



**PROPOSED CHANGES IN ACTUARIAL
ASSUMPTIONS AND METHODS
USED IN DETERMINING EMPLOYER CONTRIBUTIONS
FOR FISCAL YEARS BEGINNING
ON AND AFTER JULY 1, 2018
FOR THE NEW YORK CITY BOARD OF EDUCATION
RETIREMENT SYSTEM**

prepared by the
**New York City
Office of the Actuary
January 24, 2019**



OFFICE OF THE ACTUARY

255 GREENWICH STREET • 9TH FLOOR
NEW YORK, NY 10007
(212) 442-5775 • FAX: (212) 442-5777

SHERRY S. CHAN
CHIEF ACTUARY

January 24, 2019

Board of Trustees
New York City Board of Education Retirement System
65 Court Street - Room 1602
Brooklyn, NY 11201-4965

Dear Trustees:

This report presents proposed changes in actuarial assumptions and methods used in determining Employer Contributions for Fiscal Years beginning on and after July 1, 2018 for the New York City Board of Education Retirement System (2019 A&M).

The following appendices and tables are attached to this letter in support of the proposed 2019 A&M:

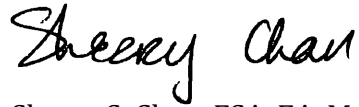
- Appendix A summarizes the proposed changes in assumptions and methods.
- Appendix B presents tables of proposed assumptions to be used in determining the Final 2019 Employer Contribution and subsequent Employer Contributions.
- Appendix C contains a draft Resolution to collectively adopt the proposed 2019 A&M.

I, Sherry S. Chan, am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am a Fellow of the Society of Actuaries, an Enrolled Actuary under the Employee Retirement Income and Security Act of 1974 (ERISA), a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, the results contained herein have been prepared in accordance with generally accepted actuarial principles and procedures and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Board of Trustees
New York City Board of Education Retirement System
January 24, 2019
Page 2

If you have any questions, please contact Mr. Michael J. Samet, or me.

Best Regards,



Sherry S. Chan, FSA, EA, MAAA, FCA
Chief Actuary

SC/mm

Att.

cc: Mr. Michael Hunter - New York City Office of the Actuary
Ms. Marlene Markoe-Boyd - New York City Office of the Actuary
Mr. Sanford Rich - New York City Board of Education Retirement System
Mr. Sam Rumley - New York City Office of the Actuary
Mr. Michael Samet - New York City Office of the Actuary
Keith Snow, Esq. - New York City Office of the Actuary

Appendix A

APPENDIX A

PROPOSED CHANGES IN ACTUARIAL ASSUMPTIONS AND METHODS USED IN DETERMINING EMPLOYER CONTRIBUTIONS FOR FISCAL YEARS BEGINNING ON AND AFTER JULY 1, 2018 FOR THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

In accordance with the Administrative Code of the City of New York (ACCNYS) and with appropriate practice, the Actuary is to periodically review actuarial assumptions for adoption by the Board of Trustees used in determining employer contributions.

This Report proposes, collectively, changes to certain actuarial assumptions and methods to be used in determining employer contributions payable to the New York City Board of Education Retirement System (BERS) for Fiscal Years beginning on and after July 1, 2018 (i.e. beginning Fiscal Year 2019).

These proposals have been designed to provide for responsible financing of BERS while being reasonably consistent with the concepts of intergenerational equity. This Report reflects the best judgment of the Actuary regarding the appropriate financing of BERS and takes into account the most recent actuarial experience study and recommendations prepared by Bolton, Inc. (Bolton) in their 10-year experience study ending on June 30, 2017 (Bolton Experience Study).

The Actuary generally agrees with most of the recommendations made by Bolton on demographic and economic assumptions but has refined those recommendations where the Actuary desires to smooth some of the recommended values.

The Actuary also generally agrees with the recommended action by Bolton to keep the Actuarial Interest Rate (AIR) and Consumer Price Inflation (CPI) assumptions unchanged. The Actuary continues to monitor market conditions and other factors that may affect these assumed rates to assess whether any future adjustments are warranted.

In summary, the Actuary proposes the following actions with respect to the current actuarial assumptions and methods of BERS used in determining employer contributions for Fiscal Years beginning on and after July 1, 2018 (i.e. beginning in Fiscal Year 2019).

Demographic Assumptions

- **Termination**: Increase the current probabilities of Termination based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.
- **Active Service Ordinary Mortality**: Decrease the current probabilities of active service Ordinary Mortality based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary, and extend probabilities out to reflect expected longer careers.
- **Active Service Accidental Mortality**: Retain the current probabilities of zero percent.
- **Active Service Ordinary Disability**: Retain the current probabilities of active service Ordinary Disability based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary, and extend probabilities out to reflect expected longer careers.
- **Active Service Accidental Disability**: Increase the current probabilities of active service Accidental Disability for females, but decrease the current probabilities of active service Accidental Disability for males based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary, and extend probabilities out to reflect expected longer careers.
- **Service Retirement**:
 - For **members who do not elect an optional retirement program**, revise the current probabilities of Service Retirement in the first year of eligibility and after the first year of eligibility to generally reduce the expected number of such retirements based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary, and extend probabilities out to age 80.
 - For **members who elect an optional retirement program**, revise the current probabilities of Service Retirement in the first year of eligibility and after the first year of eligibility to generally reduce the expected number of such retirements based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary, and extend probabilities out to age 80.
 - For **members who are eligible for Early Service Retirement**, revise the current probabilities of Service Retirement to generally increase the expected number of such retirements based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

- **Post-Retirement Mortality:** Revise the existing Base Tables to reflect the findings outlined in the Bolton Experience Study. The Base Tables are adjusted to Calendar Year 2012 expectations as that represents the midpoint of the 10-year experience study. The Valuation Tables are further adjusted by reflecting the application of Mortality Improvement Scale MP-2018 and the Base Tables recommended by Bolton.

Economic Assumptions

- **CPI Assumption:** Retain the current CPI assumption of 2.5% per year.
- **AIR Assumption:** Retain the current AIR assumption of 7.0% per annum, net of Investment Expenses.
- **Salary Scale Assumption:** Retain the current General Wage Increase and Merit Increase components of the Salary Scale based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

Actuarial Methods

The Actuary is proposing no changes to the Actuarial Cost Method, the periods used to amortize changes in the Unfunded Accrued Liability, the Actuarial Asset Valuation Method, or the treatment of Administrative Expenses. The only method change is a technical change to the normal cost calculation under the One-Year Lag Methodology as recommended by Bolton.

Financial Impact

All estimates of employer contributions and changes in employer contributions presented herein have been developed using the Preliminary Fiscal Year 2019 Employer Contribution.

The overall impact of implementing the proposed 2019 A&M would decrease the Fiscal Year 2019 Employer Contribution to BERS by approximately \$20 million from the Preliminary Fiscal Year 2019 Employer Contribution. **Please note that the change in the Final Fiscal Year 2019 Employer Contribution could differ from this amount due to other refinements in actuarial calculations.**

Appendix B

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

PROBABILITIES OF TERMINATION

Years of Service	Current		Proposed	
	Males	Females	Males	Females
0	6.00%	4.00%	8.40%	5.60%
1	5.60%	3.80%	7.70%	5.30%
2	5.20%	3.60%	7.20%	5.00%
3	4.80%	3.40%	6.70%	4.70%
4	4.40%	3.20%	6.20%	4.50%
5	4.00%	3.00%	5.70%	4.20%
6	3.70%	2.80%	5.20%	3.90%
7	3.40%	2.60%	4.70%	3.60%
8	3.10%	2.40%	4.30%	3.30%
9	2.80%	2.20%	3.90%	3.00%
10	2.50%	2.00%	3.50%	2.80%
11	2.30%	1.90%	3.20%	2.60%
12	2.10%	1.80%	2.90%	2.50%
13	1.90%	1.70%	2.60%	2.40%
14	1.70%	1.60%	2.30%	2.20%
15	1.50%	1.50%	2.10%	2.10%
16	1.40%	1.40%	1.90%	1.90%
17	1.30%	1.30%	1.80%	1.80%
18	1.20%	1.20%	1.70%	1.70%
19	1.10%	1.10%	1.50%	1.50%
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%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS

Age	Ordinary (Current)		Ordinary (Proposed)		Accidental (Current & Proposed)
	Males	Females	Males	Females	Both Genders
15	N/A	N/A	0.027%	0.020%	0.000%
16	N/A	N/A	0.027%	0.020%	0.000%
17	N/A	N/A	0.027%	0.020%	0.000%
18	N/A	N/A	0.027%	0.020%	0.000%
19	0.040%	0.030%	0.027%	0.020%	0.000%
20	0.040%	0.030%	0.027%	0.020%	0.000%
21	0.040%	0.030%	0.027%	0.020%	0.000%
22	0.040%	0.030%	0.027%	0.020%	0.000%
23	0.040%	0.030%	0.027%	0.020%	0.000%
24	0.040%	0.030%	0.027%	0.020%	0.000%
25	0.040%	0.030%	0.027%	0.020%	0.000%
26	0.044%	0.032%	0.029%	0.021%	0.000%
27	0.048%	0.034%	0.032%	0.023%	0.000%
28	0.052%	0.036%	0.035%	0.024%	0.000%
29	0.056%	0.038%	0.037%	0.025%	0.000%
30	0.060%	0.040%	0.040%	0.027%	0.000%
31	0.064%	0.042%	0.043%	0.028%	0.000%
32	0.068%	0.044%	0.045%	0.029%	0.000%
33	0.072%	0.046%	0.048%	0.031%	0.000%
34	0.076%	0.048%	0.051%	0.032%	0.000%
35	0.080%	0.050%	0.053%	0.033%	0.000%
36	0.084%	0.052%	0.056%	0.035%	0.000%
37	0.088%	0.054%	0.059%	0.036%	0.000%
38	0.092%	0.056%	0.061%	0.037%	0.000%
39	0.096%	0.058%	0.064%	0.039%	0.000%
40	0.100%	0.060%	0.067%	0.040%	0.000%
41	0.110%	0.068%	0.073%	0.045%	0.000%
42	0.120%	0.076%	0.080%	0.051%	0.000%
43	0.130%	0.084%	0.087%	0.056%	0.000%
44	0.140%	0.092%	0.093%	0.061%	0.000%
45	0.150%	0.100%	0.100%	0.067%	0.000%
46	0.160%	0.110%	0.107%	0.073%	0.000%
47	0.170%	0.120%	0.113%	0.080%	0.000%
48	0.180%	0.130%	0.120%	0.087%	0.000%
49	0.190%	0.140%	0.127%	0.093%	0.000%
50	0.200%	0.150%	0.133%	0.100%	0.000%
51	0.220%	0.160%	0.147%	0.107%	0.000%
52	0.240%	0.170%	0.160%	0.113%	0.000%
53	0.260%	0.180%	0.173%	0.120%	0.000%
54	0.280%	0.190%	0.187%	0.127%	0.000%
55	0.300%	0.200%	0.200%	0.133%	0.000%
56	0.320%	0.210%	0.213%	0.140%	0.000%
57	0.340%	0.220%	0.227%	0.147%	0.000%
58	0.360%	0.230%	0.240%	0.153%	0.000%
59	0.380%	0.240%	0.253%	0.160%	0.000%
60	0.400%	0.250%	0.267%	0.167%	0.000%
61	0.420%	0.260%	0.280%	0.173%	0.000%
62	0.440%	0.270%	0.293%	0.180%	0.000%
63	0.460%	0.280%	0.307%	0.187%	0.000%
64	0.480%	0.290%	0.320%	0.193%	0.000%
65	0.500%	0.300%	0.333%	0.200%	0.000%
66	0.540%	0.320%	0.360%	0.213%	0.000%
67	0.580%	0.340%	0.387%	0.227%	0.000%
68	0.620%	0.360%	0.413%	0.240%	0.000%
69	0.660%	0.380%	0.440%	0.253%	0.000%
70	N/A	N/A	0.500%	0.300%	0.000%
71	N/A	N/A	0.580%	0.350%	0.000%
72	N/A	N/A	0.660%	0.400%	0.000%
73	N/A	N/A	0.740%	0.450%	0.000%
74	N/A	N/A	0.820%	0.500%	0.000%
75	N/A	N/A	0.900%	0.550%	0.000%
76	N/A	N/A	1.020%	0.640%	0.000%
77	N/A	N/A	1.140%	0.730%	0.000%
78	N/A	N/A	1.260%	0.820%	0.000%
79	N/A	N/A	1.380%	1.000%	0.000%
≥ 80	N/A	N/A	N/A	N/A	N/A

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PROBABILITIES OF ORDINARY DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Males	Females	Males	Females
15	N/A	N/A	0.20%	0.20%
16	N/A	N/A	0.20%	0.20%
17	N/A	N/A	0.20%	0.20%
18	N/A	N/A	0.20%	0.20%
19	0.20%	0.20%	0.20%	0.20%
20	0.20%	0.20%	0.20%	0.20%
21	0.20%	0.20%	0.20%	0.20%
22	0.20%	0.20%	0.20%	0.20%
23	0.20%	0.20%	0.20%	0.20%
24	0.20%	0.20%	0.20%	0.20%
25	0.20%	0.20%	0.20%	0.20%
26	0.20%	0.20%	0.20%	0.20%
27	0.20%	0.20%	0.20%	0.20%
28	0.20%	0.20%	0.20%	0.20%
29	0.20%	0.20%	0.20%	0.20%
30	0.20%	0.20%	0.20%	0.20%
31	0.22%	0.20%	0.22%	0.20%
32	0.24%	0.20%	0.24%	0.20%
33	0.26%	0.20%	0.26%	0.20%
34	0.28%	0.20%	0.28%	0.20%
35	0.30%	0.20%	0.30%	0.20%
36	0.32%	0.21%	0.32%	0.21%
37	0.34%	0.22%	0.34%	0.22%
38	0.36%	0.23%	0.36%	0.23%
39	0.38%	0.24%	0.38%	0.24%
40	0.40%	0.25%	0.40%	0.25%
41	0.42%	0.26%	0.42%	0.26%
42	0.44%	0.27%	0.44%	0.27%
43	0.46%	0.28%	0.46%	0.28%
44	0.48%	0.29%	0.48%	0.29%
45	0.50%	0.30%	0.50%	0.30%
46	0.52%	0.34%	0.52%	0.34%
47	0.54%	0.38%	0.54%	0.38%
48	0.56%	0.42%	0.56%	0.42%
49	0.58%	0.46%	0.58%	0.46%
50	0.60%	0.50%	0.60%	0.50%
51	0.62%	0.54%	0.62%	0.54%
52	0.64%	0.58%	0.64%	0.58%
53	0.66%	0.62%	0.66%	0.62%
54	0.68%	0.66%	0.68%	0.66%
55	0.70%	0.70%	0.70%	0.70%
56	0.70%	0.70%	0.70%	0.70%
57	0.70%	0.70%	0.70%	0.70%
58	0.70%	0.70%	0.70%	0.70%
59	0.70%	0.70%	0.70%	0.70%
60	0.70%	0.70%	0.70%	0.70%
61	0.70%	0.70%	0.70%	0.70%
62	0.70%	0.70%	0.70%	0.70%
63	0.70%	0.70%	0.70%	0.70%
64	0.70%	0.70%	0.70%	0.70%
65	0.70%	0.70%	0.70%	0.70%
66	0.70%	0.70%	0.70%	0.70%
67	0.70%	0.70%	0.70%	0.70%
68	0.70%	0.70%	0.70%	0.70%
69	0.70%	0.70%	0.70%	0.70%
70	N/A	N/A	0.70%	0.70%
71	N/A	N/A	0.70%	0.70%
72	N/A	N/A	0.70%	0.70%
73	N/A	N/A	0.70%	0.70%
74	N/A	N/A	0.70%	0.70%
75	N/A	N/A	0.70%	0.70%
76	N/A	N/A	0.70%	0.70%
77	N/A	N/A	0.70%	0.70%
78	N/A	N/A	0.70%	0.70%
79	N/A	N/A	0.70%	0.70%
≥ 80	N/A	N/A	N/A	N/A

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PROBABILITIES OF ACCIDENTAL DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Males	Females	Males	Females
15	N/A	N/A	0.030%	0.025%
16	N/A	N/A	0.030%	0.025%
17	N/A	N/A	0.030%	0.025%
18	N/A	N/A	0.030%	0.025%
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	N/A	N/A	0.030%	0.025%
71	N/A	N/A	0.030%	0.025%
72	N/A	N/A	0.030%	0.025%
73	N/A	N/A	0.030%	0.025%
74	N/A	N/A	0.030%	0.025%
75	N/A	N/A	0.030%	0.025%
76	N/A	N/A	0.030%	0.025%
77	N/A	N/A	0.030%	0.025%
78	N/A	N/A	0.030%	0.025%
79	N/A	N/A	0.030%	0.025%
≥ 80	N/A	N/A	N/A	N/A

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PROBABILITIES OF UNREDUCED SERVICE RETIREMENT
MANDATED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
55	20.00%	0.00%	0.00%	15.00%	0.00%
56	20.00%	15.00%	0.00%	15.00%	6.50%
57	20.00%	15.00%	10.00%	15.00%	6.50%
58	20.00%	15.00%	10.00%	15.00%	6.50%
59	20.00%	15.00%	10.00%	15.00%	6.50%
60	20.00%	15.00%	10.00%	15.00%	6.50%
61	20.00%	15.00%	15.00%	15.00%	10.00%
62	30.00%	25.00%	20.00%	20.00%/15.00%*	10.00%
63	20.00%	15.00%	15.00%	15.00%/20.00%**	10.00%
64	20.00%	15.00%	15.00%	15.00%	10.00%
65	30.00%	25.00%	20.00%	20.00%	15.00%
66	20.00%	15.00%	15.00%	15.00%	10.00%
67	20.00%	15.00%	15.00%	15.00%	10.00%
68	20.00%	15.00%	15.00%	15.00%	10.00%
69	20.00%	15.00%	15.00%	15.00%	10.00%
70	100.00%	100.00%	100.00%	20.00%	20.00%
71	100.00%	100.00%	100.00%	20.00%	20.00%
72	100.00%	100.00%	100.00%	20.00%	20.00%
73	100.00%	100.00%	100.00%	20.00%	20.00%
74	100.00%	100.00%	100.00%	20.00%	20.00%
75	100.00%	100.00%	100.00%	20.00%	20.00%
76	100.00%	100.00%	100.00%	20.00%	20.00%
77	100.00%	100.00%	100.00%	20.00%	20.00%
78	100.00%	100.00%	100.00%	20.00%	20.00%
79	100.00%	100.00%	100.00%	20.00%	20.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

*20.00% for Tier 1, 2 & 4 members and 15.00% for Tier 6 members.

**15.00% for Tier 1, 2 & 4 members and 20.00% for Tier 6 members.

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PROBABILITIES OF UNREDUCED SERVICE RETIREMENT
ELECTED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
55	40.00%	20.00%	15.00%	35.00%	0.00%
56	40.00%	20.00%	15.00%	35.00%	12.00%
57	40.00%	20.00%	15.00%	35.00%	12.00%
58	40.00%	20.00%	15.00%	35.00%	12.00%
59	40.00%	20.00%	15.00%	35.00%	12.00%
60	40.00%	20.00%	15.00%	35.00%	12.00%
61	40.00%	20.00%	15.00%	35.00%	12.00%
62	60.00%	25.00%	25.00%	50.00%	20.00%
63	40.00%	20.00%	20.00%	35.00%	15.00%
64	40.00%	20.00%	20.00%	35.00%	15.00%
65	60.00%	25.00%	25.00%	50.00%	20.00%
66	40.00%	20.00%	20.00%	35.00%	15.00%
67	40.00%	20.00%	20.00%	35.00%	15.00%
68	40.00%	20.00%	20.00%	35.00%	15.00%
69	40.00%	20.00%	20.00%	35.00%	15.00%
70	100.00%	100.00%	100.00%	35.00%	15.00%
71	100.00%	100.00%	100.00%	35.00%	15.00%
72	100.00%	100.00%	100.00%	35.00%	15.00%
73	100.00%	100.00%	100.00%	35.00%	15.00%
74	100.00%	100.00%	100.00%	35.00%	15.00%
75	100.00%	100.00%	100.00%	35.00%	15.00%
76	100.00%	100.00%	100.00%	35.00%	15.00%
77	100.00%	100.00%	100.00%	35.00%	15.00%
78	100.00%	100.00%	100.00%	35.00%	15.00%
79	100.00%	100.00%	100.00%	35.00%	15.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

PROBABILITIES OF EARLY SERVICE RETIREMENT

Age	Current	Proposed
≤ 55	2.00%	2.50%
56	2.00%	2.50%
57	2.00%	2.50%
58	2.00%	2.50%
59	3.00%	3.75%
60	4.00%	5.00%
61	5.00%	6.25%
62	0.00%	7.50%*
63	0.00%	0.00%
64	0.00%	0.00%
65	0.00%	0.00%
66	0.00%	0.00%
67	0.00%	0.00%
68	0.00%	0.00%
69	0.00%	0.00%
70	N/A	0.00%
71	N/A	0.00%
72	N/A	0.00%
73	N/A	0.00%
74	N/A	0.00%
75	N/A	0.00%
76	N/A	0.00%
77	N/A	0.00%
78	N/A	0.00%
79	N/A	0.00%
≥ 80	N/A	N/A

*7.50% only applies to Tier 6 members; 0.00% otherwise.

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

**PROBABILITIES OF MORTALITY FOR SERVICE RETIREES
BASE TABLE
MALES**

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0105%	68	2.0017%	1.6659%
16	N/A	0.0142%	69	2.1635%	1.7932%
17	N/A	0.0191%	70	2.3290%	1.9258%
18	N/A	0.0222%	71	2.5062%	2.0702%
19	0.0306%	0.0240%	72	2.6834%	2.2162%
20	0.0320%	0.0251%	73	2.8607%	2.3643%
21	0.0332%	0.0268%	74	3.0379%	2.5141%
22	0.0341%	0.0284%	75	3.2151%	2.6665%
23	0.0351%	0.0301%	76	3.6634%	3.0461%
24	0.0357%	0.0315%	77	4.1116%	3.4300%
25	0.0361%	0.0327%	78	4.5598%	3.8175%
26	0.0369%	0.0342%	79	5.0080%	4.2104%
27	0.0374%	0.0354%	80	5.4562%	4.6069%
28	0.0385%	0.0371%	81	6.0796%	5.1554%
29	0.0404%	0.0394%	82	6.7176%	5.7232%
30	0.0435%	0.0427%	83	7.3699%	6.3098%
31	0.0504%	0.0495%	84	8.0368%	6.9124%
32	0.0575%	0.0562%	85	8.7182%	7.5337%
33	0.0648%	0.0625%	86	9.6259%	8.3597%
34	0.0719%	0.0682%	87	10.5337%	9.1919%
35	0.0799%	0.0743%	88	11.4414%	10.0369%
36	0.0860%	0.0780%	89	12.3492%	10.8896%
37	0.0926%	0.0818%	90	13.2570%	11.7567%
38	0.1000%	0.0861%	91	15.1174%	13.4856%
39	0.1091%	0.0917%	92	17.0204%	15.2819%
40	0.1209%	0.0997%	93	18.9641%	17.1377%
41	0.1751%	0.1422%	94	20.9868%	19.0983%
42	0.2295%	0.1848%	95	23.1353%	21.2134%
43	0.2838%	0.2279%	96	25.2995%	23.2990%
44	0.3381%	0.2725%	97	27.5025%	25.4356%
45	0.3925%	0.3194%	98	29.8326%	27.7079%
46	0.4468%	0.3686%	99	32.0866%	29.9402%
47	0.5011%	0.4207%	100	34.3180%	32.1584%
48	0.5554%	0.4752%	101	35.8628%	33.7521%
49	0.6097%	0.5320%	102	37.1685%	35.1259%
50	0.6640%	0.5908%	103	38.3040%	36.3671%
51	0.7235%	0.6563%	104	39.2003%	37.3834%
52	0.7799%	0.7203%	105	39.7886%	38.1051%
53	0.8334%	0.7821%	106	40.0000%	38.4698%
54	0.8840%	0.8405%	107	40.0000%	38.6325%
55	0.9316%	0.8938%	108	40.0000%	38.8076%
56	0.9729%	0.9368%	109	40.0000%	38.9794%
57	1.0112%	0.9718%	110	100.0000%	50.0000%
58	1.0466%	0.9982%	111	N/A	50.0000%
59	1.0794%	1.0164%	112	N/A	50.0000%
60	1.1093%	1.0277%	113	N/A	50.0000%
61	1.2080%	1.0989%	114	N/A	50.0000%
62	1.3002%	1.1606%	115	N/A	50.0000%
63	1.3859%	1.2158%	116	N/A	50.0000%
64	1.4653%	1.2656%	117	N/A	50.0000%
65	1.5379%	1.3111%	118	N/A	50.0000%
66	1.6889%	1.4252%	119	N/A	50.0000%
67	1.8435%	1.5432%	120	N/A	100.0000%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

**PROBABILITIES OF MORTALITY FOR SERVICE RETIREES
BASE TABLE
FEMALES**

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0090%	68	1.1181%	0.9362%
16	N/A	0.0110%	69	1.2120%	1.0193%
17	N/A	0.0120%	70	1.3062%	1.1035%
18	N/A	0.0130%	71	1.4651%	1.2437%
19	0.0175%	0.0140%	72	1.6240%	1.3853%
20	0.0177%	0.0142%	73	1.7829%	1.5280%
21	0.0180%	0.0150%	74	1.9418%	1.6727%
22	0.0181%	0.0158%	75	2.1007%	1.8182%
23	0.0185%	0.0168%	76	2.3726%	2.0628%
24	0.0189%	0.0179%	77	2.6445%	2.3088%
25	0.0196%	0.0191%	78	2.9165%	2.5551%
26	0.0204%	0.0204%	79	3.1884%	2.8024%
27	0.0213%	0.0217%	80	3.4604%	3.0489%
28	0.0224%	0.0231%	81	3.9012%	3.4450%
29	0.0237%	0.0247%	82	4.3526%	3.8502%
30	0.0254%	0.0265%	83	4.8142%	4.2655%
31	0.0304%	0.0316%	84	5.2863%	4.6895%
32	0.0350%	0.0360%	85	5.7688%	5.1258%
33	0.0393%	0.0398%	86	6.5787%	5.8556%
34	0.0431%	0.0427%	87	7.3886%	6.5878%
35	0.0470%	0.0455%	88	8.1985%	7.3277%
36	0.0502%	0.0474%	89	9.0084%	8.0720%
37	0.0540%	0.0497%	90	9.8183%	8.8218%
38	0.0580%	0.0521%	91	11.2988%	10.1869%
39	0.0626%	0.0551%	92	12.7929%	11.5772%
40	0.0677%	0.0588%	93	14.3318%	13.0290%
41	0.0736%	0.0633%	94	15.8633%	14.4884%
42	0.0817%	0.0702%	95	17.4336%	16.0080%
43	0.0918%	0.0792%	96	19.3262%	17.8232%
44	0.1039%	0.0907%	97	21.0339%	19.4807%
45	0.1185%	0.1052%	98	22.3715%	20.8097%
46	0.1356%	0.1228%	99	23.2890%	21.7553%
47	0.1544%	0.1427%	100	23.6519%	22.1859%
48	0.1752%	0.1652%	101	24.4834%	23.0680%
49	0.1973%	0.1896%	102	25.4498%	24.0803%
50	0.2205%	0.2151%	103	26.6044%	25.2770%
51	0.2436%	0.2401%	104	27.9055%	26.6309%
52	0.2676%	0.2647%	105	29.3116%	28.0912%
53	0.2926%	0.2889%	106	30.7811%	29.6244%
54	0.3186%	0.3120%	107	32.2725%	31.1943%
55	0.3456%	0.3338%	108	33.7441%	32.7579%
56	0.3887%	0.3689%	109	35.1544%	34.2712%
57	0.4334%	0.4030%	110	100.0000%	50.0000%
58	0.4792%	0.4360%	111	N/A	50.0000%
59	0.5254%	0.4677%	112	N/A	50.0000%
60	0.5714%	0.4987%	113	N/A	50.0000%
61	0.6292%	0.5398%	114	N/A	50.0000%
62	0.6760%	0.5722%	115	N/A	50.0000%
63	0.7205%	0.6041%	116	N/A	50.0000%
64	0.7671%	0.6395%	117	N/A	50.0000%
65	0.8154%	0.6785%	118	N/A	50.0000%
66	0.9045%	0.7529%	119	N/A	50.0000%
67	1.0064%	0.8397%	120	N/A	100.0000%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.3309%	68	3.4685%	2.8866%
16	N/A	0.4477%	69	3.6106%	2.9926%
17	N/A	0.6034%	70	3.7651%	3.1133%
18	N/A	0.7007%	71	3.9337%	3.2494%
19	0.9679%	0.7591%	72	4.1177%	3.4007%
20	0.9876%	0.7745%	73	4.3181%	3.5688%
21	1.0123%	0.8177%	74	4.5355%	3.7535%
22	1.0378%	0.8636%	75	4.7705%	3.9565%
23	1.0636%	0.9115%	76	5.0464%	4.1960%
24	1.0903%	0.9623%	77	5.3434%	4.4576%
25	1.1174%	1.0128%	78	5.6617%	4.7400%
26	1.1453%	1.0629%	79	6.0019%	5.0460%
27	1.1739%	1.1121%	80	6.3648%	5.3741%
28	1.2031%	1.1590%	81	6.7503%	5.7241%
29	1.2331%	1.2025%	82	7.1588%	6.0991%
30	1.2636%	1.2403%	83	7.5935%	6.5012%
31	1.2951%	1.2721%	84	8.0565%	6.9293%
32	1.3272%	1.2964%	85	8.7359%	7.5490%
33	1.3601%	1.3125%	86	9.6438%	8.3752%
34	1.3938%	1.3230%	87	10.5517%	9.2076%
35	1.4284%	1.3497%	88	11.4595%	10.0528%
36	1.4638%	1.3769%	89	12.3675%	10.9057%
37	1.5000%	1.4047%	90	13.2754%	11.7730%
38	1.5370%	1.4330%	91	15.1361%	13.5023%
39	1.5749%	1.4619%	92	17.0391%	15.2987%
40	1.6139%	1.4914%	93	18.9830%	17.1548%
41	1.6467%	1.5215%	94	21.0060%	19.1157%
42	1.6804%	1.5522%	95	23.1546%	21.2311%
43	1.7147%	1.5835%	96	25.3189%	23.3168%
44	1.7497%	1.6154%	97	27.5221%	25.4537%
45	1.7854%	1.6480%	98	29.8524%	27.7263%
46	1.8063%	1.6812%	99	32.1066%	29.9589%
47	1.8276%	1.7151%	100	34.3180%	32.1584%
48	1.8534%	1.7497%	101	35.8628%	33.7521%
49	1.8941%	1.7850%	102	37.1685%	35.1259%
50	1.9347%	1.8210%	103	38.3040%	36.3671%
51	1.9928%	1.8577%	104	39.2003%	37.3834%
52	2.0519%	1.8952%	105	39.7886%	38.1051%
53	2.1139%	1.9838%	106	40.0000%	38.4698%
54	2.1770%	2.0700%	107	40.0000%	38.6325%
55	2.2408%	2.1499%	108	40.0000%	38.8076%
56	2.3160%	2.2301%	109	40.0000%	38.9794%
57	2.3927%	2.2996%	110	100.0000%	50.0000%
58	2.4714%	2.3571%	111	N/A	50.0000%
59	2.5523%	2.4033%	112	N/A	50.0000%
60	2.6354%	2.4415%	113	N/A	50.0000%
61	2.7215%	2.4758%	114	N/A	50.0000%
62	2.8108%	2.5090%	115	N/A	50.0000%
63	2.9038%	2.5475%	116	N/A	50.0000%
64	3.0016%	2.5926%	117	N/A	50.0000%
65	3.1055%	2.6476%	118	N/A	50.0000%
66	3.2170%	2.7148%	119	N/A	50.0000%
67	3.3377%	2.7940%	120	N/A	100.0000%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

**PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
FEMALES**

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.3302%	68	2.8508%	2.3870%
16	N/A	0.4467%	69	2.9397%	2.4723%
17	N/A	0.6020%	70	3.0447%	2.5721%
18	N/A	0.6521%	71	3.1675%	2.6887%
19	0.8759%	0.7023%	72	3.3095%	2.8231%
20	0.9033%	0.7242%	73	3.4721%	2.9757%
21	0.9310%	0.7766%	74	3.6560%	3.1493%
22	0.9562%	0.8321%	75	3.8621%	3.3428%
23	0.9696%	0.8806%	76	4.0915%	3.5573%
24	0.9940%	0.9414%	77	4.3206%	3.7722%
25	1.0190%	0.9950%	78	4.5722%	4.0056%
26	1.0444%	1.0450%	79	4.8367%	4.2512%
27	1.0837%	1.1039%	80	5.1526%	4.5399%
28	1.1310%	1.1437%	81	5.4928%	4.8505%
29	1.1877%	1.1849%	82	5.8583%	5.1822%
30	1.2099%	1.2276%	83	6.2503%	5.5379%
31	1.2251%	1.2719%	84	6.6600%	5.9081%
32	1.2557%	1.2906%	85	7.4782%	6.6447%
33	1.2946%	1.3095%	86	8.2481%	7.3415%
34	1.3348%	1.3220%	87	9.0628%	8.0805%
35	1.3763%	1.3314%	88	9.8776%	8.8285%
36	1.4189%	1.3388%	89	11.2988%	10.1243%
37	1.4630%	1.3459%	90	12.7929%	11.4944%
38	1.5085%	1.3555%	91	14.4183%	12.9995%
39	1.5552%	1.3700%	92	15.9590%	14.4425%
40	1.5938%	1.3831%	93	17.4336%	15.8488%
41	1.6232%	1.3968%	94	19.3262%	17.6512%
42	1.6532%	1.4199%	95	21.1607%	19.4304%
43	1.6840%	1.4535%	96	22.5063%	20.7560%
44	1.7079%	1.4910%	97	23.2890%	21.5692%
45	1.7429%	1.5473%	98	23.6519%	22.0007%
46	1.7785%	1.6100%	99	24.6308%	23.0087%
47	1.8148%	1.6774%	100	24.6509%	23.1230%
48	1.8407%	1.7359%	101	25.0504%	23.6022%
49	1.8516%	1.7789%	102	25.4498%	24.0803%
50	1.8525%	1.8069%	103	26.6044%	25.2770%
51	1.8534%	1.8265%	104	27.9055%	26.6309%
52	1.8598%	1.8400%	105	29.3116%	28.0912%
53	1.8652%	1.8414%	106	30.7811%	29.6244%
54	1.8865%	1.8419%	107	32.2725%	31.1943%
55	1.9074%	1.8425%	108	33.7441%	32.7579%
56	1.9415%	1.8428%	109	35.1544%	34.2712%
57	1.9874%	1.8478%	110	100.0000%	50.0000%
58	2.0582%	1.8725%	111	N/A	50.0000%
59	2.1403%	1.9054%	112	N/A	50.0000%
60	2.2247%	1.9416%	113	N/A	50.0000%
61	2.3119%	1.9833%	114	N/A	50.0000%
62	2.3876%	2.0209%	115	N/A	50.0000%
63	2.4653%	2.0671%	116	N/A	50.0000%
64	2.5615%	2.1353%	117	N/A	50.0000%
65	2.6455%	2.2013%	118	N/A	50.0000%
66	2.7155%	2.2603%	119	N/A	50.0000%
67	2.7765%	2.3165%	120	N/A	100.0000%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

**PROBABILITIES OF MORTALITY FOR BENEFICIARIES
BASE TABLE
MALES**

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0105%	68	2.1936%	1.8256%
16	N/A	0.0142%	69	2.3389%	1.9386%
17	N/A	0.0191%	70	2.4842%	2.0542%
18	N/A	0.0222%	71	2.7068%	2.2359%
19	0.0306%	0.0240%	72	2.9339%	2.4230%
20	0.0320%	0.0251%	73	3.1659%	2.6165%
21	0.0332%	0.0268%	74	3.4024%	2.8157%
22	0.0341%	0.0284%	75	3.6438%	3.0220%
23	0.0351%	0.0301%	76	4.2007%	3.4928%
24	0.0357%	0.0315%	77	4.7694%	3.9787%
25	0.0361%	0.0327%	78	5.3501%	4.4792%
26	0.0369%	0.0342%	79	5.9428%	4.9963%
27	0.0374%	0.0354%	80	6.5473%	5.5282%
28	0.0385%	0.0371%	81	7.1996%	6.1051%
29	0.0404%	0.0394%	82	7.8517%	6.6894%
30	0.0435%	0.0427%	83	8.5037%	7.2805%
31	0.0504%	0.0495%	84	9.1559%	7.8749%
32	0.0575%	0.0562%	85	9.8079%	8.4753%
33	0.0648%	0.0625%	86	11.0698%	9.6136%
34	0.0719%	0.0682%	87	12.3771%	10.8005%
35	0.0799%	0.0743%	88	13.7297%	12.0443%
36	0.0860%	0.0780%	89	15.1278%	13.3397%
37	0.0926%	0.0818%	90	16.5712%	14.6958%
38	0.1000%	0.0861%	91	18.4052%	16.4185%
39	0.1091%	0.0917%	92	20.2054%	18.1416%
40	0.1209%	0.0997%	93	21.9737%	19.8574%
41	0.1717%	0.1394%	94	23.7565%	21.6187%
42	0.2203%	0.1774%	95	25.7255%	23.5884%
43	0.2668%	0.2143%	96	27.6098%	25.4266%
44	0.3111%	0.2507%	97	29.4231%	27.2119%
45	0.3533%	0.2875%	98	31.2455%	29.0202%
46	0.3887%	0.3207%	99	32.8638%	30.6654%
47	0.4209%	0.3534%	100	34.3180%	32.1584%
48	0.4499%	0.3849%	101	35.8628%	33.7521%
49	0.4756%	0.4150%	102	37.1685%	35.1259%
50	0.4980%	0.4431%	103	38.3040%	36.3671%
51	0.5684%	0.5156%	104	39.2003%	37.3834%
52	0.6418%	0.5928%	105	39.7886%	38.1051%
53	0.7182%	0.6740%	106	40.0000%	38.4698%
54	0.7975%	0.7583%	107	40.0000%	38.6325%
55	0.8797%	0.8440%	108	40.0000%	38.8076%
56	0.9396%	0.9048%	109	40.0000%	38.9794%
57	0.9993%	0.9604%	110	100.0000%	50.0000%
58	1.0591%	1.0101%	111	N/A	50.0000%
59	1.1189%	1.0536%	112	N/A	50.0000%
60	1.1786%	1.0919%	113	N/A	50.0000%
61	1.3009%	1.1835%	114	N/A	50.0000%
62	1.4200%	1.2676%	115	N/A	50.0000%
63	1.5358%	1.3473%	116	N/A	50.0000%
64	1.6484%	1.4238%	117	N/A	50.0000%
65	1.7577%	1.4985%	118	N/A	50.0000%
66	1.9030%	1.6059%	119	N/A	50.0000%
67	2.0483%	1.7146%	120	N/A	100.0000%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PROBABILITIES OF MORTALITY FOR BENEFICIARIES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0092%	68	1.5930%	1.3605%
16	N/A	0.0112%	69	1.6707%	1.4332%
17	N/A	0.0122%	70	1.7416%	1.5007%
18	N/A	0.0133%	71	1.9340%	1.6745%
19	0.0175%	0.0143%	72	2.1220%	1.8463%
20	0.0177%	0.0145%	73	2.3059%	2.0157%
21	0.0180%	0.0153%	74	2.4854%	2.1838%
22	0.0181%	0.0161%	75	2.6609%	2.3492%
23	0.0185%	0.0171%	76	3.0053%	2.6652%
24	0.0189%	0.0183%	77	3.3498%	2.9831%
25	0.0196%	0.0195%	78	3.6942%	3.3011%
26	0.0204%	0.0208%	79	4.0386%	3.6207%
27	0.0213%	0.0221%	80	4.3831%	3.9391%
28	0.0224%	0.0236%	81	4.9279%	4.4386%
29	0.0237%	0.0252%	82	5.4831%	4.9473%
30	0.0254%	0.0270%	83	6.0487%	5.4665%
31	0.0312%	0.0330%	84	6.6246%	5.9942%
32	0.0366%	0.0384%	85	7.2110%	6.5354%
33	0.0418%	0.0431%	86	8.2234%	7.4659%
34	0.0466%	0.0471%	87	9.2358%	8.3995%
35	0.0518%	0.0511%	88	10.2481%	9.3428%
36	0.0563%	0.0542%	89	11.2605%	10.2918%
37	0.0617%	0.0579%	90	12.2729%	11.2477%
38	0.0674%	0.0618%	91	14.0131%	12.8868%
39	0.0741%	0.0666%	92	15.6962%	14.4887%
40	0.0812%	0.0719%	93	17.3412%	16.0801%
41	0.0883%	0.0775%	94	18.8767%	17.5854%
42	0.0980%	0.0859%	95	20.3531%	19.0626%
43	0.1100%	0.0968%	96	21.5243%	20.2474%
44	0.1247%	0.1111%	97	22.5407%	21.2937%
45	0.1422%	0.1287%	98	23.2572%	22.0663%
46	0.1626%	0.1501%	99	23.6605%	22.5443%
47	0.1854%	0.1748%	100	23.6704%	22.6473%
48	0.2102%	0.2022%	101	24.4834%	23.5294%
49	0.2367%	0.2319%	102	25.4498%	24.5619%
50	0.2646%	0.2633%	103	26.6044%	25.7825%
51	0.2983%	0.2999%	104	27.9055%	27.1635%
52	0.3346%	0.3376%	105	29.3116%	28.6530%
53	0.3736%	0.3762%	106	30.7811%	30.2169%
54	0.4156%	0.4151%	107	32.2725%	31.8182%
55	0.4608%	0.4540%	108	33.7441%	33.4131%
56	0.5300%	0.5132%	109	35.1544%	34.9566%
57	0.6048%	0.5735%	110	100.0000%	50.0000%
58	0.6846%	0.6353%	111	N/A	50.0000%
59	0.7688%	0.6981%	112	N/A	50.0000%
60	0.8572%	0.7631%	113	N/A	50.0000%
61	0.9519%	0.8329%	114	N/A	50.0000%
62	1.0318%	0.8908%	115	N/A	50.0000%
63	1.1100%	0.9493%	116	N/A	50.0000%
64	1.1932%	1.0146%	117	N/A	50.0000%
65	1.2814%	1.0876%	118	N/A	50.0000%
66	1.3758%	1.1681%	119	N/A	50.0000%
67	1.4817%	1.2609%	120	N/A	100.0000%

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	Current & Proposed	Current & Proposed
	Merit Increase	Salary Increase*
0	6.00%	9.00%
1	5.00%	8.00%
2	4.00%	7.00%
3	3.00%	6.00%
4	2.50%	5.50%
5	2.00%	5.00%
6	1.90%	4.90%
7	1.80%	4.80%
8	1.70%	4.70%
9	1.60%	4.60%
10	1.50%	4.50%
11	1.50%	4.50%
12	1.50%	4.50%
13	1.50%	4.50%
14	1.50%	4.50%
15	1.50%	4.50%
16	1.45%	4.45%
17	1.40%	4.40%
18	1.35%	4.35%
19	1.30%	4.30%
20	1.25%	4.25%
21	1.20%	4.20%
22	1.15%	4.15%
23	1.10%	4.10%
24	1.05%	4.05%
25+	1.00%	4.00%

* Salary Increase is General Wage Increase of 3.00% plus the Merit Increase.

Appendix C

APPENDIX C

DRAFT RESOLUTION

PROPOSED CHANGES IN ACTUARIAL ASSUMPTIONS AND METHODS

The following Resolution is presented to the Board of Trustees of the New York City Board of Education Retirement System (BERS) for consideration and adoption:

WHEREAS, Bolton, Inc. (Bolton) has recommended updating certain assumptions and methods based on a study of actuarial experience of the five actuarially-funded New York City Pension Fund and Retirement Systems; and

WHEREAS, The Actuary has reviewed the recommendations made by Bolton and has proposed changes in certain actuarial assumptions and methods as presented in a Report dated January 24, 2019 entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2018 for the New York City Board of Education Retirement System"; and

WHEREAS, Certain components of the Actuary's proposed changes require action by the Board of Trustees; and

WHEREAS, The Board has reviewed the Actuary's proposed changes in actuarial assumptions and methods; now therefore, be it

RESOLVED, That the Board accepts the Actuary's January 24, 2019 Report and supports the proposed changes in actuarial assumptions and methods; and be it further

RESOLVED, That the Board adopts those actuarial assumptions requiring Board approval (i.e. the demographic and economic assumptions presented as Appendix B of the January 24, 2019 Report); and be it further

RESOLVED, That the Board requests that the Corporation Counsel develop, with the review and assistance of the Actuary, and that the New York State Legislature and Governor enact, legislation to continue components of the Actuary's proposed changes in actuarial assumptions and methods that require legislation (e.g. Actuarial Interest Rate).

Respectfully Submitted:

Sanford Rich
Executive Director