



June 30, 2021
Actuarial Valuation Report

for the

New York City
Employees' Retirement System

prepared by the

New York City
Office of the Actuary

CONTRIBUTIONS REQUIRED FOR FISCAL YEAR 2023



OFFICE OF THE ACTUARY

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MAREK TYSZKIEWICZ
CHIEF ACTUARY

October 2, 2023

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

Re: June 30, 2021 Actuarial Valuation Report (Report)

Dear Trustees:

This Report presents the results of the June 30, 2021 actuarial valuation of the benefits under both the New York City Employees' Retirement System (NYCERS) Qualified Pension Plan and Group Life Insurance Plan (collectively, the Plan). This valuation, known as the June 30, 2021 valuation, forms the basis for determining the statutorily required contribution (Statutory Contribution) of \$3,456,774,822 for Fiscal Year 2023 (i.e., for the period beginning July 1, 2022 and ending June 30, 2023). It is not intended, nor necessarily suitable, for other purposes. Calculations made for other purposes may differ significantly from those shown herein.

Results of the June 30, 2020 actuarial valuation are shown in this Report for comparative purposes. Other historical information that the Actuary believes useful is also included.

The June 30, 2021 and June 30, 2020 actuarial valuations are based upon census data as of those dates submitted by the Plan's administrative staff and the employers' payroll facilities. Financial information was provided by NYCERS and the Office of the Comptroller as of June 30, 2021 and June 30, 2020.

Consistent with Actuarial Standards of Practice, the Office of the Actuary has reviewed census data and financial information for consistency and reasonability but has not audited it. The accuracy of the results and calculations presented in this Report are dependent on the accuracy of this census data and financial information. To the extent any such data or information provided is materially inaccurate or incomplete, the results contained herein will require revision.

A summary of the benefits available under the terms of the Plan is shown in SECTION IX – SUMMARY OF PLAN PROVISIONS. The benefits under the Plan have changed from the prior valuation and reflect the enactment of Chapter 56 of the Laws of 2022 which reduces the Tier 6 vesting requirement from ten years to five years. Continued compliance has been presumed for the Older Workers Benefit Protection Act.

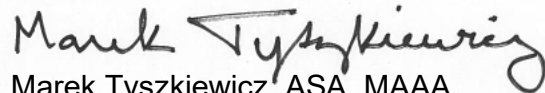
A summary of the actuarial assumptions and methods used in the valuation of the Plan is shown in SECTION XII – ACTUARIAL ASSUMPTIONS AND METHODS. The actuarial assumptions and methods are unchanged from the prior valuation.

This Report does not present Governmental Accounting Standards Board (GASB) results. The Office of the Actuary publishes the Fiscal Year 2023 GASB67 and GASB68 results under separate cover. Reports published by the Office of the Actuary are available on the website www.nyc.gov/actuary.

This valuation excludes the cost for any pension payments that exceed the Internal Revenue Code Section 415 Limit which have been or are expected to be made from the Excess Benefit Plan.

The undersigned actuaries are Associates of the Society of Actuaries and Members of the American Academy of Actuaries. In addition, Frankie Chen is an Enrolled Actuary under the Employee Retirement Income Security Act of 1974. We are members of NYCERS but do not believe it impairs our objectivity and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of our 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.

Best Regards,



Marek Tyszkiewicz, ASA, MAAA
Chief Actuary



Frankie Chen, ASA, EA, MAAA
Assistant Deputy Chief Actuary

MT/eh

cc: Chun Gong - New York City Employees' Retirement System
Elizabeth Reyes - New York City Employees' Retirement System
Keith Snow, Esq. - New York City Office of the Actuary
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SECTION I – EXECUTIVE SUMMARY

This Report presents the results of the June 30, 2021 actuarial valuation of the New York City Employees' Retirement System (NYCERS) and Group Life Insurance Plan (collectively, the Plan).

The purposes of the valuation are:

- To determine the actuarially required contribution (Actuarial Contribution) for Fiscal Year 2023 (i.e., July 1, 2022 to June 30, 2023),
- To measure the funding progress of the Plan,
- To disclose the census data and financial information used in the valuation, and
- To disclose the actuarial assumptions and actuarial methods used to determine the Actuarial Contribution.

The statutorily required contribution (Statutory Contribution) is also shown and compared to the Actuarial Contribution in historical years.

This Report does not provide financial and accounting information required by current GASB standards. That information is provided in a separate report.

All results are based on preliminary Transferable Earnings amounts for Fiscal Year 2021 as determined by the Actuary in a letter dated September 9, 2021 to the Comptroller's Office. All results are without regard to the Variable Supplements Funds, unless specifically noted.

Future measurements of this information may differ from current measurements for many reasons including, but not limited to, experience differing from economic or demographic assumptions, changes in actuarial assumptions and methods, and changes in applicable statute and plan provisions. These and additional risks may be present for the Plan. A further discussion is presented in SECTION VIII – RISK AND UNCERTAINTY for consideration.

Table I-1
Executive Summary

Presented in **Table I-1** are the principal results of the June 30, 2021 actuarial valuation and, for comparative purposes, the June 30, 2020 actuarial valuation.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
SUMMARY OF VALUATION RESULTS		
Valuation Date	June 30, 2021	June 30, 2020
Fiscal Year	2023	2022
Funded Status		
1. Accrued Liability ¹	\$ 93,956,132,959	\$ 91,942,980,829
2. Actuarial Value of Assets (AVA) ²	76,587,843,000	75,494,821,185
3. Unfunded Accrued Liability (AVA Basis) (1. - 2.)	\$ 17,368,289,959	\$ 16,448,159,644
4. Market Value of Assets (MVA)	85,906,208,000	69,892,388,000
5. Unfunded Accrued Liability (MVA Basis) (1. - 4.)	\$ 8,049,924,959	\$ 22,050,592,829
6. Funded Ratio (MVA Basis) (4. / 1.)	91.4%	76.0%
Contribution³		
1. Normal Cost	\$ 1,612,468,268	\$ 1,602,903,074
2. Amortization of Unfunded Accrued Liability	1,746,454,031	2,141,731,450
3. Administrative Expenses	97,852,523	86,829,899
4. Interest on Late Employer Contributions	0	0
5. Actuarial Contribution (1. + 2. + 3. + 4.)	\$ 3,456,774,822	\$ 3,831,464,423
6. Statutory Contribution	\$ 3,456,774,822	\$ 3,831,464,423
Participant Data		
1. Active Members		
a. Number	185,732	191,237
b. Annual Salary ⁴	\$ 15,294,725,839	\$ 15,289,347,449
c. Average Salary	\$ 82,348	\$ 79,950
2. Terminated Nonvested Members	32,058	32,027
3. Deferred Vested Members	26,383	23,034
4. Retirees and Beneficiaries		
a. Number	162,149	159,906
b. Total Annual Benefits	\$ 5,288,149,642	\$ 5,068,225,520
c. Average Annual Benefit	\$ 32,613	\$ 31,695

¹ Includes Unfunded Accrued Liability for VSFs.

² AVA as of June 30, 2020 includes receivable contributions of \$3,716,181,185; AVA as of June 30, 2021 does not include receivable contributions.

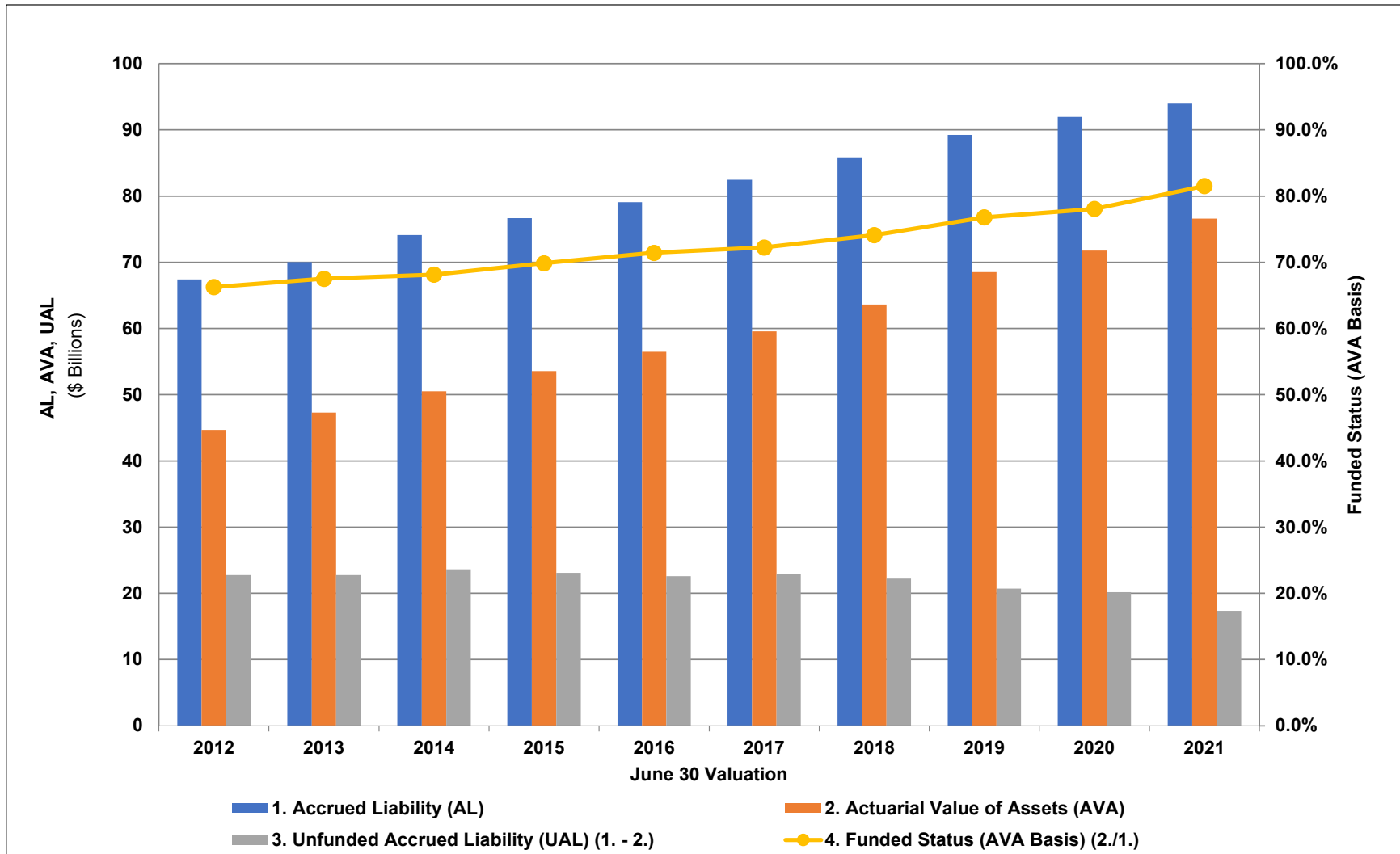
³ Includes results for VSFs.

⁴ Salaries shown are base salary plus assumed overtime paid and reflect certain salary increases with retroactive effective dates, if any, that are not yet reflected in census data.

Table I-2
Actuarial Liabilities

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
ACTUARIAL LIABILITIES BY STATUS		
Valuation Date	June 30, 2021	June 30, 2020
Fiscal Year	2023	2022
Accrued Liability		
1. Active Members	\$ 36,273,274,578	\$ 36,103,335,090
2. Terminated Nonvested Members	241,080,868	263,047,318
3. Deferred Vested Members	3,053,956,791	2,830,154,138
4. Retirees and Beneficiaries	54,171,582,969	51,703,804,751
5. Unfunded VSF	<u>216,237,753</u>	<u>1,042,639,532</u>
6. Total Accrued Liability	\$ 93,956,132,959	\$ 91,942,980,829
Present Value of Benefits		
1. Active Members	\$ 55,345,540,827	\$ 55,505,665,606
2. Terminated Nonvested Members	241,080,868	263,047,318
3. Deferred Vested Members	3,053,956,791	2,830,154,138
4. Retirees and Beneficiaries	54,171,582,969	51,703,804,751
5. VSF	<u>373,339,619</u>	<u>1,217,358,042</u>
6. Total Present Value of Benefits	\$ 113,185,501,074	\$ 111,520,029,855

Graph I-3
Historical Funded Status



SECTION II – MARKET AND ACTUARIAL VALUES OF ASSETS

Information on the Market Value of Assets (MVA) of the Plan is provided by the Office of the Comptroller. An asset smoothing method is used to determine the Actuarial Value of Assets (AVA) of the Plan.

The Actuary reset the AVA to the MVA as of June 30, 2011 and as of June 30, 2019. Beginning with the June 30, 2020 actuarial valuation, the asset smoothing method recognizes investment returns greater or less than expected over a period of five years, phasing these gains and losses into the AVA at a rate of 20% per year.

The expected investment return is derived using the Actuarial Interest Rate of 7%, beginning-of-fiscal-year MVA, and net cash flows which are assumed to occur midyear.

The AVA is further constrained to be within a corridor of 80% to 120% of the MVA.

Table II-1
Statement of Plan Net Assets

(\$ Thousands)		
	June 30, 2021	June 30, 2020
ASSETS		
Cash	\$ 122,698	\$ 80,415
Receivables		
Investment Securities Sold	\$ 3,353,658	\$ 1,725,083
Member Loans	1,079,822	1,120,769
Accrued Interest and Dividends	393,851	359,762
Receivables due from NYCERS	0	0
Other	0	0
Total Receivables	<u>\$ 4,827,331</u>	<u>\$ 3,205,614</u>
INVESTMENTS AT FAIR VALUE		
Short-Term Investments		
Commercial Paper	\$ 999,092	\$ 254,826
Discount Notes	0	0
Short-term Investment Fund	812,966	678,945
U.S. Treasury Bills and Agencies	1,170,661	1,638,571
Debt Securities		
Bank Loans	133,414	408,691
Corporate and Other	10,401,407	7,559,129
Mortgage Debt Securities	5,549,015	3,966,276
Treasury Inflation Protected Securities	3,038,225	2,714,217
U.S. Government and Agency	8,274,897	6,474,964
Equity Securities		
Domestic Equity	27,082,830	21,794,066
International Equity	15,206,157	11,847,317
Collective Trust Funds		
Bank Loans	1,104	624,967
Corporate and Other	0	14,051
Domestic Equity	1,181	1,253
International Equity	0	0
Mortgage Debt Securities	482,694	464,167
Opportunistic Fixed Income	257,436	219,577
Treasury Inflation Protected Securities	0	0
U.S. Government and Agency	0	0
Alternative Investments		
Infrastructure	996,689	785,629
Opportunistic Fixed Income	2,603,942	2,145,127
Private Equity	6,421,827	4,660,981
Private Real Estate	4,359,578	3,802,066
Hedge Fund	1,240	3,735
Collateral From Securities Lending	10,208,522	6,007,306
Total Investments	<u>\$ 98,002,877</u>	<u>\$ 76,065,861</u>
OTHER ASSETS	<u>125,193</u>	<u>137,428</u>
TOTAL ASSETS	<u>\$ 103,078,099</u>	<u>\$ 79,489,318</u>
LIABILITIES		
Accounts Payable	\$ 142,603	\$ 126,800
Payables for Investment Securities Purchased	5,494,894	3,091,164
Accrued Benefits Payable	394,583	357,557
Amount due to Variable Supplements Funds	4,504	5,051
Transferable Earnings due from QPP to COVSF	925,000	8,000
Due to other Retirement Systems	1,785	1,052
Security Lending	10,208,522	6,007,306
TOTAL LIABILITIES	<u>\$ 17,171,891</u>	<u>\$ 9,596,930</u>
PLAN ASSETS HELD IN TRUST FOR PENSION BENEFITS	<u>\$ 85,906,208</u>	<u>\$ 69,892,388</u>

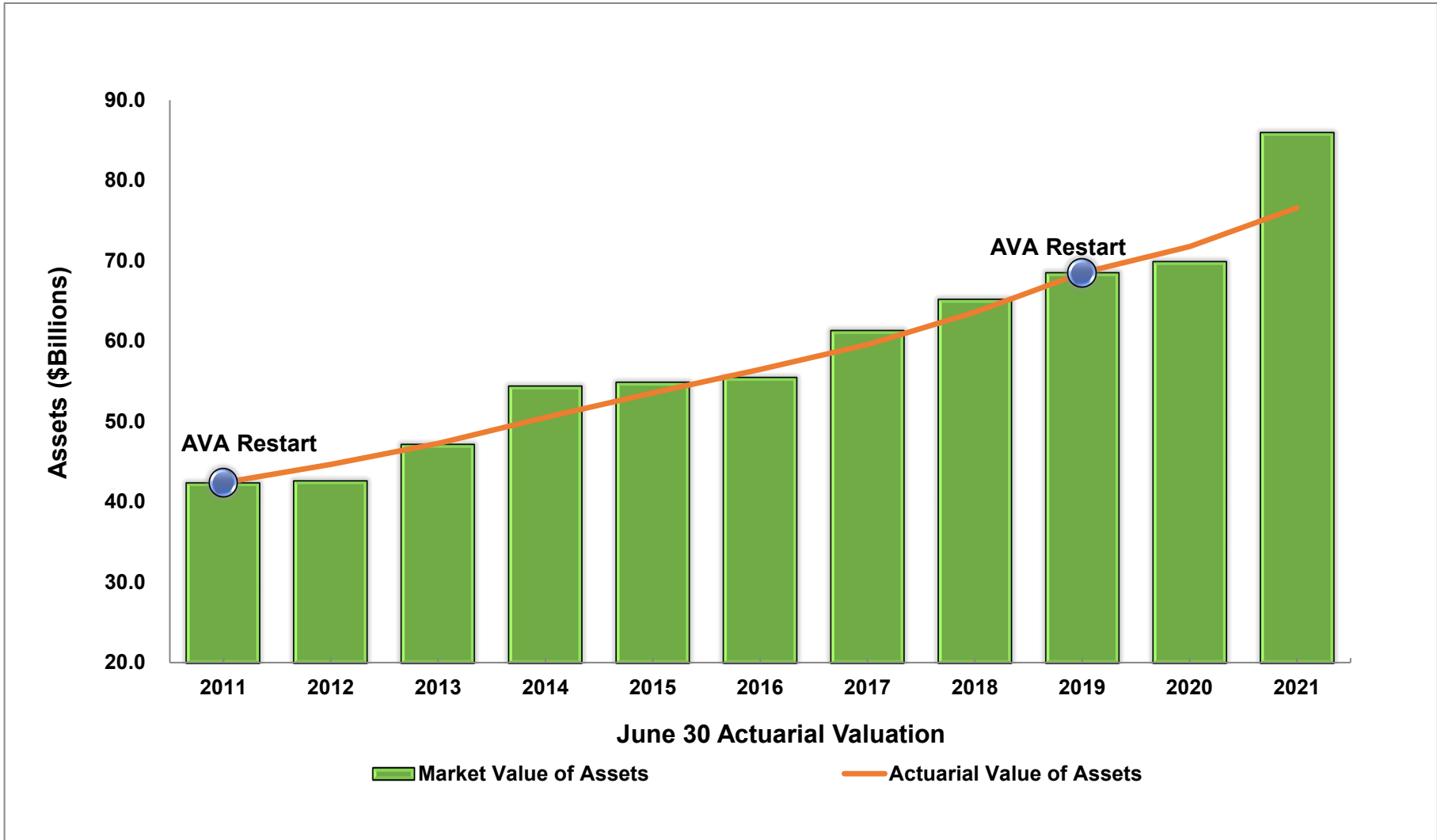
Table II-2
Statement of Changes in Plan Net Assets

(\$ Thousands)		
	June 30, 2021	June 30, 2020
ADDITIONS		
Contributions		
Member Contributions	\$ 579,560	\$ 563,893
Employer Contributions	3,761,532	3,727,558
Total Contributions	<u>\$ 4,341,092</u>	<u>\$ 4,291,451</u>
Investment Income (Loss)		
Interest Income	\$ 913,882	\$ 904,771
Dividend Income	900,282	933,200
Net Appreciation (Depreciation) in Fair Value	16,741,619	766,682
Total Investment Income (Loss)	<u>\$ 18,555,783</u>	<u>\$ 2,604,653</u>
Less Investment Expenses	313,226	222,501
Net Income (Loss)	<u>\$ 18,242,557</u>	<u>\$ 2,382,152</u>
Securities Lending Transactions		
Securities Lending Income	\$ 22,793	\$ 24,500
Securities Lending Fees	2,149	2,336
Net Securities Lending Income (Loss)	<u>\$ 20,644</u>	<u>\$ 22,164</u>
Net Investment Income (Loss)	<u>\$ 18,263,201</u>	<u>\$ 2,404,316</u>
Other		
Other Income	\$ 3,365	\$ 3,317
TOTAL ADDITIONS	<u>\$ 22,607,658</u>	<u>\$ 6,699,084</u>
DEDUCTIONS		
Benefit Payments and Withdrawals	\$ 5,566,375	\$ 5,202,251
Payables to other Retirement Systems	5,671	9,087
Amount due to Variable Supplements Funds	9,817	10,111
Transferable Earnings due from QPP to COVSF	924,562	31,704
Administrative Expenses	87,413	77,667
TOTAL DEDUCTIONS	<u>\$ 6,593,838</u>	<u>\$ 5,330,820</u>
NET INCREASE (DECREASE) IN PLAN NET ASSETS	<u>\$ 16,013,820</u>	<u>\$ 1,368,264</u>
PLAN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS		
Beginning of Year	\$ 69,892,388	\$ 68,524,124
End of Year	\$ 85,906,208	\$ 69,892,388

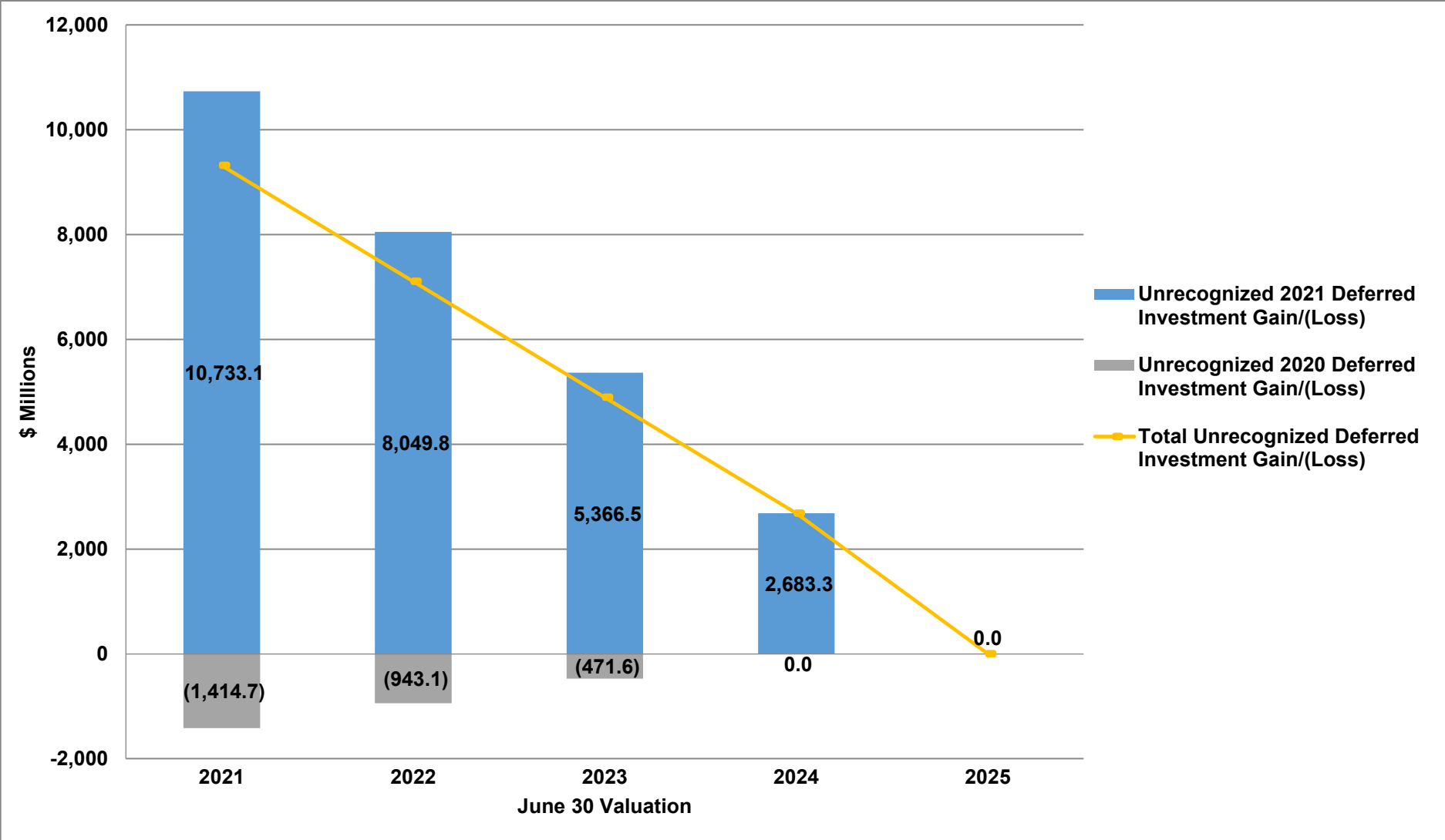
Table II-3
Development of Actuarial Value of Assets

(\$ Thousands)		
Valuation Date	June 30, 2021	June 30, 2020
1. Market Value of Assets (MVA)		
a. Beginning of Year (BOY)	\$ 69,892,388	\$ 68,524,124
b. End of Year (EOY)	\$ 85,906,208	\$ 69,892,388
2. Contributions		
a. Employee	\$ 579,560	\$ 563,893
b. Employer	<u>3,761,532</u>	<u>3,727,558</u>
c. Total Contributions	\$ 4,341,092	\$ 4,291,451
3. Net Investment Income		
a. Investment Income	\$ 18,576,427	\$ 2,649,983
b. Investment Expenses	<u>(313,226)</u>	<u>(245,667)</u>
c. Total Net Investment Income	\$ 18,263,201	\$ 2,404,316
4. Benefit Payments and Other Cash Flow	\$ (5,665,911)	\$ (5,295,799)
5. Preliminary Transferable Earnings from NYCERS to COVSF - EOY	\$ (924,562)	\$ (31,704)
6. Net Cash Flow (2.c. + 4. + 5.)	\$ (2,249,381)	\$ (1,036,052)
7. Expected Investment Return (EIR)	\$ 4,846,883	\$ 4,762,131
8. Unexpected Investment Return (UIR) (3.c. - 7.)	\$ 13,416,318	\$ (2,357,815)
9. AVA @ EOY		
a. AVA @ BOY (prior to corridor limit)	\$ 71,778,640	\$ 68,524,124
b. Net Cash Flow (6.)	\$ (2,249,381)	\$ (1,036,052)
c. Expected Investment Return (7.)	\$ 4,846,883	\$ 4,762,131
d. Phase in of UIR		
20% * UIR for prior year	\$ 2,683,264	\$ (471,563)
20% * UIR for second prior year	\$ (471,563)	N/A
20% * UIR for third prior year	N/A	N/A
20% * UIR for fourth prior year	N/A	N/A
20% * UIR for fifth prior year	N/A	N/A
Total	<u>\$ 2,211,701</u>	<u>\$ (471,563)</u>
e. Lower Corridor Bound (80% of 1.b.)	\$ 68,724,966	\$ 55,913,910
f. Upper Corridor Bound (120% of 1.b.)	\$ 103,087,450	\$ 83,870,866
g. AVA (a. through d., bounded by e. and f.)	\$ 76,587,843	\$ 71,778,640

Graph II-4
Historical Market and Actuarial Value of Assets



**Graph II-5
Future Recognition of Unexpected Investment Return**



SECTION III – CONTRIBUTION DEVELOPMENT AND HISTORY

**Table III-1
Statutory Contributions**

Table III-1 shows the components of the Fiscal Year 2023 and the Fiscal Year 2022 Statutory Contributions.

COMPONENTS OF CURRENT AND PRIOR FISCAL YEAR STATUTORY CONTRIBUTIONS		
Valuation Date	June 30, 2021	June 30, 2020
Fiscal Year	2023	2022
Normal Cost	\$ 1,612,468,268	\$ 1,602,903,074
Unfunded Accrued Liability Amortization ¹	1,746,454,031	2,141,731,450
Administrative Expenses	<u>97,852,523</u>	<u>86,829,899</u>
Total Contribution to the New York City Employees' Retirement System	\$ 3,456,774,822	\$ 3,831,464,423

¹ See Tables III-2 for additional details.

Table III-2
Schedule of Unfunded Accrued Liability Bases

The Initial Unfunded Accrued Liability (UAL) established with the 6/30/2010 valuation is being amortized as a level percent of pay (with payments increasing by 3% per year) over a 22-year period.

Increments to the UAL established after June 30, 2010 are amortized as level dollar over the following periods:

- Benefit Changes: Over the remaining working lifetimes of those impacted unless the amortization period is determined by statute.
- Assumption and Method Changes: Over a 20-year period.
- Actuarial Gains and Losses: Over a 15-year period.

Under the One-Year Lag methodology (OYLM), the number of payments is one fewer than the number of years in the amortization period (e.g., 14 payments over a 15-year amortization period).

Table III-2
Schedule of Unfunded Accrued Liability Bases (cont'd)

Table III-2 shows the Schedule of UAL Bases as of June 30, 2021.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM SCHEDULE OF UNFUNDED ACCRUED LIABILITY BASES					
Amortization Base	Date Established	Original \$ Amount	Amortization Years	Payments Remaining	Amortization \$ Payment
Initial UAL	6/30/10	20,194,114,494	22	11	2,100,195,108
(Gain)/Loss	6/30/11	(250,820,523)	15	5	(29,666,881)
(Gain)/Loss	6/30/12	(62,429,250)	15	6	(7,384,090)
(Gain)/Loss	6/30/13	83,180,893	15	7	9,838,578
(Gain)/Loss	6/30/14	(1,302,739,151)	15	8	(154,087,109)
Assumption Change ¹	6/30/14	2,328,933,026	20	13	233,084,500
(Gain)/Loss	6/30/15	(426,054,441)	15	9	(50,393,432)
(Gain)/Loss	6/30/16	(256,448,676)	15	10	(30,332,576)
Assumption Change ²	6/30/16	19,238,347	20	15	1,925,414
SADB	6/30/16	20,783,169	15	10	2,458,219
SADB Sanitation Actives	6/30/16	4,530,309	11	6	667,208
(Gain)/Loss	6/30/17	(26,089,812)	15	11	(3,085,885)
COVSF Escalation Offset	6/30/17	1,497,838	19	15	154,027
Assumption Change ³	6/30/17	(988,954,970)	20	16	(98,976,686)
Method Change ³	6/30/17	816,476,035	20	16	81,714,634
OTB - City of New York Portion	6/30/17	53,833,920	15	11	6,367,440
OTB - State of New York Portion	6/30/17	53,833,920	15	11	6,367,440
(Gain)/Loss	6/30/18	(346,437,644)	15	12	(40,976,408)
(Gain)/Loss	6/30/19	120,225,130	15	13	14,220,148
Assumption Change ⁴	6/30/19	(312,415,373)	20	18	(31,267,188)
Method Change ⁴	6/30/19	(707,283,121)	20	18	(67,742,133)
OTB - State of New York Portion	6/30/19	24,657,612	15	13	2,916,486
(Gain)/Loss	6/30/20	131,641,734	15	14	15,570,494
OWBPA	6/30/20	94,476,876	8	7	18,133,677
(Gain)/Loss	6/30/21	(2,019,602,367)	15	14	(238,877,201)
415 Limit	6/30/21	(1,926,935)	2	1	(2,132,765)
Chapter 56	6/30/21	68,352,955	16	15	7,763,012
TOTAL					1,746,454,031

¹ Change in post-retirement mortality assumptions including the change to the mortality improvement scale MP-2015.

² Change in Accidental rates for Tier 3 22-year plan members of Sanitation and Correction using a more empirical methodology.

³ 2019 A&M.

⁴ Revised 2021 A&M.

Graph III-3
Remaining UAL Amortizations as of June 30, 2021

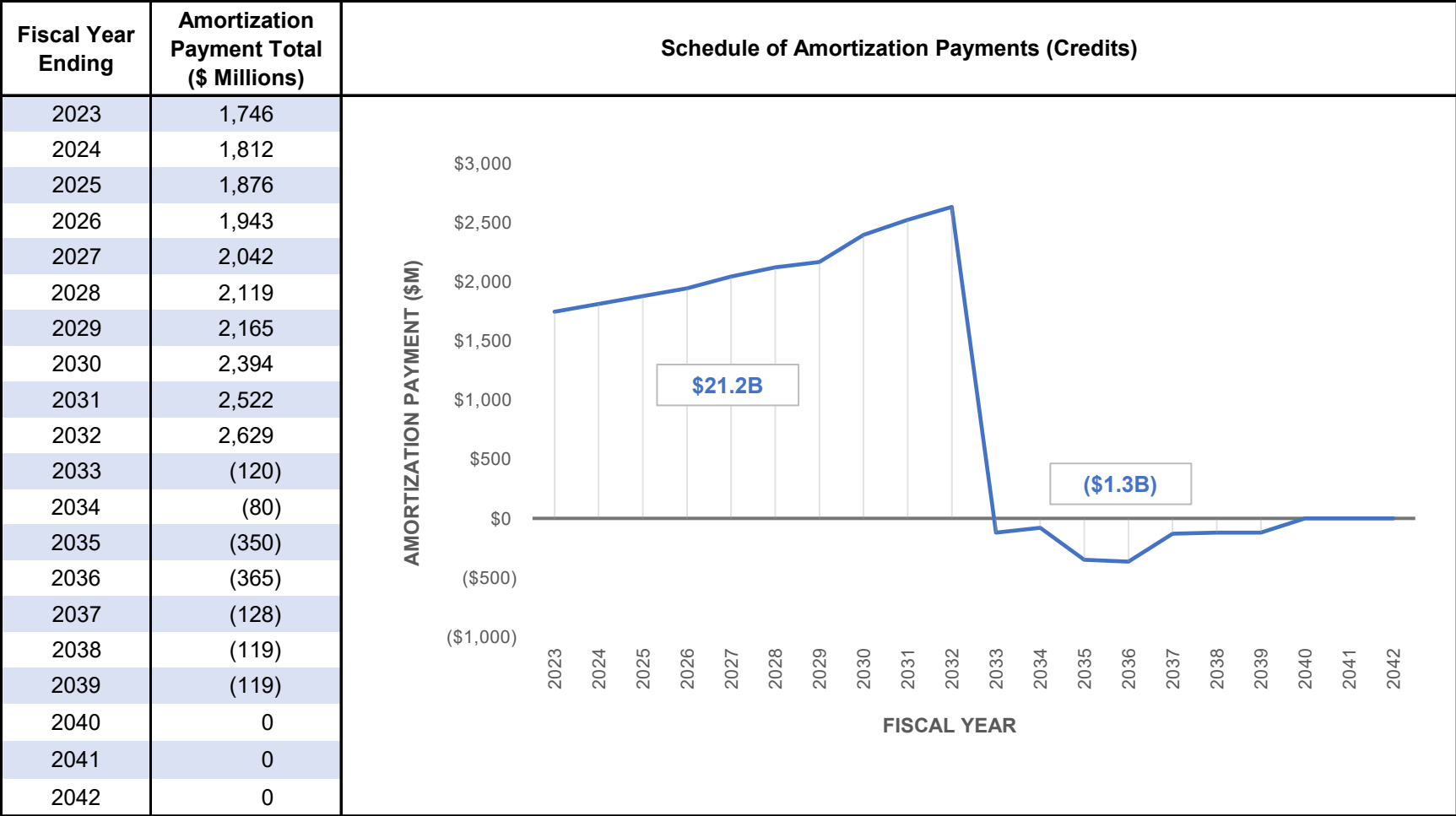


Table III-4
Reconciliation of Outstanding UAL Bases

Cost Component	Date Established	Original Amount	Amort Years	Outstanding Balance 6/30/2021	FY 2022 Payment on 12/31/2021	Outstanding Balance 6/30/2022	FY 2023 Payment on 12/31/2022	Additional Payments
Initial UAL	06/30/10	\$ 20,194,114,494	22	\$ 18,052,523,369	\$ 2,039,024,376	\$ 17,207,016,789	\$ 2,100,195,108	9
(Gain)/Loss	06/30/11	(250,820,523)	15	(125,825,470)	(29,666,881)	(103,945,592)	(29,666,881)	3
(Gain)/Loss	06/30/12	(62,429,250)	15	(36,407,596)	(7,384,090)	(31,317,966)	(7,384,090)	4
(Gain)/Loss	06/30/13	83,180,893	15	54,847,369	9,838,578	48,509,580	9,838,578	5
(Gain)/Loss	06/30/14	(1,302,739,151)	15	(951,758,953)	(154,087,109)	(858,993,135)	(154,087,109)	6
Assumption Change	06/30/14	2,328,933,026	20	2,015,067,055	233,084,500	1,915,017,267	233,084,500	11
(Gain)/Loss	06/30/15	(426,054,441)	15	(339,621,929)	(50,393,432)	(311,268,093)	(50,393,432)	7
(Gain)/Loss	06/30/16	(256,448,676)	15	(220,373,727)	(30,332,576)	(204,423,627)	(30,332,576)	8
Assumption Change	06/30/16	19,238,347	20	18,139,904	1,925,414	17,418,033	1,925,414	13
SADB	06/30/16	20,783,169	15	17,859,577	2,458,219	16,566,945	2,458,219	8
SADB Sanitation Actives	06/30/16	4,530,309	11	3,289,700	667,208	2,829,814	667,208	4
(Gain)/Loss	06/30/17	(26,089,812)	15	(23,936,254)	(3,085,885)	(22,419,728)	(3,085,885)	9
Removal of COVSF Escalation Offset	06/30/17	1,497,838	19	1,451,139	154,027	1,393,392	154,027	13
Assumption Change	06/30/17	(988,954,970)	20	(967,169,430)	(98,976,686)	(932,489,011)	(98,976,686)	14
Method Change	06/30/17	816,476,035	20	798,490,012	81,714,634	769,858,039	81,714,634	14
Census Data Update	06/30/17	730,881,413	5	215,776,741	223,201,197	0	0	0
OTB - City of New York Portion	06/30/17	53,833,920	15	49,390,250	6,367,440	46,261,037	6,367,440	9
OTB - State of New York Portion	06/30/17	53,833,920	15	49,390,250	6,367,440	46,261,037	6,367,440	9
(Gain)/Loss	06/30/18	(346,437,644)	15	(336,661,313)	(40,976,408)	(317,841,279)	(40,976,408)	10
(Gain)/Loss	06/30/19	120,225,130	15	122,936,318	14,220,148	116,832,425	14,220,148	11
Assumption Change	06/30/19	(312,415,373)	20	(325,341,333)	(31,267,188)	(315,772,196)	(31,267,188)	16
Method Change	06/30/19	(707,283,121)	20	(739,695,435)	(67,742,133)	(721,401,108)	(67,742,133)	16
OTB - State of New York Portion	06/30/19	24,657,612	15	25,213,664	2,916,486	23,961,784	2,916,486	11
(Gain)/Loss	06/30/20	131,641,734	15	140,856,655	15,570,494	134,610,377	15,570,494	12
OWBPA	06/30/20	94,476,876	8	101,090,257	18,133,677	89,408,954	18,133,677	5
Admin Expenses	06/30/20	78,450,123	2	83,941,632	86,829,899	0	0	0
Normal Cost	07/01/20	1,448,210,178	2	1,549,584,879	1,602,903,074	0	0	0
(Gain)/Loss	06/30/21	(2,019,602,367)	15	(2,019,602,367)	0	(2,160,974,533)	(238,877,201)	13
415 Limit	06/30/21	(1,926,935)	2	(1,926,935)	0	(2,061,820)	(2,132,765)	0
Chapter 56	06/30/21	68,352,955	16	68,352,955	0	73,137,662	7,763,012	14
Admin Expenses	06/30/21	88,408,976	2	88,408,976	0	94,597,604	97,852,523	0
Normal Cost	07/01/21	1,456,852,254	2	0	0	1,558,831,912	1,612,468,268	0
TOTAL				\$ 17,368,289,959	\$ 3,831,464,423	\$ 16,179,604,563	\$ 3,456,774,822	

Payment for amortization bases, normal costs and administrative expenses are deferred 1.5 years to the middle of the fiscal year under the One-Year Lag Methodology. The number of amortization payments is one less than the number of years amortized. Required contributions are the sum of all cost components after interest adjustments due to the lag.

Table III-4
Reconciliation of Outstanding UAL Bases (cont'd)

Total of Cost Components Summarized by Type	Outstanding Balance 6/30/2021	FY 2022 Payment on 12/31/2021	Outstanding Balance 6/30/2022	FY 2023 Payment on 12/31/2022
Initial UAL	\$ 18,052,523,369	\$ 2,039,024,376	\$ 17,207,016,789	\$ 2,100,195,108
Assumption Changes	740,696,194	104,766,040	684,174,093	104,766,040
(Gain)/Loss	(3,735,547,268)	(276,297,161)	(3,711,231,571)	(515,174,362)
Method Changes	396,638,548	252,825,064	162,878,969	27,491,102
Plan Changes	192,043,628	21,413,131	183,336,767	29,176,143
Admin Expenses	172,350,608	86,829,899	94,597,604	97,852,523
Normal Cost	1,549,584,879	1,602,903,074	1,558,831,912	1,612,468,268
TOTAL	\$ 17,368,289,959	\$ 3,831,464,423	\$ 16,179,604,563	\$ 3,456,774,822

	6/30/2021		FY 2023
(A) Actuarial Accrued Liability	\$ 93,956,132,959	Normal Cost	\$ 1,612,468,268
(B) Actuarial Value of Assets	76,587,843,000	UAL Payment	1,746,454,031
(C) Unfunded Accrued Liabilities (A) - (B)	\$ 17,368,289,959	Admin Expenses	97,852,523
		Total	\$ 3,456,774,822

Table III-5
Actuarial and Statutory Contribution History

Table III-5 compares the Statutory Contributions to the Actuarial Contributions for Fiscal Years 2014 through 2023.

(\$ Thousands)			
Fiscal Year Ended June 30	Actuarial Contribution Certified	Statutory Contribution Contributed	Percentage of Actuarial Contribution Contributed
2014	3,114,068	3,114,068	100.0%
2015	3,160,258	3,160,258	100.0%
2016	3,365,454	3,365,454	100.0%
2017	3,328,193	3,328,193	100.0%
2018	3,377,024	3,377,024	100.0%
2019	3,694,365	3,681,747	99.7%
2020	3,726,701	3,713,825	99.7%
2021	3,762,898	3,762,898	100.0%
2022	3,831,464	3,831,464	100.0%
2023	3,456,775	3,456,775	100.0%

Table III-6
City Rates: Contributions as a Percentage of Salary

Table III-6 shows the City Rates defined to be the contributions as a percentage of salary for the Fiscal Years 2014 through 2023.

CITY RATES (\$ Thousands)			
Fiscal Year Ended June 30	Actuarial Contribution	Salary¹ at Beginning of Fiscal Year	City Rate
2014	3,114,068	12,183,011	25.6%
2015	3,160,258	12,314,958	25.7%
2016	3,365,454	12,336,979	27.3%
2017	3,328,193	12,555,242	26.5%
2018	3,377,024	12,834,130	26.3%
2019	3,694,365	13,845,279	26.7%
2020	3,726,701	14,164,068	26.3%
2021	3,762,898	14,784,245	25.5%
2022	3,831,464	15,098,560	25.4%
2023	3,456,775	15,071,192	22.9%

¹ Includes assumed overtime paid, the impact of recent labor contract settlements and certain non-union salary increases with retroactive effective dates, if any.

SECTION IV – RESULTS BY CONTRIBUTING ENTITY

**Table IV-1
Employer Contributions by Obligor**

Transit Authority	NYC Transit Authority: CP Engineers	NYC Transit Authority: Transit Police	NYC Transit Authority: Others	NYC Transit Authority Subtotal
1. Normal Cost	\$ 6,488,595	\$ 0	\$ 371,788,878	\$ 378,277,473
2. Amortization of Unfunded Accrued Liability	20,592,365	23,369,965	315,281,721	359,244,051
3. Administrative Expenses	442,130	0	20,608,867	21,050,997
4. Actuarial Contribution (1. + 2. + 3.)	\$ 27,523,090	\$ 23,369,965	\$ 707,679,466	\$ 758,572,521

Housing Authority	NYC Housing Authority: Housing Police	NYC Housing Authority: Others	NYC Housing Authority Subtotal
1. Normal Cost	\$ 0	\$ 54,313,298	\$ 54,313,298
2. Amortization of Unfunded Accrued Liability	10,212,480	85,794,637	96,007,117
3. Administrative Expenses	0	4,168,772	4,168,772
4. Actuarial Contribution (1. + 2. + 3.)	\$ 10,212,480	\$ 144,276,707	\$ 154,489,187

Obligor	NYC Transit Authority	NYC Housing Authority	NYC Health and Hospitals Corporation	Triborough Bridge and Tunnel Authority	NYC Off-Track Betting Corporation	NYC Housing Development Corporation	NYC School Construction Authority
1. Normal Cost	\$ 378,277,473	\$ 54,313,298	\$ 229,474,220	\$ 11,831,785	\$ 0	\$ 1,012,345	\$ 848,331
2. Amortization of Unfunded Accrued Liability	359,244,051	96,007,117	213,294,572	15,270,440	21,688,015	1,212,883	1,717,373
3. Administrative Expenses	21,050,997	4,168,772	16,295,966	772,621	0	62,639	59,423
4. Actuarial Contribution (1. + 2. + 3.)	\$ 758,572,521	\$ 154,489,187	\$ 459,064,758	\$ 27,874,846	\$ 21,688,015	\$ 2,287,867	\$ 2,625,127

Obligor	State Judiciary Employees	NYC Municipal Water Authority	CUNY Senior Colleges	Correction	Sanitation	All Others (i.e. New York City)	Total
1. Normal Cost	\$ 0	\$ 102,610	\$ 24,388,690	\$ 218,003,992	\$ 122,937,354	\$ 571,278,170	\$ 1,612,468,268
2. Amortization of Unfunded Accrued Liability	1,374,367	49,617	5,436,751	228,236,979	120,681,195	682,240,671	1,746,454,031
3. Administrative Expenses	0	7,395	1,672,571	5,614,187	4,938,637	43,209,315	97,852,523
4. Actuarial Contribution (1. + 2. + 3.)	\$ 1,374,367	\$ 159,622	\$ 31,498,012	\$ 451,855,158	\$ 248,557,186	\$ 1,296,728,156	\$ 3,456,774,822

Table IV-2
Accrued Liabilities by Obligor

Transit Authority	NYC Transit Authority: CP Engineers	NYC Transit Authority: Transit Police	NYC Transit Authority: Others	NYC Transit Authority Subtotal
Accrued Liability				
1. Active Members	\$ 265,527,134	\$ 0	\$ 7,684,291,863	\$ 7,949,818,997
2. Terminated Nonvested Members	624,289	0	28,700,907	29,325,196
3. Deferred Vested Members	16,717,831	0	398,949,949	415,667,780
4. Retirees and Beneficiaries	518,159,431	411,920,201	12,404,814,954	13,334,894,586
5. Unfunded VSF	0	42,380,488	0	42,380,488
6. Total Accrued Liability	<u>\$ 801,028,685</u>	<u>\$ 454,300,689</u>	<u>\$ 20,516,757,673</u>	<u>\$ 21,772,087,047</u>
Present Value of Benefits				
1. Active Members	\$ 315,315,980	\$ 0	\$ 12,149,938,171	\$ 12,465,254,151
2. Terminated Nonvested Members	624,289	0	28,700,907	29,325,196
3. Deferred Vested Members	16,717,831	0	398,949,949	415,667,780
4. Retirees and Beneficiaries	518,159,431	411,920,201	12,404,814,954	13,334,894,586
5. VSF	0	42,380,488	0	42,380,488
6. Total Present Value of Benefits	<u>\$ 850,817,531</u>	<u>\$ 454,300,689</u>	<u>\$ 24,982,403,981</u>	<u>\$ 26,287,522,201</u>

Housing Authority	NYC Housing Authority: Housing Police	NYC Housing Authority: Others	NYC Housing Authority Subtotal
Accrued Liability			
1. Active Members	\$ 0	\$ 1,764,423,678	\$ 1,764,423,678
2. Terminated Nonvested Members	0	10,206,313	10,206,313
3. Deferred Vested Members	0	203,241,014	203,241,014
4. Retirees and Beneficiaries	184,893,259	2,638,349,134	2,823,242,393
5. Unfunded VSF	28,225,517	0	28,225,517
6. Total Accrued Liability	<u>\$ 213,118,776</u>	<u>\$ 4,616,220,139</u>	<u>\$ 4,829,338,915</u>
Present Value of Benefits			
1. Active Members	\$ 0	\$ 2,424,129,039	\$ 2,424,129,039
2. Terminated Nonvested Members	0	10,206,313	10,206,313
3. Deferred Vested Members	0	203,241,014	203,241,014
4. Retirees and Beneficiaries	184,893,259	2,638,349,134	2,823,242,393
5. VSF	28,225,517	0	28,225,517
6. Total Present Value of Benefits	<u>\$ 213,118,776</u>	<u>\$ 5,275,925,500</u>	<u>\$ 5,489,044,276</u>

Table IV-2
Accrued Liabilities by Obligor (cont'd)

Obligor	NYC Transit Authority	NYC Housing Authority	NYC Health and Hospitals Corporation	Triborough Bridge and Tunnel Authority	NYC Off-Track Betting Corporation	NYC Housing Development Corporation	NYC School Construction Authority
Accrued Liability							
1. Active Members	\$ 7,949,818,997	\$ 1,764,423,678	\$ 4,777,266,214	\$ 345,919,054	\$ 0	\$ 26,724,298	\$ 32,173,549
2. Terminated Nonvested Members	29,325,196	10,206,313	54,551,135	1,623,707	614,184	380,657	0
3. Deferred Vested Members	415,667,780	203,241,014	531,905,730	27,838,220	27,643,418	2,570,579	1,098,769
4. Retirees and Beneficiaries	13,334,894,586	2,823,242,393	7,256,312,898	660,473,354	364,958,510	18,780,653	30,924,043
5. Unfunded VSF	42,380,488	28,225,517	0	0	0	0	0
6. Total Accrued Liability	\$ 21,772,087,047	\$ 4,829,338,915	\$ 12,620,035,977	\$ 1,035,854,335	\$ 393,216,112	\$ 48,456,187	\$ 64,196,361
Present Value of Benefits							
1. Active Members	\$ 12,465,254,151	\$ 2,424,129,039	\$ 7,590,694,189	\$ 463,116,527	\$ 0	\$ 36,433,155	\$ 40,020,191
2. Terminated Nonvested Members	29,325,196	10,206,313	54,551,135	1,623,707	614,184	380,657	0
3. Deferred Vested Members	415,667,780	203,241,014	531,905,730	27,838,220	27,643,418	2,570,579	1,098,769
4. Retirees and Beneficiaries	13,334,894,586	2,823,242,393	7,256,312,898	660,473,354	364,958,510	18,780,653	30,924,043
5. VSF	42,380,488	28,225,517	0	0	0	0	0
6. Total Present Value of Benefits	\$ 26,287,522,201	\$ 5,489,044,276	\$ 15,433,463,952	\$ 1,153,051,808	\$ 393,216,112	\$ 58,165,044	\$ 72,043,003

Obligor	State Judiciary Employees	NYC Municipal Water Authority	CUNY Senior Colleges	Correction	Sanitation	All Others (i.e. New York City)	Total
Accrued Liability							
1. Active Members	\$ 0	\$ 3,545,864	\$ 576,875,642	\$ 2,456,839,648	\$ 2,194,918,174	\$ 16,144,769,460	\$ 36,273,274,578
2. Terminated Nonvested Members	60,072	0	6,126,856	10,865,700	1,630,785	125,696,263	241,080,868
3. Deferred Vested Members	0	490,211	47,935,539	280,165,267	33,409,901	1,481,990,363	3,053,956,791
4. Retirees and Beneficiaries	9,073,076	623,328	477,489,538	6,934,876,248	4,684,451,559	17,575,482,783	54,171,582,969
5. Unfunded VSF	0	0	0	145,631,748	0	0	216,237,753
6. Total Accrued Liability	\$ 9,133,148	\$ 4,659,403	\$ 1,108,427,575	\$ 9,828,378,611	\$ 6,914,410,419	\$ 35,327,938,869	\$ 93,956,132,959
Present Value of Benefits							
1. Active Members	\$ 0	\$ 4,721,009	\$ 853,459,830	\$ 4,494,235,187	\$ 3,578,142,899	\$ 23,395,334,650	\$ 55,345,540,827
2. Terminated Nonvested Members	60,072	0	6,126,856	10,865,700	1,630,785	125,696,263	241,080,868
3. Deferred Vested Members	0	490,211	47,935,539	280,165,267	33,409,901	1,481,990,363	3,053,956,791
4. Retirees and Beneficiaries	9,073,076	623,328	477,489,538	6,934,876,248	4,684,451,559	17,575,482,783	54,171,582,969
5. VSF	0	0	0	302,733,614	0	0	373,339,619
6. Total Present Value of Benefits	\$ 9,133,148	\$ 5,834,548	\$ 1,385,011,763	\$ 12,022,876,016	\$ 8,297,635,144	\$ 42,578,504,059	\$ 113,185,501,074

**Table IV-3
Participant Data by Obligor**

Transit Authority	NYC Transit Authority: CP Engineers	NYC Transit Authority: Transit Police	NYC Transit Authority: Others	NYC Transit Authority Subtotal
1. Active Members				
a. Number	614	0	36,548	37,162
b. Annual Salary ¹	\$ 69,106,692	\$ 0	\$ 3,221,245,171	\$ 3,290,351,863
c. Average Salary	\$ 112,552	\$ 0	\$ 88,137	\$ 88,541
2. Terminated Nonvested Members	39	0	4,255	4,294
3. Deferred Vested Members	80	0	3,458	3,538
4. Retirees and Beneficiaries				
a. Number	1,164	1,707	34,028	36,899
b. Total Annual Benefits	\$ 52,637,152	\$ 52,648,899	\$ 1,244,228,907	\$ 1,349,514,958
c. Average Annual Benefit	\$ 45,221	\$ 30,843	\$ 36,565	\$ 36,573

Housing Authority	NYC Housing Authority: Housing Police	NYC Housing Authority: Others	NYC Housing Authority Subtotal
1. Active Members			
a. Number	0	8,928	8,928
b. Annual Salary ¹	\$ 0	\$ 651,595,094	\$ 651,595,094
c. Average Salary	\$ 0	\$ 72,983	\$ 72,983
2. Terminated Nonvested Members	0	1,623	1,623
3. Deferred Vested Members	0	1,844	1,844
4. Retirees and Beneficiaries			
a. Number	717	9,881	10,598
b. Total Annual Benefits	\$ 23,799,438	\$ 256,488,073	\$ 280,287,511
c. Average Annual Benefit	\$ 33,193	\$ 25,958	\$ 26,447

¹ Salaries shown are base salary plus assumed overtime paid and reflect certain salary increases with retroactive effective dates, if any, that are not yet reflected in census data.

**Table IV-3
Participant Data by Obligor (cont'd)**

Obligor	NYC Transit Authority	NYC Housing Authority	NYC Health and Hospitals Corporation	Triborough Bridge and Tunnel Authority	NYC Off-Track Betting Corporation	NYC Housing Development Corporation	NYC School Construction Authority
1. Active Members							
a. Number	37,162	8,928	31,466	1,096	0	85	68
b. Annual Salary ¹	\$ 3,290,351,863	\$ 651,595,094	\$ 2,547,122,121	\$ 120,763,653	\$ 0	\$ 9,790,752	\$ 9,288,029
c. Average Salary	\$ 88,541	\$ 72,983	\$ 80,948	\$ 110,186	\$ 0	\$ 115,185	\$ 136,589
2. Terminated Nonvested Members	4,294	1,623	6,457	142	89	9	0
3. Deferred Vested Members	3,538	1,844	5,708	158	291	13	9
4. Retirees and Beneficiaries							
a. Number	36,899	10,598	26,458	1,518	1,072	41	58
b. Total Annual Benefits	\$ 1,349,514,958	\$ 280,287,511	\$ 711,273,228	\$ 62,831,242	\$ 27,849,791	\$ 1,760,293	\$ 2,904,993
c. Average Annual Benefit	\$ 36,573	\$ 26,447	\$ 26,883	\$ 41,391	\$ 25,979	\$ 42,934	\$ 50,086

Obligor	State Judiciary Employees	NYC Municipal Water Authority	CUNY Senior Colleges	Correction	Sanitation	All Others (i.e., New York City)	Total
1. Active Members							
a. Number	0	10	4,189	8,054	7,163	87,511	185,732
b. Annual Salary ¹	\$ 0	\$ 1,155,824	\$ 261,429,350	\$ 877,519,033	\$ 771,928,030	\$ 6,753,782,090	\$ 15,294,725,839
c. Average Salary	\$ 0	\$ 115,582	\$ 62,409	\$ 108,954	\$ 107,766	\$ 77,176	\$ 82,348
2. Terminated Nonvested Members	2	0	1,387	2,177	294	15,584	32,058
3. Deferred Vested Members	0	2	777	819	273	12,951	26,383
4. Retirees and Beneficiaries							
a. Number	47	1	2,289	12,951	11,010	59,207	162,149
b. Total Annual Benefits	\$ 1,640,892	\$ 64,847	\$ 48,302,877	\$ 589,535,108	\$ 454,102,891	\$ 1,758,081,011	\$ 5,288,149,642
c. Average Annual Benefit	\$ 34,913	\$ 64,847	\$ 21,102	\$ 45,520	\$ 41,245	\$ 29,694	\$ 32,613

¹ Salaries shown are base salary plus assumed overtime paid and reflect certain salary increases with retroactive effective dates, if any, that are not yet reflected in census data.

SECTION V – (GAIN)/LOSS ANALYSIS

Table V-1
Development of Experience (Gain)/Loss

EXPERIENCE (GAIN) / LOSS as of June 30, 2021			
(\$ Thousands)			
	QPP	VSF	Total
1. Expected Accrued Liability (AL)			
a. AL at June 30, 2020	\$ 90,900,341	\$ 1,465,362	\$ 92,365,703
b. Total Normal Cost and Administrative Expenses at June 30, 2020	2,070,471	19,324	2,089,795
c. Interest on 1.a. and 1.b. to June 30, 2021	6,507,957	103,928	6,611,885
d. Fiscal Year 2021 Benefit Payments	(5,566,375)	(112,674)	(5,679,049)
e. Interest on 1.d. to June 30, 2021	<u>(191,528)</u>	<u>(3,877)</u>	<u>(195,405)</u>
f. Expected AL at June 30, 2021	\$ 93,720,866	\$ 1,472,063	\$ 95,192,929
2. Actual AL at June 30, 2021 before changes	\$ 93,673,471	\$ 1,477,632	\$ 95,151,103
3. Expected Total Actuarial Value of Assets (AVA)			
a. Total AVA at June 30, 2020	\$ 71,778,640	\$ 422,722	\$ 72,201,362
b. Interest on 3.a. to June 30, 2021	5,024,505	29,590	5,054,095
c. Total Contributions Paid in Fiscal Year 2021	4,341,092	0	4,341,092
d. Interest on 3.c. to June 30, 2021	149,368	0	149,368
e. Fiscal Year 2021 Benefit Payments	(5,566,375)	(112,674)	(5,679,049)
f. Interest on 3.e. to June 30, 2021	<u>(191,528)</u>	<u>(3,877)</u>	<u>(195,405)</u>
g. Expected Total AVA at June 30, 2021	\$ 75,535,702	\$ 335,761	\$ 75,871,463
4. Actual Total AVA at June 30, 2021	\$ 76,587,843	\$ 1,261,396	\$ 77,849,239
5. Liability (Gain) / Loss (2. - 1.f.)	\$ (47,395)	\$ 5,569	\$ (41,826)
6. Actuarial Asset (Gain) / Loss (3.g. - 4.)	\$ (1,052,141)	\$ (925,635)	\$ (1,977,776)
7. Total Actuarial (Gain) / Loss (5. + 6.)	\$ (1,099,536)	\$ (920,066)	\$ (2,019,602)

SECTION VI – SCHEDULE OF FUNDING PROGRESS

A schedule of funding progress is provided below. This schedule of funding progress was previously required by GASB25, which has been superseded by GASB67, and is provided for historical context. These liability and asset measures are used to develop the Actuarial Contribution and are not suitable for other purposes including, but not limited to, settlement of plan obligations. For more information, see SECTION II – MARKET AND ACTUARIAL VALUES OF ASSETS.

Table VI-1
Schedule of Funding Progress

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (\$ Thousands)						
June 30 Valuation Date	(1) Actuarial Value of Assets (AVA)	(2) Accrued Liability (AL)	(3) Unfunded AL (UAL) (2)-(1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll ¹	(6) UAL as a % of Covered Payroll (3) / (5)
2012	44,676,721	67,417,018	22,740,297	66.3%	12,478,130	182.2%
2013	47,282,884	70,028,252	22,745,368	67.5%	12,642,483	179.9%
2014	50,505,971	74,123,437	23,617,466	68.1%	12,672,387	186.4%
2015	53,573,694	76,678,220	23,104,526	69.9%	12,917,467	178.9%
2016	56,491,829	79,081,183	22,589,354	71.4%	13,216,539	170.9%
2017	59,573,653	82,462,951	22,889,298	72.2%	14,065,242	162.7%
2018	63,615,892	85,845,125	22,229,233	74.1%	14,459,118	153.7%
2019	68,524,124	89,230,196	20,706,072	76.8%	14,981,461	138.2%
2020	71,778,640	91,942,981	20,164,341	78.1%	15,289,347	131.9%
2021	76,587,843	93,956,133	17,368,290	81.5%	15,294,726	113.6%

¹ Salaries shown are base salary plus assumed overtime paid and reflect certain salary increases with retroactive effective dates, if any, that are not yet reflected in the census data.

SECTION VII – VARIABLE SUPPLEMENTS FUNDS (VSF)

NYCERS administers the Correction Officers' Variable Supplements Fund (COVSF), Housing Police Officer's Variable Supplements Fund (HPOVSF), Housing Police Superior Officers' Variable Supplements Fund (HPSOVSF), Transit Police Officer's Variable Supplements Fund (TPOVSF), and the Transit Police Superior Officers' Variable Supplements Fund (TPSOVSF).

They operate pursuant to the provisions of Title 13, Chapter 1 of the Administrative Code of the City of New York (ACCNYS), and provide supplemental benefits as follows:

- COVSF: Retired Members of the Uniformed Correction Force (UCF). To be eligible to receive benefits, members of the UCF must retire on or after July 1, 1999 with at least 20 or 25 years of service, depending on the underlying plan, and be receiving a service retirement benefit from NYCERS.
- HPOVSF: NYCERS retirees who retired for service, with 20 or more years of service as Housing Police Officers and who retired on or after July 1, 1987.
- HPSOVSF: NYCERS retirees who retired for service, with 20 or more years of service as Housing Police Superior Officers and who retired on or after July 1, 1987.
- TPOVSF: NYCERS retirees who retired for service, with 20 or more years of service as Transit Police Officers and who retired on or after July 1, 1987.
- TPSOVSF: NYCERS retirees who retired for service, with 20 or more years of service as Transit Police Superior Officers and who retired on or after July 1, 1987.

The HPOVSF, HPSOVSF, TPOVSF, and TPSOVSF are closed to new entrants, and all members are retired.

Table VII-1
VSF Accrued Liabilities

(\$ Thousands)		
Valuation Date	June 30, 2021	June 30, 2020
COVSF		
Active	\$ 275,104	\$ 281,665
Retiree	<u>1,131,923</u>	<u>1,108,543</u>
Total	\$ 1,407,027	\$ 1,390,208
HPOVSF		
Active	\$ 0	\$ 0
Retiree	<u>11,042</u>	<u>12,186</u>
Total	11,042	12,186
HPSOVSF		
Active	\$ 0	\$ 0
Retiree	<u>17,183</u>	<u>18,232</u>
Total	\$ 17,183	\$ 18,232
TPOVSF		
Active	\$ 0	\$ 0
Retiree	<u>23,268</u>	<u>24,401</u>
Total	\$ 23,268	\$ 24,401
TPSOVSF		
Active	\$ 0	\$ 0
Retiree	<u>19,112</u>	<u>20,335</u>
Total	\$ 19,112	\$ 20,335
Total VSF AL	\$ 1,477,632	\$ 1,465,362

**Table VII-2
VSF Member Data**

VARIABLE SUPPLEMENTS FUNDS		
MEMBERS INCLUDED IN THE JUNE 30, 2021 AND THE JUNE 30, 2020 ACTUARIAL VALUATIONS		
	June 30, 2021	June 30, 2020
COVSF		
Actives		
Number	8,054	8,988
Average Age	41.1	40.2
Retirees		
Number	8,544	8,312
Average Age	60.7	59.9
HPOVSF		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	127	138
Average Age	77.8	76.9
HPSOVSF		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	194	201
Average Age	77.2	76.4
TPOVSF		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	263	267
Average Age	77.3	76.3
TPSOVSF		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	219	227
Average Age	77.7	76.8

**Table VII-3
VSF Statement of Assets**

(\$ Thousands)				
Valuation Date	June 30, 2021 ¹		June 30, 2020	
	MVA ²	AVA	MVA ³	AVA
COVSF	\$ 1,227,658	\$ 1,261,396	\$ 403,710	\$ 422,722
HPOVSF	0	0	0	0
HPSOVSF	0	0	0	0
TPOVSF	0	0	0	0
TPSOVSF	0	0	0	0
TOTAL	\$ 1,227,658	\$ 1,261,396	\$ 403,710	\$ 422,722

¹ Includes preliminary Transferable Earnings amounts determined by the Actuary in a letter dated September 9, 2021 to the Comptroller's Office.

² Includes Accrued Benefits Payable of \$52,271,000 for COVSF.

³ Includes Accrued Benefits Payable of \$50,462,000 for COVSF.

Table VII-4
Development of COVSF Actuarial Value of Assets

(\$ Thousands)		
Valuation Date	June 30, 2021	June 30, 2020
1. Market Value of Assets (MVA)		
a. Beginning of Year (BOY) ¹	\$ 403,710	\$ 465,027
b. End of Year (EOY) ²	\$ 1,227,658	\$ 403,710
2. Contributions		
a. Employee	\$ 0	\$ 0
b. Employer	0	0
c. Total Contributions	\$ 0	\$ 0
3. Net Investment Income		
a. Investment Income	\$ 434	\$ 5,400
b. Investment Expenses	0	0
c. Total Net Investment Income	\$ 434	\$ 5,400
4. Benefit Payments and Other Cash Flow	\$ (101,048)	\$ (98,421)
5. Preliminary Transferable Earnings from NYCERS to COVSF - EOY ³	\$ 924,562	\$ 31,704
6. Net Cash Flow (2.c. + 4. + 5.)	\$ 823,514	\$ (66,717)
7. Expected Investment Return (EIR)	\$ 24,783	\$ 29,165
8. Unexpected Investment Return (UIR) (3.c. - 7.)	\$ (24,349)	\$ (23,765)
9. AVA @ EOY		
a. AVA @ BOY	\$ 422,722	\$ 465,027
b. Net Cash Flow (6.)	823,514	(66,717)
c. Expected Investment Return (7.)	24,783	29,165
d. Phase in of UIR		
20% * UIR for prior year	\$ (4,870)	\$ (4,753)
20% * UIR for second prior year	(4,753)	N/A
20% * UIR for third prior year	N/A	N/A
20% * UIR for fourth prior year	N/A	N/A
20% * UIR for fifth prior year	N/A	N/A
Total	\$ (9,623)	\$ (4,753)
e. AVA (9.a. + 9.b. + 9.c. + 9.d.)	\$ 1,261,396	\$ 422,722

¹ Includes Accrued Benefits Payable for 6/30/2020 of \$50,462,000 and Accrued Benefits Payable for 6/30/2019 of \$48,799,000.

² Includes Accrued Benefits Payable for 6/30/2021 of \$52,271,000 and Accrued Benefits Payable for 6/30/2020 of \$50,462,000.

³ Reflects preliminary Transferable Earnings amounts as determined by the Actuary in a letter dated September 9, 2021 for 6/30/2021 to the Comptroller's Office.

Table VII-5
Preliminary Transferable Earnings Calculation as of June 30, 2021

(\$ Thousands)	Preliminary
Total NYCERS Pension Fund	
1. FY2021 Equity Earnings	\$ 16,727,526
2. FY2021 Hypothetical Earnings	\$ 540,814
3. FY2021 Excess Earnings (1. - 2.)	\$ 16,186,712
4. Deficit at June 30, 2020	\$ 239,028
5. Hypothetical Interest Rate (HIR)	1.272%
6. Deficit with interest (4. x (1+HIR))	\$ 242,069
7. Potential Transferable Earnings (3. - 6.), not less than zero	\$ 15,944,643
	COVSF
Allocations to VSF	
8. Allocation Percentage	5.804%
9. Potential Transferable Earnings (7. x 8.)	\$ 925,427
10. APV of Accumulated Plan Benefits	\$ 1,326,086
11. MVA Prior to Transferable Earnings	\$ 302,658
12. Unfunded APV of Accumulated Plan Benefits = (10. - 11.), not less than zero	\$ 1,023,428
13. Transferable Earnings Payable (Lesser of 9. and 12., not less than zero)	\$ 925,427
14. Rounded Estimate, for FY21 Financial Statements ¹	\$ 925,000

¹ Included in MVA at June 30, 2021.

Summary of VSF Plan Provisions

A. Eligibility

Service Retirement with at least 20 or 25 years of allowable service, depending on the underlying plan, on or after July 1, 1999 for COVSF and on or after July 1, 1987 for HPOVSF, HPSOVSF, TPOVSF, and TPSOVSF. This benefit is not payable to disability retirees, vested retirees, or beneficiaries of members who die while eligible for service retirement.

B. Benefits

The benefit is currently \$12,000 per year, prorated in the first year and in the year of death based on the number of full months of retirement. The month of retirement and the month of death are not included in these two prorations. COVSF payments prior to Calendar Year 2019 were only paid if the assets in the COVSF were sufficient to pay the full amount due to all eligible retirees.

C. Cost-of-Living Benefits

Any AutoCOLA payable to a retiree reduces VSF benefits by an amount equal to such AutoCOLA until the attainment of age 62.

D. Form of Payment

Life annuity payable annually on or about December 15 for the current calendar year.

Summary of VSF Actuarial Assumptions and Methods

Assumptions not detailed below are as described in SECTION XII – ACTUARIAL ASSUMPTIONS AND METHODS.

1. **COLA:** 1.5% per year for AutoCOLA, used to estimate future COLA on the first \$18,000 of NYCERS benefits which, in general, reduces benefits payable by the Fund until age 62.
2. **Actuarial Asset Valuation Method:** Information on the Market Value of Assets (MVA) of the Variable Supplements Funds (VSF) is provided by the Office of the Comptroller. The same asset smoothing method is used to determine the Actuarial Value of Assets (AVA) of the COVSF, HPOVSF, HPSOVSF, TPOVSF, and TPSOVSF (referred to collectively as the NYCERS VSFs) as is used to determine the AVA of the Plan, except there is no corridor of 80% to 120% of the MVA for the VSFs. For more information, see SECTION II – MARKET AND ACTUARIAL VALUES OF ASSETS.
3. **Liability Method:** The obligations of NYCERS to the NYCERS VSFs are recognized through a methodology where the PV of future VSF transfers from NYCERS to the NYCERS VSFs is included directly as an actuarial liability of NYCERS. This amount is computed as the excess, if any, of the PV of benefits of each individual NYCERS VSF over the AVA of the respective, individual NYCERS VSF. Under EAN, a portion of the PV of future VSF transfers is reflected in the PV of future normal costs and a portion is reflected in the UAL.
4. **Transferable Earnings Calculation:** The ACCNY provides that NYCERS transfer to COVSF a portion of the amount by which earnings on equity investments of NYCERS exceed what the earnings would have been had such funds been invested at the Hypothetical Interest Rate, less any negative Cumulative Earnings Differentials and other limitations, determined as follows:
 - a. *Hypothetical Interest Rate:* 115% of the 12-month average of monthly 10-year U.S. Treasury Note yields
 - b. *Hypothetical Fixed Income Securities Earnings:* Investment earnings had equities been invested in fixed income securities earning the Hypothetical Interest Rate
 - c. *Earnings Differential:* Difference between actual equity investment earnings and Hypothetical Fixed Income Securities Earnings

- d. *Cumulative Earnings Differential*: The current year's Earnings Differential, offset by any negative Earnings Differentials from prior years, accumulated with interest at the corresponding year's Hypothetical Interest Rate

Under Chapter 255 of the Laws of 2000, NYCERS is required to make transfers to HPOVSF, HPSOVSF, TPOVSF, and TPSOVSF sufficient to meet their annual benefit payments.

SECTION VIII – RISK AND UNCERTAINTY

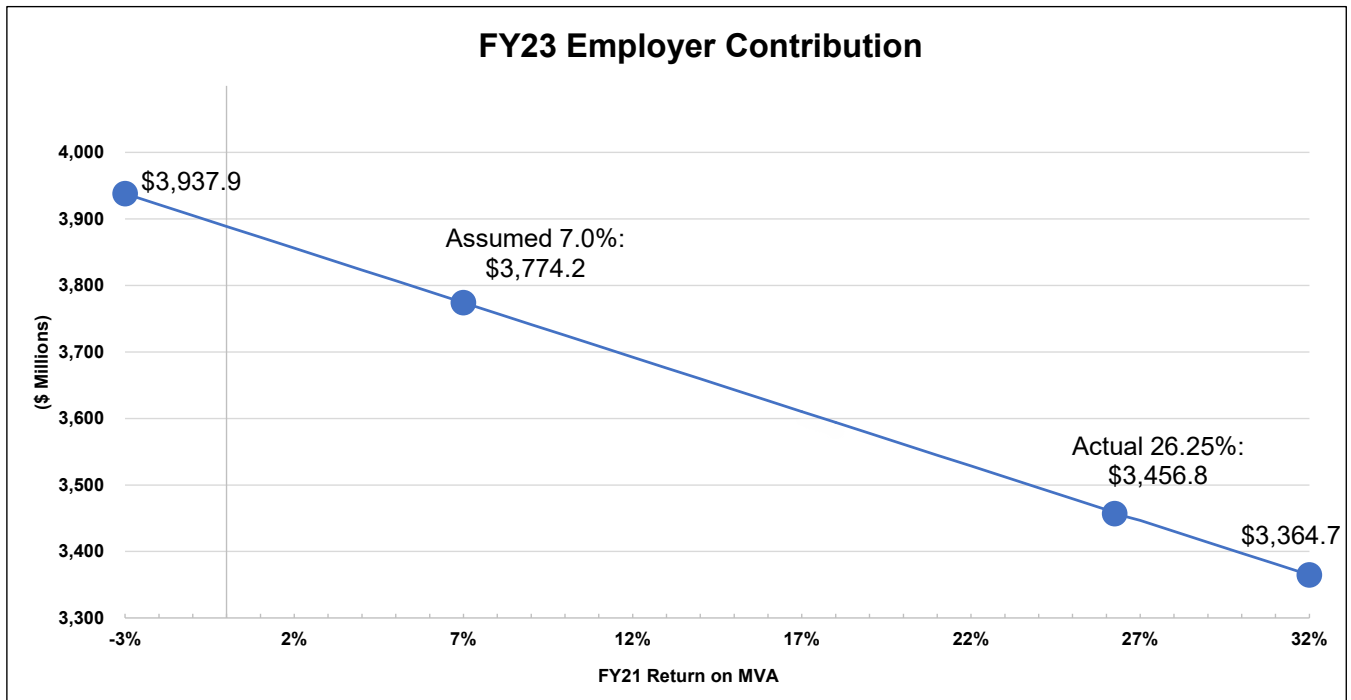
The funded status of NYCERS depends highly on the realization of the actuarial assumptions used, certain demographic characteristics of the Plan, and other factors. Risks faced by the Plan are described in this Section and have been separated into high, medium, and other risk categories.

High Risk Types

Investment Risk: The Risk of Not Realizing Expected Returns

The most substantial risk for most pension systems, NYCERS included, is the risk of investment returns being less than assumed. For NYCERS this assumed investment return is 7%.

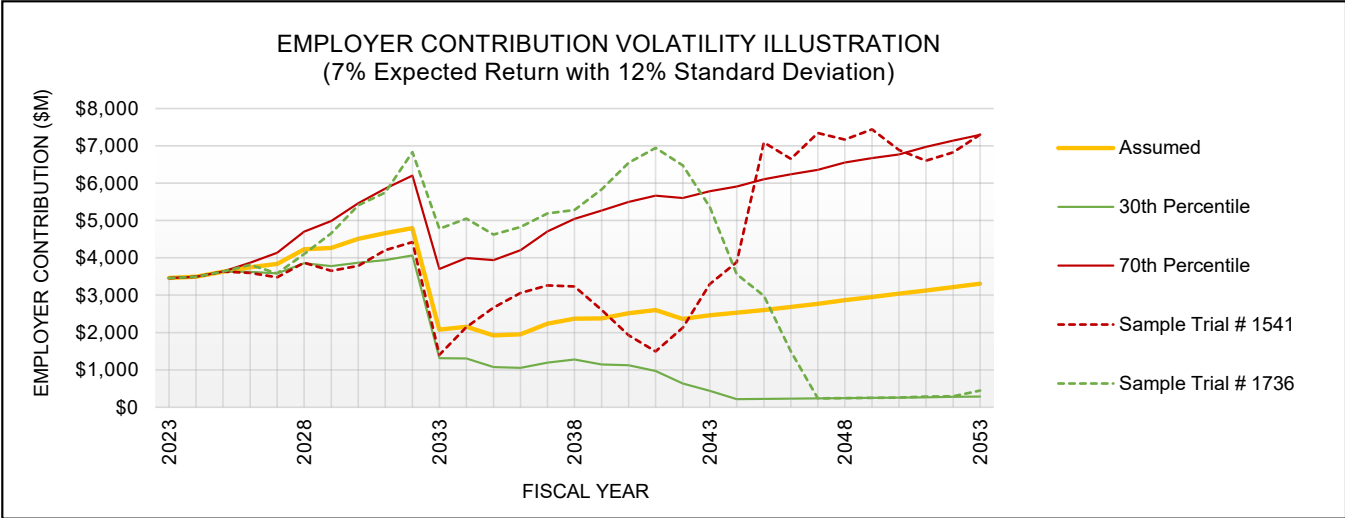
The graph below illustrates the potential FY23 employer contribution for a range of investment return outcomes if returns had differed from the assumed rate of return (i.e., from -3% to 32%). In addition, the actual investment return and employer contribution are shown.



Investment Risk: The Risk of Volatile of Realized Returns

Even when long-term investment returns meet actuarial assumptions, investment volatility can contribute substantially to contribution and funded status volatility. The following charts illustrate the impact of investment return volatility on employer contributions and funded ratios based on 5,000 30-year investment return trials. Each stochastic investment return within each 30-year trial was generated from a normal distribution with an expected return of 7% and a standard deviation of 12%. Note that individual asset classes within the portfolio were NOT separately modeled and no attempt was made to rebalance the asset classes during the 30-year trials. The actual investment return for the next valuation year was known prior to the publication of this report and was also incorporated into this projection.

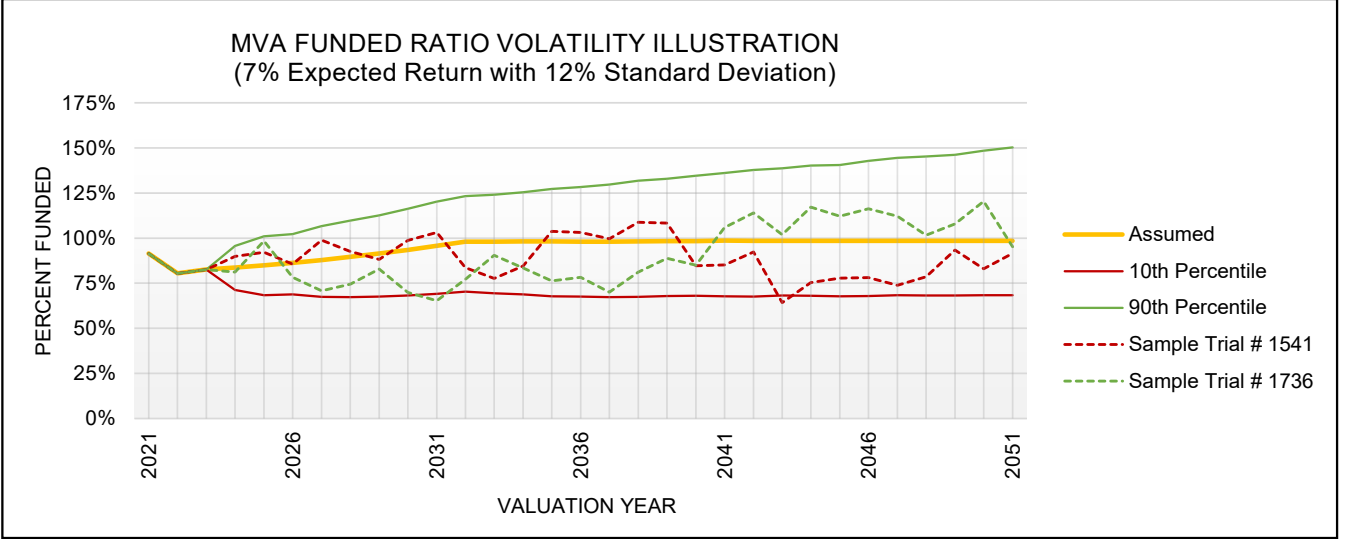
The yellow line in the charts show the results if investment returns were exactly 7% as expected. The two solid lines show results for the indicated percentile range and together frame a range of results based on all 5,000 trials. The two dashed lines illustrate sample results from among the 5,000 trials.



Please note how in the two sample trials above (the dotted lines), the actual employer contribution fluctuates above and below the assumed contribution rate due to investment return volatility.

The impact on the funded status for these two trials can also be seen below, where for example, the green dotted line is close to 100% funding at the end of the 30-year period (below) with a corresponding employer contribution approaching \$0 (above). The converse is shown in the red dotted line where at the end of the 30-year period, the employer contribution rate approaches \$7.3B (above) with a corresponding funded ratio of approximately 92% (below).

On average, the 5,000 trials result in the yellow assumed line with a funded status of 100% achieved around the fiscal year ending in 2032.

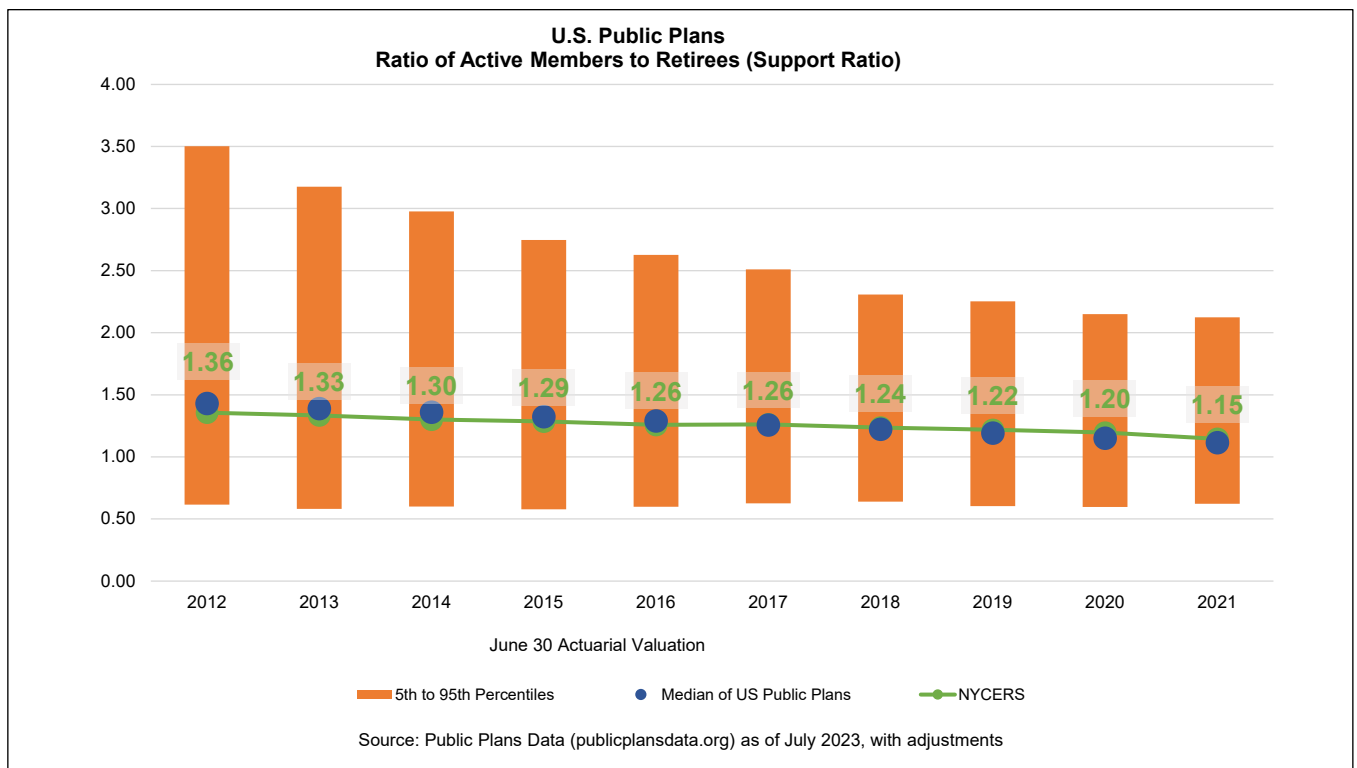


Maturity Risk: The Risk of Demographic Imbalance

In this subsection, the maturity of the Plan is examined with several metrics.

Ratio of Active Members to Retirees (Support Ratio)

A plan's Support Ratio (i.e., the ratio of active members to retirees) is an indicator of the Plan's maturity level. In a plan's early years, the ratio is very high as the plan contains mostly active members. As it matures, more active members transition to retirement, leading to a decrease in the Support Ratio over time that can result in a ratio near or below one. For NYCERS, this ratio has been steadily declining in recent years, meaning that fewer active workers exist to support pensioner payments.

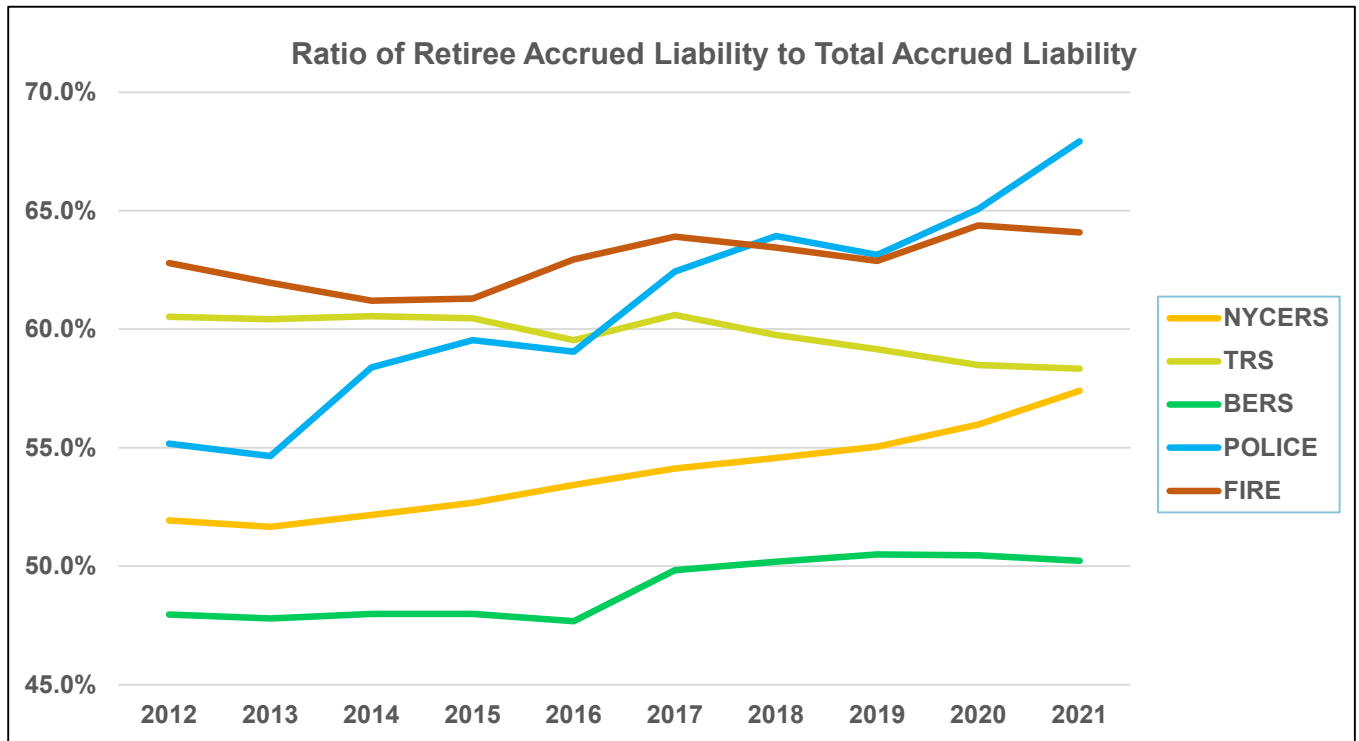


The chart above shows U.S. public pension plan Support Ratios in comparison to the Plan's. The median Support Ratio amongst U.S. public pensions has declined from 1.43 in the 2012 valuation year to 1.12 in the 2021 valuation year. Over that same period, the Plan's Support Ratio declined from 1.36 to 1.15, meaning fewer active workers exist to support guaranteed pensioner payments.

Because the Plan's Support Ratio is above the median in recent years, NYCERS' contributions for active members form a larger proportion of the total actuarial contribution than other pension funds in the U.S. with average maturity.

Ratio of Retiree Accrued Liability to Total Accrued Liability

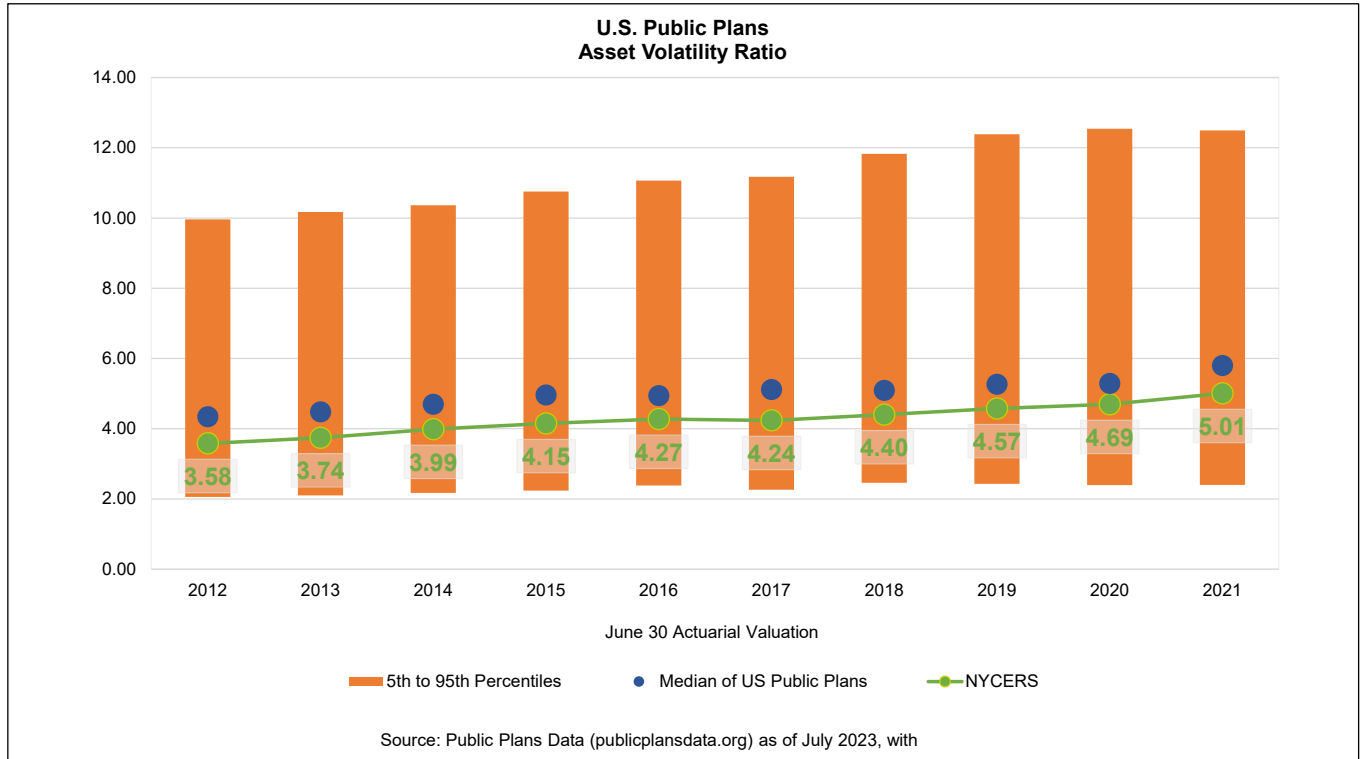
We can also consider the ratio of the Plan's retiree liability to its total liability. A new pension plan begins with this ratio at zero; as the plan matures, the ratio increases. Mature plans often have ratios above 60%. This measure is shown in the graph below for NYCERS; the other New York City Retirement Systems¹ (NYCRS) are included for comparison. The ratio for NYCERS has been between 53-57% for the past few years, indicating that NYCERS is not yet a fully mature retirement system.



¹ Teachers' Retirement System (TRS); Board of Education Retirement System (BERS); Police Pension Fund (POLICE); Fire Pension Fund (FIRE)

Asset Volatility Ratio

Another way to look at plan maturity is the Asset Volatility Ratio (AVR), or ratio of assets to payroll. This ratio tends to rise as plans mature because assets generally need to accumulate to provide for benefit payments. The chart below compares the AVR (on an AVA basis) for NYCERS to the population of public pension systems.



As a plan approaches maturity, AVRs tend to increase, and the plan's actuarially-determined contribution becomes more sensitive to investment losses. For example, the same percentage of investment losses in more mature plans with a larger asset base can increase contributions as a percentage of payroll more than in less mature plans, leading to additional volatility. Therefore, mature plans may wish to consider more conservative investment strategies. Typical AVRs for a mature retirement system are between five and six. As shown in the tables above, for NYCERS, since ratios are lower than the average, NYCERS is not considered a mature plan under this measure.

Medium Risk Types

Interest Rate Risk: The Risk of Reduction in the Long-Term Rate of Return

The Accrued Liability for the Plan depends heavily on the actuarial assumption used for future investment returns. While the returns themselves can produce substantial volatility, as detailed in the Investment Risk subsection above, the long-term rate of return assumption of 7.0% is highly dependent on the allocation of Plan assets.

If market conditions and/or the allocation of Plan assets no longer support a long-term rate of return assumption of 7.0%, the Actuarial Interest Rate (AIR) may have to be reduced, which can significantly increase the Accrued Liability, Unfunded Accrued Liability, Normal Cost, and resulting contribution of the Plan. The sensitivity of the Accrued Liability, the Unfunded Accrued Liability, and the Normal Cost of the Plan are shown below:

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM	
SENSITIVITY ANALYSIS AS OF JUNE 30, 2021	
Valuation Date	June 30, 2021
Results at 7.0%	
1. Accrued Liability (AL)	\$ 93,956,132,959
2. Actuarial Value of Assets (AVA)	76,587,843,000
3. Unfunded Accrued Liability (AVA Basis) (1. - 2.)	\$ 17,368,289,959
4. Normal Cost	\$ 1,612,468,268
Results at 6.0%	
1. Accrued Liability (AL)	\$ 104,422,908,110
2. Actuarial Value of Assets (AVA)	76,587,843,000
3. Unfunded Accrued Liability (AVA Basis) (1. - 2.)	\$ 27,835,065,110
4. Normal Cost	\$ 2,132,003,309
Sensitivity Analysis for 1.0% Reduction in Interest Rate	
1. Increase in Accrued Liability	11%
2. Increase in Unfunded Accrued Liability	60%
3. Increase in Normal Cost	32%

Longevity Risk: The Risk of Higher than Assumed Mortality Improvement

NYCERS faces risk in its assumption of future mortality rates. Actuarial experience studies were used to develop the base mortality rates assumed in the valuation; Society of Actuaries mortality improvement scale MP-2020 was subsequently applied to these base rates.¹

This scale MP-2020 is an assumption regarding the *improvement* of future mortality rates as compared to mortality when the experience studies were completed. The scale was developed using large amounts of historical data from the Social Security Administration. Risk therefore exists such that the mortality improvement inherent in the Plan population is higher than the improvement seen in the population provided by the Social Security Administration. When mortality improvement is higher than assumed, plan participants will live longer than expected, and the plan will pay more pension benefits than had been previously funded.

Furthermore, while the scale uses recent experience to develop short-term mortality improvement rates, an actuarial assumption is applied to long-term mortality improvement rates based on expert opinion. A rate of 1.0% is assumed, which the Society of Actuaries characterizes as “neither overly optimistic nor too pessimistic with respect to future longevity improvements.”² Risk to the Plan exists, however, if Plan mortality experience shows higher levels of long-term mortality improvement; expert opinion can in some cases be flawed, particularly when past experience is not indicative or predictive of future experience.

In a letter dated June 28, 2019, Buck analyzed historical Plan experience and noted “it appears that historical mortality improvement in NYC pensioners has kept pace with, and in some cases may have exceeded slightly, the mortality improvement trends in historical Social Security Administration graduated rates that are based on a broad US population” and that “continued use of MP-20xx mortality improvement scales seems reasonable.” It may be prudent in future years, after longer trends can be observed, to quantify the effect of changing the ultimate mortality improvement rate to be higher than 1.0%.

Litigation Risk: The Risk of Legal Claims and Lawsuits

It is not uncommon for New York City to be a defendant in legal claims and lawsuits.³ In its most recent claims report, the Comptroller reports that in FY2022, NYC settled 12,188 claims and lawsuits for \$1.5 billion. On occasion, these settlements involve NYCERS. The 1996 case *Gulino v. Board of Education* awards damages to plaintiffs that in some cases include counterfactual service and salary in NYCERS. It remains a continuing risk that litigation may expand the scope of pension benefits beyond what is intended or codified in statute.

¹ Retirement Plans Experience Committee. “Mortality Improvement Scale MP-2020 Report,” “Mortality Improvement Scale MP-2018 Report,” and “Mortality Improvement Scale MP-2014 Report.” *Society of Actuaries*.

² Retirement Plans Experience Committee. “Mortality Improvement Scale BB Report” 5.5 Selection of 1.0% Long-Term Rate of Mortality Improvement. *Society of Actuaries*.

³ <https://comptroller.nyc.gov/reports/annual-claims-report>

Credit/Solvency Risk: The Risk of Potential Insolvency of Contributing Entities

All public pension systems face credit risk in the event their sponsoring entities become unable to pay their debts and obligations. Credit rating agencies currently consider New York City bonds to be of high quality, and the Actuary believes the City faces low credit risk as a main contributing entity to NYCERS.

In addition, NYCERS is a multiple-employer plan with several contributing entities. NYCERS faces risk if contributing entities become insolvent while still carrying Unfunded Accrued Liability (e.g., Off-Track Betting Corporation (OTB)). Existing law and precedent transfer these amounts to other employers, creating imbalanced funding responsibility in the event of default.

Other Risk Types

Inflation Risk: The Risk of Higher than Assumed Inflation

NYCERS faces risk if inflation is higher than expected. Inflation is a key driver of the salary increase assumptions (affecting active members) and COLA assumptions (affecting both active members and pensioners/beneficiaries). A quantitative analysis is not available at this time. Notably, however, the pensioner COLA is limited to half of CPI on the first \$18,000 of annual benefits, which limits the risk exposure to inflation.

Contribution Risk: The Risk that Future Contributions Are Less Than the Actuarially-Determined Contributions

Public pension systems can suffer from contribution risk when sponsoring governmental entities fail to make contributions as determined by the actuary under their funding policies.

The New York City Retirement Systems and Pension Funds face low contribution risk. City benefits are constitutionally protected, and with the exception of OTB, participating employers have generally contributed to the actuarial contribution as certified by the Actuary. The Actuary believes the City and the other participating employers will continue to do so in future years. See Table III-5 – ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY.

Contribution risk may also increase in future years if the actuarial contribution determined for the Plan grows to be a larger part of the City budget. The five New York City Retirement Systems and Pension Funds currently require contributions of approximately 10% of the City's annual budget, and contribution risk may increase if this contribution rate becomes untenable.

Agency/Political Risk: The Risk of Stakeholder Influences

With assumed long-term asset returns and gradual amortization of unfunded liabilities, the funded status of the Plan is expected to improve over time. Many public pension systems suffer from agency risk, wherein different stakeholders or agents want to influence the cost calculations in directions favorable to their interests. Agents may also downplay other risks (e.g., investment risk) to advance specific agendas. These situations create cases where promises for future funding can be disregarded for political expediency or other priorities. In other cases, certain plan provisions or administrative practices intended to provide occasional clarity or relief become commonplace or intentionally sought for the benefit of members at the expense of taxpayers.

Intergenerational Equity Risk: The Risk of Inequity in the Actuarially-Determined Contributions

Intergenerational inequity could exist for certain stakeholders (e.g., public taxpayers). If, for example, liabilities are valued using overly conservative assumptions, aggressive funding patterns may occur, thus causing current taxpayers to shoulder a disproportionately high share of the funding burden, as compared to past and future taxpayers. The reverse can also be true if aggressive or unrealistic assumptions are used. As the Plan is ongoing,

taxpayers across all generations should be expected to offer similar funding contributions over the lifetime of the Plan.

Additionally, in future years of higher or lower funded status, changes in the statute may take place that can improve or diminish plan provisions. If so, intergenerational equity risk could increase as taxpayers and plan members at that time may receive preferential or less preferential treatment over the taxpayers and plan members prior to and subsequent to them.

SECTION IX – SUMMARY OF PLAN PROVISIONS

A. Covered Employment

Membership in NYCERS is open to all employees of participating employers who are not eligible for membership in another retirement system. Membership in NYCERS may be voluntary or mandated. Participating Employers include the following:

Employer	Abbreviation
City of New York	NYC
City University of New York	CUNY
NYC Health and Hospitals Corporation	HHC
NYC Housing Authority	HA
NYC Housing Development Corporation	HDC
NYC Municipal Water Finance Authority	WFA
NYC School Construction Authority	SCA
NYC Transit Authority	TRN
NYC Triborough Bridge and Tunnel Authority	TBTA

NYCERS contains benefit plans that are grouped as follows:

Group	Eligible Employees	Abbreviation
General (GEN)	District Attorney Investigators	IDA
	Emergency Medical Technicians	EMT
	Fire Alarm Dispatchers	DIS
	Employed in a job title for special peace officers	SPO
	Employed in a job title for automotive service work	AUT
	Deputy Sheriffs	DSH
	Police Communication Technicians	PCT
	All others	OTH
Sanitation	Members of the uniformed force of the NYC Department of Sanitation (Uniformed Sanitation Force)	SAN
Transit	Employed in a Transit Operating Force position	TRN
TBTA	TBTA Officers, Sergeants, and Lieutenants employed in non-managerial positions	TBTA
Correction Officers	Members of the uniformed force of the NYC Department of Correction (Uniformed Correction Force)	COR

B. Tier Membership

Tier membership is based on the date that the member joined NYCERS. The tier status of earlier membership in NYCERS or another New York City or New York State public

employee retirement system is reflected, but only if the service associated with that membership is purchased and included in Credited Service.

Tier by Group and Hire Date	IDA	COR	SAN	All Other Groups
Prior to July 1, 1973	Tier 1			
July 1, 1973 to July 26, 1976	Tier 2			
July 27, 1976 to March 31, 2012	Tier 2	Tier 3	Tier 4	
April 1, 2012 or after	Tier 3 22-year plan ¹			Tier 6

Unless otherwise noted, Tier 1 and Tier 2 provisions are hereafter omitted for brevity², as well as Tier 3 provisions for all groups other than Correction Officers.

For more information about benefits, see the applicable Summary Plan Descriptions at www.nycers.org. In the event of a conflict between this summary and applicable law, the applicable laws will govern.

C. Basic Member Contributions (BMC)

Basic Member Contributions earn 5% interest per year, compounded annually.

For COR Tier 3 members, all Tier 4 members, and Tier 3 22-year plan members, BMC details are shown in the table below:

Group/Plan(s)	Contribution Rate	Period
TRN 55/25 Tier 4 plans	2.0%	All service
Tier 3 and all other Tier 4 plans	3.0%	The first 10 years of service
Tier 3 22-year plans	3.0%	The first 25 years of service

For Tier 6 members, BMC are made for all years of Credited Service according to the following schedule:

Lookback Wages	BMC Contribution Rate
Less than \$45,000	3.00%
\$45,001 up to \$55,000	3.50%
\$55,001 up to \$75,000	4.50%
\$75,001 up to \$100,000	5.75%
Greater than \$100,000	6.00%

¹ Sometimes denoted Tier 3R for clarity.

² Approximately 0.2% of active members as of June 30, 2021 are members of Tier 1 and Tier 2.

The lookback wages used for determining the Tier 6 BMC contribution rate for a plan year are the actual wages earned two plan years prior to the plan year. A projected salary is used during the first three years of Credited Service. The BMC contribution rate was limited to 3% from April 1, 2012 through March 31, 2013.

D. Additional Member Contributions (AMC)

Additional Member Contributions including AMCs for work in physically taxing employment (AMC-PT) earn 5% interest per year, compounded annually. The AMC contribution rate as a percentage of Salary varies by plan in accordance with the following table:

Plan Description	AMC Rate	Years Required
Ch 96 55/25 plans	1.85% ¹	30
Ch 96 57/5 plans		
EMT 25-year plans	6.25%	30
DIS 25-year plans	6.00%	
PCT 25-year plans	6.00%	
DSH 25-year plans	6.75%	
SPO 25-year plans	6.25%	
AUT 25-year plans	4.83%	
SAN Tier 4	5.35%	
SAN Tier 3 22-year enhanced disability plan	1.30%	25
COR Tier 3 20-year plan ²	3.61% or 4.61%	20
COR Tier 3 22-year enhanced disability plan	0.90%	25
TBTA 50/20 plans ²	5.50% or 6.00%	20
All others	None	N/A

E. Credited Service

Credited Service is comprised of Membership Service, Part-time Service, Previous Service, Transferred Service, and Military Service.

- **Membership Service:** Service earned while a member of NYCERS.
- **Part-time Service:** Service that is prorated based on the number of hours or days worked in the year.
- **Previous Service:** Service earned prior to membership while employed by the City of New York, the State of New York, or any of its political subdivisions, or by another covered employer.

¹ Members in physically-taxing classifications contribute an additional 1.98%, on top of the 1.85%.

² Contribution rate depends on member's job title.

- **Transferred Service:** Service earned as a member of another public retirement system in the City or State of New York.
- **Military Service:** Service for qualified time served in one of the armed forces of the United States.

Previous Service, Transferred Service, and Military Service must be purchased to count as Credited Service. Payments made for purchasing Military Service are considered employer contributions.

F. Salary

Salary is based on the annual wages earned in covered employment including overtime pay. Some limitations apply for the Salary used to determine Final Average Salary (FAS).

Tier 4: Wages greater than 110% of the average of the previous two years are excluded for purposes of determining FAS.

Tier 6 and Tier 3 22-year plans: Wages greater than 110% of the average of the previous four years are excluded for purposes of determining FAS. In addition, the following payments are also excluded from wages for purposes of determining FAS:

1. Wages greater than the annual salary paid to the Governor of the State of New York;
2. Lump sum payments for deferred compensation, sick leave, accumulated vacation or other credits for time not worked;
3. For Tier 6 members, overtime greater than the overtime ceiling of \$15,000, effective April 1, 2012 and indexed annually by the Consumer Price Index (CPI-U);
4. Any form of termination pay;
5. Any additional compensation paid in anticipation of retirement; and
6. In the case of employees who receive wages from three or more employers in a twelve-month period, the wages paid by the third and each successive employer.

G. Final Average Salary

Service retirement, early retirement, disability retirement, and vested retirement benefits are based on FAS.

Tier 4: FAS is the highest average Salary earned in any three consecutive years of Credited Service or in the final 36 months of Credited Service if greater.

Tier 6 and Tier 3 22-year plans: FAS is the highest average Salary earned in any five consecutive years of Credited Service or in the final 60 months of Credited Service if greater (FAS5).

H. Service Retirement

1. Eligibility: The eligibility requirements for an unreduced service retirement are summarized in the table below:

Tier(s)	Plan Description	Minimum Age	Minimum Service
3	COR 20-year plan	N/A	20
3	COR 25-year plan	N/A	25
3	COR Basic 62/5 plan	62	5
4	Basic 62/5 plan	62	5
4	Chapter 96 55/25 plan ¹	55	25
4	Chapter 96 57/5 plan ¹	57	5
4	SAN Tier 4 regular	55	30
4	SAN 20-year plan	N/A	20
4 & 6	EMT, DIS, SPO, DSH, and PCT 25-year plans	N/A	25
4 & 6	AUT 25-year/age 50 plans	50	25
4 & 6	TRN 25-year/age 55 plans	55	25
4 & 6	TBT 20-year/age 50 plans	50	20
3R	22-year plans	N/A	20
6	Basic 63/5 plan	63	5

2. Benefits:

Tier	Plan Description	Benefit Formula
4	Basic 62/5 plan	<p>If less than 20 years of Credited Service: 1/60 times FAS times Credited Service</p> <p>If 20 or more years of Credited Service: Sum of 2.0% times FAS times Credited Service up to 30 years, plus 1.5% times FAS times Credited Service greater than 30 years</p>
4	Chapter 96 55/25	
4	Chapter 96 57/5	
4	SAN Tier 4 regular	
4 & 6	TRN 55/25 plan	
4	SAN 20-year plan	2.5% times FAS times Credited Service up to 20 years, plus 1.5% times Final Compensation ² times additional Credited Service up to 10 more years

¹ Members of Chapter 96 55/25 and 57/5 who work in a physically taxing employment are eligible for unreduced service retirement at age 50 with 25 years of service.

² Final Compensation here means FAS5 without the limitation that no year exceed 110% of the prior four-year average.

Tier	Plan Description	Benefit Formula
4 & 6	EMT, DIS, SPO, AUT, and PCT 25-year plans	2.0% times FAS times Credited Service up to 30 years
4 & 6	DSH 25-year plan	2.2% times FAS times Credited Service up to 25 years, plus 1.7% times FAS times additional Credited Service up to 5 more years
4 & 6	TBT 50/20 plan	2.5% times FAS times Credited Service up to 20 years, plus 1.5% times FAS times additional Credited Service up to 10 more years
3	COR 20-year plan	2.5% times FAS times Credited Service up to 20 years, plus 1.67% times FAS times additional Credited Service up to 10 more years
3	COR 25-year plan	50% times FAS
3	COR 62/5 plan	<u>If less than 20 years of Credited Service:</u> 1/60 times FAS times Credited Service, minus 50% of your Primary Social Security Benefit <u>If 20 or more years of Credited Service:</u> Sum of 2.0% times FAS times Credited Service up to 30 years, minus 50% of your Primary Social Security Benefit
3R	22-year plans	2.1% times FAS times Credited Service up to 20 years, plus 4.0% times FAS times additional Credited Service up to 2 more years
6	Basic 63/5 plan	<u>If less than 20 years of Credited Service:</u> 1/60 times FAS times Credited Service <u>If 20 or more years of Credited Service:</u> 35% times FAS, plus 2.0% times FAS times Credited Service greater than 20 years

I. Early Retirement

1. Eligibility: Not all plans provide for early retirement. However, certain participants may be eligible to elect early retirement under the Tier 3, Tier 4, or Tier 6 Basic plan. The eligibility requirements for early retirement plans are summarized in the table below:

Tier	Plan Description	Minimum Age	Minimum Service
3	COR Tier 3 Basic 62/5 Plan	55	5
4	Basic 62/5 plan	55	5
6	Basic 63/5 plan	55	5

2. Benefits:

The service benefit is reduced for early retirement based on the age at commencement.

- a. COR Tier 3 Basic 62/5 Plan:

The service retirement benefit is reduced by 1/180 for each of the first 24 months that the age at commencement precedes age 62, and reduced 1/360 for each of the next 60 months that the age of commencement precedes age 60.

- b. Tier 4 Basic 62/5 Plan:

The service retirement benefit is reduced by 0.50% for each of the first 24 months that the age at commencement precedes age 62, and reduced 0.25% for each of the next 60 months that the age of commencement precedes age 60:

Age	Early Retirement Factor
61	0.94
60	0.88
59	0.85
58	0.82
57	0.79
56	0.76
55	0.73

c. Tier 6 Basic 63/5 Plan:

The service retirement benefit is reduced by $\frac{13}{2400}$ for each month (i.e., 6.5% per year) that the age of commencement precedes age 63.

J. Disability Retirement

1. Accidental Disability (ADR)

a. Eligibility: No age or service requirement. Requires Medical Board determination that the active member is physically or mentally incapacitated due to an accident in the performance of duties and that the accident is not due to willful negligence of the member.

b. Benefits:

i. All plans other than those specified below: Greater of $\frac{1}{60}$ times FAS times Credited Service or $\frac{1}{3}$ times FAS. The member may elect a service retirement benefit, if eligible.

ii. SAN, COR, and IDA Tier 3 22-year non-enhanced disability plan members: 50% x FAS

iii. EMT, DSH, SAN Tier 3 22-year enhanced disability plan members, and COR Tier 3 22-year enhanced disability plan members: 75% x FAS

2. Ordinary Disability (ODR)

a. Eligibility: 10 years of Credited Service. Requires Medical Board determination that the active member is physically or mentally incapacitated due to an accident while not in the performance of duties.

b. Benefits: Greater of $\frac{1}{60}$ times FAS times Credited Service or $\frac{1}{3}$ times FAS. The member may elect a service retirement benefit, if eligible.

K. Death Benefits

1. Accidental Death Benefits (New York City-paid)

a. Eligibility: No age or service requirement. Death due to the performance of duties while an active member.

b. Benefits: A monthly pension is payable to the beneficiary equal to 50% of $\frac{1}{12}$ of annual wages earned during the year prior to death. The benefit is based on 50% of $\frac{1}{12}$ of the annual wage rate if the member had less than one year of Credited Service.

2. Special Accidental Death Benefits (New York State-paid)

- a. Eligibility: No age or service requirement. Death of a COR, EMT, SAN, or TBTA member due to the performance of duties while an active member. Payable to the surviving spouse or children until age 18 (or age 23, if a full-time student), if there is no surviving spouse. If there is no surviving spouse or no eligible children, it is payable to parents.
- b. Benefits: A monthly pension is payable to the beneficiary in an amount that when added to the New York City-paid Accidental Death Benefit (outlined in 1.) and any payable Social Security benefit is equal to the decedent's last year's wages including overtime and any other type of pensionable earnings.

3. Ordinary Death Benefit

a. Eligibility:

- i. Active members: No age or service requirement. Death during active employment while not in the performance of duties.
- ii. Deferred vested members: Death after termination of employment and prior to benefit commencement.
- iii. Retired Members: Death after benefit commencement.

b. Benefits:

- i. Active members: Refund of BMC and the employee portion of AMC, if any, with interest plus a salary-based death benefit. The salary-based death benefit is equal to one year's wages times completed years of Credited Service up to 3 years¹. The salary-based portion of the death benefit is reduced 5% for each year the member remains in service beyond age 60 (to a maximum reduction of 50% at age 70).
- ii. Deferred vested members with 10 or more years of Credited Service: Refund of BMC and the employee portion of AMC, if any, with interest plus one half of the salary-based death benefit that would have been payable had the member died on the last day of active service as described above.
- iii. Deferred vested members with less than 10 years of Credited Service: Refund of BMC and the employee portion of AMC, if any, with interest.

¹ SAN, COR, and Tier 3R IDA have a different benefit; other exclusions apply.

- iv. Retirees: The active salary-based death benefit, if eligible¹, that would have been payable had the member died on the last day of active service times the Adjustment Factor described in the table below:

Year of Death	Adjustment Factor
1 st year after retirement	50%
2 nd year after retirement	25%
3 rd year or later after retirement	10% times the benefit in effect at age 60 or at retirement if earlier

- c. Form of Payment: Lump sum.

L. Vested Retirement After Termination

1. Eligibility:
 - a. Tier 4 plans: 5 years of Credited Service.
 - b. Tier 6 plans: 5 years of Credited Service.
2. Benefits: The vested benefit is equal to the amount of the Service Retirement benefit (unless noted otherwise below), payable at the times specified below.
 - a. Tier 4 EMT, DIS, SPO, DSH, AUT, PCT 25-year plans: When the member would have earned 25 years of Credited Service if he or she had continued working in covered employment.
 - b. Tier 4 57/5 plans: Age 57.
 - c. All other Tier 4 plans: Age 62.
 - d. Tier 3 22-year plans: When the member would have earned 20 years of Credited Service if he or she had continued working in covered employment.
 - e. Tier 6 plans: Age 63. In no case can the vested benefit be less than the annuity equivalent of the BMC.

M. Forms of Payment

1. Normal Form of Payment: Single Life Annuity.

¹ SAN, COR, and Tier 3R IDA have a different benefit; other exclusions apply.

2. Optional Forms of Payment: Joint and Survivor Annuities, Certain and Life Annuities, and Pop-up Annuities.

N. Cost-of-Living Adjustments (COLA)

Annuity payments are increased annually on September 1st, but only after a pensioner has attained the applicable eligibility threshold. Some beneficiaries are not eligible for COLA increases. The COLA increase is equal to a base benefit times a COLA percentage. The COLA increase for a spouse receiving a joint & survivor annuity is one half of the COLA increase that would have been applicable to the member had he or she survived.

1. Eligibility Thresholds:
 - a. Service Retirement and Vested Retirement: The earlier of (i) and (ii):
 - i. Attainment of age 62 and 5 years since commencement
 - ii. Attainment of age 55 and 10 years since commencement
 - b. Disability Retirement: 5 years since commencement
 - c. Beneficiaries of an Accidental Death benefit: 5 years since commencement
2. Eligible beneficiaries: Spouses receiving a joint & survivor annuity. All others are non-eligible.
3. Base Benefit: The lesser of \$18,000 and the maximum retirement allowance plus the sum of prior years' COLA increases.
4. COLA percentage: 50% of the Consumer Price Index (CPI-U) based upon the 12 months ending March 31 prior to each September 1 effective date, rounded to the next higher 0.1%. Such percentage shall not be less than 1.0% nor greater than 3.0%.

O. Escalation

Applicable to Tier 3 22-year plan members who work past 22 years, with full escalation applicable after 25 years of service.

1. Eligibility: Service, vesting, disability retirement, and survivor benefits.
2. Full Escalation Date
 - a. Vested and Service Pensions: The first day of the month following the day which a member completes or would have completed 25 years of service.

- b. Disability Pensions: The first day of the month following the day which a non-Enhanced Plan disability retiree first becomes eligible for ODR/ADR.
- c. Death Benefits: The first day of the month following the day which a beneficiary first becomes eligible for a death benefit paid other than in a lump sum.

3. Amount

If a member first begins receiving benefits on the same date as the Full Escalation Date, the member will receive Full Escalation which is the lesser of 3.0% or the Cost-of-Living Index increase, as computed on the December 31 of each prior year for benefits being escalated the following April.

In the event of a decrease in the Cost-of-Living Index, the current benefit will be decreased by the lesser of 3% or the Cost-of-Living Index. However, the benefit will not be reduced below the benefit payable at the initial commencement date.

In addition, Cost-of-Living Index changes are computed on a cumulative basis so that any increases or decreases not affected in an adjustment are carried forward and applied in subsequent years.

4. Partial Escalation

Partial Escalation is calculated on benefits that commence prior to the member's Full Escalation Date. For each month that the benefit commencement date succeeds the date when a member completes or would have completed 22 years of service, a member will receive 1/36th of the Full Escalation, to a maximum of Full Escalation at 25 years of service.

P. Refund of BMC and AMC

Refunded with interest under some circumstances. AMC include Additional Member Contributions for work in physically taxing employment (AMC-PT). Only the employee portion of AMC is refunded.

- 1. Employee Portion of AMC: The employee portion of AMC is 50% for all plans that require AMC except for the EMT, DIS, SPO, DSH, AUT, and PCT plans, it is 100%.
- 2. Non-vested termination: BMC and employee portion of AMC are refunded with interest.

3. Vested termination:
 - a. A member may elect a refund of BMC and the employee portion of AMC with interest in lieu of a pension benefit, but only if he or she has less than 10 years of Credited Service.
 - b. A member of one of the EMT, DIS, SPO, DSH plans may elect a refund of AMC in lieu of remaining in their respective 25-year plan if he or she leaves service prior to earning 15 years of Credited Service as a member of their respective 25-year plan.
 - c. A member of one of the AUT, PCT plans may elect a refund of AMC in lieu of remaining in their respective 25-year plan if he or she leaves service prior to earning 5 years of Credited Service as a member of their respective 25-year plan.
4. Ordinary death: BMC and the employee portion of AMC are refunded with interest.
5. Accidental death: The employee portion of AMC are refunded with interest.
6. Disability Retirement: The employee portion of AMC are refunded with interest.
7. Service Retirement: The employee portion of AMC are refunded with interest if the member retires on or after age 62. For retirement prior to age 62, the employee portion of AMC-PT are refunded if a member of the Chapter 96 55/25 plan retires on or after age 55 with 25 years of Credited Service or if a member of the Chapter 96 57/5 plan retires on or after age 57 with 25 years of Credited Service.
8. For members who participate in the Sanitation and Correction Tier 3 22-year enhanced disability plans, AMC are not refundable.

Q. Service and Early Retirement for Tier 4 Members with Tier 3 Rights

1. Eligibility: Age 55 and 5 years of Credited Service.
2. Benefits: These members may elect a Tier 3 benefit instead of a Tier 4 benefit. The benefit formula for Tier 3 is the same as the benefit formula for the Tier 4 Basic 62/5 plan except:
 - a. Credited Service under the Tier 3 benefit formula is capped at 30 years,
 - b. The Tier 3 benefit formula includes an offset starting at age 62 equal to 50% of the Primary Social Security benefit, and

- c. The early retirement factors used to reduce benefits for early commencement are smaller and thus reduce benefits more for Tier 3 than the corresponding factors used under the Basic Tier 4 62/5 plan.
- 3. Cost-of-Living Adjustments: Tier 3 retirement benefits may be adjusted annually by Escalation. A Tier 3 retirement benefit cannot be less than the initial benefit payable at the commencement date.
 - a. Full Escalation: Applicable for benefits commencing on or after age 65. Equal to the lesser of 3% and the Consumer Price Index (CPI-U) for increases in the CPI-U, and the greater of -3% and the Consumer Price Index (CPI-U) for decreases in the CPI-U.
 - b. Partial Escalation: Applicable for benefits commencing after age 62 and prior to age 65. Equal to full escalation reduced by 1/36 times the number of months that the age at commencement precedes age 65.

R. Loans

A member generally may borrow up to 75% of the accumulated BMC with interest. A member's unpaid loan balance will reduce his or her retirement benefit.

S. Others

Continued compliance has been presumed under the OWBPA.

SECTION X – CHAPTER AMENDMENTS

The June 30, 2021 actuarial valuation results reflect the following Chapter amendments from the prior five years.

- **Chapter 782 of the Laws of 2022** (Chapter 782/22) permits parents of a member to collect Special Accidental Death Benefit (SADB) if the member has no spouse or child under the age of 18 (or 23 if the child is a student).
- **Chapter 56 of the Laws of 2022** (Chapter 56/22) reduces the Tier 6 vesting requirement from 10 years to 5 years and allows for retirement with 5 years of service, and excludes certain forms of overtime and extracurricular compensation from the salary used to determine Tier 6 Basic Member Contribution rates during the specified period from 2022 to 2024.
- **Chapter 424 of the Laws of 2021** (Chapter 424/21) expands eligibility of certain public service employees for participation in the World Trade Center (WTC) Rescue, Recovery, or Clean-up Operations.
- **Chapter 327 of the Laws of 2021** (Chapter 327/21) grants a 3% COLA increase to beneficiaries receiving Special Accidental Death Benefits pursuant to Section 208(f) of the General Municipal Law (GML). (Similar legislation was enacted in each of the previous years.)
- **Chapter 89 of the Laws of 2020** (Chapter 89/20) provides death benefits to statutory beneficiaries of members whose death was a result of or was attributed to COVID-19.
Chapter 78 of the Laws of 2021 (Chapter 78/21) amends Chapter 89/20 by extending the eligibility window of these death benefits through December 31, 2022.
- **Chapter 266 of the Laws of 2018** (Chapter 266/18) extends the deadline for filing a Notice of Participation in the WTC Rescue, Recovery, and Cleanup Operations to September 11, 2022.

SECTION XI – SUBSEQUENT EVENTS

The following legislation was adopted after the June 30, 2021 valuation date and could have an impact on future years' valuations:

- **Chapter 783 of the Laws of 2022** (Chapter 783/22) amends Chapter 78/21 and Chapter 89/20 by extending the eligibility window of these death benefits through December 31, 2024.
- **Chapter 775 of the Laws of 2022** (Chapter 775/22) increased the asset allocation limit for “Basket Clause” investment from 25% to 35%.
- **Chapter 585 of the Laws of 2022** (Chapter 585/22) expands the qualifications for military service buybacks.
- **Chapter 561 of the Laws of 2022** (Chapter 561/22) extends the deadline for filing a Notice of Participation in the World Trade Center Rescue, Recovery, or Cleanup Operations from September 11, 2022 to September 11, 2026.
- **Chapter 528 of the Laws of 2022** (Chapter 528/22) **and Chapter 213 of the Laws of 2023** (Chapter 213/23) extend the 3% COLA increase to beneficiaries receiving Special Accidental Death Benefits. Note that the June 30, 2021 valuation assumes that future legislation on this 3% COLA increase will continue to pass in subsequent years. For more information on this COLA assumption, see Page 86.

SECTION XII – ACTUARIAL ASSUMPTIONS AND METHODS

The results in this valuation report are based upon standard actuarial models (including but not limited to Entry Age Normal and related parameters) that are widely used in actuarial practice. The models are intended to calculate the liabilities associated with these plan provisions using data and assumptions as of the measurement date, and using actuarial assumptions and methods further described below. Most of this liability and cashflow modeling is currently implemented using ProVal, an actuarial valuation and projection software program developed by Winklevoss Technologies. These results are reviewed for accuracy, reasonability, and consistency with prior results, consistent with the requirements of Actuarial Standard of Practice 56. The model is also reviewed extensively when significant changes are made to the software and additionally typically biennially by outside actuarial auditors hired by the New York City Comptroller.

Pension payments that exceed the Internal Revenue Code Section 415 Limit which have been or are expected to be made from the Excess Benefit Plan are excluded from this valuation. There were no other changes in actuarial assumptions and methods compared to the June 30, 2020 valuation.

**Table XII-1
Active Retirement Rates**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF SERVICE RETIREMENT: GENERAL					
Age	Reduced Service Retirement	Unreduced Service Retirement For Members Mandated Into Their Retirement Program		Unreduced Service Retirement For Members Who Elected an Improved Retirement Program	
		Year 1	Ultimate	Year 1	Ultimate
≤ 54	0.00%	8.00%	5.00%	40.00%	15.00%
55	3.50%	8.00%	5.00%	40.00%	15.00%
56	3.50%	8.00%	5.00%	40.00%	15.00%
57	3.50%	8.00%	5.00%	40.00%	15.00%
58	3.50%	8.00%	5.00%	40.00%	15.00%
59	5.25%	8.00%	5.00%	40.00%	15.00%
60	7.00%	8.00%	5.00%	40.00%	15.00%
61	8.00%	8.00%	7.50%	40.00%	15.00%
62	8.00% ¹	30.00%/8.00% ²	10.00%	60.00%	25.00%
63	0.00%	20.00%/30.00% ³	15.00%	40.00%	20.00%
64	0.00%	20.00%	15.00%	40.00%	20.00%
65	0.00%	30.00%	20.00%	60.00%	25.00%
66	0.00%	20.00%	15.00%	40.00%	20.00%
67	0.00%	20.00%	15.00%	40.00%	20.00%
68	0.00%	20.00%	15.00%	40.00%	20.00%
69	0.00%	20.00%	15.00%	40.00%	20.00%
70	0.00%	25.00%	25.00%	40.00%	25.00%
71	0.00%	25.00%	25.00%	40.00%	25.00%
72	0.00%	25.00%	25.00%	40.00%	25.00%
73	0.00%	25.00%	25.00%	40.00%	25.00%
74	0.00%	25.00%	25.00%	40.00%	25.00%
75	0.00%	25.00%	25.00%	40.00%	25.00%
76	0.00%	25.00%	25.00%	40.00%	25.00%
77	0.00%	25.00%	25.00%	40.00%	25.00%
78	0.00%	25.00%	25.00%	40.00%	25.00%
79	0.00%	25.00%	25.00%	40.00%	25.00%
≥ 80	N/A	100.00%	100.00%	100.00%	100.00%

¹ 8.00% only applies to Tier 6 members; 0.00% otherwise.

² 30.00% for Tiers 1-4 members and 8.00% for Tier 6 members.

³ 20.00% for Tiers 1-4 members and 30.00% for Tier 6 members.

**Table XII-1
Active Retirement Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM				
PROBABILITIES OF SERVICE RETIREMENT: CORRECTION				
	Reduced Service Retirement Tiers 1-3		Reduced Service Retirement Tier 3R ¹	
	Age	Rate	Service	Rate
		≤ 54	0.00%	≤ 19
	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		
Age	Unreduced Service Retirement For Members Mandated Into Their Retirement Program		Unreduced Service Retirement For Members Who Elected an Improved Retirement Program	
	Year 1	Ultimate	Year 1	Ultimate
≤ 54	60.00%	20.00%	70.00%	20.00%
55	60.00%	20.00%	70.00%	20.00%
56	60.00%	20.00%	70.00%	20.00%
57	60.00%	20.00%	70.00%	20.00%
58	60.00%	20.00%	70.00%	20.00%
59	60.00%	20.00%	70.00%	20.00%
60	60.00%	20.00%	70.00%	20.00%
61	60.00%	30.00%	70.00%	30.00%
62	60.00%	40.00%	70.00%	40.00%
≥ 63	100.00%	100.00%	100.00%	100.00%

¹ Assumption also used for IDA Tier 3R members.

**Table XII-1
Active Retirement Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM				
PROBABILITIES OF SERVICE RETIREMENT: SANITATION				
	Reduced Service Retirement Tiers 1-4		Reduced Service Retirement Tier 3R	
	Age	Rate	Service	Rate
	≤ 54	0.00%	≤ 19	0.00%
55	4.00%	20	5.00%	
56	4.00%	21	2.00%	
57	4.00%	22	5.00%	
58	4.00%	23	2.00%	
59	6.00%	24	2.00%	
60	8.00%	≥ 25	N/A	
61	10.00%			
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			
Age	Unreduced Service Retirement For Members Mandated Into Their Retirement Program		Unreduced Service Retirement For Members Who Elected an Improved Retirement Program	
	Year 1	Ultimate	Year 1	Ultimate
≤ 45	30.00%	10.00%	40.00%	15.00%
46	30.00%	10.00%	42.00%	15.00%
47	30.00%	10.00%	44.00%	15.00%
48	30.00%	10.00%	46.00%	15.00%
49	30.00%	10.00%	48.00%	15.00%
50	30.00%	10.00%	50.00%	15.00%
51	30.00%	10.00%	52.00%	15.00%
52	30.00%	10.00%	54.00%	15.00%
53	30.00%	10.00%	56.00%	15.00%
54	30.00%	10.00%	58.00%	15.00%
55	30.00%	10.00%	60.00%	15.00%
56	30.00%	10.00%	60.00%	16.00%
57	30.00%	10.00%	60.00%	17.00%
58	30.00%	10.00%	60.00%	18.00%
59	30.00%	10.00%	60.00%	19.00%
60	30.00%	10.00%	60.00%	20.00%
61	30.00%	15.00%	60.00%	25.00%
62	45.00%/30.00% ¹	20.00%/15.00% ²	60.00%	30.00%
63	30.00%	15.00%	40.00%	20.00%
64	30.00%	15.00%	40.00%	20.00%
65	45.00%	20.00%	60.00%	30.00%
66	30.00%	15.00%	40.00%	20.00%
67	30.00%	15.00%	40.00%	20.00%
68	30.00%	15.00%	40.00%	20.00%
69	30.00%	15.00%	40.00%	20.00%
≥ 70	100.00%	100.00%	100.00%	100.00%

¹ 45.00% for Tier 1-4 members and 30.00% for Tier 3R members.

² 20.00% for Tier 1-4 members and 15.00% for Tier 3R members.

Table XII-1
Active Retirement Rates (cont'd)

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF SERVICE RETIREMENT: TBTA					
Age	Members Mandated Into Their Retirement Program			Members Who Elected an Improved Retirement Program	
	Reduced Service Retirement	Unreduced Service Retirement		Unreduced Service Retirement	
		Year 1	Ultimate	Year 1	Ultimate
≤ 54	0.00%	30.00%	20.00%	60.00%	30.00%
55	2.00%	30.00%	20.00%	60.00%	30.00%
56	2.00%	30.00%	20.00%	60.00%	30.00%
57	2.00%	30.00%	20.00%	60.00%	30.00%
58	2.00%	30.00%	20.00%	60.00%	30.00%
59	3.00%	30.00%	20.00%	60.00%	30.00%
60	4.00%	30.00%	20.00%	60.00%	30.00%
61	5.00%	30.00%	30.00%	60.00%	30.00%
62	0.00%	40.00%	40.00%	60.00%	40.00%
63	0.00%	30.00%	30.00%	40.00%	30.00%
64	0.00%	30.00%	30.00%	40.00%	30.00%
65	0.00%	40.00%	40.00%	60.00%	40.00%
66	0.00%	30.00%	30.00%	40.00%	30.00%
67	0.00%	30.00%	30.00%	40.00%	30.00%
68	0.00%	30.00%	30.00%	40.00%	30.00%
69	0.00%	30.00%	30.00%	40.00%	30.00%
70	0.00%	30.00%	30.00%	40.00%	30.00%
71	0.00%	30.00%	30.00%	40.00%	30.00%
72	0.00%	30.00%	30.00%	40.00%	30.00%
73	0.00%	30.00%	30.00%	40.00%	30.00%
74	0.00%	30.00%	30.00%	40.00%	30.00%
75	0.00%	30.00%	30.00%	40.00%	30.00%
76	0.00%	30.00%	30.00%	40.00%	30.00%
77	0.00%	30.00%	30.00%	40.00%	30.00%
78	0.00%	30.00%	30.00%	40.00%	30.00%
79	0.00%	30.00%	30.00%	40.00%	30.00%
≥ 80	N/A	100.00%	100.00%	100.00%	100.00%

**Table XII-1
Active Retirement Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF SERVICE RETIREMENT: TRANSIT					
Age	Reduced Service Retirement	Unreduced Service Retirement For Members Mandated Into Their Retirement Program		Unreduced Service Retirement For Members Who Elected an Improved Retirement Program	
		Year 1	Ultimate	Year 1	Ultimate
≤ 54	0.00%	30.00%	15.00%	25.00%	15.00%
55	2.00%	30.00%	15.00%	25.00%	15.00%
56	2.00%	30.00%	15.00%	25.00%	15.00%
57	2.00%	30.00%	15.00%	25.00%	15.00%
58	2.00%	30.00%	15.00%	25.00%	15.00%
59	3.00%	30.00%	15.00%	25.00%	15.00%
60	4.00%	35.00%	15.00%	30.00%	15.00%
61	5.00%	45.00%	20.00%	40.00%	20.00%
62	5.00% ¹	20.00%	20.00%	50.00%	40.00%
63	0.00%	20.00%	20.00%	40.00%	30.00%
64	0.00%	20.00%	20.00%	40.00%	30.00%
65	0.00%	25.00%	25.00%	50.00%	40.00%
66	0.00%	20.00%	20.00%	40.00%	30.00%
67	0.00%	20.00%	20.00%	40.00%	30.00%
68	0.00%	20.00%	20.00%	40.00%	30.00%
69	0.00%	20.00%	20.00%	40.00%	30.00%
70	0.00%	25.00%	25.00%	40.00%	30.00%
71	0.00%	25.00%	25.00%	40.00%	30.00%
72	0.00%	25.00%	25.00%	40.00%	30.00%
73	0.00%	25.00%	25.00%	40.00%	30.00%
74	0.00%	25.00%	25.00%	40.00%	30.00%
75	0.00%	25.00%	25.00%	40.00%	30.00%
76	0.00%	25.00%	25.00%	40.00%	30.00%
77	0.00%	25.00%	25.00%	40.00%	30.00%
78	0.00%	25.00%	25.00%	40.00%	30.00%
79	0.00%	25.00%	25.00%	40.00%	30.00%
≥ 80	N/A	100.00%	100.00%	100.00%	100.00%

¹ 5.00% only applies to Tier 6 members; 0.00% otherwise.

**Table XII-2
Active Termination Rates**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF TERMINATION					
	Probabilities of Termination				
Years of Service	General	Correction	Sanitation	TBTA	Transit
0	8.40%	7.50%	4.00%	9.00%	9.00%
1	7.00%	6.00%	2.00%	4.50%	4.50%
2	5.60%	4.50%	1.00%	2.00%	2.00%
3	4.20%	3.00%	1.00%	1.50%	1.50%
4	4.20%	2.25%	1.00%	1.25%	1.25%
5	4.20%	1.50%	1.00%	1.10%	1.10%
6	4.00%	1.35%	0.90%	1.10%	1.10%
7	3.80%	1.20%	0.80%	1.10%	1.10%
8	3.60%	1.05%	0.70%	1.10%	1.10%
9	3.40%	0.90%	0.60%	1.10%	1.10%
10	3.20%	0.75%	0.50%	1.10%	1.10%
11	3.00%	0.75%	0.50%	1.00%	1.00%
12	2.80%	0.75%	0.50%	0.90%	0.90%
13	2.60%	0.75%	0.50%	0.80%	0.80%
14	2.40%	0.75%	0.50%	0.70%	0.70%
15	2.20%	0.75%	0.50%	0.55%	0.55%
16	2.00%	0.75%	0.50%	0.55%	0.55%
17	1.80%	0.75%	0.50%	0.55%	0.55%
18	1.60%	0.75%	0.50%	0.55%	0.55%
19	1.40%	0.75%	0.50%	0.55%	0.55%
20+	1.40%	0.75%	0.50%	0.55%	0.55%

**Table XII-3
Active Disability Rates**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM				
PROBABILITIES OF DISABILITY FOR ACTIVE MEMBERS: GENERAL				
Age	Ordinary Disability		Accidental Disability	
	Males	Females	Males	Females
15	0.140%	0.140%	0.028%	0.014%
16	0.140%	0.140%	0.028%	0.014%
17	0.140%	0.140%	0.028%	0.014%
18	0.140%	0.140%	0.028%	0.014%
19	0.140%	0.140%	0.028%	0.014%
20	0.140%	0.140%	0.028%	0.014%
21	0.140%	0.140%	0.028%	0.014%
22	0.140%	0.140%	0.028%	0.014%
23	0.140%	0.140%	0.028%	0.014%
24	0.140%	0.140%	0.028%	0.014%
25	0.140%	0.140%	0.028%	0.014%
26	0.140%	0.140%	0.028%	0.014%
27	0.140%	0.140%	0.028%	0.014%
28	0.140%	0.140%	0.028%	0.014%
29	0.140%	0.140%	0.028%	0.014%
30	0.140%	0.140%	0.028%	0.014%
31	0.154%	0.140%	0.028%	0.014%
32	0.168%	0.140%	0.028%	0.014%
33	0.182%	0.140%	0.028%	0.014%
34	0.196%	0.140%	0.028%	0.014%
35	0.210%	0.140%	0.028%	0.014%
36	0.224%	0.147%	0.028%	0.014%
37	0.238%	0.154%	0.028%	0.014%
38	0.252%	0.161%	0.028%	0.014%
39	0.266%	0.168%	0.028%	0.014%
40	0.280%	0.175%	0.028%	0.014%
41	0.294%	0.182%	0.028%	0.014%
42	0.308%	0.189%	0.028%	0.014%
43	0.322%	0.196%	0.028%	0.014%
44	0.336%	0.203%	0.028%	0.014%
45	0.350%	0.210%	0.028%	0.014%
46	0.364%	0.238%	0.028%	0.014%
47	0.378%	0.266%	0.028%	0.014%
48	0.392%	0.294%	0.028%	0.014%
49	0.406%	0.322%	0.028%	0.014%
50	0.420%	0.350%	0.028%	0.014%
51	0.434%	0.378%	0.028%	0.014%
52	0.448%	0.406%	0.028%	0.014%
53	0.462%	0.434%	0.028%	0.014%
54	0.476%	0.462%	0.028%	0.014%
55	0.490%	0.490%	0.028%	0.014%
56	0.490%	0.490%	0.028%	0.014%
57	0.490%	0.490%	0.028%	0.014%
58	0.490%	0.490%	0.028%	0.014%
59	0.490%	0.490%	0.028%	0.014%
60	0.490%	0.490%	0.028%	0.014%
61	0.490%	0.490%	0.028%	0.014%
62	0.490%	0.490%	0.028%	0.014%
63	0.490%	0.490%	0.028%	0.014%
64	0.490%	0.490%	0.028%	0.014%
65	0.490%	0.490%	0.028%	0.014%
66	0.490%	0.490%	0.028%	0.014%
67	0.490%	0.490%	0.028%	0.014%
68	0.490%	0.490%	0.028%	0.014%
69	0.490%	0.490%	0.028%	0.014%
70	0.490%	0.490%	0.028%	0.014%
71	0.490%	0.490%	0.028%	0.014%
72	0.490%	0.490%	0.028%	0.014%
73	0.490%	0.490%	0.028%	0.014%
74	0.490%	0.490%	0.028%	0.014%
75	0.490%	0.490%	0.028%	0.014%
76	0.490%	0.490%	0.028%	0.014%
77	0.490%	0.490%	0.028%	0.014%
78	0.490%	0.490%	0.028%	0.014%
79	0.490%	0.490%	0.028%	0.014%
≥ 80	N/A	N/A	N/A	N/A

**Table XII-3
Active Disability Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM						
PROBABILITIES OF DISABILITY FOR ACTIVE MEMBERS: UNIFORMED GROUPS						
	Correction			Sanitation		
Age	Ordinary Disability	Accidental Disability: Tier 3R Non-enhanced Plan	Accidental Disability: All Other Plans	Ordinary Disability	Accidental Disability: Tier 3R Non-enhanced Plan	Accidental Disability: All Other Plans
15	0.100%	0.125%	0.250%	0.100%	0.050%	0.100%
16	0.100%	0.125%	0.250%	0.100%	0.050%	0.100%
17	0.100%	0.125%	0.250%	0.100%	0.050%	0.100%
18	0.100%	0.125%	0.250%	0.100%	0.050%	0.100%
19	0.100%	0.125%	0.250%	0.100%	0.050%	0.100%
20	0.100%	0.125%	0.250%	0.100%	0.050%	0.100%
21	0.100%	0.138%	0.263%	0.100%	0.050%	0.100%
22	0.100%	0.138%	0.275%	0.100%	0.050%	0.100%
23	0.100%	0.150%	0.288%	0.100%	0.050%	0.100%
24	0.100%	0.150%	0.300%	0.100%	0.050%	0.100%
25	0.100%	0.163%	0.313%	0.100%	0.050%	0.100%
26	0.100%	0.163%	0.325%	0.120%	0.055%	0.110%
27	0.100%	0.175%	0.338%	0.140%	0.060%	0.120%
28	0.100%	0.175%	0.350%	0.160%	0.065%	0.130%
29	0.100%	0.188%	0.363%	0.180%	0.070%	0.140%
30	0.100%	0.188%	0.375%	0.200%	0.075%	0.150%
31	0.120%	0.200%	0.388%	0.220%	0.080%	0.160%
32	0.140%	0.200%	0.400%	0.240%	0.085%	0.170%
33	0.160%	0.213%	0.413%	0.260%	0.090%	0.180%
34	0.180%	0.213%	0.425%	0.280%	0.095%	0.190%
35	0.200%	0.225%	0.438%	0.300%	0.100%	0.200%
36	0.220%	0.225%	0.450%	0.320%	0.105%	0.210%
37	0.240%	0.238%	0.463%	0.340%	0.110%	0.220%
38	0.260%	0.238%	0.475%	0.360%	0.115%	0.230%
39	0.280%	0.250%	0.488%	0.380%	0.120%	0.240%
40	0.300%	0.250%	0.500%	0.400%	0.125%	0.250%
41	0.320%	0.263%	0.513%	0.420%	0.130%	0.260%
42	0.340%	0.263%	0.525%	0.440%	0.135%	0.270%
43	0.360%	0.275%	0.538%	0.460%	0.140%	0.280%
44	0.380%	0.275%	0.550%	0.480%	0.145%	0.290%
45	0.400%	0.288%	0.563%	0.500%	0.150%	0.300%
46	0.420%	0.288%	0.575%	0.520%	0.170%	0.340%
47	0.440%	0.300%	0.588%	0.540%	0.190%	0.380%
48	0.460%	0.300%	0.600%	0.560%	0.210%	0.420%
49	0.480%	0.313%	0.613%	0.580%	0.230%	0.460%
50	0.500%	0.313%	0.625%	0.600%	0.250%	0.500%
51	0.520%	0.325%	0.650%	0.620%	0.280%	0.560%
52	0.540%	0.338%	0.675%	0.640%	0.310%	0.620%
53	0.560%	0.350%	0.700%	0.660%	0.340%	0.680%
54	0.580%	0.363%	0.725%	0.680%	0.370%	0.740%
55	0.600%	0.375%	0.750%	0.700%	0.400%	0.800%
56	0.620%	0.388%	0.775%	0.720%	0.440%	0.880%
57	0.640%	0.400%	0.800%	0.740%	0.480%	0.960%
58	0.660%	0.413%	0.825%	0.760%	0.520%	1.040%
59	0.680%	0.425%	0.850%	0.780%	0.560%	1.120%
60	0.700%	0.438%	0.875%	0.800%	0.600%	1.200%
61	0.720%	0.450%	0.900%	0.820%	0.650%	1.300%
62	0.740%	0.463%	0.925%	0.840%	0.700%	1.400%
63	N/A	N/A	N/A	0.860%	0.750%	1.500%
64	N/A	N/A	N/A	0.880%	0.800%	1.600%
65	N/A	N/A	N/A	0.900%	0.850%	1.700%
66	N/A	N/A	N/A	0.920%	0.910%	1.820%
67	N/A	N/A	N/A	0.940%	0.970%	1.940%
68	N/A	N/A	N/A	0.960%	1.030%	2.060%
69	N/A	N/A	N/A	0.980%	1.090%	2.180%
≥ 70	N/A	N/A	N/A	N/A	N/A	N/A

**Table XII-3
Active Disability Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM				
PROBABILITIES OF DISABILITY FOR ACTIVE MEMBERS: OTHERS				
	TBTA		Transit	
Age	Ordinary Disability	Accidental Disability	Ordinary Disability	Accidental Disability
15	0.100%	0.020%	0.100%	0.020%
16	0.100%	0.020%	0.100%	0.020%
17	0.100%	0.020%	0.100%	0.020%
18	0.100%	0.020%	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	0.600%	0.020%	0.600%	0.020%
71	0.600%	0.020%	0.600%	0.020%
72	0.600%	0.020%	0.600%	0.020%
73	0.600%	0.020%	0.600%	0.020%
74	0.600%	0.020%	0.600%	0.020%
75	0.600%	0.020%	0.600%	0.020%
76	0.600%	0.020%	0.600%	0.020%
77	0.600%	0.020%	0.600%	0.020%
78	0.600%	0.020%	0.600%	0.020%
79	0.600%	0.020%	0.600%	0.020%
≥ 80	N/A	N/A	N/A	N/A

**Table XII-4
Active Mortality Rates**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM						
PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS: CORRECTION AND SANITATION BASE RATES						
	Correction			Sanitation		
	Ordinary Death		Accidental Death	Ordinary Death		Accidental Death
Age	Males	Females	All	Males	Females	All
15	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
16	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
17	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
18	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
19	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
20	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
21	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
22	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
23	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
24	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
25	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
26	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
27	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
28	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
29	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
30	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
31	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
32	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
33	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
34	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
35	0.025%	0.015%	0.005%	0.050%	0.030%	0.010%
36	0.030%	0.018%	0.005%	0.060%	0.036%	0.010%
37	0.035%	0.021%	0.005%	0.070%	0.042%	0.010%
38	0.040%	0.024%	0.005%	0.080%	0.048%	0.010%
39	0.045%	0.027%	0.005%	0.090%	0.054%	0.010%
40	0.050%	0.030%	0.005%	0.100%	0.060%	0.010%
41	0.055%	0.033%	0.005%	0.110%	0.066%	0.010%
42	0.060%	0.036%	0.005%	0.120%	0.072%	0.010%
43	0.065%	0.039%	0.005%	0.130%	0.078%	0.010%
44	0.070%	0.042%	0.005%	0.140%	0.084%	0.010%
45	0.075%	0.045%	0.005%	0.150%	0.090%	0.010%
46	0.080%	0.048%	0.005%	0.160%	0.096%	0.010%
47	0.085%	0.051%	0.005%	0.170%	0.102%	0.010%
48	0.090%	0.054%	0.005%	0.180%	0.108%	0.010%
49	0.095%	0.057%	0.005%	0.190%	0.114%	0.010%
50	0.100%	0.060%	0.005%	0.200%	0.120%	0.010%
51	0.105%	0.064%	0.005%	0.210%	0.128%	0.010%
52	0.110%	0.068%	0.005%	0.220%	0.136%	0.010%
53	0.115%	0.072%	0.005%	0.230%	0.144%	0.010%
54	0.120%	0.076%	0.005%	0.240%	0.152%	0.010%
55	0.125%	0.080%	0.005%	0.250%	0.160%	0.010%
56	0.130%	0.084%	0.005%	0.260%	0.168%	0.010%
57	0.135%	0.088%	0.005%	0.270%	0.176%	0.010%
58	0.140%	0.092%	0.005%	0.280%	0.184%	0.010%
59	0.145%	0.096%	0.005%	0.290%	0.192%	0.010%
60	0.150%	0.100%	0.005%	0.300%	0.200%	0.010%
61	0.160%	0.105%	0.005%	0.320%	0.210%	0.010%
62	0.170%	0.110%	0.005%	0.340%	0.220%	0.010%
63	N/A	N/A	N/A	0.360%	0.230%	0.010%
64	N/A	N/A	N/A	0.380%	0.240%	0.010%
65	N/A	N/A	N/A	0.400%	0.250%	0.010%
66	N/A	N/A	N/A	0.440%	0.280%	0.010%
67	N/A	N/A	N/A	0.480%	0.310%	0.010%
68	N/A	N/A	N/A	0.520%	0.340%	0.010%
69	N/A	N/A	N/A	0.560%	0.370%	0.010%
≥ 70	N/A	N/A	N/A	N/A	N/A	N/A

Table XII-4
Active Mortality Rates (cont'd)

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM						
PROBABILITIES OF MORTALITY FOR ACTIVE MEMBERS: PLAN GROUPS OTHER THAN CORRECTION AND SANITATION BASE RATES						
	General			Transit and TBTA		
	Ordinary Death		Accidental Death	Ordinary Death		Accidental Death
Age	Males	Females	All	Males	Females	All
15	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
16	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
17	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
18	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
19	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
20	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
21	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
22	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
23	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
24	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
25	0.0240%	0.0180%	0.0000%	0.0240%	0.0180%	0.0060%
26	0.0264%	0.0192%	0.0000%	0.0264%	0.0192%	0.0060%
27	0.0288%	0.0204%	0.0000%	0.0288%	0.0204%	0.0060%
28	0.0312%	0.0216%	0.0000%	0.0312%	0.0216%	0.0060%
29	0.0336%	0.0228%	0.0000%	0.0336%	0.0228%	0.0060%
30	0.0360%	0.0240%	0.0000%	0.0360%	0.0240%	0.0060%
31	0.0384%	0.0252%	0.0000%	0.0384%	0.0252%	0.0060%
32	0.0408%	0.0264%	0.0000%	0.0408%	0.0264%	0.0060%
33	0.0432%	0.0276%	0.0000%	0.0432%	0.0276%	0.0060%
34	0.0456%	0.0288%	0.0000%	0.0456%	0.0288%	0.0060%
35	0.0480%	0.0300%	0.0000%	0.0480%	0.0300%	0.0060%
36	0.0504%	0.0312%	0.0000%	0.0504%	0.0312%	0.0060%
37	0.0528%	0.0324%	0.0000%	0.0528%	0.0324%	0.0060%
38	0.0552%	0.0336%	0.0000%	0.0552%	0.0336%	0.0060%
39	0.0576%	0.0348%	0.0000%	0.0576%	0.0348%	0.0060%
40	0.0600%	0.0360%	0.0000%	0.0600%	0.0360%	0.0060%
41	0.0660%	0.0408%	0.0000%	0.0660%	0.0408%	0.0060%
42	0.0720%	0.0456%	0.0000%	0.0720%	0.0456%	0.0060%
43	0.0780%	0.0504%	0.0000%	0.0780%	0.0504%	0.0060%
44	0.0840%	0.0552%	0.0000%	0.0840%	0.0552%	0.0060%
45	0.0900%	0.0600%	0.0000%	0.0900%	0.0600%	0.0060%
46	0.0960%	0.0660%	0.0000%	0.0960%	0.0660%	0.0060%
47	0.1020%	0.0720%	0.0000%	0.1020%	0.0720%	0.0060%
48	0.1080%	0.0780%	0.0000%	0.1080%	0.0780%	0.0060%
49	0.1140%	0.0840%	0.0000%	0.1140%	0.0840%	0.0060%
50	0.1200%	0.0900%	0.0000%	0.1200%	0.0900%	0.0060%
51	0.1320%	0.0960%	0.0000%	0.1320%	0.0960%	0.0060%
52	0.1440%	0.1020%	0.0000%	0.1440%	0.1020%	0.0060%
53	0.1560%	0.1080%	0.0000%	0.1560%	0.1080%	0.0060%
54	0.1680%	0.1140%	0.0000%	0.1680%	0.1140%	0.0060%
55	0.1800%	0.1200%	0.0000%	0.1800%	0.1200%	0.0060%
56	0.1920%	0.1260%	0.0000%	0.1920%	0.1260%	0.0060%
57	0.2040%	0.1320%	0.0000%	0.2040%	0.1320%	0.0060%
58	0.2160%	0.1380%	0.0000%	0.2160%	0.1380%	0.0060%
59	0.2280%	0.1440%	0.0000%	0.2280%	0.1440%	0.0060%
60	0.2400%	0.1500%	0.0000%	0.2400%	0.1500%	0.0060%
61	0.2520%	0.1560%	0.0000%	0.2520%	0.1560%	0.0060%
62	0.2640%	0.1620%	0.0000%	0.2640%	0.1620%	0.0060%
63	0.2760%	0.1680%	0.0000%	0.2760%	0.1680%	0.0060%
64	0.2880%	0.1740%	0.0000%	0.2880%	0.1740%	0.0060%
65	0.3000%	0.1800%	0.0000%	0.3000%	0.1800%	0.0060%
66	0.3240%	0.1920%	0.0000%	0.3240%	0.1920%	0.0060%
67	0.3480%	0.2040%	0.0000%	0.3480%	0.2040%	0.0060%
68	0.3720%	0.2160%	0.0000%	0.3720%	0.2160%	0.0060%
69	0.3960%	0.2280%	0.0000%	0.3960%	0.2280%	0.0060%
70	0.4000%	0.2400%	0.0000%	0.4000%	0.2400%	0.0060%
71	0.4240%	0.2580%	0.0000%	0.4240%	0.2580%	0.0060%
72	0.4480%	0.2760%	0.0000%	0.4480%	0.2760%	0.0060%
73	0.4720%	0.2940%	0.0000%	0.4720%	0.2940%	0.0060%
74	0.4960%	0.3120%	0.0000%	0.4960%	0.3120%	0.0060%
75	0.5200%	0.3300%	0.0000%	0.5200%	0.3300%	0.0060%
76	0.5680%	0.3660%	0.0000%	0.5680%	0.3660%	0.0060%
77	0.6160%	0.4020%	0.0000%	0.6160%	0.4020%	0.0060%
78	0.6640%	0.4380%	0.0000%	0.6640%	0.4380%	0.0060%
79	0.7120%	0.4740%	0.0000%	0.7120%	0.4740%	0.0060%
≥ 80	N/A	N/A	N/A	N/A	N/A	N/A

Table XII-5
Service Retiree Mortality Rates

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR SERVICE RETIREES: PLAN GROUPS OTHER THAN HOUSING POLICE AND TRANSIT POLICE BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.0105%	0.0092%	68	1.8256%	1.3605%
16	0.0142%	0.0112%	69	1.9386%	1.4332%
17	0.0191%	0.0122%	70	2.0542%	1.5007%
18	0.0222%	0.0133%	71	2.2359%	1.6745%
19	0.0240%	0.0143%	72	2.4230%	1.8463%
20	0.0251%	0.0145%	73	2.6165%	2.0157%
21	0.0268%	0.0153%	74	2.8157%	2.1838%
22	0.0284%	0.0161%	75	3.0220%	2.3492%
23	0.0301%	0.0171%	76	3.4928%	2.6652%
24	0.0315%	0.0183%	77	3.9787%	2.9831%
25	0.0327%	0.0195%	78	4.4792%	3.3011%
26	0.0342%	0.0208%	79	4.9963%	3.6207%
27	0.0354%	0.0221%	80	5.5282%	3.9391%
28	0.0371%	0.0236%	81	6.1051%	4.4386%
29	0.0394%	0.0252%	82	6.6894%	4.9473%
30	0.0427%	0.0270%	83	7.2805%	5.4665%
31	0.0495%	0.0330%	84	7.8749%	5.9942%
32	0.0562%	0.0384%	85	8.4753%	6.5354%
33	0.0625%	0.0431%	86	9.6136%	7.4659%
34	0.0682%	0.0471%	87	10.8005%	8.3995%
35	0.0743%	0.0511%	88	12.0443%	9.3428%
36	0.0780%	0.0542%	89	13.3397%	10.2918%
37	0.0818%	0.0579%	90	14.6958%	11.2477%
38	0.0861%	0.0618%	91	16.4185%	12.8868%
39	0.0917%	0.0666%	92	18.1416%	14.4887%
40	0.0997%	0.0719%	93	19.8574%	16.0801%
41	0.1394%	0.0775%	94	21.6187%	17.5854%
42	0.1774%	0.0859%	95	23.5884%	19.0626%
43	0.2143%	0.0968%	96	25.4266%	20.2474%
44	0.2507%	0.1111%	97	27.2119%	21.2937%
45	0.2875%	0.1287%	98	29.0202%	22.0663%
46	0.3207%	0.1501%	99	30.6654%	22.5443%
47	0.3534%	0.1748%	100	32.1584%	22.6473%
48	0.3849%	0.2022%	101	33.7521%	23.5294%
49	0.4150%	0.2319%	102	35.1259%	24.5619%
50	0.4431%	0.2633%	103	36.3671%	25.7825%
51	0.5156%	0.2999%	104	37.3834%	27.1635%
52	0.5928%	0.3376%	105	38.1051%	28.6530%
53	0.6740%	0.3762%	106	38.4698%	30.2169%
54	0.7583%	0.4151%	107	38.6325%	31.8182%
55	0.8440%	0.4540%	108	38.8076%	33.4131%
56	0.9048%	0.5132%	109	38.9794%	34.9566%
57	0.9604%	0.5735%	110	50.0000%	50.0000%
58	1.0101%	0.6353%	111	50.0000%	50.0000%
59	1.0536%	0.6981%	112	50.0000%	50.0000%
60	1.0919%	0.7631%	113	50.0000%	50.0000%
61	1.1835%	0.8329%	114	50.0000%	50.0000%
62	1.2676%	0.8908%	115	50.0000%	50.0000%
63	1.3473%	0.9493%	116	50.0000%	50.0000%
64	1.4238%	1.0146%	117	50.0000%	50.0000%
65	1.4985%	1.0876%	118	50.0000%	50.0000%
66	1.6059%	1.1681%	119	50.0000%	50.0000%
67	1.7146%	1.2609%	120	100.0000%	100.0000%

Table XII-5
Service Retiree Mortality Rates (cont'd)

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR SERVICE RETIREES: HOUSING POLICE AND TRANSIT POLICE BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.0100%	0.0084%	68	1.4988%	1.0632%
16	0.0135%	0.0103%	69	1.6917%	1.1644%
17	0.0181%	0.0112%	70	1.8929%	1.2629%
18	0.0217%	0.0131%	71	2.1028%	1.4563%
19	0.0240%	0.0140%	72	2.3212%	1.6586%
20	0.0251%	0.0142%	73	2.5833%	1.8689%
21	0.0268%	0.0150%	74	2.8558%	2.0889%
22	0.0284%	0.0158%	75	3.1397%	2.3314%
23	0.0301%	0.0168%	76	3.4343%	2.6045%
24	0.0315%	0.0179%	77	3.7415%	2.8700%
25	0.0327%	0.0191%	78	4.2304%	3.1787%
26	0.0342%	0.0204%	79	4.7399%	3.4795%
27	0.0354%	0.0217%	80	5.2682%	3.8105%
28	0.0371%	0.0231%	81	5.7202%	4.3289%
29	0.0394%	0.0247%	82	6.1782%	4.8678%
30	0.0427%	0.0265%	83	7.0179%	5.4288%
31	0.0492%	0.0316%	84	7.8631%	5.9122%
32	0.0556%	0.0360%	85	8.7167%	6.3661%
33	0.0616%	0.0398%	86	9.5810%	7.1650%
34	0.0669%	0.0427%	87	10.4516%	8.0050%
35	0.0724%	0.0455%	88	11.8437%	8.8541%
36	0.0755%	0.0474%	89	13.2486%	9.6498%
37	0.0779%	0.0497%	90	14.6752%	10.5687%
38	0.0808%	0.0521%	91	16.3354%	12.0267%
39	0.0845%	0.0551%	92	18.0374%	13.4340%
40	0.0901%	0.0588%	93	19.7642%	14.8636%
41	0.1003%	0.0633%	94	21.5622%	16.4543%
42	0.1106%	0.0702%	95	23.4692%	17.7952%
43	0.1212%	0.0792%	96	25.3619%	19.0707%
44	0.1323%	0.0907%	97	27.1816%	20.2419%
45	0.1439%	0.1052%	98	29.0095%	21.1759%
46	0.1563%	0.1228%	99	30.6920%	21.8544%
47	0.1693%	0.1427%	100	32.1584%	22.1859%
48	0.1827%	0.1652%	101	33.7521%	23.0680%
49	0.1964%	0.1865%	102	35.1259%	24.0803%
50	0.2104%	0.1992%	103	36.3671%	25.2770%
51	0.2802%	0.2104%	104	37.3834%	26.6309%
52	0.3506%	0.2186%	105	38.1051%	28.0912%
53	0.4209%	0.2250%	106	38.4698%	29.6244%
54	0.4903%	0.2863%	107	38.6325%	31.1943%
55	0.5297%	0.3409%	108	38.8076%	32.7579%
56	0.5857%	0.3910%	109	38.9794%	34.2712%
57	0.6387%	0.4376%	110	50.0000%	50.0000%
58	0.6875%	0.4613%	111	50.0000%	50.0000%
59	0.7316%	0.5005%	112	50.0000%	50.0000%
60	0.7720%	0.5393%	113	50.0000%	50.0000%
61	0.8439%	0.5785%	114	50.0000%	50.0000%
62	0.9155%	0.6152%	115	50.0000%	50.0000%
63	0.9888%	0.6536%	116	50.0000%	50.0000%
64	1.0644%	0.7279%	117	50.0000%	50.0000%
65	1.1433%	0.8032%	118	50.0000%	50.0000%
66	1.2263%	0.8884%	119	50.0000%	50.0000%
67	1.3135%	0.9736%	120	100.0000%	100.0000%

Table XII-6
Disabled Retiree Mortality Rates

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES: GENERAL PLANS BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.2163%	0.1980%	68	3.8171%	2.9280%
16	0.2927%	0.2680%	69	3.8682%	2.9997%
17	0.3945%	0.3612%	70	3.9318%	3.0865%
18	0.4581%	0.3913%	71	4.1518%	3.1548%
19	0.4963%	0.4214%	72	4.3957%	3.4254%
20	0.5178%	0.4416%	73	4.6660%	3.7295%
21	0.5589%	0.4807%	74	4.9632%	3.9658%
22	0.6029%	0.5231%	75	5.2904%	4.2453%
23	0.6500%	0.5662%	76	5.7355%	4.5234%
24	0.7005%	0.6186%	77	6.2253%	4.7961%
25	0.7524%	0.6680%	78	6.7606%	5.1502%
26	0.8054%	0.7165%	79	7.3471%	5.5873%
27	0.8591%	0.7727%	80	7.9843%	6.0964%
28	0.9126%	0.8346%	81	8.6745%	6.6521%
29	0.9647%	0.9008%	82	9.4240%	7.2551%
30	1.0136%	0.9373%	83	10.2386%	7.9112%
31	1.0584%	0.9629%	84	11.1186%	8.6209%
32	1.0978%	0.9955%	85	12.0742%	9.3370%
33	1.1310%	1.0289%	86	12.8184%	10.0511%
34	1.1597%	1.0577%	87	13.3550%	10.8029%
35	1.1838%	1.0841%	88	14.0470%	11.4531%
36	1.2035%	1.1092%	89	14.7705%	12.5564%
37	1.2211%	1.1344%	90	15.5356%	14.1031%
38	1.2388%	1.1618%	91	17.3803%	15.7291%
39	1.2591%	1.1939%	92	19.4620%	17.1860%
40	1.2846%	1.2249%	93	21.5002%	18.5029%
41	1.3114%	1.2570%	94	23.5320%	19.6588%
42	1.3750%	1.2982%	95	25.5906%	20.8223%
43	1.4416%	1.3497%	96	27.4494%	21.5778%
44	1.5115%	1.4058%	97	29.1839%	21.9133%
45	1.5849%	1.4809%	98	30.8635%	22.0663%
46	1.6617%	1.5639%	99	32.2842%	23.0087%
47	1.7422%	1.6535%	100	33.4447%	23.1230%
48	1.8267%	1.7359%	101	35.1022%	23.6022%
49	1.9153%	1.8218%	102	36.5309%	24.5619%
50	2.0462%	1.8919%	103	37.8218%	25.7825%
51	2.2291%	1.9830%	104	38.8787%	27.1635%
52	2.4215%	2.0502%	105	39.6293%	28.6530%
53	2.6231%	2.1047%	106	40.0086%	30.2169%
54	2.8293%	2.1904%	107	40.1778%	31.8182%
55	3.0344%	2.2636%	108	40.3599%	33.4131%
56	3.1146%	2.3429%	109	40.5386%	34.9566%
57	3.1774%	2.4285%	110	50.0000%	50.0000%
58	3.2218%	2.5412%	111	50.0000%	50.0000%
59	3.2493%	2.5588%	112	50.0000%	50.0000%
60	3.2648%	2.5795%	113	50.0000%	50.0000%
61	3.3472%	2.6067%	114	50.0000%	50.0000%
62	3.4295%	2.6272%	115	50.0000%	50.0000%
63	3.5199%	2.6579%	116	50.0000%	50.0000%
64	3.6208%	2.7759%	117	50.0000%	50.0000%
65	3.7368%	2.8107%	118	50.0000%	50.0000%
66	3.7511%	2.8328%	119	50.0000%	50.0000%
67	3.7776%	2.8725%	120	100.0000%	100.0000%

Table XII-6
Disabled Retiree Mortality Rates (cont'd)

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES: CORRECTION BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.1529%	0.1504%	68	2.0976%	1.9435%
16	0.2068%	0.2034%	69	2.2316%	2.0901%
17	0.2788%	0.2742%	70	2.3817%	2.2370%
18	0.3328%	0.3273%	71	2.5774%	2.3979%
19	0.3687%	0.3507%	72	2.7948%	2.5741%
20	0.3762%	0.3604%	73	3.0370%	2.7665%
21	0.3973%	0.3851%	74	3.3054%	3.0122%
22	0.4195%	0.4042%	75	3.6032%	3.3026%
23	0.4428%	0.4278%	76	3.9499%	3.6022%
24	0.4673%	0.4574%	77	4.3346%	3.9080%
25	0.4920%	0.4832%	78	4.7588%	4.2919%
26	0.5163%	0.5076%	79	5.2279%	4.7080%
27	0.5402%	0.5362%	80	5.7433%	5.1937%
28	0.5630%	0.5555%	81	6.3425%	5.7290%
29	0.5840%	0.5755%	82	6.9496%	6.3165%
30	0.6026%	0.5962%	83	7.5636%	6.9627%
31	0.6179%	0.6177%	84	8.1812%	7.7122%
32	0.6297%	0.6268%	85	8.8050%	8.4245%
33	0.6376%	0.6361%	86	9.7703%	9.0849%
34	0.6427%	0.6422%	87	10.8005%	9.7986%
35	0.6554%	0.6466%	88	12.0443%	10.5221%
36	0.6683%	0.6504%	89	13.3397%	11.5771%
37	0.6814%	0.6538%	90	14.6958%	12.7805%
38	0.6949%	0.6583%	91	16.4185%	14.0140%
39	0.7086%	0.6655%	92	18.1416%	15.1826%
40	0.7225%	0.6718%	93	19.8574%	16.3730%
41	0.7368%	0.6785%	94	21.6187%	18.3891%
42	0.7513%	0.6898%	95	23.5884%	20.4768%
43	0.7661%	0.7059%	96	25.4266%	21.5778%
44	0.7812%	0.7241%	97	27.2119%	21.9133%
45	0.7966%	0.7516%	98	29.0202%	22.0663%
46	0.8123%	0.7820%	99	30.6654%	23.0087%
47	0.8283%	0.8124%	100	32.1584%	23.1230%
48	0.8446%	0.8431%	101	33.7521%	23.6022%
49	0.8613%	0.8604%	102	35.1259%	24.5619%
50	0.8782%	0.8758%	103	36.3671%	25.7825%
51	0.8956%	0.8871%	104	37.3834%	27.1635%
52	0.9574%	0.8938%	105	38.1051%	28.6530%
53	1.0214%	0.8945%	106	38.4698%	30.2169%
54	1.0859%	0.9896%	107	38.6325%	31.8182%
55	1.1487%	1.0949%	108	38.8076%	33.4131%
56	1.2131%	1.1161%	109	38.9794%	34.9566%
57	1.2733%	1.1402%	110	50.0000%	50.0000%
58	1.3280%	1.1770%	111	50.0000%	50.0000%
59	1.3775%	1.2195%	112	50.0000%	50.0000%
60	1.4231%	1.2648%	113	50.0000%	50.0000%
61	1.4854%	1.3147%	114	50.0000%	50.0000%
62	1.5489%	1.3627%	115	50.0000%	50.0000%
63	1.6175%	1.4176%	116	50.0000%	50.0000%
64	1.6924%	1.5072%	117	50.0000%	50.0000%
65	1.7762%	1.5987%	118	50.0000%	50.0000%
66	1.8712%	1.7097%	119	50.0000%	50.0000%
67	1.9777%	1.8212%	120	100.0000%	100.0000%

**Table XII-6
Disabled Retiree Mortality Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES: SANITATION BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.1891%	0.1809%	68	2.4678%	1.9435%
16	0.2558%	0.2447%	69	2.6254%	2.0901%
17	0.3448%	0.3299%	70	2.8020%	2.2370%
18	0.4004%	0.3831%	71	3.0322%	2.3979%
19	0.4338%	0.4126%	72	3.2880%	2.5741%
20	0.4426%	0.4240%	73	3.5729%	2.7665%
21	0.4674%	0.4530%	74	3.8887%	3.0122%
22	0.4935%	0.4755%	75	4.2391%	3.3026%
23	0.5209%	0.5033%	76	4.6469%	3.6022%
24	0.5498%	0.5381%	77	5.0995%	3.9080%
25	0.5788%	0.5685%	78	5.5986%	4.2919%
26	0.6074%	0.5972%	79	6.1505%	4.7080%
27	0.6355%	0.6308%	80	6.7568%	5.1937%
28	0.6623%	0.6535%	81	7.4618%	5.7290%
29	0.6871%	0.6771%	82	8.1760%	6.3165%
30	0.7089%	0.7014%	83	8.8984%	6.9627%
31	0.7269%	0.7267%	84	9.6249%	7.7122%
32	0.7408%	0.7374%	85	10.3588%	8.4245%
33	0.7501%	0.7484%	86	11.4945%	9.0849%
34	0.7561%	0.7555%	87	12.6389%	9.7986%
35	0.7710%	0.7607%	88	13.8008%	10.5221%
36	0.7862%	0.7652%	89	14.9732%	11.5771%
37	0.8017%	0.7692%	90	16.1654%	12.7805%
38	0.8175%	0.7745%	91	18.1783%	14.0140%
39	0.8336%	0.7829%	92	20.1433%	15.1826%
40	0.8500%	0.7904%	93	22.0331%	16.3730%
41	0.8668%	0.7982%	94	23.8872%	18.3891%
42	0.8839%	0.8115%	95	25.7371%	20.4768%
43	0.9013%	0.8305%	96	27.1672%	21.5778%
44	0.9191%	0.8519%	97	28.5248%	21.9133%
45	0.9372%	0.8842%	98	29.8950%	22.0663%
46	0.9556%	0.9200%	99	31.1005%	23.0087%
47	0.9745%	0.9558%	100	32.1584%	23.1230%
48	0.9937%	0.9919%	101	33.7521%	23.6022%
49	1.0133%	1.0122%	102	35.1259%	24.5619%
50	1.0332%	1.0303%	103	36.3671%	25.7825%
51	1.0536%	1.0437%	104	37.3834%	27.1635%
52	1.1263%	1.0515%	105	38.1051%	28.6530%
53	1.2016%	1.0523%	106	38.4698%	30.2169%
54	1.2775%	1.0767%	107	38.6325%	31.8182%
55	1.3514%	1.0949%	108	38.8076%	33.4131%
56	1.4272%	1.1161%	109	38.9794%	34.9566%
57	1.4980%	1.1402%	110	50.0000%	50.0000%
58	1.5624%	1.1770%	111	50.0000%	50.0000%
59	1.6206%	1.2195%	112	50.0000%	50.0000%
60	1.6742%	1.2648%	113	50.0000%	50.0000%
61	1.7475%	1.3147%	114	50.0000%	50.0000%
62	1.8222%	1.3627%	115	50.0000%	50.0000%
63	1.9029%	1.4176%	116	50.0000%	50.0000%
64	1.9910%	1.5072%	117	50.0000%	50.0000%
65	2.0897%	1.5987%	118	50.0000%	50.0000%
66	2.2014%	1.7097%	119	50.0000%	50.0000%
67	2.3267%	1.8212%	120	100.0000%	100.0000%

**Table XII-6
Disabled Retiree Mortality Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES: TRANSIT AND TBTA BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.2122%	0.1981%	68	3.7437%	2.9280%
16	0.2871%	0.2680%	69	3.7938%	2.9997%
17	0.3869%	0.3612%	70	3.8562%	3.0865%
18	0.4493%	0.3913%	71	4.0719%	3.1548%
19	0.4867%	0.4214%	72	4.3111%	3.4254%
20	0.5079%	0.4416%	73	4.5762%	3.7295%
21	0.5481%	0.4807%	74	4.8677%	3.9658%
22	0.5913%	0.5231%	75	5.1886%	4.2453%
23	0.6375%	0.5662%	76	5.6252%	4.5234%
24	0.6871%	0.6186%	77	6.1056%	4.7961%
25	0.7380%	0.6680%	78	6.6306%	5.1502%
26	0.7899%	0.7165%	79	7.2058%	5.5873%
27	0.8426%	0.7727%	80	7.8307%	6.0964%
28	0.8951%	0.8346%	81	8.5077%	6.6521%
29	0.9462%	0.9008%	82	9.2427%	7.2551%
30	0.9941%	0.9373%	83	10.0417%	7.9112%
31	1.0381%	0.9629%	84	10.9048%	8.6209%
32	1.0767%	0.9955%	85	11.8420%	9.3370%
33	1.1093%	1.0289%	86	12.5719%	10.0511%
34	1.1374%	1.0577%	87	13.0981%	10.8029%
35	1.1611%	1.0841%	88	13.7768%	11.4531%
36	1.1803%	1.1092%	89	14.4864%	12.5564%
37	1.1976%	1.1344%	90	15.2369%	14.1031%
38	1.2150%	1.1618%	91	17.0460%	15.7291%
39	1.2349%	1.1939%	92	19.0878%	17.1860%
40	1.2599%	1.2249%	93	21.0868%	18.5029%
41	1.2862%	1.2570%	94	23.0794%	19.6588%
42	1.3485%	1.2982%	95	25.0984%	21.1183%
43	1.4139%	1.3497%	96	26.9216%	22.4310%
44	1.4825%	1.4058%	97	28.6226%	23.5901%
45	1.5544%	1.4809%	98	30.2699%	24.4460%
46	1.6298%	1.5639%	99	31.6634%	24.9756%
47	1.7087%	1.6535%	100	32.8016%	25.0896%
48	1.7915%	1.7359%	101	34.4271%	26.0668%
49	1.8784%	1.8218%	102	35.8284%	27.2107%
50	2.0069%	1.8919%	103	37.0944%	28.5630%
51	2.1863%	1.9830%	104	38.1311%	30.0929%
52	2.3750%	2.0502%	105	38.8672%	31.7431%
53	2.5726%	2.1047%	106	39.2392%	33.4756%
54	2.7749%	2.1904%	107	39.4052%	35.2496%
55	2.9761%	2.2636%	108	39.5838%	37.0164%
56	3.0547%	2.3429%	109	39.7590%	38.7265%
57	3.1163%	2.4285%	110	50.0000%	50.0000%
58	3.1599%	2.5412%	111	50.0000%	50.0000%
59	3.1868%	2.5588%	112	50.0000%	50.0000%
60	3.2020%	2.5795%	113	50.0000%	50.0000%
61	3.2829%	2.6067%	114	50.0000%	50.0000%
62	3.3636%	2.6272%	115	50.0000%	50.0000%
63	3.4522%	2.6579%	116	50.0000%	50.0000%
64	3.5511%	2.7759%	117	50.0000%	50.0000%
65	3.6650%	2.8107%	118	50.0000%	50.0000%
66	3.6789%	2.8328%	119	50.0000%	50.0000%
67	3.7049%	2.8725%	120	100.0000%	100.0000%

**Table XII-6
Disabled Retiree Mortality Rates (cont'd)**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES: HOUSING POLICE AND TRANSIT POLICE BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.0138%	0.0095%	68	1.8368%	1.2141%
16	0.0187%	0.0117%	69	2.0342%	1.3912%
17	0.0252%	0.0127%	70	2.2544%	1.5837%
18	0.0301%	0.0148%	71	2.5045%	1.7848%
19	0.0334%	0.0159%	72	2.7644%	1.9944%
20	0.0347%	0.0168%	73	3.0535%	2.2258%
21	0.0371%	0.0185%	74	3.3359%	2.4880%
22	0.0402%	0.0205%	75	3.6300%	2.7766%
23	0.0431%	0.0227%	76	4.1253%	3.0785%
24	0.0467%	0.0251%	77	4.6178%	3.3525%
25	0.0503%	0.0274%	78	5.1289%	3.6752%
26	0.0544%	0.0298%	79	5.5682%	4.1794%
27	0.0586%	0.0322%	80	6.0116%	4.7030%
28	0.0633%	0.0348%	81	6.7832%	5.2484%
29	0.0681%	0.0374%	82	7.6009%	5.7185%
30	0.0730%	0.0400%	83	8.4279%	6.1948%
31	0.0781%	0.0425%	84	9.2040%	7.0110%
32	0.0830%	0.0450%	85	10.1002%	7.8321%
33	0.0898%	0.0476%	86	11.5115%	8.6046%
34	0.0933%	0.0491%	87	12.7944%	9.3702%
35	0.0972%	0.0512%	88	14.1662%	10.2595%
36	0.1019%	0.0534%	89	15.7578%	11.5941%
37	0.1080%	0.0563%	90	17.3856%	12.9378%
38	0.1153%	0.0590%	91	19.0388%	14.3081%
39	0.1286%	0.0629%	92	20.6360%	15.3704%
40	0.1417%	0.0688%	93	22.5718%	16.4875%
41	0.1550%	0.0766%	94	24.4562%	17.6613%
42	0.1690%	0.0865%	95	26.1404%	18.7606%
43	0.1838%	0.0992%	96	28.0695%	19.7397%
44	0.1997%	0.1148%	97	29.6855%	20.6328%
45	0.2170%	0.1330%	98	30.9177%	21.2676%
46	0.2279%	0.1538%	99	32.6552%	21.8544%
47	0.2387%	0.1769%	100	33.9880%	22.1859%
48	0.2492%	0.2017%	101	34.9681%	23.0680%
49	0.3237%	0.2316%	102	35.9346%	24.0803%
50	0.3948%	0.2637%	103	36.6434%	25.2770%
51	0.4620%	0.2870%	104	37.3834%	26.6309%
52	0.5249%	0.3323%	105	38.1051%	28.0912%
53	0.5528%	0.3677%	106	38.4698%	29.6244%
54	0.5891%	0.4196%	107	38.6325%	31.1943%
55	0.6260%	0.4722%	108	38.8076%	32.7579%
56	0.6814%	0.5135%	109	38.9794%	34.2712%
57	0.7288%	0.5258%	110	50.0000%	50.0000%
58	0.7710%	0.5452%	111	50.0000%	50.0000%
59	0.8525%	0.5823%	112	50.0000%	50.0000%
60	0.9273%	0.6153%	113	50.0000%	50.0000%
61	1.0007%	0.6486%	114	50.0000%	50.0000%
62	1.0735%	0.7169%	115	50.0000%	50.0000%
63	1.1411%	0.7851%	116	50.0000%	50.0000%
64	1.2250%	0.8630%	117	50.0000%	50.0000%
65	1.3055%	0.9419%	118	50.0000%	50.0000%
66	1.4653%	1.0252%	119	50.0000%	50.0000%
67	1.6473%	1.1204%	120	100.0000%	100.0000%

Table XII-7
Beneficiary Mortality Rates

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM					
PROBABILITIES OF MORTALITY FOR BENEFICIARIES: ALL PLAN GROUPS					
BASE RATES					
Age	Males	Females	Age	Males	Females
15	0.0105%	0.0092%	68	1.8256%	1.3605%
16	0.0142%	0.0112%	69	1.9386%	1.4332%
17	0.0191%	0.0122%	70	2.0542%	1.5007%
18	0.0222%	0.0133%	71	2.2359%	1.6745%
19	0.0240%	0.0143%	72	2.4230%	1.8463%
20	0.0251%	0.0145%	73	2.6165%	2.0157%
21	0.0268%	0.0153%	74	2.8157%	2.1838%
22	0.0284%	0.0161%	75	3.0220%	2.3492%
23	0.0301%	0.0171%	76	3.4928%	2.6652%
24	0.0315%	0.0183%	77	3.9787%	2.9831%
25	0.0327%	0.0195%	78	4.4792%	3.3011%
26	0.0342%	0.0208%	79	4.9963%	3.6207%
27	0.0354%	0.0221%	80	5.5282%	3.9391%
28	0.0371%	0.0236%	81	6.1051%	4.4386%
29	0.0394%	0.0252%	82	6.6894%	4.9473%
30	0.0427%	0.0270%	83	7.2805%	5.4665%
31	0.0495%	0.0330%	84	7.8749%	5.9942%
32	0.0562%	0.0384%	85	8.4753%	6.5354%
33	0.0625%	0.0431%	86	9.6136%	7.4659%
34	0.0682%	0.0471%	87	10.8005%	8.3995%
35	0.0743%	0.0511%	88	12.0443%	9.3428%
36	0.0780%	0.0542%	89	13.3397%	10.2918%
37	0.0818%	0.0579%	90	14.6958%	11.2477%
38	0.0861%	0.0618%	91	16.4185%	12.8868%
39	0.0917%	0.0666%	92	18.1416%	14.4887%
40	0.0997%	0.0719%	93	19.8574%	16.0801%
41	0.1394%	0.0775%	94	21.6187%	17.5854%
42	0.1774%	0.0859%	95	23.5884%	19.0626%
43	0.2143%	0.0968%	96	25.4266%	20.2474%
44	0.2507%	0.1111%	97	27.2119%	21.2937%
45	0.2875%	0.1287%	98	29.0202%	22.0663%
46	0.3207%	0.1501%	99	30.6654%	22.5443%
47	0.3534%	0.1748%	100	32.1584%	22.6473%
48	0.3849%	0.2022%	101	33.7521%	23.5294%
49	0.4150%	0.2319%	102	35.1259%	24.5619%
50	0.4431%	0.2633%	103	36.3671%	25.7825%
51	0.5156%	0.2999%	104	37.3834%	27.1635%
52	0.5928%	0.3376%	105	38.1051%	28.6530%
53	0.6740%	0.3762%	106	38.4698%	30.2169%
54	0.7583%	0.4151%	107	38.6325%	31.8182%
55	0.8440%	0.4540%	108	38.8076%	33.4131%
56	0.9048%	0.5132%	109	38.9794%	34.9566%
57	0.9604%	0.5735%	110	50.0000%	50.0000%
58	1.0101%	0.6353%	111	50.0000%	50.0000%
59	1.0536%	0.6981%	112	50.0000%	50.0000%
60	1.0919%	0.7631%	113	50.0000%	50.0000%
61	1.1835%	0.8329%	114	50.0000%	50.0000%
62	1.2676%	0.8908%	115	50.0000%	50.0000%
63	1.3473%	0.9493%	116	50.0000%	50.0000%
64	1.4238%	1.0146%	117	50.0000%	50.0000%
65	1.4985%	1.0876%	118	50.0000%	50.0000%
66	1.6059%	1.1681%	119	50.0000%	50.0000%
67	1.7146%	1.2609%	120	100.0000%	100.0000%

**Table XII-8
Salary Scale**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM
ANNUAL RATES OF MERIT AND SALARY INCREASE

Years of Service	General		Correction		Sanitation		TBTA		Transit	
	Merit Increase	Salary Increase ¹	Merit Increase	Salary Increase ¹	Merit Increase	Salary Increase ¹	Merit Increase	Salary Increase ¹	Merit Increase	Salary Increase ¹
0	6.00%	9.00%	11.00%	14.00%	4.00%	7.00%	8.00%	11.00%	16.00%	19.00%
1	5.00%	8.00%	10.00%	13.00%	6.00%	9.00%	7.00%	10.00%	11.00%	14.00%
2	4.00%	7.00%	9.00%	12.00%	8.00%	11.00%	6.00%	9.00%	7.00%	10.00%
3	3.00%	6.00%	8.00%	11.00%	13.00%	16.00%	5.00%	8.00%	6.00%	9.00%
4	2.50%	5.50%	46.00%	49.00%	22.00%	25.00%	4.00%	7.00%	3.00%	6.00%
5	2.00%	5.00%	1.20%	4.20%	15.00%	18.00%	3.00%	6.00%	2.00%	5.00%
6	1.90%	4.90%	1.40%	4.40%	1.00%	4.00%	2.00%	5.00%	1.50%	4.50%
7	1.80%	4.80%	1.60%	4.60%	1.10%	4.10%	1.00%	4.00%	1.50%	4.50%
8	1.70%	4.70%	1.80%	4.80%	1.20%	4.20%	0.80%	3.80%	1.50%	4.50%
9	1.60%	4.60%	3.20%	6.20%	2.10%	5.10%	0.60%	3.60%	1.50%	4.50%
10	1.50%	4.50%	2.00%	5.00%	1.40%	4.40%	0.50%	3.50%	1.50%	4.50%
11	1.50%	4.50%	1.90%	4.90%	1.30%	4.30%	0.50%	3.50%	1.50%	4.50%
12	1.50%	4.50%	1.80%	4.80%	1.20%	4.20%	0.50%	3.50%	1.50%	4.50%
13	1.50%	4.50%	1.70%	4.70%	1.10%	4.10%	0.50%	3.50%	1.50%	4.50%
14	1.50%	4.50%	2.90%	5.90%	2.00%	5.00%	0.50%	3.50%	1.50%	4.50%
15	1.50%	4.50%	1.50%	4.50%	1.00%	4.00%	0.50%	3.50%	1.50%	4.50%
16	1.45%	4.45%	1.40%	4.40%	1.00%	4.00%	0.50%	3.50%	1.50%	4.50%
17	1.40%	4.40%	1.30%	4.30%	0.90%	3.90%	0.50%	3.50%	1.50%	4.50%
18	1.35%	4.35%	1.20%	4.20%	0.80%	3.80%	0.50%	3.50%	1.50%	4.50%
19	1.30%	4.30%	2.40%	5.40%	1.60%	4.60%	0.50%	3.50%	1.50%	4.50%
20	1.25%	4.25%	1.00%	4.00%	0.70%	3.70%	0.50%	3.50%	1.50%	4.50%
21	1.20%	4.20%	0.90%	3.90%	0.60%	3.60%	0.50%	3.50%	1.50%	4.50%
22	1.15%	4.15%	0.80%	3.80%	0.50%	3.50%	0.50%	3.50%	1.50%	4.50%
23	1.10%	4.10%	0.70%	3.70%	0.50%	3.50%	0.50%	3.50%	1.00%	4.00%
24	1.05%	4.05%	0.60%	3.60%	0.50%	3.50%	0.50%	3.50%	1.00%	4.00%
≥ 25	1.00%	4.00%	0.50%	3.50%	0.50%	3.50%	0.50%	3.50%	1.00%	4.00%

¹ Salary Increase is General Wage Increase of 3.00% plus the Merit Increase.

**Table XII-9
Overtime**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
OVERTIME ASSUMPTION: GROUPS OTHER THAN CORRECTION		
Plan Group	Overtime Type	Assumption
General	All Overtime	5.00%
Sanitation	Baseline	12.00%
	Dual Service	16.00%
	Dual Disability	8.00%
TBTA	Baseline	20.00%
	Dual Service	24.00%
	Dual Disability	18.00%
Transit	Baseline	8.00%
	Dual Service	10.00%
	Dual Disability	6.00%

Table XII-9
Overtime (cont'd)

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
OVERTIME ASSUMPTION: CORRECTION		
	Correction	
Years of Service	Baseline and Dual Service	Dual Disability
0-15	15.00%	8.00%
16	16.50%	9.00%
17	18.00%	10.00%
18	19.50%	11.00%
19	21.00%	12.00%
20+	22.50%	13.00%

Additional Assumptions and Methods

1. **Actuarial Interest Rate (AIR):** 7.0% per annum, net of investment expenses.
2. **Mortality Assumption:** The mortality base tables are projected from 2012 using mortality improvement table MP-2020. The post-commencement base tables are also multiplied by adjustment factors to convert them from lives-weighted to amounts-weighted tables to account for socioeconomic effects on mortality. The adjustment factors used are as follows:

Group	Service Retiree Adjustment Factor		Disabled Retiree Adjustment Factor		Beneficiary Adjustment Factor	
	Male	Female	Male	Female	Male	Female
General	0.890	0.951	0.962	1.000	0.890	0.951
Correction	0.890	0.873	0.835	0.770	0.890	0.951
Sanitation	0.940	0.922	1.000	1.000	0.890	0.951
Transit/TBTA	0.950	1.098	1.010	0.900	0.890	0.951
Housing Police/Transit Police	0.910	0.910	0.876	0.876	0.890	0.951

3. **Marital Assumption:** All active members are assumed to be married, male employees are assumed to be four years older than their female spouses, and female employees are assumed to be two years younger than their male spouses.
4. **Credited Service:** Calculated in whole year increments for valuation purposes.
5. **Loans:** Except for Death Benefits, it is assumed that eligible members take a loan at retirement equal to 25% of their member contribution balances.
6. **Inflation:** The long-term Consumer Price Index inflation rate is assumed to be 2.5% per year. AutoCOLA is assumed to be 1.5% per year, and Escalation is assumed to be 2.5% per year. Beneficiaries receiving Special Accidental Death Benefits are assumed to receive increases at 3.0% per year. The assumed 30-year Treasury rate for annuitization of outstanding loans at retirement is 3.5%.
7. **Form of Payment:** Retiring members are assumed to elect the Maximum Retirement Allowance (i.e., single life annuity) form of payment.

8. Actuarial Asset Valuation Method (AAVM):

The Actuary reset the Actuarial Value of Assets to Market Value as of June 30, 2019.

Beginning with the June 30, 2020 actuarial valuation, the asset smoothing method recognizes investment returns greater or less than expected over a period of five years, phasing these gains and losses into AVA at a rate of 20% per year.

The expected investment return is derived using the Actuarial Interest Rate of 7%, beginning-of-fiscal-year MVA, and net cash flows which are assumed to occur midyear.

The AVA is further constrained to be within a corridor of 80% to 120% of the MVA.

For more information, see SECTION II – MARKET AND ACTUARIAL VALUES OF ASSETS.

9. Actuarial Cost Method: The Entry Age Normal (EAN) cost method of funding is used by the Actuary to calculate the Employer Contribution.

Under this method, the Present Value (PV) of Future Benefits (PVFB) of each individual included in the actuarial valuation is allocated on a level basis over the expected earnings (or service) of the individual between entry age and assumed exit age(s). The employer portion of this PVFB allocated to a valuation year is the Normal Cost. The portion of this PVFB not provided for at a valuation date by the PV of Future Normal Costs or future member contributions is the Accrued Liability (AL).

The excess, if any, of the AL over the Actuarial Value of Assets (AVA) is the Unfunded Accrued Liability (UAL).

Under this method, actuarial gains and losses, as they occur, reduce and increase the UAL, respectively, and are explicitly identified and amortized. Increases or decreases in obligations due to benefit changes, actuarial assumption changes, and actuarial method changes are also explicitly identified and amortized.

The explicit UALs that are developed under EAN each year are financed over fixed periods. For more information see Page 12.

Under EAN, the Normal Cost as a percentage of pay remains stable by individual and changes gradually over time for the entire plan as the characteristics of the group changes (e.g., more Tier 6 active members decrease the average Normal Cost as a percentage of pay).

10. Allowances for Administrative Expenses: The Employer Contribution for a fiscal year is increased by the interest-adjusted amount of administrative expenses paid from NYCERS during the second prior fiscal year.

11. **WTC Disability and Death Benefits:** Obligations attributable to the WTC Disability Benefits Law and to the WTC Death Benefits Law are determined through estimation techniques for post-retirement reclassifications.

12. **One-Year Lag Methodology (OYLM):** One-Year Lag Methodology uses a June 30, XX valuation date to determine Fiscal Year XX+2 employer contributions as follows:

a. Normal Cost

The normal cost as of July 1, XX (calculated in the June 30, XX valuation) is rolled forward with the assumed AIR of 7.0% to the mid-point of Fiscal Year XX+2 (i.e., December 31, XX+1).

b. Administrative Expenses

A reimbursement for administrative expenses deducted from plan assets during the year ending June 30, XX is rolled forward with the assumed AIR of 7.0% to the mid-point of Fiscal Year XX+2.

c. UAL Payments

New amortization bases for gains and losses, method and assumption changes, and any benefit improvements are established each year XX such that the UAL as of June 30, XX is equal to the sum of the:

- 1) Outstanding prior amortization bases;
- 2) Unpaid prior year normal cost with interest;
- 3) Unreimbursed administrative expenses with interest, and
- 4) New amortization bases.

The UAL payment is the sum of the payments on the amortization bases scheduled for Fiscal Year XX+2.

13. **Excess Benefit Plan:** The valuation excludes liabilities and costs, if any, associated with benefits in excess of the Internal Revenue Code Section 415 limitation.

SECTION XIII – SUMMARY OF DEMOGRAPHIC DATA

The June 30, 2021 and June 30, 2020 actuarial valuations are based upon census data as of those dates submitted by the Plan's administrative staff and the employers' payroll facilities. Financial information was provided by the Office of the Comptroller as of June 30, 2021 and June 30, 2020.

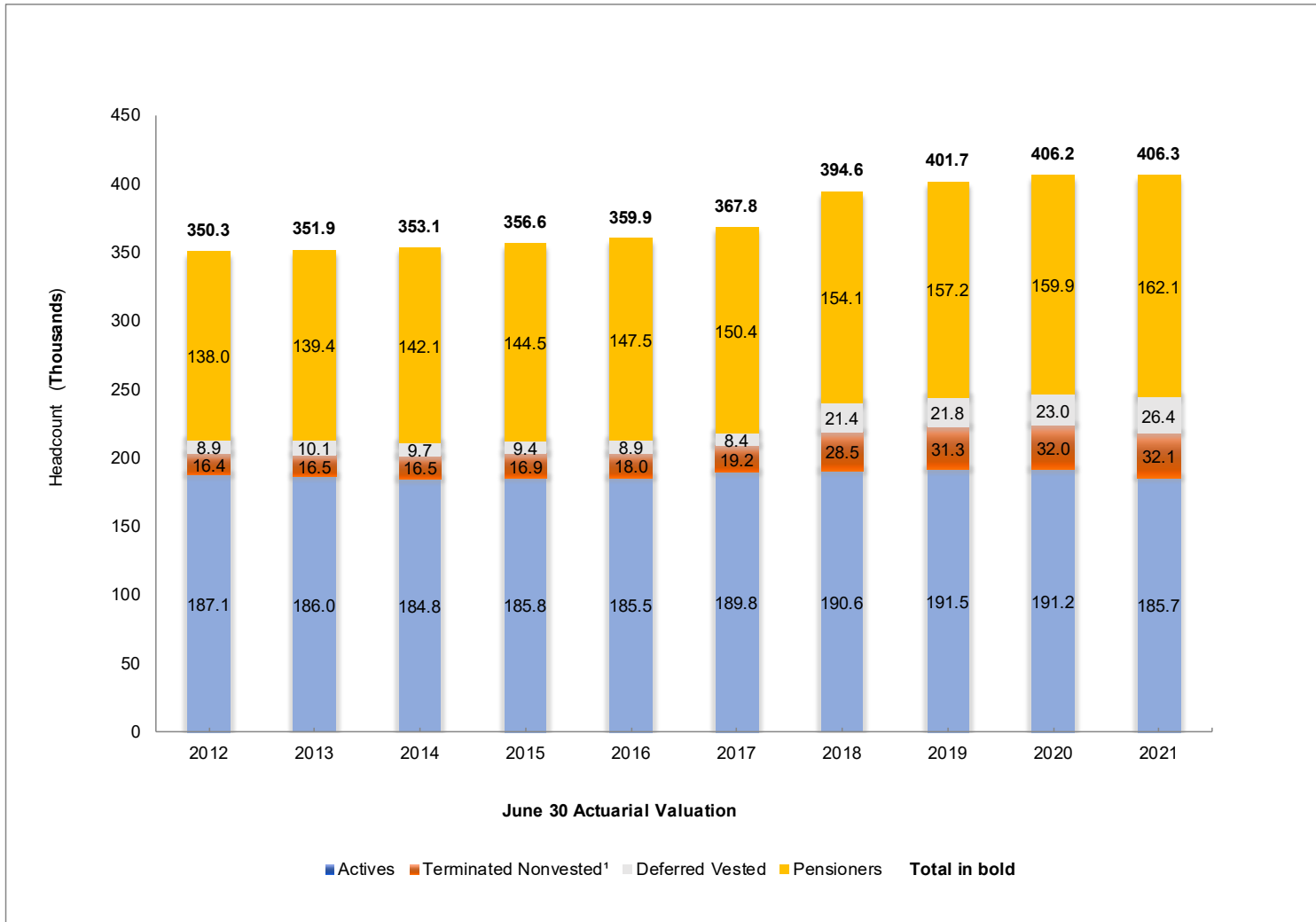
Beginning at June 30, 2020, NYCERS members who are no longer on payroll but not otherwise classified have been classified as Terminated Nonvested, or Deferred Vested members, using actuarial judgement and consideration of available data, including leave of absence data when available.

Consistent with Actuarial Standards of Practice, the Office of the Actuary has reviewed census data and financial information for consistency and reasonability but has not audited it. The accuracy of the results and calculations contained in this Report are dependent on the accuracy of this census data and financial information. To the extent any such data or information provided is materially inaccurate or incomplete, the results contained herein will require revision.

**Table XIII-1
Status Reconciliation**

CHANGES IN THE NUMBER OF ACTIVES AND PENSIONERS DURING THE FISCAL YEAR CLASSIFIED BY STATUS										
Status	(1) Active Members	(2) Terminated Nonvested	(3) Deferred Vested	(4) Service Pension	(5) Ordinary Disability	(6) Accidental Disability	(7) Accidental Death	(8) Other Beneficiary	(9) Pensioners Subtotal (4) to (8)	(10) Grand Total (1) + (2) + (3) + (9)
Number at June 30, 2020	191,237	32,027	23,034	129,890	9,656	4,578	429	15,353	159,906	406,204
New Entrants	6,088	365	0	0	0	0	0	0	0	6,453
Rehires	4,446	(1,451)	(1,249)	0	0	0	0	0	0	1,746
Leaving Active Payroll	(5,541)	5,541	0	0	0	0	0	0	0	0
Vested Termination	(3,617)	(3,104)	6,721	0	0	0	0	0	0	0
Non-Vested Termination / Cashout	(705)	(1,223)	(257)	0	0	0	0	0	0	(2,185)
Accidental Death (from Active)	(52)	0	(10)	0	0	0	62	0	62	0
Ordinary Death (from Active)	(361)	(44)	(115)	0	0	0	0	0	0	(520)
Service Retirement	(5,663)	(49)	(1,671)	7,383	0	0	0	0	7,383	0
Ordinary Disability Retirement	(54)	(3)	(98)	0	155	0	0	0	155	0
Accidental Disability Retirement	(46)	(1)	(14)	0	0	61	0	0	61	0
Reclassifications	0	0	0	(127)	(71)	198	55	(55)	0	0
Death with Beneficiary	0	0	0	(1,024)	(100)	(9)	0	1,133	0	0
Death without Beneficiary	0	0	0	(3,816)	(324)	(141)	(91)	(1,083)	(5,455)	(5,455)
Pension Payroll Adjustments	0	0	42	(205)	(69)	(2)	10	303	37	79
Net Change	(5,505)	31	3,349	2,211	(409)	107	36	298	2,243	118
Number at June 30, 2021	185,732	32,058	26,383	132,101	9,247	4,685	465	15,651	162,149	406,322

**Graph XIII-2
Headcount Summary by Status**



¹ Actives Off Payroll prior to June 30, 2020.

Table XIII-3
Summary of Active Membership

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
ACTIVE MEMBERS INCLUDED IN THE JUNE 30, 2021 AND THE JUNE 30, 2020 ACTUARIAL VALUATIONS		
	June 30, 2021	June 30, 2020
Number		
Males	100,973	104,641
Females	<u>84,759</u>	<u>86,596</u>
Total	185,732	191,237
Annual Salary¹		
Males	\$ 8,871,671,260	\$ 8,878,865,969
Females	<u>6,423,054,579</u>	<u>6,410,481,480</u>
Total	\$ 15,294,725,839	\$ 15,289,347,449
Average Salary¹		
Males	\$ 87,862	\$ 84,851
Females	<u>75,780</u>	<u>74,027</u>
Total Average	\$ 82,348	\$ 79,950
Average Age		
Males	47.9	47.5
Females	<u>48.0</u>	<u>47.7</u>
Total Average	47.9	47.6
Average Past Service		
Males	12.4	12.1
Females	<u>12.1</u>	<u>11.9</u>
Total Average	12.2	12.0

¹ Salaries shown are base salary plus assumed overtime paid and reflect the impact of recent labor contract settlements and certain non-union salary increases with retroactive effective dates, if any.

**Graph XIII-4
Active Membership by Tier**

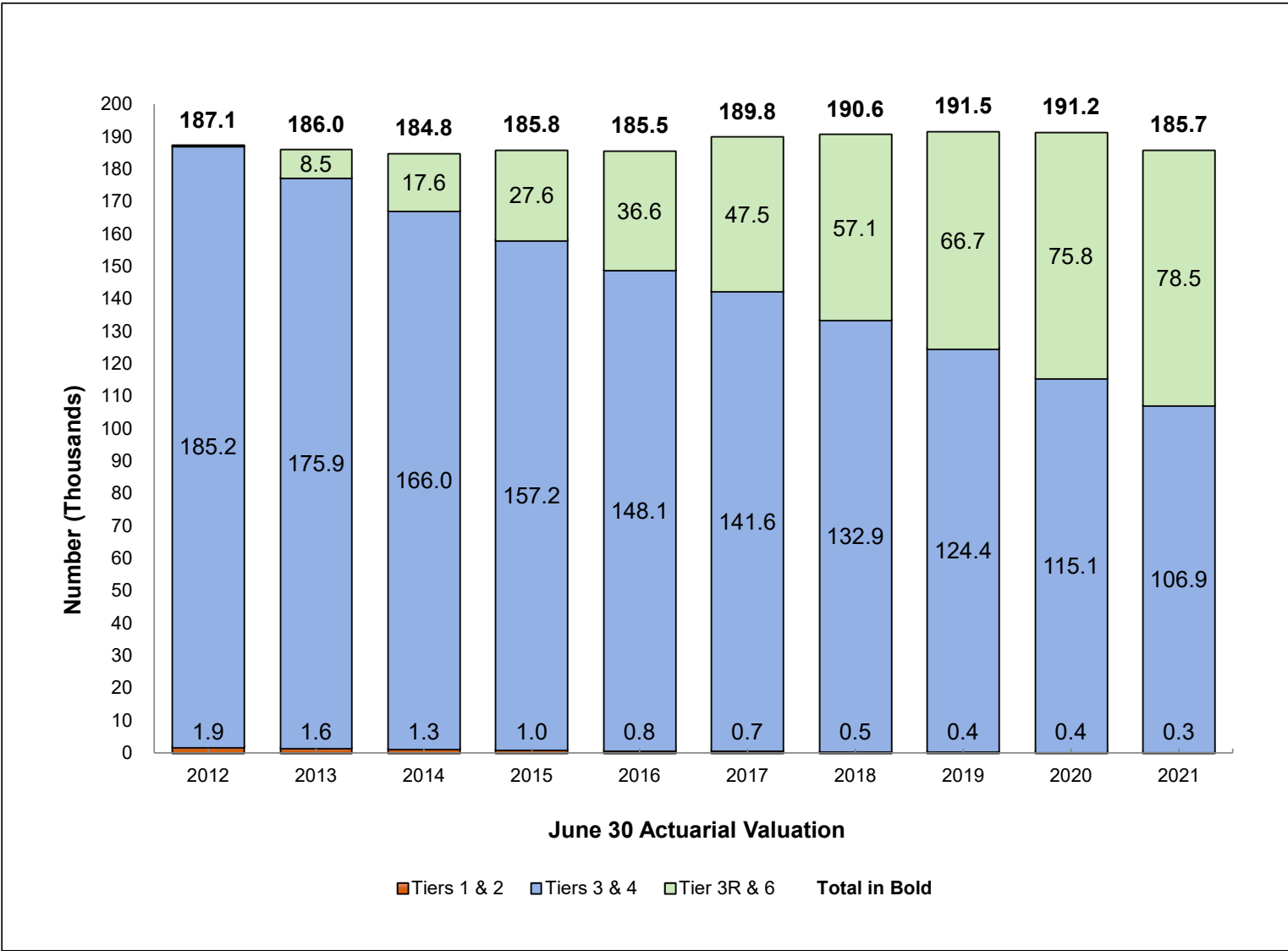


Table XIII-5
Schedule of Active Member Salary Data

June 30 Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2012	187,114	12,478,129,812	66,687	(0.8%)
2013	185,971	12,642,482,697	67,981	1.9%
2014	184,762	12,672,386,846	68,588	0.9%
2015	185,758	12,917,466,528	69,539	1.4%
2016	185,481	13,216,539,355	71,255	2.5%
2017	189,792	14,065,241,654	74,109	4.0%
2018	190,572	14,459,118,057	75,872	2.4%
2019	191,501	14,981,461,175	78,232	3.1%
2020	191,237	15,289,347,449	79,950	2.2%
2021	185,732	15,294,725,839	82,348	3.0%

Salaries shown are base salary plus assumed overtime paid and reflect certain salary increases with retroactive effective dates, if any, that are not yet reflected in census data.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021

AGE \ SVC	Transit Authority										
	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS	
<i>NUMBER:</i>											
UNDER 20	0	0	0	0	0	0	0	0	0	0	0
20 TO 24	282	20	0	0	0	0	0	0	0	0	302
25 TO 29	832	152	0	0	0	0	0	0	0	0	984
30 TO 34	1,598	902	158	10	0	0	0	0	0	0	2,668
35 TO 39	1,603	1,709	564	97	47	0	0	0	0	0	4,020
40 TO 44	1,236	1,661	989	439	142	0	0	0	0	0	4,467
45 TO 49	884	1,400	1,028	789	726	70	2	0	0	0	4,899
50 TO 54	727	1,194	1,123	1,069	1,375	659	225	3	0	0	6,375
55 TO 59	510	988	1,065	1,008	1,627	775	567	105	3	0	6,648
60 TO 64	296	580	675	672	1,143	484	405	163	31	0	4,449
65 TO 69	72	242	268	275	437	145	144	71	38	0	1,692
70 & UP	8	59	100	120	175	69	53	35	39	0	658
TOTAL	8,048	8,907	5,970	4,479	5,672	2,202	1,396	377	111	0	37,162

<i>SALARIES (IN THOUSANDS):</i>											
UNDER 20	0	0	0	0	0	0	0	0	0	0	0
20 TO 24	18,447	1,774	0	0	0	0	0	0	0	0	20,221
25 TO 29	56,902	12,416	0	0	0	0	0	0	0	0	69,318
30 TO 34	114,109	75,586	14,278	1,034	0	0	0	0	0	0	205,007
35 TO 39	116,808	146,356	50,488	9,571	4,979	0	0	0	0	0	328,202
40 TO 44	91,775	143,883	89,097	41,438	14,548	0	0	0	0	0	380,741
45 TO 49	67,752	121,089	93,156	74,901	71,199	7,283	232	0	0	0	435,613
50 TO 54	55,666	103,543	100,968	100,624	135,224	67,520	24,610	334	0	0	588,488
55 TO 59	39,416	85,743	95,123	95,397	158,121	79,407	59,968	11,459	294	0	624,928
60 TO 64	22,712	50,945	60,786	62,986	109,604	48,669	42,454	17,554	3,280	0	418,990
65 TO 69	5,796	21,043	23,809	25,275	40,863	14,150	14,796	7,614	4,197	0	157,544
70 & UP	791	5,136	8,808	11,015	16,277	6,571	5,285	3,705	3,713	0	61,300
TOTAL¹	590,173	767,514	536,514	422,240	550,814	223,600	147,346	40,666	11,485	0	3,290,352

<i>AVERAGE SALARIES:²</i>											
UNDER 20	0	0	0	0	0	0	0	0	0	0	0
20 TO 24	65,416	88,691	0	0	0	0	0	0	0	0	66,957
25 TO 29	68,391	81,684	0	0	0	0	0	0	0	0	70,445
30 TO 34	71,407	83,798	90,369	103,408	0	0	0	0	0	0	76,839
35 TO 39	72,868	85,639	89,518	98,668	105,932	0	0	0	0	0	81,642
40 TO 44	74,252	86,625	90,088	94,392	102,448	0	0	0	0	0	85,234
45 TO 49	76,642	86,492	90,618	94,932	98,070	104,041	116,234	0	0	0	88,919
50 TO 54	76,569	86,719	89,910	94,129	98,344	102,458	109,379	111,177	0	0	92,312
55 TO 59	77,287	86,784	89,317	94,640	97,185	102,461	105,764	109,133	98,136	0	94,002
60 TO 64	76,729	87,837	90,054	93,729	95,892	100,556	104,824	107,696	105,798	0	94,176
65 TO 69	80,506	86,955	88,840	91,908	93,508	97,583	102,753	107,241	110,455	0	93,111
70 & UP	98,831	87,045	88,082	91,788	93,012	95,233	99,716	105,847	95,214	0	93,161
TOTAL	73,332	86,170	89,868	94,271	97,111	101,544	105,549	107,866	103,467	0	88,541

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

AGE \ SVC	Housing Authority									
	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP ALL YEARS	
<i>NUMBER:</i>										
UNDER 20	3	0	0	0	0	0	0	0	0	3
20 TO 24	63	0	0	0	0	0	0	0	0	63
25 TO 29	260	83	1	0	0	0	0	0	0	344
30 TO 34	379	255	110	4	0	0	0	0	0	748
35 TO 39	337	291	196	48	2	0	0	0	0	874
40 TO 44	279	307	176	166	103	1	0	0	0	1,032
45 TO 49	210	222	185	185	263	153	0	0	0	1,218
50 TO 54	206	202	189	222	286	355	165	4	0	1,629
55 TO 59	139	182	165	196	285	277	290	50	1	1,585
60 TO 64	69	111	105	118	188	167	158	86	18	1,020
65 TO 69	26	39	28	42	72	42	31	15	13	308
70 & UP	11	7	11	16	22	14	8	6	9	104
TOTAL	1,982	1,699	1,166	997	1,221	1,009	652	161	41	8,928

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	113	0	0	0	0	0	0	0	0	113
20 TO 24	2,785	0	0	0	0	0	0	0	0	2,785
25 TO 29	13,183	4,952	49	0	0	0	0	0	0	18,184
30 TO 34	20,956	15,455	6,870	237	0	0	0	0	0	43,517
35 TO 39	19,676	20,057	13,718	3,448	154	0	0	0	0	57,052
40 TO 44	16,716	21,484	13,427	13,079	7,728	129	0	0	0	72,564
45 TO 49	13,432	16,594	13,599	14,193	20,555	13,217	0	0	0	91,591
50 TO 54	13,117	15,237	14,542	16,519	22,599	30,179	14,731	374	0	127,297
55 TO 59	9,336	13,804	12,615	13,981	22,698	23,952	24,722	4,683	122	125,913
60 TO 64	4,179	8,231	7,546	8,737	15,186	13,712	13,757	7,888	1,361	80,597
65 TO 69	1,674	2,892	2,075	3,246	5,692	3,477	2,586	1,345	1,068	24,053
70 & UP	262	620	889	1,370	1,762	1,158	646	480	742	7,928
TOTAL¹	115,429	119,326	85,330	74,809	96,374	85,823	56,442	14,769	3,292	651,595

<i>AVERAGE SALARIES:²</i>										
UNDER 20	37,683	0	0	0	0	0	0	0	0	37,683
20 TO 24	44,210	0	0	0	0	0	0	0	0	44,210
25 TO 29	50,703	59,667	48,592	0	0	0	0	0	0	52,860
30 TO 34	55,292	60,606	62,454	59,130	0	0	0	0	0	58,178
35 TO 39	58,386	68,924	69,988	71,837	76,825	0	0	0	0	65,277
40 TO 44	59,915	69,980	76,290	78,790	75,031	129,403	0	0	0	70,314
45 TO 49	63,961	74,750	73,510	76,722	78,157	86,385	0	0	0	75,198
50 TO 54	63,674	75,431	76,943	74,410	79,016	85,011	89,281	93,388	0	78,145
55 TO 59	67,166	75,845	76,457	71,330	79,643	86,468	85,249	93,670	121,944	79,441
60 TO 64	60,567	74,152	71,867	74,042	80,777	82,107	87,071	91,718	75,596	79,016
65 TO 69	64,388	74,158	74,123	77,276	79,054	82,774	83,405	89,635	82,117	78,095
70 & UP	23,827	88,572	80,780	85,607	80,091	82,689	80,723	79,958	82,457	76,228
TOTAL	58,239	70,233	73,182	75,034	78,930	85,057	86,568	91,733	80,300	72,983

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

Health and Hospitals Corporation										
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
<i>NUMBER:</i>										
UNDER 20	2	0	0	0	0	0	0	0	0	2
20 TO 24	181	0	0	0	0	0	0	0	0	181
25 TO 29	1,315	31	0	0	0	0	0	0	0	1,346
30 TO 34	2,098	433	40	0	0	0	0	0	0	2,571
35 TO 39	2,113	840	394	42	1	0	0	0	0	3,390
40 TO 44	1,715	954	705	279	43	1	0	0	0	3,697
45 TO 49	1,557	900	813	496	180	19	1	0	0	3,966
50 TO 54	1,320	932	925	720	427	255	78	1	0	4,658
55 TO 59	1,051	940	966	831	619	519	270	53	3	5,252
60 TO 64	656	625	684	692	559	481	370	148	19	4,234
65 TO 69	182	239	301	296	210	162	132	60	44	1,626
70 & UP	43	72	94	85	79	41	60	35	34	543
TOTAL	12,233	5,966	4,922	3,441	2,118	1,478	911	297	100	31,466

SALARIES (IN THOUSANDS):

UNDER 20	114	0	0	0	0	0	0	0	0	114
20 TO 24	11,458	0	0	0	0	0	0	0	0	11,458
25 TO 29	93,907	2,487	0	0	0	0	0	0	0	96,394
30 TO 34	154,798	37,015	3,403	0	0	0	0	0	0	195,216
35 TO 39	159,275	67,392	32,810	3,707	56	0	0	0	0	263,240
40 TO 44	129,636	75,828	58,604	23,309	3,833	49	0	0	0	291,260
45 TO 49	115,141	72,350	70,524	44,006	16,361	2,193	114	0	0	320,690
50 TO 54	100,063	72,764	77,843	64,160	38,349	25,593	7,240	53	0	386,065
55 TO 59	77,651	72,449	77,392	67,217	55,619	50,884	25,471	5,046	297	432,027
60 TO 64	51,781	49,740	56,389	56,778	48,281	46,042	36,691	15,060	1,371	362,133
65 TO 69	14,463	19,417	24,505	24,034	19,261	15,494	12,366	5,691	4,638	139,869
70 & UP	4,407	6,007	7,266	7,003	7,398	3,835	5,350	3,450	3,943	48,657
TOTAL¹	912,694	475,448	408,736	290,213	189,158	144,089	87,233	29,300	10,250	2,547,122

AVERAGE SALARIES:²

UNDER 20	57,009	0	0	0	0	0	0	0	0	57,009
20 TO 24	63,302	0	0	0	0	0	0	0	0	63,302
25 TO 29	71,412	80,228	0	0	0	0	0	0	0	71,615
30 TO 34	73,784	85,485	85,069	0	0	0	0	0	0	75,930
35 TO 39	75,379	80,229	83,274	88,251	56,316	0	0	0	0	77,652
40 TO 44	75,590	79,485	83,126	83,544	89,133	49,095	0	0	0	78,783
45 TO 49	73,950	80,389	86,746	88,721	90,895	115,400	114,374	0	0	80,860
50 TO 54	75,806	78,072	84,154	89,111	89,811	100,364	92,821	53,484	0	82,882
55 TO 59	73,883	77,073	80,116	80,887	89,853	98,042	94,338	95,209	99,013	82,259
60 TO 64	78,935	79,584	82,439	82,050	86,370	95,721	99,165	101,760	72,169	85,530
65 TO 69	79,466	81,242	81,413	81,195	91,720	95,644	93,685	94,844	105,413	86,021
70 & UP	102,492	83,425	77,294	82,383	93,642	93,529	89,171	98,558	115,976	89,608
TOTAL	74,609	79,693	83,043	84,340	89,310	97,489	95,756	98,654	102,496	80,948

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

Triborough Bridge and Tunnel Authority										
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	14	6	0	0	0	0	0	0	0	20
30 TO 34	32	20	6	0	0	0	0	0	0	58
35 TO 39	19	39	30	6	0	0	0	0	0	94
40 TO 44	27	40	53	29	15	0	0	0	0	164
45 TO 49	16	42	70	62	44	2	0	0	0	236
50 TO 54	14	28	52	46	48	13	4	0	0	205
55 TO 59	10	18	35	39	21	20	17	9	0	169
60 TO 64	4	15	7	29	22	14	13	6	0	110
65 TO 69	1	2	6	5	6	3	3	2	3	31
70 & UP	0	1	0	1	2	0	3	2	0	9
TOTAL	137	211	259	217	158	52	40	19	3	1,096

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	1,084	502	0	0	0	0	0	0	0	1,586
30 TO 34	2,646	2,006	619	0	0	0	0	0	0	5,271
35 TO 39	1,719	3,849	3,381	646	0	0	0	0	0	9,595
40 TO 44	2,356	4,479	5,601	3,576	1,789	0	0	0	0	17,800
45 TO 49	1,534	4,472	7,503	6,938	5,289	273	0	0	0	26,009
50 TO 54	1,417	2,876	5,685	5,112	5,705	1,837	675	0	0	23,306
55 TO 59	954	1,865	3,861	4,416	2,477	2,766	2,021	1,363	0	19,722
60 TO 64	481	1,621	702	2,893	2,807	1,952	1,685	778	0	12,918
65 TO 69	127	221	688	502	644	441	429	233	395	3,678
70 & UP	0	177	0	113	152	0	286	149	0	878
TOTAL¹	12,316	22,067	28,039	24,195	18,863	7,269	5,097	2,523	395	120,764

AVERAGE SALARIES:²

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	77,420	83,606	0	0	0	0	0	0	0	79,276
30 TO 34	82,694	100,312	103,127	0	0	0	0	0	0	90,883
35 TO 39	90,450	98,699	112,706	107,609	0	0	0	0	0	102,071
40 TO 44	87,251	111,963	105,676	123,299	119,292	0	0	0	0	108,538
45 TO 49	95,861	106,473	107,183	111,910	120,208	136,493	0	0	0	110,207
50 TO 54	101,194	102,707	109,330	111,124	118,845	141,333	168,810	0	0	113,690
55 TO 59	95,382	103,621	110,315	113,225	117,947	138,293	118,879	151,417	0	116,700
60 TO 64	120,169	108,063	100,233	99,756	127,581	139,417	129,642	129,645	0	117,436
65 TO 69	126,618	110,338	114,584	100,450	107,319	146,987	142,864	116,613	131,506	118,653
70 & UP	0	177,088	0	113,113	76,096	0	95,476	74,690	0	97,578
TOTAL	89,898	104,584	108,258	111,500	119,385	139,788	127,414	132,801	131,506	110,186

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

CUNY Senior Colleges										
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	11	0	0	0	0	0	0	0	0	11
25 TO 29	109	5	0	0	0	0	0	0	0	114
30 TO 34	258	91	10	0	0	0	0	0	0	359
35 TO 39	219	144	89	8	1	0	0	0	0	461
40 TO 44	154	103	102	64	10	0	0	0	0	433
45 TO 49	126	92	122	92	50	4	0	0	0	486
50 TO 54	131	93	121	121	79	45	3	0	0	593
55 TO 59	135	108	101	106	94	59	21	7	0	631
60 TO 64	116	81	97	82	88	63	39	19	1	586
65 TO 69	68	40	54	65	41	34	24	10	4	340
70 & UP	19	24	34	25	28	16	11	8	10	175
TOTAL	1,346	781	730	563	391	221	98	44	15	4,189

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	411	0	0	0	0	0	0	0	0	411
25 TO 29	4,620	257	0	0	0	0	0	0	0	4,876
30 TO 34	12,657	5,334	773	0	0	0	0	0	0	18,764
35 TO 39	11,555	8,940	5,898	555	54	0	0	0	0	27,002
40 TO 44	8,803	6,786	7,355	4,894	797	0	0	0	0	28,634
45 TO 49	6,775	6,570	8,425	6,739	3,815	432	0	0	0	32,756
50 TO 54	7,442	5,987	8,127	8,828	5,869	3,646	313	0	0	40,213
55 TO 59	6,398	6,321	6,498	7,026	7,661	4,535	2,134	587	0	41,161
60 TO 64	5,778	4,734	5,974	5,506	6,263	5,000	2,892	1,707	61	37,915
65 TO 69	3,088	2,401	3,199	3,612	2,766	2,240	1,739	600	357	20,000
70 & UP	972	1,105	1,550	1,228	1,616	1,194	661	480	890	9,696
TOTAL¹	68,498	48,435	47,800	38,387	28,841	17,048	7,738	3,374	1,308	261,429

<i>AVERAGE SALARIES:²</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	37,354	0	0	0	0	0	0	0	0	37,354
25 TO 29	42,381	51,355	0	0	0	0	0	0	0	42,774
30 TO 34	49,060	58,611	77,329	0	0	0	0	0	0	52,268
35 TO 39	52,763	62,085	66,265	69,346	54,077	0	0	0	0	58,572
40 TO 44	57,160	65,879	72,112	76,462	79,707	0	0	0	0	66,130
45 TO 49	53,766	71,418	69,056	73,250	76,301	108,116	0	0	0	67,400
50 TO 54	56,810	64,375	67,168	72,960	74,291	81,030	104,288	0	0	67,812
55 TO 59	47,393	58,530	64,339	66,280	81,501	76,873	101,610	83,853	0	65,231
60 TO 64	49,807	58,443	61,587	67,150	71,173	79,372	74,148	89,862	60,631	64,702
65 TO 69	45,405	60,030	59,239	55,566	67,453	65,868	72,440	60,002	89,279	58,824
70 & UP	51,157	46,036	45,603	49,103	57,724	74,635	60,088	59,977	89,035	55,409
TOTAL	50,890	62,016	65,479	68,183	73,763	77,142	78,959	76,686	87,206	62,409

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

		All Other Non-NYC Entities								
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP ALL YEARS	
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	2	0	0	0	0	0	0	0	0	2
30 TO 34	3	1	0	0	0	0	0	0	0	4
35 TO 39	3	1	3	1	0	0	0	0	0	8
40 TO 44	5	2	3	1	0	0	0	0	0	11
45 TO 49	7	2	10	4	2	0	0	0	0	25
50 TO 54	4	0	10	4	10	5	2	0	0	35
55 TO 59	4	1	7	8	5	3	4	2	0	34
60 TO 64	1	0	4	3	3	6	10	2	0	29
65 TO 69	1	1	0	1	1	2	3	0	0	9
70 & UP	0	0	1	1	3	0	1	0	0	6
TOTAL	30	8	38	23	24	16	20	4	0	163

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	150	0	0	0	0	0	0	0	0	150
30 TO 34	277	110	0	0	0	0	0	0	0	387
35 TO 39	404	137	377	102	0	0	0	0	0	1,020
40 TO 44	584	290	308	186	0	0	0	0	0	1,367
45 TO 49	665	305	1,119	615	241	0	0	0	0	2,945
50 TO 54	365	0	1,346	431	1,537	628	262	0	0	4,569
55 TO 59	334	247	805	1,150	560	497	617	298	0	4,508
60 TO 64	138	0	358	307	385	852	1,203	261	0	3,503
65 TO 69	65	148	0	147	76	274	397	0	0	1,107
70 & UP	0	0	152	106	334	0	87	0	0	679
TOTAL¹	2,981	1,237	4,465	3,043	3,134	2,251	2,566	559	0	20,235

<i>AVERAGE SALARIES:²</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	74,802	0	0	0	0	0	0	0	0	74,802
30 TO 34	92,170	110,244	0	0	0	0	0	0	0	96,688
35 TO 39	134,774	136,500	125,559	102,285	0	0	0	0	0	127,473
40 TO 44	116,715	144,824	102,720	185,886	0	0	0	0	0	124,297
45 TO 49	95,035	152,620	111,869	153,753	120,607	0	0	0	0	117,816
50 TO 54	91,284	0	134,593	107,642	153,711	125,590	130,962	0	0	130,532
55 TO 59	83,475	247,275	115,057	143,751	111,936	165,765	154,136	148,905	0	132,586
60 TO 64	137,550	0	89,441	102,278	128,296	141,937	120,326	130,557	0	120,794
65 TO 69	65,100	148,050	0	146,732	76,337	136,973	132,402	0	0	123,041
70 & UP	0	0	152,250	105,690	111,441	0	86,625	0	0	113,148
TOTAL	99,365	154,620	117,496	132,305	130,565	140,676	128,278	139,731	0	124,139

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

New York City: Sanitation										
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	1	0	0	0	0	0	0	0	0	1
25 TO 29	292	62	0	0	0	0	0	0	0	354
30 TO 34	319	344	54	2	0	0	0	0	0	719
35 TO 39	255	597	283	324	0	0	0	0	0	1,459
40 TO 44	118	400	297	537	153	0	0	0	0	1,505
45 TO 49	61	270	172	498	264	28	0	0	0	1,293
50 TO 54	32	140	116	312	265	92	11	0	0	968
55 TO 59	8	64	59	149	174	60	62	6	0	582
60 TO 64	0	18	16	61	46	21	37	8	0	207
65 TO 69	0	1	3	19	9	5	9	11	6	63
70 & UP	0	0	0	2	2	0	1	3	4	12
TOTAL	1,086	1,896	1,000	1,904	913	206	120	28	10	7,163

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	65	0	0	0	0	0	0	0	0	65
25 TO 29	19,744	5,575	0	0	0	0	0	0	0	25,320
30 TO 34	21,285	35,264	6,042	264	0	0	0	0	0	62,855
35 TO 39	17,223	63,550	32,525	39,560	0	0	0	0	0	152,858
40 TO 44	7,983	43,175	33,755	64,103	19,485	0	0	0	0	168,501
45 TO 49	4,054	29,091	19,341	58,883	33,690	3,475	0	0	0	148,534
50 TO 54	2,360	15,242	12,969	36,034	32,545	11,590	1,352	0	0	112,091
55 TO 59	575	6,986	6,563	17,361	21,238	7,417	8,477	816	0	69,434
60 TO 64	0	1,853	1,697	6,739	5,434	2,458	4,347	1,029	0	23,557
65 TO 69	0	96	306	2,119	1,056	570	1,060	1,436	747	7,390
70 & UP	0	0	0	196	233	0	142	356	396	1,324
TOTAL¹	73,289	200,833	113,197	225,258	113,682	25,510	15,378	3,637	1,143	771,928

AVERAGE SALARIES:²

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	64,694	0	0	0	0	0	0	0	0	64,694
25 TO 29	67,618	89,926	0	0	0	0	0	0	0	71,525
30 TO 34	66,725	102,512	111,895	131,757	0	0	0	0	0	87,420
35 TO 39	67,540	106,450	114,930	122,098	0	0	0	0	0	104,769
40 TO 44	67,651	107,939	113,652	119,373	127,354	0	0	0	0	111,961
45 TO 49	66,466	107,744	112,445	118,239	127,615	124,098	0	0	0	114,875
50 TO 54	73,740	108,872	111,798	115,494	122,812	125,973	122,912	0	0	115,797
55 TO 59	71,857	109,161	111,243	116,514	122,059	123,618	136,721	136,075	0	119,302
60 TO 64	0	102,926	106,053	110,471	118,132	117,068	117,499	128,624	0	113,803
65 TO 69	0	95,801	101,920	111,522	117,361	113,967	117,825	130,504	124,520	117,296
70 & UP	0	0	0	98,151	116,674	0	141,790	118,640	99,074	110,305
TOTAL	67,485	105,925	113,197	118,308	124,515	123,833	128,153	129,889	114,341	107,766

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

New York City: Correction										
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP ALL YEARS	
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	8	0	0	0	0	0	0	0	0	8
25 TO 29	431	142	0	0	0	0	0	0	0	573
30 TO 34	602	731	101	0	0	0	0	0	0	1,434
35 TO 39	326	746	607	195	0	0	0	0	0	1,874
40 TO 44	176	431	409	490	54	0	0	0	0	1,560
45 TO 49	70	220	254	413	148	15	0	0	0	1,120
50 TO 54	30	113	170	297	149	45	8	0	0	812
55 TO 59	17	57	83	156	73	24	43	6	0	459
60 TO 64	5	21	16	66	24	13	12	9	4	170
65 TO 69	1	1	3	10	5	1	3	6	4	34
70 & UP	0	0	0	2	2	0	1	0	5	10
TOTAL	1,666	2,462	1,643	1,629	455	98	67	21	13	8,054

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	541	0	0	0	0	0	0	0	0	541
25 TO 29	31,805	12,369	0	0	0	0	0	0	0	44,174
30 TO 34	45,079	74,609	11,382	0	0	0	0	0	0	131,070
35 TO 39	24,284	80,161	71,873	24,103	0	0	0	0	0	200,422
40 TO 44	13,172	46,781	49,250	62,376	7,315	0	0	0	0	178,895
45 TO 49	5,269	24,295	30,384	52,614	20,382	2,013	0	0	0	134,958
50 TO 54	2,407	12,690	20,676	37,598	20,076	6,463	1,146	0	0	101,056
55 TO 59	1,445	6,216	10,065	20,402	9,899	3,324	6,293	1,041	0	58,684
60 TO 64	389	2,286	1,981	8,575	3,215	1,763	1,665	1,258	589	21,720
65 TO 69	74	121	387	1,239	697	237	463	901	558	4,678
70 & UP	0	0	0	256	262	0	136	0	667	1,321
TOTAL¹	124,466	259,528	195,998	207,164	61,847	13,799	9,703	3,200	1,814	877,519

AVERAGE SALARIES:²

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	67,670	0	0	0	0	0	0	0	0	67,670
25 TO 29	73,793	87,107	0	0	0	0	0	0	0	77,092
30 TO 34	74,882	102,064	112,696	0	0	0	0	0	0	91,402
35 TO 39	74,491	107,455	118,407	123,607	0	0	0	0	0	106,949
40 TO 44	74,843	108,541	120,416	127,298	135,466	0	0	0	0	114,676
45 TO 49	75,272	110,432	119,623	127,396	137,716	134,192	0	0	0	120,498
50 TO 54	80,232	112,302	121,623	126,591	134,741	143,618	143,255	0	0	124,453
55 TO 59	84,996	109,048	121,261	130,784	135,605	138,479	146,350	173,494	0	127,852
60 TO 64	77,789	108,843	123,789	129,924	133,974	135,639	138,723	139,739	147,150	127,764
65 TO 69	74,480	121,264	128,980	123,938	139,357	236,790	154,320	150,235	139,617	137,602
70 & UP	0	0	0	127,834	131,180	0	136,232	0	133,350	132,101
TOTAL	74,709	105,414	119,293	127,172	135,928	140,809	144,820	152,382	139,524	108,954

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

All Other New York City										
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
<i>NUMBER:</i>										
UNDER 20	4	0	0	0	0	0	0	0	0	4
20 TO 24	714	3	0	0	0	0	0	0	0	717
25 TO 29	4,577	577	3	0	0	0	0	0	0	5,157
30 TO 34	5,283	3,170	430	4	0	0	0	0	0	8,887
35 TO 39	3,873	3,779	2,466	447	2	0	0	0	0	10,567
40 TO 44	2,927	2,874	2,761	1,980	386	6	0	0	0	10,934
45 TO 49	2,013	2,220	2,286	2,247	1,332	179	5	0	0	10,282
50 TO 54	1,709	2,018	1,944	2,224	2,089	1,239	416	8	0	11,647
55 TO 59	1,299	1,688	1,678	1,869	1,977	1,993	1,955	440	13	12,912
60 TO 64	784	1,131	1,220	1,412	1,413	1,386	1,692	998	186	10,222
65 TO 69	260	563	531	662	559	443	601	435	206	4,260
70 & UP	86	192	225	301	295	193	217	176	237	1,922
TOTAL	23,529	18,215	13,544	11,146	8,053	5,439	4,886	2,057	642	87,511

SALARIES (IN THOUSANDS):

UNDER 20	72	0	0	0	0	0	0	0	0	72
20 TO 24	32,557	165	0	0	0	0	0	0	0	32,722
25 TO 29	253,875	38,648	211	0	0	0	0	0	0	292,734
30 TO 34	331,949	226,559	32,661	399	0	0	0	0	0	591,567
35 TO 39	257,384	286,542	196,859	38,503	161	0	0	0	0	779,449
40 TO 44	196,502	225,993	224,700	171,596	36,100	596	0	0	0	855,487
45 TO 49	142,998	173,484	184,775	192,853	125,873	16,738	453	0	0	837,174
50 TO 54	117,241	158,930	152,119	180,223	178,264	116,656	40,543	917	0	944,893
55 TO 59	90,553	127,314	131,497	148,206	160,160	174,522	188,472	45,550	1,213	1,067,489
60 TO 64	55,066	85,278	90,820	112,504	111,268	117,334	153,459	101,990	18,457	846,175
65 TO 69	19,098	40,932	41,092	52,024	44,652	35,948	53,671	41,640	21,510	350,568
70 & UP	5,365	12,838	16,135	24,327	23,283	16,632	19,054	15,758	22,060	155,452
TOTAL¹	1,502,660	1,376,682	1,070,869	920,636	679,760	478,427	455,653	205,856	63,240	6,753,782

AVERAGE SALARIES:²

UNDER 20	17,899	0	0	0	0	0	0	0	0	17,899
20 TO 24	45,598	54,850	0	0	0	0	0	0	0	45,637
25 TO 29	55,468	66,980	70,263	0	0	0	0	0	0	56,764
30 TO 34	62,833	71,470	75,955	99,728	0	0	0	0	0	66,565
35 TO 39	66,456	75,825	79,829	86,137	80,293	0	0	0	0	73,763
40 TO 44	67,134	78,634	81,383	86,665	93,524	99,318	0	0	0	78,241
45 TO 49	71,037	78,146	80,829	85,827	94,499	93,510	90,519	0	0	81,421
50 TO 54	68,602	78,756	78,251	81,035	85,334	94,153	97,460	114,663	0	81,128
55 TO 59	69,710	75,423	78,365	79,297	81,012	87,568	96,405	103,524	93,332	82,674
60 TO 64	70,237	75,400	74,442	79,677	78,746	84,657	90,697	102,194	99,228	82,780
65 TO 69	73,454	72,703	77,386	78,586	79,878	81,148	89,303	95,724	104,420	82,293
70 & UP	62,389	66,865	71,711	80,820	78,924	86,174	87,809	89,534	93,080	80,880
TOTAL	63,864	75,580	79,066	82,598	84,411	87,962	93,257	100,076	98,505	77,176

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-6
Detailed Active Membership and Salaries as of June 30, 2021 (cont'd)

AGE \ SVC	Total									
	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
<i>NUMBER:</i>										
UNDER 20	9	0	0	0	0	0	0	0	0	9
20 TO 24	1,260	23	0	0	0	0	0	0	0	1,283
25 TO 29	7,832	1,058	4	0	0	0	0	0	0	8,894
30 TO 34	10,572	5,947	909	20	0	0	0	0	0	17,448
35 TO 39	8,748	8,146	4,632	1,168	53	0	0	0	0	22,747
40 TO 44	6,637	6,772	5,495	3,985	906	8	0	0	0	23,803
45 TO 49	4,944	5,368	4,940	4,786	3,009	470	8	0	0	23,525
50 TO 54	4,173	4,720	4,650	5,015	4,728	2,708	912	16	0	26,922
55 TO 59	3,173	4,046	4,159	4,362	4,875	3,730	3,229	678	20	28,272
60 TO 64	1,931	2,582	2,824	3,135	3,486	2,635	2,736	1,439	259	21,027
65 TO 69	611	1,128	1,194	1,375	1,340	837	950	610	318	8,363
70 & UP	167	355	465	553	608	333	355	265	338	3,439
TOTAL	50,057	40,145	29,272	24,399	19,005	10,721	8,190	3,008	935	185,732

SALARIES (IN THOUSANDS):

UNDER 20	299	0	0	0	0	0	0	0	0	299
20 TO 24	66,264	1,938	0	0	0	0	0	0	0	68,203
25 TO 29	475,269	77,206	259	0	0	0	0	0	0	552,734
30 TO 34	703,755	471,937	76,028	1,933	0	0	0	0	0	1,253,654
35 TO 39	608,327	676,985	407,929	120,195	5,403	0	0	0	0	1,818,840
40 TO 44	467,527	568,699	482,097	384,556	91,595	774	0	0	0	1,995,249
45 TO 49	357,620	448,251	428,826	451,743	297,406	45,624	799	0	0	2,030,269
50 TO 54	300,077	387,269	394,275	449,528	440,168	264,112	90,873	1,678	0	2,327,979
55 TO 59	226,662	320,945	344,420	375,155	438,433	347,304	318,175	70,844	1,927	2,443,866
60 TO 64	140,523	204,687	226,251	265,025	302,443	237,783	258,154	147,526	25,117	1,807,509
65 TO 69	44,385	87,271	96,061	112,197	115,707	72,830	87,508	59,459	33,471	708,889
70 & UP	11,797	25,882	34,800	45,612	51,318	29,389	31,647	24,377	32,412	287,236
TOTAL¹	3,402,506	3,271,071	2,490,948	2,205,945	1,742,474	997,816	787,156	303,884	92,927	15,294,726

AVERAGE SALARIES:²

UNDER 20	33,185	0	0	0	0	0	0	0	0	33,185
20 TO 24	52,591	84,277	0	0	0	0	0	0	0	53,159
25 TO 29	60,683	72,974	64,845	0	0	0	0	0	0	62,147
30 TO 34	66,568	79,357	83,640	96,651	0	0	0	0	0	71,851
35 TO 39	69,539	83,106	88,068	102,906	101,951	0	0	0	0	79,960
40 TO 44	70,442	83,978	87,734	96,501	101,099	96,801	0	0	0	83,823
45 TO 49	72,334	83,504	86,807	94,388	98,839	97,072	99,930	0	0	86,303
50 TO 54	71,909	82,048	84,790	89,637	93,098	97,530	99,641	104,867	0	86,471
55 TO 59	71,435	79,324	82,813	86,005	89,935	93,111	98,537	104,490	96,335	86,441
60 TO 64	72,772	79,275	80,117	84,537	86,759	90,240	94,354	102,520	96,978	85,961
65 TO 69	72,643	77,368	80,453	81,598	86,349	87,013	92,113	97,474	105,254	84,765
70 & UP	70,643	72,908	74,839	82,481	84,405	88,256	89,148	91,989	95,894	83,523
TOTAL	67,973	81,481	85,097	90,411	91,685	93,071	96,112	101,025	99,387	82,348

Note: Age is nearest birthday. Service is nearest year.

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

Table XIII-7
Detailed Reconciliation of Active Membership

Transit Authority											
TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021						TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020					
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	8	877,274	109,659	78.8	44.4	13	1,337,729	102,902	79.0	46.4
1	F	2	183,935	91,968	81.5	53.0	2	183,432	91,716	80.5	52.0
		10	1,061,209	106,121	79.3	46.1	15	1,521,161	101,411	79.2	47.1
2	M	7	725,513	103,645	73.3	29.4	7	825,996	117,999	72.3	38.0
2	F	3	258,281	86,094	69.3	32.0	3	249,376	83,125	68.3	31.0
		10	983,794	98,379	72.1	30.2	10	1,075,372	107,537	71.1	35.9
4	M	17,749	1,715,094,482	96,630	54.5	19.0	19,473	1,823,571,349	93,646	54.2	18.6
4	F	3,723	323,067,450	86,776	52.4	17.8	3,943	334,361,499	84,799	52.0	17.6
		21,472	2,038,161,932	94,922	54.1	18.8	23,416	2,157,932,848	92,156	53.8	18.5
6	M	12,987	1,059,230,568	81,561	43.0	4.7	12,966	1,012,459,403	78,086	42.1	3.9
6	F	2,683	190,914,360	71,157	41.3	4.3	2,713	184,886,589	68,148	40.6	3.5
		15,670	1,250,144,928	79,780	42.7	4.6	15,679	1,197,345,992	76,366	41.8	3.8
ALL		37,162	3,290,351,863	88,541	49.3	12.8	39,120	3,357,875,374	85,835	49.0	12.6
JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020						JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021					
1	M	8	877,274	109,659	78.8	44.4	8	850,141	106,268	77.8	43.4
1	F	2	183,935	91,968	81.5	53.0	2	183,432	91,716	80.5	52.0
		10	1,061,209	106,121	79.3	46.1	10	1,033,573	103,357	78.3	45.1
2	M	6	634,270	105,712	73.5	34.2	6	622,267	103,711	72.5	36.2
2	F	3	258,281	86,094	69.3	32.0	3	249,376	83,125	68.3	31.0
		9	892,551	99,172	72.1	33.4	9	871,643	96,849	71.1	34.4
4	M	17,431	1,690,139,474	96,962	54.6	19.1	17,431	1,632,759,353	93,670	53.6	18.1
4	F	3,499	306,839,353	87,693	52.6	18.2	3,499	297,588,480	85,050	51.6	17.2
		20,930	1,996,978,827	95,412	54.2	18.9	20,930	1,930,347,833	92,229	53.2	17.9
6	M	12,308	1,012,057,837	82,228	43.2	4.8	12,308	964,390,116	78,355	42.2	3.9
6	F	2,390	172,312,985	72,097	41.6	4.5	2,390	163,906,327	68,580	40.6	3.6
		14,698	1,184,370,822	80,580	42.9	4.8	14,698	1,128,296,443	76,765	41.9	3.9
ALL		35,647	3,183,303,409	89,301	49.6	13.1	35,647	3,060,549,492	85,857	48.6	12.1
ADDITIONS DURING THE YEAR¹						SEPARATIONS FROM MEMBERSHIP DURING THE YEAR¹					
1	M	0	0	0	0.0	0.0	5	487,588	97,518	81.0	51.2
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	5	487,588	97,518	81.0	51.2
2	M	1	91,243	91,243	72.0	1.0	1	203,729	203,729	71.0	49.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	91,243	91,243	72.0	1.0	1	203,729	203,729	71.0	49.0
4	M	318	24,955,008	78,475	50.9	13.9	2,042	190,811,996	93,444	59.5	23.3
4	F	224	16,228,097	72,447	49.1	12.6	444	36,773,019	82,822	55.3	20.3
		542	41,183,105	75,984	50.1	13.4	2,486	227,585,015	91,547	58.7	22.8
6	M	679	47,172,731	69,474	39.2	2.3	658	48,069,287	73,054	40.3	3.5
6	F	293	18,601,375	63,486	38.9	2.9	323	20,980,262	64,954	39.9	3.2
		972	65,774,106	67,669	39.1	2.4	981	69,049,549	70,387	40.2	3.4
ALL		1,515	107,048,454	70,659	43.1	6.4	3,473	297,325,881	85,611	53.5	17.3

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.
¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

Housing Authority											
TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021							TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	1	82,733	82,733	74.0	39.0	1	80,364	80,364	73.0	38.0
1	F	0	0	0	0.0	0.0	1	66,003	66,003	69.0	49.0
		1	82,733	82,733	74.0	39.0	2	146,367	73,184	71.0	43.5
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	2	136,102	68,051	69.5	46.5	4	227,057	56,764	70.8	42.8
		2	136,102	68,051	69.5	46.5	4	227,057	56,764	70.8	42.8
4	M	3,314	278,122,082	83,923	52.6	21.0	3,566	287,276,923	80,560	52.2	20.3
4	F	2,257	161,257,759	71,448	53.0	20.4	2,418	166,005,840	68,654	52.5	19.6
		5,571	439,379,841	78,869	52.7	20.7	5,984	453,282,763	75,749	52.3	20.0
6	M	2,087	141,101,888	67,610	42.4	4.1	1,772	114,119,803	64,402	41.9	3.9
6	F	1,267	70,894,530	55,955	40.5	3.9	1,131	59,770,728	52,848	39.7	3.5
		3,354	211,996,418	63,207	41.7	4.1	2,903	173,890,531	59,900	41.1	3.8
ALL		8,928	651,595,094	72,983	48.6	14.5	8,893	627,546,717	70,566	48.6	14.7

JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020							JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	1	82,733	82,733	74.0	39.0	1	80,364	80,364	73.0	38.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	82,733	82,733	74.0	39.0	1	80,364	80,364	73.0	38.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	2	136,102	68,051	69.5	46.5	2	136,006	68,003	68.5	45.5
		2	136,102	68,051	69.5	46.5	2	136,006	68,003	68.5	45.5
4	M	3,264	274,247,628	84,022	52.7	21.1	3,264	263,639,195	80,772	51.7	20.1
4	F	2,209	158,235,594	71,632	53.1	20.5	2,209	152,466,465	69,021	52.1	19.5
		5,473	432,483,222	79,021	52.8	20.8	5,473	416,105,660	76,029	51.8	19.8
6	M	1,621	114,375,344	70,559	43.3	5.0	1,621	106,020,321	65,404	42.3	4.0
6	F	976	55,926,205	57,301	41.0	4.6	976	52,563,573	53,856	40.0	3.7
		2,597	170,301,549	65,576	42.4	4.8	2,597	158,583,894	61,064	41.4	3.9
ALL		8,073	603,003,606	74,694	49.5	15.7	8,073	574,905,924	71,213	48.5	14.7

ADDITIONS DURING THE YEAR¹							SEPARATIONS FROM MEMBERSHIP DURING THE YEAR¹				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	1	66,003	66,003	69.0	49.0
		0	0	0	0.0	0.0	1	66,003	66,003	69.0	49.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	2	91,051	45,526	73.0	40.0
		0	0	0	0.0	0.0	2	91,051	45,526	73.0	40.0
4	M	50	3,874,454	77,489	47.9	15.7	302	23,637,728	78,271	57.5	22.9
4	F	48	3,022,165	62,962	47.6	14.6	209	13,539,375	64,782	56.2	20.5
		98	6,896,619	70,374	47.8	15.2	511	37,177,103	72,754	57.0	21.9
6	M	466	26,726,544	57,353	39.3	1.3	151	8,099,482	53,639	38.5	2.9
6	F	291	14,968,325	51,438	38.7	1.5	155	7,207,155	46,498	38.1	2.5
		757	41,694,869	55,079	39.1	1.4	306	15,306,637	50,022	38.3	2.7
ALL		855	48,591,488	56,832	40.1	3.0	820	52,640,794	64,196	50.1	14.8

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

Health and Hospitals

TIER	GENDER	TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
		NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	5	495,375	99,075	71.0	48.8	5	495,397	99,079	70.0	47.8
1	F	12	1,484,748	123,729	76.8	42.3	15	1,667,278	111,152	74.5	39.5
		17	1,980,123	116,478	75.1	44.2	20	2,162,675	108,134	73.4	41.6
2	M	4	566,354	141,589	71.0	31.5	5	623,115	124,623	70.2	25.6
2	F	7	739,822	105,689	72.6	38.6	9	855,742	95,082	70.6	34.3
		11	1,306,176	118,743	72.0	36.0	14	1,478,857	105,633	70.4	31.2
4	M	5,237	439,381,590	83,899	54.1	15.3	5,712	464,677,554	81,351	53.8	14.9
4	F	12,610	1,046,105,021	82,958	54.1	15.4	13,829	1,117,403,812	80,801	53.7	15.1
		17,847	1,485,486,611	83,235	54.1	15.4	19,541	1,582,081,366	80,962	53.8	15.0
6	M	3,814	314,682,073	82,507	42.6	2.8	3,251	262,677,414	80,799	42.4	2.5
6	F	9,777	743,667,138	76,063	42.2	2.6	8,315	614,111,558	73,856	42.0	2.3
		13,591	1,058,349,211	77,871	42.3	2.7	11,566	876,788,972	75,807	42.1	2.4
ALL		31,466	2,547,122,121	80,948	49.0	9.9	31,141	2,462,511,870	79,076	49.5	10.3

JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020							JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021						
1	M	5	495,375	99,075	71.0	48.8	5	495,397	99,079	70.0	47.8		
1	F	12	1,484,748	123,729	76.8	42.3	12	1,421,191	118,433	75.8	41.3		
		17	1,980,123	116,478	75.1	44.2	17	1,916,588	112,740	74.1	43.2		
2	M	4	566,354	141,589	71.0	31.5	4	565,702	141,426	70.0	30.0		
2	F	7	739,822	105,689	72.6	38.6	7	736,953	105,279	71.6	35.1		
		11	1,306,176	118,743	72.0	36.0	11	1,302,655	118,423	71.0	33.3		
4	M	5,153	431,945,740	83,824	54.2	15.4	5,153	420,562,239	81,615	53.2	14.6		
4	F	12,361	1,026,603,893	83,052	54.2	15.6	12,361	997,516,219	80,699	53.2	14.7		
		17,514	1,458,549,633	83,279	54.2	15.5	17,514	1,418,078,458	80,968	53.2	14.7		
6	M	2,926	246,908,709	84,384	43.6	3.4	2,926	237,585,126	81,198	42.6	2.6		
6	F	7,417	568,620,840	76,665	43.4	3.1	7,417	546,710,607	73,710	42.4	2.3		
		10,343	815,529,549	78,848	43.5	3.2	10,343	784,295,733	75,829	42.5	2.4		
ALL		27,885	2,277,365,481	81,670	50.2	11.0	27,885	2,205,593,434	79,096	49.2	10.2		

ADDITIONS DURING THE YEAR ¹							SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹						
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0		
1	F	0	0	0	0.0	0.0	3	246,087	82,029	69.3	32.7		
		0	0	0	0.0	0.0	3	246,087	82,029	69.3	32.7		
2	M	0	0	0	0.0	0.0	1	57,413	57,413	71.0	8.0		
2	F	0	0	0	0.0	0.0	2	118,789	59,395	67.0	31.5		
		0	0	0	0.0	0.0	3	176,202	58,734	68.3	23.7		
4	M	84	7,435,850	88,522	50.8	10.0	559	44,115,315	78,918	59.3	17.5		
4	F	249	19,501,128	78,318	49.5	9.2	1,468	119,887,593	81,667	58.4	18.0		
		333	26,936,978	80,892	49.8	9.4	2,027	164,002,908	80,909	58.7	17.9		
6	M	888	67,773,364	76,321	39.1	0.9	325	25,092,288	77,207	40.3	1.9		
6	F	2,360	175,046,298	74,172	38.3	0.9	898	67,400,951	75,057	38.8	1.7		
		3,248	242,819,662	74,760	38.5	0.9	1,223	92,493,239	75,628	39.2	1.8		
ALL		3,581	269,756,640	75,330	39.6	1.7	3,256	256,918,436	78,906	51.4	11.9		

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

Triborough Bridge and Tunnel Authority

		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	2	293,877	146,939	68.0	45.5	2	254,395	127,198	67.0	44.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	293,877	146,939	68.0	45.5	2	254,395	127,198	67.0	44.5
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
4	M	698	80,663,965	115,564	50.5	16.3	754	82,395,512	109,278	50.0	15.8
4	F	183	19,529,758	106,720	52.0	17.3	199	20,693,964	103,990	51.4	16.7
		881	100,193,723	113,727	50.8	16.5	953	103,089,476	108,174	50.3	15.9
6	M	170	16,275,223	95,737	41.5	4.2	176	14,345,311	81,507	40.2	3.5
6	F	43	4,000,830	93,043	43.0	4.3	44	3,621,947	82,317	43.8	3.5
		213	20,276,053	95,193	41.8	4.2	220	17,967,258	81,669	40.9	3.5
ALL		1,096	120,763,653	110,186	49.1	14.2	1,175	121,311,129	103,244	48.6	13.7

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
1	M	2	293,877	146,939	68.0	45.5	2	254,395	127,198	67.0	44.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	293,877	146,939	68.0	45.5	2	254,395	127,198	67.0	44.5
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
4	M	695	80,344,492	115,604	50.5	16.4	695	75,688,442	108,904	49.5	15.2
4	F	179	19,087,656	106,635	52.0	17.5	179	18,328,662	102,395	51.0	16.5
		874	99,432,148	113,767	50.8	16.6	874	94,017,104	107,571	49.8	15.5
6	M	168	16,100,711	95,838	41.5	4.2	168	13,723,627	81,688	40.5	3.5
6	F	40	3,734,289	93,357	43.7	4.4	40	3,256,251	81,406	42.7	3.5
		208	19,835,000	95,361	41.9	4.3	208	16,979,878	81,634	40.9	3.5
ALL		1,084	119,561,025	110,296	49.1	14.3	1,084	111,251,377	102,630	48.1	13.2

		ADDITIONS DURING THE YEAR ¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹				
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
4	M	3	319,473	106,491	45.0	8.3	59	6,707,070	113,679	55.9	22.4
4	F	4	442,102	110,526	50.8	9.3	20	2,365,302	118,265	54.4	17.9
		7	761,575	108,796	48.3	8.9	79	9,072,372	114,840	55.5	21.2
6	M	2	174,512	87,256	43.5	3.0	8	621,684	77,711	33.1	2.6
6	F	3	266,541	88,847	34.3	3.3	4	365,696	91,424	54.3	3.3
		5	441,053	88,211	38.0	3.2	12	987,380	82,282	40.2	2.8
ALL		12	1,202,628	100,219	44.0	6.5	91	10,059,752	110,547	53.5	18.8

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.
¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

CUNY Senior College

		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	3	254,737	84,912	75.0	40.7	5	353,851	70,770	74.0	43.8
1	F	3	156,073	52,024	73.3	42.0	4	220,390	55,097	74.8	43.5
		6	410,810	68,468	74.2	41.3	9	574,241	63,805	74.3	43.7
2	M	1	120,836	120,836	74.0	46.0	1	117,455	117,455	73.0	45.0
2	F	3	217,067	72,356	70.0	40.0	3	217,067	72,356	69.0	39.3
		4	337,903	84,476	71.0	41.5	4	334,522	83,630	70.0	40.8
4	M	1,367	103,991,613	76,073	53.0	15.8	1,473	108,714,861	73,805	52.6	14.9
4	F	1,324	76,902,595	58,084	55.4	15.1	1,428	81,668,761	57,191	55.0	14.2
		2,691	180,894,208	67,222	54.2	15.4	2,901	190,383,622	65,627	53.8	14.6
6	M	816	49,220,298	60,319	43.9	3.8	850	49,359,617	58,070	42.6	3.1
6	F	672	30,566,131	45,485	43.6	3.2	710	31,595,989	44,501	42.6	2.5
		1,488	79,786,429	53,620	43.7	3.5	1,560	80,955,606	51,895	42.6	2.8
ALL		4,189	261,429,350	62,409	50.5	11.3	4,474	272,247,991	60,851	49.9	10.5

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
1	M	3	254,737	84,912	75.0	40.7	3	250,707	83,569	74.0	39.7
1	F	3	156,073	52,024	73.3	42.0	3	154,702	51,567	72.3	41.0
		6	410,810	68,468	74.2	41.3	6	405,409	67,568	73.2	40.3
2	M	1	120,836	120,836	74.0	46.0	1	117,455	117,455	73.0	45.0
2	F	3	217,067	72,356	70.0	40.0	3	217,067	72,356	69.0	39.3
		4	337,903	84,476	71.0	41.5	4	334,522	83,630	70.0	40.8
4	M	1,359	103,451,970	76,124	53.1	15.8	1,359	101,384,124	74,602	52.1	14.8
4	F	1,319	76,510,425	58,006	55.4	15.1	1,319	75,861,969	57,515	54.4	14.2
		2,678	179,962,395	67,200	54.2	15.5	2,678	177,246,093	66,186	53.2	14.5
6	M	770	46,003,168	59,744	44.1	3.9	770	44,886,848	58,295	43.1	3.1
6	F	637	29,037,346	45,585	43.9	3.4	637	28,605,293	44,906	42.9	2.5
		1,407	75,040,514	53,334	44.0	3.7	1,407	73,492,141	52,233	43.0	2.8
ALL		4,095	255,751,622	62,455	50.8	11.5	4,095	251,478,165	61,411	49.8	10.6

		ADDITIONS DURING THE YEAR ¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹				
1	M	0	0	0	0.0	0.0	2	103,144	51,572	74.0	50.0
1	F	0	0	0	0.0	0.0	1	65,688	65,688	82.0	51.0
		0	0	0	0.0	0.0	3	168,832	56,277	76.7	50.3
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
4	M	8	539,643	67,455	47.8	13.3	114	7,330,737	64,305	58.5	16.0
4	F	5	392,170	78,434	47.0	6.8	109	5,806,792	53,273	61.6	13.3
		13	931,813	71,678	47.5	10.8	223	13,137,529	58,913	60.0	14.7
6	M	46	3,217,130	69,938	39.9	1.3	80	4,472,769	55,910	37.9	2.5
6	F	35	1,528,785	43,680	38.6	1.2	73	2,990,696	40,968	40.3	2.3
		81	4,745,915	58,592	39.4	1.2	153	7,463,465	48,781	39.0	2.4
ALL		94	5,677,728	60,401	40.5	2.5	379	20,769,826	54,802	51.7	10.0

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

All Other Non-NYC Contributing Entities

		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	M	1	149,429	149,429	75.0	22.0	1	149,428	149,428	74.0	22.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	149,429	149,429	75.0	22.0	1	149,428	149,428	74.0	22.0
4	M	63	9,021,555	143,199	55.3	20.5	65	9,100,387	140,006	54.7	20.7
4	F	80	8,934,056	111,676	54.8	16.5	82	9,044,871	110,303	54.1	15.9
		143	17,955,611	125,564	55.1	18.3	147	18,145,258	123,437	54.4	18.0
6	M	7	844,378	120,625	39.0	3.9	7	822,738	117,534	38.0	3.6
6	F	12	1,285,187	107,099	40.8	3.4	11	1,203,913	109,447	42.0	4.6
		19	2,129,565	112,082	40.2	3.6	18	2,026,651	112,592	40.4	4.2
ALL		163	20,234,605	124,139	53.4	16.6	166	20,321,337	122,418	53.0	16.5

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	M	1	149,429	149,429	75.0	22.0	1	149,428	149,428	74.0	22.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	149,429	149,429	75.0	22.0	1	149,428	149,428	74.0	22.0
4	M	62	8,827,305	142,376	55.5	20.5	62	8,773,607	141,510	54.5	20.3
4	F	79	8,771,306	111,029	54.8	16.4	79	8,746,062	110,710	53.8	16.1
		141	17,598,611	124,813	55.1	18.2	141	17,519,669	124,253	54.1	17.9
6	M	7	844,378	120,625	39.0	3.9	7	822,738	117,534	38.0	3.6
6	F	9	958,941	106,549	42.2	3.3	9	932,488	103,610	41.2	3.0
		16	1,803,319	112,707	40.8	3.6	16	1,755,226	109,702	39.8	3.3
ALL		158	19,551,359	123,743	53.8	16.8	158	19,424,323	122,939	52.8	16.5

		ADDITIONS DURING THE YEAR ¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
4	M	1	194,250	194,250	48.0	17.0	3	326,780	108,927	59.7	28.7
4	F	1	162,750	162,750	56.0	22.0	3	298,809	99,603	60.7	10.3
		2	357,000	178,500	52.0	19.5	6	625,589	104,265	60.2	19.5
6	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
6	F	3	326,246	108,749	36.7	3.7	2	271,425	135,713	45.5	12.0
		3	326,246	108,749	36.7	3.7	2	271,425	135,713	45.5	12.0
ALL		5	683,246	136,649	42.8	10.0	8	897,014	112,127	56.5	17.6

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

**Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)**

New York City: Sanitation

		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	4	396,296	99,074	75.5	50.5	4	391,450	97,863	74.5	49.8
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		4	396,296	99,074	75.5	50.5	4	391,450	97,863	74.5	49.8
2	M	2	231,166	115,583	67.0	39.0	4	473,569	118,392	66.3	36.3
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	231,166	115,583	67.0	39.0	4	473,569	118,392	66.3	36.3
4	M	3,970	474,641,418	119,557	47.4	17.6	4,382	491,643,092	112,196	46.9	17.1
4	F	98	11,754,337	119,942	49.8	18.4	111	12,573,603	113,276	49.1	17.9
		4,068	486,395,755	119,566	47.4	17.6	4,493	504,216,695	112,223	47.0	17.1
3R	M	2,935	272,074,138	92,700	38.5	6.0	2,993	237,569,702	79,375	37.5	5.0
3R	F	154	12,830,675	83,316	38.9	6.2	157	11,058,855	70,439	37.9	5.2
		3,089	284,904,813	92,232	38.5	6.0	3,150	248,628,557	78,930	37.5	5.0
ALL		7,163	771,928,030	107,766	43.6	12.6	7,651	753,710,271	98,511	43.1	12.2

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	4	396,296	99,074	75.5	50.5	4	391,450	97,863	74.5	49.8
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		4	396,296	99,074	75.5	50.5	4	391,450	97,863	74.5	49.8
2	M	2	231,166	115,583	67.0	39.0	2	235,166	117,583	66.0	38.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	231,166	115,583	67.0	39.0	2	235,166	117,583	66.0	38.0
4	M	3,961	473,728,906	119,598	47.4	17.6	3,961	443,328,117	111,923	46.4	16.6
4	F	98	11,754,337	119,942	49.8	18.4	98	10,948,437	111,719	48.8	17.5
		4,059	485,483,243	119,607	47.4	17.6	4,059	454,276,554	111,918	46.4	16.6
3R	M	2,932	271,901,744	92,736	38.5	6.0	2,932	233,477,540	79,631	37.5	5.0
3R	F	154	12,830,675	83,316	38.9	6.2	154	10,897,126	70,761	37.9	5.2
		3,086	284,732,419	92,266	38.5	6.0	3,086	244,374,666	79,188	37.5	5.0
ALL		7,151	770,843,124	107,795	43.6	12.6	7,151	699,277,836	97,787	42.6	11.6

		ADDITIONS DURING THE YEAR ¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	M	0	0	0	0.0	0.0	2	238,403	119,202	66.5	34.5
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	2	238,403	119,202	66.5	34.5
4	M	9	912,512	101,390	47.4	16.3	421	48,314,975	114,762	51.8	22.0
4	F	0	0	0	0.0	0.0	13	1,625,166	125,013	51.2	21.3
		9	912,512	101,390	47.4	16.3	434	49,940,141	115,069	51.7	21.9
3R	M	3	172,394	57,465	32.7	4.3	61	4,092,162	67,085	36.6	4.6
3R	F	0	0	0	0.0	0.0	3	161,729	53,910	37.7	2.3
		3	172,394	57,465	32.7	4.3	64	4,253,891	66,467	36.7	4.5
ALL		12	1,084,906	90,409	43.8	13.3	500	54,432,435	108,865	49.9	18.9

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

New York City: Correction

		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	2	261,569	130,785	69.5	48.5	2	252,089	126,045	68.5	47.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	261,569	130,785	69.5	48.5	2	252,089	126,045	68.5	47.5
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
3	M	2,287	282,360,308	123,463	45.1	14.5	2,541	294,505,698	115,901	44.6	14.0
3	F	2,045	256,116,604	125,240	44.6	15.0	2,268	268,569,747	118,417	44.2	14.6
		4,332	538,476,912	124,302	44.9	14.7	4,809	563,075,445	117,088	44.4	14.3
3R	M	2,176	199,707,611	91,777	36.8	5.7	2,506	194,636,062	77,668	35.3	4.6
3R	F	1,544	139,072,941	90,073	36.4	6.0	1,671	129,361,075	77,415	35.2	5.0
		3,720	338,780,552	91,070	36.7	5.8	4,177	323,997,137	77,567	35.3	4.7
ALL		8,054	877,519,033	108,954	41.1	10.6	8,988	887,324,671	98,723	40.2	9.9

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
1	M	2	261,569	130,785	69.5	48.5	2	252,089	126,045	68.5	47.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	261,569	130,785	69.5	48.5	2	252,089	126,045	68.5	47.5
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
3	M	2,277	281,198,868	123,495	45.1	14.5	2,277	262,843,695	115,434	44.1	13.5
3	F	2,027	254,074,660	125,345	44.6	15.0	2,027	238,022,590	117,426	43.6	14.1
		4,304	535,273,528	124,367	44.9	14.8	4,304	500,866,285	116,372	43.9	13.8
3R	M	2,153	197,653,954	91,804	36.9	5.7	2,153	171,138,663	79,488	35.9	4.8
3R	F	1,522	137,211,935	90,152	36.5	6.0	1,522	119,184,231	78,308	35.5	5.1
		3,675	334,865,889	91,120	36.7	5.9	3,675	290,322,894	78,999	35.7	4.9
ALL		7,981	870,400,986	109,059	41.1	10.7	7,981	791,441,268	99,166	40.1	9.7

		ADDITIONS DURING THE YEAR ¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹				
1	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
3	M	10	1,161,440	116,144	40.7	12.5	264	31,662,003	119,932	48.7	18.6
3	F	18	2,041,944	113,441	40.9	11.3	241	30,547,157	126,752	49.1	19.3
		28	3,203,384	114,407	40.8	11.7	505	62,209,160	123,186	48.9	18.9
3R	M	23	2,053,657	89,289	34.7	4.5	353	23,497,399	66,565	32.0	3.0
3R	F	22	1,861,006	84,591	33.3	4.5	149	10,176,844	68,301	32.1	3.6
		45	3,914,663	86,993	34.0	4.5	502	33,674,243	67,080	32.0	3.2
ALL		73	7,118,047	97,507	36.6	7.3	1,007	95,883,403	95,217	40.5	11.1

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

All Other New York City

		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	52	4,709,499	90,567	75.5	47.8	63	5,866,691	93,122	74.7	47.1
1	F	60	4,737,555	78,959	75.2	50.1	72	5,476,808	76,067	73.8	47.8
		112	9,447,054	84,349	75.4	49.0	135	11,343,499	84,026	74.2	47.5
2	M	74	7,609,401	102,830	59.2	28.4	80	8,170,609	102,133	58.9	28.0
2	F	63	5,194,737	82,456	59.6	26.8	70	5,720,770	81,725	59.8	26.9
		137	12,804,138	93,461	59.4	27.7	150	13,891,379	92,609	59.4	27.5
4	M	22,412	2,067,324,408	92,242	53.4	19.2	23,780	2,148,115,645	90,333	52.8	18.5
4	F	27,448	2,119,273,341	77,210	53.0	19.2	29,040	2,202,300,365	75,837	52.4	18.4
		49,860	4,186,597,749	83,967	53.2	19.2	52,820	4,350,416,010	82,363	52.6	18.4
3R/6	M	18,718	1,351,159,603	72,185	40.3	4.0	18,181	1,263,482,761	69,495	39.4	3.4
3R/6	F	18,684	1,193,773,546	63,893	40.2	3.9	18,343	1,147,364,440	62,551	39.4	3.2
		37,402	2,544,933,149	68,043	40.3	4.0	36,524	2,410,847,201	66,007	39.4	3.3
ALL		87,511	6,753,782,090	77,176	47.7	12.7	89,629	6,786,498,089	75,718	47.3	12.3

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
1	M	52	4,709,499	90,567	75.5	47.8	52	4,685,252	90,101	74.5	46.8
1	F	58	4,543,279	78,332	75.2	50.2	58	4,493,624	77,476	74.2	49.2
		110	9,252,778	84,116	75.4	49.1	110	9,178,876	83,444	74.4	48.1
2	M	73	7,543,964	103,342	59.1	28.8	73	7,460,096	102,193	58.1	27.8
2	F	61	5,093,668	83,503	59.8	27.5	61	5,041,833	82,653	58.8	26.4
		134	12,637,632	94,311	59.4	28.2	134	12,501,929	93,298	58.4	27.2
4	M	22,193	2,051,759,992	92,451	53.4	19.2	22,193	2,011,292,062	90,627	52.4	18.2
4	F	27,053	2,093,925,090	77,401	53.1	19.3	27,053	2,064,329,344	76,307	52.1	18.3
		49,246	4,145,685,082	84,183	53.3	19.3	49,246	4,075,621,406	82,760	52.3	18.2
3R/6	M	16,690	1,226,685,778	73,498	40.7	4.4	16,690	1,171,732,699	70,206	39.7	3.4
3R/6	F	16,524	1,070,248,484	64,769	40.7	4.2	16,524	1,036,414,463	62,722	39.7	3.3
		33,214	2,296,934,262	69,156	40.7	4.3	33,214	2,208,147,162	66,482	39.7	3.3
ALL		82,704	6,464,509,754	78,164	48.2	13.3	82,704	6,305,449,373	76,241	47.2	12.3

		ADDITIONS DURING THE YEAR ¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR ¹				
1	M	0	0	0	0.0	0.0	11	1,181,439	107,404	75.4	48.8
1	F	2	194,276	97,138	76.0	45.5	14	983,184	70,227	72.1	41.6
		2	194,276	97,138	76.0	45.5	25	2,164,623	86,585	73.5	44.8
2	M	1	65,437	65,437	70.0	1.0	7	710,513	101,502	67.9	30.0
2	F	2	101,069	50,535	53.0	7.5	9	678,937	75,437	67.0	30.8
		3	166,506	55,502	58.7	5.3	16	1,389,450	86,841	67.4	30.4
4	M	219	15,564,416	71,070	50.3	12.7	1,587	136,823,583	86,215	58.2	22.0
4	F	395	25,348,251	64,173	48.9	12.1	1,987	137,971,021	69,437	56.7	20.3
		614	40,912,667	66,633	49.4	12.3	3,574	274,794,604	76,887	57.4	21.1
3R/6	M	2,028	124,473,825	61,378	36.8	1.3	1,491	91,750,062	61,536	35.8	2.8
3R/6	F	2,160	123,525,062	57,188	36.8	1.4	1,819	110,949,977	60,995	36.6	2.7
		4,188	247,998,887	59,217	36.8	1.3	3,310	202,700,039	61,239	36.2	2.7
ALL		4,807	289,272,336	60,177	38.5	2.8	6,925	481,048,716	69,466	47.4	12.4

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-7
Detailed Reconciliation of Active Membership (cont'd)

		Total									
		TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021					TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2020				
TIER	GENDER	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC	NUMBER	SALARY	AVG SAL	AVG AGE	AVG SVC
1	M	77	7,371,360	95,732	75.2	47.2	95	9,031,966	95,073	74.7	46.9
1	F	77	6,562,311	85,225	75.6	48.6	94	7,613,910	80,999	74.0	46.4
		154	13,933,671	90,478	75.4	47.9	189	16,645,876	88,073	74.4	46.6
2	M	89	9,402,699	105,648	61.4	29.0	98	10,360,173	105,716	61.1	29.1
2	F	78	6,546,009	83,923	61.8	29.1	89	7,270,012	81,686	62.0	29.0
		167	15,948,708	95,501	61.6	29.0	187	17,630,185	94,279	61.5	29.0
3/4	M	57,097	5,450,601,421	95,462	53.0	18.5	61,746	5,710,001,019	92,476	52.5	17.9
3/4	F	49,768	4,022,940,921	80,834	53.0	17.9	53,318	4,212,622,464	79,009	52.4	17.2
		106,865	9,473,542,342	88,650	53.0	18.2	115,064	9,922,623,483	86,236	52.5	17.6
3R/6	M	43,710	3,404,295,780	77,884	41.2	4.3	42,702	3,149,472,811	73,755	40.2	3.7
3R/6	F	34,836	2,387,005,338	68,521	40.8	3.7	33,095	2,182,975,094	65,961	40.0	3.1
		78,546	5,791,301,118	73,731	41.0	4.0	75,797	5,332,447,905	70,352	40.1	3.4
ALL		185,732	15,294,725,839	82,348	47.9	12.2	191,237	15,289,347,449	79,950	47.6	12.0

		JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2020					JUNE 30, 2020 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021				
1	M	77	7,371,360	95,732	75.2	47.2	77	7,259,795	94,283	74.2	46.2
1	F	75	6,368,035	84,907	75.6	48.7	75	6,252,948	83,373	74.6	47.7
		152	13,739,395	90,391	75.4	47.9	152	13,512,743	88,900	74.4	46.9
2	M	87	9,246,019	106,276	61.1	29.6	87	9,150,115	105,174	60.1	28.9
2	F	76	6,444,940	84,802	62.0	29.7	76	6,381,235	83,964	61.0	28.4
		163	15,690,959	96,264	61.5	29.6	163	15,531,350	95,284	60.5	28.6
3/4	M	56,395	5,395,644,375	95,676	53.0	18.5	56,395	5,220,270,832	92,566	52.0	17.5
3/4	F	48,824	3,955,802,314	81,022	53.0	18.0	48,824	3,863,808,230	79,137	52.0	17.0
		105,219	9,351,446,689	88,876	53.0	18.3	105,219	9,084,079,062	86,335	52.0	17.3
3R/6	M	39,575	3,132,531,623	79,154	41.5	4.7	39,575	2,943,777,678	74,385	40.5	3.7
3R/6	F	29,669	2,050,881,700	69,125	41.3	4.1	29,669	1,962,470,359	66,145	40.3	3.2
		69,244	5,183,413,323	74,857	41.4	4.4	69,244	4,906,248,037	70,854	40.4	3.5
ALL		174,778	14,564,290,366	83,330	48.5	12.8	174,778	14,019,371,192	80,212	47.4	11.9

		ADDITIONS DURING THE YEAR¹					SEPARATIONS FROM MEMBERSHIP DURING THE YEAR¹				
1	M	0	0	0	0.0	0.0	18	1,772,171	98,454	76.8	49.6
1	F	2	194,276	97,138	76.0	45.5	19	1,360,962	71,630	72.0	41.1
		2	194,276	97,138	76.0	45.5	37	3,133,133	84,679	74.3	45.2
2	M	2	156,680	78,340	71.0	1.0	11	1,210,058	110,005	68.2	30.5
2	F	2	101,069	50,535	53.0	7.5	13	888,777	68,367	67.9	32.3
		4	257,749	64,437	62.0	4.3	24	2,098,835	87,451	68.0	31.5
3/4	M	702	54,957,046	78,286	50.2	13.2	5,351	489,730,187	91,521	57.8	21.8
3/4	F	944	67,138,607	71,121	48.9	11.5	4,494	348,814,234	77,618	56.8	19.3
		1,646	122,095,653	74,177	49.5	12.2	9,845	838,544,421	85,175	57.3	20.7
3R/6	M	4,135	271,764,157	65,723	38.0	1.4	3,127	205,695,133	65,780	37.0	2.9
3R/6	F	5,167	336,123,638	65,052	37.7	1.2	3,426	220,504,735	64,362	37.4	2.5
		9,302	607,887,795	65,350	37.8	1.3	6,553	426,199,868	65,039	37.2	2.7
ALL		10,954	730,435,473	66,682	39.6	3.0	16,459	1,269,976,257	77,160	49.4	13.6

Note: Age is nearest birthday. Service is nearest year. The member is considered also present if active with the same tier and gender as of both valuation dates.

¹ Separations and additions do not include members who joined after June 30, 2020 and are no longer members on June 30, 2021. Members are included as separations and additions if the tier or gender has changed.

Table XIII-8
Distribution of Pension Benefits as of June 30, 2021

AGE	MALE			FEMALE			TOTAL		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<i>SERVICE RETIREMENT:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	0	0	0	0	0	0
40 TO 44	68	3,766,229	55,386	11	606,167	55,106	79	4,372,396	55,347
45 TO 49	328	18,208,660	55,514	146	8,319,793	56,985	474	26,528,453	55,967
50 TO 54	1,228	68,727,888	55,967	604	32,908,472	54,484	1,832	101,636,360	55,478
55 TO 59	5,613	297,904,236	53,074	2,476	102,458,265	41,381	8,089	400,362,501	49,495
60 TO 64	10,388	473,182,918	45,551	6,597	226,245,587	34,295	16,985	699,428,505	41,179
65 TO 69	16,189	660,685,626	40,811	11,064	344,375,878	31,126	27,253	1,005,061,504	36,879
70 TO 74	16,280	618,243,953	37,976	11,257	328,803,275	29,209	27,537	947,047,228	34,392
75 TO 79	12,874	454,396,293	35,296	8,680	236,223,275	27,215	21,554	690,619,568	32,041
80 TO 84	8,801	280,565,381	31,879	5,920	141,257,984	23,861	14,721	421,823,365	28,655
85 TO 89	4,779	136,772,115	28,619	3,210	64,909,570	20,221	7,989	201,681,685	25,245
90 & UP	2,815	76,581,869	27,205	2,773	48,745,219	17,579	5,588	125,327,088	22,428
TOTAL	79,363	3,089,035,168	38,923	52,738	1,534,853,485	29,103	132,101	4,623,888,653	35,003
<i>ORDINARY DISABILITY:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	11	248,375	22,580	5	100,918	20,184	16	349,293	21,831
40 TO 44	23	544,777	23,686	28	539,555	19,270	51	1,084,332	21,261
45 TO 49	82	1,849,249	22,552	69	1,310,683	18,995	151	3,159,932	20,927
50 TO 54	314	7,072,360	22,523	234	4,334,884	18,525	548	11,407,244	20,816
55 TO 59	725	16,613,068	22,915	615	11,761,338	19,124	1,340	28,374,406	21,175
60 TO 64	1,080	24,239,385	22,444	816	15,577,750	19,090	1,896	39,817,135	21,001
65 TO 69	1,046	22,192,931	21,217	741	13,548,411	18,284	1,787	35,741,342	20,001
70 TO 74	989	20,060,353	20,283	535	9,121,430	17,049	1,524	29,181,783	19,148
75 TO 79	757	15,477,546	20,446	300	4,826,920	16,090	1,057	20,304,466	19,210
80 TO 84	399	7,953,074	19,933	192	2,541,944	13,239	591	10,495,018	17,758
85 TO 89	125	2,238,003	17,904	65	873,901	13,445	190	3,111,904	16,378
90 & UP	63	1,292,189	20,511	33	374,687	11,354	96	1,666,876	17,363
TOTAL	5,614	119,781,310	21,336	3,633	64,912,421	17,867	9,247	184,693,731	19,973
<i>ACCIDENTAL DISABILITY:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	2	78,480	39,240	4	98,827	24,707	6	177,307	29,551
35 TO 39	47	2,296,831	48,869	13	519,680	39,975	60	2,816,511	46,942
40 TO 44	110	6,235,678	56,688	26	1,253,051	48,194	136	7,488,729	55,064
45 TO 49	172	9,754,240	56,711	70	3,599,580	51,423	242	13,353,820	55,181
50 TO 54	354	19,036,975	53,777	127	5,919,311	46,609	481	24,956,286	51,884
55 TO 59	582	27,409,953	47,096	155	6,184,188	39,898	737	33,594,141	45,582
60 TO 64	535	23,577,304	44,070	132	4,643,478	35,178	667	28,220,782	42,310
65 TO 69	553	22,537,142	40,754	100	3,306,114	33,061	653	25,843,256	39,576
70 TO 74	541	18,577,924	34,340	52	1,136,949	21,864	593	19,714,873	33,246
75 TO 79	516	16,306,336	31,601	47	1,017,492	21,649	563	17,323,828	30,771
80 TO 84	285	8,592,114	30,148	35	578,323	16,524	320	9,170,437	28,658
85 TO 89	124	3,687,992	29,742	15	215,129	14,342	139	3,903,121	28,080
90 & UP	76	2,145,976	28,237	12	196,471	16,373	88	2,342,447	26,619
TOTAL	3,897	160,236,945	41,118	788	28,668,593	36,381	4,685	188,905,538	40,321

Table XIII-8
Distribution of Pension Benefits as of June 30, 2021 (cont'd)

AGE	MALE			FEMALE			TOTAL		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<i>ACCIDENTAL DEATH:</i>									
UNDER 30	13	529,038	40,695	6	218,136	36,356	19	747,174	39,325
30 TO 34	1	37,405	37,405	4	181,371	45,343	5	218,776	43,755
35 TO 39	5	206,252	41,250	9	359,058	39,895	14	565,310	40,379
40 TO 44	6	260,872	43,479	20	751,985	37,599	26	1,012,857	38,956
45 TO 49	1	34,605	34,605	20	1,096,701	54,835	21	1,131,306	53,872
50 TO 54	4	192,631	48,158	46	2,594,604	56,404	50	2,787,235	55,745
55 TO 59	1	27,203	27,203	60	3,336,500	55,608	61	3,363,703	55,143
60 TO 64	6	257,666	42,944	66	3,509,229	53,170	72	3,766,895	52,318
65 TO 69	4	240,213	60,053	64	3,217,016	50,266	68	3,457,229	50,842
70 TO 74	4	150,195	37,549	37	1,994,855	53,915	41	2,145,050	52,318
75 TO 79	3	132,663	44,221	28	1,247,879	44,567	31	1,380,542	44,534
80 TO 84	0	0	0	19	761,895	40,100	19	761,895	40,100
85 TO 89	0	0	0	4	117,090	29,273	4	117,090	29,273
90 & UP	3	76,085	25,362	31	1,237,472	39,918	34	1,313,557	38,634
TOTAL	51	2,144,828	42,055	414	20,623,791	49,816	465	22,768,619	48,965
<i>OTHER BENEFICIARIES:</i>									
UNDER 30	94	1,280,042	13,617	132	2,023,789	15,332	226	3,303,831	14,619
30 TO 34	95	1,290,379	13,583	119	1,500,981	12,613	214	2,791,360	13,044
35 TO 39	121	1,575,112	13,017	145	1,827,070	12,600	266	3,402,182	12,790
40 TO 44	150	2,036,059	13,574	221	2,640,598	11,948	371	4,676,657	12,606
45 TO 49	161	1,906,369	11,841	264	3,414,782	12,935	425	5,321,151	12,520
50 TO 54	171	1,892,800	11,069	365	4,727,077	12,951	536	6,619,877	12,351
55 TO 59	197	1,888,490	9,586	594	9,681,756	16,299	791	11,570,246	14,627
60 TO 64	184	1,909,744	10,379	939	16,429,627	17,497	1,123	18,339,371	16,331
65 TO 69	202	2,599,927	12,871	1,297	26,912,259	20,750	1,499	29,512,186	19,688
70 TO 74	176	2,179,363	12,383	1,808	36,790,930	20,349	1,984	38,970,293	19,642
75 TO 79	164	2,079,335	12,679	2,067	41,536,754	20,095	2,231	43,616,089	19,550
80 TO 84	127	1,634,368	12,869	2,018	37,365,252	18,516	2,145	38,999,620	18,182
85 TO 89	82	934,985	11,402	1,645	28,456,159	17,299	1,727	29,391,144	17,019
90 & UP	71	900,920	12,689	2,042	30,478,174	14,926	2,113	31,379,094	14,850
TOTAL	1,995	24,107,893	12,084	13,656	243,785,208	17,852	15,651	267,893,101	17,117
<i>ALL PENSIONERS AND BENEFICIARIES:</i>									
UNDER 30	107	1,809,080	16,907	138	2,241,925	16,246	245	4,051,005	16,535
30 TO 34	98	1,406,264	14,350	127	1,781,179	14,025	225	3,187,443	14,166
35 TO 39	184	4,326,570	23,514	172	2,806,726	16,318	356	7,133,296	20,037
40 TO 44	357	12,843,615	35,977	306	5,791,356	18,926	663	18,634,971	28,107
45 TO 49	744	31,753,123	42,679	569	17,741,539	31,180	1,313	49,494,662	37,696
50 TO 54	2,071	96,922,654	46,800	1,376	50,484,348	36,689	3,447	147,407,002	42,764
55 TO 59	7,118	343,842,950	48,306	3,900	133,422,047	34,211	11,018	477,264,997	43,317
60 TO 64	12,193	523,167,017	42,907	8,550	266,405,671	31,159	20,743	789,572,688	38,065
65 TO 69	17,994	708,255,839	39,361	13,266	391,359,678	29,501	31,260	1,099,615,517	35,176
70 TO 74	17,990	659,211,788	36,643	13,689	377,847,439	27,602	31,679	1,037,059,227	32,736
75 TO 79	14,314	488,392,173	34,120	11,122	284,852,320	25,612	25,436	773,244,493	30,400
80 TO 84	9,612	298,744,937	31,080	8,184	182,505,398	22,300	17,796	481,250,335	27,043
85 TO 89	5,110	143,633,095	28,108	4,939	94,571,849	19,148	10,049	238,204,944	23,704
90 & UP	3,028	80,997,039	26,749	4,891	81,032,023	16,568	7,919	162,029,062	20,461
TOTAL	90,920	3,395,306,144	37,344	71,229	1,892,843,498	26,574	162,149	5,288,149,642	32,613

**Graph XIII-9
Pensioner Average Benefits**

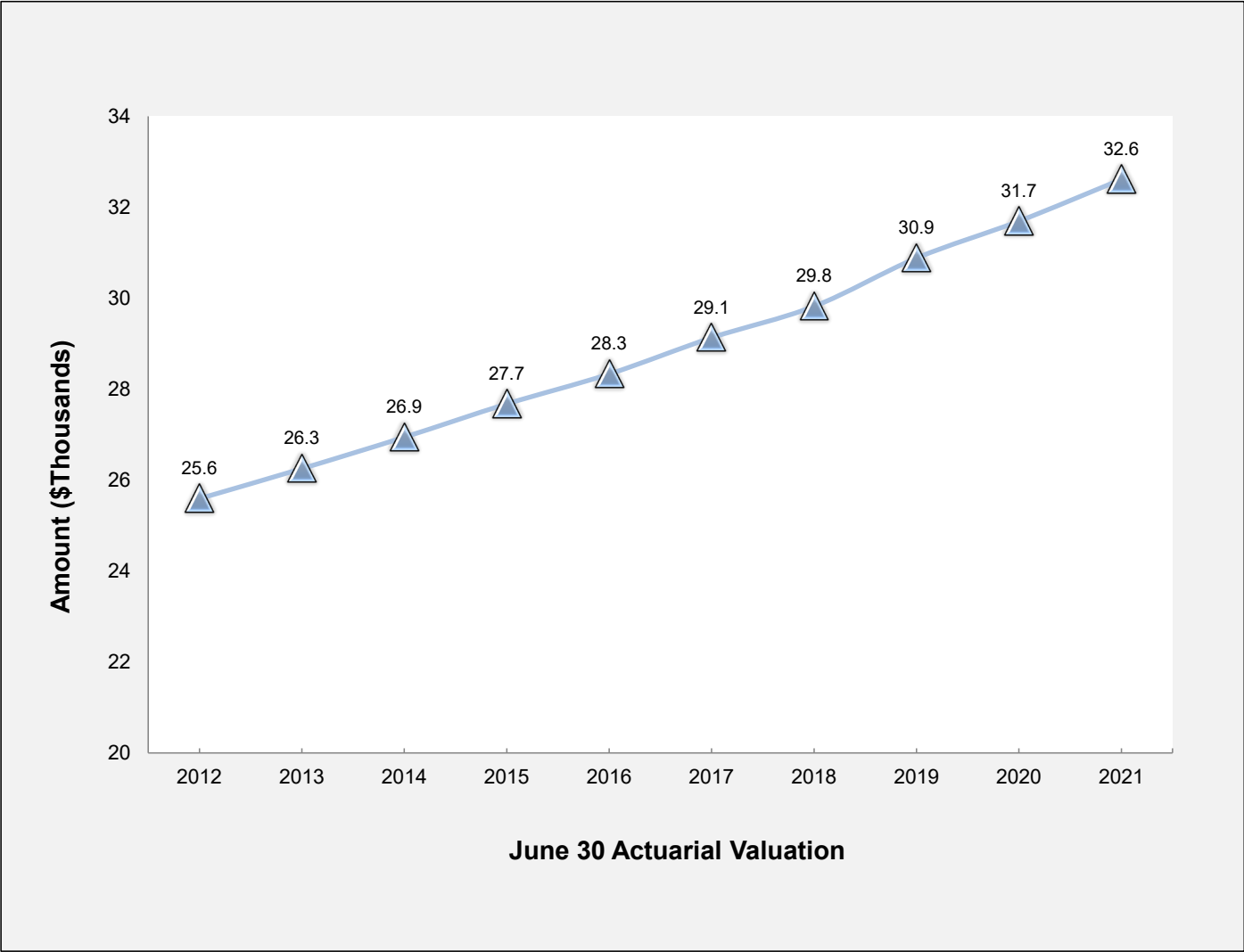


Table XIII-10
Reconciliation of Pensioner and Beneficiary Data

SCHEDULE OF PENSIONERS AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS								
June 30 Actuarial Valuation	Added to Rolls		Removed from Rolls		End of Year Rolls		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances ¹	Number	Annual Allowances	Number	Annual Allowances ²		
2012	7,628	274,865,758	5,109	95,823,182	137,987	3,531,440,791	5.3%	25,593
2013	7,334	244,447,724	5,922	116,360,332	139,399	3,659,528,183	3.6%	26,252
2014	8,132	276,606,560	5,436	107,547,552	142,095	3,828,587,191	4.6%	26,944
2015	8,219	289,143,851	5,788	117,910,540	144,526	3,999,820,502	4.5%	27,675
2016	8,407	295,570,322	5,419	115,894,203	147,514	4,179,496,621	4.5%	28,333
2017	8,756	329,831,284	5,851	127,341,967	150,419	4,381,985,938	4.8%	29,132
2018	9,606	345,164,441	5,909	131,216,661	154,116	4,595,933,718	4.9%	29,821
2019	9,431	404,793,279	6,394	147,333,875	157,153	4,853,393,122	5.6%	30,883
2020	9,750	385,195,770	6,997	170,363,372	159,906	5,068,225,520	4.4%	31,695
2021	9,273	395,051,205	7,030	175,127,083	162,149	5,288,149,642	4.3%	32,613

¹ Amounts shown include changes due to benefit finalization, changes in benefit type (e.g. Service to Accidental Disability), COLA increases and other changes.

² Allowances shown are those used in the actuarial valuation as of the Year End date and are not adjusted for anticipated changes due to the finalization of benefit calculations or contract settlements. Beginning 2016, SADB payments to beneficiaries are included.

APPENDIX: ACRONYMS AND ABBREVIATIONS

Revised 2021 A&M	Actuarial Assumptions and Methods proposed by the Actuary and adopted by the Board of Trustees during Fiscal Year 2021
2019 A&M	Actuarial Assumptions and Methods proposed by the Actuary and adopted by the Board of Trustees during Fiscal Year 2019
AAVM	Actuarial Asset Valuation Method
ACCNY	Administrative Code of the City of New York
AIR	Actuarial Interest Rate
AL	Accrued Liability
AMC	Additional Member Contributions
AMC-PT	Additional Member Contributions for Physically-Taxing Employment
AVA	Actuarial Value of Assets
BERS	Board of Education Retirement System
BMC	Basic Member Contributions
COLA	Cost-of-Living Adjustment
EAN	Entry Age Normal cost method
FAS	Final Average Salary
FIRE	Fire Pension Fund
FS	Final Salary
GASB	Governmental Accounting Standards Board
IRC	Internal Revenue Code
ITHP	Increased-Take-Home-Pay
MVA	Market Value of Assets
NYCERS	New York City Employees' Retirement System
NYCRS	New York City Retirement Systems
OWBPA	Older Workers Benefit Protection Act
OYLM	One-Year Lag Methodology
POLICE	Police Pension Fund
PT	Physically-Taxing Employment
PV	Present Value
PVFB	Present Value of Future Benefits
PVFNC	Present Value of Future Normal Costs
PVFS	Present Value of Future Salary
TRS	Teachers' Retirement System
UAL	Unfunded Accrued Liability
VSF	Variable Supplements Fund
WTC	World Trade Center