43	3,958,887	998,879	15.00%	15.00%	593,833	1.6821	25.23%	15.00%
12	53	4,976,398	1,275,640	15.00%	15.00%	746,460	1.7089	25.63%	15.00%
13	57	5,369,279	1,317,289	15.00%	15.00%	805,392	1.6356	24.53%	15.00%
14	54	5,135,585	1,433,205	15.00%	15.00%	770,338	1.8605	27.91%	15.00%
15	54	5,146,732	1,183,090	15.00%	15.00%	772,010	1.5325	22.99%	15.00%
16	45	4,463,851	1,050,275	16.00%	16.00%	714,216	1.4705	23.53%	16.00%
17	36	3,477,463	835,315	17.00%	17.00%	591,169	1.4130	24.02%	17.00%
18	48	4,791,014	1,284,517	18.00%	18.00%	862,383	1.4895	26.81%	18.00%
19	91	9,307,437	2,651,491	19.00%	19.00%	1,768,413	1.4994	28.49%	19.00%
20	61	6,194,601	1,627,194	20.00%	20.00%	1,238,920	1.3134	26.27%	20.00%
21	48	5,031,301	1,347,095	19.00%	19.00%	955,947	1.4092	26.77%	19.00%
22	50	5,198,603	1,319,115	18.00%	18.00%	935,748	1.4097	25.37%	18.00%
23	50	5,263,830	1,650,139	17.00%	17.00%	894,851	1.8440	31.35%	17.00%
24	62	6,704,051	1,664,033	16.00%	16.00%	1,072,648	1.5513	24.82%	16.00%
25	44	4,821,103	1,174,094	15.00%	15.00%	723,166	1.6235	24.35%	15.00%
26	43	4,732,038	1,412,623	13.00%	13.00%	615,165	2.2963	29.85%	13.00%
27	29	3,258,182	860,590	11.00%	11.00%	358,400	2.4012	26.41%	11.00%
28	33	3,594,078	923,527	10.00%	10.00%	359,408	2.5696	25.70%	10.00%
29	43	4,765,139	1,164,143	9.00%	9.00%	428,862	2.7145	24.43%	9.00%
30	45	5,361,750	1,173,084	8.00%	8.00%	428,940	2.7348	21.88%	8.00%
31	33	4,069,540	879,355	7.00%	7.00%	284,868	3.0869	21.61%	7.00%
32	27	3,550,319	593,975	6.00%	6.00%	213,019	2.7884	16.73%	6.00%
33	23	3,051,554	464,464	5.00%	5.00%	152,578	3.0441	15.22%	5.00%
34	19	2,546,649	414,651	5.00%	5.00%	127,332	3.2564	16.28%	5.00%
35	23	3,525,254	265,104	5.00%	5.00%	176,263	1.5040	7.52%	5.00%
36	14	2,014,129	284,760	5.00%	5.00%	100,706	2.8276	14.14%	5.00%
37	4	583,040	52,660	5.00%	5.00%	29,152	1.8064	9.03%	5.00%
38	2	277,627	30,808	5.00%	5.00%	13,881	2.2194	11.10%	5.00%
39	1	189,048	0	5.00%	5.00%	9,452	-	0.00%	5.00%
40	4	698,145	0	5.00%	5.00%	34,907	-	0.00%	5.00%
41	2	345,730	0	5.00%	5.00%	17,287	-	0.00%	5.00%
42	1	169,705	0	5.00%	5.00%	8,485	-	0.00%	5.00%
43	0	0	0	5.00%	5.00%	0	N/A	N/A	N/A
44	0	0	0	5.00%	5.00%	0	N/A	N/A	N/A
45	1	160,650	0	5.00%	5.00%	8,032	-	0.00%	5.00%
Total	1,260	133,321,922	31,927,662			18,400,614	1.7351	23.95%	13.80%

Bolton

New York City Fire Department Pension Fund
Overtime Pay Experience before Disability Retirement
Men and Women
9-Year Period Ending 2016

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Expected Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual	Expected
0	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
1	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
2	0	0	0	15.00%	15.00%	0	N/A	N/A	N/A
3	3	163,724	24,201	15.00%	15.00%	24,559	0.9854	14.78%	15.00%
4	4	263,637	25,769	15.00%	15.00%	39,546	0.6516	9.77%	15.00%
5	19	1,400,424	319,412	15.00%	15.00%	210,064	1.5205	22.81%	15.00%
6	25	1,989,410	395,856	15.00%	15.00%	298,411	1.3265	19.90%	15.00%
7	38	3,112,454	654,499	15.00%	15.00%	466,868	1.4019	21.03%	15.00%
8	70	5,881,589	1,221,441	15.00%	15.00%	882,238	1.3845	20.77%	15.00%
9	89	7,405,720	1,616,038	15.00%	15.00%	1,110,858	1.4548	21.82%	15.00%
10	75	6,330,172	1,371,902	15.00%	15.00%	949,526	1.4448	21.67%	15.00%
11	89	7,789,412	1,714,970	15.00%	15.00%	1,168,412	1.4678	22.02%	15.00%
12	118	10,323,146	2,274,100	15.00%	15.00%	1,548,472	1.4686	22.03%	15.00%
13	116	10,284,555	2,250,274	15.00%	15.00%	1,542,683	1.4587	21.88%	15.00%
14	109	9,561,092	2,284,092	15.00%	15.00%	1,434,164	1.5926	23.89%	15.00%
15	122	11,043,504	2,272,892	15.00%	15.00%	1,656,526	1.3721	20.58%	15.00%
16	108	9,934,959	2,068,093	16.00%	16.00%	1,589,593	1.3010	20.82%	16.00%
17	91	8,045,620	1,876,385	17.00%	17.00%	1,367,755	1.3719	23.32%	17.00%
18	115	10,083,315	2,287,966	18.00%	18.00%	1,814,997	1.2606	22.69%	18.00%
19	216	19,911,720	5,401,616	19.00%	19.00%	3,783,227	1.4278	27.13%	19.00%
20	139	13,280,028	3,264,344	20.00%	20.00%	2,656,006	1.2290	24.58%	20.00%
21	129	12,569,853	3,097,699	19.00%	19.00%	2,388,272	1.2970	24.64%	19.00%
22	120	11,533,731	2,721,398	18.00%	18.00%	2,076,072	1.3108	23.60%	18.00%
23	103	10,100,572	2,707,375	17.00%	17.00%	1,717,097	1.5767	26.80%	17.00%
24	136	13,490,664	3,285,391	16.00%	16.00%	2,158,506	1.5221	24.35%	16.00%
25	109	10,834,728	2,639,379	15.00%	15.00%	1,625,209	1.6240	24.36%	15.00%
26	105	11,029,095	2,624,885	13.00%	13.00%	1,433,782	1.8307	23.80%	13.00%
27	100	10,436,406	2,213,226	11.00%	11.00%	1,148,005	1.9279	21.21%	11.00%
28	98	10,592,537	2,047,215	10.00%	10.00%	1,059,254	1.9327	19.33%	10.00%
29	83	9,215,428	1,859,654	9.00%	9.00%	829,389	2.2422	20.18%	9.00%
30	82	9,638,942	1,826,023	8.00%	8.00%	771,115	2.3680	18.94%	8.00%
31	53	6,349,102	1,122,604	7.00%	7.00%	444,437	2.5259	17.68%	7.00%
32	49	6,345,170	871,998	6.00%	6.00%	380,710	2.2905	13.74%	6.00%
33	34	4,585,702	594,665	5.00%	5.00%	229,285	2.5936	12.97%	5.00%
34	29	3,745,482	647,048	5.00%	5.00%	187,274	3.4551	17.28%	5.00%
35	28	4,180,749	353,214	5.00%	5.00%	209,037	1.6897	8.45%	5.00%
36	22	3,198,757	306,791	5.00%	5.00%	159,938	1.9182	9.59%	5.00%
37	11	1,431,662	117,766	5.00%	5.00%	71,583	1.6452	8.23%	5.00%
38	6	830,134	56,110	5.00%	5.00%	41,507	1.3518	6.76%	5.00%
39	5	649,058	62,075	5.00%	5.00%	32,453	1.9128	9.56%	5.00%
40	7	1,038,639	47,646	5.00%	5.00%	51,932	0.9175	4.59%	5.00%
41	5	794,514	33,829	5.00%	5.00%	39,726	0.8516	4.26%	5.00%
42	5	661,944	50,201	5.00%	5.00%	33,097	1.5168	7.58%	5.00%
43	1	135,090	0	5.00%	5.00%	6,755	-	0.00%	5.00%
44	0	0	0	5.00%	5.00%	0	N/A	N/A	N/A
45	1	160,650	0	5.00%	5.00%	8,032	-	0.00%	5.00%
Total	2,867	280,353,089	60,610,042			39,646,371	1.5288	21.62%	14.14%

Bolton

New York City Fire Department Pension Fund
 Overtime Pay Experience before Disability Retirement
 Men and Women
 4-Year Period Ending 2016
 Proposed Rates are 133% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Proposed Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual	Expected
0	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
1	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
2	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
3	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
4	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
5	3	235,378	78,855	19.95%	19.95%	46,958	1.6793	33.50%	19.95%
6	4	357,277	104,841	19.95%	19.95%	71,277	1.4709	29.34%	19.95%
7	14	1,232,521	303,771	19.95%	19.95%	245,888	1.2354	24.65%	19.95%
8	27	2,478,476	528,810	19.95%	19.95%	494,456	1.0695	21.34%	19.95%
9	35	3,170,993	876,838	19.95%	19.95%	632,613	1.3861	27.65%	19.95%
10	34	3,114,568	703,432	19.95%	19.95%	621,356	1.1321	22.59%	19.95%
11	43	3,958,887	998,879	19.95%	19.95%	789,798	1.2647	25.23%	19.95%
12	53	4,976,398	1,275,640	19.95%	19.95%	992,791	1.2849	25.63%	19.95%
13	57	5,369,279	1,317,289	19.95%	19.95%	1,071,171	1.2298	24.53%	19.95%
14	54	5,135,585	1,433,205	19.95%	19.95%	1,024,549	1.3989	27.91%	19.95%
15	54	5,146,732	1,183,090	19.95%	19.95%	1,026,773	1.1522	22.99%	19.95%
16	45	4,463,851	1,050,275	21.28%	21.28%	949,907	1.1057	23.53%	21.28%
17	36	3,477,463	835,315	22.61%	22.61%	786,254	1.0624	24.02%	22.61%
18	48	4,791,014	1,284,517	23.94%	23.94%	1,146,969	1.1199	26.81%	23.94%
19	91	9,307,437	2,651,491	25.27%	25.27%	2,351,989	1.1273	28.49%	25.27%
20	61	6,194,601	1,627,194	26.60%	26.60%	1,647,764	0.9875	26.27%	26.60%
21	48	5,031,301	1,347,095	25.27%	25.27%	1,271,410	1.0595	26.77%	25.27%
22	50	5,198,603	1,319,115	23.94%	23.94%	1,244,545	1.0599	25.37%	23.94%
23	50	5,263,830	1,650,139	22.61%	22.61%	1,190,152	1.3865	31.35%	22.61%
24	62	6,704,051	1,664,033	21.28%	21.28%	1,426,622	1.1664	24.82%	21.28%
25	44	4,821,103	1,174,094	19.95%	19.95%	961,810	1.2207	24.35%	19.95%
26	43	4,732,038	1,412,623	17.29%	17.29%	818,169	1.7266	29.85%	17.29%
27	29	3,258,182	860,590	14.63%	14.63%	476,672	1.8054	26.41%	14.63%
28	33	3,594,078	923,527	13.30%	13.30%	478,012	1.9320	25.70%	13.30%
29	43	4,765,139	1,164,143	11.97%	11.97%	570,387	2.0410	24.43%	11.97%
30	45	5,361,750	1,173,084	10.64%	10.64%	570,490	2.0563	21.88%	10.64%
31	33	4,069,540	879,355	9.31%	9.31%	378,874	2.3210	21.61%	9.31%
32	27	3,550,319	593,975	7.98%	7.98%	283,315	2.0965	16.73%	7.98%
33	23	3,051,554	464,464	6.65%	6.65%	202,928	2.2888	15.22%	6.65%
34	19	2,546,649	414,651	6.65%	6.65%	169,352	2.4485	16.28%	6.65%
35	23	3,525,254	265,104	6.65%	6.65%	234,429	1.1308	7.52%	6.65%
36	14	2,014,129	284,760	6.65%	6.65%	133,940	2.1260	14.14%	6.65%
37	4	583,040	52,660	6.65%	6.65%	38,772	1.3582	9.03%	6.65%
38	2	277,627	30,808	6.65%	6.65%	18,462	1.6687	11.10%	6.65%
39	1	189,048	0	6.65%	6.65%	12,572	-	0.00%	6.65%
40	4	698,145	0	6.65%	6.65%	46,427	-	0.00%	6.65%
41	2	345,730	0	6.65%	6.65%	22,991	-	0.00%	6.65%
42	1	169,705	0	6.65%	6.65%	11,285	-	0.00%	6.65%
43	0	0	0	6.65%	6.65%	0	N/A	N/A	N/A
44	0	0	0	6.65%	6.65%	0	N/A	N/A	N/A
45	1	160,650	0	6.65%	6.65%	10,683	-	0.00%	6.65%
Total	1,260	133,321,922	31,927,662			24,472,816	1.3046	23.95%	18.36%

Bolton

New York City Fire Department Pension Fund
 Overtime Pay Experience before Disability Retirement
 Men and Women
 9-Year Period Ending 2016
 Proposed Rates are 133% of the Current Rates

(1) Service	(2) Life years Exposed	(3) Salary during the Year	(4) Actual Overtime	(5) Overtime - Tiers I/II	(6) Overtime - Tier III	(7) Proposed Overtime	(8) Actual/Proposed	(9) Increase %	
								Actual	Expected
0	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
1	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
2	0	0	0	19.95%	19.95%	0	N/A	N/A	N/A
3	3	163,724	24,201	19.95%	19.95%	32,663	0.7409	14.78%	19.95%
4	4	263,637	25,769	19.95%	19.95%	52,596	0.4899	9.77%	19.95%
5	19	1,400,424	319,412	19.95%	19.95%	279,385	1.1433	22.81%	19.95%
6	25	1,989,410	395,856	19.95%	19.95%	396,887	0.9974	19.90%	19.95%
7	38	3,112,454	654,499	19.95%	19.95%	620,935	1.0541	21.03%	19.95%
8	70	5,881,589	1,221,441	19.95%	19.95%	1,173,377	1.0410	20.77%	19.95%
9	89	7,405,720	1,616,038	19.95%	19.95%	1,477,441	1.0938	21.82%	19.95%
10	75	6,330,172	1,371,902	19.95%	19.95%	1,262,869	1.0863	21.67%	19.95%
11	89	7,789,412	1,714,970	19.95%	19.95%	1,553,988	1.1036	22.02%	19.95%
12	118	10,323,146	2,274,100	19.95%	19.95%	2,059,468	1.1042	22.03%	19.95%
13	116	10,284,555	2,250,274	19.95%	19.95%	2,051,769	1.0967	21.88%	19.95%
14	109	9,561,092	2,284,092	19.95%	19.95%	1,907,438	1.1975	23.89%	19.95%
15	122	11,043,504	2,272,892	19.95%	19.95%	2,203,179	1.0316	20.58%	19.95%
16	108	9,934,959	2,068,093	21.28%	21.28%	2,114,159	0.9782	20.82%	21.28%
17	91	8,045,620	1,876,385	22.61%	22.61%	1,819,115	1.0315	23.32%	22.61%
18	115	10,083,315	2,287,966	23.94%	23.94%	2,413,946	0.9478	22.69%	23.94%
19	216	19,911,720	5,401,616	25.27%	25.27%	5,031,692	1.0735	27.13%	25.27%
20	139	13,280,028	3,264,344	26.60%	26.60%	3,532,487	0.9241	24.58%	26.60%
21	129	12,569,853	3,097,699	25.27%	25.27%	3,176,402	0.9752	24.64%	25.27%
22	120	11,533,731	2,721,398	23.94%	23.94%	2,761,175	0.9856	23.60%	23.94%
23	103	10,100,572	2,707,375	22.61%	22.61%	2,283,739	1.1855	26.80%	22.61%
24	136	13,490,664	3,285,391	21.28%	21.28%	2,870,813	1.1444	24.35%	21.28%
25	109	10,834,728	2,639,379	19.95%	19.95%	2,161,528	1.2211	24.36%	19.95%
26	105	11,029,095	2,624,885	17.29%	17.29%	1,906,931	1.3765	23.80%	17.29%
27	100	10,436,406	2,213,226	14.63%	14.63%	1,526,846	1.4495	21.21%	14.63%
28	98	10,592,537	2,047,215	13.30%	13.30%	1,408,807	1.4532	19.33%	13.30%
29	83	9,215,428	1,859,654	11.97%	11.97%	1,103,087	1.6859	20.18%	11.97%
30	82	9,638,942	1,826,023	10.64%	10.64%	1,025,583	1.7805	18.94%	10.64%
31	53	6,349,102	1,122,604	9.31%	9.31%	591,101	1.8992	17.68%	9.31%
32	49	6,345,170	871,998	7.98%	7.98%	506,345	1.7221	13.74%	7.98%
33	34	4,585,702	594,665	6.65%	6.65%	304,949	1.9500	12.97%	6.65%
34	29	3,745,482	647,048	6.65%	6.65%	249,075	2.5978	17.28%	6.65%
35	28	4,180,749	353,214	6.65%	6.65%	278,020	1.2705	8.45%	6.65%
36	22	3,198,757	306,791	6.65%	6.65%	212,717	1.4422	9.59%	6.65%
37	11	1,431,662	117,766	6.65%	6.65%	95,206	1.2370	8.23%	6.65%
38	6	830,134	56,110	6.65%	6.65%	55,204	1.0164	6.76%	6.65%
39	5	649,058	62,075	6.65%	6.65%	43,162	1.4382	9.56%	6.65%
40	7	1,038,639	47,646	6.65%	6.65%	69,070	0.6898	4.59%	6.65%
41	5	794,514	33,829	6.65%	6.65%	52,835	0.6403	4.26%	6.65%
42	5	661,944	50,201	6.65%	6.65%	44,019	1.1404	7.58%	6.65%
43	1	135,090	0	6.65%	6.65%	8,983	-	0.00%	6.65%
44	0	0	0	6.65%	6.65%	0	N/A	N/A	N/A
45	1	160,650	0	6.65%	6.65%	10,683	-	0.00%	6.65%
Total	2,867	280,353,089	60,610,042			52,729,673	1.1494	21.62%	18.81%

Appendix 5 – Current and Suggested Assumptions

Below are tables comparing the current and suggested assumptions by group.

We are not including mortality rates because of the complexity of the generational assumption. The table below summarizes the percent adjustments made to the prior base tables for the suggested assumptions.

Suggested Adjustment for Post Employment Mortality Assumptions ratio of suggested/current								
	Service Retirement				Disability Retirement			
	Males		Female		Males		Female	
	Lives	liabilities	Lives	liabilities	Lives	liabilities	Lives	liabilities
NYCERS								
General	1.00	0.89	1.02	0.97	1.04	1.00	1.00	1.00
Transit ²⁵	1.00	0.95	1.13	1.12	1.02	1.03	1.00	0.90
Sanitation ²⁶	1.00	0.94	1.00	0.94	1.00	1.00	1.00	1.00
Corrections	1.00	0.89	1.00	0.89	0.85	0.71	1.00	0.77
TRs	0.98	0.89	1.08	1.02	1.00	0.94	1.04	1.00
BERS ²⁷	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Police	1.00	0.91	1.00	0.91	0.97	0.85	0.97	0.85
Fire ²⁸	1.00	0.91	1.00	0.91	1.00	0.83	1.00	0.83

Notes: Lives weighted mortality ratios Provided for use in developing Optional Form Factors Method: Ratios are Selected so that results fall just inside 95% confidence interval in total, no change suggested if current assumption is within 95% confidence interval: Results are provided even for not fully credible groups.

Groups with fewer deaths will have wider confidence intervals making results, even for not fully credible groups usable.

We also are providing only the merit salary increase assumptions. The total salary increase assumptions can be determined by adding 3.00 percent (2.5 percent for inflation and .50 percent for general wage growth).

²⁵ Transit ratios were developed based on Transit only experience. We will suggest using the same assumption for TBTA.

²⁶ Due to the paucity of data for women retirees, we suggested using the same adjustments for women as we did for men.

²⁷ Due to poor historical data, no suggested changes to BERS.

²⁸ For Fire Disability, the suggested q's are the greater of the adjusted service retirement q's and the adjusted disability q's.



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Age	Active Ordinary Mortality			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
25 or Younger	0.0400%	0.0300%	0.0240%	0.0180%
26	0.0440%	0.0320%	0.0264%	0.0192%
27	0.0480%	0.0340%	0.0288%	0.0204%
28	0.0520%	0.0360%	0.0312%	0.0216%
29	0.0560%	0.0380%	0.0336%	0.0228%
30	0.0600%	0.0400%	0.0360%	0.0240%
31	0.0640%	0.0420%	0.0384%	0.0252%
32	0.0680%	0.0440%	0.0408%	0.0264%
33	0.0720%	0.0460%	0.0432%	0.0276%
34	0.0760%	0.0480%	0.0456%	0.0288%
35	0.0800%	0.0500%	0.0480%	0.0300%
36	0.0840%	0.0520%	0.0504%	0.0312%
37	0.0880%	0.0540%	0.0528%	0.0324%
38	0.0920%	0.0560%	0.0552%	0.0336%
39	0.0960%	0.0580%	0.0576%	0.0348%
40	0.1000%	0.0600%	0.0600%	0.0360%
41	0.1100%	0.0680%	0.0660%	0.0408%
42	0.1200%	0.0760%	0.0720%	0.0456%
43	0.1300%	0.0840%	0.0780%	0.0504%
44	0.1400%	0.0920%	0.0840%	0.0552%
45	0.1500%	0.1000%	0.0900%	0.0600%
46	0.1600%	0.1100%	0.0960%	0.0660%
47	0.1700%	0.1200%	0.1020%	0.0720%
48	0.1800%	0.1300%	0.1080%	0.0780%
49	0.1900%	0.1400%	0.1140%	0.0840%
50	0.2000%	0.1500%	0.1200%	0.0900%
51	0.2200%	0.1600%	0.1320%	0.0960%
52	0.2400%	0.1700%	0.1440%	0.1020%
53	0.2600%	0.1800%	0.1560%	0.1080%
54	0.2800%	0.1900%	0.1680%	0.1140%
55	0.3000%	0.2000%	0.1800%	0.1200%
56	0.3200%	0.2100%	0.1920%	0.1260%
57	0.3400%	0.2200%	0.2040%	0.1320%
58	0.3600%	0.2300%	0.2160%	0.1380%
59	0.3800%	0.2400%	0.2280%	0.1440%
60	0.4000%	0.2500%	0.2400%	0.1500%
61	0.4200%	0.2600%	0.2520%	0.1560%
62	0.4400%	0.2700%	0.2640%	0.1620%
63	0.4600%	0.2800%	0.2760%	0.1680%
64	0.4800%	0.2900%	0.2880%	0.1740%
65	0.5000%	0.3000%	0.3000%	0.1800%
66	0.5400%	0.3200%	0.3240%	0.1920%
67	0.5800%	0.3400%	0.3480%	0.2040%
68	0.6200%	0.3600%	0.3720%	0.2160%
69	0.6600%	0.3800%	0.3960%	0.2280%
70 or greater	0.6600%	0.3800%	0.3960%	0.2280%



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Age	Service Retirement - Year One of Eligibility, Men and Women			
	Current		Suggested	
	Mandated	Elected	Mandated	Elected
49	20.000%	40.000%	8.000%	40.000%
50	20.000%	40.000%	8.000%	40.000%
51	20.000%	40.000%	8.000%	40.000%
52	20.000%	40.000%	8.000%	40.000%
53	20.000%	40.000%	8.000%	40.000%
54	20.000%	40.000%	8.000%	40.000%
55	20.000%	40.000%	8.000%	40.000%
56	20.000%	40.000%	8.000%	40.000%
57	20.000%	40.000%	8.000%	40.000%
58	20.000%	40.000%	8.000%	40.000%
59	20.000%	40.000%	8.000%	40.000%
60	20.000%	40.000%	8.000%	40.000%
61	20.000%	40.000%	8.000%	40.000%
62	30.000%	60.000%	30.000%	60.000%
63	20.000%	40.000%	20.000%	40.000%
64	20.000%	40.000%	20.000%	40.000%
65	30.000%	60.000%	30.000%	60.000%
66	20.000%	40.000%	20.000%	40.000%
67	20.000%	40.000%	20.000%	40.000%
68	20.000%	40.000%	20.000%	40.000%
69	20.000%	40.000%	20.000%	40.000%
70	100.000%	100.000%	100.000%	100.000%



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Service Retirement – After First Year of Eligibility, Men and Women				
Age	Current		Suggested	
	Mandated	Elected	Mandated	Elected
50	10.000%	15.000%	5.000%	15.000%
51	10.000%	15.000%	5.000%	15.000%
52	10.000%	15.000%	5.000%	15.000%
53	10.000%	15.000%	5.000%	15.000%
54	10.000%	15.000%	5.000%	15.000%
55	10.000%	15.000%	5.000%	15.000%
56	10.000%	20.000%	5.000%	20.000%
57	10.000%	15.000%	5.000%	15.000%
58	15.000%	15.000%	5.000%	15.000%
59	10.000%	15.000%	5.000%	15.000%
60	10.000%	15.000%	5.000%	15.000%
61	15.000%	15.000%	7.500%	15.000%
62	20.000%	25.000%	10.000%	25.000%
63	15.000%	20.000%	15.000%	20.000%
64	15.000%	20.000%	15.000%	20.000%
65	20.000%	25.000%	20.000%	25.000%
66	15.000%	20.000%	15.000%	20.000%
67	15.000%	20.000%	15.000%	20.000%
68	15.000%	20.000%	15.000%	20.000%
69	15.000%	20.000%	15.000%	20.000%
70	100.000%	100.000%	20.000%	100.000%
71	100.000%	100.000%	20.000%	100.000%
72	100.000%	100.000%	20.000%	100.000%
73	100.000%	100.000%	20.000%	100.000%
74	100.000%	100.000%	20.000%	100.000%
75	100.000%	100.000%	20.000%	100.000%
76	100.000%	100.000%	20.000%	100.000%
77	100.000%	100.000%	20.000%	100.000%
78	100.000%	100.000%	20.000%	100.000%
79	100.000%	100.000%	20.000%	100.000%
80	100.000%	100.000%	100.000%	100.000%

Early Retirement					
Age	Current		Age	Suggested	
	Males	Females		Males	Females
55	0.02000	0.02000	55	0.03500	0.03500
56	0.02000	0.02000	56	0.03500	0.03500
57	0.02000	0.02000	57	0.03500	0.03500
58	0.02000	0.02000	58	0.03500	0.03500
59	0.03000	0.03000	59	0.05250	0.05250
60	0.04000	0.04000	60	0.07000	0.07000
61	0.05000	0.05000	61	0.08750	0.08750



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Service Yrs	Withdrawal			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
0	6.00%	6.00%	8.40%	8.40%
1	5.00%	5.00%	7.00%	7.00%
2	4.00%	4.00%	5.60%	5.60%
3	3.00%	3.00%	4.20%	4.20%
4	3.00%	3.00%	4.20%	4.20%
5	3.00%	3.00%	4.20%	4.20%
6	2.80%	2.80%	3.92%	3.92%
7	2.60%	2.60%	3.64%	3.64%
8	2.40%	2.40%	3.36%	3.36%
9	2.20%	2.20%	3.08%	3.08%
10	2.00%	2.00%	2.80%	2.80%
11	1.90%	1.90%	2.66%	2.66%
12	1.80%	1.80%	2.52%	2.52%
13	1.70%	1.70%	2.38%	2.38%
14	1.60%	1.60%	2.24%	2.24%
15	1.50%	1.50%	2.10%	2.10%
16	1.40%	1.40%	1.96%	1.96%
17	1.30%	1.30%	1.82%	1.82%
18	1.20%	1.20%	1.68%	1.68%
19	1.10%	1.10%	1.54%	1.54%
20	1.00%	1.00%	1.40%	1.40%
21	1.00%	1.00%	1.40%	1.40%
22	1.00%	1.00%	1.40%	1.40%
23	1.00%	1.00%	1.40%	1.40%
24	1.00%	1.00%	1.40%	1.40%
25	1.00%	1.00%	1.40%	1.40%
26	1.00%	1.00%	1.40%	1.40%
27	1.00%	1.00%	1.40%	1.40%
28	1.00%	1.00%	1.40%	1.40%
29	1.00%	1.00%	1.40%	1.40%
30	1.00%	1.00%	1.40%	1.40%
31	1.00%	1.00%	1.40%	1.40%
32	1.00%	1.00%	1.40%	1.40%
33	1.00%	1.00%	1.40%	1.40%
34	1.00%	1.00%	1.40%	1.40%
35	1.00%	1.00%	1.40%	1.40%
36	1.00%	1.00%	1.40%	1.40%
37	1.00%	1.00%	1.40%	1.40%
38	1.00%	1.00%	1.40%	1.40%
39	1.00%	1.00%	1.40%	1.40%
40	1.00%	1.00%	1.40%	1.40%
41	1.00%	1.00%	1.40%	1.40%
42	1.00%	1.00%	1.40%	1.40%
43	1.00%	1.00%	1.40%	1.40%
44	1.00%	1.00%	1.40%	1.40%
45	1.00%	1.00%	1.40%	1.40%



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Age	Ordinary Disability			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
25 or Younger	0.0020	0.0020	0.0014	0.0014
26	0.0020	0.0020	0.0014	0.0014
27	0.0020	0.0020	0.0014	0.0014
28	0.0020	0.0020	0.0014	0.0014
29	0.0020	0.0020	0.0014	0.0014
30	0.0020	0.0020	0.0014	0.0014
31	0.0022	0.0020	0.0015	0.0014
32	0.0024	0.0020	0.0017	0.0014
33	0.0026	0.0020	0.0018	0.0014
34	0.0028	0.0020	0.0020	0.0014
35	0.0030	0.0020	0.0021	0.0014
36	0.0032	0.0021	0.0022	0.0015
37	0.0034	0.0022	0.0024	0.0015
38	0.0036	0.0023	0.0025	0.0016
39	0.0038	0.0024	0.0027	0.0017
40	0.0040	0.0025	0.0028	0.0018
41	0.0042	0.0026	0.0029	0.0018
42	0.0044	0.0027	0.0031	0.0019
43	0.0046	0.0028	0.0032	0.0020
44	0.0048	0.0029	0.0034	0.0020
45	0.0050	0.0030	0.0035	0.0021
46	0.0052	0.0034	0.0036	0.0024
47	0.0054	0.0038	0.0038	0.0027
48	0.0056	0.0042	0.0039	0.0029
49	0.0058	0.0046	0.0041	0.0032
50	0.0060	0.0050	0.0042	0.0035
51	0.0062	0.0054	0.0043	0.0038
52	0.0064	0.0058	0.0045	0.0041
53	0.0066	0.0062	0.0046	0.0043
54	0.0068	0.0066	0.0048	0.0046
55 or older	0.0070	0.0070	0.0049	0.0049



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Age	Accidental Disability			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
25 or Younger	0.00040	0.00020	0.00028	0.00014
26	0.00040	0.00020	0.00028	0.00014
27	0.00040	0.00020	0.00028	0.00014
28	0.00040	0.00020	0.00028	0.00014
29	0.00040	0.00020	0.00028	0.00014
30	0.00040	0.00020	0.00028	0.00014
31	0.00040	0.00020	0.00028	0.00014
32	0.00040	0.00020	0.00028	0.00014
33	0.00040	0.00020	0.00028	0.00014
34	0.00040	0.00020	0.00028	0.00014
35	0.00040	0.00020	0.00028	0.00014
36	0.00040	0.00020	0.00028	0.00014
37	0.00040	0.00020	0.00028	0.00014
38	0.00040	0.00020	0.00028	0.00014
39	0.00040	0.00020	0.00028	0.00014
40	0.00040	0.00020	0.00028	0.00014
41	0.00040	0.00020	0.00028	0.00014
42	0.00040	0.00020	0.00028	0.00014
43	0.00040	0.00020	0.00028	0.00014
44	0.00040	0.00020	0.00028	0.00014
45	0.00040	0.00020	0.00028	0.00014
46	0.00040	0.00020	0.00028	0.00014
47	0.00040	0.00020	0.00028	0.00014
48	0.00040	0.00020	0.00028	0.00014
49	0.00040	0.00020	0.00028	0.00014
50	0.00040	0.00020	0.00028	0.00014
51	0.00040	0.00020	0.00028	0.00014
52	0.00040	0.00020	0.00028	0.00014
53	0.00040	0.00020	0.00028	0.00014
54	0.00040	0.00020	0.00028	0.00014
55 or older	0.00040	0.00020	0.00028	0.00014



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Years of service	Merit Salary Increase	
	Current Assumption	Suggested Assumption
0	6.00%	6.00%
1	5.00%	5.00%
2	4.00%	4.00%
3	3.00%	3.00%
4	2.50%	2.50%
5	2.00%	2.00%
6	1.90%	1.90%
7	1.80%	1.80%
8	1.70%	1.70%
9	1.60%	1.60%
10	1.50%	1.50%
11	1.50%	1.50%
12	1.50%	1.50%
13	1.50%	1.50%
14	1.50%	1.50%
15	1.50%	1.50%
16	1.45%	1.45%
17	1.40%	1.40%
18	1.35%	1.35%
19	1.30%	1.30%
20	1.25%	1.25%
21	1.20%	1.20%
22	1.15%	1.15%
23	1.10%	1.10%
24	1.05%	1.05%
25 or More	1.00%	1.00%



Appendix 5 – Current and Suggested Assumptions

NYCERS General Assumptions

Years of service	Current Assumptions			Overtime	Suggested Assumptions	
	Baseline	Dual Retirement	Disabled Retirement	Baseline	Dual Retirement	Disabled Retirement
0	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
1	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
2	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
3	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
4	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
5	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
6	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
7	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
8	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
9	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
10	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
11	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
12	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
13	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
14	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
15	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
16	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
17	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
18	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
19	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
20	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
21	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
22	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
23	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
24	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%
25 or More	4.00%	4.00%	4.00%	7.00%	5.00%	5.00%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Age	Active Ordinary Mortality				Active Accidental Mortality	
	Current Assumptions		Suggested Assumptions		Current Assumptions	Suggested Assumptions
	Males	Females	Males	Females	Males and Females	Males and Females
25 or Younger	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
26	0.0440%	0.0320%	0.0264%	0.0192%	0.0100%	0.0060%
27	0.0480%	0.0340%	0.0288%	0.0204%	0.0100%	0.0060%
28	0.0520%	0.0360%	0.0312%	0.0216%	0.0100%	0.0060%
29	0.0560%	0.0380%	0.0336%	0.0228%	0.0100%	0.0060%
30	0.0600%	0.0400%	0.0360%	0.0240%	0.0100%	0.0060%
31	0.0640%	0.0420%	0.0384%	0.0252%	0.0100%	0.0060%
32	0.0680%	0.0440%	0.0408%	0.0264%	0.0100%	0.0060%
33	0.0720%	0.0460%	0.0432%	0.0276%	0.0100%	0.0060%
34	0.0760%	0.0480%	0.0456%	0.0288%	0.0100%	0.0060%
35	0.0800%	0.0500%	0.0480%	0.0300%	0.0100%	0.0060%
36	0.0840%	0.0520%	0.0504%	0.0312%	0.0100%	0.0060%
37	0.0880%	0.0540%	0.0528%	0.0324%	0.0100%	0.0060%
38	0.0920%	0.0560%	0.0552%	0.0336%	0.0100%	0.0060%
39	0.0960%	0.0580%	0.0576%	0.0348%	0.0100%	0.0060%
40	0.1000%	0.0600%	0.0600%	0.0360%	0.0100%	0.0060%
41	0.1100%	0.0680%	0.0660%	0.0408%	0.0100%	0.0060%
42	0.1200%	0.0760%	0.0720%	0.0456%	0.0100%	0.0060%
43	0.1300%	0.0840%	0.0780%	0.0504%	0.0100%	0.0060%
44	0.1400%	0.0920%	0.0840%	0.0552%	0.0100%	0.0060%
45	0.1500%	0.1000%	0.0900%	0.0600%	0.0100%	0.0060%
46	0.1600%	0.1100%	0.0960%	0.0660%	0.0100%	0.0060%
47	0.1700%	0.1200%	0.1020%	0.0720%	0.0100%	0.0060%
48	0.1800%	0.1300%	0.1080%	0.0780%	0.0100%	0.0060%
49	0.1900%	0.1400%	0.1140%	0.0840%	0.0100%	0.0060%
50	0.2000%	0.1500%	0.1200%	0.0900%	0.0100%	0.0060%
51	0.2200%	0.1600%	0.1320%	0.0960%	0.0100%	0.0060%
52	0.2400%	0.1700%	0.1440%	0.1020%	0.0100%	0.0060%
53	0.2600%	0.1800%	0.1560%	0.1080%	0.0100%	0.0060%
54	0.2800%	0.1900%	0.1680%	0.1140%	0.0100%	0.0060%
55	0.3000%	0.2000%	0.1800%	0.1200%	0.0100%	0.0060%
56	0.3200%	0.2100%	0.1920%	0.1260%	0.0100%	0.0060%
57	0.3400%	0.2200%	0.2040%	0.1320%	0.0100%	0.0060%
58	0.3600%	0.2300%	0.2160%	0.1380%	0.0100%	0.0060%
59	0.3800%	0.2400%	0.2280%	0.1440%	0.0100%	0.0060%
60	0.4000%	0.2500%	0.2400%	0.1500%	0.0100%	0.0060%
61	0.4200%	0.2600%	0.2520%	0.1560%	0.0100%	0.0060%
62	0.4400%	0.2700%	0.2640%	0.1620%	0.0100%	0.0060%
63	0.4600%	0.2800%	0.2760%	0.1680%	0.0100%	0.0060%
64	0.4800%	0.2900%	0.2880%	0.1740%	0.0100%	0.0060%
65	0.5000%	0.3000%	0.3000%	0.1800%	0.0100%	0.0060%
66	0.5400%	0.3200%	0.3240%	0.1920%	0.0100%	0.0060%
67	0.5800%	0.3400%	0.3480%	0.2040%	0.0100%	0.0060%
68	0.6200%	0.3600%	0.3720%	0.2160%	0.0100%	0.0060%
69	0.6600%	0.3800%	0.3960%	0.2280%	0.0100%	0.0060%
70 or greater	0.6600%	0.3800%	0.3960%	0.2280%	0.0100%	0.0060%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Age	Service Retirement - Year One of Eligibility, Men and Women			
	Current		Suggested	
	Mandated	Elected	Mandated	Elected
55 or less	25.000%	25.00%	27.500%	25.00%
56	25.000%	25.00%	27.500%	25.00%
57	25.000%	25.00%	27.500%	25.00%
58	25.000%	25.00%	27.500%	25.00%
59	25.000%	25.00%	27.500%	25.00%
60	30.000%	30.00%	33.000%	30.00%
61	40.000%	40.00%	44.000%	40.00%
62	50.000%	50.00%	25.000%	50.00%
63	40.000%	40.00%	20.000%	40.00%
64	40.000%	40.00%	20.000%	40.00%
65	50.000%	50.00%	25.000%	50.00%
66	40.000%	40.00%	20.000%	40.00%
67	40.000%	40.00%	20.000%	40.00%
68	40.000%	40.00%	20.000%	40.00%
69	40.000%	40.00%	200.000%	40.00%
70 or greater	100.000%	100.00%	100.000%	100.00%

Age	Service Retirement – After First Year of Eligibility, Men and Women			
	Current		Suggested	
	Mandated	Elected	Mandated	Elected
55 or less	15.00%	15.00%	15.00%	15.00%
56	15.00%	15.00%	15.00%	15.00%
57	15.00%	15.00%	15.00%	15.00%
58	15.00%	15.00%	15.00%	15.00%
59	15.00%	15.00%	15.00%	15.00%
60	15.00%	15.00%	15.00%	15.00%
61	20.00%	20.00%	20.00%	20.00%
62	40.00%	40.00%	40.00%	40.00%
63	30.00%	30.00%	15.00%	30.00%
64	30.00%	30.00%	18.00%	30.00%
65	40.00%	40.00%	24.00%	40.00%
66	30.00%	30.00%	18.00%	30.00%
67	30.00%	30.00%	18.00%	30.00%
68	30.00%	30.00%	18.00%	30.00%
69	30.00%	30.00%	18.00%	30.00%
70	100.00%	100.00%	18.00%	100.00%
71	100.00%	100.00%	18.00%	100.00%
72	100.00%	100.00%	18.00%	100.00%
73	100.00%	100.00%	18.00%	100.00%
74	100.00%	100.00%	18.00%	100.00%
75	100.00%	100.00%	18.00%	100.00%
76	100.00%	100.00%	18.00%	100.00%
77	100.00%	100.00%	18.00%	100.00%
78	100.00%	100.00%	18.00%	100.00%
79	100.00%	100.00%	18.00%	100.00%
80 or greater	100.00%	100.00%	100.00%	100.00%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Early Retirement					
Age	Current Males	Females	Age	Suggested Males	Females
55	0.02000	0.02000	55	0.02000	0.02000
56	0.02000	0.02000	56	0.02000	0.02000
57	0.02000	0.02000	57	0.02000	0.02000
58	0.02000	0.02000	58	0.02000	0.02000
59	0.03000	0.03000	59	0.03000	0.03000
60	0.04000	0.04000	60	0.04000	0.04000
61	0.05000	0.05000	61	0.05000	0.05000

Withdrawal				
Service Yrs	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
0	8.00%	8.00%	8.80%	8.80%
1	4.00%	4.00%	4.40%	4.40%
2	2.00%	2.00%	2.20%	2.20%
3	1.50%	1.50%	1.65%	1.65%
4	1.20%	1.20%	1.32%	1.32%
5	1.00%	1.00%	1.10%	1.10%
6	1.00%	1.00%	1.10%	1.10%
7	1.00%	1.00%	1.10%	1.10%
8	1.00%	1.00%	1.10%	1.10%
9	1.00%	1.00%	1.10%	1.10%
10	1.00%	1.00%	1.10%	1.10%
11	0.90%	0.90%	0.99%	0.99%
12	0.80%	0.80%	0.88%	0.88%
13	0.70%	0.70%	0.77%	0.77%
14	0.60%	0.60%	0.66%	0.66%
15	0.50%	0.50%	0.55%	0.55%
16	0.50%	0.50%	0.55%	0.55%
17	0.50%	0.50%	0.55%	0.55%
18	0.50%	0.50%	0.55%	0.55%
19	0.50%	0.50%	0.55%	0.55%
20	0.50%	0.50%	0.55%	0.55%
21	0.50%	0.50%	0.55%	0.55%
22	0.50%	0.50%	0.55%	0.55%
23	0.50%	0.50%	0.55%	0.50%
24	0.50%	0.50%	0.55%	0.50%
25	0.50%	0.50%	0.55%	0.50%
26	0.50%	0.50%	0.55%	0.50%
27	0.50%	0.50%	0.55%	0.50%
28	0.50%	0.50%	0.55%	0.50%
29	0.50%	0.50%	0.55%	0.50%
30	0.50%	0.50%	0.55%	0.50%
31	0.50%	0.50%	0.55%	0.50%
32	0.50%	0.50%	0.55%	0.50%
33	0.50%	0.50%	0.55%	0.50%
34	0.50%	0.50%	0.55%	0.50%
35	0.50%	0.50%	0.55%	0.50%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Age	Ordinary Disability	
	Current Assumptions Men and Women	Suggested Assumptions Men and Women
30 or less	0.100%	0.100%
31	0.120%	0.120%
32	0.140%	0.140%
33	0.160%	0.160%
34	0.180%	0.180%
35	0.200%	0.200%
36	0.220%	0.220%
37	0.240%	0.240%
38	0.260%	0.260%
39	0.280%	0.280%
40	0.300%	0.300%
41	0.320%	0.320%
42	0.340%	0.340%
43	0.360%	0.360%
44	0.380%	0.380%
45	0.400%	0.400%
46	0.420%	0.420%
47	0.440%	0.440%
48	0.460%	0.460%
49	0.480%	0.480%
50	0.500%	0.500%
51	0.520%	0.520%
52	0.540%	0.540%
53	0.560%	0.560%
54	0.580%	0.580%
55 or greater	0.600%	0.600%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Age	Accidental Disability	
	Current Assumptions Men and Women	Suggested Assumptions Men and Women
30 or less	0.020%	0.020%
31	0.020%	0.020%
32	0.020%	0.020%
33	0.020%	0.020%
34	0.020%	0.020%
35	0.020%	0.020%
36	0.020%	0.020%
37	0.020%	0.020%
38	0.020%	0.020%
39	0.020%	0.020%
40	0.020%	0.020%
41	0.020%	0.020%
42	0.020%	0.020%
43	0.020%	0.020%
44	0.020%	0.020%
45	0.020%	0.020%
46	0.020%	0.020%
47	0.020%	0.020%
48	0.020%	0.020%
49	0.020%	0.020%
50 or greater	0.020%	0.020%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Years of service	Merit Salary Increase	
	Current Assumption	Suggested Assumption
0	16.00%	16.00%
1	11.00%	11.00%
2	7.00%	7.00%
3	4.00%	6.00%
4	2.00%	3.00%
5	1.00%	2.00%
6	0.50%	1.50%
7	0.50%	1.50%
8	0.50%	1.50%
9	0.50%	1.50%
10	0.50%	1.50%
11	0.50%	1.50%
12	0.50%	1.50%
13	0.50%	1.50%
14	0.50%	1.50%
15	0.50%	1.50%
16	0.50%	1.50%
17	0.50%	1.50%
18	0.50%	1.50%
19	0.50%	1.50%
20	0.50%	1.50%
21	0.50%	1.50%
22	0.50%	1.50%
23	0.50%	1.00%
24	0.50%	1.00%
25 or More	0.50%	1.00%



Appendix 5 – Current and Suggested Assumptions

NYCERS TRA/TBTA Assumptions

Years of service	Overtime					
	Current Assumptions			Suggested Assumptions		
	Baseline	Dual Retirement	Disabled Retirement	Baseline	Dual Retirement	Disabled Retirement
0	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
1	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
2	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
3	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
4	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
5	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
6	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
7	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
8	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
9	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
10	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
11	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
12	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
13	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
14	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
15	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
16	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
17	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
18	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
19	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
20	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
21	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
22	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
23	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
24	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%
25 or More	8.00%	10.00%	6.00%	8.00%	10.00%	6.00%



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Age	Active Ordinary Mortality				Active Accidental Mortality	
	Current Assumptions		Suggested Assumptions		Current Assumptions	Suggested Assumptions
	Males	Females	Males	Females	Males and Females	Males and Females
25 or Younger	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
26	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
27	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
28	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
29	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
30	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
31	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
32	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
33	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
34	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
35	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
36	0.0600%	0.0360%	0.0600%	0.0360%	0.0100%	0.0100%
37	0.0700%	0.0420%	0.0700%	0.0420%	0.0100%	0.0100%
38	0.0800%	0.0480%	0.0800%	0.0480%	0.0100%	0.0100%
39	0.0900%	0.0540%	0.0900%	0.0540%	0.0100%	0.0100%
40	0.1000%	0.0600%	0.1000%	0.0600%	0.0100%	0.0100%
41	0.1100%	0.0660%	0.1100%	0.0660%	0.0100%	0.0100%
42	0.1200%	0.0720%	0.1200%	0.0720%	0.0100%	0.0100%
43	0.1300%	0.0780%	0.1300%	0.0780%	0.0100%	0.0100%
44	0.1400%	0.0840%	0.1400%	0.0840%	0.0100%	0.0100%
45	0.1500%	0.0900%	0.1500%	0.0900%	0.0100%	0.0100%
46	0.1600%	0.0960%	0.1600%	0.0960%	0.0100%	0.0100%
47	0.1700%	0.1020%	0.1700%	0.1020%	0.0100%	0.0100%
48	0.1800%	0.1080%	0.1800%	0.1080%	0.0100%	0.0100%
49	0.1900%	0.1140%	0.1900%	0.1140%	0.0100%	0.0100%
50	0.2000%	0.1200%	0.2000%	0.1200%	0.0100%	0.0100%
51	0.2100%	0.1280%	0.2100%	0.1280%	0.0100%	0.0100%
52	0.2200%	0.1360%	0.2200%	0.1360%	0.0100%	0.0100%
53	0.2300%	0.1440%	0.2300%	0.1440%	0.0100%	0.0100%
54	0.2400%	0.1520%	0.2400%	0.1520%	0.0100%	0.0100%
55	0.2500%	0.1600%	0.2500%	0.1600%	0.0100%	0.0100%
56	0.2600%	0.1680%	0.2600%	0.1680%	0.0100%	0.0100%
57	0.2700%	0.1760%	0.2700%	0.1760%	0.0100%	0.0100%
58	0.2800%	0.1840%	0.2800%	0.1840%	0.0100%	0.0100%
59	0.2900%	0.1920%	0.2900%	0.1920%	0.0100%	0.0100%
60	0.3000%	0.2000%	0.3000%	0.2000%	0.0100%	0.0100%
61	0.3200%	0.2100%	0.3200%	0.2100%	0.0100%	0.0100%
62	0.3400%	0.2200%	0.3400%	0.2200%	0.0100%	0.0100%
63	0.3600%	0.2300%	0.3600%	0.2300%	0.0100%	0.0100%
64	0.3800%	0.2400%	0.3800%	0.2400%	0.0100%	0.0100%
65	0.4000%	0.2500%	0.4000%	0.2500%	0.0100%	0.0100%
66	0.4400%	0.2800%	0.4400%	0.2800%	0.0100%	0.0100%
67	0.4800%	0.3100%	0.4800%	0.3100%	0.0100%	0.0100%
68	0.5200%	0.3400%	0.5200%	0.3400%	0.0100%	0.0100%
69	0.5600%	0.3700%	0.5600%	0.3700%	0.0100%	0.0100%
70 or greater	0.6600%	NA	0.3960%	NA	0.0100%	0.0100%



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Age	Service Retirement - Year One of Eligibility, Men and Women			
	Current		Suggested	
	Mandated	Elected	Mandated	Elected
45 or less	40.000%		30.000%	
46	40.000%		30.000%	
47	40.000%		30.000%	
48	40.000%		30.000%	
49	40.000%		30.000%	
50	40.000%		30.000%	
51	40.000%		30.000%	
52	40.000%		30.000%	
53	40.000%		30.000%	
54	40.000%		30.000%	
55	40.000%		30.000%	
56	40.000%		30.000%	
57	40.000%		30.000%	
58	40.000%	No longer any members	30.000%	No longer any members
59	40.000%		30.000%	
60	40.000%		30.000%	
61	40.000%		30.000%	
62	60.000%		45.000%	
63	40.000%		30.000%	
64	40.000%		30.000%	
65	60.000%		45.000%	
66	40.000%		30.000%	
67	40.000%		30.000%	
68	40.000%		30.000%	
69	40.000%		30.000%	
70 or more	100.000%		100.000%	



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Age	Service Retirement – After Year One of Eligibility, Men and Women			
	Current		Suggested	
	Mandated	Elected	Mandated	Elected
45 or less	20.000%	15.000%	10.000%	15.000%
46	20.000%	15.000%	10.000%	15.000%
47	20.000%	15.000%	10.000%	15.000%
48	20.000%	15.000%	10.000%	15.000%
49	20.000%	15.000%	10.000%	15.000%
50	20.000%	15.000%	10.000%	15.000%
51	20.000%	15.000%	10.000%	15.000%
52	20.000%	15.000%	10.000%	15.000%
53	20.000%	15.000%	10.000%	15.000%
54	20.000%	15.000%	10.000%	15.000%
55	20.000%	15.000%	10.000%	15.000%
56	20.000%	16.000%	10.000%	16.000%
57	20.000%	17.000%	10.000%	17.000%
58	20.000%	18.000%	10.000%	18.000%
59	20.000%	19.000%	10.000%	19.000%
60	20.000%	20.000%	10.000%	20.000%
61	30.000%	25.000%	15.000%	25.000%
62	40.000%	30.000%	20.000%	30.000%
63	30.000%	20.000%	15.000%	20.000%
64	30.000%	20.000%	15.000%	20.000%
65	40.000%	30.000%	20.000%	30.000%
66	30.000%	20.000%	15.000%	20.000%
67	30.000%	20.000%	15.000%	20.000%
68	30.000%	20.000%	15.000%	20.000%
69	30.000%	20.000%	15.000%	20.000%
70 or more	100.000%	100.000%	100.000%	100.000%



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Service Yrs	Withdrawal			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
0	4.00%	4.00%	4.00%	4.00%
1	2.00%	2.00%	2.00%	2.00%
2	1.00%	1.00%	1.00%	1.00%
3	1.00%	1.00%	1.00%	1.00%
4	1.00%	1.00%	1.00%	1.00%
5	1.00%	1.00%	1.00%	1.00%
6	0.90%	0.90%	0.90%	0.90%
7	0.80%	0.80%	0.80%	0.80%
8	0.70%	0.70%	0.70%	0.70%
9	0.60%	0.60%	0.60%	0.60%
10	0.50%	0.50%	0.50%	0.50%
11	0.50%	0.50%	0.50%	0.50%
12	0.50%	0.50%	0.50%	0.50%
13	0.50%	0.50%	0.50%	0.50%
14	0.50%	0.50%	0.50%	0.50%
15	0.50%	0.50%	0.50%	0.50%
16	0.50%	0.50%	0.50%	0.50%
17	0.50%	0.50%	0.50%	0.50%
18	0.50%	0.50%	0.50%	0.50%
19	0.50%	0.50%	0.50%	0.50%
20	0.50%	0.50%	0.50%	0.50%
21	0.50%	0.50%	0.50%	0.50%
22	0.50%	0.50%	0.50%	0.50%
23	0.50%	0.50%	0.50%	0.50%
24	0.50%	0.50%	0.50%	0.50%
25	0.50%	0.50%	0.50%	0.50%
26	0.50%	0.50%	0.50%	0.50%
27	0.50%	0.50%	0.50%	0.50%
28	0.50%	0.50%	0.50%	0.50%
29	0.50%	0.50%	0.50%	0.50%
30	0.50%	0.50%	0.50%	0.50%
31	0.50%	0.50%	0.50%	0.50%
32	0.50%	0.50%	0.50%	0.50%
33	0.50%	0.50%	0.50%	0.50%
34	0.50%	0.50%	0.50%	0.50%
35	0.50%	0.50%	0.50%	0.50%
36	0.50%	0.50%	0.50%	0.50%
37	0.50%	0.50%	0.50%	0.50%
38	0.50%	0.50%	0.50%	0.50%
39	0.50%	0.50%	0.50%	0.50%
40	0.50%	0.50%	0.50%	0.50%
41	0.50%	0.50%	0.50%	0.50%
42	0.50%	0.50%	0.50%	0.50%
43	0.50%	0.50%	0.50%	0.50%
44	0.50%	0.50%	0.50%	0.50%
45	0.50%	0.50%	0.50%	0.50%



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Age	Ordinary Disability	
	Current Assumptions Men and Women	Suggested Assumptions Men and Women
25 or less	0.100%	0.100%
26	0.120%	0.120%
27	0.140%	0.140%
28	0.160%	0.160%
29	0.180%	0.180%
30	0.200%	0.200%
31	0.220%	0.220%
32	0.240%	0.240%
33	0.260%	0.260%
34	0.280%	0.280%
35	0.300%	0.300%
36	0.320%	0.320%
37	0.340%	0.340%
38	0.360%	0.360%
39	0.380%	0.380%
40	0.400%	0.400%
41	0.420%	0.420%
42	0.440%	0.440%
43	0.460%	0.460%
44	0.480%	0.480%
45	0.500%	0.500%
46	0.520%	0.520%
47	0.540%	0.540%
48	0.560%	0.560%
49	0.580%	0.580%
50	0.600%	0.600%
51	0.620%	0.620%
52	0.640%	0.640%
53	0.660%	0.660%
54	0.680%	0.680%
55	0.700%	0.700%
56	0.720%	0.720%
57	0.740%	0.740%
58	0.760%	0.760%
59	0.780%	0.780%
60	0.800%	0.800%
61	0.820%	0.820%
62	0.840%	0.840%
63	0.860%	0.860%
64	0.880%	0.880%
65	0.900%	0.900%
66	0.920%	0.920%
67	0.940%	0.940%
68	0.960%	0.960%
69	0.980%	0.980%
70	N/A	N/A



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Age	Accidental Disability	
	Current Assumptions Men and Women	Suggested Assumptions Men and Women
19	0.100%	0.100%
20	0.100%	0.100%
21	0.100%	0.100%
22	0.100%	0.100%
23	0.100%	0.100%
24	0.100%	0.100%
25	0.100%	0.100%
26	0.110%	0.110%
27	0.120%	0.120%
28	0.130%	0.130%
29	0.140%	0.140%
30	0.150%	0.150%
31	0.160%	0.160%
32	0.170%	0.170%
33	0.180%	0.180%
34	0.190%	0.190%
35	0.200%	0.200%
36	0.210%	0.210%
37	0.220%	0.220%
38	0.230%	0.230%
39	0.240%	0.240%
40	0.250%	0.250%
41	0.260%	0.260%
42	0.270%	0.270%
43	0.280%	0.280%
44	0.290%	0.290%
45	0.300%	0.300%
46	0.340%	0.340%
47	0.380%	0.380%
48	0.420%	0.420%
49	0.460%	0.460%
50	0.500%	0.500%
51	0.560%	0.560%
52	0.620%	0.620%
53	0.680%	0.680%
54	0.740%	0.740%
55	0.800%	0.800%
56	0.880%	0.880%
57	0.960%	0.960%
58	1.040%	1.040%
59	1.120%	1.120%
60	1.200%	1.200%
61	1.300%	1.300%
62	1.400%	1.400%
63	1.500%	1.500%
64	1.600%	1.600%
65	1.700%	1.700%
66	1.820%	1.820%
67	1.940%	1.940%
68	2.060%	2.060%
69	2.180%	2.180%
70	N/A	N/A



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Years of service	Merit Salary Increase	
	Current Assumption	Suggested Assumption
0	4.00%	4.00%
1	6.00%	6.00%
2	8.00%	8.00%
3	13.00%	13.00%
4	32.00%	21.33%
5	22.00%	14.67%
6	1.40%	0.93%
7	1.60%	1.07%
8	1.80%	1.20%
9	3.20%	2.13%
10	2.00%	1.33%
11	1.90%	1.27%
12	1.80%	1.20%
13	1.70%	1.13%
14	2.90%	1.93%
15	1.50%	1.00%
16	1.40%	0.93%
17	1.30%	0.87%
18	1.20%	0.80%
19	2.40%	1.60%
20	1.00%	0.67%
21	0.90%	0.60%
22	0.80%	0.53%
23	0.70%	0.47%
24	0.60%	0.40%
25 or More	0.50%	0.33%



Appendix 5 – Current and Suggested Assumptions

NYCERS Sanitation Assumptions

Years of service	Current Assumptions			Overtime	Suggested Assumptions		
	Baseline	Dual Retirement	Disabled Retirement	Baseline	Dual Retirement	Disabled Retirement	
0	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
1	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
2	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
3	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
4	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
5	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
6	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
7	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
8	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
9	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
10	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
11	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
12	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
13	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
14	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
15	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
16	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
17	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
18	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
19	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
20	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
21	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
22	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
23	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
24	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	
25 or More	12.00%	16.00%	8.00%	12.00%	16.00%	8.00%	



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Age	Active Ordinary Mortality				Active Accidental Mortality	
	Current Assumptions		Suggested Assumptions		Current Assumptions	Suggested Assumptions
	Males	Females	Males	Females	Males and Females	Males and Females
25 or Younger	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
26	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
27	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
28	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
29	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
30	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
31	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
32	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
33	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
34	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
35	0.0500%	0.0300%	0.0250%	0.0150%	0.0100%	0.0050%
36	0.0600%	0.0360%	0.0300%	0.0180%	0.0100%	0.0050%
37	0.0700%	0.0420%	0.0350%	0.0210%	0.0100%	0.0050%
38	0.0800%	0.0480%	0.0400%	0.0240%	0.0100%	0.0050%
39	0.0900%	0.0540%	0.0450%	0.0270%	0.0100%	0.0050%
40	0.1000%	0.0600%	0.0500%	0.0300%	0.0100%	0.0050%
41	0.1100%	0.0660%	0.0550%	0.0330%	0.0100%	0.0050%
42	0.1200%	0.0720%	0.0600%	0.0360%	0.0100%	0.0050%
43	0.1300%	0.0780%	0.0650%	0.0390%	0.0100%	0.0050%
44	0.1400%	0.0840%	0.0700%	0.0420%	0.0100%	0.0050%
45	0.1500%	0.0900%	0.0750%	0.0450%	0.0100%	0.0050%
46	0.1600%	0.0960%	0.0800%	0.0480%	0.0100%	0.0050%
47	0.1700%	0.1020%	0.0850%	0.0510%	0.0100%	0.0050%
48	0.1800%	0.1080%	0.0900%	0.0540%	0.0100%	0.0050%
49	0.1900%	0.1140%	0.0950%	0.0570%	0.0100%	0.0050%
50	0.2000%	0.1200%	0.1000%	0.0600%	0.0100%	0.0050%
51	0.2100%	0.1280%	0.1050%	0.0640%	0.0100%	0.0050%
52	0.2200%	0.1360%	0.1100%	0.0680%	0.0100%	0.0050%
53	0.2300%	0.1440%	0.1150%	0.0720%	0.0100%	0.0050%
54	0.2400%	0.1520%	0.1200%	0.0760%	0.0100%	0.0050%
55	0.2500%	0.1600%	0.1250%	0.0800%	0.0100%	0.0050%
56	0.2600%	0.1680%	0.1300%	0.0840%	0.0100%	0.0050%
57	0.2700%	0.1760%	0.1350%	0.0880%	0.0100%	0.0050%
58	0.2800%	0.1840%	0.1400%	0.0920%	0.0100%	0.0050%
59	0.2900%	0.1920%	0.1450%	0.0960%	0.0100%	0.0050%
60	0.3000%	0.2000%	0.1500%	0.1000%	0.0100%	0.0050%
61	0.3200%	0.2100%	0.1600%	0.1050%	0.0100%	0.0050%
62	0.3400%	0.2200%	0.1700%	0.1100%	0.0100%	0.0050%
63	NA	NA	NA	NA	NA	NA



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Age	Service Retirement - Year One of Eligibility, Men and Women			
	Current Mandated	Current Elected	Suggested Mandated	Suggested Elected
45 or less	60.00%		60.00%	
46	60.00%		60.00%	
47	60.00%		60.00%	
48	60.00%		60.00%	
49	60.00%		60.00%	
50	60.00%		60.00%	
51	60.00%		60.00%	
52	60.00%		60.00%	
53	60.00%		60.00%	
54	60.00%		60.00%	
55	60.00%		60.00%	
56	60.00%		60.00%	
57	60.00%		60.00%	
58	60.00%	No longer any members	60.00%	No longer any members
59	60.00%		60.00%	
60	60.00%		60.00%	
61	60.00%		60.00%	
62	60.00%		60.00%	
63	100.00%		100.00%	

Age	Service Retirement – After First Year of Eligibility, Men and Women			
	Current Mandated	Current Elected	Suggested Mandated	Suggested Elected
45 or less	20.00%	20.00%	20.00%	20.00%
46	20.00%	20.00%	20.00%	20.00%
47	20.00%	20.00%	20.00%	20.00%
48	20.00%	20.00%	20.00%	20.00%
49	20.00%	20.00%	20.00%	20.00%
50	20.00%	20.00%	20.00%	20.00%
51	20.00%	20.00%	20.00%	20.00%
52	20.00%	20.00%	20.00%	20.00%
53	20.00%	20.00%	20.00%	20.00%
54	20.00%	20.00%	20.00%	20.00%
55	20.00%	20.00%	20.00%	20.00%
56	20.00%	20.00%	20.00%	20.00%
57	20.00%	20.00%	20.00%	20.00%
58	20.00%	20.00%	20.00%	20.00%
59	20.00%	20.00%	20.00%	20.00%
60	20.00%	20.00%	20.00%	20.00%
61	30.00%	30.00%	30.00%	30.00%
62	40.00%	40.00%	40.00%	40.00%
63	100.00%	100.00%	100.00%	100.00%



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Service Yrs	Withdrawal			
	Current Assumptions Males	Current Assumptions Females	Suggested Assumptions Males	Suggested Assumptions Females
0	5.00%	5.00%	7.50%	7.50%
1	4.00%	4.00%	6.00%	6.00%
2	3.00%	3.00%	4.50%	4.50%
3	2.00%	2.00%	3.00%	3.00%
4	1.50%	1.50%	2.25%	2.25%
5	1.00%	1.00%	1.50%	1.50%
6	0.90%	0.90%	1.35%	1.35%
7	0.80%	0.80%	1.20%	1.20%
8	0.70%	0.70%	1.05%	1.05%
9	0.60%	0.60%	0.90%	0.90%
10	0.50%	0.50%	0.75%	0.75%
11	0.50%	0.50%	0.75%	0.75%
12	0.50%	0.50%	0.75%	0.75%
13	0.50%	0.50%	0.75%	0.75%
14	0.50%	0.50%	0.75%	0.75%
15	0.50%	0.50%	0.75%	0.75%
16	0.50%	0.50%	0.75%	0.75%
17	0.50%	0.50%	0.75%	0.75%
18	0.50%	0.50%	0.75%	0.75%
19	0.50%	0.50%	0.75%	0.75%
20	0.50%	0.50%	0.75%	0.75%
21	0.50%	0.50%	0.75%	0.75%
22	0.50%	0.50%	0.75%	0.75%
23	0.50%	0.50%	0.75%	0.75%
24	0.50%	0.50%	0.75%	0.75%
25	0.50%	0.50%	0.75%	0.75%
26	0.50%	0.50%	0.75%	0.75%
27	0.50%	0.50%	0.75%	0.75%
28	0.50%	0.50%	0.75%	0.75%
29	0.50%	0.50%	0.75%	0.75%
30	0.50%	0.50%	0.75%	0.75%
31	0.50%	0.50%	0.75%	0.75%
32	0.50%	0.50%	0.75%	0.75%
33	0.50%	0.50%	0.75%	0.75%
34	0.50%	0.50%	0.75%	0.75%
35	0.50%	0.50%	0.75%	0.75%
36	0.50%	0.50%	0.75%	0.75%
37	0.50%	0.50%	0.75%	0.75%
38	0.50%	0.50%	0.75%	0.75%
39	0.50%	0.50%	0.75%	0.75%
40	0.50%	0.50%	0.75%	0.75%
41	0.50%	0.50%	0.75%	0.75%
42	0.50%	0.50%	0.75%	0.75%
43	0.50%	0.50%	0.75%	0.75%
44	0.50%	0.50%	0.75%	0.75%
45	0.50%	0.50%	0.75%	0.75%



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Age	Ordinary Disability	
	Current Assumptions	Suggested Assumptions
	Males	Males
30 or less	0.10%	0.10%
31	0.12%	0.12%
32	0.14%	0.14%
33	0.16%	0.16%
34	0.18%	0.18%
35	0.20%	0.20%
36	0.22%	0.22%
37	0.24%	0.24%
38	0.26%	0.26%
39	0.28%	0.28%
40	0.30%	0.30%
41	0.32%	0.32%
42	0.34%	0.34%
43	0.36%	0.36%
44	0.38%	0.38%
45	0.40%	0.40%
46	0.42%	0.42%
47	0.44%	0.44%
48	0.46%	0.46%
49	0.48%	0.48%
50	0.50%	0.50%
51	0.52%	0.52%
52	0.54%	0.54%
53	0.56%	0.56%
54	0.58%	0.58%
55	0.60%	0.60%
56	0.62%	0.62%
57	0.64%	0.64%
58	0.66%	0.66%
59	0.68%	0.68%
60	0.70%	0.70%
61	0.72%	0.72%
62	0.74%	0.74%



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Age	Accidental Disability	
	Current Assumptions Males	Suggested Assumptions Males
19	0.20%	0.250%
20	0.20%	0.250%
21	0.21%	0.263%
22	0.22%	0.275%
23	0.23%	0.288%
24	0.24%	0.300%
25	0.25%	0.313%
26	0.26%	0.325%
27	0.27%	0.338%
28	0.28%	0.350%
29	0.29%	0.363%
30	0.30%	0.375%
31	0.31%	0.388%
32	0.32%	0.400%
33	0.33%	0.413%
34	0.34%	0.425%
35	0.35%	0.438%
36	0.36%	0.450%
37	0.37%	0.463%
38	0.38%	0.475%
39	0.39%	0.488%
40	0.40%	0.500%
41	0.41%	0.513%
42	0.42%	0.525%
43	0.43%	0.538%
44	0.44%	0.550%
45	0.45%	0.563%
46	0.46%	0.575%
47	0.47%	0.588%
48	0.48%	0.600%
49	0.49%	0.613%
50	0.50%	0.625%
51	0.52%	0.650%
52	0.54%	0.675%
53	0.56%	0.700%
54	0.58%	0.725%
55	0.60%	0.750%
56	0.62%	0.775%
57	0.64%	0.800%
58	0.66%	0.825%
59	0.68%	0.850%
60	0.70%	0.875%
61	0.72%	0.900%
62	0.74%	0.925%



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Years of service	Merit Salary Increase	
	Current Assumption	Suggested Assumption
0	11.00%	11.00%
1	10.00%	10.00%
2	9.00%	9.00%
3	8.00%	8.00%
4	46.00%	46.00%
5	1.20%	1.20%
6	1.40%	1.40%
7	1.60%	1.60%
8	1.80%	1.80%
9	3.20%	3.20%
10	2.00%	2.00%
11	1.90%	1.90%
12	1.80%	1.80%
13	1.70%	1.70%
14	2.90%	2.90%
15	1.50%	1.50%
16	1.40%	1.40%
17	1.30%	1.30%
18	1.20%	1.20%
19	2.40%	2.40%
20	1.00%	1.00%
21	0.90%	0.90%
22	0.80%	0.80%
23	0.70%	0.70%
24	0.60%	0.60%
25 or More	0.50%	0.50%



Appendix 5 – Current and Suggested Assumptions

NYCERS Corrections Assumptions

Years of service	Current Assumptions			Overtime	Suggested Assumptions		
	Baseline	Dual Retirement	Disabled Retirement	Baseline	Dual Retirement	Disabled Retirement	
			Tiers II and III			Tiers II and III	
0	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
1	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
2	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
3	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
4	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
5	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
6	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
7	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
8	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
9	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
10	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
11	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
12	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
13	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
14	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
15	10.00%	10.00%	8.00%	15.00%	15.00%	8.00%	
16	11.00%	11.00%	9.00%	16.50%	16.50%	9.00%	
17	12.00%	12.00%	10.00%	18.00%	18.00%	10.00%	
18	13.00%	13.00%	11.00%	19.50%	19.50%	11.00%	
19	14.00%	14.00%	12.00%	21.00%	21.00%	12.00%	
20	15.00%	15.00%	13.00%	22.50%	22.50%	13.00%	
21	15.00%	15.00%	13.00%	22.50%	22.50%	13.00%	
22	15.00%	15.00%	13.00%	22.50%	22.50%	13.00%	
23	15.00%	15.00%	13.00%	22.50%	22.50%	13.00%	
24	15.00%	15.00%	13.00%	22.50%	22.50%	13.00%	
25 or More	15.00%	15.00%	13.00%	22.50%	22.50%	13.00%	



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions

Age	Current		Ordinary Mortality		
	Males	Females	Age	Males	Females
19	0.00040	0.00020	19	0.000400	0.000250
20	0.00040	0.00020	20	0.000400	0.000250
21	0.00040	0.00020	21	0.000400	0.000250
22	0.00040	0.00020	22	0.000400	0.000250
23	0.00040	0.00020	23	0.000400	0.000250
24	0.00040	0.00020	24	0.000400	0.000250
25	0.00040	0.00020	25	0.000400	0.000250
26	0.00040	0.00020	26	0.000400	0.000250
27	0.00040	0.00020	27	0.000400	0.000250
28	0.00040	0.00020	28	0.000400	0.000250
29	0.00040	0.00020	29	0.000400	0.000250
30	0.00040	0.00020	30	0.000400	0.000250
31	0.00042	0.00021	31	0.000420	0.000263
32	0.00044	0.00022	32	0.000440	0.000275
33	0.00046	0.00023	33	0.000460	0.000288
34	0.00048	0.00024	34	0.000480	0.000300
35	0.00050	0.00025	35	0.000500	0.000313
36	0.00052	0.00026	36	0.000520	0.000325
37	0.00054	0.00027	37	0.000540	0.000338
38	0.00056	0.00028	38	0.000560	0.000350
39	0.00058	0.00029	39	0.000580	0.000363
40	0.00060	0.00030	40	0.000600	0.000375
41	0.00070	0.00035	41	0.000700	0.000438
42	0.00080	0.00040	42	0.000800	0.000500
43	0.00090	0.00045	43	0.000900	0.000563
44	0.00100	0.00050	44	0.001000	0.000625
45	0.00110	0.00055	45	0.001100	0.000688
46	0.00120	0.00060	46	0.001200	0.000750
47	0.00130	0.00065	47	0.001300	0.000813
48	0.00140	0.00070	48	0.001400	0.000875
49	0.00150	0.00075	49	0.001500	0.000938
50	0.00160	0.00080	50	0.001600	0.001000
51	0.00170	0.00085	51	0.001700	0.001063
52	0.00180	0.00090	52	0.001800	0.001125
53	0.00190	0.00095	53	0.001900	0.001188
54	0.00200	0.00100	54	0.002000	0.001250
55	0.00210	0.00105	55	0.002100	0.001313
56	0.00220	0.00110	56	0.002200	0.001375
57	0.00230	0.00115	57	0.002300	0.001438
58	0.00240	0.00120	58	0.002400	0.001500
59	0.00250	0.00125	59	0.002500	0.001563
60	0.00260	0.00130	60	0.002600	0.001625
61	0.00270	0.00135	61	0.002700	0.001688
62	0.00280	0.00140	62	0.002800	0.001750
63	0.00290	0.00145	63	0.002900	0.001813
64	0.00300	0.00150	64	0.003000	0.001875
65	0.00320	0.00160	65	0.003200	0.002000
66	0.00350	0.00175	66	0.003500	0.002188
67	0.00390	0.00195	67	0.003900	0.002438
68	0.00440	0.00220	68	0.004400	0.002750
69	0.00500	0.00250	69	0.005000	0.003125
70	NA	NA	70	NA	NA



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions

Service Retirement Year One of Eligibility								
Age	Current Rates				Suggested Rates			
	Elected		Mandated		Elected		Mandated	
	Males	Females	Males	Females	Males	Females	Males	Females
55	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
56	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
57	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
58	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
59	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
60	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
61	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
62	0.40000	0.40000	0.30000	0.30000	0.5000	0.5000	0.2700	0.2700
63	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
64	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
65	0.40000	0.40000	0.30000	0.30000	0.5000	0.5000	0.2700	0.2700
66	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
67	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
68	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
69	0.30000	0.30000	0.20000	0.20000	0.3750	0.3750	0.1800	0.1800
70	1.00000	1.00000	1.00000	1.00000	1.0000	1.0000	1.0000	1.0000

Service Retirement After Year One of Eligibility								
Age	Current Rates				Suggested Rates			
	Elected		Mandated		Elected		Mandated	
	Males	Females	Males	Females	Males	Females	Males	Females
56	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
57	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
58	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
59	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
60	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
61	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
62	0.30000	0.30000	0.20000	0.20000	0.33000	0.33000	0.20000	0.20000
63	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
64	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
65	0.30000	0.30000	0.20000	0.20000	0.33000	0.33000	0.20000	0.20000
66	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
67	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
68	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
69	0.20000	0.20000	0.15000	0.15000	0.22000	0.22000	0.20000	0.20000
70	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
71	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
72	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
73	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
74	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
75	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
76	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
77	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
78	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
79	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	0.20000	0.20000
80	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions

Early Retirement					
Age	Current Males	Females	Age	Suggested Males	Females
55	0.02000	0.02000	55	0.02500	0.02500
56	0.02000	0.02000	56	0.02500	0.02500
57	0.02000	0.02000	57	0.02500	0.02500
58	0.02000	0.02000	58	0.02500	0.02500
59	0.03000	0.03000	59	0.03750	0.03750
60	0.04000	0.04000	60	0.05000	0.05000
61	0.05000	0.05000	61	0.06250	0.06250

Withdrawals					
Age	Current Males	Females	Age	Suggested Males	Females
0	0.09000	0.09000	0	0.09000	0.09000
1	0.08000	0.08000	1	0.08000	0.08000
2	0.07000	0.07000	2	0.07000	0.07000
3	0.06000	0.06000	3	0.06000	0.06000
4	0.05000	0.05000	4	0.05000	0.05000
5	0.04000	0.04000	5	0.04000	0.04000
6	0.03500	0.03500	6	0.03500	0.03500
7	0.03050	0.03050	7	0.03050	0.03050
8	0.02650	0.02650	8	0.02650	0.02650
9	0.02300	0.02300	9	0.02300	0.02300
10	0.02000	0.02000	10	0.02000	0.02000
11	0.01750	0.01750	11	0.01750	0.01750
12	0.01550	0.01550	12	0.01550	0.01550
13	0.01400	0.01400	13	0.01400	0.01400
14	0.01300	0.01300	14	0.01300	0.01300
15	0.01250	0.01250	15	0.01250	0.01250
16	0.01200	0.01200	16	0.01200	0.01200
17	0.01150	0.01150	17	0.01150	0.01150
18	0.01100	0.01100	18	0.01100	0.01100
19	0.01050	0.01050	19	0.01050	0.01050
20	0.01000	0.01000	20	0.01000	0.01000
21	0.00900	0.00900	21	0.00900	0.00900
22	0.00800	0.00800	22	0.00800	0.00800
23	0.00700	0.00700	23	0.00700	0.00700
24	0.00600	0.00600	24	0.00600	0.00600
25 or more	0.00500	0.00500	25	0.00500	0.00500



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions

Age	Active Ordinary Disability			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
25 or Younger	0.0100%	0.0100%	0.0100%	0.0100%
26	0.0100%	0.0100%	0.0100%	0.0100%
27	0.0100%	0.0100%	0.0100%	0.0100%
28	0.0100%	0.0100%	0.0100%	0.0100%
29	0.0100%	0.0100%	0.0100%	0.0100%
30	0.0100%	0.0100%	0.0100%	0.0100%
31	0.0200%	0.0100%	0.0200%	0.0100%
32	0.0300%	0.0200%	0.0300%	0.0200%
33	0.0400%	0.0300%	0.0400%	0.0300%
34	0.0500%	0.0400%	0.0500%	0.0400%
35	0.0600%	0.0500%	0.0600%	0.0500%
36	0.0680%	0.0600%	0.0680%	0.0600%
37	0.0760%	0.0700%	0.0760%	0.0700%
38	0.0840%	0.0800%	0.0840%	0.0800%
39	0.0920%	0.0900%	0.0920%	0.0900%
40	0.1000%	0.1000%	0.1000%	0.1000%
41	0.1100%	0.1100%	0.1100%	0.1100%
42	0.1200%	0.1200%	0.1200%	0.1200%
43	0.1300%	0.1300%	0.1300%	0.1300%
44	0.1400%	0.1400%	0.1400%	0.1400%
45	0.1500%	0.1500%	0.1500%	0.1500%
46	0.1500%	0.1600%	0.1500%	0.1600%
47	0.1500%	0.1700%	0.1500%	0.1700%
48	0.1500%	0.1800%	0.1500%	0.1800%
49	0.1500%	0.1900%	0.1500%	0.1900%
50 or greater	0.1500%	0.2000%	0.1500%	0.2000%



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions

Age	Accidental Disability				
	Current Males	Females	Age	Suggested Males	Females
25 or less	0.00002	0.00002	25	0.00002	0.00002
26	0.00002	0.00002	26	0.00002	0.00002
27	0.00002	0.00002	27	0.00002	0.00002
28	0.00002	0.00002	28	0.00002	0.00002
29	0.00002	0.00002	29	0.00002	0.00002
30	0.00002	0.00002	30	0.00002	0.00002
31	0.00002	0.00002	31	0.00002	0.00002
32	0.00004	0.00002	32	0.00004	0.00002
33	0.00006	0.00003	33	0.00006	0.00003
34	0.00008	0.00004	34	0.00008	0.00004
35	0.00010	0.00005	35	0.00010	0.00005
36	0.00012	0.00006	36	0.00012	0.00006
37	0.00014	0.00007	37	0.00014	0.00007
38	0.00016	0.00008	38	0.00016	0.00008
39	0.00018	0.00009	39	0.00018	0.00009
40	0.00020	0.00010	40	0.00020	0.00010
41	0.00021	0.00012	41	0.00021	0.00012
42	0.00022	0.00014	42	0.00022	0.00014
43	0.00023	0.00016	43	0.00023	0.00016
44	0.00024	0.00018	44	0.00024	0.00018
45	0.00025	0.00020	45	0.00025	0.00020
46	0.00026	0.00022	46	0.00026	0.00022
47	0.00027	0.00024	47	0.00027	0.00024
48	0.00028	0.00026	48	0.00028	0.00026
49	0.00029	0.00028	49	0.00029	0.00028
50	0.00030	0.00030	50	0.00030	0.00030
51	0.00031	0.00031	51	0.00031	0.00031
52	0.00032	0.00032	52	0.00032	0.00032
53	0.00033	0.00033	53	0.00033	0.00033
54	0.00034	0.00034	54	0.00034	0.00034
55	0.00035	0.00035	55	0.00035	0.00035
56	0.00036	0.00036	56	0.00036	0.00036
57	0.00037	0.00037	57	0.00037	0.00037
58	0.00038	0.00038	58	0.00038	0.00038
59	0.00039	0.00039	59	0.00039	0.00039
60 or greater	0.00040	0.00040	60	0.00040	0.00040



Appendix 5 – Current and Suggested Assumptions

Teachers Assumptions

Years of service	Merit Salary Increase	
	Current Assumption	Suggested Assumption
0	10.00%	10.00%
1	8.00%	8.00%
2	6.00%	6.00%
3	5.00%	5.00%
4	6.00%	6.00%
5	5.00%	5.00%
6	5.00%	5.00%
7	4.00%	4.00%
8	2.00%	2.00%
9	5.00%	5.00%
10	1.00%	1.00%
11	1.00%	1.00%
12	3.00%	3.00%
13	1.00%	1.00%
14	5.00%	5.00%
15	1.00%	1.00%
16	1.00%	1.00%
17	2.00%	2.00%
18	1.00%	1.00%
19	9.00%	9.00%
20	1.00%	1.00%
21	5.00%	5.00%
22	1.00%	1.00%
23	1.00%	1.00%
24	1.00%	1.00%
25 or More	1.00%	1.00%



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Age	Active Ordinary Mortality			
	Current Assumptions Males	Current Assumptions Females	Suggested Assumptions Males	Suggested Assumptions Females
25 or Younger	0.0400%	0.0300%	0.0267%	0.0200%
26	0.0440%	0.0320%	0.0293%	0.0213%
27	0.0480%	0.0340%	0.0320%	0.0227%
28	0.0520%	0.0360%	0.0347%	0.0240%
29	0.0560%	0.0380%	0.0373%	0.0253%
30	0.0600%	0.0400%	0.0400%	0.0267%
31	0.0640%	0.0420%	0.0427%	0.0280%
32	0.0680%	0.0440%	0.0453%	0.0293%
33	0.0720%	0.0460%	0.0480%	0.0307%
34	0.0760%	0.0480%	0.0507%	0.0320%
35	0.0800%	0.0500%	0.0533%	0.0333%
36	0.0840%	0.0520%	0.0560%	0.0347%
37	0.0880%	0.0540%	0.0587%	0.0360%
38	0.0920%	0.0560%	0.0613%	0.0373%
39	0.0960%	0.0580%	0.0640%	0.0387%
40	0.1000%	0.0600%	0.0667%	0.0400%
41	0.1100%	0.0680%	0.0733%	0.0453%
42	0.1200%	0.0760%	0.0800%	0.0507%
43	0.1300%	0.0840%	0.0867%	0.0560%
44	0.1400%	0.0920%	0.0933%	0.0613%
45	0.1500%	0.1000%	0.1000%	0.0667%
46	0.1600%	0.1100%	0.1067%	0.0733%
47	0.1700%	0.1200%	0.1133%	0.0800%
48	0.1800%	0.1300%	0.1200%	0.0867%
49	0.1900%	0.1400%	0.1267%	0.0933%
50	0.2000%	0.1500%	0.1333%	0.1000%
51	0.2200%	0.1600%	0.1467%	0.1067%
52	0.2400%	0.1700%	0.1600%	0.1133%
53	0.2600%	0.1800%	0.1733%	0.1200%
54	0.2800%	0.1900%	0.1867%	0.1267%
55	0.3000%	0.2000%	0.2000%	0.1333%
56	0.3200%	0.2100%	0.2133%	0.1400%
57	0.3400%	0.2200%	0.2267%	0.1467%
58	0.3600%	0.2300%	0.2400%	0.1533%
59	0.3800%	0.2400%	0.2533%	0.1600%
60	0.4000%	0.2500%	0.2667%	0.1667%
61	0.4200%	0.2600%	0.2800%	0.1733%
62	0.4400%	0.2700%	0.2933%	0.1800%
63	0.4600%	0.2800%	0.3067%	0.1867%
64	0.4800%	0.2900%	0.3200%	0.1933%
65	0.5000%	0.3000%	0.3333%	0.2000%
66	0.5400%	0.3200%	0.3600%	0.2133%
67	0.5800%	0.3400%	0.3867%	0.2267%
68	0.6200%	0.3600%	0.4133%	0.2400%
69	0.6600%	0.3800%	0.4400%	0.2533%
70 or greater	0.6600%	0.3800%	0.4400%	0.2533%



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Service Retirement - Year One of Eligibility								
Age	Current Assumptions				Suggested Assumptions			
	Elected		Mandated		Elected		Mandated	
	Males	Females	Males	Females	Males	Females	Males	Females
55	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
56	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
57	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
58	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
59	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
60	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
61	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
62	60.000%	60.000%	30.000%	30.000%	51.000%	51.000%	20.100%	20.100%
63	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
64	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
65	60.000%	60.000%	30.000%	30.000%	51.000%	51.000%	20.100%	20.100%
66	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
67	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
68	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
69	40.000%	40.000%	20.000%	20.000%	34.000%	34.000%	13.400%	13.400%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Age	Service Retirement – After First Year of Eligibility							
	Current Assumptions				Suggested Assumptions			
	Elected		Mandated		Elected		Mandated	
	Males	Females	Males	Females	Males	Females	Males	Females
55	15.00%	15.00%	10.00%	10.00%	11.25%	11.25%	6.50%	6.50%
56	20.00%	20.00%	10.00%	10.00%	15.00%	15.00%	6.50%	6.50%
57	15.00%	15.00%	10.00%	10.00%	11.25%	11.25%	6.50%	6.50%
58	15.00%	15.00%	15.00%	15.00%	11.25%	11.25%	7.50%	7.50%
59	15.00%	15.00%	10.00%	10.00%	11.25%	11.25%	6.50%	6.50%
60	15.00%	15.00%	10.00%	10.00%	11.25%	11.25%	6.50%	6.50%
61	15.00%	15.00%	15.00%	15.00%	11.25%	11.25%	9.75%	9.75%
62	25.00%	25.00%	20.00%	20.00%	18.75%	18.75%	13.00%	13.00%
63	20.00%	20.00%	15.00%	15.00%	15.00%	15.00%	9.75%	9.75%
64	20.00%	20.00%	15.00%	15.00%	15.00%	15.00%	9.75%	9.75%
65	25.00%	25.00%	20.00%	20.00%	18.75%	18.75%	13.00%	13.00%
66	20.00%	20.00%	15.00%	15.00%	15.00%	15.00%	9.75%	9.75%
67	20.00%	20.00%	15.00%	15.00%	15.00%	15.00%	9.75%	9.75%
68	20.00%	20.00%	15.00%	15.00%	15.00%	15.00%	9.75%	9.75%
69	20.00%	20.00%	15.00%	15.00%	15.00%	15.00%	9.75%	9.75%
70	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
71	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
72	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
73	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
74	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
75	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
76	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
77	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
78	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
79	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	20.00%	20.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Age	Early Retirement			
	Current		Suggested	
	Males	Females	Males	Females
55	2.000%	2.000%	2.500%	2.500%
56	2.000%	2.000%	2.500%	2.500%
57	2.000%	2.000%	2.500%	2.500%
58	2.000%	2.000%	2.500%	2.500%
59	3.000%	3.000%	3.750%	3.750%
60	4.000%	4.000%	5.000%	5.000%
61	5.000%	5.000%	6.250%	6.250%



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Service Years	Current		Withdrawal		Suggested	
	Males	Females	Males	Females	Males	Females
0	6.00%	4.00%	8.40%		5.60%	
1	5.60%	3.80%	7.84%		5.32%	
2	5.20%	3.60%	7.28%		5.04%	
3	4.80%	3.40%	6.72%		4.76%	
4	4.40%	3.20%	6.16%		4.48%	
5	4.00%	3.00%	5.60%		4.20%	
6	3.70%	2.80%	5.18%		3.92%	
7	3.40%	2.60%	4.76%		3.64%	
8	3.10%	2.40%	4.34%		3.36%	
9	2.80%	2.20%	3.92%		3.08%	
10	2.50%	2.00%	3.50%		2.80%	
11	2.30%	1.90%	3.22%		2.66%	
12	2.10%	1.80%	2.94%		2.52%	
13	1.90%	1.70%	2.66%		2.38%	
14	1.70%	1.60%	2.38%		2.24%	
15	1.50%	1.50%	2.10%		2.10%	
16	1.40%	1.40%	1.96%		1.96%	
17	1.30%	1.30%	1.82%		1.82%	
18	1.20%	1.20%	1.68%		1.68%	
19	1.10%	1.10%	1.54%		1.54%	
20 or more	1.00%	1.00%	1.40%		1.40%	



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Age	Ordinary Disability			
	Current Assumptions		Suggested Assumptions	
	Males	Females	Males	Females
25 or Younger	0.2000%	0.2000%	0.2000%	0.2000%
26	0.2000%	0.2000%	0.2000%	0.2000%
27	0.2000%	0.2000%	0.2000%	0.2000%
28	0.2000%	0.2000%	0.2000%	0.2000%
29	0.2000%	0.2000%	0.2000%	0.2000%
30	0.2000%	0.2000%	0.2000%	0.2000%
31	0.2200%	0.2000%	0.2200%	0.2000%
32	0.2400%	0.2000%	0.2400%	0.2000%
33	0.2600%	0.2000%	0.2600%	0.2000%
34	0.2800%	0.2000%	0.2800%	0.2000%
35	0.3000%	0.2000%	0.3000%	0.2000%
36	0.3200%	0.2100%	0.3200%	0.2100%
37	0.3400%	0.2200%	0.3400%	0.2200%
38	0.3600%	0.2300%	0.3600%	0.2300%
39	0.3800%	0.2400%	0.3800%	0.2400%
40	0.4000%	0.2500%	0.4000%	0.2500%
41	0.4200%	0.2600%	0.4200%	0.2600%
42	0.4400%	0.2700%	0.4400%	0.2700%
43	0.4600%	0.2800%	0.4600%	0.2800%
44	0.4800%	0.2900%	0.4800%	0.2900%
45	0.5000%	0.3000%	0.5000%	0.3000%
46	0.5200%	0.3400%	0.5200%	0.3400%
47	0.5400%	0.3800%	0.5400%	0.3800%
48	0.5600%	0.4200%	0.5600%	0.4200%
49	0.5800%	0.4600%	0.5800%	0.4600%
50	0.6000%	0.5000%	0.6000%	0.5000%
51	0.6200%	0.5400%	0.6200%	0.5400%
52	0.6400%	0.5800%	0.6400%	0.5800%
53	0.6600%	0.6200%	0.6600%	0.6200%
54	0.6800%	0.6600%	0.6800%	0.6600%
55 or greater	0.7000%	0.7000%	0.7000%	0.7000%



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Age	Accidental Disability			
	Current Males	Current Females	Suggested Males	Suggested Females
19	0.040%	0.020%	0.030%	0.025%
20	0.040%	0.020%	0.030%	0.025%
21	0.040%	0.020%	0.030%	0.025%
22	0.040%	0.020%	0.030%	0.025%
23	0.040%	0.020%	0.030%	0.025%
24	0.040%	0.020%	0.030%	0.025%
25	0.040%	0.020%	0.030%	0.025%
26	0.040%	0.020%	0.030%	0.025%
27	0.040%	0.020%	0.030%	0.025%
28	0.040%	0.020%	0.030%	0.025%
29	0.040%	0.020%	0.030%	0.025%
30	0.040%	0.020%	0.030%	0.025%
31	0.040%	0.020%	0.030%	0.025%
32	0.040%	0.020%	0.030%	0.025%
33	0.040%	0.020%	0.030%	0.025%
34	0.040%	0.020%	0.030%	0.025%
35	0.040%	0.020%	0.030%	0.025%
36	0.040%	0.020%	0.030%	0.025%
37	0.040%	0.020%	0.030%	0.025%
38	0.040%	0.020%	0.030%	0.025%
39	0.040%	0.020%	0.030%	0.025%
40	0.040%	0.020%	0.030%	0.025%
41	0.040%	0.020%	0.030%	0.025%
42	0.040%	0.020%	0.030%	0.025%
43	0.040%	0.020%	0.030%	0.025%
44	0.040%	0.020%	0.030%	0.025%
45	0.040%	0.020%	0.030%	0.025%
46	0.040%	0.020%	0.030%	0.025%
47	0.040%	0.020%	0.030%	0.025%
48	0.040%	0.020%	0.030%	0.025%
49	0.040%	0.020%	0.030%	0.025%
50	0.040%	0.020%	0.030%	0.025%
51	0.040%	0.020%	0.030%	0.025%
52	0.040%	0.020%	0.030%	0.025%
53	0.040%	0.020%	0.030%	0.025%
54	0.040%	0.020%	0.030%	0.025%
55	0.040%	0.020%	0.030%	0.025%
56	0.040%	0.020%	0.030%	0.025%
57	0.040%	0.020%	0.030%	0.025%
58	0.040%	0.020%	0.030%	0.025%
59	0.040%	0.020%	0.030%	0.025%
60	0.040%	0.020%	0.030%	0.025%
61	0.040%	0.020%	0.030%	0.025%
62	0.040%	0.020%	0.030%	0.025%
63	0.040%	0.020%	0.030%	0.025%
64	0.040%	0.020%	0.030%	0.025%
65	0.040%	0.020%	0.030%	0.025%
66	0.040%	0.020%	0.030%	0.025%
67	0.040%	0.020%	0.030%	0.025%
68	0.040%	0.020%	0.030%	0.025%
69	0.040%	0.020%	0.030%	0.025%
70	NA	NA	NA	NA



Appendix 5 – Current and Suggested Assumptions

BERS Assumptions

Years of service	Merit Salary Increase	
	Current Assumption	Suggested Assumption
0	6.00%	6.00%
1	5.00%	5.00%
2	4.00%	4.00%
3	3.00%	3.00%
4	2.50%	2.50%
5	2.00%	2.00%
6	1.90%	1.90%
7	1.80%	1.80%
8	1.70%	1.70%
9	1.60%	1.60%
10	1.50%	1.50%
11	1.50%	1.50%
12	1.50%	1.50%
13	1.50%	1.50%
14	1.50%	1.50%
15	1.50%	1.50%
16	1.45%	1.45%
17	1.40%	1.40%
18	1.35%	1.35%
19	1.30%	1.30%
20	1.25%	1.25%
21	1.20%	1.20%
22	1.15%	1.15%
23	1.10%	1.10%
24	1.05%	1.05%
25 or More	1.00%	1.00%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions



Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Age	Active Ordinary Mortality				Active Accidental Mortality	
	Current Assumptions		Suggested Assumptions		Current Assumptions	Suggested Assumptions
	Males	Females	Males	Females	Males and Females	Males and Females
25 or Younger	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
26	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
27	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
28	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
29	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
30	0.0400%	0.0300%	0.0400%	0.0300%	0.0100%	0.0100%
31	0.0400%	0.0300%	0.0400%	0.0300%	0.0110%	0.0110%
32	0.0400%	0.0300%	0.0400%	0.0300%	0.0120%	0.0120%
33	0.0400%	0.0300%	0.0400%	0.0300%	0.0130%	0.0130%
34	0.0400%	0.0300%	0.0400%	0.0300%	0.0140%	0.0140%
35	0.0400%	0.0300%	0.0400%	0.0300%	0.0150%	0.0150%
36	0.0420%	0.0320%	0.0420%	0.0320%	0.0160%	0.0160%
37	0.0440%	0.0340%	0.0440%	0.0340%	0.0170%	0.0170%
38	0.0460%	0.0360%	0.0460%	0.0360%	0.0180%	0.0180%
39	0.0480%	0.0380%	0.0480%	0.0380%	0.0190%	0.0190%
40	0.0500%	0.0400%	0.0500%	0.0400%	0.0200%	0.0200%
41	0.0600%	0.0460%	0.0600%	0.0460%	0.0210%	0.0210%
42	0.0700%	0.0520%	0.0700%	0.0520%	0.0220%	0.0220%
43	0.0800%	0.0580%	0.0800%	0.0580%	0.0230%	0.0230%
44	0.0900%	0.0640%	0.0900%	0.0640%	0.0240%	0.0240%
45	0.1000%	0.0700%	0.1000%	0.0700%	0.0250%	0.0250%
46	0.1100%	0.0760%	0.1100%	0.0760%	0.0260%	0.0260%
47	0.1200%	0.0820%	0.1200%	0.0820%	0.0270%	0.0270%
48	0.1300%	0.0880%	0.1300%	0.0880%	0.0280%	0.0280%
49	0.1400%	0.0940%	0.1400%	0.0940%	0.0290%	0.0290%
50	0.1500%	0.1000%	0.1500%	0.1000%	0.0300%	0.0300%
51	0.1600%	0.1100%	0.1600%	0.1100%	0.0310%	0.0310%
52	0.1700%	0.1200%	0.1700%	0.1200%	0.0320%	0.0320%
53	0.1800%	0.1300%	0.1800%	0.1300%	0.0330%	0.0330%
54	0.1900%	0.1400%	0.1900%	0.1400%	0.0340%	0.0340%
55	0.2000%	0.1500%	0.2000%	0.1500%	0.0350%	0.0350%
56	0.2200%	0.1600%	0.2200%	0.1600%	0.0360%	0.0360%
57	0.2400%	0.1700%	0.2400%	0.1700%	0.0370%	0.0370%
58	0.2600%	0.1800%	0.2600%	0.1800%	0.0380%	0.0380%
59	0.2800%	0.1900%	0.2800%	0.1900%	0.0390%	0.0390%
60	0.3000%	0.2000%	0.3000%	0.2000%	0.0400%	0.0400%
61	0.3200%	0.2200%	0.3200%	0.2200%	0.0410%	0.0410%
62	0.3400%	0.2400%	0.3400%	0.2400%	0.0420%	0.0420%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Service Retirement - Year One of Eligibility		
Age	Current Assumptions	Suggested Assumptions
	Males	Males
Less than 45	60.00%	42.00%
46	60.00%	42.00%
47	60.00%	42.00%
48	60.00%	42.00%
49	60.00%	42.00%
50	60.00%	42.00%
51	60.00%	42.00%
52	60.00%	42.00%
53	60.00%	42.00%
54	60.00%	42.00%
55	60.00%	42.00%
56	60.00%	42.00%
57	60.00%	42.00%
58	60.00%	42.00%
59	60.00%	42.00%
60	60.00%	42.00%
61	60.00%	42.00%
62	60.00%	42.00%
63	100.00%	100.00%

Service Retirement – After First Year of Eligibility		
Age	Current Assumptions	Suggested Assumptions
	Males	Males
45 or younger	10.00%	10.00%
46	11.00%	11.00%
47	12.00%	12.00%
48	13.00%	13.00%
49	14.00%	14.00%
50	15.00%	15.00%
51	15.00%	15.00%
52	15.00%	15.00%
53	15.00%	15.00%
54	15.00%	15.00%
55	15.00%	15.00%
56	15.00%	15.00%
57	15.00%	15.00%
58	15.00%	15.00%
59	15.00%	15.00%
60	20.00%	20.00%
61	30.00%	30.00%
62	50.00%	50.00%
63	100.00%	100.00%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Years of Service	Withdrawal	
	Current Assumptions Males and Females	Suggested Assumptions Males and Females
0	4.00%	3.00%
1	3.00%	2.25%
2	2.00%	1.50%
3	2.00%	1.50%
4	2.00%	1.50%
5	2.00%	1.50%
6	1.80%	1.35%
7	1.60%	1.20%
8	1.40%	1.05%
9	1.20%	0.90%
10	1.00%	0.75%
11	0.80%	0.60%
12	0.60%	0.45%
13	0.50%	0.38%
14	0.40%	0.30%
15	0.30%	0.23%
16	0.20%	0.15%
17	0.20%	0.15%
18	0.20%	0.15%
19	0.20%	0.15%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Age	Ordinary Disability	
	Current Assumptions Males and Females	Suggested Assumptions Males and Females
19	0.045%	0.036%
20	0.050%	0.040%
21	0.055%	0.044%
22	0.060%	0.048%
23	0.065%	0.052%
24	0.070%	0.056%
25	0.075%	0.060%
26	0.080%	0.064%
27	0.085%	0.068%
28	0.090%	0.072%
29	0.095%	0.076%
30	0.100%	0.080%
31	0.105%	0.084%
32	0.110%	0.088%
33	0.115%	0.092%
34	0.120%	0.096%
35	0.125%	0.100%
36	0.130%	0.104%
37	0.135%	0.108%
38	0.140%	0.112%
39	0.145%	0.116%
40	0.150%	0.120%
41	0.155%	0.124%
42	0.160%	0.128%
43	0.165%	0.132%
44	0.170%	0.136%
45	0.175%	0.140%
46	0.180%	0.144%
47	0.185%	0.148%
48	0.190%	0.152%
49	0.195%	0.156%
50	0.200%	0.160%
51	0.250%	0.200%
52	0.300%	0.240%
53	0.400%	0.320%
54	0.600%	0.480%
55	0.800%	0.640%
56	1.000%	0.800%
57	2.000%	1.600%
58	3.000%	2.400%
59	4.000%	3.200%
60	6.000%	4.800%
61	8.000%	6.400%
62	10.000%	8.000%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Age	Accidental Disability – WTC Eligible	
	Current Assumptions Males and Females	Suggested Assumptions Males and Females
19	0.280%	0.168%
20	0.300%	0.180%
21	0.320%	0.192%
22	0.340%	0.204%
23	0.360%	0.216%
24	0.380%	0.228%
25	0.400%	0.240%
26	0.520%	0.312%
27	0.640%	0.384%
28	0.760%	0.456%
29	0.880%	0.528%
30	1.000%	0.600%
31	1.200%	0.720%
32	1.400%	0.840%
33	1.600%	0.960%
34	1.800%	1.080%
35	2.000%	1.200%
36	2.100%	1.260%
37	2.200%	1.320%
38	2.300%	1.380%
39	2.400%	1.440%
40	2.500%	1.500%
41	2.600%	1.560%
42	2.700%	1.620%
43	2.800%	1.680%
44	2.900%	1.740%
45	3.000%	1.800%
46	3.200%	1.920%
47	3.400%	2.040%
48	3.600%	2.160%
49	3.800%	2.280%
50	4.000%	2.400%
51	4.400%	2.640%
52	4.800%	2.880%
53	5.200%	3.120%
54	5.600%	3.360%
55	6.000%	3.600%
56	6.800%	4.080%
57	7.600%	4.560%
58	8.400%	5.040%
59	9.200%	5.520%
60	10.000%	6.000%
61	12.000%	7.200%
62	14.000%	8.400%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Age	Accidental Disability – Not WTC Eligible Tier I/II	
	Current Assumptions Males	Suggested Assumptions Males
19	0.140%	0.098%
20	0.150%	0.105%
21	0.160%	0.112%
22	0.170%	0.119%
23	0.180%	0.126%
24	0.190%	0.133%
25	0.200%	0.140%
26	0.260%	0.182%
27	0.320%	0.224%
28	0.380%	0.266%
29	0.440%	0.308%
30	0.500%	0.350%
31	0.600%	0.420%
32	0.700%	0.490%
33	0.800%	0.560%
34	0.900%	0.630%
35	1.000%	0.700%
36	1.050%	0.735%
37	1.100%	0.770%
38	1.150%	0.805%
39	1.200%	0.840%
40	1.250%	0.875%
41	1.300%	0.910%
42	1.350%	0.945%
43	1.400%	0.980%
44	1.450%	1.015%
45	1.500%	1.050%
46	1.600%	1.120%
47	1.700%	1.190%
48	1.800%	1.260%
49	1.900%	1.330%
50	2.000%	1.400%
51	2.200%	1.540%
52	2.400%	1.680%
53	2.600%	1.820%
54	2.800%	1.960%
55	3.000%	2.100%
56	3.400%	2.380%
57	3.800%	2.660%
58	4.200%	2.940%
59	4.600%	3.220%
60	5.000%	3.500%
61	6.000%	4.200%
62	7.000%	4.900%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Merit Increase and Salary Scale		
Years of Service	Current Merit Increase	Suggested Merit Increase
0	0.00%	0.00%
1	4.00%	4.60%
2	10.00%	11.50%
3	12.00%	13.80%
4	18.00%	20.70%
5	33.00%	37.95%
6	1.40%	1.61%
7	1.60%	1.84%
8	1.80%	2.07%
9	3.20%	3.68%
10	2.00%	2.30%
11	1.90%	2.19%
12	1.80%	2.07%
13	1.70%	1.96%
14	2.90%	3.34%
15	1.50%	1.73%
16	1.40%	1.61%
17	1.30%	1.50%
18	1.20%	1.38%
19	2.40%	2.76%
20	1.00%	1.15%
21	0.90%	1.04%
22	0.80%	0.92%
23	0.70%	0.81%
24	0.60%	0.69%
25 or more	0.50%	0.58%

Appendix 5 – Current and Suggested Assumptions

Police Assumptions

Years of service	Current Assumptions					Overtime				
	Baseline	Retirement		Disability Retirement		Baseline	Retirement		Disability Retirement	
		Tier 1/2	Tier 3	Tier 1/2	Tier 3		Tier 1/2	Tier 3	Tier 1/2	Tier 3
0	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
1	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
2	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
3	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
4	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
5	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
6	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
7	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
8	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
9	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
10	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
11	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
12	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
13	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
14	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
15	15.00%	18.00%	17.00%	8.00%	12.00%	17.25%	20.70%	19.55%	8.00%	12.00%
16	15.00%	18.00%	17.00%	9.00%	12.00%	17.25%	20.70%	19.55%	9.00%	12.00%
17	15.00%	18.00%	17.00%	10.00%	13.00%	17.25%	20.70%	19.55%	10.00%	13.00%
18	15.00%	18.00%	17.00%	11.00%	13.00%	17.25%	20.70%	19.55%	11.00%	13.00%
19	15.00%	18.00%	17.00%	12.00%	14.00%	17.25%	20.70%	19.55%	12.00%	14.00%
20	15.00%	18.00%	17.00%	12.00%	14.00%	17.25%	20.70%	19.55%	12.00%	14.00%
21	15.00%	18.00%	17.00%	12.00%	14.00%	17.25%	20.70%	19.55%	12.00%	14.00%
22	15.00%	18.00%	17.00%	12.00%	14.00%	17.25%	20.70%	19.55%	12.00%	14.00%
23	14.00%	17.00%	16.00%	11.00%	13.00%	16.10%	19.55%	18.40%	11.00%	13.00%
24	13.00%	16.00%	15.00%	10.00%	12.00%	14.95%	18.40%	17.25%	10.00%	12.00%
25	12.00%	15.00%	14.00%	9.00%	11.00%	13.80%	17.25%	16.10%	9.00%	11.00%
26	11.00%	14.00%	13.00%	8.00%	10.00%	12.65%	16.10%	14.95%	8.00%	10.00%
27	10.00%	13.00%	12.00%	7.00%	9.00%	11.50%	14.95%	13.80%	7.00%	9.00%
28	9.00%	12.00%	11.00%	6.00%	8.00%	10.35%	13.80%	12.65%	6.00%	8.00%
29	8.00%	11.00%	10.00%	6.00%	7.00%	9.20%	12.65%	11.50%	6.00%	7.00%
30	7.00%	10.00%	9.00%	6.00%	6.00%	8.05%	11.50%	10.35%	6.00%	6.00%
32 or More	6.00%	9.00%	8.00%	6.00%	6.00%	6.90%	10.35%	9.20%	6.00%	6.00%

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Age	Ordinary Mortality		Age	Suggested	
	Current Males	Females		Males	Females
25 or less	0.00040	0.00030	25	0.000200	0.000150
26	0.00040	0.00030	26	0.000200	0.000150
27	0.00040	0.00030	27	0.000200	0.000150
28	0.00040	0.00030	28	0.000200	0.000150
29	0.00040	0.00030	29	0.000200	0.000150
30	0.00040	0.00030	30	0.000200	0.000150
31	0.00040	0.00030	31	0.000200	0.000150
32	0.00040	0.00030	32	0.000200	0.000150
33	0.00040	0.00030	33	0.000200	0.000150
34	0.00040	0.00030	34	0.000200	0.000150
35	0.00040	0.00030	35	0.000200	0.000150
36	0.00042	0.00032	36	0.000210	0.000160
37	0.00044	0.00034	37	0.000220	0.000170
38	0.00046	0.00036	38	0.000230	0.000180
39	0.00048	0.00038	39	0.000240	0.000190
40	0.00050	0.00040	40	0.000250	0.000200
41	0.00060	0.00046	41	0.000300	0.000230
42	0.00070	0.00052	42	0.000350	0.000260
43	0.00080	0.00058	43	0.000400	0.000290
44	0.00090	0.00064	44	0.000450	0.000320
45	0.00100	0.00070	45	0.000500	0.000350
46	0.00110	0.00076	46	0.000550	0.000380
47	0.00120	0.00082	47	0.000600	0.000410
48	0.00130	0.00088	48	0.000650	0.000440
49	0.00140	0.00094	49	0.000700	0.000470
50	0.00150	0.00100	50	0.000750	0.000500
51	0.00160	0.00110	51	0.000800	0.000550
52	0.00170	0.00120	52	0.000850	0.000600
53	0.00180	0.00130	53	0.000900	0.000650
54	0.00190	0.00140	54	0.000950	0.000700
55	0.00200	0.00150	55	0.001000	0.000750
56	0.00220	0.00160	56	0.001100	0.000800
57	0.00240	0.00170	57	0.001200	0.000850
58	0.00260	0.00180	58	0.001300	0.000900
59	0.00280	0.00190	59	0.001400	0.000950
60	0.00300	0.00200	60	0.001500	0.001000
61	0.00320	0.00220	61	0.001600	0.001100
62	0.00340	0.00240	62	0.001700	0.001200
63	NA	NA	63	NA	NA

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Accidental Mortality			
Age	Current	Age	Suggested
	All		All
40 or less	0.00020	40	0.000100
41	0.00026	41	0.000130
42	0.00032	42	0.000160
43	0.00038	43	0.000190
44	0.00044	44	0.000220
45	0.00050	45	0.000250
46	0.00060	46	0.000300
47	0.00070	47	0.000350
48	0.00080	48	0.000400
49	0.00090	49	0.000450
50	0.00100	50	0.000500
51	0.00120	51	0.000600
52	0.00140	52	0.000700
53	0.00160	53	0.000800
54	0.00180	54	0.000900
55	0.00200	55	0.001000
56	0.00220	56	0.001100
57	0.00240	57	0.001200
58	0.00260	58	0.001300
59	0.00280	59	0.001400
60	0.00300	60	0.001500
61	0.00400	61	0.002000
62	0.00500	62	0.002500
63	NA	63	NA

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Service Retirement					
Age	Current Rates		Age	Suggested Rates	
	Year 1	After Year 1		Year 1	After Year 1
45	0.10000	0.02000	45	0.05000	0.01500
46	0.11000	0.02000	46	0.05500	0.01500
47	0.12000	0.02000	47	0.06000	0.01500
48	0.13000	0.02000	48	0.06500	0.01500
49	0.14000	0.02000	49	0.07000	0.01500
50	0.15000	0.02000	50	0.07500	0.01500
51	0.16000	0.02000	51	0.08000	0.01500
52	0.17000	0.03000	52	0.08500	0.02250
53	0.18000	0.04000	53	0.09000	0.03000
54	0.19000	0.05000	54	0.09500	0.03750
55	0.20000	0.06000	55	0.10000	0.04500
56	0.20000	0.07000	56	0.10000	0.05250
57	0.20000	0.08000	57	0.10000	0.06000
58	0.20000	0.09000	58	0.10000	0.06750
59	0.20000	0.10000	59	0.10000	0.07500
60	0.20000	0.12000	60	0.10000	0.09000
61	0.30000	0.15000	61	0.15000	0.11250
62	0.40000	0.20000	62	0.20000	0.15000
63	1.00000	1.00000	63	1.00000	0.25000
64	1.00000	1.00000	64	1.00000	0.25000
65	1.00000	1.00000	65	1.00000	1.00000

Withdrawal		
Years of Service	Current Assumptions Males and Females	Suggested Assumptions Males and Females
0	2.00%	2.00%
1	0.80%	0.80%
2	0.40%	0.40%
3	0.40%	0.40%
4	0.40%	0.40%
5	0.40%	0.40%
6	0.36%	0.36%
7	0.32%	0.32%
8	0.28%	0.28%
9	0.24%	0.24%
10	0.20%	0.20%
11	0.18%	0.18%
12	0.16%	0.16%
13	0.14%	0.14%
14	0.12%	0.12%
15	0.10%	0.10%
16	0.10%	0.10%
17	0.10%	0.10%
18	0.10%	0.10%
19	0.10%	0.10%

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Ordinary Disability			
Age	Current	Age	Suggested
	All		All
25 or less	0.00010	25	0.000025
26	0.00010	26	0.000025
27	0.00020	27	0.000050
28	0.00030	28	0.000075
29	0.00040	29	0.000100
30	0.00050	30	0.000125
31	0.00060	31	0.000150
32	0.00070	32	0.000175
33	0.00080	33	0.000200
34	0.00090	34	0.000225
35	0.00100	35	0.000250
36	0.00110	36	0.000275
37	0.00120	37	0.000300
38	0.00130	38	0.000325
39	0.00140	39	0.000350
40	0.00150	40	0.000375
41	0.00160	41	0.000400
42	0.00170	42	0.000425
43	0.00180	43	0.000450
44	0.00190	44	0.000475
45	0.00200	45	0.000500
46	0.00220	46	0.000550
47	0.00240	47	0.000600
48	0.00260	48	0.000650
49	0.00280	49	0.000700
50	0.00300	50	0.000750
51	0.00440	51	0.001100
52	0.00580	52	0.001450
53	0.00720	53	0.001800
54	0.00860	54	0.002150
55	0.01000	55	0.002500
56	0.02000	56	0.005000
57	0.03000	57	0.007500
58	0.04000	58	0.010000
59	0.05000	59	0.012500
60	0.06000	60	0.015000
61	0.08000	61	0.020000
62	0.10000	62	0.025000
63	NA	63	NA

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Accidental Disability							
Age	Current			Age	Suggested		
	Tier 1 & 2 Non WTC	Tier 1 & 2 WTC	Tier 3		Tier 1 & 2 Non WTC	Tier 1 & 2 WTC	Tier 3
25 or less	0.00030	0.00050	0.00030	25	0.00035	0.00050	0.00035
26	0.00040	0.00090	0.00040	26	0.00046	0.00090	0.00046
27	0.00050	0.00130	0.00050	27	0.00058	0.00130	0.00058
28	0.00070	0.00170	0.00070	28	0.00081	0.00170	0.00081
29	0.00100	0.00210	0.00100	29	0.00115	0.00210	0.00115
30	0.00150	0.00250	0.00150	30	0.00173	0.00250	0.00173
31	0.00240	0.00400	0.00240	31	0.00276	0.00400	0.00276
32	0.00330	0.00550	0.00330	32	0.00380	0.00550	0.00380
33	0.00420	0.00700	0.00420	33	0.00483	0.00700	0.00483
34	0.00510	0.00850	0.00510	34	0.00587	0.00850	0.00587
35	0.00600	0.01000	0.00600	35	0.00690	0.01000	0.00690
36	0.00720	0.01200	0.00720	36	0.00828	0.01200	0.00828
37	0.00850	0.01400	0.00840	37	0.00978	0.01400	0.00966
38	0.00990	0.01600	0.00960	38	0.01139	0.01600	0.01104
39	0.01140	0.01800	0.01080	39	0.01311	0.01800	0.01242
40	0.01300	0.02000	0.01200	40	0.01495	0.02000	0.01380
41	0.01440	0.02200	0.01320	41	0.01656	0.02200	0.01518
42	0.01580	0.02400	0.01440	42	0.01817	0.02400	0.01656
43	0.01720	0.02600	0.01560	43	0.01978	0.02600	0.01794
44	0.01860	0.02800	0.01680	44	0.02139	0.02800	0.01932
45	0.02000	0.03000	0.01800	45	0.02300	0.03000	0.02070
46	0.02300	0.03400	0.01920	46	0.02645	0.03400	0.02208
47	0.02600	0.03800	0.02040	47	0.02990	0.03800	0.02346
48	0.02900	0.04200	0.02160	48	0.03335	0.04200	0.02484
49	0.03200	0.04600	0.02280	49	0.03680	0.04600	0.02622
50	0.03500	0.05000	0.02400	50	0.04025	0.05000	0.02760
51	0.03800	0.05600	0.02520	51	0.04370	0.05600	0.02898
52	0.04100	0.06200	0.02640	52	0.04715	0.06200	0.03036
53	0.04400	0.06800	0.02760	53	0.05060	0.06800	0.03174
54	0.04700	0.07400	0.02880	54	0.05405	0.07400	0.03312
55	0.05000	0.08000	0.03000	55	0.05750	0.08000	0.03450
56	0.07000	0.10000	0.04000	56	0.08050	0.10000	0.04600
57	0.09000	0.12000	0.05000	57	0.10350	0.12000	0.05750
58	0.11000	0.15000	0.06000	58	0.12650	0.15000	0.06900
59	0.13000	0.18000	0.07000	59	0.14950	0.18000	0.08050
60	0.15000	0.21000	0.08000	60	0.17250	0.21000	0.09200
61	0.17000	0.25000	0.09000	61	0.19550	0.25000	0.10350
62	0.19000	0.30000	0.10000	62	0.21850	0.30000	0.11500
63	NA	NA	NA	63	NA	NA	NA

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Merit Increase and Salary Scale		
Years of Service	Current Merit Increase	Suggested Merit Increase
0	5.00%	20.00%
1	9.00%	12.00%
2	10.00%	12.00%
3	10.00%	12.00%
4	46.00%	27.00%
5	1.00%	16.00%
6	1.10%	1.65%
7	1.20%	1.80%
8	1.30%	1.95%
9	2.70%	4.05%
10	1.50%	2.25%
11	1.60%	2.40%
12	1.70%	2.55%
13	1.80%	2.70%
14	3.10%	4.65%
15	2.00%	3.00%
16	1.90%	2.85%
17	1.80%	2.70%
18	1.70%	2.55%
19	2.80%	4.20%
20	1.50%	2.25%
21	1.40%	2.10%
22	1.30%	1.95%
23	1.20%	1.80%
24	1.10%	1.65%
25	1.00%	1.50%
26	0.90%	1.35%
27	0.80%	1.20%
28	0.70%	1.05%
29	0.60%	0.90%
30 or more	0.50%	0.75%

Appendix 5 – Current and Suggested Assumptions

Fire Assumptions

Years of Service	Current					Overtime		Suggested				
	All Tiers Baseline	Tier I/II Dual Service	Tier I/II Dual Disability	Tier III Dual Service	Tier III Dual Disability	Years of Service	All Tiers Baseline	Tier I/II Dual Service	Tier I/II Dual Disability	Tier III Dual Service	Tier III Dual Disability	
0	15.00%	16.00%	15.00%	16.00%	15.00%	0	19.95%	21.28%	19.95%	21.28%	19.95%	
1	15.00%	16.00%	15.00%	16.00%	15.00%	1	19.95%	21.28%	19.95%	21.28%	19.95%	
2	15.00%	16.00%	15.00%	16.00%	15.00%	2	19.95%	21.28%	19.95%	21.28%	19.95%	
3	15.00%	16.00%	15.00%	16.00%	15.00%	3	19.95%	21.28%	19.95%	21.28%	19.95%	
4	15.00%	16.00%	15.00%	16.00%	15.00%	4	19.95%	21.28%	19.95%	21.28%	19.95%	
5	15.00%	16.00%	15.00%	16.00%	15.00%	5	19.95%	21.28%	19.95%	21.28%	19.95%	
6	15.00%	16.00%	15.00%	16.00%	15.00%	6	19.95%	21.28%	19.95%	21.28%	19.95%	
7	15.00%	16.00%	15.00%	16.00%	15.00%	7	19.95%	21.28%	19.95%	21.28%	19.95%	
8	15.00%	16.00%	15.00%	16.00%	15.00%	8	19.95%	21.28%	19.95%	21.28%	19.95%	
9	15.00%	16.00%	15.00%	16.00%	15.00%	9	19.95%	21.28%	19.95%	21.28%	19.95%	
10	15.00%	16.00%	15.00%	16.00%	15.00%	10	19.95%	21.28%	19.95%	21.28%	19.95%	
11	15.00%	16.00%	15.00%	16.00%	15.00%	11	19.95%	21.28%	19.95%	21.28%	19.95%	
12	15.00%	16.00%	15.00%	16.00%	15.00%	12	19.95%	21.28%	19.95%	21.28%	19.95%	
13	15.00%	16.00%	15.00%	16.00%	15.00%	13	19.95%	21.28%	19.95%	21.28%	19.95%	
14	15.00%	17.00%	15.00%	16.00%	15.00%	14	19.95%	22.61%	19.95%	21.28%	19.95%	
15	15.00%	18.00%	15.00%	16.00%	15.00%	15	19.95%	23.94%	19.95%	21.28%	19.95%	
16	15.00%	19.00%	16.00%	17.00%	16.00%	16	19.95%	25.27%	21.28%	22.61%	21.28%	
17	15.00%	20.00%	17.00%	18.00%	17.00%	17	19.95%	26.60%	22.61%	23.94%	22.61%	
18	16.00%	21.00%	18.00%	19.00%	18.00%	18	21.28%	27.93%	23.94%	25.27%	23.94%	
19	17.00%	22.00%	19.00%	20.00%	19.00%	19	22.61%	29.26%	25.27%	26.60%	25.27%	
20	18.00%	23.00%	20.00%	21.00%	20.00%	20	23.94%	30.59%	26.60%	27.93%	26.60%	
21	17.00%	22.00%	19.00%	20.00%	19.00%	21	22.61%	29.26%	25.27%	26.60%	25.27%	
22	16.00%	21.00%	18.00%	19.00%	18.00%	22	21.28%	27.93%	23.94%	25.27%	23.94%	
23	15.00%	20.00%	17.00%	18.00%	17.00%	23	19.95%	26.60%	22.61%	23.94%	22.61%	
24	14.00%	19.00%	16.00%	17.00%	16.00%	24	18.62%	25.27%	21.28%	22.61%	21.28%	
25	13.00%	18.00%	15.00%	16.00%	15.00%	25	17.29%	23.94%	19.95%	21.28%	19.95%	
26	12.00%	16.00%	13.00%	14.00%	13.00%	26	15.96%	21.28%	17.29%	18.62%	17.29%	
27	11.00%	14.00%	11.00%	13.00%	11.00%	27	14.63%	18.62%	14.63%	17.29%	14.63%	
28	10.00%	12.00%	10.00%	11.00%	10.00%	28	13.30%	15.96%	13.30%	14.63%	13.30%	
29	9.00%	11.00%	9.00%	10.00%	9.00%	29	11.97%	14.63%	11.97%	13.30%	11.97%	
30	8.00%	10.00%	8.00%	9.00%	8.00%	30	10.64%	13.30%	10.64%	11.97%	10.64%	
31	7.00%	9.00%	7.00%	8.00%	7.00%	31	9.31%	11.97%	9.31%	10.64%	9.31%	
32	6.00%	8.00%	6.00%	7.00%	6.00%	32	7.98%	10.64%	7.98%	9.31%	7.98%	
33	5.00%	7.00%	5.00%	6.00%	5.00%	33	6.65%	9.31%	6.65%	7.98%	6.65%	
34	5.00%	6.00%	5.00%	6.00%	5.00%	34	6.65%	7.98%	6.65%	7.98%	6.65%	
35	5.00%	6.00%	5.00%	6.00%	5.00%	35	6.65%	7.98%	6.65%	7.98%	6.65%	
36	5.00%	6.00%	5.00%	6.00%	5.00%	36	6.65%	7.98%	6.65%	7.98%	6.65%	
37	5.00%	6.00%	5.00%	6.00%	5.00%	37	6.65%	7.98%	6.65%	7.98%	6.65%	
38	5.00%	6.00%	5.00%	6.00%	5.00%	38	6.65%	7.98%	6.65%	7.98%	6.65%	
39	5.00%	6.00%	5.00%	6.00%	5.00%	39	6.65%	7.98%	6.65%	7.98%	6.65%	
40	5.00%	6.00%	5.00%	6.00%	5.00%	40	6.65%	7.98%	6.65%	7.98%	6.65%	
41	5.00%	6.00%	5.00%	6.00%	5.00%	41	6.65%	7.98%	6.65%	7.98%	6.65%	
42	5.00%	6.00%	5.00%	6.00%	5.00%	42	6.65%	7.98%	6.65%	7.98%	6.65%	
43	5.00%	6.00%	5.00%	6.00%	5.00%	43	6.65%	7.98%	6.65%	7.98%	6.65%	
44	5.00%	6.00%	5.00%	6.00%	5.00%	44	6.65%	7.98%	6.65%	7.98%	6.65%	
45	5.00%	6.00%	5.00%	6.00%	5.00%	45	6.65%	7.98%	6.65%	7.98%	6.65%	