**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 EMPLOYEES' RETIREMENT
SYSTEM**

prepared by the

New York City
Office of the Actuary
December 31, 2018

December 31, 2018

Board of Trustees
New York City Employees' Retirement System
335 Adams Street, Suite 2300
Brooklyn, NY 11201-3751

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 Employees' 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 determing 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 Employees' Retirement System
December 31, 2018
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. Frankie Chen - New York City Office of the Actuary
        Ms. Marlene Markoe-Boyd - New York City Office of the Actuary
        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
        Ms. Melanie Whinnery - New York City Employees' Retirement System

304L&R:mm

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 EMPLOYEES' RETIREMENT SYSTEM

In accordance with the Administrative Code of the City of New York (ACCNY) 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 Employees' Retirement System (NYCERS) 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 NYCERS while being reasonably consistent with the concepts of intergenerational equity. This Report reflects the best judgment of the Actuary regarding the appropriate financing of NYCERS 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.

Due to the differences in the expected actuarial experience of different employee groups within NYCERS, the Actuary is proposing continuation of separate actuarial assumptions for the following six groups of members:

- General (General)
- Transit Operating (Transit)
- Triborough Bridge and Tunnel Authority (TBTA)
- Sanitation (Sanitation)
- Correction (Correction)
- Housing Police and Transit Police (HP TP) – This groups only contains retirees.

In summary, the Actuary proposes the following actions with respect to the current actuarial assumptions and methods of NYCERS 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**:

    1. For **General, Transit, TBTA,** and **Correction,** generally increase the current probabilities of Termination based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

    2. For **Sanitation**, retain 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**:

    1. For **General, Transit, TBTA,** and **Correction,** 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. For **General, Transit, and TBTA**, extend probabilities out to reflect expected longer careers.

    2. For **Sanitation**, retain 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.

- **Active Service Accidental Mortality**:

    1. For **General** and **Sanitation,** retain the current probabilities of active service Accidental Mortality based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary. For **General,** extend probabilities out to reflect expected longer careers.

    2. For **Transit, TBTA**, and **Correction**, decrease the current probabilities of active service Accidental Mortality based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary. For **Transit and TBTA**, extend probabilities out to reflect expected longer careers.

- **Active Service Ordinary Disability**:

    1. For **General**, decrease 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.

2. For **Transit, Sanitation,** and **Correction**, 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. For **Transit**, extend probabilities out to reflect expected longer careers.

3. For **TBTA**, decrease the probabilities of active service Ordinary Disability at younger ages and increase the probabilities of active service Ordinary Disability at older ages 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**:

  1. For **General** and **TBTA**, decrease the current probabilities of active service Accidental 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.

  2. For **Transit** and **Sanitation,** retain the current probabilities of active service Accidental Disability based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary. For **Transit**, extend probabilities out to reflect expected longer careers.

  3. For **Correction**, increase the current probabilities of active service Accidental Disability based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

- **Service Retirement**:

  1. **General**

     a. 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.

     b. For **members who elect an optional retirement program**, retain the current probabilities of Service Retirement in the first year of eligibility and after the first year of eligibility 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.

c. For **members who are eligible for Early Service Retirement**, revise the current probabilities of Early 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.

2. **Transit**

   a. For **members who do not elect an optional retirement program**, increase and retain the current probabilities of Service Retirement in the first year of eligibility and after the first year of eligibility, respectively, through age 61, but decrease the current probabilities of Service Retirement in the first year of eligibility and after the first year of eligibility from age 62 to age 69 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.

   b. For **members who elect an optional retirement program**, retain the current probabilities of Service Retirement in the first year of eligibility and after the first year eligibility 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.

   c. For **members who are eligible for Early Service Retirement**, retain the current probabilities of Early Service Retirement based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

3. **TBTA:** Retain all current probabilities of Service Retirement, and extend probabilities out to age 80 based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

4. **Sanitation**

   a. For **members who do not elect on 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.

   b. For **members who elect an optional retirement program**, retain the current probabilities of Service Retirement in the first year of eligibility

and after the first year of eligibility based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

    c. For **members who are eligible for Early Service Retirement**, revise the current probabilities of Early 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.

  5. Correction: Retain all current probabilities of Service Retirement 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 Assumptions**:

  1. For **General, TBTA**, and **Correction**, retain the current General Wage Increase component of 3.0% and Merit Increase component of the Salary Scale based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

  2. For **Transit**, retain the current General Wage Increase component of 3.0%, but generally increase the Merit Increase component of the Salary Scale based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

  3. For **Sanitation**, retain the current General Wage Increase component of 3.0%, but generally decrease the Merit Increase component of the Salary Scale based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

- **Overtime Assumptions**:

  1. For **General**, increase the current Baseline Overtime assumptions based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

  2. For **Transit, TBTA**, and **Sanitation**, retain all current Baseline Overtime, Dual Service Overtime, and Dual Disability Retirement Overtime assumptions based on the findings outlined in the Bolton Experience Study and on the experience expected by the Actuary.

  3. For **Correction**, increase the current Baseline Overtime and Dual Service Overtime assumptions, but retain the current Dual Disability Overtime assumptions 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 Final Fiscal Year 2019 Employer Contribution to NYCERS by approximately $40 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 EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF TERMINATION

Years of Service	Current	Proposed
0	6.00%	8.40%
1	5.00%	7.00%
2	4.00%	5.60%
3	3.00%	4.20%
4	3.00%	4.20%
5	3.00%	4.20%
6	2.80%	4.00%
7	2.60%	3.80%
8	2.40%	3.60%
9	2.20%	3.40%
10	2.00%	3.20%
11	1.90%	3.00%
12	1.80%	2.80%
13	1.70%	2.60%
14	1.60%	2.40%
15	1.50%	2.20%
16	1.40%	2.00%
17	1.30%	1.80%
18	1.20%	1.60%
19	1.10%	1.40%
≥ 20	1.00%	1.40%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT

PROBABILITIES OF TERMINATION

Years of Service	Current	Proposed
0	8.00%	9.00%
1	4.00%	4.50%
2	2.00%	2.00%
3	1.50%	1.50%
4	1.20%	1.25%
5	1.00%	1.10%
6	1.00%	1.10%
7	1.00%	1.10%
8	1.00%	1.10%
9	1.00%	1.10%
10	1.00%	1.10%
11	0.90%	1.00%
12	0.80%	0.90%
13	0.70%	0.80%
14	0.60%	0.70%
15	0.50%	0.55%
16	0.50%	0.55%
17	0.50%	0.55%
18	0.50%	0.55%
19	0.50%	0.55%
≥ 20	0.50%	0.55%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

PROBABILITIES OF TERMINATION

Years of Service	Current	Proposed
0	4.00%	9.00%
1	2.00%	4.50%
2	1.00%	2.00%
3	1.00%	1.50%
4	1.00%	1.25%
5	1.00%	1.10%
6	1.00%	1.10%
7	1.00%	1.10%
8	1.00%	1.10%
9	1.00%	1.10%
10	1.00%	1.10%
11	1.00%	1.00%
12	1.00%	0.90%
13	1.00%	0.80%
14	1.00%	0.70%
15	1.00%	0.55%
16	1.00%	0.55%
17	1.00%	0.55%
18	1.00%	0.55%
19	1.00%	0.55%
≥ 20	1.00%	0.55%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF TERMINATION

Years of Service	Current & Proposed
0	4.00%
1	2.00%
2	1.00%
3	1.00%
4	1.00%
5	1.00%
6	0.90%
7	0.80%
8	0.70%
9	0.60%
10	0.50%
11	0.50%
12	0.50%
13	0.50%
14	0.50%
15	0.50%
16	0.50%
17	0.50%
18	0.50%
19	0.50%
≥ 20	0.50%

	NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION PROBABILITIES OF TERMINATION		

Years of Service	Current	Proposed
0	5.00%	7.50%
1	4.00%	6.00%
2	3.00%	4.50%
3	2.00%	3.00%
4	1.50%	2.25%
5	1.00%	1.50%
6	0.90%	1.35%
7	0.80%	1.20%
8	0.70%	1.05%
9	0.60%	0.90%
10	0.50%	0.75%
11	0.50%	0.75%
12	0.50%	0.75%
13	0.50%	0.75%
14	0.50%	0.75%
15	0.50%	0.75%
16	0.50%	0.75%
17	0.50%	0.75%
18	0.50%	0.75%
19	0.50%	0.75%
≥ 20	0.50%	0.75%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

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	0.0240%	0.0180%	0.0000%
16	N/A	N/A	0.0240%	0.0180%	0.0000%
17	N/A	N/A	0.0240%	0.0180%	0.0000%
18	N/A	N/A	0.0240%	0.0180%	0.0000%
19	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
20	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
21	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
22	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
23	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
24	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
25	0.0400%	0.0300%	0.0240%	0.0180%	0.0000%
26	0.0440%	0.0320%	0.0264%	0.0192%	0.0000%
27	0.0480%	0.0340%	0.0288%	0.0204%	0.0000%
28	0.0520%	0.0360%	0.0312%	0.0216%	0.0000%
29	0.0560%	0.0380%	0.0336%	0.0228%	0.0000%
30	0.0600%	0.0400%	0.0360%	0.0240%	0.0000%
31	0.0640%	0.0420%	0.0384%	0.0252%	0.0000%
32	0.0680%	0.0440%	0.0408%	0.0264%	0.0000%
33	0.0720%	0.0460%	0.0432%	0.0276%	0.0000%
34	0.0760%	0.0480%	0.0456%	0.0288%	0.0000%
35	0.0800%	0.0500%	0.0480%	0.0300%	0.0000%
36	0.0840%	0.0520%	0.0504%	0.0312%	0.0000%
37	0.0880%	0.0540%	0.0528%	0.0324%	0.0000%
38	0.0920%	0.0560%	0.0552%	0.0336%	0.0000%
39	0.0960%	0.0580%	0.0576%	0.0348%	0.0000%
40	0.1000%	0.0600%	0.0600%	0.0360%	0.0000%
41	0.1100%	0.0680%	0.0660%	0.0408%	0.0000%
42	0.1200%	0.0760%	0.0720%	0.0456%	0.0000%
43	0.1300%	0.0840%	0.0780%	0.0504%	0.0000%
44	0.1400%	0.0920%	0.0840%	0.0552%	0.0000%
45	0.1500%	0.1000%	0.0900%	0.0600%	0.0000%
46	0.1600%	0.1100%	0.0960%	0.0660%	0.0000%
47	0.1700%	0.1200%	0.1020%	0.0720%	0.0000%
48	0.1800%	0.1300%	0.1080%	0.0780%	0.0000%
49	0.1900%	0.1400%	0.1140%	0.0840%	0.0000%
50	0.2000%	0.1500%	0.1200%	0.0900%	0.0000%
51	0.2200%	0.1600%	0.1320%	0.0960%	0.0000%
52	0.2400%	0.1700%	0.1440%	0.1020%	0.0000%
53	0.2600%	0.1800%	0.1560%	0.1080%	0.0000%
54	0.2800%	0.1900%	0.1680%	0.1140%	0.0000%
55	0.3000%	0.2000%	0.1800%	0.1200%	0.0000%
56	0.3200%	0.2100%	0.1920%	0.1260%	0.0000%
57	0.3400%	0.2200%	0.2040%	0.1320%	0.0000%
58	0.3600%	0.2300%	0.2160%	0.1380%	0.0000%
59	0.3800%	0.2400%	0.2280%	0.1440%	0.0000%
60	0.4000%	0.2500%	0.2400%	0.1500%	0.0000%
61	0.4200%	0.2600%	0.2520%	0.1560%	0.0000%
62	0.4400%	0.2700%	0.2640%	0.1620%	0.0000%
63	0.4600%	0.2800%	0.2760%	0.1680%	0.0000%
64	0.4800%	0.2900%	0.2880%	0.1740%	0.0000%
65	0.5000%	0.3000%	0.3000%	0.1800%	0.0000%
66	0.5400%	0.3200%	0.3240%	0.1920%	0.0000%
67	0.5800%	0.3400%	0.3480%	0.2040%	0.0000%
68	0.6200%	0.3600%	0.3720%	0.2160%	0.0000%
69	0.6600%	0.3800%	0.3960%	0.2280%	0.0000%
70	N/A	N/A	0.4000%	0.2400%	0.0000%
71	N/A	N/A	0.4240%	0.2580%	0.0000%
72	N/A	N/A	0.4480%	0.2760%	0.0000%
73	N/A	N/A	0.4720%	0.2940%	0.0000%
74	N/A	N/A	0.4960%	0.3120%	0.0000%
75	N/A	N/A	0.5200%	0.3300%	0.0000%
76	N/A	N/A	0.5680%	0.3660%	0.0000%
77	N/A	N/A	0.6160%	0.4020%	0.0000%
78	N/A	N/A	0.6640%	0.4380%	0.0000%
79	N/A	N/A	0.7120%	0.4740%	0.0000%
≥ 80	N/A	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT

PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS

Age	Ordinary (Current)		Ordinary (Proposed)		Accidental (Current)	Accidental (Proposed)
	Males	Females	Males	Females	Both Genders	Both Genders
15	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
16	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
17	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
18	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
19	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
20	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
21	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
22	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
23	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
24	0.0400%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
25	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	N/A	N/A	0.4000%	0.2400%	N/A	0.0060%
71	N/A	N/A	0.4240%	0.2580%	N/A	0.0060%
72	N/A	N/A	0.4480%	0.2760%	N/A	0.0060%
73	N/A	N/A	0.4720%	0.2940%	N/A	0.0060%
74	N/A	N/A	0.4960%	0.3120%	N/A	0.0060%
75	N/A	N/A	0.5200%	0.3300%	N/A	0.0060%
76	N/A	N/A	0.5680%	0.3660%	N/A	0.0060%
77	N/A	N/A	0.6160%	0.4020%	N/A	0.0060%
78	N/A	N/A	0.6640%	0.4380%	N/A	0.0060%
79	N/A	N/A	0.7120%	0.4740%	N/A	0.0060%
≥ 80	N/A	N/A	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS

Age	Ordinary (Current)		Ordinary (Proposed)		Accidental (Current)	Accidental (Proposed)
	Males	Females	Males	Females	Both Genders	Both Genders
15	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
16	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
17	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
18	N/A	N/A	0.0240%	0.0180%	N/A	0.0060%
19	0.0500%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
20	0.0500%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
21	0.0500%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
22	0.0500%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
23	0.0500%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
24	0.0500%	0.0300%	0.0240%	0.0180%	0.0100%	0.0060%
25	0.0400%	0.0240%	0.0240%	0.0180%	0.0100%	0.0060%
26	0.0500%	0.0300%	0.0264%	0.0192%	0.0100%	0.0060%
27	0.0500%	0.0300%	0.0288%	0.0204%	0.0100%	0.0060%
28	0.0500%	0.0300%	0.0312%	0.0216%	0.0100%	0.0060%
29	0.0500%	0.0300%	0.0336%	0.0228%	0.0100%	0.0060%
30	0.0500%	0.0300%	0.0360%	0.0240%	0.0100%	0.0060%
31	0.0500%	0.0300%	0.0384%	0.0252%	0.0100%	0.0060%
32	0.0500%	0.0300%	0.0408%	0.0264%	0.0100%	0.0060%
33	0.0500%	0.0300%	0.0432%	0.0276%	0.0100%	0.0060%
34	0.0500%	0.0300%	0.0456%	0.0288%	0.0100%	0.0060%
35	0.0500%	0.0300%	0.0480%	0.0300%	0.0100%	0.0060%
36	0.0600%	0.0360%	0.0504%	0.0312%	0.0100%	0.0060%
37	0.0700%	0.0420%	0.0528%	0.0324%	0.0100%	0.0060%
38	0.0800%	0.0480%	0.0552%	0.0336%	0.0100%	0.0060%
39	0.0900%	0.0540%	0.0576%	0.0348%	0.0100%	0.0060%
40	0.1000%	0.0600%	0.0600%	0.0360%	0.0100%	0.0060%
41	0.1100%	0.0660%	0.0660%	0.0408%	0.0100%	0.0060%
42	0.1200%	0.0720%	0.0720%	0.0456%	0.0100%	0.0060%
43	0.1300%	0.0780%	0.0780%	0.0504%	0.0100%	0.0060%
44	0.1400%	0.0840%	0.0840%	0.0552%	0.0100%	0.0060%
45	0.1500%	0.0900%	0.0900%	0.0600%	0.0100%	0.0060%
46	0.1600%	0.0960%	0.0960%	0.0660%	0.0100%	0.0060%
47	0.1700%	0.1020%	0.1020%	0.0720%	0.0100%	0.0060%
48	0.1800%	0.1080%	0.1080%	0.0780%	0.0100%	0.0060%
49	0.1900%	0.1140%	0.1140%	0.0840%	0.0100%	0.0060%
50	0.2000%	0.1200%	0.1200%	0.0900%	0.0100%	0.0060%
51	0.2100%	0.1280%	0.1320%	0.0960%	0.0100%	0.0060%
52	0.2200%	0.1360%	0.1440%	0.1020%	0.0100%	0.0060%
53	0.2300%	0.1440%	0.1560%	0.1080%	0.0100%	0.0060%
54	0.2400%	0.1520%	0.1680%	0.1140%	0.0100%	0.0060%
55	0.2500%	0.1600%	0.1800%	0.1200%	0.0100%	0.0060%
56	0.2600%	0.1680%	0.1920%	0.1260%	0.0100%	0.0060%
57	0.2700%	0.1760%	0.2040%	0.1320%	0.0100%	0.0060%
58	0.2800%	0.1840%	0.2160%	0.1380%	0.0100%	0.0060%
59	0.2900%	0.1920%	0.2280%	0.1440%	0.0100%	0.0060%
60	0.3000%	0.2000%	0.2400%	0.1500%	0.0100%	0.0060%
61	0.3200%	0.2100%	0.2520%	0.1560%	0.0100%	0.0060%
62	0.3400%	0.2200%	0.2640%	0.1620%	0.0100%	0.0060%
63	0.3600%	0.2300%	0.2760%	0.1680%	0.0100%	0.0060%
64	0.3800%	0.2400%	0.2880%	0.1740%	0.0100%	0.0060%
65	0.4000%	0.2500%	0.3000%	0.1800%	0.0100%	0.0060%
66	0.4400%	0.2800%	0.3240%	0.1920%	0.0100%	0.0060%
67	0.4800%	0.3100%	0.3480%	0.2040%	0.0100%	0.0060%
68	0.5200%	0.3400%	0.3720%	0.2160%	0.0100%	0.0060%
69	0.5600%	0.3700%	0.3960%	0.2280%	0.0100%	0.0060%
70	N/A	N/A	0.4000%	0.2400%	N/A	0.0060%
71	N/A	N/A	0.4240%	0.2580%	N/A	0.0060%
72	N/A	N/A	0.4480%	0.2760%	N/A	0.0060%
73	N/A	N/A	0.4720%	0.2940%	N/A	0.0060%
74	N/A	N/A	0.4960%	0.3120%	N/A	0.0060%
75	N/A	N/A	0.5200%	0.3300%	N/A	0.0060%
76	N/A	N/A	0.5680%	0.3660%	N/A	0.0060%
77	N/A	N/A	0.6160%	0.4020%	N/A	0.0060%
78	N/A	N/A	0.6640%	0.4380%	N/A	0.0060%
79	N/A	N/A	0.7120%	0.4740%	N/A	0.0060%
≥ 80	N/A	N/A	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS

Age	Ordinary (Current)		Ordinary (Proposed)		Accidental (Current)	Accidental (Proposed)
	Males	Females	Males	Females	Both Genders	Both Genders
15	N/A	N/A	0.0500%	0.0300%	N/A	0.0100%
16	N/A	N/A	0.0500%	0.0300%	N/A	0.0100%
17	N/A	N/A	0.0500%	0.0300%	N/A	0.0100%
18	N/A	N/A	0.0500%	0.0300%	N/A	0.0100%
19	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
20	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
21	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
22	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
23	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
24	0.0500%	0.0300%	0.0500%	0.0300%	0.0100%	0.0100%
25	0.0400%	0.0240%	0.0500%	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	N/A	N/A	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS

Age	Ordinary (Current)		Ordinary (Proposed)		Accidental (Current)	Accidental (Proposed)
	Males	Females	Males	Females	Both Genders	Both Genders
15	N/A	N/A	0.025%	0.015%	N/A	0.005%
16	N/A	N/A	0.025%	0.015%	N/A	0.005%
17	N/A	N/A	0.025%	0.015%	N/A	0.005%
18	N/A	N/A	0.025%	0.015%	N/A	0.005%
19	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
20	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
21	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
22	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
23	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
24	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
25	0.040%	0.024%	0.025%	0.015%	0.010%	0.005%
26	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
27	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
28	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
29	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
30	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
31	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
32	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
33	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
34	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
35	0.050%	0.030%	0.025%	0.015%	0.010%	0.005%
36	0.060%	0.036%	0.030%	0.018%	0.010%	0.005%
37	0.070%	0.042%	0.035%	0.021%	0.010%	0.005%
38	0.080%	0.048%	0.040%	0.024%	0.010%	0.005%
39	0.090%	0.054%	0.045%	0.027%	0.010%	0.005%
40	0.100%	0.060%	0.050%	0.030%	0.010%	0.005%
41	0.110%	0.066%	0.055%	0.033%	0.010%	0.005%
42	0.120%	0.072%	0.060%	0.036%	0.010%	0.005%
43	0.130%	0.078%	0.065%	0.039%	0.010%	0.005%
44	0.140%	0.084%	0.070%	0.042%	0.010%	0.005%
45	0.150%	0.090%	0.075%	0.045%	0.010%	0.005%
46	0.160%	0.096%	0.080%	0.048%	0.010%	0.005%
47	0.170%	0.102%	0.085%	0.051%	0.010%	0.005%
48	0.180%	0.108%	0.090%	0.054%	0.010%	0.005%
49	0.190%	0.114%	0.095%	0.057%	0.010%	0.005%
50	0.200%	0.120%	0.100%	0.060%	0.010%	0.005%
51	0.210%	0.128%	0.105%	0.064%	0.010%	0.005%
52	0.220%	0.136%	0.110%	0.068%	0.010%	0.005%
53	0.230%	0.144%	0.115%	0.072%	0.010%	0.005%
54	0.240%	0.152%	0.120%	0.076%	0.010%	0.005%
55	0.250%	0.160%	0.125%	0.080%	0.010%	0.005%
56	0.260%	0.168%	0.130%	0.084%	0.010%	0.005%
57	0.270%	0.176%	0.135%	0.088%	0.010%	0.005%
58	0.280%	0.184%	0.140%	0.092%	0.010%	0.005%
59	0.290%	0.192%	0.145%	0.096%	0.010%	0.005%
60	0.300%	0.200%	0.150%	0.100%	0.010%	0.005%
61	0.320%	0.210%	0.160%	0.105%	0.010%	0.005%
62	0.340%	0.220%	0.170%	0.110%	0.010%	0.005%
≥ 63	N/A	N/A	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF ORDINARY DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Males	Females	Males	Females
15	N/A	N/A	0.140%	0.140%
16	N/A	N/A	0.140%	0.140%
17	N/A	N/A	0.140%	0.140%
18	N/A	N/A	0.140%	0.140%
19	0.200%	0.200%	0.140%	0.140%
20	0.200%	0.200%	0.140%	0.140%
21	0.200%	0.200%	0.140%	0.140%
22	0.200%	0.200%	0.140%	0.140%
23	0.200%	0.200%	0.140%	0.140%
24	0.200%	0.200%	0.140%	0.140%
25	0.200%	0.200%	0.140%	0.140%
26	0.200%	0.200%	0.140%	0.140%
27	0.200%	0.200%	0.140%	0.140%
28	0.200%	0.200%	0.140%	0.140%
29	0.200%	0.200%	0.140%	0.140%
30	0.200%	0.200%	0.140%	0.140%
31	0.220%	0.200%	0.154%	0.140%
32	0.240%	0.200%	0.168%	0.140%
33	0.260%	0.200%	0.182%	0.140%
34	0.280%	0.200%	0.196%	0.140%
35	0.300%	0.200%	0.210%	0.140%
36	0.320%	0.210%	0.224%	0.147%
37	0.340%	0.220%	0.238%	0.154%
38	0.360%	0.230%	0.252%	0.161%
39	0.380%	0.240%	0.266%	0.168%
40	0.400%	0.250%	0.280%	0.175%
41	0.420%	0.260%	0.294%	0.182%
42	0.440%	0.270%	0.308%	0.189%
43	0.460%	0.280%	0.322%	0.196%
44	0.480%	0.290%	0.336%	0.203%
45	0.500%	0.300%	0.350%	0.210%
46	0.520%	0.340%	0.364%	0.238%
47	0.540%	0.380%	0.378%	0.266%
48	0.560%	0.420%	0.392%	0.294%
49	0.580%	0.460%	0.406%	0.322%
50	0.600%	0.500%	0.420%	0.350%
51	0.620%	0.540%	0.434%	0.378%
52	0.640%	0.580%	0.448%	0.406%
53	0.660%	0.620%	0.462%	0.434%
54	0.680%	0.660%	0.476%	0.462%
55	0.700%	0.700%	0.490%	0.490%
56	0.700%	0.700%	0.490%	0.490%
57	0.700%	0.700%	0.490%	0.490%
58	0.700%	0.700%	0.490%	0.490%
59	0.700%	0.700%	0.490%	0.490%
60	0.700%	0.700%	0.490%	0.490%
61	0.700%	0.700%	0.490%	0.490%
62	0.700%	0.700%	0.490%	0.490%
63	0.700%	0.700%	0.490%	0.490%
64	0.700%	0.700%	0.490%	0.490%
65	0.700%	0.700%	0.490%	0.490%
66	0.700%	0.700%	0.490%	0.490%
67	0.700%	0.700%	0.490%	0.490%
68	0.700%	0.700%	0.490%	0.490%
69	0.700%	0.700%	0.490%	0.490%
70	N/A	N/A	0.490%	0.490%
71	N/A	N/A	0.490%	0.490%
72	N/A	N/A	0.490%	0.490%
73	N/A	N/A	0.490%	0.490%
74	N/A	N/A	0.490%	0.490%
75	N/A	N/A	0.490%	0.490%
76	N/A	N/A	0.490%	0.490%
77	N/A	N/A	0.490%	0.490%
78	N/A	N/A	0.490%	0.490%
79	N/A	N/A	0.490%	0.490%
≥ 80	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT

PROBABILITIES OF DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Ordinary	Accidental	Ordinary	Accidental
15	N/A	N/A	0.100%	0.020%
16	N/A	N/A	0.100%	0.020%
17	N/A	N/A	0.100%	0.020%
18	N/A	N/A	0.100%	0.020%
19	0.100%	0.020%	0.100%	0.020%
20	0.100%	0.020%	0.100%	0.020%
21	0.100%	0.020%	0.100%	0.020%
22	0.100%	0.020%	0.100%	0.020%
23	0.100%	0.020%	0.100%	0.020%
24	0.100%	0.020%	0.100%	0.020%
25	0.100%	0.020%	0.100%	0.020%
26	0.100%	0.020%	0.100%	0.020%
27	0.100%	0.020%	0.100%	0.020%
28	0.100%	0.020%	0.100%	0.020%
29	0.100%	0.020%	0.100%	0.020%
30	0.100%	0.020%	0.100%	0.020%
31	0.120%	0.020%	0.120%	0.020%
32	0.140%	0.020%	0.140%	0.020%
33	0.160%	0.020%	0.160%	0.020%
34	0.180%	0.020%	0.180%	0.020%
35	0.200%	0.020%	0.200%	0.020%
36	0.220%	0.020%	0.220%	0.020%
37	0.240%	0.020%	0.240%	0.020%
38	0.260%	0.020%	0.260%	0.020%
39	0.280%	0.020%	0.280%	0.020%
40	0.300%	0.020%	0.300%	0.020%
41	0.320%	0.020%	0.320%	0.020%
42	0.340%	0.020%	0.340%	0.020%
43	0.360%	0.020%	0.360%	0.020%
44	0.380%	0.020%	0.380%	0.020%
45	0.400%	0.020%	0.400%	0.020%
46	0.420%	0.020%	0.420%	0.020%
47	0.440%	0.020%	0.440%	0.020%
48	0.460%	0.020%	0.460%	0.020%
49	0.480%	0.020%	0.480%	0.020%
50	0.500%	0.020%	0.500%	0.020%
51	0.520%	0.020%	0.520%	0.020%
52	0.540%	0.020%	0.540%	0.020%
53	0.560%	0.020%	0.560%	0.020%
54	0.580%	0.020%	0.580%	0.020%
55	0.600%	0.020%	0.600%	0.020%
56	0.600%	0.020%	0.600%	0.020%
57	0.600%	0.020%	0.600%	0.020%
58	0.600%	0.020%	0.600%	0.020%
59	0.600%	0.020%	0.600%	0.020%
60	0.600%	0.020%	0.600%	0.020%
61	0.600%	0.020%	0.600%	0.020%
62	0.600%	0.020%	0.600%	0.020%
63	0.600%	0.020%	0.600%	0.020%
64	0.600%	0.020%	0.600%	0.020%
65	0.600%	0.020%	0.600%	0.020%
66	0.600%	0.020%	0.600%	0.020%
67	0.600%	0.020%	0.600%	0.020%
68	0.600%	0.020%	0.600%	0.020%
69	0.600%	0.020%	0.600%	0.020%
70	N/A	N/A	0.600%	0.020%
71	N/A	N/A	0.600%	0.020%
72	N/A	N/A	0.600%	0.020%
73	N/A	N/A	0.600%	0.020%
74	N/A	N/A	0.600%	0.020%
75	N/A	N/A	0.600%	0.020%
76	N/A	N/A	0.600%	0.020%
77	N/A	N/A	0.600%	0.020%
78	N/A	N/A	0.600%	0.020%
79	N/A	N/A	0.600%	0.020%
≥ 80	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

PROBABILITIES OF DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Ordinary	Accidental	Ordinary	Accidental
15	N/A	N/A	0.100%	0.020%
16	N/A	N/A	0.100%	0.020%
17	N/A	N/A	0.100%	0.020%
18	N/A	N/A	0.100%	0.020%
19	0.400%	0.040%	0.100%	0.020%
20	0.400%	0.040%	0.100%	0.020%
21	0.400%	0.040%	0.100%	0.020%
22	0.400%	0.040%	0.100%	0.020%
23	0.400%	0.040%	0.100%	0.020%
24	0.400%	0.040%	0.100%	0.020%
25	0.400%	0.040%	0.100%	0.020%
26	0.400%	0.040%	0.100%	0.020%
27	0.400%	0.040%	0.100%	0.020%
28	0.400%	0.040%	0.100%	0.020%
29	0.400%	0.040%	0.100%	0.020%
30	0.400%	0.040%	0.100%	0.020%
31	0.400%	0.040%	0.120%	0.020%
32	0.400%	0.040%	0.140%	0.020%
33	0.400%	0.040%	0.160%	0.020%
34	0.400%	0.040%	0.180%	0.020%
35	0.400%	0.040%	0.200%	0.020%
36	0.400%	0.040%	0.220%	0.020%
37	0.400%	0.040%	0.240%	0.020%
38	0.400%	0.040%	0.260%	0.020%
39	0.400%	0.040%	0.280%	0.020%
40	0.400%	0.040%	0.300%	0.020%
41	0.400%	0.040%	0.320%	0.020%
42	0.400%	0.040%	0.340%	0.020%
43	0.400%	0.040%	0.360%	0.020%
44	0.400%	0.040%	0.380%	0.020%
45	0.400%	0.040%	0.400%	0.020%
46	0.400%	0.040%	0.420%	0.020%
47	0.400%	0.040%	0.440%	0.020%
48	0.400%	0.040%	0.460%	0.020%
49	0.400%	0.040%	0.480%	0.020%
50	0.400%	0.040%	0.500%	0.020%
51	0.400%	0.040%	0.520%	0.020%
52	0.400%	0.040%	0.540%	0.020%
53	0.400%	0.040%	0.560%	0.020%
54	0.400%	0.040%	0.580%	0.020%
55	0.400%	0.040%	0.600%	0.020%
56	0.400%	0.040%	0.600%	0.020%
57	0.400%	0.040%	0.600%	0.020%
58	0.400%	0.040%	0.600%	0.020%
59	0.400%	0.040%	0.600%	0.020%
60	0.400%	0.040%	0.600%	0.020%
61	0.400%	0.040%	0.600%	0.020%
62	0.400%	0.040%	0.600%	0.020%
63	0.400%	0.040%	0.600%	0.020%
64	0.400%	0.040%	0.600%	0.020%
65	0.400%	0.040%	0.600%	0.020%
66	0.400%	0.040%	0.600%	0.020%
67	0.400%	0.040%	0.600%	0.020%
68	0.400%	0.040%	0.600%	0.020%
69	0.400%	0.040%	0.600%	0.020%
70	N/A	N/A	0.600%	0.020%
71	N/A	N/A	0.600%	0.020%
72	N/A	N/A	0.600%	0.020%
73	N/A	N/A	0.600%	0.020%
74	N/A	N/A	0.600%	0.020%
75	N/A	N/A	0.600%	0.020%
76	N/A	N/A	0.600%	0.020%
77	N/A	N/A	0.600%	0.020%
78	N/A	N/A	0.600%	0.020%
79	N/A	N/A	0.600%	0.020%
≥ 80	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF ORDINARY DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Males	Females	Males	Females
15	N/A	N/A	0.100%	0.100%
16	N/A	N/A	0.100%	0.100%
17	N/A	N/A	0.100%	0.100%
18	N/A	N/A	0.100%	0.100%
19	0.100%	0.100%	0.100%	0.100%
20	0.100%	0.100%	0.100%	0.100%
21	0.100%	0.100%	0.100%	0.100%
22	0.100%	0.100%	0.100%	0.100%
23	0.100%	0.100%	0.100%	0.100%
24	0.100%	0.100%	0.100%	0.100%
25	0.100%	0.100%	0.100%	0.100%
26	0.120%	0.120%	0.120%	0.120%
27	0.140%	0.140%	0.140%	0.140%
28	0.160%	0.160%	0.160%	0.160%
29	0.180%	0.180%	0.180%	0.180%
30	0.200%	0.200%	0.200%	0.200%
31	0.220%	0.220%	0.220%	0.220%
32	0.240%	0.240%	0.240%	0.240%
33	0.260%	0.260%	0.260%	0.260%
34	0.280%	0.280%	0.280%	0.280%
35	0.300%	0.300%	0.300%	0.300%
36	0.320%	0.320%	0.320%	0.320%
37	0.340%	0.340%	0.340%	0.340%
38	0.360%	0.360%	0.360%	0.360%
39	0.380%	0.380%	0.380%	0.380%
40	0.400%	0.400%	0.400%	0.400%
41	0.420%	0.420%	0.420%	0.420%
42	0.440%	0.440%	0.440%	0.440%
43	0.460%	0.460%	0.460%	0.460%
44	0.480%	0.480%	0.480%	0.480%
45	0.500%	0.500%	0.500%	0.500%
46	0.520%	0.520%	0.520%	0.520%
47	0.540%	0.540%	0.540%	0.540%
48	0.560%	0.560%	0.560%	0.560%
49	0.580%	0.580%	0.580%	0.580%
50	0.600%	0.600%	0.600%	0.600%
51	0.620%	0.620%	0.620%	0.620%
52	0.640%	0.640%	0.640%	0.640%
53	0.660%	0.660%	0.660%	0.660%
54	0.680%	0.680%	0.680%	0.680%
55	0.700%	0.700%	0.700%	0.700%
56	0.720%	0.720%	0.720%	0.720%
57	0.740%	0.740%	0.740%	0.740%
58	0.760%	0.760%	0.760%	0.760%
59	0.780%	0.780%	0.780%	0.780%
60	0.800%	0.800%	0.800%	0.800%
61	0.820%	0.820%	0.820%	0.820%
62	0.840%	0.840%	0.840%	0.840%
63	0.860%	0.860%	0.860%	0.860%
64	0.880%	0.880%	0.880%	0.880%
65	0.900%	0.900%	0.900%	0.900%
66	0.920%	0.920%	0.920%	0.920%
67	0.940%	0.940%	0.940%	0.940%
68	0.960%	0.960%	0.960%	0.960%
69	0.980%	0.980%	0.980%	0.980%
≥ 70	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF ORDINARY DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Males	Females	Males	Females
15	N/A	N/A	0.100%	0.100%
16	N/A	N/A	0.100%	0.100%
17	N/A	N/A	0.100%	0.100%
18	N/A	N/A	0.100%	0.100%
19	0.100%	0.100%	0.100%	0.100%
20	0.100%	0.100%	0.100%	0.100%
21	0.100%	0.100%	0.100%	0.100%
22	0.100%	0.100%	0.100%	0.100%
23	0.100%	0.100%	0.100%	0.100%
24	0.100%	0.100%	0.100%	0.100%
25	0.100%	0.100%	0.100%	0.100%
26	0.100%	0.100%	0.100%	0.100%
27	0.100%	0.100%	0.100%	0.100%
28	0.100%	0.100%	0.100%	0.100%
29	0.100%	0.100%	0.100%	0.100%
30	0.100%	0.100%	0.100%	0.100%
31	0.120%	0.120%	0.120%	0.120%
32	0.140%	0.140%	0.140%	0.140%
33	0.160%	0.160%	0.160%	0.160%
34	0.180%	0.180%	0.180%	0.180%
35	0.200%	0.200%	0.200%	0.200%
36	0.220%	0.220%	0.220%	0.220%
37	0.240%	0.240%	0.240%	0.240%
38	0.260%	0.260%	0.260%	0.260%
39	0.280%	0.280%	0.280%	0.280%
40	0.300%	0.300%	0.300%	0.300%
41	0.320%	0.320%	0.320%	0.320%
42	0.340%	0.340%	0.340%	0.340%
43	0.360%	0.360%	0.360%	0.360%
44	0.380%	0.380%	0.380%	0.380%
45	0.400%	0.400%	0.400%	0.400%
46	0.420%	0.420%	0.420%	0.420%
47	0.440%	0.440%	0.440%	0.440%
48	0.460%	0.460%	0.460%	0.460%
49	0.480%	0.480%	0.480%	0.480%
50	0.500%	0.500%	0.500%	0.500%
51	0.520%	0.520%	0.520%	0.520%
52	0.540%	0.540%	0.540%	0.540%
53	0.560%	0.560%	0.560%	0.560%
54	0.580%	0.580%	0.580%	0.580%
55	0.600%	0.600%	0.600%	0.600%
56	0.620%	0.620%	0.620%	0.620%
57	0.640%	0.640%	0.640%	0.640%
58	0.660%	0.660%	0.660%	0.660%
59	0.680%	0.680%	0.680%	0.680%
60	0.700%	0.700%	0.700%	0.700%
61	0.720%	0.720%	0.720%	0.720%
62	0.740%	0.740%	0.740%	0.740%
≥ 63	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF ACCIDENTAL DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Males	Females	Males	Females
15	N/A	N/A	0.028%	0.014%
16	N/A	N/A	0.028%	0.014%
17	N/A	N/A	0.028%	0.014%
18	N/A	N/A	0.028%	0.014%
19	0.040%	0.020%	0.028%	0.014%
20	0.040%	0.020%	0.028%	0.014%
21	0.040%	0.020%	0.028%	0.014%
22	0.040%	0.020%	0.028%	0.014%
23	0.040%	0.020%	0.028%	0.014%
24	0.040%	0.020%	0.028%	0.014%
25	0.040%	0.020%	0.028%	0.014%
26	0.040%	0.020%	0.028%	0.014%
27	0.040%	0.020%	0.028%	0.014%
28	0.040%	0.020%	0.028%	0.014%
29	0.040%	0.020%	0.028%	0.014%
30	0.040%	0.020%	0.028%	0.014%
31	0.040%	0.020%	0.028%	0.014%
32	0.040%	0.020%	0.028%	0.014%
33	0.040%	0.020%	0.028%	0.014%
34	0.040%	0.020%	0.028%	0.014%
35	0.040%	0.020%	0.028%	0.014%
36	0.040%	0.020%	0.028%	0.014%
37	0.040%	0.020%	0.028%	0.014%
38	0.040%	0.020%	0.028%	0.014%
39	0.040%	0.020%	0.028%	0.014%
40	0.040%	0.020%	0.028%	0.014%
41	0.040%	0.020%	0.028%	0.014%
42	0.040%	0.020%	0.028%	0.014%
43	0.040%	0.020%	0.028%	0.014%
44	0.040%	0.020%	0.028%	0.014%
45	0.040%	0.020%	0.028%	0.014%
46	0.040%	0.020%	0.028%	0.014%
47	0.040%	0.020%	0.028%	0.014%
48	0.040%	0.020%	0.028%	0.014%
49	0.040%	0.020%	0.028%	0.014%
50	0.040%	0.020%	0.028%	0.014%
51	0.040%	0.020%	0.028%	0.014%
52	0.040%	0.020%	0.028%	0.014%
53	0.040%	0.020%	0.028%	0.014%
54	0.040%	0.020%	0.028%	0.014%
55	0.040%	0.020%	0.028%	0.014%
56	0.040%	0.020%	0.028%	0.014%
57	0.040%	0.020%	0.028%	0.014%
58	0.040%	0.020%	0.028%	0.014%
59	0.040%	0.020%	0.028%	0.014%
60	0.040%	0.020%	0.028%	0.014%
61	0.040%	0.020%	0.028%	0.014%
62	0.040%	0.020%	0.028%	0.014%
63	0.040%	0.020%	0.028%	0.014%
64	0.040%	0.020%	0.028%	0.014%
65	0.040%	0.020%	0.028%	0.014%
66	0.040%	0.020%	0.028%	0.014%
67	0.040%	0.020%	0.028%	0.014%
68	0.040%	0.020%	0.028%	0.014%
69	0.040%	0.020%	0.028%	0.014%
70	N/A	N/A	0.028%	0.014%
71	N/A	N/A	0.028%	0.014%
72	N/A	N/A	0.028%	0.014%
73	N/A	N/A	0.028%	0.014%
74	N/A	N/A	0.028%	0.014%
75	N/A	N/A	0.028%	0.014%
76	N/A	N/A	0.028%	0.014%
77	N/A	N/A	0.028%	0.014%
78	N/A	N/A	0.028%	0.014%
79	N/A	N/A	0.028%	0.014%
≥ 80	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF ACCIDENTAL DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Tier 1, 2, 4 and Tier 6 Enhanced	Tier 6 Non-Enhanced	Tier 1, 2, 4 and Tier 6 Enhanced	Tier 6 Non-Enhanced
15	N/A	N/A	0.100%	0.050%
16	N/A	N/A	0.100%	0.050%
17	N/A	N/A	0.100%	0.050%
18	N/A	N/A	0.100%	0.050%
19	0.100%	0.050%	0.100%	0.050%
20	0.100%	0.050%	0.100%	0.050%
21	0.100%	0.050%	0.100%	0.050%
22	0.100%	0.050%	0.100%	0.050%
23	0.100%	0.050%	0.100%	0.050%
24	0.100%	0.050%	0.100%	0.050%
25	0.100%	0.050%	0.100%	0.050%
26	0.110%	0.055%	0.110%	0.055%
27	0.120%	0.060%	0.120%	0.060%
28	0.130%	0.065%	0.130%	0.065%
29	0.140%	0.070%	0.140%	0.070%
30	0.150%	0.075%	0.150%	0.075%
31	0.160%	0.080%	0.160%	0.080%
32	0.170%	0.085%	0.170%	0.085%
33	0.180%	0.090%	0.180%	0.090%
34	0.190%	0.095%	0.190%	0.095%
35	0.200%	0.100%	0.200%	0.100%
36	0.210%	0.105%	0.210%	0.105%
37	0.220%	0.110%	0.220%	0.110%
38	0.230%	0.115%	0.230%	0.115%
39	0.240%	0.120%	0.240%	0.120%
40	0.250%	0.125%	0.250%	0.125%
41	0.260%	0.130%	0.260%	0.130%
42	0.270%	0.135%	0.270%	0.135%
43	0.280%	0.140%	0.280%	0.140%
44	0.290%	0.145%	0.290%	0.145%
45	0.300%	0.150%	0.300%	0.150%
46	0.340%	0.170%	0.340%	0.170%
47	0.380%	0.190%	0.380%	0.190%
48	0.420%	0.210%	0.420%	0.210%
49	0.460%	0.230%	0.460%	0.230%
50	0.500%	0.250%	0.500%	0.250%
51	0.560%	0.280%	0.560%	0.280%
52	0.620%	0.310%	0.620%	0.310%
53	0.680%	0.340%	0.680%	0.340%
54	0.740%	0.370%	0.740%	0.370%
55	0.800%	0.400%	0.800%	0.400%
56	0.880%	0.440%	0.880%	0.440%
57	0.960%	0.480%	0.960%	0.480%
58	1.040%	0.520%	1.040%	0.520%
59	1.120%	0.560%	1.120%	0.560%
60	1.200%	0.600%	1.200%	0.600%
61	1.300%	0.650%	1.300%	0.650%
62	1.400%	0.700%	1.400%	0.700%
63	1.500%	0.750%	1.500%	0.750%
64	1.600%	0.800%	1.600%	0.800%
65	1.700%	0.850%	1.700%	0.850%
66	1.820%	0.910%	1.820%	0.910%
67	1.940%	0.970%	1.940%	0.970%
68	2.060%	1.030%	2.060%	1.030%
69	2.180%	1.090%	2.180%	1.090%
≥ 70	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF ACCIDENTAL DISABILITY FOR ACTIVE MEMBERS

Age	Current		Proposed	
	Tier 1, 2, 4 and Tier 6 Enhanced	Tier 6 Non-Enhanced	Tier 1, 2, 4 and Tier 6 Enhanced	Tier 6 Non-Enhanced
15	N/A	N/A	0.250%	0.125%
16	N/A	N/A	0.250%	0.125%
17	N/A	N/A	0.250%	0.125%
18	N/A	N/A	0.250%	0.125%
19	0.200%	0.100%	0.250%	0.125%
20	0.200%	0.100%	0.250%	0.125%
21	0.210%	0.110%	0.263%	0.138%
22	0.220%	0.110%	0.275%	0.138%
23	0.230%	0.120%	0.288%	0.150%
24	0.240%	0.120%	0.300%	0.150%
25	0.250%	0.130%	0.313%	0.163%
26	0.260%	0.130%	0.325%	0.163%
27	0.270%	0.140%	0.338%	0.175%
28	0.280%	0.140%	0.350%	0.175%
29	0.290%	0.150%	0.363%	0.188%
30	0.300%	0.150%	0.375%	0.188%
31	0.310%	0.160%	0.388%	0.200%
32	0.320%	0.160%	0.400%	0.200%
33	0.330%	0.170%	0.413%	0.213%
34	0.340%	0.170%	0.425%	0.213%
35	0.350%	0.180%	0.438%	0.225%
36	0.360%	0.180%	0.450%	0.225%
37	0.370%	0.190%	0.463%	0.238%
38	0.380%	0.190%	0.475%	0.238%
39	0.390%	0.200%	0.488%	0.250%
40	0.400%	0.200%	0.500%	0.250%
41	0.410%	0.210%	0.513%	0.263%
42	0.420%	0.210%	0.525%	0.263%
43	0.430%	0.220%	0.538%	0.275%
44	0.440%	0.220%	0.550%	0.275%
45	0.450%	0.230%	0.563%	0.288%
46	0.460%	0.230%	0.575%	0.288%
47	0.470%	0.240%	0.588%	0.300%
48	0.480%	0.240%	0.600%	0.300%
49	0.490%	0.250%	0.613%	0.313%
50	0.500%	0.250%	0.625%	0.313%
51	0.520%	0.260%	0.650%	0.325%
52	0.540%	0.270%	0.675%	0.338%
53	0.560%	0.280%	0.700%	0.350%
54	0.580%	0.290%	0.725%	0.363%
55	0.600%	0.300%	0.750%	0.375%
56	0.620%	0.310%	0.775%	0.388%
57	0.640%	0.320%	0.800%	0.400%
58	0.660%	0.330%	0.825%	0.413%
59	0.680%	0.340%	0.850%	0.425%
60	0.700%	0.350%	0.875%	0.438%
61	0.720%	0.360%	0.900%	0.450%
62	0.740%	0.370%	0.925%	0.463%
≥ 63	N/A	N/A	N/A	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

MANDATED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 54	20.00%	15.00%	10.00%	8.00%	5.00%
55	20.00%	15.00%	10.00%	8.00%	5.00%
56	20.00%	15.00%	10.00%	8.00%	5.00%
57	20.00%	15.00%	10.00%	8.00%	5.00%
58	20.00%	15.00%	10.00%	8.00%	5.00%
59	20.00%	15.00%	10.00%	8.00%	5.00%
60	20.00%	15.00%	10.00%	8.00%	5.00%
61	20.00%	15.00%	15.00%	8.00%	7.50%
62	30.00%	25.00%	20.00%	30.00%/8.00%*	10.00%
63	20.00%	15.00%	15.00%	20.00%/30.00%**	15.00%
64	20.00%	15.00%	15.00%	20.00%	15.00%
65	30.00%	25.00%	20.00%	30.00%	20.00%
66	20.00%	15.00%	15.00%	20.00%	15.00%
67	20.00%	15.00%	15.00%	20.00%	15.00%
68	20.00%	15.00%	15.00%	20.00%	15.00%
69	20.00%	15.00%	15.00%	20.00%	15.00%
70	100.00%	100.00%	100.00%	25.00%	25.00%
71	100.00%	100.00%	100.00%	25.00%	25.00%
72	100.00%	100.00%	100.00%	25.00%	25.00%
73	100.00%	100.00%	100.00%	25.00%	25.00%
74	100.00%	100.00%	100.00%	25.00%	25.00%
75	100.00%	100.00%	100.00%	25.00%	25.00%
76	100.00%	100.00%	100.00%	25.00%	25.00%
77	100.00%	100.00%	100.00%	25.00%	25.00%
78	100.00%	100.00%	100.00%	25.00%	25.00%
79	100.00%	100.00%	100.00%	25.00%	25.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

*30.00% for Tier 1, 2, & 4 members and 8.00% for Tier 6 members.

**20.00% for Tier 1, 2 & 4 members and 30.00% for Tier 6 members.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

ELECTED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 54	40.00%	20.00%	15.00%	40.00%	15.00%
55	40.00%	20.00%	15.00%	40.00%	15.00%
56	40.00%	20.00%	15.00%	40.00%	15.00%
57	40.00%	20.00%	15.00%	40.00%	15.00%
58	40.00%	20.00%	15.00%	40.00%	15.00%
59	40.00%	20.00%	15.00%	40.00%	15.00%
60	40.00%	20.00%	15.00%	40.00%	15.00%
61	40.00%	20.00%	15.00%	40.00%	15.00%
62	60.00%	25.00%	25.00%	60.00%	25.00%
63	40.00%	20.00%	20.00%	40.00%	20.00%
64	40.00%	20.00%	20.00%	40.00%	20.00%
65	60.00%	25.00%	25.00%	60.00%	25.00%
66	40.00%	20.00%	20.00%	40.00%	20.00%
67	40.00%	20.00%	20.00%	40.00%	20.00%
68	40.00%	20.00%	20.00%	40.00%	20.00%
69	40.00%	20.00%	20.00%	40.00%	20.00%
70	100.00%	100.00%	100.00%	40.00%	25.00%
71	100.00%	100.00%	100.00%	40.00%	25.00%
72	100.00%	100.00%	100.00%	40.00%	25.00%
73	100.00%	100.00%	100.00%	40.00%	25.00%
74	100.00%	100.00%	100.00%	40.00%	25.00%
75	100.00%	100.00%	100.00%	40.00%	25.00%
76	100.00%	100.00%	100.00%	40.00%	25.00%
77	100.00%	100.00%	100.00%	40.00%	25.00%
78	100.00%	100.00%	100.00%	40.00%	25.00%
79	100.00%	100.00%	100.00%	40.00%	25.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF EARLY SERVICE RETIREMENT

Age	Current	Proposed
≤ 54	0.00%	0.00%
55	2.00%	3.50%
56	2.00%	3.50%
57	2.00%	3.50%
58	2.00%	3.50%
59	3.00%	5.25%
60	4.00%	7.00%
61	5.00%	8.00%
62	0.00%	8.00%*
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

*8.00% only applies to Tier 6 members; 0.00% otherwise.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

MANDATED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 54	25.00%	15.00%	15.00%	30.00%	15.00%
55	25.00%	15.00%	15.00%	30.00%	15.00%
56	25.00%	15.00%	15.00%	30.00%	15.00%
57	25.00%	15.00%	15.00%	30.00%	15.00%
58	25.00%	15.00%	15.00%	30.00%	15.00%
59	25.00%	15.00%	15.00%	30.00%	15.00%
60	30.00%	15.00%	15.00%	35.00%	15.00%
61	40.00%	20.00%	20.00%	45.00%	20.00%
62	50.00%	40.00%	40.00%	20.00%	20.00%
63	40.00%	30.00%	30.00%	20.00%	20.00%
64	40.00%	30.00%	30.00%	20.00%	20.00%
65	50.00%	40.00%	40.00%	25.00%	25.00%
66	40.00%	30.00%	30.00%	20.00%	20.00%
67	40.00%	30.00%	30.00%	20.00%	20.00%
68	40.00%	30.00%	30.00%	20.00%	20.00%
69	40.00%	30.00%	30.00%	20.00%	20.00%
70	100.00%	100.00%	100.00%	25.00%	25.00%
71	100.00%	100.00%	100.00%	25.00%	25.00%
72	100.00%	100.00%	100.00%	25.00%	25.00%
73	100.00%	100.00%	100.00%	25.00%	25.00%
74	100.00%	100.00%	100.00%	25.00%	25.00%
75	100.00%	100.00%	100.00%	25.00%	25.00%
76	100.00%	100.00%	100.00%	25.00%	25.00%
77	100.00%	100.00%	100.00%	25.00%	25.00%
78	100.00%	100.00%	100.00%	25.00%	25.00%
79	100.00%	100.00%	100.00%	25.00%	25.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

ELECTED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 54	25.00%	15.00%	15.00%	25.00%	15.00%
55	25.00%	15.00%	15.00%	25.00%	15.00%
56	25.00%	15.00%	15.00%	25.00%	15.00%
57	25.00%	15.00%	15.00%	25.00%	15.00%
58	25.00%	15.00%	15.00%	25.00%	15.00%
59	25.00%	15.00%	15.00%	25.00%	15.00%
60	30.00%	15.00%	15.00%	30.00%	15.00%
61	40.00%	20.00%	20.00%	40.00%	20.00%
62	50.00%	40.00%	40.00%	50.00%	40.00%
63	40.00%	30.00%	30.00%	40.00%	30.00%
64	40.00%	30.00%	30.00%	40.00%	30.00%
65	50.00%	40.00%	40.00%	50.00%	40.00%
66	40.00%	30.00%	30.00%	40.00%	30.00%
67	40.00%	30.00%	30.00%	40.00%	30.00%
68	40.00%	30.00%	30.00%	40.00%	30.00%
69	40.00%	30.00%	30.00%	40.00%	30.00%
70	100.00%	100.00%	100.00%	40.00%	30.00%
71	100.00%	100.00%	100.00%	40.00%	30.00%
72	100.00%	100.00%	100.00%	40.00%	30.00%
73	100.00%	100.00%	100.00%	40.00%	30.00%
74	100.00%	100.00%	100.00%	40.00%	30.00%
75	100.00%	100.00%	100.00%	40.00%	30.00%
76	100.00%	100.00%	100.00%	40.00%	30.00%
77	100.00%	100.00%	100.00%	40.00%	30.00%
78	100.00%	100.00%	100.00%	40.00%	30.00%
79	100.00%	100.00%	100.00%	40.00%	30.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

	NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT PROBABILITIES OF EARLY SERVICE RETIREMENT	
Age	**Current**	**Proposed**
≤ 54	0.00%	0.00%
55	2.00%	2.00%
56	2.00%	2.00%
57	2.00%	2.00%
58	2.00%	2.00%
59	3.00%	3.00%
60	4.00%	4.00%
61	5.00%	5.00%
62	0.00%	5.00%*
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

*5.00% only applies to Tier 6 members; 0.00% otherwise.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

MANDATED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 54	30.00%	20.00%	20.00%	30.00%	20.00%
55	30.00%	20.00%	20.00%	30.00%	20.00%
56	30.00%	20.00%	20.00%	30.00%	20.00%
57	30.00%	20.00%	20.00%	30.00%	20.00%
58	30.00%	20.00%	20.00%	30.00%	20.00%
59	30.00%	20.00%	20.00%	30.00%	20.00%
60	30.00%	20.00%	20.00%	30.00%	20.00%
61	30.00%	30.00%	30.00%	30.00%	30.00%
62	40.00%	40.00%	40.00%	40.00%	40.00%
63	30.00%	30.00%	30.00%	30.00%	30.00%
64	30.00%	30.00%	30.00%	30.00%	30.00%
65	40.00%	40.00%	40.00%	40.00%	40.00%
66	30.00%	30.00%	30.00%	30.00%	30.00%
67	30.00%	30.00%	30.00%	30.00%	30.00%
68	30.00%	30.00%	30.00%	30.00%	30.00%
69	30.00%	30.00%	30.00%	30.00%	30.00%
70	100.00%	100.00%	100.00%	30.00%	30.00%
71	100.00%	100.00%	100.00%	30.00%	30.00%
72	100.00%	100.00%	100.00%	30.00%	30.00%
73	100.00%	100.00%	100.00%	30.00%	30.00%
74	100.00%	100.00%	100.00%	30.00%	30.00%
75	100.00%	100.00%	100.00%	30.00%	30.00%
76	100.00%	100.00%	100.00%	30.00%	30.00%
77	100.00%	100.00%	100.00%	30.00%	30.00%
78	100.00%	100.00%	100.00%	30.00%	30.00%
79	100.00%	100.00%	100.00%	30.00%	30.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

ELECTED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 54	60.00%	30.00%	30.00%	60.00%	30.00%
55	60.00%	30.00%	30.00%	60.00%	30.00%
56	60.00%	30.00%	30.00%	60.00%	30.00%
57	60.00%	30.00%	30.00%	60.00%	30.00%
58	60.00%	30.00%	30.00%	60.00%	30.00%
59	60.00%	30.00%	30.00%	60.00%	30.00%
60	60.00%	30.00%	30.00%	60.00%	30.00%
61	60.00%	30.00%	30.00%	60.00%	30.00%
62	60.00%	40.00%	40.00%	60.00%	40.00%
63	40.00%	30.00%	30.00%	40.00%	30.00%
64	40.00%	30.00%	30.00%	40.00%	30.00%
65	60.00%	40.00%	40.00%	60.00%	40.00%
66	40.00%	30.00%	30.00%	40.00%	30.00%
67	40.00%	30.00%	30.00%	40.00%	30.00%
68	40.00%	30.00%	30.00%	40.00%	30.00%
69	40.00%	30.00%	30.00%	40.00%	30.00%
70	100.00%	100.00%	100.00%	40.00%	30.00%
71	100.00%	100.00%	100.00%	40.00%	30.00%
72	100.00%	100.00%	100.00%	40.00%	30.00%
73	100.00%	100.00%	100.00%	40.00%	30.00%
74	100.00%	100.00%	100.00%	40.00%	30.00%
75	100.00%	100.00%	100.00%	40.00%	30.00%
76	100.00%	100.00%	100.00%	40.00%	30.00%
77	100.00%	100.00%	100.00%	40.00%	30.00%
78	100.00%	100.00%	100.00%	40.00%	30.00%
79	100.00%	100.00%	100.00%	40.00%	30.00%
≥ 80	100.00%	100.00%	100.00%	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

PROBABILITIES OF EARLY SERVICE RETIREMENT

Age	Current & Proposed
≤ 54	0.00%
55	2.00%
56	2.00%
57	2.00%
58	2.00%
59	3.00%
60	4.00%
61	5.00%
62	0.00%
63	0.00%
64	0.00%
65	0.00%
66	0.00%
67	0.00%
68	0.00%
69	0.00%
70	N/A
71	N/A
72	N/A
73	N/A
74	N/A
75	N/A
76	N/A
77	N/A
78	N/A
79	N/A
≥ 80	N/A

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

MANDATED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 45	40.00%	20.00%	20.00%	30.00%	10.00%
46	40.00%	20.00%	20.00%	30.00%	10.00%
47	40.00%	20.00%	20.00%	30.00%	10.00%
48	40.00%	20.00%	20.00%	30.00%	10.00%
49	40.00%	20.00%	20.00%	30.00%	10.00%
50	40.00%	20.00%	20.00%	30.00%	10.00%
51	40.00%	20.00%	20.00%	30.00%	10.00%
52	40.00%	20.00%	20.00%	30.00%	10.00%
53	40.00%	20.00%	20.00%	30.00%	10.00%
54	40.00%	20.00%	20.00%	30.00%	10.00%
55	40.00%	20.00%	20.00%	30.00%	10.00%
56	40.00%	20.00%	20.00%	30.00%	10.00%
57	40.00%	20.00%	20.00%	30.00%	10.00%
58	40.00%	20.00%	20.00%	30.00%	10.00%
59	40.00%	20.00%	20.00%	30.00%	10.00%
60	40.00%	20.00%	20.00%	30.00%	10.00%
61	40.00%	30.00%	30.00%	30.00%	15.00%
62	60.00%	40.00%	40.00%	45.00%/30.00%*	20.00%/15.00%**
63	40.00%	30.00%	30.00%	30.00%	15.00%
64	40.00%	30.00%	30.00%	30.00%	15.00%
65	60.00%	40.00%	40.00%	45.00%	20.00%
66	40.00%	30.00%	30.00%	30.00%	15.00%
67	40.00%	30.00%	30.00%	30.00%	15.00%
68	40.00%	30.00%	30.00%	30.00%	15.00%
69	40.00%	30.00%	30.00%	30.00%	15.00%
≥ 70	100.00%	100.00%	100.00%	100.00%	100.00%

*45.00% for Tier 1, 2 & 4 members and 30.00% for Tier 6 members.

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

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

ELECTED PLAN MEMBERS

Age	Current			Proposed	
	Year 1	Year 2	Ultimate	Year 1	Ultimate
≤ 45	40.00%	20.00%	15.00%	40.00%	15.00%
46	42.00%	20.00%	15.00%	42.00%	15.00%
47	44.00%	20.00%	15.00%	44.00%	15.00%
48	46.00%	20.00%	15.00%	46.00%	15.00%
49	48.00%	20.00%	15.00%	48.00%	15.00%
50	50.00%	20.00%	15.00%	50.00%	15.00%
51	52.00%	20.00%	15.00%	52.00%	15.00%
52	54.00%	20.00%	15.00%	54.00%	15.00%
53	56.00%	20.00%	15.00%	56.00%	15.00%
54	58.00%	20.00%	15.00%	58.00%	15.00%
55	60.00%	20.00%	15.00%	60.00%	15.00%
56	60.00%	20.00%	16.00%	60.00%	16.00%
57	60.00%	20.00%	17.00%	60.00%	17.00%
58	60.00%	20.00%	18.00%	60.00%	18.00%
59	60.00%	20.00%	19.00%	60.00%	19.00%
60	60.00%	20.00%	20.00%	60.00%	20.00%
61	60.00%	30.00%	25.00%	60.00%	25.00%
62	60.00%	40.00%	30.00%	60.00%	30.00%
63	40.00%	30.00%	20.00%	40.00%	20.00%
64	40.00%	30.00%	20.00%	40.00%	20.00%
65	60.00%	40.00%	30.00%	60.00%	30.00%
66	40.00%	30.00%	20.00%	40.00%	20.00%
67	40.00%	30.00%	20.00%	40.00%	20.00%
68	40.00%	30.00%	20.00%	40.00%	20.00%
69	40.00%	30.00%	20.00%	40.00%	20.00%
≥ 70	100.00%	100.00%	100.00%	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF EARLY SERVICE RETIREMENT

Age	Tier 1, 2 & 4		Tier 6	
	Current	Proposed	Service	Current & Proposed
≤ 54	0.00%	0.00%	≤ 19	0.00%
55	2.00%	4.00%	20	5.00%
56	2.00%	4.00%	21	2.00%
57	2.00%	4.00%	22	5.00%
58	2.00%	4.00%	23	2.00%
59	3.00%	6.00%	24	2.00%
60	4.00%	8.00%	≥ 25	N/A
61	5.00%	10.00%		
62	0.00%	0.00%		
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	N/A		

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

MANDATED PLAN MEMBERS

Age	Current & Proposed	
	Year 1	Ultimate
≤ 54	60.00%	20.00%
55	60.00%	20.00%
56	60.00%	20.00%
57	60.00%	20.00%
58	60.00%	20.00%
59	60.00%	20.00%
60	60.00%	20.00%
61	60.00%	30.00%
62	60.00%	40.00%
≥ 63	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF UNREDUCED SERVICE RETIREMENT

ELECTED PLAN MEMBERS

Age	Current & Proposed	
	Year 1	Ultimate
≤ 54	70.00%	20.00%
55	70.00%	20.00%
56	70.00%	20.00%
57	70.00%	20.00%
58	70.00%	20.00%
59	70.00%	20.00%
60	70.00%	20.00%
61	70.00%	30.00%
62	70.00%	40.00%
≥ 63	100.00%	100.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF EARLY SERVICE RETIREMENT

Age	Tier 1, 2 & 3 Current & Proposed	Service	Tier 6 Current & Proposed
≤ 54	0.00%	≤ 19	0.00%
55	2.00%	20	5.00%
56	2.00%	21	2.00%
57	2.00%	22	5.00%
58	2.00%	23	2.00%
59	3.00%	24	2.00%
60	4.00%	≥ 25	N/A
61	5.00%		
62	0.00%		
≥ 63	N/A		

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM
GENERAL, TRANSIT, TBTA, SANITATION & CORRECTION

PROBABILITIES OF MORTALITY FOR SERVICE RETIREES
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 EMPLOYEES' RETIREMENT SYSTEM
GENERAL, TRANSIT, TBTA, SANITATION & CORRECTION

PROBABILITIES OF MORTALITY FOR SERVICE RETIREES
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 EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.2163%	68	4.4101%	3.8171%
16	N/A	0.2927%	69	4.4875%	3.8682%
17	N/A	0.3945%	70	4.5720%	3.9318%
18	N/A	0.4581%	71	4.8328%	4.1518%
19	0.6085%	0.4963%	72	5.1177%	4.3957%
20	0.6349%	0.5178%	73	5.4285%	4.6660%
21	0.6653%	0.5589%	74	5.7666%	4.9632%
22	0.6967%	0.6029%	75	6.1335%	5.2904%
23	0.7293%	0.6500%	76	6.6325%	5.7355%
24	0.7632%	0.7005%	77	7.1754%	6.2253%
25	0.7982%	0.7524%	78	7.7646%	6.7606%
26	0.8344%	0.8054%	79	8.4028%	7.3471%
27	0.8720%	0.8591%	80	9.0925%	7.9843%
28	0.9109%	0.9126%	81	9.8362%	8.6745%
29	0.9512%	0.9647%	82	10.6359%	9.4240%
30	0.9929%	1.0136%	83	11.4988%	10.2386%
31	1.0361%	1.0584%	84	12.4300%	11.1186%
32	1.0807%	1.0978%	85	13.4352%	12.0742%
33	1.1269%	1.1310%	86	14.1923%	12.8184%
34	1.1748%	1.1597%	87	14.7158%	13.3550%
35	1.2244%	1.1838%	88	15.3967%	14.0470%
36	1.2756%	1.2035%	89	16.1061%	14.7705%
37	1.3285%	1.2211%	90	16.8444%	15.5356%
38	1.3833%	1.2388%	91	18.7340%	17.3803%
39	1.4399%	1.2591%	92	20.8423%	19.4620%
40	1.4986%	1.2846%	93	22.8765%	21.5002%
41	1.5527%	1.3114%	94	24.8644%	23.5320%
42	1.6083%	1.3750%	95	26.8356%	25.5906%
43	1.6657%	1.4416%	96	28.6599%	27.4494%
44	1.7247%	1.5115%	97	30.3417%	29.1839%
45	1.7854%	1.5849%	98	31.9520%	30.8635%
46	1.8505%	1.6617%	99	33.2679%	32.2842%
47	1.9161%	1.7422%	100	34.3180%	33.4447%
48	2.0123%	1.8267%	101	35.8628%	35.1022%
49	2.1105%	1.9153%	102	37.1685%	36.5309%
50	2.2111%	2.0462%	103	38.3040%	37.8218%
51	2.3628%	2.2291%	104	39.2003%	38.8787%
52	2.5209%	2.4215%	105	39.7886%	39.6293%
53	2.6877%	2.6231%	106	40.0000%	40.0086%
54	2.8612%	2.8293%	107	40.0000%	40.1778%
55	3.0411%	3.0344%	108	40.0000%	40.3599%
56	3.1101%	3.1146%	109	40.0000%	40.5386%
57	3.1789%	3.1774%	110	100.0000%	50.0000%
58	3.2482%	3.2218%	111	N/A	50.0000%
59	3.3180%	3.2493%	112	N/A	50.0000%
60	3.3885%	3.2648%	113	N/A	50.0000%
61	3.5379%	3.3472%	114	N/A	50.0000%
62	3.6942%	3.4295%	115	N/A	50.0000%
63	3.8579%	3.5199%	116	N/A	50.0000%
64	4.0308%	3.6208%	117	N/A	50.0000%
65	4.2146%	3.7368%	118	N/A	50.0000%
66	4.2740%	3.7511%	119	N/A	50.0000%
67	4.3391%	3.7776%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.1980%	68	3.4969%	2.9280%
16	N/A	0.2680%	69	3.5668%	2.9997%
17	N/A	0.3612%	70	3.6536%	3.0865%
18	N/A	0.3913%	71	3.7165%	3.1548%
19	0.5256%	0.4214%	72	4.0156%	3.4254%
20	0.5508%	0.4416%	73	4.3517%	3.7295%
21	0.5763%	0.4807%	74	4.6038%	3.9658%
22	0.6011%	0.5231%	75	4.9048%	4.2453%
23	0.6234%	0.5662%	76	5.2027%	4.5234%
24	0.6532%	0.6186%	77	5.4934%	4.7961%
25	0.6841%	0.6680%	78	5.8786%	5.1502%
26	0.7161%	0.7165%	79	6.3569%	5.5873%
27	0.7586%	0.7727%	80	6.9192%	6.0964%
28	0.8080%	0.8346%	81	7.5330%	6.6521%
29	0.8653%	0.9008%	82	8.2017%	7.2551%
30	0.8988%	0.9373%	83	8.9289%	7.9112%
31	0.9275%	0.9629%	84	9.7180%	8.6209%
32	0.9686%	0.9955%	85	10.5082%	9.3370%
33	1.0172%	1.0289%	86	11.2924%	10.0511%
34	1.0679%	1.0577%	87	12.1161%	10.8029%
35	1.1207%	1.0841%	88	12.8141%	11.4531%
36	1.1756%	1.1092%	89	14.0131%	12.5564%
37	1.2331%	1.1344%	90	15.6962%	14.1031%
38	1.2930%	1.1618%	91	17.4458%	15.7291%
39	1.3553%	1.1939%	92	18.9906%	17.1860%
40	1.4115%	1.2249%	93	20.3531%	18.5029%
41	1.4608%	1.2570%	94	21.5243%	19.6588%
42	1.5115%	1.2982%	95	22.6766%	20.8223%
43	1.5637%	1.3497%	96	23.3974%	21.5778%
44	1.6103%	1.4058%	97	23.6605%	21.9133%
45	1.6681%	1.4809%	98	23.6802%	22.0663%
46	1.7276%	1.5639%	99	24.6308%	23.0087%
47	1.7889%	1.6535%	100	24.6509%	23.1230%
48	1.8407%	1.7359%	101	25.0504%	23.6022%
49	1.8962%	1.8218%	102	25.4498%	24.5619%
50	1.9396%	1.8919%	103	26.6044%	25.7825%
51	2.0123%	1.9830%	104	27.9055%	27.1635%
52	2.0723%	2.0502%	105	29.3116%	28.6530%
53	2.1318%	2.1047%	106	30.7811%	30.2169%
54	2.2368%	2.1904%	107	32.2725%	31.8182%
55	2.3434%	2.2636%	108	33.7441%	33.4131%
56	2.4684%	2.3429%	109	35.1544%	34.9566%
57	2.6120%	2.4285%	110	100.0000%	50.0000%
58	2.7933%	2.5412%	111	N/A	50.0000%
59	2.8742%	2.5588%	112	N/A	50.0000%
60	2.9557%	2.5795%	113	N/A	50.0000%
61	3.0386%	2.6067%	114	N/A	50.0000%
62	3.1039%	2.6272%	115	N/A	50.0000%
63	3.1698%	2.6579%	116	N/A	50.0000%
64	3.3299%	2.7759%	117	N/A	50.0000%
65	3.3778%	2.8107%	118	N/A	50.0000%
66	3.4034%	2.8328%	119	N/A	50.0000%
67	3.4429%	2.8725%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT & TBTA

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.2122%	68	4.4101%	3.7437%
16	N/A	0.2871%	69	4.4875%	3.7938%
17	N/A	0.3869%	70	4.5720%	3.8562%
18	N/A	0.4493%	71	4.8328%	4.0719%
19	0.6085%	0.4867%	72	5.1177%	4.3111%
20	0.6349%	0.5079%	73	5.4285%	4.5762%
21	0.6653%	0.5481%	74	5.7666%	4.8677%
22	0.6967%	0.5913%	75	6.1335%	5.1886%
23	0.7293%	0.6375%	76	6.6325%	5.6252%
24	0.7632%	0.6871%	77	7.1754%	6.1056%
25	0.7982%	0.7380%	78	7.7646%	6.6306%
26	0.8344%	0.7899%	79	8.4028%	7.2058%
27	0.8720%	0.8426%	80	9.0925%	7.8307%
28	0.9109%	0.8951%	81	9.8362%	8.5077%
29	0.9512%	0.9462%	82	10.6359%	9.2427%
30	0.9929%	0.9941%	83	11.4988%	10.0417%
31	1.0361%	1.0381%	84	12.4300%	10.9048%
32	1.0807%	1.0767%	85	13.4352%	11.8420%
33	1.1269%	1.1093%	86	14.1923%	12.5719%
34	1.1748%	1.1374%	87	14.7158%	13.0981%
35	1.2244%	1.1611%	88	15.3967%	13.7768%
36	1.2756%	1.1803%	89	16.1061%	14.4864%
37	1.3285%	1.1976%	90	16.8444%	15.2369%
38	1.3833%	1.2150%	91	18.7340%	17.0460%
39	1.4399%	1.2349%	92	20.8423%	19.0878%
40	1.4986%	1.2599%	93	22.8765%	21.0868%
41	1.5527%	1.2862%	94	24.8644%	23.0794%
42	1.6083%	1.3485%	95	26.8356%	25.0984%
43	1.6657%	1.4139%	96	28.6599%	26.9216%
44	1.7247%	1.4825%	97	30.3417%	28.6226%
45	1.7854%	1.5544%	98	31.9520%	30.2699%
46	1.8505%	1.6298%	99	33.2679%	31.6634%
47	1.9161%	1.7087%	100	34.3180%	32.8016%
48	2.0123%	1.7915%	101	35.8628%	34.4271%
49	2.1105%	1.8784%	102	37.1685%	35.8284%
50	2.2111%	2.0069%	103	38.3040%	37.0944%
51	2.3628%	2.1863%	104	39.2003%	38.1311%
52	2.5209%	2.3750%	105	39.7886%	38.8672%
53	2.6877%	2.5726%	106	40.0000%	39.2392%
54	2.8612%	2.7749%	107	40.0000%	39.4052%
55	3.0411%	2.9761%	108	40.0000%	39.5838%
56	3.1101%	3.0547%	109	40.0000%	39.7590%
57	3.1789%	3.1163%	110	100.0000%	50.0000%
58	3.2482%	3.1599%	111	N/A	50.0000%
59	3.3180%	3.1868%	112	N/A	50.0000%
60	3.3885%	3.2020%	113	N/A	50.0000%
61	3.5379%	3.2829%	114	N/A	50.0000%
62	3.6942%	3.3636%	115	N/A	50.0000%
63	3.8579%	3.4522%	116	N/A	50.0000%
64	4.0308%	3.5511%	117	N/A	50.0000%
65	4.2146%	3.6650%	118	N/A	50.0000%
66	4.2740%	3.6789%	119	N/A	50.0000%
67	4.3391%	3.7049%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT & TBTA

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.1981%	68	3.4969%	2.9280%
16	N/A	0.2680%	69	3.5668%	2.9997%
17	N/A	0.3612%	70	3.6536%	3.0865%
18	N/A	0.3913%	71	3.7165%	3.1548%
19	0.5256%	0.4214%	72	4.0156%	3.4254%
20	0.5508%	0.4416%	73	4.3517%	3.7295%
21	0.5763%	0.4807%	74	4.6038%	3.9658%
22	0.6011%	0.5231%	75	4.9048%	4.2453%
23	0.6234%	0.5662%	76	5.2027%	4.5234%
24	0.6532%	0.6186%	77	5.4934%	4.7961%
25	0.6841%	0.6680%	78	5.8786%	5.1502%
26	0.7161%	0.7165%	79	6.3569%	5.5873%
27	0.7586%	0.7727%	80	6.9192%	6.0964%
28	0.8080%	0.8346%	81	7.5330%	6.6521%
29	0.8653%	0.9008%	82	8.2017%	7.2551%
30	0.8988%	0.9373%	83	8.9289%	7.9112%
31	0.9275%	0.9629%	84	9.7180%	8.6209%
32	0.9686%	0.9955%	85	10.5082%	9.3370%
33	1.0172%	1.0289%	86	11.2924%	10.0511%
34	1.0679%	1.0577%	87	12.1161%	10.8029%
35	1.1207%	1.0841%	88	12.8141%	11.4531%
36	1.1756%	1.1092%	89	14.0131%	12.5564%
37	1.2331%	1.1344%	90	15.6962%	14.1031%
38	1.2930%	1.1618%	91	17.4458%	15.7291%
39	1.3553%	1.1939%	92	18.9906%	17.1860%
40	1.4115%	1.2249%	93	20.3531%	18.5029%
41	1.4608%	1.2570%	94	21.5243%	19.6588%
42	1.5115%	1.2982%	95	22.6766%	21.1183%
43	1.5637%	1.3497%	96	23.3974%	22.4310%
44	1.6103%	1.4058%	97	23.6605%	23.5901%
45	1.6681%	1.4809%	98	23.6802%	24.4460%
46	1.7276%	1.5639%	99	24.6308%	24.9756%
47	1.7889%	1.6535%	100	24.6509%	25.0896%
48	1.8407%	1.7359%	101	25.0504%	26.0668%
49	1.8962%	1.8218%	102	25.4498%	27.2107%
50	1.9396%	1.8919%	103	26.6044%	28.5630%
51	2.0123%	1.9830%	104	27.9055%	30.0929%
52	2.0723%	2.0502%	105	29.3116%	31.7431%
53	2.1318%	2.1047%	106	30.7811%	33.4756%
54	2.2368%	2.1904%	107	32.2725%	35.2496%
55	2.3434%	2.2636%	108	33.7441%	37.0164%
56	2.4684%	2.3429%	109	35.1544%	38.7265%
57	2.6120%	2.4285%	110	100.0000%	50.0000%
58	2.7933%	2.5412%	111	N/A	50.0000%
59	2.8742%	2.5588%	112	N/A	50.0000%
60	2.9557%	2.5795%	113	N/A	50.0000%
61	3.0386%	2.6067%	114	N/A	50.0000%
62	3.1039%	2.6272%	115	N/A	50.0000%
63	3.1698%	2.6579%	116	N/A	50.0000%
64	3.3299%	2.7759%	117	N/A	50.0000%
65	3.3778%	2.8107%	118	N/A	50.0000%
66	3.4034%	2.8328%	119	N/A	50.0000%
67	3.4429%	2.8725%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.1891%	68	2.9652%	2.4678%
16	N/A	0.2558%	69	3.1675%	2.6254%
17	N/A	0.3448%	70	3.3886%	2.8020%
18	N/A	0.4004%	71	3.6707%	3.0322%
19	0.5531%	0.4338%	72	3.9812%	3.2880%
20	0.5644%	0.4426%	73	4.3231%	3.5729%
21	0.5786%	0.4674%	74	4.6989%	3.8887%
22	0.5930%	0.4935%	75	5.1113%	4.2391%
23	0.6078%	0.5209%	76	5.5886%	4.6469%
24	0.6230%	0.5498%	77	6.1129%	5.0995%
25	0.6386%	0.5788%	78	6.6872%	5.5986%
26	0.6545%	0.6074%	79	7.3156%	6.1505%
27	0.6708%	0.6355%	80	8.0024%	6.7568%
28	0.6875%	0.6623%	81	8.7995%	7.4618%
29	0.7046%	0.6871%	82	9.5965%	8.1760%
30	0.7222%	0.7089%	83	10.3935%	8.8984%
31	0.7401%	0.7269%	84	11.1905%	9.6249%
32	0.7584%	0.7408%	85	11.9875%	10.3588%
33	0.7773%	0.7501%	86	13.2356%	11.4945%
34	0.7966%	0.7561%	87	14.4838%	12.6389%
35	0.8162%	0.7710%	88	15.7320%	13.8008%
36	0.8365%	0.7862%	89	16.9802%	14.9732%
37	0.8572%	0.8017%	90	18.2283%	16.1654%
38	0.8784%	0.8175%	91	20.3779%	18.1783%
39	0.9000%	0.8336%	92	22.4348%	20.1433%
40	0.9222%	0.8500%	93	24.3812%	22.0331%
41	0.9410%	0.8668%	94	26.2493%	23.8872%
42	0.9602%	0.8839%	95	28.0689%	25.7371%
43	0.9798%	0.9013%	96	29.4999%	27.1672%
44	0.9998%	0.9191%	97	30.8427%	28.5248%
45	1.0202%	0.9372%	98	32.1874%	29.8950%
46	1.0281%	0.9556%	99	33.3301%	31.1005%
47	1.0358%	0.9745%	100	34.3180%	32.1584%
48	1.0591%	0.9937%	101	35.8628%	33.7521%
49	1.0824%	1.0133%	102	37.1685%	35.1259%
50	1.1056%	1.0332%	103	38.3040%	36.3671%
51	1.1615%	1.0536%	104	39.2003%	37.3834%
52	1.2194%	1.1263%	105	39.7886%	38.1051%
53	1.2804%	1.2016%	106	40.0000%	38.4698%
54	1.3435%	1.2775%	107	40.0000%	38.6325%
55	1.4086%	1.3514%	108	40.0000%	38.8076%
56	1.4822%	1.4272%	109	40.0000%	38.9794%
57	1.5587%	1.4980%	110	100.0000%	50.0000%
58	1.6382%	1.5624%	111	N/A	50.0000%
59	1.7211%	1.6206%	112	N/A	50.0000%
60	1.8072%	1.6742%	113	N/A	50.0000%
61	1.9209%	1.7475%	114	N/A	50.0000%
62	2.0414%	1.8222%	115	N/A	50.0000%
63	2.1691%	1.9029%	116	N/A	50.0000%
64	2.3051%	1.9910%	117	N/A	50.0000%
65	2.4511%	2.0897%	118	N/A	50.0000%
66	2.6086%	2.2014%	119	N/A	50.0000%
67	2.7794%	2.3267%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.1809%	68	2.3211%	1.9435%
16	N/A	0.2447%	69	2.4852%	2.0901%
17	N/A	0.3299%	70	2.6480%	2.2370%
18	N/A	0.3831%	71	2.8249%	2.3979%
19	0.5146%	0.4126%	72	3.0176%	2.5741%
20	0.5288%	0.4240%	73	3.2280%	2.7665%
21	0.5431%	0.4530%	74	3.4968%	3.0122%
22	0.5464%	0.4755%	75	3.8156%	3.3026%
23	0.5541%	0.5033%	76	4.1432%	3.6022%
24	0.5682%	0.5381%	77	4.4762%	3.9080%
25	0.5822%	0.5685%	78	4.8989%	4.2919%
26	0.5968%	0.5972%	79	5.3564%	4.7080%
27	0.6193%	0.6308%	80	5.8946%	5.1937%
28	0.6464%	0.6535%	81	6.4877%	5.7290%
29	0.6787%	0.6771%	82	7.1406%	6.3165%
30	0.6914%	0.7014%	83	7.8584%	6.9627%
31	0.7000%	0.7267%	84	8.6937%	7.7122%
32	0.7175%	0.7374%	85	9.4812%	8.4245%
33	0.7399%	0.7484%	86	10.2069%	9.0849%
34	0.7628%	0.7555%	87	10.9897%	9.7986%
35	0.7864%	0.7607%	88	11.7725%	10.5221%
36	0.8110%	0.7652%	89	12.9201%	11.5771%
37	0.8361%	0.7692%	90	14.2242%	12.7805%
38	0.8619%	0.7745%	91	15.5436%	14.0140%
39	0.8887%	0.7829%	92	16.7768%	15.1826%
40	0.9108%	0.7904%	93	18.0102%	16.3730%
41	0.9276%	0.7982%	94	20.1341%	18.3891%
42	0.9448%	0.8115%	95	22.3003%	20.4768%
43	0.9622%	0.8305%	96	23.3974%	21.5778%
44	0.9759%	0.8519%	97	23.6605%	21.9133%
45	0.9959%	0.8842%	98	23.6802%	22.0663%
46	1.0163%	0.9200%	99	24.6308%	23.0087%
47	1.0341%	0.9558%	100	24.6509%	23.1230%
48	1.0518%	0.9919%	101	25.0504%	23.6022%
49	1.0535%	1.0122%	102	25.4498%	24.5619%
50	1.0563%	1.0303%	103	26.6044%	25.7825%
51	1.0591%	1.0437%	104	27.9055%	27.1635%
52	1.0628%	1.0515%	105	29.3116%	28.6530%
53	1.0659%	1.0523%	106	30.7811%	30.2169%
54	1.0995%	1.0767%	107	32.2725%	31.8182%
55	1.1335%	1.0949%	108	33.7441%	33.4131%
56	1.1759%	1.1161%	109	35.1544%	34.9566%
57	1.2264%	1.1402%	110	100.0000%	50.0000%
58	1.2938%	1.1770%	111	N/A	50.0000%
59	1.3698%	1.2195%	112	N/A	50.0000%
60	1.4492%	1.2648%	113	N/A	50.0000%
61	1.5325%	1.3147%	114	N/A	50.0000%
62	1.6100%	1.3627%	115	N/A	50.0000%
63	1.6906%	1.4176%	116	N/A	50.0000%
64	1.8080%	1.5072%	117	N/A	50.0000%
65	1.9213%	1.5987%	118	N/A	50.0000%
66	2.0541%	1.7097%	119	N/A	50.0000%
67	2.1828%	1.8212%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.1529%	68	2.9652%	2.0976%
16	N/A	0.2068%	69	3.1675%	2.2316%
17	N/A	0.2788%	70	3.3886%	2.3817%
18	N/A	0.3328%	71	3.6707%	2.5774%
19	0.5531%	0.3687%	72	3.9812%	2.7948%
20	0.5644%	0.3762%	73	4.3231%	3.0370%
21	0.5786%	0.3973%	74	4.6989%	3.3054%
22	0.5930%	0.4195%	75	5.1113%	3.6032%
23	0.6078%	0.4428%	76	5.5886%	3.9499%
24	0.6230%	0.4673%	77	6.1129%	4.3346%
25	0.6386%	0.4920%	78	6.6872%	4.7588%
26	0.6545%	0.5163%	79	7.3156%	5.2279%
27	0.6708%	0.5402%	80	8.0024%	5.7433%
28	0.6875%	0.5630%	81	8.7995%	6.3425%
29	0.7046%	0.5840%	82	9.5965%	6.9496%
30	0.7222%	0.6026%	83	10.3935%	7.5636%
31	0.7401%	0.6179%	84	11.1905%	8.1812%
32	0.7584%	0.6297%	85	11.9875%	8.8050%
33	0.7773%	0.6376%	86	13.2356%	9.7703%
34	0.7966%	0.6427%	87	14.4838%	10.8005%
35	0.8162%	0.6554%	88	15.7320%	12.0443%
36	0.8365%	0.6683%	89	16.9802%	13.3397%
37	0.8572%	0.6814%	90	18.2283%	14.6958%
38	0.8784%	0.6949%	91	20.3779%	16.4185%
39	0.9000%	0.7086%	92	22.4348%	18.1416%
40	0.9222%	0.7225%	93	24.3812%	19.8574%
41	0.9410%	0.7368%	94	26.2493%	21.6187%
42	0.9602%	0.7513%	95	28.0689%	23.5884%
43	0.9798%	0.7661%	96	29.4999%	25.4266%
44	0.9998%	0.7812%	97	30.8427%	27.2119%
45	1.0202%	0.7966%	98	32.1874%	29.0202%
46	1.0281%	0.8123%	99	33.3301%	30.6654%
47	1.0358%	0.8283%	100	34.3180%	32.1584%
48	1.0591%	0.8446%	101	35.8628%	33.7521%
49	1.0824%	0.8613%	102	37.1685%	35.1259%
50	1.1056%	0.8782%	103	38.3040%	36.3671%
51	1.1615%	0.8956%	104	39.2003%	37.3834%
52	1.2194%	0.9574%	105	39.7886%	38.1051%
53	1.2804%	1.0214%	106	40.0000%	38.4698%
54	1.3435%	1.0859%	107	40.0000%	38.6325%
55	1.4086%	1.1487%	108	40.0000%	38.8076%
56	1.4822%	1.2131%	109	40.0000%	38.9794%
57	1.5587%	1.2733%	110	100.0000%	50.0000%
58	1.6382%	1.3280%	111	N/A	50.0000%
59	1.7211%	1.3775%	112	N/A	50.0000%
60	1.8072%	1.4231%	113	N/A	50.0000%
61	1.9209%	1.4854%	114	N/A	50.0000%
62	2.0414%	1.5489%	115	N/A	50.0000%
63	2.1691%	1.6175%	116	N/A	50.0000%
64	2.3051%	1.6924%	117	N/A	50.0000%
65	2.4511%	1.7762%	118	N/A	50.0000%
66	2.6086%	1.8712%	119	N/A	50.0000%
67	2.7794%	1.9777%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: CORRECTION

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.1504%	68	2.3211%	1.9435%
16	N/A	0.2034%	69	2.4852%	2.0901%
17	N/A	0.2742%	70	2.6480%	2.2370%
18	N/A	0.3273%	71	2.8249%	2.3979%
19	0.5146%	0.3507%	72	3.0176%	2.5741%
20	0.5288%	0.3604%	73	3.2280%	2.7665%
21	0.5431%	0.3851%	74	3.4968%	3.0122%
22	0.5464%	0.4042%	75	3.8156%	3.3026%
23	0.5541%	0.4278%	76	4.1432%	3.6022%
24	0.5682%	0.4574%	77	4.4762%	3.9080%
25	0.5822%	0.4832%	78	4.8989%	4.2919%
26	0.5968%	0.5076%	79	5.3564%	4.7080%
27	0.6193%	0.5362%	80	5.8946%	5.1937%
28	0.6464%	0.5555%	81	6.4877%	5.7290%
29	0.6787%	0.5755%	82	7.1406%	6.3165%
30	0.6914%	0.5962%	83	7.8584%	6.9627%
31	0.7000%	0.6177%	84	8.6937%	7.7122%
32	0.7175%	0.6268%	85	9.4812%	8.4245%
33	0.7399%	0.6361%	86	10.2069%	9.0849%
34	0.7628%	0.6422%	87	10.9897%	9.7986%
35	0.7864%	0.6466%	88	11.7725%	10.5221%
36	0.8110%	0.6504%	89	12.9201%	11.5771%
37	0.8361%	0.6538%	90	14.2242%	12.7805%
38	0.8619%	0.6583%	91	15.5436%	14.0140%
39	0.8887%	0.6655%	92	16.7768%	15.1826%
40	0.9108%	0.6718%	93	18.0102%	16.3730%
41	0.9276%	0.6785%	94	20.1341%	18.3891%
42	0.9448%	0.6898%	95	22.3003%	20.4768%
43	0.9622%	0.7059%	96	23.3974%	21.5778%
44	0.9759%	0.7241%	97	23.6605%	21.9133%
45	0.9959%	0.7516%	98	23.6802%	22.0663%
46	1.0163%	0.7820%	99	24.6308%	23.0087%
47	1.0341%	0.8124%	100	24.6509%	23.1230%
48	1.0518%	0.8431%	101	25.0504%	23.6022%
49	1.0535%	0.8604%	102	25.4498%	24.5619%
50	1.0563%	0.8758%	103	26.6044%	25.7825%
51	1.0591%	0.8871%	104	27.9055%	27.1635%
52	1.0628%	0.8938%	105	29.3116%	28.6530%
53	1.0659%	0.8945%	106	30.7811%	30.2169%
54	1.0995%	0.9896%	107	32.2725%	31.8182%
55	1.1335%	1.0949%	108	33.7441%	33.4131%
56	1.1759%	1.1161%	109	35.1544%	34.9566%
57	1.2264%	1.1402%	110	100.0000%	50.0000%
58	1.2938%	1.1770%	111	N/A	50.0000%
59	1.3698%	1.2195%	112	N/A	50.0000%
60	1.4492%	1.2648%	113	N/A	50.0000%
61	1.5325%	1.3147%	114	N/A	50.0000%
62	1.6100%	1.3627%	115	N/A	50.0000%
63	1.6906%	1.4176%	116	N/A	50.0000%
64	1.8080%	1.5072%	117	N/A	50.0000%
65	1.9213%	1.5987%	118	N/A	50.0000%
66	2.0541%	1.7097%	119	N/A	50.0000%
67	2.1828%	1.8212%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: HP TP

PROBABILITIES OF MORTALITY FOR SERVICE RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0100%	68	1.8009%	1.4988%
16	N/A	0.0135%	69	2.0410%	1.6917%
17	N/A	0.0181%	70	2.2892%	1.8929%
18	N/A	0.0217%	71	2.5456%	2.1028%
19	0.0306%	0.0240%	72	2.8106%	2.3212%
20	0.0320%	0.0251%	73	3.1257%	2.5833%
21	0.0332%	0.0268%	74	3.4508%	2.8558%
22	0.0341%	0.0284%	75	3.7857%	3.1397%
23	0.0351%	0.0301%	76	4.1303%	3.4343%
24	0.0357%	0.0315%	77	4.4850%	3.7415%
25	0.0361%	0.0327%	78	5.0530%	4.2304%
26	0.0369%	0.0342%	79	5.6378%	4.7399%
27	0.0374%	0.0354%	80	6.2394%	5.2682%
28	0.0385%	0.0371%	81	6.7457%	5.7202%
29	0.0404%	0.0394%	82	7.2517%	6.1782%
30	0.0435%	0.0427%	83	8.1970%	7.0179%
31	0.0501%	0.0492%	84	9.1421%	7.8631%
32	0.0569%	0.0556%	85	10.0872%	8.7167%
33	0.0638%	0.0616%	86	11.0322%	9.5810%
34	0.0705%	0.0669%	87	11.9773%	10.4516%
35	0.0779%	0.0724%	88	13.5010%	11.8437%
36	0.0832%	0.0755%	89	15.0245%	13.2486%
37	0.0882%	0.0779%	90	16.5479%	14.6752%
38	0.0938%	0.0808%	91	18.3120%	16.3354%
39	0.1005%	0.0845%	92	20.0893%	18.0374%
40	0.1093%	0.0901%	93	21.8705%	19.7642%
41	0.1235%	0.1003%	94	23.6944%	21.5622%
42	0.1374%	0.1106%	95	25.5955%	23.4692%
43	0.1509%	0.1212%	96	27.5396%	25.3619%
44	0.1641%	0.1323%	97	29.3904%	27.1816%
45	0.1769%	0.1439%	98	31.2340%	29.0095%
46	0.1895%	0.1563%	99	32.8923%	30.6920%
47	0.2017%	0.1693%	100	34.3180%	32.1584%
48	0.2135%	0.1827%	101	35.8628%	33.7521%
49	0.2251%	0.1964%	102	37.1685%	35.1259%
50	0.2364%	0.2104%	103	38.3040%	36.3671%
51	0.3089%	0.2802%	104	39.2003%	37.3834%
52	0.3796%	0.3506%	105	39.7886%	38.1051%
53	0.4485%	0.4209%	106	40.0000%	38.4698%
54	0.5157%	0.4903%	107	40.0000%	38.6325%
55	0.5521%	0.5297%	108	40.0000%	38.8076%
56	0.6083%	0.5857%	109	40.0000%	38.9794%
57	0.6646%	0.6387%	110	100.0000%	50.0000%
58	0.7208%	0.6875%	111	N/A	50.0000%
59	0.7770%	0.7316%	112	N/A	50.0000%
60	0.8333%	0.7720%	113	N/A	50.0000%
61	0.9277%	0.8439%	114	N/A	50.0000%
62	1.0256%	0.9155%	115	N/A	50.0000%
63	1.1271%	0.9888%	116	N/A	50.0000%
64	1.2323%	1.0644%	117	N/A	50.0000%
65	1.3410%	1.1433%	118	N/A	50.0000%
66	1.4532%	1.2263%	119	N/A	50.0000%
67	1.5691%	1.3135%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: HP TP

PROBABILITIES OF MORTALITY FOR SERVICE RETIREES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0084%	68	1.2698%	1.0632%
16	N/A	0.0103%	69	1.3845%	1.1644%
17	N/A	0.0112%	70	1.4949%	1.2629%
18	N/A	0.0131%	71	1.7156%	1.4563%
19	0.0175%	0.0140%	72	1.9444%	1.6586%
20	0.0177%	0.0142%	73	2.1807%	1.8689%
21	0.0180%	0.0150%	74	2.4250%	2.0889%
22	0.0181%	0.0158%	75	2.6936%	2.3314%
23	0.0185%	0.0168%	76	2.9956%	2.6045%
24	0.0189%	0.0179%	77	3.2873%	2.8700%
25	0.0196%	0.0191%	78	3.6283%	3.1787%
26	0.0204%	0.0204%	79	3.9587%	3.4795%
27	0.0213%	0.0217%	80	4.3248%	3.8105%
28	0.0224%	0.0231%	81	4.9022%	4.3289%
29	0.0237%	0.0247%	82	5.5029%	4.8678%
30	0.0254%	0.0265%	83	6.1272%	5.4288%
31	0.0304%	0.0316%	84	6.6646%	5.9122%
32	0.0350%	0.0360%	85	7.1646%	6.3661%
33	0.0393%	0.0398%	86	8.0498%	7.1650%
34	0.0431%	0.0427%	87	8.9781%	8.0050%
35	0.0470%	0.0455%	88	9.9063%	8.8541%
36	0.0502%	0.0474%	89	10.7693%	9.6498%
37	0.0540%	0.0497%	90	11.7626%	10.5687%
38	0.0580%	0.0521%	91	13.3393%	12.0267%
39	0.0626%	0.0551%	92	14.8446%	13.4340%
40	0.0677%	0.0588%	93	16.3499%	14.8636%
41	0.0736%	0.0633%	94	18.0157%	16.4543%
42	0.0817%	0.0702%	95	19.3799%	17.7952%
43	0.0918%	0.0792%	96	20.6789%	19.0707%
44	0.1039%	0.0907%	97	21.8558%	20.2419%
45	0.1185%	0.1052%	98	22.7651%	21.1759%
46	0.1356%	0.1228%	99	23.3951%	21.8544%
47	0.1544%	0.1427%	100	23.6519%	22.1859%
48	0.1752%	0.1652%	101	24.4834%	23.0680%
49	0.1941%	0.1865%	102	25.4498%	24.0803%
50	0.2042%	0.1992%	103	26.6044%	25.2770%
51	0.2135%	0.2104%	104	27.9055%	26.6309%
52	0.2210%	0.2186%	105	29.3116%	28.0912%
53	0.2279%	0.2250%	106	30.7811%	29.6244%
54	0.2924%	0.2863%	107	32.2725%	31.1943%
55	0.3529%	0.3409%	108	33.7441%	32.7579%
56	0.4119%	0.3910%	109	35.1544%	34.2712%
57	0.4707%	0.4376%	110	100.0000%	50.0000%
58	0.5071%	0.4613%	111	N/A	50.0000%
59	0.5622%	0.5005%	112	N/A	50.0000%
60	0.6179%	0.5393%	113	N/A	50.0000%
61	0.6743%	0.5785%	114	N/A	50.0000%
62	0.7268%	0.6152%	115	N/A	50.0000%
63	0.7795%	0.6536%	116	N/A	50.0000%
64	0.8732%	0.7279%	117	N/A	50.0000%
65	0.9653%	0.8032%	118	N/A	50.0000%
66	1.0673%	0.8884%	119	N/A	50.0000%
67	1.1669%	0.9736%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: HP TP

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
MALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0138%	68	2.2753%	1.8368%
16	N/A	0.0187%	69	2.5301%	2.0342%
17	N/A	0.0252%	70	2.8106%	2.2544%
18	N/A	0.0301%	71	3.1257%	2.5045%
19	0.0438%	0.0334%	72	3.4508%	2.7644%
20	0.0456%	0.0347%	73	3.8088%	3.0535%
21	0.0473%	0.0371%	74	4.1556%	3.3359%
22	0.0497%	0.0402%	75	4.5123%	3.6300%
23	0.0518%	0.0431%	76	5.1148%	4.1253%
24	0.0545%	0.0467%	77	5.7067%	4.6178%
25	0.0573%	0.0503%	78	6.3156%	5.1289%
26	0.0605%	0.0544%	79	6.8279%	5.5682%
27	0.0638%	0.0586%	80	7.3400%	6.0116%
28	0.0678%	0.0633%	81	8.2467%	6.7832%
29	0.0720%	0.0681%	82	9.1975%	7.6009%
30	0.0767%	0.0730%	83	10.1484%	8.4279%
31	0.0820%	0.0781%	84	11.0322%	9.2040%
32	0.0876%	0.0830%	85	12.0498%	10.1002%
33	0.0960%	0.0898%	86	13.6650%	11.5115%
34	0.1013%	0.0933%	87	15.1155%	12.7944%
35	0.1078%	0.0972%	88	16.6479%	14.1662%
36	0.1159%	0.1019%	89	18.4227%	15.7578%
37	0.1259%	0.1080%	90	20.2106%	17.3856%
38	0.1381%	0.1153%	91	22.0026%	19.0388%
39	0.1577%	0.1286%	92	23.6944%	20.6360%
40	0.1772%	0.1417%	93	25.7499%	22.5718%
41	0.1968%	0.1550%	94	27.7058%	24.4562%
42	0.2164%	0.1690%	95	29.3904%	26.1404%
43	0.2360%	0.1838%	96	31.4223%	28.0695%
44	0.2554%	0.1997%	97	33.0905%	29.6855%
45	0.2750%	0.2170%	98	34.3180%	30.9177%
46	0.2847%	0.2279%	99	36.0787%	32.6552%
47	0.2931%	0.2387%	100	37.3923%	33.9880%
48	0.3003%	0.2492%	101	38.3040%	34.9681%
49	0.3824%	0.3237%	102	39.2003%	35.9346%
50	0.4574%	0.3948%	103	39.7886%	36.6434%
51	0.5251%	0.4620%	104	40.0000%	37.3834%
52	0.5858%	0.5249%	105	40.0000%	38.1051%
53	0.6073%	0.5528%	106	40.0000%	38.4698%
54	0.6387%	0.5891%	107	40.0000%	38.6325%
55	0.6727%	0.6260%	108	40.0000%	38.8076%
56	0.7296%	0.6814%	109	40.0000%	38.9794%
57	0.7817%	0.7288%	110	100.0000%	50.0000%
58	0.8333%	0.7710%	111	N/A	50.0000%
59	0.9334%	0.8525%	112	N/A	50.0000%
60	1.0319%	0.9273%	113	N/A	50.0000%
61	1.1340%	1.0007%	114	N/A	50.0000%
62	1.2398%	1.0735%	115	N/A	50.0000%
63	1.3410%	1.1411%	116	N/A	50.0000%
64	1.4621%	1.2250%	117	N/A	50.0000%
65	1.5787%	1.3055%	118	N/A	50.0000%
66	1.7900%	1.4653%	119	N/A	50.0000%
67	2.0286%	1.6473%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: HP TP

PROBABILITIES OF MORTALITY FOR DISABLED RETIREES
BASE TABLE
FEMALES

Age	Current	Proposed	Age	Current	Proposed
15	N/A	0.0095%	68	1.4949%	1.2141%
16	N/A	0.0117%	69	1.7053%	1.3912%
17	N/A	0.0127%	70	1.9327%	1.5837%
18	N/A	0.0148%	71	2.1676%	1.7848%
19	0.0205%	0.0159%	72	2.4104%	1.9944%
20	0.0216%	0.0168%	73	2.6774%	2.2258%
21	0.0229%	0.0185%	74	2.9776%	2.4880%
22	0.0243%	0.0205%	75	3.3072%	2.7766%
23	0.0258%	0.0227%	76	3.6503%	3.0785%
24	0.0273%	0.0251%	77	3.9587%	3.3525%
25	0.0289%	0.0274%	78	4.3248%	3.6752%
26	0.0307%	0.0298%	79	4.9022%	4.1794%
27	0.0326%	0.0322%	80	5.5029%	4.7030%
28	0.0348%	0.0348%	81	6.1272%	5.2484%
29	0.0371%	0.0374%	82	6.6646%	5.7185%
30	0.0395%	0.0400%	83	7.2080%	6.1948%
31	0.0422%	0.0425%	84	8.1476%	7.0110%
32	0.0451%	0.0450%	85	9.0871%	7.8321%
33	0.0485%	0.0476%	86	9.9662%	8.6046%
34	0.0511%	0.0491%	87	10.8343%	9.3702%
35	0.0546%	0.0512%	88	11.8337%	10.2595%
36	0.0584%	0.0534%	89	13.3393%	11.5941%
37	0.0630%	0.0563%	90	14.8446%	12.9378%
38	0.0677%	0.0590%	91	16.3606%	14.3081%
39	0.0736%	0.0629%	92	17.5097%	15.3704%
40	0.0817%	0.0688%	93	18.6970%	16.4875%
41	0.0918%	0.0766%	94	19.9353%	17.6613%
42	0.1039%	0.0865%	95	21.0632%	18.7606%
43	0.1185%	0.0992%	96	22.0663%	19.7397%
44	0.1356%	0.1148%	97	22.9669%	20.6328%
45	0.1544%	0.1330%	98	23.5709%	21.2676%
46	0.1752%	0.1538%	99	23.8964%	21.8544%
47	0.1973%	0.1769%	100	23.9165%	22.1859%
48	0.2205%	0.2017%	101	24.4834%	23.0680%
49	0.2486%	0.2316%	102	25.4498%	24.0803%
50	0.2788%	0.2637%	103	26.6044%	25.2770%
51	0.3003%	0.2870%	104	27.9055%	26.6309%
52	0.3463%	0.3323%	105	29.3116%	28.0912%
53	0.3840%	0.3677%	106	30.7811%	29.6244%
54	0.4418%	0.4196%	107	32.2725%	31.1943%
55	0.5040%	0.4722%	108	33.7441%	32.7579%
56	0.5578%	0.5135%	109	35.1544%	34.2712%
57	0.5831%	0.5258%	110	100.0000%	50.0000%
58	0.6179%	0.5452%	111	N/A	50.0000%
59	0.6743%	0.5823%	112	N/A	50.0000%
60	0.7268%	0.6153%	113	N/A	50.0000%
61	0.7795%	0.6486%	114	N/A	50.0000%
62	0.8732%	0.7169%	115	N/A	50.0000%
63	0.9653%	0.7851%	116	N/A	50.0000%
64	1.0673%	0.8630%	117	N/A	50.0000%
65	1.1669%	0.9419%	118	N/A	50.0000%
66	1.2698%	1.0252%	119	N/A	50.0000%
67	1.3845%	1.1204%	120	N/A	100.0000%

NEW YORK CITY EMPLOYEES' 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 EMPLOYEES' 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 EMPLOYEES' RETIREMENT SYSTEM:
GENERAL

ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	Current & Proposed Merit Increase	Current & Proposed 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.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT

ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	Current		Proposed	
	Merit Increase	Salary Increase*	Merit Increase	Salary Increase*
0	16.00%	19.00%	16.00%	19.00%
1	11.00%	14.00%	11.00%	14.00%
2	7.00%	10.00%	7.00%	10.00%
3	4.00%	7.00%	6.00%	9.00%
4	2.00%	5.00%	3.00%	6.00%
5	1.00%	4.00%	2.00%	5.00%
6	0.50%	3.50%	1.50%	4.50%
7	0.50%	3.50%	1.50%	4.50%
8	0.50%	3.50%	1.50%	4.50%
9	0.50%	3.50%	1.50%	4.50%
10	0.50%	3.50%	1.50%	4.50%
11	0.50%	3.50%	1.50%	4.50%
12	0.50%	3.50%	1.50%	4.50%
13	0.50%	3.50%	1.50%	4.50%
14	0.50%	3.50%	1.50%	4.50%
15	0.50%	3.50%	1.50%	4.50%
16	0.50%	3.50%	1.50%	4.50%
17	0.50%	3.50%	1.50%	4.50%
18	0.50%	3.50%	1.50%	4.50%
19	0.50%	3.50%	1.50%	4.50%
20	0.50%	3.50%	1.50%	4.50%
21	0.50%	3.50%	1.50%	4.50%
22	0.50%	3.50%	1.50%	4.50%
23	0.50%	3.50%	1.00%	4.00%
24	0.50%	3.50%	1.00%	4.00%
25+	0.50%	3.50%	1.00%	4.00%

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

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TBTA

ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	Current & Proposed Merit Increase	Current & Proposed Salary Increase*
0	8.00%	11.00%
1	7.00%	10.00%
2	6.00%	9.00%
3	5.00%	8.00%
4	4.00%	7.00%
5	3.00%	6.00%
6	2.00%	5.00%
7	1.00%	4.00%
8	0.80%	3.80%
9	0.60%	3.60%
10	0.50%	3.50%
11	0.50%	3.50%
12	0.50%	3.50%
13	0.50%	3.50%
14	0.50%	3.50%
15	0.50%	3.50%
16	0.50%	3.50%
17	0.50%	3.50%
18	0.50%	3.50%
19	0.50%	3.50%
20	0.50%	3.50%
21	0.50%	3.50%
22	0.50%	3.50%
23	0.50%	3.50%
24	0.50%	3.50%
25+	0.50%	3.50%

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

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION

ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	Current		Proposed	
	Merit Increase	Salary Increase*	Merit Increase	Salary Increase*
0	4.00%	7.00%	4.00%	7.00%
1	6.00%	9.00%	6.00%	9.00%
2	8.00%	11.00%	8.00%	11.00%
3	13.00%	16.00%	13.00%	16.00%
4	32.00%	35.00%	22.00%	25.00%
5	22.00%	25.00%	15.00%	18.00%
6	1.40%	4.40%	1.00%	4.00%
7	1.60%	4.60%	1.10%	4.10%
8	1.80%	4.80%	1.20%	4.20%
9	3.20%	6.20%	2.10%	5.10%
10	2.00%	5.00%	1.40%	4.40%
11	1.90%	4.90%	1.30%	4.30%
12	1.80%	4.80%	1.20%	4.20%
13	1.70%	4.70%	1.10%	4.10%
14	2.90%	5.90%	2.00%	5.00%
15	1.50%	4.50%	1.00%	4.00%
16	1.40%	4.40%	1.00%	4.00%
17	1.30%	4.30%	0.90%	3.90%
18	1.20%	4.20%	0.80%	3.80%
19	2.40%	5.40%	1.60%	4.60%
20	1.00%	4.00%	0.70%	3.70%
21	0.90%	3.90%	0.60%	3.60%
22	0.80%	3.80%	0.50%	3.50%
23	0.70%	3.70%	0.50%	3.50%
24	0.60%	3.60%	0.50%	3.50%
25+	0.50%	3.50%	0.50%	3.50%

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

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM:
CORRECTION

ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	Current & Proposed Merit Increase	Current & Proposed Salary Increase*
0	11.00%	14.00%
1	10.00%	13.00%
2	9.00%	12.00%
3	8.00%	11.00%
4	46.00%	49.00%
5	1.20%	4.20%
6	1.40%	4.40%
7	1.60%	4.60%
8	1.80%	4.80%
9	3.20%	6.20%
10	2.00%	5.00%
11	1.90%	4.90%
12	1.80%	4.80%
13	1.70%	4.70%
14	2.90%	5.90%
15	1.50%	4.50%
16	1.40%	4.40%
17	1.30%	4.30%
18	1.20%	4.20%
19	2.40%	5.40%
20	1.00%	4.00%
21	0.90%	3.90%
22	0.80%	3.80%
23	0.70%	3.70%
24	0.60%	3.60%
25+	0.50%	3.50%

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

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: GENERAL		
BASELINE OVERTIME ASSUMPTIONS		
	Current	**Proposed**
All Years of Service	4.00%	5.00%

	Current & Proposed	Current		Proposed	Current & Proposed
NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: TRANSIT **OVERTIME ASSUMPTIONS**					
All Years of Service	**Baseline**	**Dual Service: Tier 1**	**Dual Service: All Others**	**Dual Service: All**	**Dual Disability**
	8.00%	12.00%	10.00%	10.00%	6.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM:
TBTA

OVERTIME ASSUMPTIONS

All Years of Service	Current & Proposed	Current		Proposed	Current		Proposed
	Baseline	**Dual Service: FAS 1 Benefits**	**Dual Service: All Others**	**Dual Service: All**	**Dual Disability: FAS 1 Benefits**	**Dual Disability: All Others**	**Dual Disability: All**
	20.00%	30.00%	24.00%	24.00%	15.00%	18.00%	18.00%

	NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM: SANITATION		
	OVERTIME ASSUMPTIONS		
	Current & Proposed		
	Baseline	**Dual Service**	**Dual Disability**
All Years of Service	12.00%	16.00%	8.00%

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM:
CORRECTION

OVERTIME ASSUMPTIONS

Years of Service	Current	Proposed	Current		Proposed
	Baseline and Dual Service	**Baseline and Dual Service**	**Dual Disability: Tier 1**	**Dual Disability: All Others**	**Dual Disability (All)**
0-15	10.00%	15.00%	5.00%	8.00%	8.00%
16	11.00%	16.50%	6.00%	9.00%	9.00%
17	12.00%	18.00%	7.00%	10.00%	10.00%
18	13.00%	19.50%	8.00%	11.00%	11.00%
19	14.00%	21.00%	9.00%	12.00%	12.00%
20+	15.00%	22.50%	10.00%	13.00%	13.00%

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 Employees' Retirement System (NYCERS) 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 December 31, 2018 entitled "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 Employees' Retirement System"; and

WHEREAS, Certain components of the Actuary's proposed changes require action by the Retirement Board; 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 December 31, 2018 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 December 31, 2018 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:

_____

Melanie Whinnery
Executive Director