



June 30, 2022

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 2024



## OFFICE OF THE ACTUARY

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MAREK TYSZKIEWICZ  
CHIEF ACTUARY

November 21, 2024

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

Re: June 30, 2022 Actuarial Valuation Report (Report)

Dear Trustees:

This is the June 30, 2022 actuarial valuation report of the New York City Employees' Retirement System (NYCERS) Qualified Pension Plan and the Group Life Insurance Plan (collectively, the Plan).

This report includes changes to the description of the ordinary death benefit on page 56 and 57 and the additional assumptions and methods on page 90. This replaces the previous report that was issued on September 23, 2024.

### **Purpose**

The purpose of this actuarial valuation report is to:

- Determine the actuarially required contribution for Fiscal Year 2024 - the period from July 1, 2023 to June 30, 2024;
- Measure the Plan's funding progress; and
- Disclose the census data, financial information, assumptions, and methods used.

### **Required Contribution**

The actuarially required contribution for Fiscal Year 2024 is \$3,571,581,162.

### **Data Used**

Results shown for current and prior valuation dates are based on data as of June 30<sup>th</sup> of the valuation year, including:

- Census data submitted by the Plan's administrative staff and the employers' payroll facilities; and

- Financial information was provided by NYCERS and the Office of the Comptroller.

The Office of the Actuary has reviewed this data for reasonableness, consistent with Actuarial Standards of Practice, but has not audited it. The accuracy of these results depends on the accuracy of this data. If the data provided is materially inaccurate, these results require revision.

## **Benefit Changes**

A summary of the Plan's benefits is shown in SECTION IX – SUMMARY OF PLAN PROVISIONS.

This valuation reflects:

- The enactment of Chapter 693 of the Laws of 2023 which removes the age requirement from TBTA 50/20 Plan for Tier 4 and Tier 6 NYCERS members.
- The enactment of Chapter 708 of the Laws of 2023 which exempts certain Tier 4 carpenter titles members, who would not benefit from their NYCERS Physically Taxing (PT) plan due to their age upon commencement, from paying PT AMCs, and provides a refund of 50% (the employee portion) of prior PT AMC contributions paid with interest.

All other benefits under the Plan are unchanged from the prior valuation.

## **Actuarial Assumptions and Methods**

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.

## **Items Excluded or Not Valued**

Not included in this Report are:

- Governmental Accounting Standards Board (GASB) results. The Office of the Actuary publishes the Fiscal Year 2024 GASB67 and GASB68 results in a separate Report which can be found on the Office of the Actuary website [www.nyc.gov/actuary](http://www.nyc.gov/actuary).
- The cost for any pension payments that exceed the Internal Revenue Code Section 415 Limit which are expected to be made from the Excess Benefit Plan.
- Unless specifically noted, Variable Supplements Funds results.

## **Risks and Uncertainty**

These results may be different in future reports for many reasons, including:

- Economic or demographic experience being different than what was assumed;
- Changes in actuarial assumption and methods; and
- Changes in statute and plan provisions.

Likewise, results for purposes other than those described earlier may be quite different.

See SECTION VIII – RISK AND UNCERTAINTY for more information about these risks.

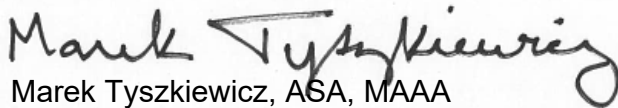
## **Actuarial Qualifications**

Marek Tyszkiewicz and Frankie Chen are Associates of the Society of Actuaries and Members of the American Academy of Actuaries. Frankie Chen is also an Enrolled Actuary under the Employee Retirement Income Security Act of 1974.

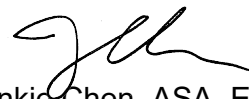
## **Actuaries' Statement of Opinion**

To the best of our knowledge, these results have been prepared in accordance with generally accepted actuarial principles, procedures, and under the Actuarial Standards of Practice issued by the Actuarial Standards Board. We meet the Qualification Standards of the American Academy of Actuaries to render this actuarial opinion. While we are also members of NYCERS, we do not believe it impairs our objectivity to issue this opinion.

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  
Melanie Whinnery - New York City Employees' Retirement System

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## SECTION I – SUMMARY OF VALUATION RESULTS

### **Funded Status**

The funded status is the ratio of Plan assets to liabilities. The Plan's funded status based on the Market Value of Assets decreased from 91.4% in the prior valuation to 79.2% as of June 30, 2022. The Plan's investment return for this period, based on the Market Value of Assets, was negative 8.0%.

### **Required Contribution Amount**

The actuarially required contribution for Fiscal Year 2024 is \$3,571,581,162 and is derived as the sum of the:

- Normal Cost: The actuarial cost for the additional one year of service credit expected to be earned by current active members for the upcoming year; and
- Amortization of Unfunded Accrued Liabilities: The amortization of the unfunded actuarial accrued liabilities for past service earned prior to the valuation date; and
- Administrative Expense: The reimbursement to the Plan with interest for administrative expenses paid from Plan assets during the valuation year; and
- Interest on Late Payments: Interest at 7% for any late employer contributions.

The derivation of the funded status and required contribution amounts are shown on the next page.

## Table I-1 Valuation Results

Presented in **Table I-1** are the principal results of the June 30, 2022 actuarial valuation and, for comparative purposes, the June 30, 2021 actuarial valuation.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
SUMMARY OF VALUATION RESULTS		
Valuation Date	June 30, 2022	June 30, 2021
Fiscal Year	2024	2023
<b>Funded Status</b>		
1. Accrued Liability <sup>1</sup>	\$ 97,771,536,990	\$ 93,956,132,959
2. Actuarial Value of Assets (AVA)	<u>80,653,520,000</u>	<u>76,587,843,000</u>
3. Unfunded Accrued Liability (AVA Basis) (1. - 2.)	\$ 17,118,016,990	\$ 17,368,289,959
4. Market Value of Assets (MVA)	77,457,302,000	85,906,208,000
5. Unfunded Accrued Liability (MVA Basis) (1. - 4.)	\$ 20,314,234,990	\$ 8,049,924,959
6. Funded Ratio (MVA Basis) (4. / 1.)	79.2%	91.4%
<b>Contribution<sup>2</sup></b>		
1. Normal Cost	\$ 1,583,506,220	\$ 1,612,468,268
2. Amortization of Unfunded Accrued Liability	1,870,157,720	1,746,454,031
3. Administrative Expenses	117,917,222	97,852,523
4. Interest on Late Employer Contributions	<u>0</u>	<u>0</u>
5. Actuarial Required Contribution (1. + 2. + 3. + 4.)	\$ 3,571,581,162	\$ 3,456,774,822
<b>Participant Data</b>		
1. Active Members		
a. Number	179,596	185,732
b. Annual Salary <sup>3</sup>	\$ 15,467,773,670	\$ 15,294,725,839
c. Average Salary	\$ 86,125	\$ 82,348
2. Terminated Nonvested Members	36,636	32,058
3. Deferred Vested Members	28,684	26,383
4. Retirees and Beneficiaries		
a. Number	166,631	162,149
b. Total Annual Benefits	\$ 5,579,250,743	\$ 5,288,149,642
c. Average Annual Benefit	\$ 33,483	\$ 32,613

<sup>1</sup> Includes Unfunded Accrued Liability for VSFs.

<sup>2</sup> Includes results for VSFs.

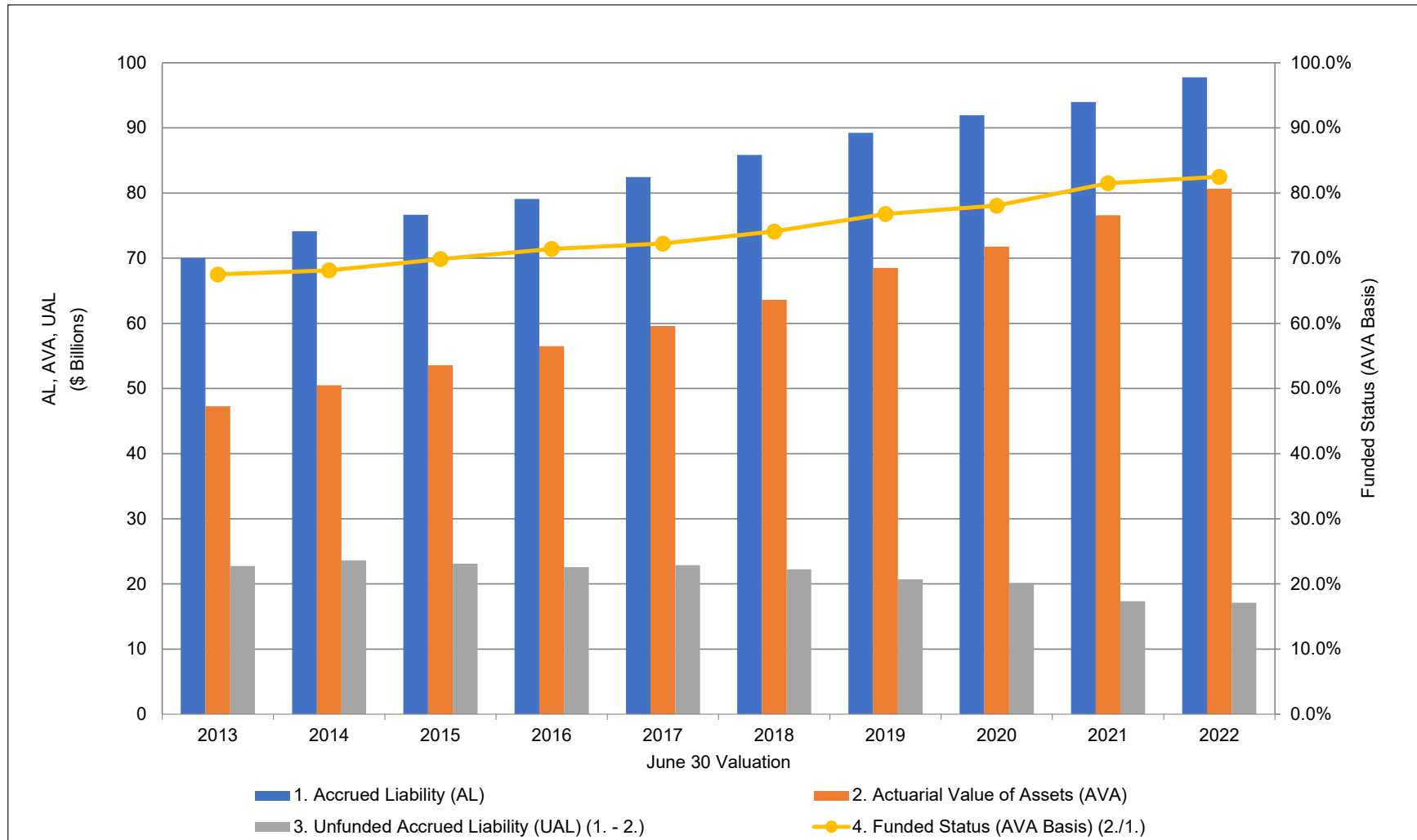
<sup>3</sup> Salaries shown are base salary plus assumed overtime paid and reflect certain salary increases with retroactive effective dates, if any, that are not yet reflected in census data.



**Table I-2**  
**Actuarial Liabilities**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
ACTUARIAL LIABILITIES BY STATUS		
Valuation Date	June 30, 2022	June 30, 2021
Fiscal Year	2024	2023
<b>Accrued Liability</b>		
1. Active Members	\$ 35,749,415,913	\$ 36,273,274,578
2. Terminated Nonvested Members	265,722,474	241,080,868
3. Deferred Vested Members	3,633,142,815	3,053,956,791
4. Retirees and Beneficiaries	57,828,348,271	54,171,582,969
5. Unfunded VSF	<u>294,907,517</u>	<u>216,237,753</u>
6. Total Accrued Liability	\$ 97,771,536,990	\$ 93,956,132,959
<b>Present Value of Benefits</b>		
1. Active Members	\$ 55,025,779,319	\$ 55,345,540,827
2. Terminated Nonvested Members	265,722,474	241,080,868
3. Deferred Vested Members	3,633,142,815	3,053,956,791
4. Retirees and Beneficiaries	57,828,348,271	54,171,582,969
5. Unfunded VSF	<u>424,871,665</u>	<u>373,339,619</u>
6. Total Present Value of Benefits	\$ 117,177,864,544	\$ 113,185,501,074

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, 2022	June 30, 2021
<b>ASSETS</b>		
Cash	\$ 66,460	\$ 122,698
Receivables		
Investment Securities Sold	\$ 1,461,381	\$ 3,353,658
Member Loans	1,082,833	1,079,822
Accrued Interest and Dividends	415,637	393,851
Receivables due from NYCERS	0	0
Other	0	0
Total Receivables	\$ 2,959,851	\$ 4,827,331
<b>INVESTMENTS AT FAIR VALUE</b>		
Short-Term Investments		
Commercial Paper	\$ 407,689	\$ 999,092
Discount Notes	179,281	0
Short-term Investment Fund	679,921	812,966
U.S. Treasury Bills and Agencies	398,729	1,170,661
Debt Securities		
Bank Loans	106,294	133,414
Corporate and Other	9,021,309	10,401,407
Mortgage Debt Securities	4,526,662	5,549,015
Treasury Inflation Protected Securities	2,921,007	3,038,225
U.S. Government and Agency	7,139,037	8,274,897
Equity Securities		
Domestic Equity	21,370,604	27,082,830
International Equity	11,520,947	15,206,157
Collective Trust Funds		
Bank Loans	1,064	1,104
Corporate and Other	0	0
Domestic Equity	1,084	1,181
International Equity	0	0
Mortgage Debt Securities	430,725	482,694
Opportunistic Fixed Income	236,247	257,436
Treasury Inflation Protected Securities	0	0
U.S. Government and Agency	0	0
Alternative Investments		
Infrastructure	1,426,385	996,689
Opportunistic Fixed Income	2,949,143	2,603,942
Private Equity	7,985,627	6,421,827
Private Real Estate	5,672,114	4,359,578
Hedge Fund	1,129	1,240
Collateral From Securities Lending	9,415,078	10,208,522
Total Investments	\$ 86,390,076	\$ 98,002,877
<b>OTHER ASSETS</b>	268,255	125,193
<b>TOTAL ASSETS</b>	<b>\$ 89,684,642</b>	<b>\$ 103,078,099</b>
<b>LIABILITIES</b>		
Accounts Payable	\$ 142,426	\$ 142,603
Payables for Investment Securities Purchased	2,147,080	5,494,894
Accrued Benefits Payable	361,633	394,583
Amount due to Variable Supplements Funds	3,660	4,504
Transferable Earnings due from QPP to COVSF	93,000	925,000
Due to Other Retirement Systems	2,311	1,785
Security Lending	9,415,078	10,208,522
Other Liabilities	62,152	0
<b>TOTAL LIABILITIES</b>	<b>\$ 12,227,340</b>	<b>\$ 17,171,891</b>
<b>PLAN ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>	<b>\$ 77,457,302</b>	<b>\$ 85,906,208</b>

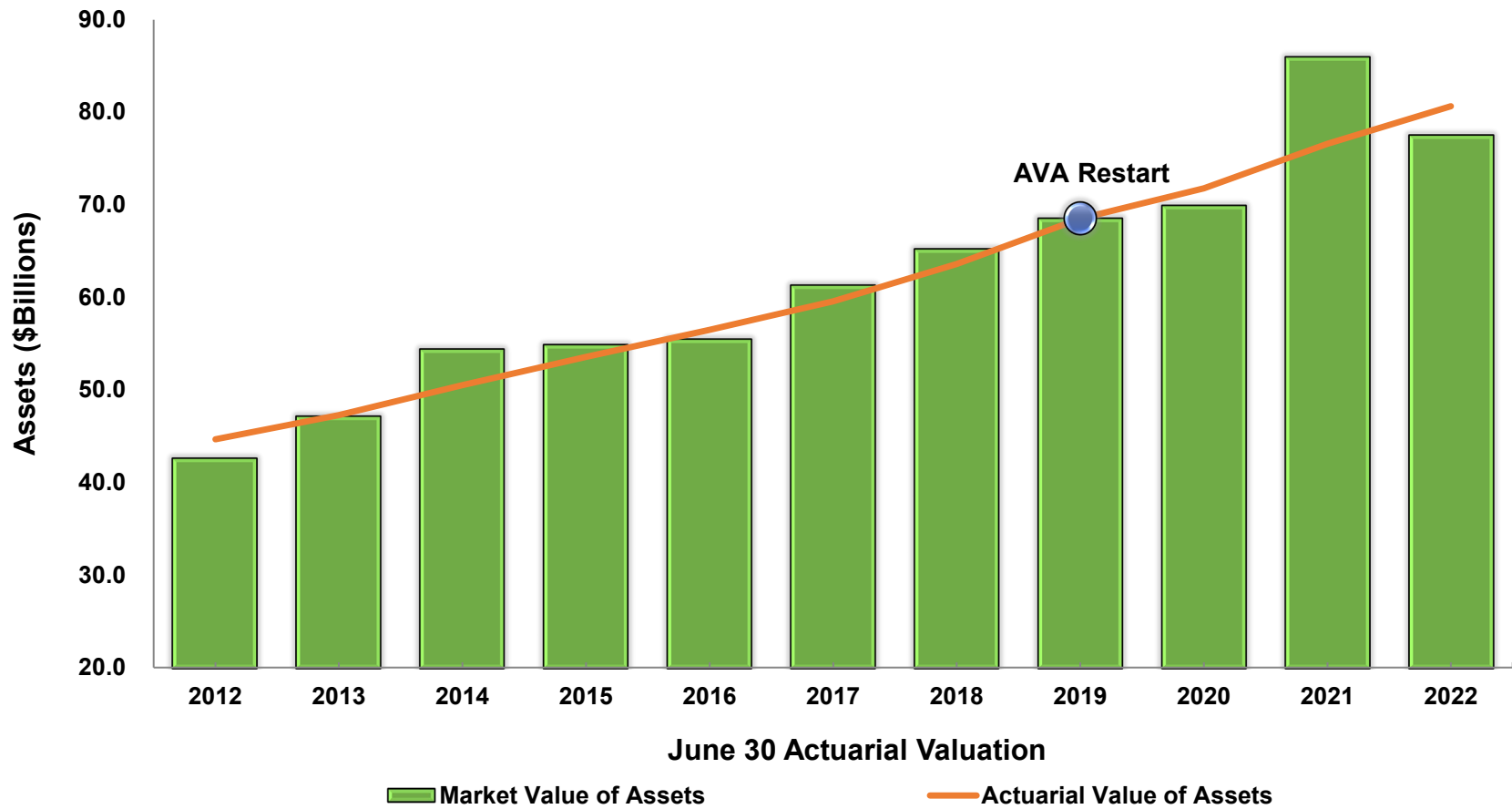
**Table II-2**  
**Statement of Changes in Plan Net Assets**

(\$ Thousands)		
	June 30, 2022	June 30, 2021
<b>ADDITIONS</b>		
Contributions		
Member Contributions	\$ 595,587	\$ 579,560
Employer Contributions	<u>3,831,464</u>	<u>3,761,532</u>
<b>Total Contributions</b>	\$ 4,427,051	\$ 4,341,092
Investment Income (Loss)		
Interest Income	\$ 943,322	\$ 913,882
Dividend Income	1,038,806	900,282
Net Appreciation (Depreciation) in Fair Value	<u>(8,577,663)</u>	<u>16,741,619</u>
Total Investment Income (Loss)	\$ (6,595,535)	\$ 18,555,783
Less Investment Expenses	349,217	313,226
Net Income (Loss)	\$ (6,944,752)	\$ 18,242,557
Securities Lending Transactions		
Securities Lending Income	\$ 29,768	\$ 22,793
Securities Lending Fees	<u>2,865</u>	<u>2,149</u>
Net Securities Lending Income (Loss)	\$ 26,903	\$ 20,644
<b>Net Investment Income (Loss)</b>	\$ (6,917,849)	\$ 18,263,201
Other		
Other Income	<u>3,282</u>	<u>3,365</u>
<b>TOTAL ADDITIONS</b>	\$ (2,487,516)	\$ 22,607,658
<b>DEDUCTIONS</b>		
Benefit Payments and Withdrawals	\$ 5,836,192	\$ 5,566,375
Payables to Other Retirement Systems	11,046	5,671
Amount due to Variable Supplements Funds	9,164	9,817
Transferable Earnings due from QPP to COVSF	0	924,562
Administrative Expenses	<u>104,988</u>	<u>87,413</u>
<b>TOTAL DEDUCTIONS</b>	\$ 5,961,390	\$ 6,593,838
<b>NET INCREASE (DECREASE) IN PLAN NET ASSETS</b>	\$ (8,448,906)	\$ 16,013,820
<b>PLAN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>		
Beginning of Year	\$ 85,906,208	\$ 69,892,388
End of Year	\$ 77,457,302	\$ 85,906,208

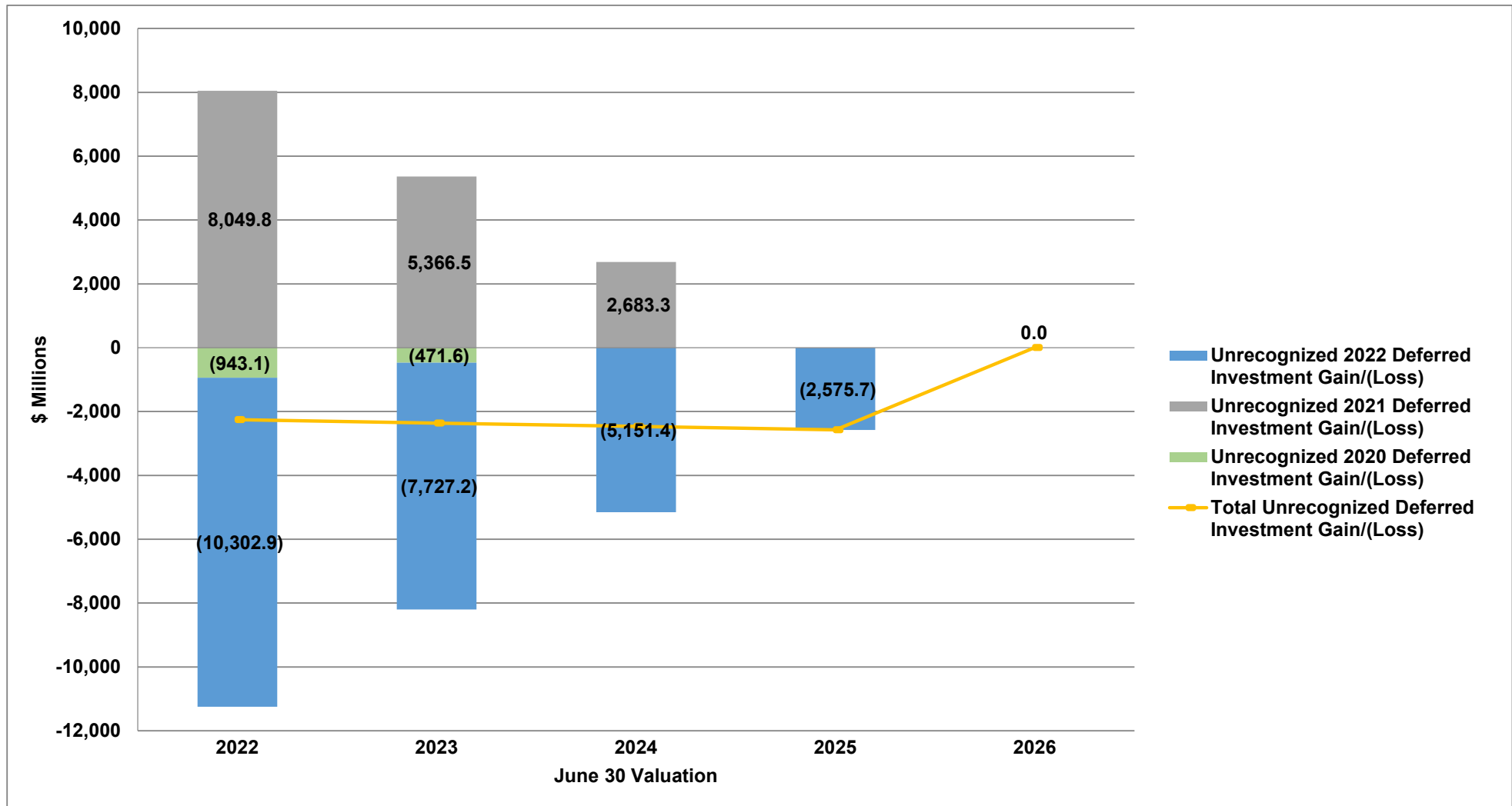
**Table II-3**  
**Development of Actuarial Value of Assets**

(\$ Thousands)		
Valuation Date	June 30, 2022	June 30, 2021
1. Market Value of Assets (MVA)		
a. Beginning of Year (BOY)	\$ 85,906,208	\$ 69,892,388
b. End of Year (EOY)	\$ 77,457,302	\$ 85,906,208
2. Contributions		
a. Employee	\$ 595,587	\$ 579,560
b. Employer	3,831,464	3,761,532
c. Total Contributions	\$ 4,427,051	\$ 4,341,092
3. Net Investment Income		
a. Investment Income	\$ (6,568,632)	\$ 18,576,427
b. Investment Expenses	(349,217)	(313,226)
c. Total Net Investment Income	\$ (6,917,849)	\$ 18,263,201
4. Benefit Payments and Other Cash Flow	\$ (5,958,108)	\$ (5,665,911)
5. Preliminary Transferable Earnings from NYCERS to COVSF - EOY	\$ 0	\$ (924,562)
6. Net Cash Flow (2.c. + 4. + 5.)	\$ (1,531,057)	\$ (2,249,381)
7. Expected Investment Return (EIR)	\$ 5,960,754	\$ 4,846,883
8. Unexpected Investment Return (UIR) (3.c. - 7.)	\$ (12,878,603)	\$ 13,416,318
9. AVA @ EOY		
a. AVA @ BOY (prior to corridor limit)	\$ 76,587,843	\$ 71,778,640
b. Net Cash Flow (6.)	(1,531,057)	(2,249,381)
c. Expected Investment Return (7.)	5,960,754	4,846,883
d. Phase in of UIR		
20% * UIR for prior year	\$ (2,575,721)	\$ 2,683,264
20% * UIR for second prior year	2,683,264	(471,563)
20% * UIR for third prior year	(471,563)	N/A
20% * UIR for fourth prior year	N/A	N/A
20% * UIR for fifth prior year	N/A	N/A
Total	\$ (364,020)	\$ 2,211,701
e. Lower Corridor Bound (80% of 1.b.)	\$ 61,965,842	\$ 68,724,966
f. Upper Corridor Bound (120% of 1.b.)	\$ 92,948,762	\$ 103,087,450
<b>g. AVA (a. through d., bounded by e. and f.)</b>	<b>\$ 80,653,520</b>	<b>\$ 76,587,843</b>

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**  
**Actuarial Required Contributions**

**Table III-1** shows the components of the Fiscal Year 2024 and the Fiscal Year 2023 Actuarial Required Contributions.

COMPONENTS OF CURRENT AND PRIOR FISCAL YEAR ACTUARIAL REQUIRED CONTRIBUTIONS		
Valuation Date	June 30, 2022	June 30, 2021
Fiscal Year	2024	2023
Normal Cost	\$ 1,583,506,220	\$ 1,612,468,268
Unfunded Accrued Liability Amortization <sup>1</sup>	1,870,157,720	1,746,454,031
Administrative Expenses	<u>117,917,222</u>	<u>97,852,523</u>
<b>Total Contribution to the New York City Employees' Retirement System</b>	<b>\$ 3,571,581,162</b>	<b>\$ 3,456,774,822</b>

<sup>1</sup> 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, 2022.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM SCHEDULE OF UNFUNDED ACCRUED LIABILITY BASES				
Amortization Base	Date Established	Original \$ Amount	Amortization Years	Amortization \$ Payment
Initial UAL	6/30/10	\$ 20,194,114,494	22	\$ 2,163,200,961
(Gain)/Loss	6/30/11	(250,820,523)	15	(29,666,881)
(Gain)/Loss	6/30/12	(62,429,250)	15	(7,384,090)
(Gain)/Loss	6/30/13	83,180,893	15	9,838,578
(Gain)/Loss	6/30/14	(1,302,739,151)	15	(154,087,109)
Assumption Change <sup>1</sup>	6/30/14	2,328,933,026	20	233,084,500
(Gain)/Loss	6/30/15	(426,054,441)	15	(50,393,432)
(Gain)/Loss	6/30/16	(256,448,676)	15	(30,332,576)
Assumption Change <sup>2</sup>	6/30/16	19,238,347	20	1,925,414
SADB	6/30/16	20,783,169	15	2,458,219
SADB Sanitation Actives	6/30/16	4,530,309	11	667,208
(Gain)/Loss	6/30/17	(26,089,812)	15	(3,085,885)
COVSF Escalation Offset	6/30/17	1,497,838	19	154,027
Assumption Change <sup>3</sup>	6/30/17	(988,954,970)	20	(98,976,686)
Method Change <sup>3</sup>	6/30/17	816,476,035	20	81,714,634
OTB - City of New York Portion	6/30/17	53,833,920	15	6,367,440
OTB - State of New York Portion	6/30/17	53,833,920	15	6,367,440
(Gain)/Loss	6/30/18	(346,437,644)	15	(40,976,408)
(Gain)/Loss	6/30/19	120,225,130	15	14,220,148
Assumption Change <sup>4</sup>	6/30/19	(312,415,373)	20	(31,267,188)
Method Change <sup>4</sup>	6/30/19	(874,574,640)	20	(87,529,261)
Proval JS Coding Revisions	6/30/19	167,291,519	15	19,787,128
OTB - State of New York Portion	6/30/19	24,657,612	15	2,916,486
(Gain)/Loss	6/30/20	131,641,734	15	15,570,494
OWBPA	6/30/20	94,476,876	8	18,133,677
(Gain)/Loss	6/30/21	(2,019,602,367)	15	(238,877,201)
Chapter 56	6/30/21	68,352,955	16	7,763,012
(Gain)/Loss	6/30/22	864,535,501	15	102,256,674
Death Audit	6/30/22	(41,137,066)	2	(45,531,188)
TBTA Plan Changes <sup>5</sup>	6/30/22	6,338,139	7	1,375,468
Physically Taxing Carpenters <sup>6</sup>	6/30/22	2,138,641	7	464,117
TOTAL				\$ 1,870,157,720

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

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

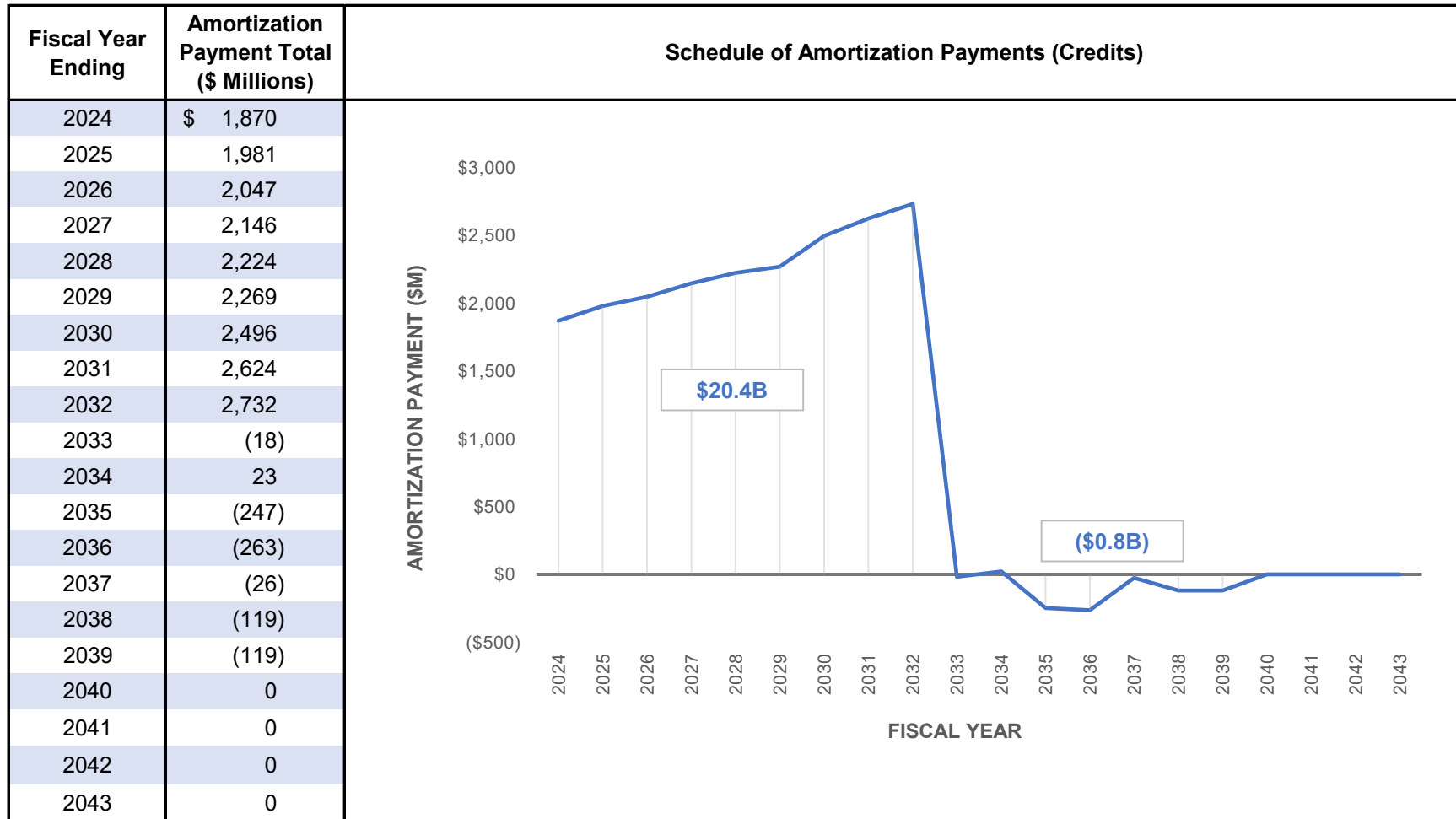
<sup>3</sup> 2019 A&M.

<sup>4</sup> Revised 2021 A&M.

<sup>5</sup> Chapter 693 of the Laws of 2023.

<sup>6</sup> Chapter 708 of the Laws of 2023.

**Graph III-3**  
**Remaining UAL Amortizations as of June 30, 2022**



**Table III-4**  
**Reconciliation of Outstanding UAL Bases**

Cost Component	Date Established	Original Amount	Amort Years	Outstanding Balance 6/30/2022	FY 2023 Payment on 12/31/2022	Outstanding Balance 6/30/2023	FY 2024 Payment on 12/31/2023	Additional Payments
Initial UAL	06/30/10	\$ 20,194,114,494	22	\$ 17,207,016,792	\$ 2,100,195,108	\$ 16,239,049,255	\$ 2,163,200,961	8
(Gain)/Loss	06/30/11	(250,820,523)	15	(103,945,599)	(29,666,881)	(80,534,129)	(29,666,881)	2
(Gain)/Loss	06/30/12	(62,429,250)	15	(31,317,963)	(7,384,090)	(25,872,055)	(7,384,090)	3
(Gain)/Loss	06/30/13	83,180,893	15	48,509,614	9,838,578	41,728,187	9,838,578	4
(Gain)/Loss	06/30/14	(1,302,739,151)	15	(858,993,145)	(154,087,109)	(759,733,723)	(154,087,109)	5
Assumption Change	06/30/14	2,328,933,026	20	1,915,017,216	233,084,500	1,807,963,933	233,084,500	10
(Gain)/Loss	06/30/15	(426,054,441)	15	(311,268,100)	(50,393,432)	(280,929,498)	(50,393,432)	6
(Gain)/Loss	06/30/16	(256,448,676)	15	(204,423,625)	(30,332,576)	(187,357,017)	(30,332,576)	7
Assumption Change	06/30/16	19,238,347	20	17,418,033	1,925,414	16,645,631	1,925,414	12
SADB	06/30/16	20,783,169	15	16,566,933	2,458,219	15,183,818	2,458,219	7
SADB Sanitation Actives	06/30/16	4,530,309	11	2,829,813	667,208	2,337,735	667,208	3
(Gain)/Loss	06/30/17	(26,089,812)	15	(22,419,721)	(3,085,885)	(20,797,047)	(3,085,885)	8
Removal of COVSF Escalation Offset	06/30/17	1,497,838	19	1,393,391	154,027	1,331,602	154,027	12
Assumption Change	06/30/17	(988,954,970)	20	(932,489,022)	(98,976,686)	(895,380,977)	(98,976,686)	13
Method Change	06/30/17	816,476,035	20	769,858,036	81,714,634	739,221,827	81,714,634	13
OTB - City of New York Portion	06/30/17	53,833,920	15	46,261,037	6,367,440	42,912,779	6,367,440	8
OTB - State of New York Portion	06/30/17	53,833,920	15	46,261,037	6,367,440	42,912,779	6,367,440	8
(Gain)/Loss	06/30/18	(346,437,644)	15	(317,841,280)	(40,976,408)	(297,703,845)	(40,976,408)	9
(Gain)/Loss	06/30/19	120,225,130	15	116,832,416	14,220,148	110,301,250	14,220,148	10
Assumption Change	06/30/19	(312,415,373)	20	(315,772,196)	(31,267,188)	(305,533,228)	(31,267,188)	15
Method Change	06/30/19	(874,574,640)	20	(883,971,731)	(87,529,261)	(855,308,777)	(87,529,261)	15
Proval JS Coding Revisions	06/30/19	167,291,519	15	162,570,619	19,787,128	153,482,598	19,787,128	10
OTB - State of New York Portion	06/30/19	24,657,612	15	23,961,784	2,916,486	22,622,272	2,916,486	10
(Gain)/Loss	06/30/20	131,641,734	15	134,610,388	15,570,494	127,926,875	15,570,494	11
OWBPA	06/30/20	94,476,876	8	89,408,952	18,133,677	76,909,954	18,133,677	4
(Gain)/Loss	06/30/21	(2,019,602,367)	15	(2,160,974,531)	(238,877,201)	(2,065,146,256)	(238,877,201)	12
415 Limit	06/30/21	(1,926,935)	2	(2,061,821)	(2,132,765)	0	0	0
Chapter 56	06/30/21	68,352,955	16	73,137,663	7,763,012	70,227,179	7,763,012	13
Admin Expenses	06/30/21	88,408,977	2	94,597,605	97,852,523	0	0	0
Normal Cost	07/01/21	1,456,852,250	2	1,558,831,908	1,612,468,268	0	0	0
(Gain)/Loss	06/30/22	864,535,501	15	864,535,501	0	925,052,985	102,256,674	13
Death Audit	06/30/22	(41,137,066)	2	(41,137,066)	0	(44,016,661)	(45,531,188)	0
TBTA Plan Change	06/30/22	6,338,139	7	6,338,139	0	6,781,809	1,375,468	5
Physically Taxing Carpenters	06/30/22	2,138,641	7	2,138,641	0	2,288,346	464,117	5
Admin Expenses	06/30/22	106,537,272	2	106,537,272	0	113,994,881	117,917,222	0
Normal Cost	07/01/22	1,430,685,272	2	0	0	1,530,833,241	1,583,506,220	0
<b>TOTAL</b>				<b>\$ 17,118,016,990</b>	<b>\$ 3,456,774,822</b>	<b>\$ 16,271,395,722</b>	<b>\$ 3,571,581,162</b>	

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)**

<b>Total of Cost Components Summarized by Type</b>	<b>Outstanding Balance 6/30/2022</b>	<b>FY 2023 Payment on 12/31/2022</b>	<b>Outstanding Balance 6/30/2023</b>	<b>FY 2024 Payment on 12/31/2023</b>
Initial UAL	\$ 17,207,016,792	\$ 2,100,195,108	\$ 16,239,049,255	\$ 2,163,200,961
Assumption Changes	684,174,031	104,766,040	623,695,359	104,766,040
(Gain)/Loss	(2,846,696,045)	(515,174,362)	(2,513,064,273)	(412,917,688)
Method Changes	121,741,895	27,491,102	101,826,816	(15,907,321)
Plan Changes	191,813,532	29,176,143	175,060,443	31,015,728
Admin Expenses	201,134,877	97,852,523	113,994,881	117,917,222
Normal Cost	1,558,831,908	1,612,468,268	1,530,833,241	1,583,506,220
<b>TOTAL</b>	<b>\$ 17,118,016,990</b>	<b>\$ 3,456,774,822</b>	<b>\$ 16,271,395,722</b>	<b>\$ 3,571,581,162</b>

	<b>6/30/2022</b>		<b>FY 2024</b>
(A) Actuarial Accrued Liability	\$ 97,771,536,990	Normal Cost	\$ 1,583,506,220
(B) Actuarial Value of Assets	80,653,520,000	UAL Payment	1,870,157,720
(C) Unfunded Accrued Liabilities (A) - (B)	\$ 17,118,016,990	Admin Expenses	117,917,222
		<b>Total</b>	<b>\$ 3,571,581,162</b>

**Table III-5**  
**Contribution History**

**Table III-5** compares actual contributions to the Actuarial Required Contributions for Fiscal Years 2015 through 2024.

(\$ Thousands)			
<b>Fiscal Year Ended June 30</b>	<b>Actuarial Required Contribution</b>	<b>Amount Contributed</b>	<b>Percentage of Required Contributed</b>
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%
2024	3,571,581	3,571,581	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 2015 through 2024.

<b>CITY RATES</b> (\$ Thousands)			
<b>Fiscal Year Ended June 30</b>	<b>Actuarial Required Contribution</b>	<b>Salary<sup>1</sup> at Beginning of Fiscal Year</b>	<b>City Rate</b>
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%
2024	3,571,581	15,240,990	23.4%

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



**Table III-7**  
**Normal Cost Rates by Tier**

**Table III-7** shows the Normal Cost Rates as a percentage of salary by Tier.

NORMAL COST RATES AS OF JUNE 30, 2022					
	Tier 1	Tier 2	Tier 3/4	Tier 6 <sup>1</sup>	Total
Total	8.9%	14.9%	14.0%	12.7%	13.4%
Employee	<u>(3.8%)</u>	<u>(4.0%)</u>	<u>(3.4%)</u>	<u>(5.3%)</u>	<u>(4.2%)</u>
Employer	5.1%	10.9%	10.6%	7.4%	9.2%

<sup>1</sup> Includes Tier 3 22-Year Plan.

## 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	\$ 5,898,142	\$ 0	\$ 372,167,411	\$ 378,065,553
2. Amortization of Unfunded Accrued Liability	22,802,506	24,118,562	326,941,238	373,862,306
3. Administrative Expenses	485,786	0	25,090,925	25,576,711
4. Actuarial Contribution (1. + 2. + 3.)	\$ 29,186,434	\$ 24,118,562	\$ 724,199,574	\$ 777,504,570

Housing Authority	NYC Housing Authority: Housing Police	NYC Housing Authority: Others	NYC Housing Authority Subtotal
1. Normal Cost	\$ 0	\$ 54,434,422	\$ 54,434,422
2. Amortization of Unfunded Accrued Liability	10,501,539	93,029,493	103,531,032
3. Administrative Expenses	0	5,103,663	5,103,663
4. Actuarial Contribution (1. + 2. + 3.)	\$ 10,501,539	\$ 152,567,578	\$ 163,069,117

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	\$ 378,065,553	\$ 54,434,422	\$ 227,758,600	\$ 11,367,497	\$ 0	\$ 1,007,555	\$ 861,691
2. Amortization of Unfunded Accrued Liability	373,862,306	103,531,032	236,026,180	19,487,943	19,995,087	1,247,624	1,584,382
3. Administrative Expenses	25,576,711	5,103,663	19,831,495	879,117	0	74,849	74,042
4. Actuarial Contribution (1. + 2. + 3.)	\$ 777,504,570	\$ 163,069,117	\$ 483,616,275	\$ 31,734,557	\$ 19,995,087	\$ 2,330,028	\$ 2,520,115

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	\$ 112,723	\$ 23,730,653	\$ 198,282,591	\$ 125,461,786	\$ 562,423,149	\$ 1,583,506,220
2. Amortization of Unfunded Accrued Liability	1,421,229	5,082	4,550,078	252,670,342	117,897,943	737,878,492	1,870,157,720
3. Administrative Expenses	0	9,874	1,978,555	6,207,285	6,035,726	52,145,905	117,917,222
4. Actuarial Contribution (1. + 2. + 3.)	\$ 1,421,229	\$ 127,679	\$ 30,259,286	\$ 457,160,218	\$ 249,395,455	\$ 1,352,447,546	\$ 3,571,581,162

**Table IV-2**  
**Accrued Liabilities by Obligor**

<b>Transit Authority</b>	<b>NYC Transit Authority: CP Engineers</b>	<b>NYC Transit Authority: Transit Police</b>	<b>NYC Transit Authority: Others</b>	<b>NYC Transit Authority Subtotal</b>
<b>Accrued Liability</b>				
1. Active Members	\$ 245,057,844	\$ 0	\$ 7,635,750,628	<b>\$ 7,880,808,472</b>
2. Terminated Nonvested Members	521,019	0	21,788,355	<b>22,309,374</b>
3. Deferred Vested Members	15,917,766	0	425,494,459	<b>441,412,225</b>
4. Retirees and Beneficiaries	561,267,637	386,537,715	13,046,893,690	<b>13,994,699,042</b>
5. Unfunded VSF	0	38,802,504	0	<b>38,802,504</b>
6. Total Accrued Liability	<b>\$ 822,764,266</b>	<b>\$ 425,340,219</b>	<b>\$ 21,129,927,132</b>	<b>\$ 22,378,031,617</b>
<b>Present Value of Benefits</b>				
1. Active Members	\$ 289,399,837	\$ 0	\$ 12,306,616,414	<b>\$ 12,596,016,251</b>
2. Terminated Nonvested Members	521,019	0	21,788,355	<b>22,309,374</b>
3. Deferred Vested Members	15,917,766	0	425,494,459	<b>441,412,225</b>
4. Retirees and Beneficiaries	561,267,637	386,537,715	13,046,893,690	<b>13,994,699,042</b>
5. Unfunded VSF	0	38,802,504	0	<b>38,802,504</b>
6. Total Present Value of Benefits	<b>\$ 867,106,259</b>	<b>\$ 425,340,219</b>	<b>\$ 25,800,792,918</b>	<b>\$ 27,093,239,396</b>

<b>Housing Authority</b>	<b>NYC Housing Authority: Housing Police</b>	<b>NYC Housing Authority: Others</b>	<b>NYC Housing Authority Subtotal</b>
<b>Accrued Liability</b>			
1. Active Members	\$ 0	\$ 1,732,773,541	<b>\$ 1,732,773,541</b>
2. Terminated Nonvested Members	0	8,275,603	<b>8,275,603</b>
3. Deferred Vested Members	0	236,930,836	<b>236,930,836</b>
4. Retirees and Beneficiaries	173,383,147	2,823,730,498	<b>2,997,113,645</b>
5. Unfunded VSF	25,734,404	0	<b>25,734,404</b>
6. Total Accrued Liability	<b>\$ 199,117,551</b>	<b>\$ 4,801,710,478</b>	<b>\$ 5,000,828,029</b>
<b>Present Value of Benefits</b>			
1. Active Members	\$ 0	\$ 2,421,385,014	<b>\$ 2,421,385,014</b>
2. Terminated Nonvested Members	0	8,275,603	<b>8,275,603</b>
3. Deferred Vested Members	0	236,930,836	<b>236,930,836</b>
4. Retirees and Beneficiaries	173,383,147	2,823,730,498	<b>2,997,113,645</b>
5. Unfunded VSF	25,734,404	0	<b>25,734,404</b>
6. Total Present Value of Benefits	<b>\$ 199,117,551</b>	<b>\$ 5,490,321,951</b>	<b>\$ 5,689,439,502</b>

**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
<b>Accrued Liability</b>							
1. Active Members	\$ 7,880,808,472	\$ 1,732,773,541	\$ 4,740,923,573	\$ 340,300,850	\$ 0	\$ 24,634,586	\$ 32,590,114
2. Terminated Nonvested Members	22,309,374	8,275,603	77,245,236	1,825,919	672,679	261,271	31,276
3. Deferred Vested Members	441,412,225	236,930,836	582,757,170	27,616,671	26,718,271	3,641,123	1,267,967
4. Retirees and Beneficiaries	13,994,699,042	2,997,113,645	7,842,412,843	712,325,358	346,141,842	22,840,814	31,349,282
5. Unfunded VSF	38,802,504	25,734,404	0	0	0	0	0
6. Total Accrued Liability	\$ 22,378,031,617	\$ 5,000,828,029	\$ 13,243,338,822	\$ 1,082,068,798	\$ 373,532,792	\$ 51,377,794	\$ 65,238,639
<b>Present Value of Benefits</b>							
1. Active Members	\$ 12,596,016,251	\$ 2,421,385,014	\$ 7,618,244,048	\$ 448,262,138	\$ 0	\$ 34,429,730	\$ 41,120,530
2. Terminated Nonvested Members	22,309,374	8,275,603	77,245,236	1,825,919	672,679	261,271	31,276
3. Deferred Vested Members	441,412,225	236,930,836	582,757,170	27,616,671	26,718,271	3,641,123	1,267,967
4. Retirees and Beneficiaries	13,994,699,042	2,997,113,645	7,842,412,843	712,325,358	346,141,842	22,840,814	31,349,282
5. Unfunded VSF	38,802,504	25,734,404	0	0	0	0	0
6. Total Present Value of Benefits	\$ 27,093,239,396	\$ 5,689,439,502	\$ 16,120,659,297	\$ 1,190,030,086	\$ 373,532,792	\$ 61,172,938	\$ 73,769,055

Obligor	State Judiciary Employees	NYC Municipal Water Authority	CUNY Senior Colleges	Correction	Sanitation	All Others (i.e. New York City)	Total
<b>Accrued Liability</b>							
1. Active Members	\$ 0	\$ 4,133,223	\$ 582,576,383	\$ 2,364,187,894	\$ 2,162,119,647	\$ 15,884,367,630	\$ 35,749,415,913
2. Terminated Nonvested Members	65,028	0	8,634,459	14,130,946	1,962,189	130,308,494	265,722,474
3. Deferred Vested Members	0	526,217	48,138,201	298,798,912	43,780,117	1,921,555,105	3,633,142,815
4. Retirees and Beneficiaries	7,987,377	0	522,264,797	7,274,662,812	4,803,213,153	19,273,337,306	57,828,348,271
5. Unfunded VSF	0	0	0	230,370,609	0	0	294,907,517
6. Total Accrued Liability	\$ 8,052,405	\$ 4,659,440	\$ 1,161,613,840	\$ 10,182,151,173	\$ 7,011,075,106	\$ 37,209,568,535	\$ 97,771,536,990
<b>Present Value of Benefits</b>							
1. Active Members	\$ 0	\$ 5,401,064	\$ 852,039,879	\$ 4,085,164,815	\$ 3,648,990,403	\$ 23,274,725,447	\$ 55,025,779,319
2. Terminated Nonvested Members	65,028	0	8,634,459	14,130,946	1,962,189	130,308,494	265,722,474
3. Deferred Vested Members	0	526,217	48,138,201	298,798,912	43,780,117	1,921,555,105	3,633,142,815
4. Retirees and Beneficiaries	7,987,377	0	522,264,797	7,274,662,812	4,803,213,153	19,273,337,306	57,828,348,271
5. Unfunded VSF	0	0	0	360,334,757	0	0	424,871,665
6. Total Present Value of Benefits	\$ 8,052,405	\$ 5,927,281	\$ 1,431,077,336	\$ 12,033,092,242	\$ 8,497,945,862	\$ 44,599,926,352	\$ 117,177,864,544

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

<b>Transit Authority</b>	<b>NYC Transit Authority: CP Engineers</b>	<b>NYC Transit Authority: Transit Police</b>	<b>NYC Transit Authority: Others</b>	<b>NYC Transit Authority Subtotal</b>
1. Active Members				
a. Number	538	0	36,981	<b>37,519</b>
b. Annual Salary <sup>1</sup>	\$ 63,722,848	\$ 0	\$ 3,291,298,289	<b>\$ 3,355,021,137</b>
c. Average Salary	\$ 118,444	\$ 0	\$ 89,000	<b>\$ 89,422</b>
2. Terminated Nonvested Members	33	0	4,221	<b>4,254</b>
3. Deferred Vested Members	83	0	3,727	<b>3,810</b>
4. Retirees and Beneficiaries				
a. Number	1,206	1,623	34,637	<b>37,466</b>
b. Total Annual Benefits	\$ 56,209,848	\$ 50,326,846	\$ 1,301,625,999	<b>\$ 1,408,162,693</b>
c. Average Annual Benefit	\$ 46,608	\$ 31,009	\$ 37,579	<b>\$ 37,585</b>

<b>Housing Authority</b>	<b>NYC Housing Authority: Housing Police</b>	<b>NYC Housing Authority: Others</b>	<b>NYC Housing Authority Subtotal</b>
1. Active Members			
a. Number	0	8,730	<b>8,730</b>
b. Annual Salary <sup>1</sup>	\$ 0	\$ 669,472,154	<b>\$ 669,472,154</b>
c. Average Salary	\$ 0	\$ 76,686	<b>\$ 76,686</b>
2. Terminated Nonvested Members	0	1,670	<b>1,670</b>
3. Deferred Vested Members	0	1,993	<b>1,993</b>
4. Retirees and Beneficiaries			
a. Number	677	10,140	<b>10,817</b>
b. Total Annual Benefits	\$ 22,667,212	\$ 270,355,823	<b>\$ 293,023,035</b>
c. Average Annual Benefit	\$ 33,482	\$ 26,662	<b>\$ 27,089</b>

<sup>1</sup> 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	37,519	8,730	30,531	1,009	0	80	69
b. Annual Salary <sup>1</sup>	\$ 3,355,021,137	\$ 669,472,154	\$ 2,601,393,353	\$ 115,318,075	\$ 0	\$ 9,818,370	\$ 9,712,409
c. Average Salary	\$ 89,422	\$ 76,686	\$ 85,205	\$ 114,289	\$ 0	\$ 122,730	\$ 140,760
2. Terminated Nonvested Members	4,254	1,670	8,451	156	90	8	1
3. Deferred Vested Members	3,810	1,993	5,658	145	267	16	10
4. Retirees and Beneficiaries							
a. Number	37,466	10,817	27,346	1,573	1,016	49	61
b. Total Annual Benefits	\$ 1,408,162,693	\$ 293,023,035	\$ 756,756,811	\$ 67,007,825	\$ 26,616,125	\$ 2,031,577	\$ 2,963,020
c. Average Annual Benefit	\$ 37,585	\$ 27,089	\$ 27,673	\$ 42,599	\$ 26,197	\$ 41,461	\$ 48,574

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	3,932	6,738	7,572	83,406	179,596
b. Annual Salary <sup>1</sup>	\$ 0	\$ 1,295,245	\$ 259,536,676	\$ 814,239,720	\$ 791,735,387	\$ 6,840,231,144	\$ 15,467,773,670
c. Average Salary	\$ 0	\$ 129,525	\$ 66,006	\$ 120,843	\$ 104,561	\$ 82,011	\$ 86,125
2. Terminated Nonvested Members	2	0	1,628	2,389	355	17,632	36,636
3. Deferred Vested Members	0	2	623	1,144	326	14,690	28,684
4. Retirees and Beneficiaries							
a. Number	38	0	2,379	13,290	10,975	61,621	166,631
b. Total Annual Benefits	\$ 1,408,043	\$ 0	\$ 51,663,505	\$ 618,155,420	\$ 470,779,971	\$ 1,880,682,718	\$ 5,579,250,743
c. Average Annual Benefit	\$ 37,054	\$ 0	\$ 21,716	\$ 46,513	\$ 42,896	\$ 30,520	\$ 33,483

<sup>1</sup> 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**

<b>EXPERIENCE (GAIN) / LOSS as of June 30, 2022</b> <b>(\$ Thousands)</b>			
	<b>QPP</b>	<b>VSF</b>	<b>Total</b>
<b>1. Expected Accrued Liability (AL)</b>			
a. AL at June 30, 2021	\$ 93,739,895	\$ 1,477,634	\$ 95,217,529
b. Total Normal Cost and Administrative Expenses at June 30, 2021	2,114,032	18,162	2,132,194
c. Interest on 1.a. and 1.b. to June 30, 2022	6,709,775	104,706	6,814,481
d. Fiscal Year 2022 Benefit Payments	(5,836,192)	(114,247)	(5,950,439)
e. Interest on 1.d. to June 30, 2022	(200,812)	(3,931)	(204,743)
f. Death Audit	(41,137)	0	(41,137)
g. Plan Change	8,477	0	8,477
h. Expected AL at June 30, 2022	\$ 96,494,038	\$ 1,482,324	\$ 97,976,362
<b>2. Actual AL at June 30, 2022</b>	\$ 97,476,629	\$ 1,509,310	\$ 98,985,939
<b>3. Expected Total Actuarial Value of Assets (AVA)</b>			
a. Total AVA at June 30, 2021	\$ 76,587,843	\$ 1,261,396	\$ 77,849,239
b. Interest on 3.a. to June 30, 2022	5,361,149	88,298	5,449,447
c. Total Contributions Paid in Fiscal Year 2022	4,427,051	0	4,427,051
d. Interest on 3.c. to June 30, 2022	152,326	0	152,326
e. Fiscal Year 2022 Benefit Payments	(5,836,192)	(114,247)	(5,950,439)
f. Interest on 3.e. to June 30, 2022	(200,812)	(3,931)	(204,743)
g. Expected Total AVA at June 30, 2022	\$ 80,491,365	\$ 1,231,516	\$ 81,722,881
<b>4. Actual Total AVA at June 30, 2022</b>	\$ 80,653,520	\$ 1,214,402	\$ 81,867,922
<b>5. Liability (Gain) / Loss (2. - 1.h.)</b>	<b>\$ 982,591</b>	<b>\$ 26,986</b>	<b>\$ 1,009,577</b>
<b>6. Actuarial Asset (Gain) / Loss (3.g. - 4.)</b>	<b>\$ (162,155)</b>	<b>\$ 17,114</b>	<b>\$ (145,041)</b>
<b>7. Total Actuarial (Gain) / Loss (5. + 6.)</b>	<b>\$ 820,436</b>	<b>\$ 44,100</b>	<b>\$ 864,536</b>

## **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 <sup>1</sup>	(6) UAL as a % of Covered Payroll (3) / (5)
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%
2022	80,653,520	97,771,537	17,118,017	82.5%	15,467,774	110.7%

<sup>1</sup> 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 (ACCNY), 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, 2022	June 30, 2021
<b>COVSF</b>		
Active	\$ 253,820	\$ 275,104
Retiree	<u>1,190,953</u>	<u>1,131,923</u>
Total	\$ 1,444,773	\$ 1,407,027
<b>HPOVSF</b>		
Active	\$ 0	\$ 0
Retiree	<u>9,829</u>	<u>11,042</u>
Total	9,829	11,042
<b>HPSOVSF</b>		
Active	\$ 0	\$ 0
Retiree	<u>15,905</u>	<u>17,183</u>
Total	\$ 15,905	\$ 17,183
<b>TPOVSF</b>		
Active	\$ 0	\$ 0
Retiree	<u>21,219</u>	<u>23,268</u>
Total	\$ 21,219	\$ 23,268
<b>TPSOVSF</b>		
Active	\$ 0	\$ 0
Retiree	<u>17,583</u>	<u>19,112</u>
Total	\$ 17,583	\$ 19,112
<b>Total VSF AL</b>	\$ 1,509,309	\$ 1,477,632

**Table VII-2**  
**VSF Member Data**

VARIABLE SUPPLEMENTS FUNDS		
MEMBERS INCLUDED IN THE JUNE 30, 2022 AND THE JUNE 30, 2021 ACTUARIAL VALUATIONS		
	June 30, 2022	June 30, 2021
<b>COVSF</b>		
Actives		
Number	6,738	8,054
Average Age	42.2	41.1
Retirees		
Number	9,056	8,544
Average Age	61.2	60.7
<b>HPOVSF</b>		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	119	127
Average Age	78.6	77.8
<b>HPSOVSF</b>		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	186	194
Average Age	78.1	77.2
<b>TPOVSF</b>		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	250	263
Average Age	78.3	77.3
<b>TPSOVSF</b>		
Actives		
Number	0	0
Average Age	0	0
Retirees		
Number	206	219
Average Age	78.4	77.7

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

(\$ Thousands)				
Valuation Date	June 30, 2022		June 30, 2021 <sup>1</sup>	
	MVA <sup>2</sup>	AVA	MVA <sup>3</sup>	AVA
<b>COVSF</b>	\$ 1,126,400	\$ 1,214,402	\$ 1,227,658	\$ 1,261,396
<b>HPOVSF</b>	0	0	0	0
<b>HPSOVSF</b>	0	0	0	0
<b>TPOVSF</b>	0	0	0	0
<b>TPSOVSF</b>	0	0	0	0
<b>TOTAL</b>	\$ 1,126,400	\$ 1,214,402	\$ 1,227,658	\$ 1,261,396

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

<sup>2</sup> Includes Accrued Benefits Payable of \$53,589,000 for COVSF.

<sup>3</sup> Includes Accrued Benefits Payable of \$52,271,000 for COVSF.

**Table VII-4**  
**Development of COVSF Actuarial Value of Assets**

(\$ Thousands)		
Valuation Date	June 30, 2022	June 30, 2021
1. Market Value of Assets (MVA)		
a. Beginning of Year (BOY) <sup>1</sup>	\$ 1,227,658	\$ 403,710
b. End of Year (EOY) <sup>2</sup>	\$ 1,126,400	\$ 1,227,658
2. Contributions		
a. Employee	\$ 0	\$ 0
b. Employer	0	0
c. Total Contributions	\$ 0	\$ 0
3. Net Investment Income		
a. Investment Income	\$ 2,507	\$ 434
b. Investment Expenses	0	0
c. Total Net Investment Income	\$ 2,507	\$ 434
4. Benefit Payments and Other Cash Flow	\$ (103,765)	\$ (101,048)
5. Preliminary Transferable Earnings from NYCERS to COVSF - EOY <sup>3</sup>	\$ 0	\$ 924,562
6. Net Cash Flow (2.c. + 4. + 5.)	\$ (103,765)	\$ 823,514
7. Expected Investment Return (EIR)	\$ 82,366	\$ 24,783
8. Unexpected Investment Return (UIR) (3.c. - 7.)	\$ (79,859)	\$ (24,349)
9. AVA @ EOY		
a. AVA @ BOY	\$ 1,261,396	\$ 422,722
b. Net Cash Flow (6.)	(103,765)	823,514
c. Expected Investment Return (7.)	82,366	24,783
d. Phase in of UIR		
20% * UIR for prior year	\$ (15,972)	\$ (4,870)
20% * UIR for second prior year	(4,870)	(4,753)
20% * UIR for third prior year	(4,753)	N/A
20% * UIR for fourth prior year	N/A	N/A
20% * UIR for fifth prior year	N/A	N/A
Total	\$ (25,595)	\$ (9,623)
<b>e. AVA (9.a. + 9.b. + 9.c. + 9.d.)</b>	<b>\$ 1,214,402</b>	<b>\$ 1,261,396</b>

<sup>1</sup> Includes Accrued Benefits Payable for 6/30/2021 of \$52,271,000 and Accrued Benefits Payable for 6/30/2020 of \$50,462,000.

<sup>2</sup> Includes Accrued Benefits Payable for 6/30/2022 of \$53,589,000 and Accrued Benefits Payable for 6/30/2021 of \$52,271,000.

<sup>3</sup> Reflect 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**  
**Transferable Earnings Calculation as of June 30, 2022**

(\$ Thousands)	
Total NYCERS Pension Fund	
1. FY2022 Equity Earnings	\$ (4,353,905)
2. FY2022 Hypothetical Earnings	\$ 1,232,998
3. FY2022 Excess Earnings (1. - 2.)	\$ (5,586,903)
4. Deficit at June 30, 2021	\$ 0
5. Hypothetical Interest Rate (HIR)	2.223%
6. Deficit with interest (4. x (1+HIR))	\$ 0
7. Potential Transferable Earnings (3. - 6.), not less than zero	\$ 0
	<b>COVSF</b>
Allocations to VSF	
8. Allocation Percentage	5.737%
9. Potential Transferable Earnings (7. x 8.)	\$ 0
10. APV of Accumulated Plan Benefits	\$ 1,387,844
11. MVA Prior to Transferable Earnings	\$ 1,126,400
12. Unfunded APV of Accumulated Plan Benefits = (10. - 11.), not less than zero	\$ 261,444
13. Transferable Earnings Payable (Lesser of 9. and 12., not less than zero)	\$ 0

## 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**

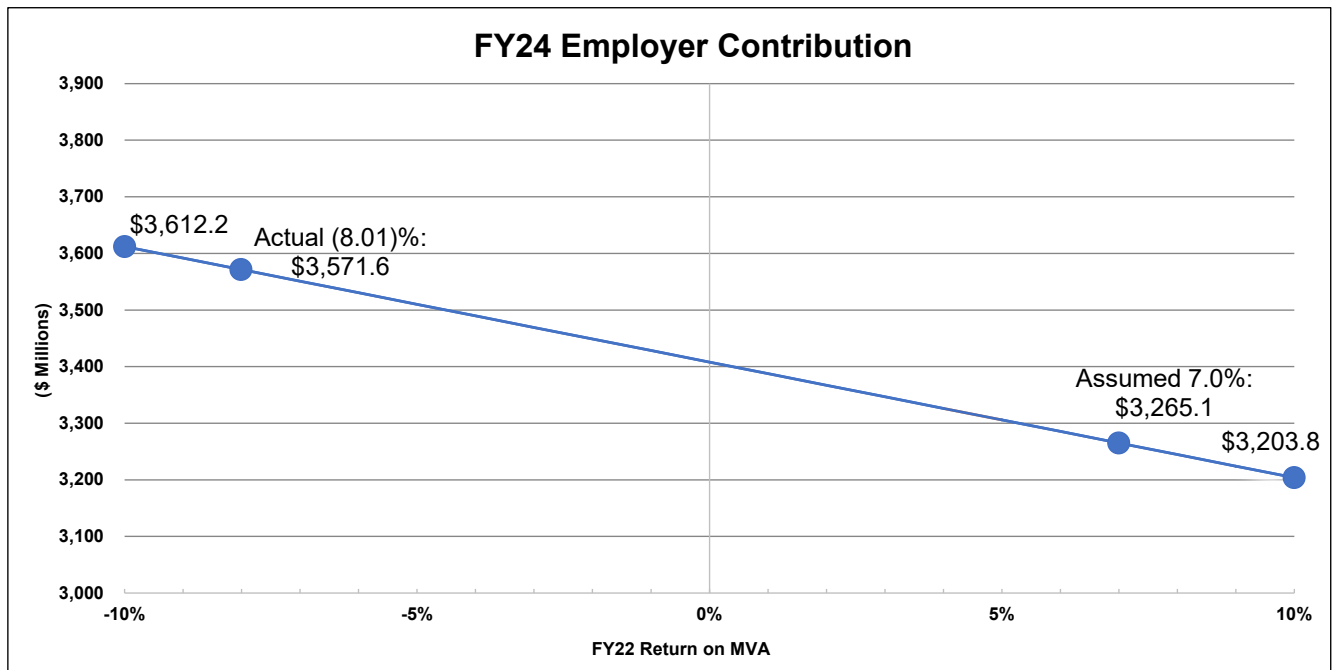
The funded status of NYCERS depends highly on the realization of the actuarial assumptions used, certain demographic characteristics of the Plan, and other factors. Risks faced by the Plan are described in this Section and have been separated into high, medium, and other risk categories.

## 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%.

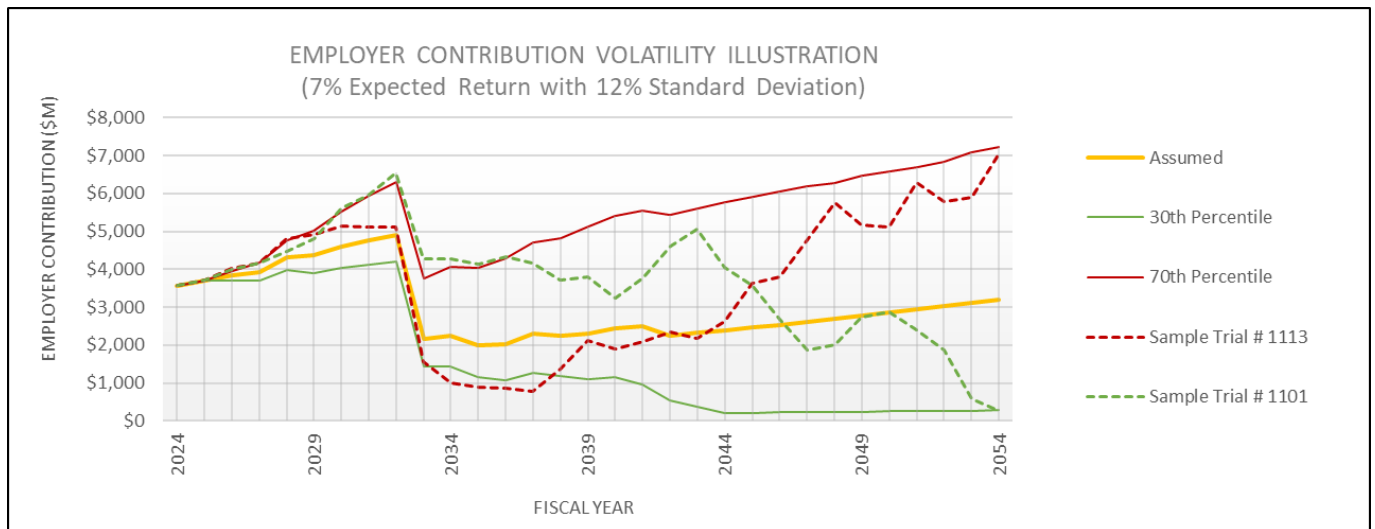
The graph below illustrates the potential FY24 employer contribution for a range of investment return outcomes if returns had differed from the assumed rate of return (i.e., from -10% to 10%). In addition, the actual investment return and employer contribution are shown.



### Investment Risk: The Risk of Volatile 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.

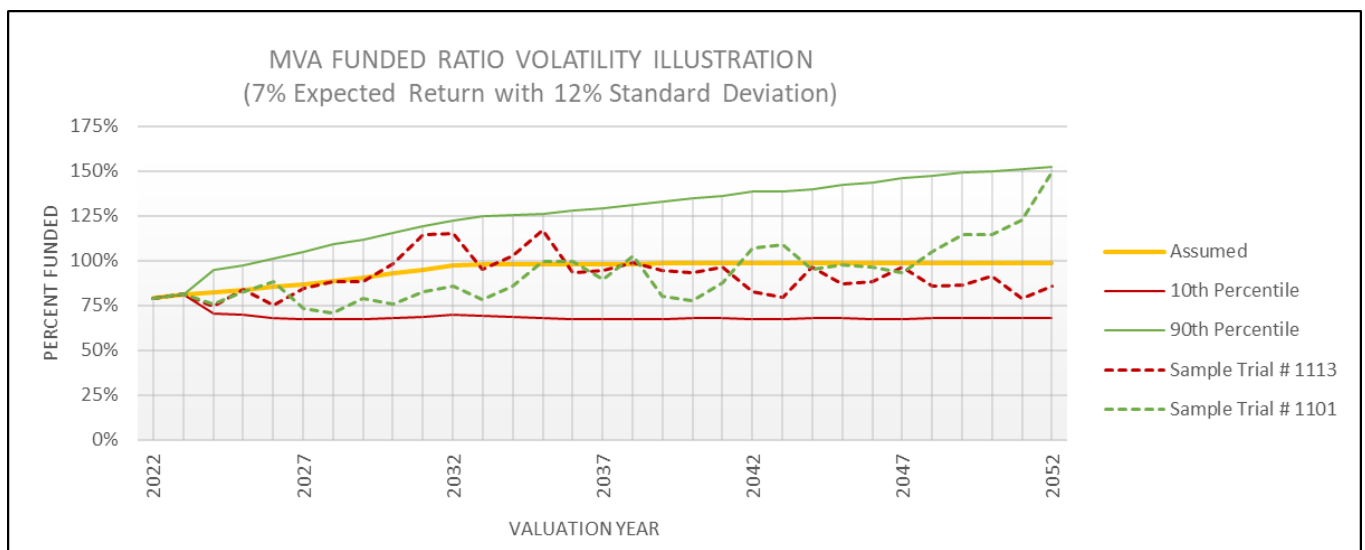
The yellow line in the charts shows the results if investment returns were exactly 7% as expected. The two solid lines show results for the indicated percentile range and together frame a range of results based on all 5,000 trials. The two dashed lines illustrate sample results from among the 5,000 trials.



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 150% 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 \$7.0B (above) with a corresponding funded ratio of approximately 86% (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.

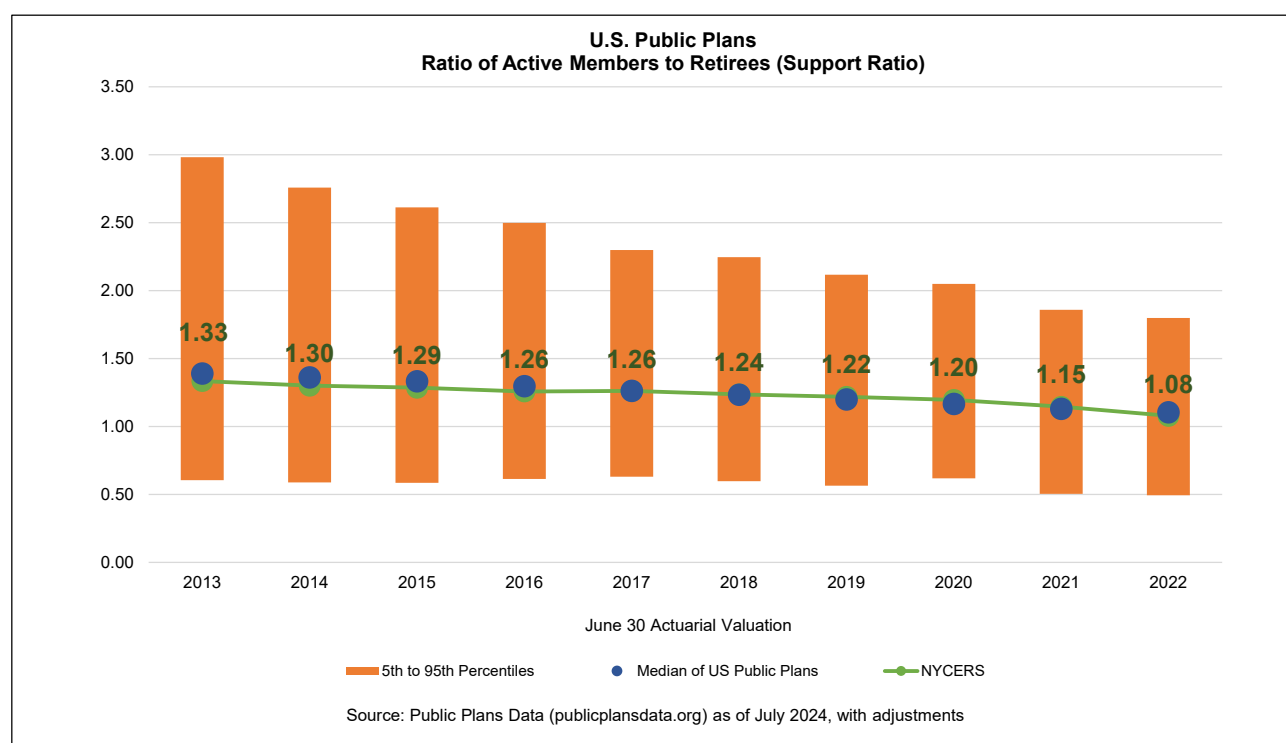


## Maturity Risk: The Risk of Demographic Imbalance

As plans mature, contribution volatility can increase as retiree liabilities and total assets grow faster than active liabilities and payroll. In this subsection, the maturity of the Plan is examined with several metrics.

### Ratio of Active Members to Retirees (Support Ratio)

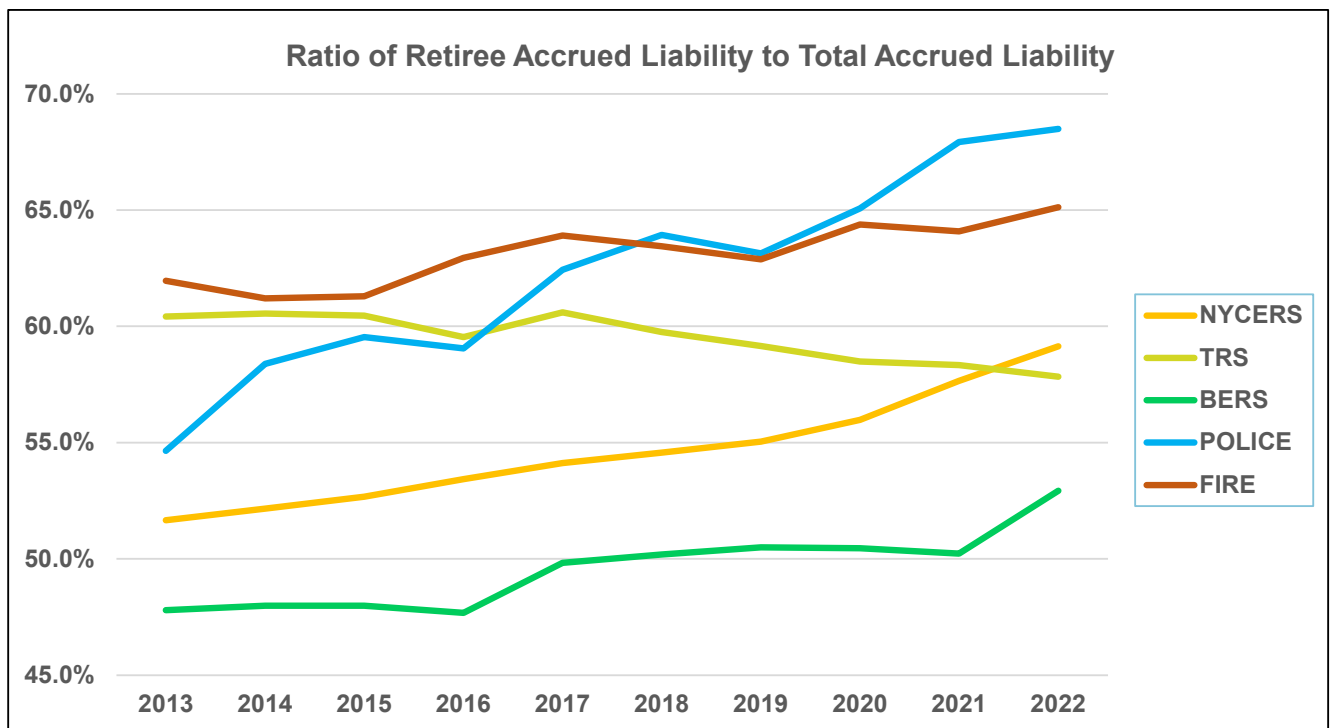
A plan's Support Ratio (i.e., the ratio of active members to retirees) is an indicator of the Plan's maturity level. Lower Support Ratios have higher contribution volatility. In a plan's early years, the ratio is very high as the plan contains mostly active members. As it matures, more active members 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, as expected, this ratio has been declining over time as the Plan continues to mature.



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 1.39 in the 2013 valuation year to 1.10 in the 2022 valuation year. Likewise, over that same period, the Plan's Support Ratio declined from 1.33 to 1.08.

## Ratio of Retiree Accrued Liability to Total Accrued Liability

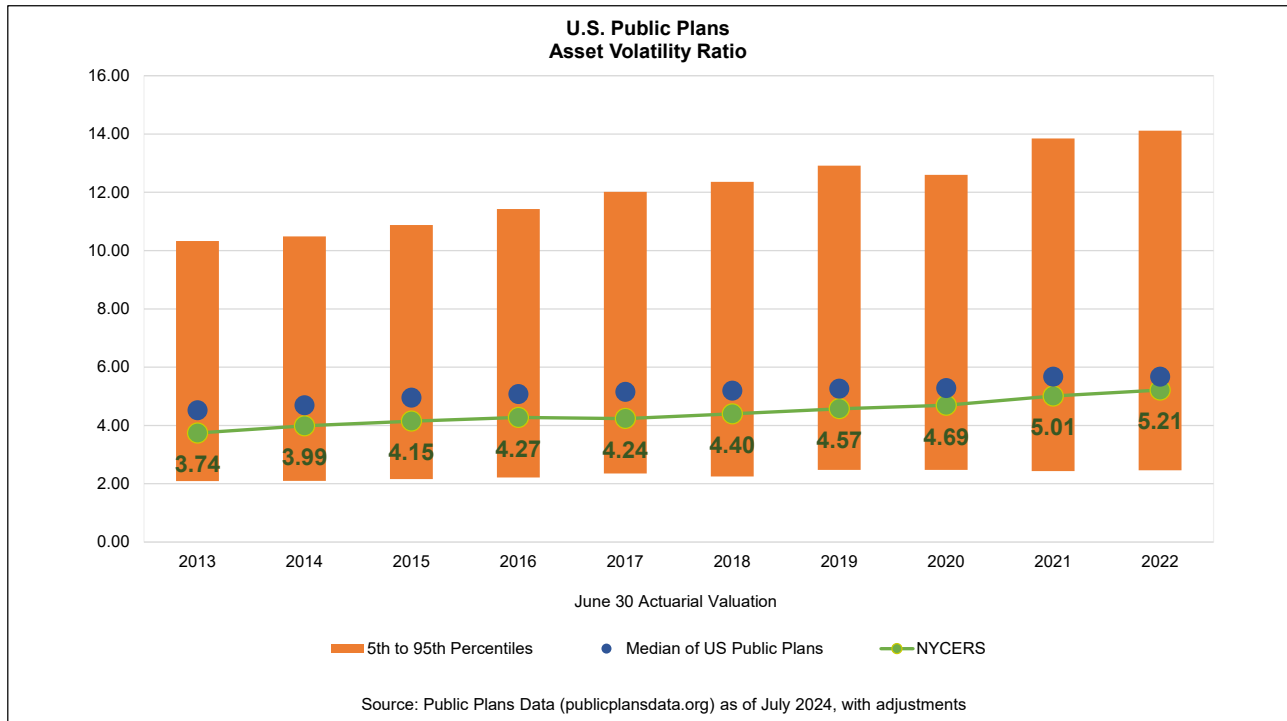
A plan's ratio of retiree liabilities to its total liabilities is also a measure of its maturity. A new pension plan begins with this ratio at zero; as the plan matures, the ratio increases. This ratio is shown in the graph below for NYCERS; the other New York City Retirement Systems<sup>1</sup> (NYCRS) are included for comparison. The ratio for NYCERS has been trending upward over time as expected as the Plan matures.



<sup>1</sup> 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 matures, AVR's 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. Likewise, large investment gains in more mature plans decrease contributions as a percentage of payroll more than comparable gains would in less mature plans. This leads to additional volatility.

Based on these metrics, the Plan is maturing as expected and contribution volatility will likely increase over time. If contribution volatility is of concern, asset allocation adjustments can be considered as a means of reducing this volatility.



## 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, 2022	
Valuation Date	June 30, 2022
<b>Results at 7.0%</b>	
1. Accrued Liability (AL)	\$ 97,771,536,990
2. Actuarial Value of Assets (AVA)	<u>80,653,520,000</u>
3. Unfunded Accrued Liability (AVA Basis) (1. - 2.)	\$ 17,118,016,990
4. Normal Cost	\$ 1,583,506,220
<b>Results at 6.0%</b>	
1. Accrued Liability (AL)	\$ 108,638,493,666
2. Actuarial Value of Assets (AVA)	<u>80,653,520,000</u>
3. Unfunded Accrued Liability (AVA Basis) (1. - 2.)	\$ 27,984,973,666
4. Normal Cost	\$ 2,099,207,447
<b>Sensitivity Analysis for 1.0% Reduction in Interest Rate</b>	
1. Increase in Accrued Liability	11%
2. Increase in Unfunded Accrued Liability	63%
3. Increase in Normal Cost	33%

### 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.<sup>1</sup>

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.”<sup>2</sup> 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.<sup>3</sup> In its most recent claims report, the Comptroller reports that in FY2023, NYC settled 13,227 claims and lawsuits for \$1.45 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.

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<sup>1</sup> 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*.

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

<sup>3</sup> <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 – 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:

<b>Employer</b>	<b>Abbreviation</b>
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:

<b>Group</b>	<b>Eligible Employees</b>	<b>Abbreviation</b>
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.

<b>Tier by Group and Hire Date</b>	<b>IDA</b>	<b>COR</b>	<b>SAN</b>	<b>All Other Groups</b>
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 <sup>1</sup>			Tier 6

Unless otherwise noted, Tier 1 and Tier 2 provisions are hereafter omitted for brevity<sup>2</sup>, 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](http://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:

<b>Group/Plan(s)</b>	<b>Contribution Rate</b>	<b>Period</b>
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:

<b>Lookback Wages</b>	<b>BMC Contribution Rate</b>
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%

<sup>1</sup> Sometimes denoted Tier 3R for clarity.

<sup>2</sup> Approximately 0.1% of active members as of June 30, 2022 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% <sup>1</sup>	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%	20
SAN Tier 3 22-year enhanced disability plan	1.30%	25
COR Tier 3 20-year plan <sup>2</sup>	3.61% or 4.61%	20
COR Tier 3 22-year enhanced disability plan	0.90%	25
TBTA 20-year plans <sup>2</sup>	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.

<sup>1</sup> Members in physically-taxing classifications contribute an additional 1.98%, on top of the 1.85%. Certain Tier 4 carpenter titles members who do not benefit from the PT plan are exempted from paying PT AMC.

<sup>2</sup> 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:

<b>Tier(s)</b>	<b>Plan Description</b>	<b>Minimum Age</b>	<b>Minimum Service</b>
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 <sup>1</sup>	55	25
4	Chapter 96 57/5 plan <sup>1</sup>	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 plans	N/A	20
3R	22-year plans	N/A	20
6	Basic 63/5 plan	63	5

2. Benefits:

<b>Tier</b>	<b>Plan Description</b>	<b>Benefit Formula</b>
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 <sup>2</sup> times additional Credited Service up to 10 more years

<sup>1</sup> 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.

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

<b>Tier</b>	<b>Plan Description</b>	<b>Benefit Formula</b>
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 20-year 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	<p><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</p> <p><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</p>
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	<p><u>If less than 20 years of Credited Service:</u>  1/60 times FAS times Credited Service</p> <p><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</p>

## 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:

<b>Tier</b>	<b>Plan Description</b>	<b>Minimum Age</b>	<b>Minimum Service</b>
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:

<b>Age</b>	<b>Early Retirement Factor</b>
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, DSH, 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 years<sup>1</sup>. The salary-based portion of the death benefit is reduced 3% for each year the member remains in service beyond age 60 (to a maximum reduction of 30% 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.

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

- iv. Retirees: The pre-retirement, salary-based death benefit, if eligible<sup>1</sup>, 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:

<b>Year of Death</b>	<b>Adjustment Factor</b>
1 <sup>st</sup> year after retirement	50%
2 <sup>nd</sup> year after retirement	25%
3 <sup>rd</sup> year or later after retirement	10%, or if greater, the benefit is 10% of the pre-retirement, salary-based death benefit in effect at age 60.

- 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.

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<sup>1</sup> 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 1<sup>st</sup>, 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**

None.

## SECTION X – CHAPTER AMENDMENTS

The June 30, 2022 actuarial valuation results reflect the following Chapter amendments from the prior five years.

- **Chapter 716 of the Laws of 2023** (Chapter 716/23) amends certain Tier 2, 3, 4 and 6 death benefit provisions for NYCERS, TRS and BERS to ensure continued compliance with OWBPA.
- **Chapter 708 of the Laws of 2023** (Chapter 708/23) exempts certain Tier 4 carpenter titles members, who would not benefit from their NYCERS Physically Taxing (PT) plan due to their age upon commencement, from paying PT AMCs, and provides a refund of 50% (the employee portion) of prior PT AMC contributions paid with interest.
- **Chapter 693 of the Laws of 2023** (Chapter 693/23) removes the age requirement from the TBTA 50/20 plan for Tier 4 and Tier 6 NYCERS members.
- **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 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) 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 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 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 783 of the Laws of 2022** (Chapter 783/22) extends the deadline for the COVID-19 Accidental Death Benefits from December 31, 2022 to December 31, 2024.

## SECTION XI – SUBSEQUENT EVENTS

The following legislation was adopted after the June 30, 2022 valuation date and could have an impact on future years' valuations:

- **Chapter 56 of the Laws of 2024** (Chapter 56/24) reduces the number of years used to calculate the Final Average Salary from 5 years to 3 years for certain Tier 3 and Tier 6 members of NYCERS.
- **Chapter 55 of the Laws of 2024** (Chapter 55/24) extends Chapter 56/22 by excluding overtime and compensation earned for supplemental work from wages used to calculate Tier 6 Basic Member Contribution Rates for two additional years.
- **Chapter 213 of the Laws of 2023** (Chapter 213/23) **and Chapter 162 of the Laws of 2024** (Chapter 162/24) extend the 3% COLA increase to beneficiaries receiving Special Accidental Death Benefits. Note that the June 30, 2022 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 88.

## 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 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, 2021 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% <sup>1</sup>	30.00%/8.00% <sup>2</sup>	10.00%	60.00%	25.00%
63	0.00%	20.00%/30.00% <sup>3</sup>	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%

<sup>1</sup> 8.00% only applies to Tier 6 members; 0.00% otherwise.

<sup>2</sup> 30.00% for Tiers 1-4 members and 8.00% for Tier 6 members.

<sup>3</sup> 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 <sup>1</sup>	
	Age	Rate	Service	Rate
	≤ 54	0.00%	≤ 19	0.00%
	55	2.00%	20	5.00%
	56	2.00%	21	2.00%
	57	2.00%	22	5.00%
	58	2.00%	23	2.00%
	59	3.00%	24	2.00%
	60	4.00%	≥ 25	N/A
	61	5.00%		
	62	0.00%		
	≥ 63	N/A		
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%	70.00%	20.00%
	55	60.00%	70.00%	20.00%
	56	60.00%	70.00%	20.00%
	57	60.00%	70.00%	20.00%
	58	60.00%	70.00%	20.00%
	59	60.00%	70.00%	20.00%
	60	60.00%	70.00%	20.00%
	61	60.00%	70.00%	30.00%
	62	60.00%	70.00%	40.00%
	≥ 63	100.00%	100.00%	100.00%

<sup>1</sup> 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% <sup>1</sup>	20.00%/15.00% <sup>2</sup>	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%

<sup>1</sup> 45.00% for Tier 1-4 members and 30.00% for Tier 3R members.

<sup>2</sup> 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% <sup>1</sup>	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%

<sup>1</sup> 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				
	Ordinary Disability		Accidental Disability	
Age	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 <sup>1</sup>	Merit Increase	Salary Increase <sup>1</sup>	Merit Increase	Salary Increase <sup>1</sup>	Merit Increase	Salary Increase <sup>1</sup>	Merit Increase	Salary Increase <sup>1</sup>
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%

<sup>1</sup> 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. **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.

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



13. **Group Life Insurance Plan:** The Employer Contribution includes an amount to fund the Group Life Insurance Plan. The Group Life Insurance amounts used in the valuation are as follows:

Group	Amount
General	
EMT	40,000
IDA	50,000
DIS	25,000
SPO,AUT,DSH,PCT	34,000
All Others	33,000
Correction	0
Sanitation	6,000
TBTA	16,000
Transit	4,000

14. **Obligors Allocation:** By statute, employer contributions are determined for NYCERS in total.

For purposes of allocating the employer contributions to the Obligors, the following are determined explicitly for each Obligor:

- a. Present Value of Future Benefits
- b. Present Value of Future Salaries
- c. Entry Age Normal Accrued Liability
- d. Present Value of Future Normal Costs
- e. Present Value of Future Employee Contributions
- f. Normal Cost

Administrative Expenses are allocated to each Obligor, pro-rata, in proportion to active member valuation salaries.

Actuarial Value of Assets are determined explicitly for each Obligor.

The contribution components are then determined for each Obligor.

## **SECTION XIII – SUMMARY OF DEMOGRAPHIC DATA**

The June 30, 2022 and June 30, 2021 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, 2022 and June 30, 2021.

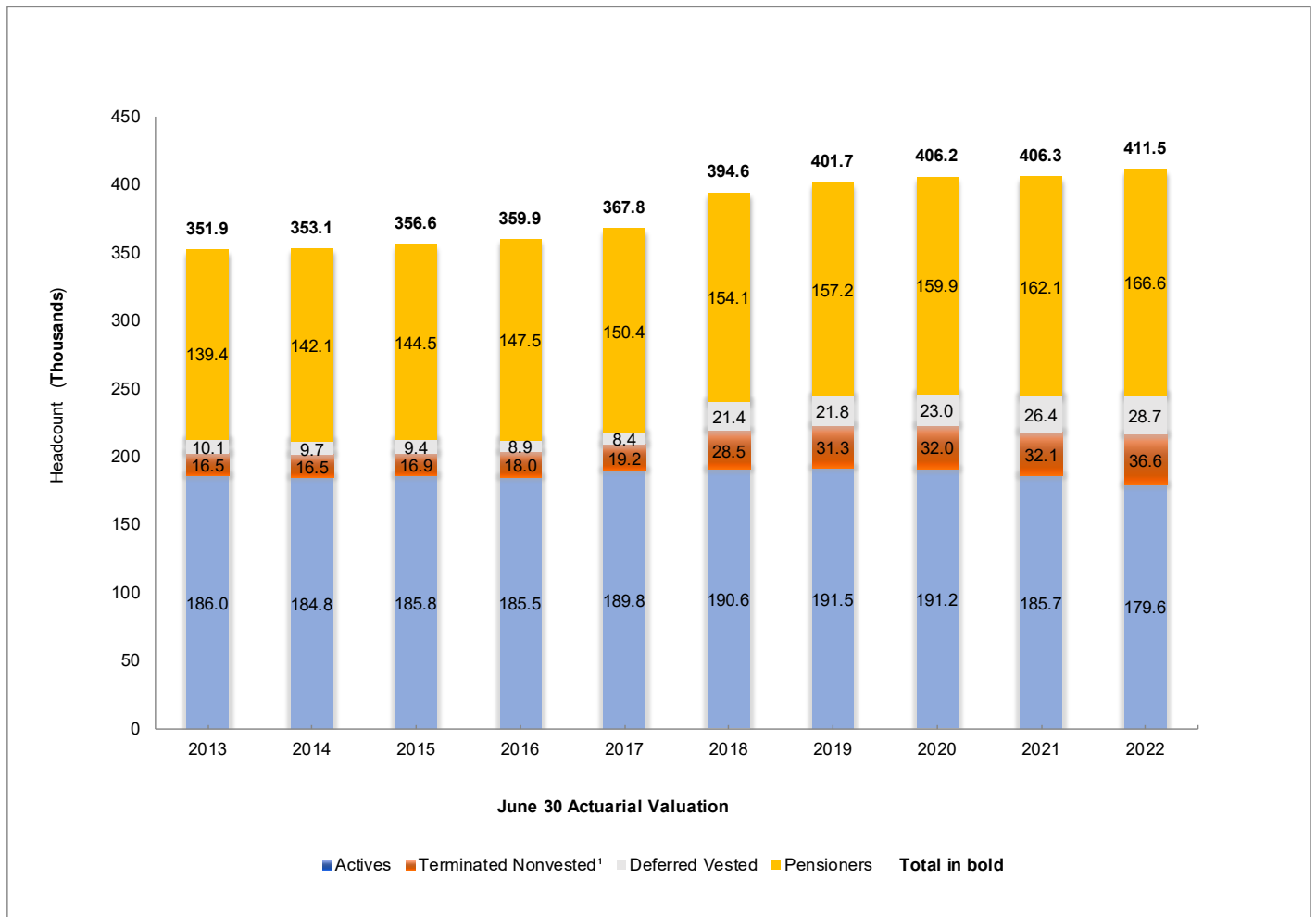
Beginning at June 30, 2020, NYCERS members who are no longer on payroll but not otherwise classified have been classified as Terminated Nonvested, or Deferred Vested members, using actuarial judgement and consideration of available data, including leave of absence data when available.

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)
<b>Number at June 30, 2021</b>	<b>185,732</b>	<b>32,058</b>	<b>26,383</b>	132,101	9,247	4,685	465	15,651	<b>162,149</b>	<b>406,322</b>
New Entrants	12,166	894	0	0	0	0	0	0	0	13,060
Rehires	4,856	(644)	(2,724)	0	0	0	0	0	0	1,488
Leaving Active Payroll	(6,920)	6,920	0	0	0	0	0	0	0	0
Vested Termination	(7,036)	(1,022)	8,058	0	0	0	0	0	0	0
Non-Vested Termination / Cashout	(1,284)	(1,496)	(433)	0	0	0	0	0	0	(3,213)
Accidental Death (from Active)	(3)	0	0	0	0	0	3	0	3	0
Ordinary Death (from Active)	(333)	(48)	(505)	0	0	0	0	0	0	(886)
Service Retirement	(7,471)	(20)	(1,936)	9,427	0	0	0	0	9,427	0
Ordinary Disability Retirement	(66)	(1)	(132)	0	199	0	0	0	199	0
Accidental Disability Retirement	(45)	(5)	(33)	0	0	83	0	0	83	0
Reclassifications	0	0	0	(66)	20	44	(16)	18	0	0
Death with Beneficiary	0	0	0	(938)	(94)	(12)	0	1,044	0	0
Death without Beneficiary	0	0	0	(4,020)	(391)	(145)	(35)	(933)	(5,524)	(5,524)
Pension Payroll Adjustments	0	0	6	61	35	2	16	180	294	300
Net Change	(6,136)	4,578	2,301	4,464	(231)	(28)	(32)	309	4,482	5,225
<b>Number at June 30, 2022</b>	<b>179,596</b>	<b>36,636</b>	<b>28,684</b>	136,565	9,016	4,657	433	15,960	<b>166,631</b>	<b>411,547</b>

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



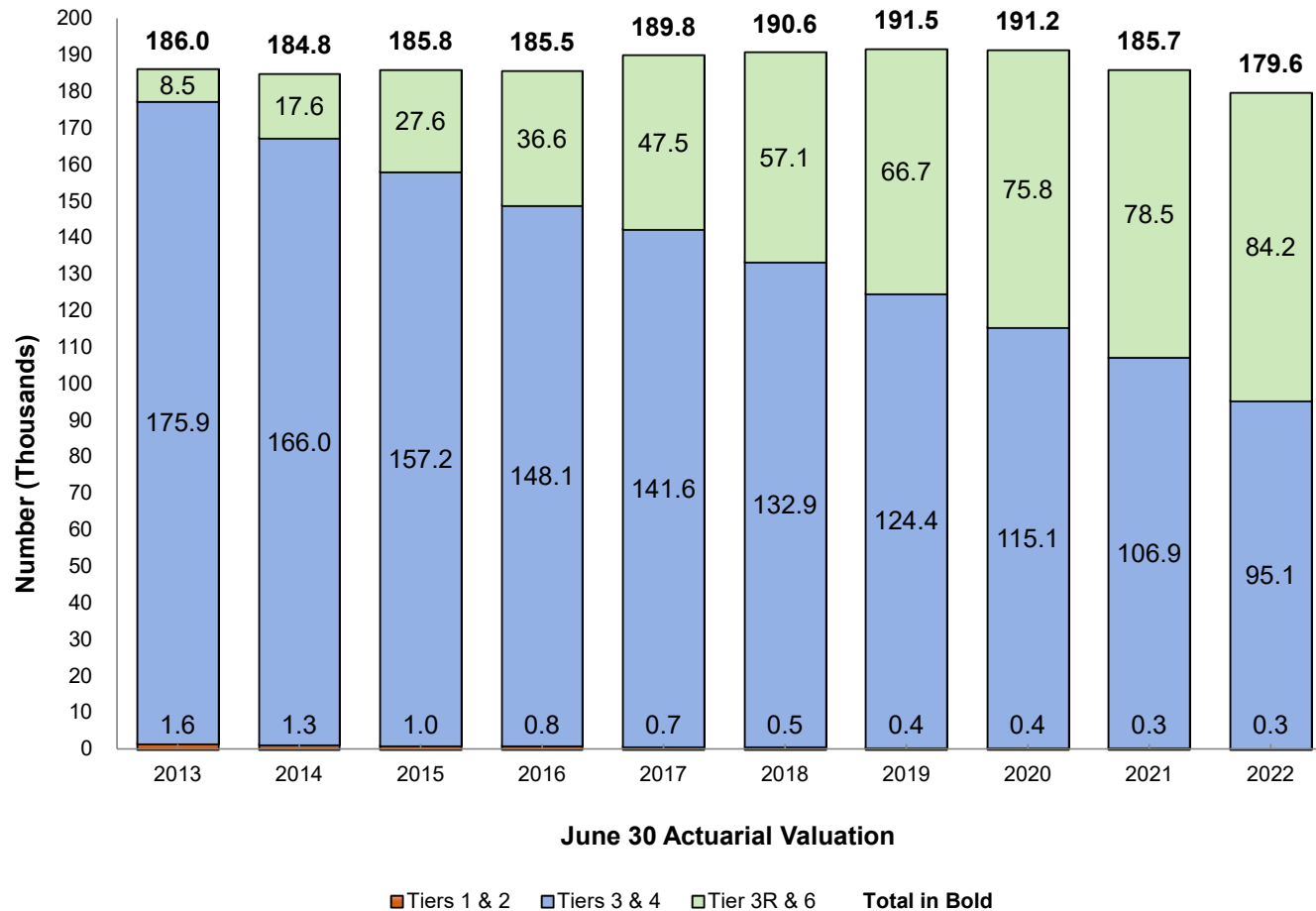
<sup>1</sup> Actives Off Payroll prior to June 30, 2020.

**Table XIII-3**  
**Summary of Active Membership**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM		
ACTIVE MEMBERS INCLUDED IN THE JUNE 30, 2022 AND THE JUNE 30, 2021 ACTUARIAL VALUATIONS		
	June 30, 2022	June 30, 2021
Number		
Males	99,092	100,973
Females	<u>80,504</u>	<u>84,759</u>
Total	179,596	185,732
Annual Salary <sup>1</sup>		
Males	\$ 9,001,226,389	\$ 8,871,671,260
Females	<u>6,466,547,281</u>	<u>6,423,054,579</u>
Total	\$ 15,467,773,670	\$ 15,294,725,839
Average Salary <sup>1</sup>		
Males	\$ 90,837	\$ 87,862
Females	<u>80,326</u>	<u>75,780</u>
Total Average	\$ 86,125	\$ 82,348
Average Age		
Males	47.7	47.9
Females	<u>48.0</u>	<u>48.0</u>
Total Average	47.9	47.9
Average Past Service		
Males	12.1	12.4
Females	<u>12.0</u>	<u>12.1</u>
Total Average	12.0	12.2

<sup>1</sup> 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**

<b>June 30 Actuarial Valuation</b>	<b>Number</b>	<b>Annual Salary</b>	<b>Average Annual Salary</b>	<b>Percentage Increase/ (Decrease) In Avg. Salary</b>
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%
2022	179,596	15,467,773,670	86,125	4.6%

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, 2022**

<b>Transit Authority</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP</b>	<b>ALL YEARS</b>
<i>NUMBER:</i>										
UNDER 20	17	0	0	0	0	0	0	0	0	17
20 TO 24	321	37	0	0	0	0	0	0	0	358
25 TO 29	926	171	1	0	0	0	0	0	0	1,098
30 TO 34	1,753	968	131	20	0	0	0	0	0	2,872
35 TO 39	1,639	1,883	530	121	29	0	0	0	0	4,202
40 TO 44	1,244	1,861	956	498	144	0	0	0	0	4,703
45 TO 49	924	1,536	890	897	665	69	1	0	0	4,982
50 TO 54	648	1,291	956	1,128	1,322	587	214	12	0	6,158
55 TO 59	423	1,043	850	1,145	1,547	682	522	100	1	6,313
60 TO 64	232	687	578	747	1,164	470	356	166	24	4,424
65 TO 69	71	278	272	319	432	167	124	64	46	1,773
70 & UP	7	65	76	128	154	62	53	26	48	619
<b>TOTAL</b>	<b>8,205</b>	<b>9,820</b>	<b>5,240</b>	<b>5,003</b>	<b>5,457</b>	<b>2,037</b>	<b>1,270</b>	<b>368</b>	<b>119</b>	<b>37,519</b>
<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	914	0	0	0	0	0	0	0	0	914
20 TO 24	21,020	3,411	0	0	0	0	0	0	0	24,431
25 TO 29	63,408	14,374	80	0	0	0	0	0	0	77,862
30 TO 34	126,147	82,597	12,355	2,161	0	0	0	0	0	223,260
35 TO 39	120,763	161,454	48,357	11,789	3,148	0	0	0	0	345,510
40 TO 44	91,977	162,195	87,587	48,728	15,145	0	0	0	0	405,631
45 TO 49	70,140	134,149	82,117	86,326	67,884	7,187	144	0	0	447,946
50 TO 54	50,083	113,869	86,788	108,243	132,711	61,667	23,873	1,348	0	578,580
55 TO 59	33,179	91,222	78,363	109,092	153,842	70,626	56,835	10,981	112	604,252
60 TO 64	17,460	60,546	52,675	70,813	112,824	48,304	37,707	18,062	2,541	420,931
65 TO 69	5,838	24,448	24,227	29,779	40,985	16,841	12,522	7,328	5,052	167,019
70 & UP	710	5,686	6,893	11,810	14,531	6,117	5,195	2,956	4,786	58,684
<b>TOTAL <sup>1</sup></b>	<b>601,637</b>	<b>853,952</b>	<b>479,442</b>	<b>478,741</b>	<b>541,068</b>	<b>210,741</b>	<b>136,275</b>	<b>40,675</b>	<b>12,491</b>	<b>3,355,021</b>
<i>AVERAGE SALARIES: <sup>2</sup></i>										
UNDER 20	53,757	0	0	0	0	0	0	0	0	53,757
20 TO 24	65,483	92,190	0	0	0	0	0	0	0	68,243
25 TO 29	68,475	84,056	80,478	0	0	0	0	0	0	70,912
30 TO 34	71,961	85,327	94,316	108,040	0	0	0	0	0	77,737
35 TO 39	73,681	85,743	91,239	97,428	108,540	0	0	0	0	82,225
40 TO 44	73,936	87,155	91,618	97,848	105,172	0	0	0	0	86,249
45 TO 49	75,909	87,337	92,266	96,238	102,081	104,154	144,463	0	0	89,913
50 TO 54	77,288	88,202	90,782	95,960	100,386	105,054	111,554	112,300	0	93,956
55 TO 59	78,438	87,461	92,192	95,277	99,445	103,557	108,879	109,807	112,272	95,716
60 TO 64	75,257	88,132	91,133	94,796	96,928	102,773	105,917	108,809	105,869	95,147
65 TO 69	82,219	87,943	89,069	93,350	94,872	100,843	100,986	114,505	109,822	94,201
70 & UP	101,391	87,474	90,702	92,269	94,357	98,662	98,012	113,706	99,706	94,805
<b>TOTAL</b>	<b>73,326</b>	<b>86,960</b>	<b>91,497</b>	<b>95,691</b>	<b>99,151</b>	<b>103,456</b>	<b>107,303</b>	<b>110,531</b>	<b>104,965</b>	<b>89,422</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.



**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

		Housing Authority								
AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP ALL YEARS	
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	69	1	0	0	0	0	0	0	0	70
25 TO 29	250	68	3	0	0	0	0	0	0	321
30 TO 34	405	218	92	2	0	0	0	0	0	717
35 TO 39	361	293	232	60	3	0	0	0	0	949
40 TO 44	330	287	192	125	105	0	0	0	0	1,039
45 TO 49	243	225	206	175	263	124	0	0	0	1,236
50 TO 54	206	169	209	181	310	306	140	3	0	1,524
55 TO 59	147	163	170	156	283	253	283	67	1	1,523
60 TO 64	79	96	123	102	191	139	134	84	11	959
65 TO 69	27	42	37	33	67	30	25	18	13	292
70 & UP	9	8	11	10	27	13	8	7	7	100
TOTAL	2,126	1,570	1,275	844	1,249	865	590	179	32	8,730

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,397	77	0	0	0	0	0	0	0	3,475
25 TO 29	14,330	4,274	161	0	0	0	0	0	0	18,766
30 TO 34	24,589	14,162	6,154	181	0	0	0	0	0	45,086
35 TO 39	21,954	21,373	16,617	4,759	205	0	0	0	0	64,908
40 TO 44	20,473	21,223	15,325	10,750	7,954	0	0	0	0	75,724
45 TO 49	16,358	17,579	16,999	15,127	21,599	11,362	0	0	0	99,023
50 TO 54	14,194	13,130	16,890	14,887	25,508	27,280	13,279	279	0	125,447
55 TO 59	9,880	13,091	13,511	11,963	23,051	22,396	25,654	6,651	70	126,266
60 TO 64	5,211	7,208	9,498	7,944	15,641	12,598	11,594	7,930	991	78,613
65 TO 69	1,989	3,220	3,096	2,588	5,483	2,650	2,343	1,586	1,076	24,030
70 & UP	350	615	963	826	2,372	1,253	643	552	560	8,133
<b>TOTAL <sup>1</sup></b>	<b>132,725</b>	<b>115,951</b>	<b>99,213</b>	<b>69,025</b>	<b>101,812</b>	<b>77,538</b>	<b>53,513</b>	<b>16,997</b>	<b>2,697</b>	<b>669,472</b>

<i>AVERAGE SALARIES: <sup>2</sup></i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	49,239	77,022	0	0	0	0	0	0	0	49,636
25 TO 29	57,321	62,852	53,804	0	0	0	0	0	0	58,460
30 TO 34	60,714	64,965	66,890	90,384	0	0	0	0	0	62,882
35 TO 39	60,813	72,945	71,626	79,318	68,297	0	0	0	0	68,396
40 TO 44	62,040	73,947	79,816	86,003	75,748	0	0	0	0	72,882
45 TO 49	67,315	78,127	82,518	86,439	82,127	91,629	0	0	0	80,116
50 TO 54	68,904	77,690	80,813	82,249	82,284	89,150	94,851	93,062	0	82,315
55 TO 59	67,208	80,313	79,475	76,689	81,452	88,522	90,649	99,264	69,980	82,906
60 TO 64	65,966	75,082	77,218	77,879	81,888	90,630	86,520	94,405	90,046	81,974
65 TO 69	73,663	76,663	83,678	78,430	81,841	88,318	93,729	88,083	82,760	82,296
70 & UP	38,899	76,920	87,518	82,585	87,834	96,391	80,352	78,820	80,044	81,335
<b>TOTAL</b>	<b>62,430</b>	<b>73,854</b>	<b>77,814</b>	<b>81,784</b>	<b>81,515</b>	<b>89,639</b>	<b>90,699</b>	<b>94,956</b>	<b>84,271</b>	<b>76,686</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

<b>Health and Hospitals Corporation</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP</b>	<b>ALL YEARS</b>
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	207	0	0	0	0	0	0	0	0	<b>207</b>
25 TO 29	1,186	22	0	0	0	0	0	0	0	<b>1,208</b>
30 TO 34	2,090	370	29	1	0	0	0	0	0	<b>2,490</b>
35 TO 39	2,162	738	368	55	2	0	0	0	0	<b>3,325</b>
40 TO 44	1,871	877	648	281	48	1	0	0	0	<b>3,726</b>
45 TO 49	1,639	848	775	502	217	16	0	0	0	<b>3,997</b>
50 TO 54	1,372	830	842	725	407	196	85	3	0	<b>4,460</b>
55 TO 59	1,089	810	899	832	611	421	282	47	0	<b>4,991</b>
60 TO 64	623	566	657	670	525	424	347	136	18	<b>3,966</b>
65 TO 69	208	238	299	287	200	151	125	66	42	<b>1,616</b>
70 & UP	41	65	100	94	78	46	54	37	30	<b>545</b>
<b>TOTAL</b>	<b>12,488</b>	<b>5,364</b>	<b>4,617</b>	<b>3,447</b>	<b>2,088</b>	<b>1,255</b>	<b>893</b>	<b>289</b>	<b>90</b>	<b>30,531</b>

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	13,232	0	0	0	0	0	0	0	0	<b>13,232</b>
25 TO 29	88,769	1,873	0	0	0	0	0	0	0	<b>90,641</b>
30 TO 34	162,376	34,505	2,490	54	0	0	0	0	0	<b>199,425</b>
35 TO 39	172,946	64,063	32,739	4,899	145	0	0	0	0	<b>274,792</b>
40 TO 44	146,014	75,171	56,108	24,838	4,437	85	0	0	0	<b>306,653</b>
45 TO 49	126,635	75,010	70,543	48,817	20,391	1,888	0	0	0	<b>343,283</b>
50 TO 54	108,569	69,031	74,018	67,056	38,749	20,197	8,498	252	0	<b>386,368</b>
55 TO 59	84,027	67,141	77,098	73,510	57,188	43,232	28,752	4,429	0	<b>435,379</b>
60 TO 64	48,254	48,372	56,589	57,516	47,811	41,804	35,591	14,784	1,623	<b>352,344</b>
65 TO 69	17,469	22,925	25,566	24,169	17,646	14,945	13,066	6,602	4,548	<b>146,938</b>
70 & UP	4,021	6,017	8,833	8,222	7,785	4,462	5,714	3,851	3,432	<b>52,339</b>
<b>TOTAL <sup>1</sup></b>	<b>972,312</b>	<b>464,106</b>	<b>403,985</b>	<b>309,081</b>	<b>194,153</b>	<b>126,613</b>	<b>91,622</b>	<b>29,917</b>	<b>9,603</b>	<b>2,601,393</b>

<i>AVERAGE SALARIES: <sup>2</sup></i>										
UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	63,920	0	0	0	0	0	0	0	0	<b>63,920</b>
25 TO 29	74,847	85,119	0	0	0	0	0	0	0	<b>75,034</b>
30 TO 34	77,692	93,256	85,865	53,858	0	0	0	0	0	<b>80,090</b>
35 TO 39	79,994	86,806	88,966	89,069	72,344	0	0	0	0	<b>82,644</b>
40 TO 44	78,041	85,714	86,587	88,390	92,437	84,872	0	0	0	<b>82,301</b>
45 TO 49	77,264	88,455	91,023	97,244	93,969	117,990	0	0	0	<b>85,885</b>
50 TO 54	79,132	83,169	87,907	92,491	95,207	103,046	99,974	83,880	0	<b>86,630</b>
55 TO 59	77,160	82,890	85,760	88,354	93,598	102,690	101,958	94,234	0	<b>87,233</b>
60 TO 64	77,454	85,463	86,133	85,845	91,069	98,594	102,569	108,703	90,166	<b>88,841</b>
65 TO 69	83,988	96,325	85,505	84,213	88,231	98,973	104,531	100,026	108,291	<b>90,927</b>
70 & UP	98,080	92,567	88,333	87,469	99,810	97,001	105,821	104,091	114,408	<b>96,034</b>
<b>TOTAL</b>	<b>77,860</b>	<b>86,522</b>	<b>87,499</b>	<b>89,667</b>	<b>92,985</b>	<b>100,887</b>	<b>102,600</b>	<b>103,520</b>	<b>106,705</b>	<b>85,205</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

<b>Triborough Bridge and Tunnel Authority</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP ALL YEARS</b>	
<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	9	5	0	0	0	0	0	0	0	14
30 TO 34	21	21	4	0	0	0	0	0	0	46
35 TO 39	19	39	23	4	0	0	0	0	0	85
40 TO 44	18	41	44	23	17	0	0	0	0	143
45 TO 49	19	39	77	59	49	2	0	0	0	245
50 TO 54	11	26	43	48	43	12	4	1	0	188
55 TO 59	5	16	25	35	28	15	16	3	1	144
60 TO 64	5	14	13	17	16	8	15	7	0	95
65 TO 69	1	3	4	10	10	3	4	3	2	40
70 & UP	0	1	1	0	2	0	4	1	0	9
<b>TOTAL</b>	<b>108</b>	<b>205</b>	<b>234</b>	<b>196</b>	<b>165</b>	<b>40</b>	<b>43</b>	<b>15</b>	<b>3</b>	<b>1,009</b>
<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	812	462	0	0	0	0	0	0	0	1,274
30 TO 34	1,909	2,041	450	0	0	0	0	0	0	4,400
35 TO 39	1,828	4,013	2,635	492	0	0	0	0	0	8,968
40 TO 44	1,630	4,580	4,851	2,838	2,097	0	0	0	0	15,996
45 TO 49	1,974	4,478	8,283	7,119	6,141	304	0	0	0	28,301
50 TO 54	1,110	2,886	4,740	5,398	5,147	1,796	699	91	0	21,868
55 TO 59	659	1,648	2,797	3,957	3,431	1,908	1,960	440	206	17,007
60 TO 64	550	1,627	1,234	1,904	1,965	1,134	2,377	1,065	0	11,857
65 TO 69	95	421	494	1,034	995	456	531	348	300	4,674
70 & UP	0	181	74	0	175	0	461	83	0	973
<b>TOTAL <sup>1</sup></b>	<b>10,569</b>	<b>22,337</b>	<b>25,559</b>	<b>22,741</b>	<b>19,951</b>	<b>5,599</b>	<b>6,028</b>	<b>2,028</b>	<b>507</b>	<b>115,318</b>
<i>AVERAGE SALARIES: <sup>2</sup></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	90,242	92,461	0	0	0	0	0	0	0	91,034
30 TO 34	90,919	97,174	112,594	0	0	0	0	0	0	95,660
35 TO 39	96,214	102,894	114,583	123,022	0	0	0	0	0	105,511
40 TO 44	90,544	111,708	110,257	123,390	123,327	0	0	0	0	111,858
45 TO 49	103,901	114,827	107,574	120,668	125,332	152,162	0	0	0	115,512
50 TO 54	100,939	111,016	110,221	112,448	119,707	149,691	174,680	91,458	0	116,317
55 TO 59	131,877	102,997	111,897	113,051	122,529	127,221	122,490	146,798	206,378	118,106
60 TO 64	110,052	116,241	94,925	111,983	122,807	141,761	158,475	152,145	0	124,805
65 TO 69	95,406	140,167	123,488	103,370	99,487	151,951	132,824	115,978	150,231	116,849
70 & UP	0	180,629	73,635	0	87,618	0	115,165	83,039	0	108,133
<b>TOTAL</b>	<b>97,860</b>	<b>108,961</b>	<b>109,226</b>	<b>116,027</b>	<b>120,915</b>	<b>139,972</b>	<b>140,177</b>	<b>135,189</b>	<b>168,946</b>	<b>114,289</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

<b>CUNY Senior Colleges</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP ALL YEARS</b>	
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	6	0	0	0	0	0	0	0	0	<b>6</b>
25 TO 29	74	4	0	0	0	0	0	0	0	<b>78</b>
30 TO 34	208	81	16	0	0	0	0	0	0	<b>305</b>
35 TO 39	193	131	89	9	0	0	0	0	0	<b>422</b>
40 TO 44	132	111	96	68	13	0	0	0	0	<b>420</b>
45 TO 49	113	78	114	99	52	2	0	0	0	<b>458</b>
50 TO 54	132	85	108	116	85	41	3	0	0	<b>570</b>
55 TO 59	114	102	93	110	97	69	22	8	0	<b>615</b>
60 TO 64	97	88	90	83	88	51	40	20	3	<b>560</b>
65 TO 69	49	45	52	64	41	36	17	8	2	<b>314</b>
70 & UP	23	27	31	32	22	22	10	10	7	<b>184</b>
<b>TOTAL</b>	<b>1,141</b>	<b>752</b>	<b>689</b>	<b>581</b>	<b>398</b>	<b>221</b>	<b>92</b>	<b>46</b>	<b>12</b>	<b>3,932</b>

*SALARIES (IN THOUSANDS):*

UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	211	0	0	0	0	0	0	0	0	<b>211</b>
25 TO 29	3,496	199	0	0	0	0	0	0	0	<b>3,695</b>
30 TO 34	10,572	4,961	1,180	0	0	0	0	0	0	<b>16,713</b>
35 TO 39	10,732	8,132	6,790	625	0	0	0	0	0	<b>26,279</b>
40 TO 44	8,106	7,301	7,126	5,652	1,013	0	0	0	0	<b>29,199</b>
45 TO 49	6,083	5,713	8,407	7,610	4,002	209	0	0	0	<b>32,024</b>
50 TO 54	8,052	5,979	7,458	8,607	6,974	3,336	203	0	0	<b>40,608</b>
55 TO 59	6,357	6,452	6,135	7,880	7,458	5,652	2,200	746	0	<b>42,881</b>
60 TO 64	5,039	5,393	5,765	5,792	6,560	4,069	3,502	1,703	187	<b>38,011</b>
65 TO 69	2,279	2,352	3,317	3,789	2,667	2,611	1,356	510	196	<b>19,076</b>
70 & UP	1,546	1,284	1,444	1,790	1,380	1,614	587	676	520	<b>10,842</b>
<b>TOTAL <sup>1</sup></b>	<b>62,475</b>	<b>47,766</b>	<b>47,622</b>	<b>41,744</b>	<b>30,053</b>	<b>17,491</b>	<b>7,848</b>	<b>3,635</b>	<b>903</b>	<b>259,537</b>

*AVERAGE SALARIES: <sup>2</sup>*

UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	35,143	0	0	0	0	0	0	0	0	<b>35,143</b>
25 TO 29	47,241	49,742	0	0	0	0	0	0	0	<b>47,369</b>
30 TO 34	50,827	61,249	73,743	0	0	0	0	0	0	<b>54,797</b>
35 TO 39	55,608	62,075	76,294	69,431	0	0	0	0	0	<b>62,273</b>
40 TO 44	61,413	65,778	74,231	83,113	77,919	0	0	0	0	<b>69,521</b>
45 TO 49	53,832	73,241	73,747	76,864	76,964	104,487	0	0	0	<b>69,921</b>
50 TO 54	61,000	70,343	69,052	74,194	82,045	81,360	67,629	0	0	<b>71,242</b>
55 TO 59	55,764	63,254	65,968	71,639	76,885	81,915	100,011	93,244	0	<b>69,725</b>
60 TO 64	51,952	61,289	64,051	69,784	74,548	79,792	87,552	85,143	62,173	<b>67,876</b>
65 TO 69	46,519	52,263	63,787	59,199	65,044	72,518	79,753	63,706	98,117	<b>60,752</b>
70 & UP	67,224	47,549	46,591	55,941	62,711	73,374	58,676	67,626	74,329	<b>58,922</b>
<b>TOTAL</b>	<b>54,754</b>	<b>63,519</b>	<b>69,118</b>	<b>71,848</b>	<b>75,511</b>	<b>79,145</b>	<b>85,301</b>	<b>79,016</b>	<b>75,255</b>	<b>66,006</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

AGE \ SVC	All Other Non-NYC Entities									
	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	3	0	0	0	0	0	0	0	0	3
30 TO 34	4	2	0	0	0	0	0	0	0	6
35 TO 39	3	3	2	0	0	0	0	0	0	8
40 TO 44	3	4	3	3	0	0	0	0	0	13
45 TO 49	6	2	9	3	2	0	0	0	0	22
50 TO 54	3	1	11	4	5	3	0	0	0	27
55 TO 59	6	0	7	9	8	5	7	0	0	42
60 TO 64	2	0	3	3	2	6	4	4	0	24
65 TO 69	1	0	0	2	1	0	5	0	0	9
70 & UP	0	1	1	0	1	1	1	0	0	5
<b>TOTAL</b>	<b>31</b>	<b>13</b>	<b>36</b>	<b>24</b>	<b>19</b>	<b>15</b>	<b>17</b>	<b>4</b>	<b>0</b>	<b>159</b>

<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	232	0	0	0	0	0	0	0	0	232
30 TO 34	404	201	0	0	0	0	0	0	0	605
35 TO 39	411	403	248	0	0	0	0	0	0	1,062
40 TO 44	422	569	371	432	0	0	0	0	0	1,794
45 TO 49	638	347	1,066	401	259	0	0	0	0	2,711
50 TO 54	346	125	1,500	571	759	299	0	0	0	3,600
55 TO 59	497	0	939	1,091	1,184	855	1,039	0	0	5,604
60 TO 64	383	0	241	383	212	902	536	559	0	3,216
65 TO 69	67	0	0	299	177	0	704	0	0	1,247
70 & UP	0	168	158	0	149	191	89	0	0	755
<b>TOTAL <sup>1</sup></b>	<b>3,400</b>	<b>1,813</b>	<b>4,523</b>	<b>3,178</b>	<b>2,740</b>	<b>2,246</b>	<b>2,368</b>	<b>559</b>	<b>0</b>	<b>20,826</b>

<i>AVERAGE SALARIES: <sup>2</sup></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	77,211	0	0	0	0	0	0	0	0	77,211
30 TO 34	101,018	100,261	0	0	0	0	0	0	0	100,766
35 TO 39	137,006	134,350	124,089	0	0	0	0	0	0	132,781
40 TO 44	140,500	142,328	123,636	144,004	0	0	0	0	0	137,979
45 TO 49	106,350	173,403	118,463	133,737	129,390	0	0	0	0	123,230
50 TO 54	115,341	124,871	136,392	142,739	151,801	99,593	0	0	0	133,331
55 TO 59	82,863	0	134,109	121,218	147,963	170,969	148,410	0	0	133,436
60 TO 64	191,625	0	80,432	127,817	105,932	150,280	133,938	139,731	0	134,009
65 TO 69	67,200	0	0	149,503	176,982	0	140,854	0	0	138,606
70 & UP	0	168,000	157,500	0	149,429	191,100	88,791	0	0	150,964
<b>TOTAL</b>	<b>109,677</b>	<b>139,428</b>	<b>125,642</b>	<b>132,400</b>	<b>144,198</b>	<b>149,760</b>	<b>139,276</b>	<b>139,731</b>	<b>0</b>	<b>130,981</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

<b>New York City: Sanitation</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP ALL YEARS</b>	
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	1	0	0	0	0	0	0	0	0	<b>1</b>
25 TO 29	284	82	0	0	0	0	0	0	0	<b>366</b>
30 TO 34	518	307	44	0	0	0	0	0	0	<b>869</b>
35 TO 39	438	570	331	286	1	0	0	0	0	<b>1,626</b>
40 TO 44	223	379	291	582	101	1	0	0	0	<b>1,577</b>
45 TO 49	103	245	179	548	214	21	0	0	0	<b>1,310</b>
50 TO 54	48	121	114	352	248	99	7	0	0	<b>989</b>
55 TO 59	11	60	40	178	132	69	37	13	0	<b>540</b>
60 TO 64	3	26	16	72	40	28	26	12	1	<b>224</b>
65 TO 69	0	1	3	20	6	6	8	11	5	<b>60</b>
70 & UP	0	0	0	2	1	0	1	3	3	<b>10</b>
<b>TOTAL</b>	<b>1,629</b>	<b>1,791</b>	<b>1,018</b>	<b>2,040</b>	<b>743</b>	<b>224</b>	<b>79</b>	<b>39</b>	<b>9</b>	<b>7,572</b>

*SALARIES (IN THOUSANDS):*

UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	60	0	0	0	0	0	0	0	0	<b>60</b>
25 TO 29	18,455	7,755	0	0	0	0	0	0	0	<b>26,209</b>
30 TO 34	34,017	31,054	4,833	0	0	0	0	0	0	<b>69,904</b>
35 TO 39	28,753	60,534	37,335	35,199	138	0	0	0	0	<b>161,960</b>
40 TO 44	14,373	40,338	32,990	69,687	13,358	105	0	0	0	<b>170,850</b>
45 TO 49	6,712	26,266	20,354	66,079	27,520	2,617	0	0	0	<b>149,549</b>
50 TO 54	3,489	12,962	12,751	41,007	31,067	12,485	856	0	0	<b>114,617</b>
55 TO 59	712	6,452	4,554	20,977	16,426	8,591	5,289	1,690	0	<b>64,691</b>
60 TO 64	182	2,742	1,725	8,073	4,893	3,338	3,125	1,507	101	<b>25,687</b>
65 TO 69	0	97	332	2,183	753	710	929	1,444	658	<b>7,106</b>
70 & UP	0	0	0	203	110	0	140	349	301	<b>1,103</b>
<b>TOTAL <sup>1</sup></b>	<b>106,754</b>	<b>188,200</b>	<b>114,874</b>	<b>243,407</b>	<b>94,265</b>	<b>27,845</b>	<b>10,339</b>	<b>4,990</b>	<b>1,061</b>	<b>791,735</b>

*AVERAGE SALARIES: <sup>2</sup>*

UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	59,659	0	0	0	0	0	0	0	0	<b>59,659</b>
25 TO 29	64,981	94,570	0	0	0	0	0	0	0	<b>71,610</b>
30 TO 34	65,671	101,153	109,832	0	0	0	0	0	0	<b>80,442</b>
35 TO 39	65,647	106,201	112,794	123,073	138,409	0	0	0	0	<b>99,606</b>
40 TO 44	64,452	106,431	113,369	119,736	132,262	104,807	0	0	0	<b>108,339</b>
45 TO 49	65,167	107,210	113,710	120,582	128,600	124,599	0	0	0	<b>114,159</b>
50 TO 54	72,692	107,127	111,849	116,497	125,269	126,111	122,257	0	0	<b>115,891</b>
55 TO 59	64,759	107,535	113,862	117,849	124,440	124,504	142,939	129,981	0	<b>119,799</b>
60 TO 64	60,710	105,448	107,812	112,123	122,328	119,219	120,207	125,598	101,374	<b>114,673</b>
65 TO 69	0	96,827	110,701	109,128	125,466	118,283	116,182	131,254	131,698	<b>118,429</b>
70 & UP	0	0	0	101,329	109,770	0	139,566	116,474	100,466	<b>110,281</b>
<b>TOTAL</b>	<b>65,533</b>	<b>105,081</b>	<b>112,843</b>	<b>119,317</b>	<b>126,871</b>	<b>124,308</b>	<b>130,873</b>	<b>127,952</b>	<b>117,918</b>	<b>104,561</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

<b>New York City: Correction</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP ALL YEARS</b>	
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	9	1	0	0	0	0	0	0	0	<b>10</b>
25 TO 29	122	155	0	0	0	0	0	0	0	<b>277</b>
30 TO 34	186	697	75	0	0	0	0	0	0	<b>958</b>
35 TO 39	126	688	573	200	0	0	0	0	0	<b>1,587</b>
40 TO 44	78	429	429	527	59	0	0	0	0	<b>1,522</b>
45 TO 49	38	221	235	389	140	12	0	0	0	<b>1,035</b>
50 TO 54	13	100	163	292	119	49	5	0	0	<b>741</b>
55 TO 59	6	55	69	151	51	25	28	6	0	<b>391</b>
60 TO 64	1	21	30	59	22	15	4	9	7	<b>168</b>
65 TO 69	0	3	2	14	5	2	3	5	5	<b>39</b>
70 & UP	0	0	1	1	2	0	0	1	5	<b>10</b>
<b>TOTAL</b>	<b>579</b>	<b>2,370</b>	<b>1,577</b>	<b>1,633</b>	<b>398</b>	<b>103</b>	<b>40</b>	<b>21</b>	<b>17</b>	<b>6,738</b>

*SALARIES (IN THOUSANDS):*

UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	537	85	0	0	0	0	0	0	0	<b>622</b>
25 TO 29	8,784	16,523	0	0	0	0	0	0	0	<b>25,307</b>
30 TO 34	13,841	78,729	9,078	0	0	0	0	0	0	<b>101,648</b>
35 TO 39	9,845	80,362	70,997	26,269	0	0	0	0	0	<b>187,473</b>
40 TO 44	5,790	50,297	53,806	70,395	8,472	0	0	0	0	<b>188,760</b>
45 TO 49	2,778	26,050	29,530	51,489	19,860	1,756	0	0	0	<b>131,462</b>
50 TO 54	969	12,023	20,645	38,829	16,610	7,360	783	0	0	<b>97,220</b>
55 TO 59	513	6,445	8,665	20,207	7,026	3,710	4,308	1,076	0	<b>51,950</b>
60 TO 64	81	2,448	3,804	8,088	3,155	2,207	560	1,392	1,046	<b>22,780</b>
65 TO 69	0	333	252	1,931	713	379	436	728	721	<b>5,493</b>
70 & UP	0	0	151	124	275	0	0	275	700	<b>1,526</b>
<b>TOTAL <sup>1</sup></b>	<b>43,137</b>	<b>273,295</b>	<b>196,930</b>	<b>217,332</b>	<b>56,111</b>	<b>15,412</b>	<b>6,086</b>	<b>3,471</b>	<b>2,467</b>	<b>814,240</b>

*AVERAGE SALARIES: <sup>2</sup>*

UNDER 20	0	0	0	0	0	0	0	0	0	<b>0</b>
20 TO 24	59,663	84,614	0	0	0	0	0	0	0	<b>62,158</b>
25 TO 29	72,004	106,597	0	0	0	0	0	0	0	<b>91,361</b>
30 TO 34	74,412	112,955	121,037	0	0	0	0	0	0	<b>106,104</b>
35 TO 39	78,132	116,805	123,905	131,344	0	0	0	0	0	<b>118,130</b>
40 TO 44	74,229	117,242	125,423	133,577	143,599	0	0	0	0	<b>124,021</b>
45 TO 49	73,097	117,872	125,660	132,361	141,854	146,352	0	0	0	<b>127,016</b>
50 TO 54	74,523	120,235	126,657	132,977	139,577	150,207	156,663	0	0	<b>131,201</b>
55 TO 59	85,518	117,179	125,582	133,824	137,764	148,387	153,857	179,308	0	<b>132,864</b>
60 TO 64	80,557	116,559	126,809	137,087	143,396	147,159	139,914	154,625	149,374	<b>135,594</b>
65 TO 69	0	111,127	126,206	137,930	142,586	189,330	145,176	145,650	144,190	<b>140,850</b>
70 & UP	0	0	151,250	124,090	137,689	0	0	274,876	140,085	<b>152,602</b>
<b>TOTAL</b>	<b>74,502</b>	<b>115,314</b>	<b>124,876</b>	<b>133,088</b>	<b>140,981</b>	<b>149,632</b>	<b>152,162</b>	<b>165,267</b>	<b>145,117</b>	<b>120,843</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (cont'd)**

<b>All Other New York City</b>										
<b>AGE \ SVC</b>	<b>UNDER 5</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25-29</b>	<b>30-34</b>	<b>35-39</b>	<b>40 &amp; UP</b>	<b>ALL YEARS</b>
<i>NUMBER:</i>										
UNDER 20	7	0	0	0	0	0	0	0	0	7
20 TO 24	816	5	0	0	0	0	0	0	0	821
25 TO 29	3,968	715	3	0	0	0	0	0	0	4,686
30 TO 34	4,475	3,295	374	4	0	0	0	0	0	8,148
35 TO 39	3,558	3,639	2,397	442	5	0	0	0	0	10,041
40 TO 44	2,679	2,908	2,854	1,997	398	10	0	0	0	10,846
45 TO 49	1,918	2,166	2,242	2,343	1,461	178	0	0	0	10,308
50 TO 54	1,574	1,882	1,986	2,178	2,046	1,078	329	6	0	11,079
55 TO 59	1,293	1,597	1,679	1,896	1,901	1,676	1,678	421	6	12,147
60 TO 64	743	1,135	1,177	1,348	1,371	1,209	1,488	998	159	9,628
65 TO 69	280	537	538	645	550	411	449	355	201	3,966
70 & UP	82	162	239	273	275	165	182	162	189	1,729
<b>TOTAL</b>	<b>21,393</b>	<b>18,041</b>	<b>13,489</b>	<b>11,126</b>	<b>8,007</b>	<b>4,727</b>	<b>4,126</b>	<b>1,942</b>	<b>555</b>	<b>83,406</b>

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	194	0	0	0	0	0	0	0	0	194
20 TO 24	37,832	197	0	0	0	0	0	0	0	38,030
25 TO 29	232,421	49,714	224	0	0	0	0	0	0	282,359
30 TO 34	298,140	251,666	30,989	359	0	0	0	0	0	581,154
35 TO 39	249,186	291,383	208,184	41,490	481	0	0	0	0	790,725
40 TO 44	190,235	236,891	254,068	187,300	39,882	1,009	0	0	0	909,384
45 TO 49	138,303	177,381	194,379	214,222	144,353	18,874	0	0	0	887,512
50 TO 54	111,786	155,766	168,789	191,124	185,721	108,546	34,270	615	0	956,618
55 TO 59	95,352	124,602	140,828	160,663	165,298	156,396	172,980	44,571	780	1,061,470
60 TO 64	52,804	91,163	96,590	113,803	115,209	107,272	143,761	107,491	16,294	844,387
65 TO 69	20,937	42,712	42,200	53,913	46,693	35,998	41,293	36,489	21,097	341,331
70 & UP	5,365	11,584	18,910	23,003	22,329	15,207	16,659	15,429	18,582	147,067
<b>TOTAL <sup>1</sup></b>	<b>1,432,556</b>	<b>1,433,059</b>	<b>1,155,162</b>	<b>985,877</b>	<b>719,966</b>	<b>443,301</b>	<b>408,963</b>	<b>204,595</b>	<b>56,753</b>	<b>6,840,231</b>

<i>AVERAGE SALARIES: <sup>2</sup></i>										
UNDER 20	27,694	0	0	0	0	0	0	0	0	27,694
20 TO 24	46,363	39,483	0	0	0	0	0	0	0	46,321
25 TO 29	58,574	69,530	74,817	0	0	0	0	0	0	60,256
30 TO 34	66,623	76,378	82,858	89,670	0	0	0	0	0	71,325
35 TO 39	70,035	80,072	86,852	93,869	96,194	0	0	0	0	78,750
40 TO 44	71,010	81,462	89,022	93,791	100,206	100,852	0	0	0	83,845
45 TO 49	72,108	81,893	86,699	91,431	98,804	106,032	0	0	0	86,099
50 TO 54	71,021	82,766	84,989	87,752	90,773	100,692	104,165	102,473	0	86,345
55 TO 59	73,744	78,023	83,876	84,738	86,953	93,315	103,087	105,869	129,972	87,385
60 TO 64	71,069	80,320	82,065	84,424	84,033	88,728	96,613	107,706	102,480	87,701
65 TO 69	74,774	79,538	78,439	83,586	84,896	87,585	91,966	102,786	104,960	86,064
70 & UP	65,424	71,505	79,121	84,261	81,195	92,163	91,531	95,242	98,316	85,059
<b>TOTAL</b>	<b>66,964</b>	<b>79,433</b>	<b>85,637</b>	<b>88,610</b>	<b>89,917</b>	<b>93,781</b>	<b>99,118</b>	<b>105,353</b>	<b>102,257</b>	<b>82,011</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.



**Table XIII-6**  
**Detailed Active Membership and Salaries as of June 30, 2022 (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	24	0	0	0	0	0	0	0	0	24
20 TO 24	1,429	44	0	0	0	0	0	0	0	1,473
25 TO 29	6,822	1,222	7	0	0	0	0	0	0	8,051
30 TO 34	9,660	5,959	765	27	0	0	0	0	0	16,411
35 TO 39	8,499	7,984	4,545	1,177	40	0	0	0	0	22,245
40 TO 44	6,578	6,897	5,513	4,104	885	12	0	0	0	23,989
45 TO 49	5,003	5,360	4,727	5,015	3,063	424	1	0	0	23,593
50 TO 54	4,007	4,505	4,432	5,024	4,585	2,371	787	25	0	25,736
55 TO 59	3,094	3,846	3,832	4,512	4,658	3,215	2,875	665	9	26,706
60 TO 64	1,785	2,633	2,687	3,101	3,419	2,350	2,414	1,436	223	20,048
65 TO 69	637	1,147	1,207	1,394	1,312	806	760	530	316	8,109
70 & UP	162	329	460	540	562	309	313	247	289	3,211
<b>TOTAL</b>	<b>47,700</b>	<b>39,926</b>	<b>28,175</b>	<b>24,894</b>	<b>18,524</b>	<b>9,487</b>	<b>7,150</b>	<b>2,903</b>	<b>837</b>	<b>179,596</b>

<i>SALARIES (IN THOUSANDS):</i>										
UNDER 20	1,108	0	0	0	0	0	0	0	0	1,108
20 TO 24	76,289	3,770	0	0	0	0	0	0	0	80,059
25 TO 29	430,707	95,172	466	0	0	0	0	0	0	526,346
30 TO 34	671,995	499,916	67,529	2,754	0	0	0	0	0	1,242,195
35 TO 39	616,418	691,717	423,903	125,522	4,117	0	0	0	0	1,861,677
40 TO 44	479,020	598,565	512,233	420,619	92,357	1,198	0	0	0	2,103,992
45 TO 49	369,621	466,972	431,678	497,189	312,009	44,196	144	0	0	2,121,811
50 TO 54	298,599	385,771	393,578	475,721	443,246	242,966	82,461	2,585	0	2,324,926
55 TO 59	231,177	317,053	332,890	409,342	434,904	313,366	299,016	70,583	1,168	2,409,501
60 TO 64	129,965	219,499	228,121	274,316	308,269	221,628	238,752	154,492	22,782	1,797,825
65 TO 69	48,675	96,508	99,485	119,684	116,112	74,588	73,181	55,034	33,649	716,915
70 & UP	11,992	25,534	37,426	45,979	49,106	28,844	29,486	24,172	28,882	281,422
<b>TOTAL <sup>1</sup></b>	<b>3,365,564</b>	<b>3,400,479</b>	<b>2,527,309</b>	<b>2,371,125</b>	<b>1,760,120</b>	<b>926,787</b>	<b>723,041</b>	<b>306,867</b>	<b>86,482</b>	<b>15,467,774</b>

<i>AVERAGE SALARIES: <sup>2</sup></i>										
UNDER 20	46,156	0	0	0	0	0	0	0	0	46,156
20 TO 24	53,386	85,684	0	0	0	0	0	0	0	54,351
25 TO 29	63,135	77,883	66,620	0	0	0	0	0	0	65,376
30 TO 34	69,565	83,893	88,273	102,004	0	0	0	0	0	75,693
35 TO 39	72,528	86,638	93,268	106,645	102,916	0	0	0	0	83,690
40 TO 44	72,821	86,786	92,914	102,490	104,359	99,850	0	0	0	87,707
45 TO 49	73,880	87,122	91,322	99,140	101,864	104,236	144,463	0	0	89,934
50 TO 54	74,519	85,632	88,804	94,690	96,673	102,474	104,778	103,389	0	90,337
55 TO 59	74,718	82,437	86,871	90,723	93,367	97,470	104,006	106,140	129,829	90,223
60 TO 64	72,809	83,365	84,898	88,461	90,163	94,310	98,903	107,585	102,162	89,676
65 TO 69	76,413	84,140	82,423	85,856	88,500	92,541	96,291	103,838	106,484	88,410
70 & UP	74,025	77,612	81,361	85,145	87,377	93,347	94,205	97,864	99,939	87,643
<b>TOTAL</b>	<b>70,557</b>	<b>85,170</b>	<b>89,700</b>	<b>95,249</b>	<b>95,018</b>	<b>97,690</b>	<b>101,125</b>	<b>105,707</b>	<b>103,324</b>	<b>86,125</b>

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

<sup>1</sup> Total may not add up due to rounding.

<sup>2</sup> Average based on unrounded salary.

**Table XIII-7**  
**Detailed Reconciliation of Active Membership**

Transit Authority											
TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022							TOTAL ACTIVE MEMBERS 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	7	752,722	107,532	79.7	44.6	8	877,274	109,659	78.8	44.4
1	F	2	190,648	95,324	82.5	54.0	2	183,935	91,968	81.5	53.0
		9	943,370	104,819	80.3	46.7	10	1,061,209	106,121	79.3	46.1
2	M	8	825,221	103,153	73.6	26.8	7	725,513	103,645	73.3	29.4
2	F	2	201,030	100,515	69.5	25.5	3	258,281	86,094	69.3	32.0
		10	1,026,251	102,625	72.8	26.5	10	983,794	98,379	72.1	30.2
4	M	16,217	1,599,660,615	98,641	54.9	19.5	17,749	1,715,094,482	96,630	54.5	19.0
4	F	3,429	305,021,377	88,953	52.7	18.4	3,723	323,067,450	86,776	52.4	17.8
		19,646	1,904,681,992	96,950	54.5	19.3	21,472	2,038,161,932	94,922	54.1	18.8
6	M	14,666	1,215,408,307	82,873	43.1	5.0	12,987	1,059,230,568	81,561	43.0	4.7
6	F	3,188	232,961,217	73,074	41.4	4.4	2,683	190,914,360	71,157	41.3	4.3
		17,854	1,448,369,524	81,123	42.8	4.9	15,670	1,250,144,928	79,780	42.7	4.6
<b>ALL</b>		<b>37,519</b>	<b>3,355,021,137</b>	<b>89,422</b>	<b>48.9</b>	<b>12.4</b>	<b>37,162</b>	<b>3,290,351,863</b>	<b>88,541</b>	<b>49.3</b>	<b>12.8</b>

JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021							JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022				
1	M	7	752,722	107,532	79.7	44.6	7	748,608	106,944	78.7	43.6
1	F	2	190,648	95,324	82.5	54.0	2	183,935	91,968	81.5	53.0
		9	943,370	104,819	80.3	46.7	9	932,543	103,616	79.3	45.7
2	M	7	733,907	104,844	74.3	30.4	7	725,513	103,645	73.3	29.4
2	F	2	201,030	100,515	69.5	25.5	2	195,774	97,887	68.5	24.5
		9	934,937	103,882	73.2	29.3	9	921,287	102,365	72.2	28.3
4	M	15,885	1,572,217,647	98,975	54.9	19.6	15,885	1,535,822,962	96,684	53.9	18.5
4	F	3,258	292,602,749	89,811	53.0	18.7	3,258	283,894,837	87,138	52.0	17.6
		19,143	1,864,820,396	97,415	54.6	19.4	19,143	1,819,717,799	95,059	53.6	18.4
6	M	12,163	1,040,886,977	85,578	44.1	5.7	12,163	996,801,285	81,954	43.1	4.7
6	F	2,369	179,683,090	75,848	42.4	5.3	2,369	170,477,284	71,962	41.4	4.4
		14,532	1,220,570,067	83,992	43.9	5.7	14,532	1,167,278,569	80,325	42.9	4.7
<b>ALL</b>		<b>33,693</b>	<b>3,087,268,770</b>	<b>91,629</b>	<b>50.0</b>	<b>13.5</b>	<b>33,693</b>	<b>2,988,850,198</b>	<b>88,708</b>	<b>49.0</b>	<b>12.5</b>

ADDITIONS DURING THE YEAR <sup>1</sup>							SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup>				
1	M	0	0	0	0.0	0.0	1	128,666	128,666	79.0	50.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	1	128,666	128,666	79.0	50.0
2	M	1	91,314	91,314	69.0	1.0	0	0	0	0.0	0.0
2	F	0	0	0	0.0	0.0	1	62,507	62,507	71.0	47.0
		1	91,314	91,314	69.0	1.0	1	62,507	62,507	71.0	47.0
4	M	332	27,442,968	82,660	51.4	14.6	1,864	179,271,520	96,176	59.2	23.0
4	F	171	12,418,628	72,624	48.1	12.1	465	39,172,613	84,242	55.2	19.2
		503	39,861,596	79,248	50.2	13.7	2,329	218,444,133	93,793	58.4	22.2
6	M	2,503	174,521,330	69,725	37.8	1.3	824	62,429,283	75,764	40.7	4.2
6	F	819	53,278,127	65,053	38.3	1.8	314	20,437,076	65,086	40.5	3.6
		3,322	227,799,457	68,573	37.9	1.4	1,138	82,866,359	72,818	40.7	4.0
<b>ALL</b>		<b>3,826</b>	<b>267,752,367</b>	<b>69,982</b>	<b>39.6</b>	<b>3.0</b>	<b>3,469</b>	<b>301,501,665</b>	<b>86,913</b>	<b>52.6</b>	<b>16.3</b>

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.

<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. 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, 2022							TOTAL ACTIVE MEMBERS 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	85,215	85,215	75.0	40.0	1	82,733	82,733	74.0	39.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	85,215	85,215	75.0	40.0	1	82,733	82,733	74.0	39.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	2	141,026	70,513	70.5	47.5	2	136,102	68,051	69.5	46.5
		2	141,026	70,513	70.5	47.5	2	136,102	68,051	69.5	46.5
4	M	2,938	259,823,744	88,436	52.9	21.6	3,314	278,122,082	83,923	52.6	21.0
4	F	1,998	152,435,429	76,294	53.3	20.9	2,257	161,257,759	71,448	53.0	20.4
		4,936	412,259,173	83,521	53.1	21.3	5,571	439,379,841	78,869	52.7	20.7
6	M	2,372	172,049,233	72,533	43.0	4.4	2,087	141,101,888	67,610	42.4	4.1
6	F	1,419	84,937,507	59,857	41.1	4.2	1,267	70,894,530	55,955	40.5	3.9
		3,791	256,986,740	67,789	42.3	4.4	3,354	211,996,418	63,207	41.7	4.1
<b>ALL</b>		<b>8,730</b>	<b>669,472,154</b>	<b>76,686</b>	<b>48.4</b>	<b>14.0</b>	<b>8,928</b>	<b>651,595,094</b>	<b>72,983</b>	<b>48.6</b>	<b>14.5</b>

JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021							JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022				
1	M	1	85,215	85,215	75.0	40.0	1	82,733	82,733	74.0	39.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	85,215	85,215	75.0	40.0	1	82,733	82,733	74.0	39.0
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	2	141,026	70,513	70.5	47.5	2	136,102	68,051	69.5	46.5
		2	141,026	70,513	70.5	47.5	2	136,102	68,051	69.5	46.5
4	M	2,890	255,673,549	88,468	53.0	21.7	2,890	242,044,801	83,753	52.0	20.7
4	F	1,956	149,267,026	76,312	53.4	21.1	1,956	140,612,770	71,888	52.4	20.0
		4,846	404,940,575	83,562	53.1	21.5	4,846	382,657,571	78,964	52.1	20.4
6	M	1,851	140,420,857	75,862	43.8	5.2	1,851	126,836,664	68,523	42.8	4.2
6	F	1,058	65,764,506	62,159	41.9	5.1	1,058	60,189,869	56,890	40.9	4.1
		2,909	206,185,363	70,878	43.1	5.2	2,909	187,026,533	64,292	42.1	4.2
<b>ALL</b>		<b>7,758</b>	<b>611,352,179</b>	<b>78,803</b>	<b>49.4</b>	<b>15.4</b>	<b>7,758</b>	<b>569,902,939</b>	<b>73,460</b>	<b>48.4</b>	<b>14.3</b>

ADDITIONS DURING THE YEAR <sup>1</sup>							SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup>				
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	48	4,150,195	86,462	50.1	16.1	424	36,077,281	85,088	56.7	23.2
4	F	42	3,168,403	75,438	47.9	13.5	301	20,644,989	68,588	56.9	22.7
		90	7,318,598	81,318	49.1	14.9	725	56,722,270	78,238	56.8	23.0
6	M	521	31,628,376	60,707	40.1	1.6	236	14,265,224	60,446	39.1	3.4
6	F	361	19,173,001	53,111	39.0	1.7	209	10,704,661	51,218	38.5	3.0
		882	50,801,377	57,598	39.7	1.6	445	24,969,885	56,112	38.8	3.2
<b>ALL</b>		<b>972</b>	<b>58,119,975</b>	<b>59,794</b>	<b>40.5</b>	<b>2.9</b>	<b>1,170</b>	<b>81,692,155</b>	<b>69,822</b>	<b>50.0</b>	<b>15.5</b>

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.  
<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

<b>Health and Hospitals</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>							<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	4	389,868	97,467	72.3	50.0	5	495,375	99,075	71.0	48.8
1	F	11	1,379,713	125,428	78.4	42.7	12	1,484,748	123,729	76.8	42.3
		15	1,769,581	117,972	76.7	44.7	17	1,980,123	116,478	75.1	44.2
2	M	3	345,132	115,044	73.0	31.7	4	566,354	141,589	71.0	31.5
2	F	5	667,620	133,524	71.6	40.8	7	739,822	105,689	72.6	38.6
		8	1,012,752	126,594	72.1	37.4	11	1,306,176	118,743	72.0	36.0
4	M	4,714	419,063,385	88,898	54.7	16.1	5,237	439,381,590	83,899	54.1	15.3
4	F	11,047	969,768,683	87,786	54.5	16.0	12,610	1,046,105,021	82,958	54.1	15.4
		15,761	1,388,832,068	88,118	54.6	16.0	17,847	1,485,486,611	83,235	54.1	15.4
6	M	4,211	367,176,711	87,195	43.0	3.2	3,814	314,682,073	82,507	42.6	2.8
6	F	10,536	842,602,241	79,974	42.9	2.9	9,777	743,667,138	76,063	42.2	2.6
		14,747	1,209,778,952	82,036	42.9	3.0	13,591	1,058,349,211	77,871	42.3	2.7
<b>ALL</b>		<b>30,531</b>	<b>2,601,393,353</b>	<b>85,205</b>	<b>48.9</b>	<b>9.8</b>	<b>31,466</b>	<b>2,547,122,121</b>	<b>80,948</b>	<b>49.0</b>	<b>9.9</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>							<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
1	M	4	389,868	97,467	72.3	50.0	4	379,654	94,914	71.3	49.0
1	F	11	1,379,713	125,428	78.4	42.7	11	1,345,173	122,288	77.4	41.8
		15	1,769,581	117,972	76.7	44.7	15	1,724,827	114,988	75.7	43.7
2	M	3	345,132	115,044	73.0	31.7	3	315,150	105,050	72.0	30.3
2	F	5	667,620	133,524	71.6	40.8	5	610,106	122,021	70.6	39.8
		8	1,012,752	126,594	72.1	37.4	8	925,256	115,657	71.1	36.2
4	M	4,636	412,552,869	88,989	54.7	16.2	4,636	388,516,725	83,804	53.7	15.1
4	F	10,829	952,434,317	87,952	54.6	16.2	10,829	900,487,460	83,155	53.6	15.1
		15,465	1,364,987,186	88,263	54.6	16.2	15,465	1,289,004,185	83,350	53.6	15.1
6	M	3,264	293,507,140	89,923	44.1	3.8	3,264	273,243,779	83,714	43.1	2.9
6	F	7,965	653,642,171	82,064	44.0	3.5	7,965	607,748,601	76,302	43.0	2.7
		11,229	947,149,311	84,349	44.1	3.6	11,229	880,992,380	78,457	43.1	2.8
<b>ALL</b>		<b>26,717</b>	<b>2,314,918,830</b>	<b>86,646</b>	<b>50.2</b>	<b>10.9</b>	<b>26,717</b>	<b>2,172,646,648</b>	<b>81,321</b>	<b>49.2</b>	<b>10.0</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>							<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
1	M	0	0	0	0.0	0.0	1	115,721	115,721	70.0	48.0
1	F	0	0	0	0.0	0.0	1	139,575	139,575	71.0	48.0
		0	0	0	0.0	0.0	2	255,296	127,648	70.5	48.0
2	M	0	0	0	0.0	0.0	1	251,204	251,204	68.0	35.0
2	F	0	0	0	0.0	0.0	2	129,716	64,858	77.5	35.5
		0	0	0	0.0	0.0	3	380,920	126,973	74.3	35.3
4	M	78	6,510,516	83,468	50.4	9.5	601	50,864,865	84,634	57.2	16.9
4	F	218	17,334,366	79,515	50.6	10.3	1,781	145,617,561	81,762	57.1	17.3
		296	23,844,882	80,557	50.6	10.1	2,382	196,482,426	82,486	57.1	17.2
6	M	947	73,669,571	77,793	39.3	1.0	550	41,438,294	75,342	39.5	2.1
6	F	2,571	188,960,070	73,497	39.2	0.9	1,812	135,918,537	75,010	38.5	2.0
		3,518	262,629,641	74,653	39.2	0.9	2,362	177,356,831	75,088	38.7	2.0
<b>ALL</b>		<b>3,814</b>	<b>286,474,523</b>	<b>75,111</b>	<b>40.1</b>	<b>1.7</b>	<b>4,749</b>	<b>374,475,473</b>	<b>78,854</b>	<b>48.0</b>	<b>9.7</b>

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.

<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

<b>Triborough Bridge and Tunnel Authority</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>							<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	2	300,461	150,231	69.0	46.5	2	293,877	146,939	68.0	45.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	300,461	150,231	69.0	46.5	2	293,877	146,939	68.0	45.5
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	628	75,095,208	119,578	50.7	16.6	698	80,663,965	115,564	50.5	16.3
4	F	162	17,476,549	107,880	52.5	18.2	183	19,529,758	106,720	52.0	17.3
		790	92,571,757	117,179	51.0	16.9	881	100,193,723	113,727	50.8	16.5
6	M	174	18,323,108	105,305	42.8	5.1	170	16,275,223	95,737	41.5	4.2
6	F	43	4,122,749	95,878	43.1	4.8	43	4,000,830	93,043	43.0	4.3
		217	22,445,857	103,437	42.9	5.0	213	20,276,053	95,193	41.8	4.2
<b>ALL</b>		<b>1,009</b>	<b>115,318,075</b>	<b>114,289</b>	<b>49.3</b>	<b>14.4</b>	<b>1,096</b>	<b>120,763,653</b>	<b>110,186</b>	<b>49.1</b>	<b>14.2</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>							<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	2	300,461	150,231	69.0	46.5	2	293,877	146,939	68.0	45.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	300,461	150,231	69.0	46.5	2	293,877	146,939	68.0	45.5
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	625	74,745,976	119,594	50.7	16.6	625	72,007,826	115,213	49.7	15.7
4	F	159	17,175,706	108,023	52.7	18.3	159	16,654,514	104,745	51.7	17.2
		784	91,921,682	117,247	51.1	17.0	784	88,662,340	113,090	50.1	16.0
6	M	161	16,818,758	104,464	42.8	5.2	161	15,443,157	95,920	41.8	4.3
6	F	34	3,253,236	95,683	43.8	5.4	34	3,112,428	91,542	42.8	4.4
		195	20,071,994	102,933	43.0	5.2	195	18,555,585	95,157	42.0	4.3
<b>ALL</b>		<b>981</b>	<b>112,294,137</b>	<b>114,469</b>	<b>49.5</b>	<b>14.7</b>	<b>981</b>	<b>107,511,802</b>	<b>109,594</b>	<b>48.5</b>	<b>13.7</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>							<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
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	349,232	116,411	50.7	14.7	73	8,656,139	118,577	57.6	21.6
4	F	3	300,843	100,281	45.3	10.0	24	2,875,244	119,802	54.0	18.2
		6	650,075	108,346	48.0	12.3	97	11,531,383	118,880	56.7	20.7
6	M	13	1,504,350	115,719	42.4	3.2	9	832,066	92,452	35.4	3.2
6	F	9	869,513	96,613	40.6	2.6	9	888,402	98,711	43.9	3.9
		22	2,373,863	107,903	41.6	3.0	18	1,720,468	95,582	39.7	3.6
<b>ALL</b>		<b>28</b>	<b>3,023,938</b>	<b>107,998</b>	<b>43.0</b>	<b>5.0</b>	<b>115</b>	<b>13,251,851</b>	<b>115,233</b>	<b>54.1</b>	<b>18.1</b>

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.  
<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

<b>CUNY Senior College</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>						<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>					
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	2	124,623	62,312	77.0	35.0	3	254,737	84,912	75.0	40.7
1	F	3	165,578	55,193	74.3	43.0	3	156,073	52,024	73.3	42.0
		5	290,201	58,040	75.4	39.8	6	410,810	68,468	74.2	41.3
2	M	0	0	0	0.0	0.0	1	120,836	120,836	74.0	46.0
2	F	1	61,484	61,484	77.0	46.0	3	217,067	72,356	70.0	40.0
		1	61,484	61,484	77.0	46.0	4	337,903	84,476	71.0	41.5
4	M	1,263	99,537,310	78,810	53.5	16.5	1,367	103,991,613	76,073	53.0	15.8
4	F	1,209	75,142,002	62,152	55.9	15.9	1,324	76,902,595	58,084	55.4	15.1
		2,472	174,679,312	70,663	54.7	16.2	2,691	180,894,208	67,222	54.2	15.4
6	M	807	52,492,028	65,046	45.1	4.3	816	49,220,298	60,319	43.9	3.8
6	F	647	32,013,651	49,480	44.4	3.9	672	30,566,131	45,485	43.6	3.2
		1,454	84,505,679	58,119	44.8	4.1	1,488	79,786,429	53,620	43.7	3.5
<b>ALL</b>		<b>3,932</b>	<b>259,536,676</b>	<b>66,006</b>	<b>51.1</b>	<b>11.8</b>	<b>4,189</b>	<b>261,429,350</b>	<b>62,409</b>	<b>50.5</b>	<b>11.3</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>						<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>					
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	2	124,623	62,312	77.0	35.0	2	116,370	58,185	76.0	34.0
1	F	3	165,578	55,193	74.3	43.0	3	156,073	52,024	73.3	42.0
		5	290,201	58,040	75.4	39.8	5	272,443	54,489	74.4	38.8
2	M	0	0	0	0.0	0.0	0	0	0	0.0	0.0
2	F	1	61,484	61,484	77.0	46.0	1	57,955	57,955	76.0	45.0
		1	61,484	61,484	77.0	46.0	1	57,955	57,955	76.0	45.0
4	M	1,240	97,401,424	78,550	53.6	16.5	1,240	94,214,180	75,979	52.6	15.6
4	F	1,197	74,371,742	62,132	56.0	15.9	1,197	70,095,405	58,559	55.0	14.9
		2,437	171,773,166	70,486	54.7	16.2	2,437	164,309,585	67,423	53.7	15.2
6	M	703	45,738,748	65,062	45.6	4.7	703	43,814,391	62,325	44.6	3.9
6	F	561	28,045,281	49,992	45.0	4.2	561	25,857,507	46,092	44.0	3.4
		1,264	73,784,029	58,373	45.3	4.5	1,264	69,671,898	55,120	44.3	3.6
<b>ALL</b>		<b>3,707</b>	<b>245,908,880</b>	<b>66,336</b>	<b>51.6</b>	<b>12.3</b>	<b>3,707</b>	<b>234,311,881</b>	<b>63,208</b>	<b>50.6</b>	<b>11.3</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>						<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>					
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	0	0	0	0.0	0.0	1	138,367	138,367.0	73.0	54.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	1	138,367	138,367	73.0	54.0
2	M	0	0	0	0.0	0.0	1	120,836	120,836	74.0	46.0
2	F	0	0	0	0.0	0.0	2	159,112	79,556	67.0	37.5
		0	0	0	0.0	0.0	3	279,948	93,316	69.3	40.3
4	M	23	2,135,886	92,865	52.5	14.8	127	9,777,433	76,988	57.5	18.0
4	F	12	770,260	64,188	50.6	11.8	127	6,807,190	53,600	59.5	17.1
		35	2,906,146	83,033	51.8	13.7	254	16,584,623	65,294	58.5	17.5
6	M	104	6,753,280	64,935	41.5	1.5	113	5,405,907	47,840	39.5	3.1
6	F	86	3,968,370	46,144	40.6	1.6	111	4,708,624	42,420	41.7	2.7
		190	10,721,650	56,430	41.1	1.5	224	10,114,531	45,154	40.6	2.9
<b>ALL</b>		<b>225</b>	<b>13,627,796</b>	<b>60,568</b>	<b>42.8</b>	<b>3.4</b>	<b>482</b>	<b>27,117,469</b>	<b>56,260</b>	<b>50.3</b>	<b>10.9</b>

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.  
<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

<b>All Other Non-NYC Contributing Entities</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>							<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
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	76.0	22.0	1	149,429	149,429	75.0	22.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	149,429	149,429	76.0	22.0	1	149,429	149,429	75.0	22.0
4	M	55	8,119,946	147,635	56.4	20.7	63	9,021,555	143,199	55.3	20.5
4	F	73	8,894,314	121,840	54.8	17.1	80	8,934,056	111,676	54.8	16.5
		128	17,014,260	132,924	55.5	18.7	143	17,955,611	125,564	55.1	18.3
6	M	12	1,445,991	120,499	38.8	3.9	7	844,378	120,625	39.0	3.9
6	F	18	2,216,344	123,130	42.4	4.2	12	1,285,187	107,099	40.8	3.4
		30	3,662,335	122,078	41.0	4.1	19	2,129,565	112,082	40.2	3.6
<b>ALL</b>		<b>159</b>	<b>20,826,024</b>	<b>130,981</b>	<b>52.9</b>	<b>15.9</b>	<b>163</b>	<b>20,234,605</b>	<b>124,139</b>	<b>53.4</b>	<b>16.6</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>							<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
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	76.0	22.0	1	149,429	149,429	75.0	22.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		1	149,429	149,429	76.0	22.0	1	149,429	149,429	75.0	22.0
4	M	55	8,119,946	147,635	56.4	20.7	55	7,910,096	143,820	55.4	20.4
4	F	70	8,448,064	120,687	55.0	17.5	70	8,018,662	114,552	54.0	16.3
		125	16,568,010	132,544	55.6	18.9	125	15,928,758	127,430	54.6	18.1
6	M	5	656,364	131,273	39.0	4.4	5	586,160	117,232	38.0	3.4
6	F	12	1,355,139	112,928	41.8	4.1	12	1,285,187	107,099	40.8	3.4
		17	2,011,503	118,324	41.0	4.2	17	1,871,347	110,079	40.0	3.4
<b>ALL</b>		<b>143</b>	<b>18,728,942</b>	<b>130,972</b>	<b>54.0</b>	<b>17.2</b>	<b>143</b>	<b>17,949,534</b>	<b>125,521</b>	<b>53.0</b>	<b>16.4</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>							<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
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	0	0	0	0.0	0.0	8	1,111,459	138,932	55.1	21.1
4	F	3	446,250	148,750	51.3	8.7	10	915,394	91,539	61.0	18.2
		3	446,250	148,750	51.3	8.7	18	2,026,853	112,603	58.4	19.5
6	M	7	789,627	112,804	38.6	3.6	2	258,218	129,109	41.5	5.0
6	F	6	861,205	143,534	43.7	4.5	0	0	0	0.0	0.0
		13	1,650,832	126,987	40.9	4.0	2	258,218	129,109	41.5	5.0
<b>ALL</b>		<b>16</b>	<b>2,097,082</b>	<b>131,068</b>	<b>42.9</b>	<b>4.9</b>	<b>20</b>	<b>2,285,071</b>	<b>114,254</b>	<b>56.7</b>	<b>18.1</b>

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.

<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

<b>New York City: Sanitation</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>							<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	3	301,398	100,466	75.3	50.0	4	396,296	99,074	75.5	50.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		3	301,398	100,466	75.3	50.0	4	396,296	99,074	75.5	50.5
2	M	2	246,371	123,186	68.0	40.0	2	231,166	115,583	67.0	39.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	246,371	123,186	68.0	40.0	2	231,166	115,583	67.0	39.0
4	M	3,543	430,159,935	121,411	47.9	18.1	3,970	474,641,418	119,557	47.4	17.6
4	F	85	10,537,700	123,973	50.2	18.6	98	11,754,337	119,942	49.8	18.4
		3,628	440,697,635	121,471	47.9	18.1	4,068	486,395,755	119,566	47.4	17.6
3R	M	3,749	334,715,038	89,281	38.6	5.8	2,935	272,074,138	92,700	38.5	6.0
3R	F	190	15,774,945	83,026	39.5	6.4	154	12,830,675	83,316	38.9	6.2
		3,939	350,489,983	88,979	38.6	5.8	3,089	284,904,813	92,232	38.5	6.0
<b>ALL</b>		<b>7,572</b>	<b>791,735,387</b>	<b>104,561</b>	<b>43.1</b>	<b>11.7</b>	<b>7,163</b>	<b>771,928,030</b>	<b>107,766</b>	<b>43.6</b>	<b>12.6</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>							<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	3	301,398	100,466	75.3	50.0	3	297,222	99,074	74.3	49.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		3	301,398	100,466	75.3	50.0	3	297,222	99,074	74.3	49.0
2	M	2	246,371	123,186	68.0	40.0	2	231,166	115,583	67.0	39.0
2	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	246,371	123,186	68.0	40.0	2	231,166	115,583	67.0	39.0
4	M	3,531	428,933,315	121,476	47.9	18.1	3,531	422,210,333	119,572	46.9	17.1
4	F	85	10,537,700	123,973	50.2	18.6	85	10,209,461	120,111	49.2	17.6
		3,616	439,471,015	121,535	47.9	18.1	3,616	432,419,794	119,585	46.9	17.1
3R	M	2,847	281,136,626	98,748	39.5	7.0	2,847	264,492,907	92,902	38.5	6.0
3R	F	150	13,532,529	90,217	40.0	7.3	150	12,519,688	83,465	39.0	6.2
		2,997	294,669,155	98,321	39.5	7.0	2,997	277,012,595	92,430	38.5	6.0
<b>ALL</b>		<b>6,618</b>	<b>734,687,939</b>	<b>111,014</b>	<b>44.1</b>	<b>13.1</b>	<b>6,618</b>	<b>709,960,777</b>	<b>107,277</b>	<b>43.1</b>	<b>12.1</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>							<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	0	0	0	0.0	0.0	1	99,074	99,074	79.0	55.0
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		0	0	0	0.0	0.0	1	99,074	99,074	79.0	55.0
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	12	1,226,620	102,218	48.8	13.3	439	52,431,085	119,433	51.5	21.4
4	F	0	0	0	0.0	0.0	13	1,544,876	118,837	53.4	24.0
		12	1,226,620	102,218	48.8	13.3	452	53,975,961	119,416	51.5	21.5
3R	M	902	53,578,412	59,400	35.8	1.8	88	7,581,231	86,150	38.2	5.8
3R	F	40	2,242,416	56,060	37.5	3.0	4	310,987	77,747	37.3	6.3
		942	55,820,828	59,258	35.9	1.8	92	7,892,218	85,785	38.2	5.9
<b>ALL</b>		<b>954</b>	<b>57,047,448</b>	<b>59,798</b>	<b>36.0</b>	<b>2.0</b>	<b>545</b>	<b>61,967,253</b>	<b>113,701</b>	<b>49.3</b>	<b>18.9</b>

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.

<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.



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

<b>New York City: Correction</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>							<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	2	276,950	138,475	70.5	49.5	2	261,569	130,785	69.5	48.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	276,950	138,475	70.5	49.5	2	261,569	130,785	69.5	48.5
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	1,935	254,069,895	131,302	45.7	15.2	2,287	282,360,308	123,463	45.1	14.5
3	F	1,729	230,190,760	133,135	45.1	15.5	2,045	256,116,604	125,240	44.6	15.0
		3,664	484,260,655	132,167	45.4	15.4	4,332	538,476,912	124,302	44.9	14.7
3R	M	1,752	189,744,047	108,301	38.6	6.8	2,176	199,707,611	91,777	36.8	5.7
3R	F	1,320	139,958,068	106,029	37.8	7.1	1,544	139,072,941	90,073	36.4	6.0
		3,072	329,702,115	107,325	38.3	7.0	3,720	338,780,552	91,070	36.7	5.8
<b>ALL</b>		<b>6,738</b>	<b>814,239,720</b>	<b>120,843</b>	<b>42.2</b>	<b>11.5</b>	<b>8,054</b>	<b>877,519,033</b>	<b>108,954</b>	<b>41.1</b>	<b>10.6</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>							<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
1	M	2	276,950	138,475	70.5	49.5	2	261,569	130,785	69.5	48.5
1	F	0	0	0	0.0	0.0	0	0	0	0.0	0.0
		2	276,950	138,475	70.5	49.5	2	261,569	130,785	69.5	48.5
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	1,922	252,634,183	131,443	45.8	15.2	1,922	237,044,770	123,332	44.8	14.2
3	F	1,706	227,502,422	133,354	45.2	15.6	1,706	213,158,500	124,946	44.2	14.6
		3,628	480,136,605	132,342	45.5	15.4	3,628	450,203,270	124,091	44.5	14.4
3R	M	1,647	182,373,000	110,730	38.9	7.1	1,647	156,202,672	94,841	37.9	6.1
3R	F	1,244	134,615,883	108,212	38.1	7.3	1,244	114,533,172	92,068	37.1	6.3
		2,891	316,988,883	109,647	38.5	7.2	2,891	270,735,844	93,648	37.5	6.2
<b>ALL</b>		<b>6,521</b>	<b>797,402,438</b>	<b>122,282</b>	<b>42.4</b>	<b>11.8</b>	<b>6,521</b>	<b>721,200,683</b>	<b>110,597</b>	<b>41.4</b>	<b>10.7</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>							<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
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	13	1,435,712	110,439	43.0	12.7	365	45,315,538	124,152	46.8	16.0
3	F	23	2,688,338	116,884	40.3	9.7	339	42,958,104	126,720	46.7	17.2
		36	4,124,050	114,557	41.3	10.8	704	88,273,642	125,389	46.8	16.6
3R	M	105	7,371,047	70,200	34.5	3.0	529	43,504,939	82,240	33.5	4.7
3R	F	76	5,342,185	70,292	34.1	4.2	300	24,539,769	81,799	33.8	4.9
		181	12,713,232	70,239	34.4	3.5	829	68,044,708	82,080	33.6	4.7
<b>ALL</b>		<b>217</b>	<b>16,837,282</b>	<b>77,591</b>	<b>35.5</b>	<b>4.7</b>	<b>1,533</b>	<b>156,318,350</b>	<b>101,969</b>	<b>39.7</b>	<b>10.2</b>

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.  
<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

<b>All Other New York City</b>											
<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>							<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	38	3,645,813	95,942	76.6	47.4	52	4,709,499	90,567	75.5	47.8
1	F	40	3,337,449	83,436	75.8	50.3	60	4,737,555	78,959	75.2	50.1
		78	6,983,262	89,529	76.2	48.9	112	9,447,054	84,349	75.4	49.0
2	M	67	7,118,330	106,244	58.3	29.2	74	7,609,401	102,830	59.2	28.4
2	F	49	4,429,605	90,400	58.5	25.2	63	5,194,737	82,456	59.6	26.8
		116	11,547,935	99,551	58.4	27.5	137	12,804,138	93,461	59.4	27.7
4	M	19,874	1,955,898,230	98,415	53.7	19.6	22,412	2,067,324,408	92,242	53.4	19.2
4	F	24,230	2,009,921,148	82,952	53.3	19.7	27,448	2,119,273,341	77,210	53.0	19.2
		44,104	3,965,819,378	89,920	53.5	19.6	49,860	4,186,597,749	83,967	53.2	19.2
3R/6	M	20,042	1,533,882,125	76,533	40.9	4.4	18,718	1,351,159,603	72,185	40.3	4.0
3R/6	F	19,066	1,321,998,444	69,338	41.1	4.3	18,684	1,193,773,546	63,893	40.2	3.9
		39,108	2,855,880,569	73,025	41.0	4.4	37,402	2,544,933,149	68,043	40.3	4.0
<b>ALL</b>		<b>83,406</b>	<b>6,840,231,144</b>	<b>82,011</b>	<b>47.7</b>	<b>12.5</b>	<b>87,511</b>	<b>6,753,782,090</b>	<b>77,176</b>	<b>47.7</b>	<b>12.7</b>

<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>							<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
1	M	37	3,555,987	96,108	76.6	48.6	37	3,379,334	91,333	75.7	47.6
1	F	39	3,267,504	83,782	75.9	51.3	39	3,114,186	79,851	74.9	50.3
		76	6,823,491	89,783	76.2	50.0	76	6,493,520	85,441	75.3	49.0
2	M	63	6,809,621	108,089	58.7	30.1	63	6,415,340	101,831	57.7	28.3
2	F	48	4,366,206	90,963	58.8	25.4	48	4,087,500	85,156	57.8	24.0
		111	11,175,827	100,683	58.7	28.1	111	10,502,840	94,620	57.7	26.5
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
4	M	19,601	1,934,332,532	98,685	53.7	19.7	19,601	1,806,969,724	92,188	52.7	18.6
4	F	23,780	1,979,683,937	83,250	53.4	19.8	23,780	1,839,590,347	77,359	52.4	18.8
		43,381	3,914,016,469	90,224	53.6	19.8	43,381	3,646,560,071	84,059	52.6	18.7
		0	0	0	0.0	0.0	0	0	0	0.0	0.0
3R/6	M	16,346	1,311,928,684	80,260	41.8	5.1	16,346	1,197,562,727	73,263	40.8	4.1
3R/6	F	15,558	1,108,477,775	71,248	41.9	5.0	15,558	996,696,098	64,063	40.9	4.0
		31,904	2,420,406,459	75,865	41.9	5.1	31,904	2,194,258,825	68,777	40.9	4.1
<b>ALL</b>		<b>75,472</b>	<b>6,352,422,246</b>	<b>84,169</b>	<b>48.6</b>	<b>13.6</b>	<b>75,472</b>	<b>5,857,815,256</b>	<b>77,616</b>	<b>47.6</b>	<b>12.6</b>

<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>							<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
1	M	1	89,826	89,826	75.0	3.0	15	1,330,165	88,678	75.1	48.3
1	F	1	69,945	69,945	72.0	12.0	21	1,623,369	77,303	75.9	49.7
		2	159,771	79,886	73.5	7.5	36	2,953,534	82,043	75.6	49.1
2	M	4	308,709	77,177	51.3	14.8	11	1,194,061	108,551	67.8	29.1
2	F	1	63,399	63,399	45.0	14.0	15	1,107,237	73,816	65.3	35.7
		5	372,108	74,422	50.0	14.6	26	2,301,298	88,511	66.3	32.9
4	M	273	21,565,698	78,995	50.0	12.2	2,811	260,354,684	92,620	58.3	22.9
4	F	450	30,237,211	67,194	47.9	11.5	3,668	279,682,994	76,249	56.9	21.7
		723	51,802,909	71,650	48.7	11.8	6,479	540,037,678	83,352	57.5	22.2
3R/6	M	3,696	221,953,441	60,052	37.0	1.3	2,372	153,596,876	64,754	36.6	3.4
3R/6	F	3,508	213,520,669	60,867	37.5	1.3	3,126	197,077,448	63,045	36.9	3.3
		7,204	435,474,110	60,449	37.3	1.3	5,498	350,674,324	63,782	36.8	3.4
<b>ALL</b>		<b>7,934</b>	<b>487,808,898</b>	<b>61,483</b>	<b>38.3</b>	<b>2.3</b>	<b>12,039</b>	<b>895,966,834</b>	<b>74,422</b>	<b>48.1</b>	<b>13.7</b>

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.  
<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

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

		<b>Total</b>									
		<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2022</b>					<b>TOTAL ACTIVE MEMBERS AS OF JUNE 30, 2021</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	59	5,877,050	99,611	76.1	46.8	77	7,371,360	95,732	75.2	47.2
1	F	56	5,073,388	90,596	76.5	48.6	77	6,562,311	85,225	75.6	48.6
		115	10,950,438	95,221	76.3	47.7	154	13,933,671	90,478	75.4	47.9
2	M	81	8,684,483	107,216	60.8	29.2	89	9,402,699	105,648	61.4	29.0
2	F	59	5,500,765	93,233	60.7	27.6	78	6,546,009	83,923	61.8	29.1
		140	14,185,248	101,323	60.7	28.5	167	15,948,708	95,501	61.6	29.0
3/4	M	51,167	5,101,428,268	99,702	53.4	19.0	57,097	5,450,601,421	95,462	53.0	18.5
3/4	F	43,962	3,779,387,962	85,969	53.3	18.4	49,768	4,022,940,921	80,834	53.0	17.9
		95,129	8,880,816,230	93,356	53.3	18.7	106,865	9,473,542,342	88,650	53.0	18.2
3R/6	M	47,785	3,885,236,588	81,307	41.7	4.7	43,710	3,404,295,780	77,884	41.2	4.3
3R/6	F	36,427	2,676,585,166	73,478	41.6	4.0	34,836	2,387,005,338	68,521	40.8	3.7
		84,212	6,561,821,754	77,920	41.6	4.4	78,546	5,791,301,118	73,731	41.0	4.0
<b>ALL</b>		<b>179,596</b>	<b>15,467,773,670</b>	<b>86,125</b>	<b>47.9</b>	<b>12.0</b>	<b>185,732</b>	<b>15,294,725,839</b>	<b>82,348</b>	<b>47.9</b>	<b>12.2</b>

		<b>JUNE 30, 2022 MEMBERS ALSO PRESENT AS OF JUNE 30, 2021</b>					<b>JUNE 30, 2021 MEMBERS ALSO PRESENT AS OF JUNE 30, 2022</b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	58	5,787,224	99,780	76.1	47.6	58	5,559,367	95,851	75.2	46.6
1	F	55	5,003,443	90,972	76.5	49.2	55	4,799,367	87,261	75.5	48.3
		113	10,790,667	95,493	76.3	48.4	113	10,358,734	91,670	75.4	47.4
2	M	76	8,284,460	109,006	61.2	30.3	76	7,836,598	103,113	60.2	28.7
2	F	58	5,437,366	93,748	60.9	27.9	58	5,087,437	87,714	60.0	26.6
		134	13,721,826	102,402	61.1	29.3	134	12,924,035	96,448	60.1	27.8
3/4	M	50,385	5,036,611,441	99,963	53.4	19.1	50,385	4,806,741,417	95,400	52.4	18.0
3/4	F	43,040	3,712,023,663	86,246	53.4	18.6	43,040	3,482,721,956	80,918	52.4	17.5
		93,425	8,748,635,104	93,643	53.4	18.8	93,425	8,289,463,373	88,729	52.4	17.8
3R/6	M	38,987	3,313,467,154	84,989	42.6	5.4	38,987	3,074,983,742	78,872	41.6	4.4
3R/6	F	28,951	2,188,369,610	75,589	42.4	4.7	28,951	1,992,419,834	68,820	41.4	3.8
		67,938	5,501,836,764	80,983	42.5	5.1	67,938	5,067,403,576	74,589	41.5	4.2
<b>ALL</b>		<b>161,610</b>	<b>14,274,984,361</b>	<b>88,330</b>	<b>48.9</b>	<b>13.1</b>	<b>161,610</b>	<b>13,380,149,718</b>	<b>82,793</b>	<b>47.9</b>	<b>12.1</b>

		<b>ADDITIONS DURING THE YEAR <sup>1</sup></b>					<b>SEPARATIONS FROM MEMBERSHIP DURING THE YEAR <sup>1</sup></b>				
<b>TIER</b>	<b>GENDER</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>	<b>NUMBER</b>	<b>SALARY</b>	<b>AVG SAL</b>	<b>AVG AGE</b>	<b>AVG SVC</b>
1	M	1	89,826	89,826	75.0	3.0	19	1,811,993	95,368	75.2	49.0
1	F	1	69,945	69,945	72.0	12.0	22	1,762,944	80,134	75.6	49.6
		2	159,771	79,886	73.5	7.5	41	3,574,937	87,194	75.4	49.3
2	M	5	400,023	80,005	54.8	12.0	13	1,566,101	120,469	68.3	30.8
2	F	1	63,399	63,399	45.0	14.0	20	1,458,572	72,929	67.0	36.5
		6	463,422	77,237	53.2	12.3	33	3,024,673	91,657	67.5	34.2
3/4	M	782	64,816,827	82,886	50.6	13.3	6,712	643,860,004	95,927	57.3	21.8
3/4	F	922	67,364,299	73,063	48.4	11.3	6,728	540,218,965	80,294	56.4	20.1
		1,704	132,181,126	77,571	49.4	12.2	13,440	1,184,078,969	88,101	56.8	21.0
3R/6	M	8,798	571,769,434	64,989	37.6	1.4	4,723	329,312,038	69,725	37.5	3.6
3R/6	F	7,476	488,215,556	65,304	38.3	1.3	5,885	394,585,504	67,049	37.6	3.0
		16,274	1,059,984,990	65,134	37.9	1.3	10,608	723,897,542	68,241	37.6	3.2
<b>ALL</b>		<b>17,986</b>	<b>1,192,789,309</b>	<b>66,318</b>	<b>39.0</b>	<b>2.4</b>	<b>24,122</b>	<b>1,914,576,121</b>	<b>79,371</b>	<b>48.4</b>	<b>13.2</b>

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.

<sup>1</sup> Separations and additions do not include members who joined after June 30, 2021 and are no longer members on June 30, 2022. Members are included as separations and additions if the tier or gender has changed.

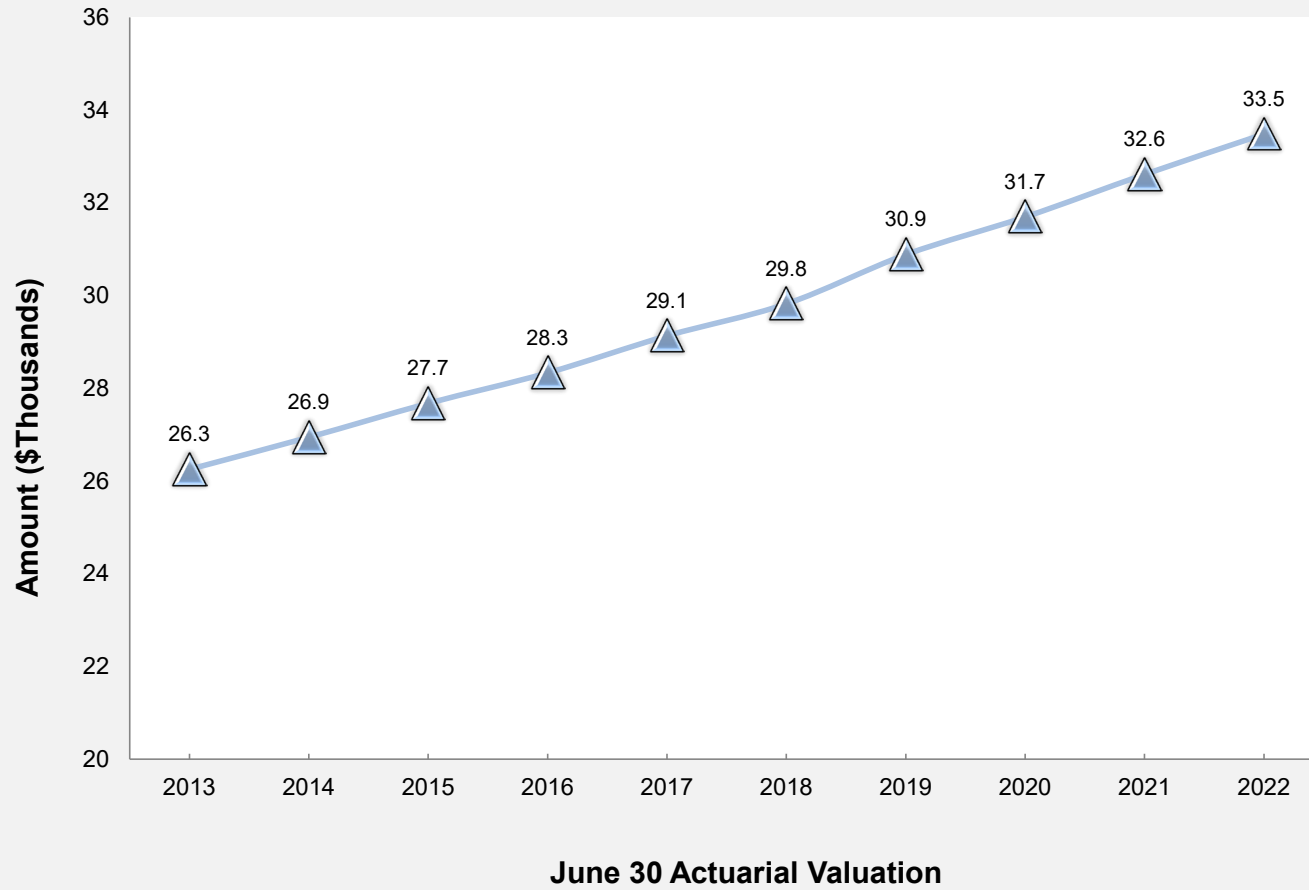
**Table XIII-8**  
**Distribution of Pension Benefits as of June 30, 2022**

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	80	4,554,279	56,928	13	693,579	53,352	93	5,247,858	56,429
45 TO 49	384	22,355,454	58,217	192	11,208,251	58,376	576	33,563,705	58,270
50 TO 54	1,144	65,903,784	57,608	547	30,782,143	56,274	1,691	96,685,927	57,177
55 TO 59	5,510	297,825,160	54,052	2,643	109,366,509	41,380	8,153	407,191,669	49,944
60 TO 64	10,896	515,120,746	47,276	7,238	250,267,805	34,577	18,134	765,388,551	42,207
65 TO 69	16,396	684,024,647	41,719	11,643	374,645,425	32,178	28,039	1,058,670,072	37,757
70 TO 74	16,384	636,528,710	38,851	11,636	350,673,601	30,137	28,020	987,202,311	35,232
75 TO 79	13,406	487,556,417	36,369	9,182	254,596,964	27,728	22,588	742,153,381	32,856
80 TO 84	9,233	303,839,438	32,908	6,132	152,731,940	24,907	15,365	456,571,378	29,715
85 TO 89	4,901	145,111,483	29,609	3,426	73,398,715	21,424	8,327	218,510,198	26,241
90 & UP	2,802	77,144,985	27,532	2,777	50,412,697	18,154	5,579	127,557,682	22,864
<b>TOTAL</b>	<b>81,136</b>	<b>3,239,965,103</b>	<b>39,933</b>	<b>55,429</b>	<b>1,658,777,629</b>	<b>29,926</b>	<b>136,565</b>	<b>4,898,742,732</b>	<b>35,871</b>
<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	9	210,475	23,386	5	92,717	18,543	14	303,192	21,657
40 TO 44	23	561,706	24,422	21	430,815	20,515	44	992,521	22,557
45 TO 49	77	1,833,755	23,815	70	1,426,978	20,385	147	3,260,733	22,182
50 TO 54	257	5,997,003	23,335	196	3,661,807	18,683	453	9,658,810	21,322
55 TO 59	647	15,077,097	23,303	571	11,256,607	19,714	1,218	26,333,704	21,620
60 TO 64	1,058	24,460,854	23,120	811	16,096,669	19,848	1,869	40,557,523	21,700
65 TO 69	1,025	22,086,558	21,548	736	13,569,370	18,437	1,761	35,655,928	20,248
70 TO 74	938	19,520,430	20,811	551	9,813,110	17,810	1,489	29,333,540	19,700
75 TO 79	770	15,813,494	20,537	317	5,104,396	16,102	1,087	20,917,890	19,244
80 TO 84	449	9,169,761	20,423	183	2,574,155	14,066	632	11,743,916	18,582
85 TO 89	142	2,750,582	19,370	79	1,090,050	13,798	221	3,840,632	17,378
90 & UP	52	970,261	18,659	29	338,817	11,683	81	1,309,078	16,161
<b>TOTAL</b>	<b>5,447</b>	<b>118,451,976</b>	<b>21,746</b>	<b>3,569</b>	<b>65,455,491</b>	<b>18,340</b>	<b>9,016</b>	<b>183,907,467</b>	<b>20,398</b>
<i>ACCIDENTAL DISABILITY:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	3	57,326	19,109	3	57,326	19,109
35 TO 39	39	1,839,752	47,173	16	624,862	39,054	55	2,464,614	44,811
40 TO 44	106	5,972,803	56,347	24	1,389,544	57,898	130	7,362,347	56,633
45 TO 49	176	10,439,092	59,313	61	3,120,049	51,148	237	13,559,141	57,212
50 TO 54	326	17,781,316	54,544	115	5,729,507	49,822	441	23,510,823	53,313
55 TO 59	546	27,243,817	49,897	158	6,622,336	41,914	704	33,866,153	48,105
60 TO 64	586	26,603,108	45,398	151	5,297,874	35,085	737	31,900,982	43,285
65 TO 69	530	22,048,883	41,602	108	3,602,693	33,358	638	25,651,576	40,206
70 TO 74	510	18,565,590	36,403	55	1,302,434	23,681	565	19,868,024	35,165
75 TO 79	555	17,934,396	32,314	42	939,634	22,372	597	18,874,030	31,615
80 TO 84	292	8,992,702	30,797	35	613,600	17,531	327	9,606,302	29,377
85 TO 89	121	3,825,116	31,613	17	240,822	14,166	138	4,065,938	29,463
90 & UP	76	2,245,765	29,550	9	139,154	15,462	85	2,384,919	28,058
<b>TOTAL</b>	<b>3,863</b>	<b>163,492,340</b>	<b>42,323</b>	<b>794</b>	<b>29,679,835</b>	<b>37,380</b>	<b>4,657</b>	<b>193,172,175</b>	<b>41,480</b>

**Table XIII-8**  
**Distribution of Pension Benefits as of June 30, 2022 (cont'd)**

AGE	MALE			FEMALE			TOTAL		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<i>ACCIDENTAL DEATH:</i>									
UNDER 30	10	283,430	28,343	5	146,019	29,204	15	429,449	28,630
30 TO 34	2	59,028	29,514	3	139,124	46,375	5	198,152	39,630
35 TO 39	2	98,098	49,049	11	412,676	37,516	13	510,774	39,290
40 TO 44	4	169,072	42,268	20	635,000	31,750	24	804,072	33,503
45 TO 49	3	99,363	33,121	17	1,023,596	60,212	20	1,122,959	56,148
50 TO 54	7	264,722	37,817	35	1,910,249	54,579	42	2,174,971	51,785
55 TO 59	2	48,149	24,075	55	3,099,207	56,349	57	3,147,356	55,217
60 TO 64	8	287,293	35,912	67	3,430,749	51,205	75	3,718,042	49,574
65 TO 69	6	236,436	39,406	62	3,386,194	54,616	68	3,622,630	53,274
70 TO 74	6	207,600	34,600	35	1,638,186	46,805	41	1,845,786	45,019
75 TO 79	3	111,360	37,120	39	2,039,350	52,291	42	2,150,710	51,207
80 TO 84	1	41,633	41,633	21	751,095	35,766	22	792,728	36,033
85 TO 89	0	0	0	4	190,083	47,521	4	190,083	47,521
90 & UP	0	0	0	5	119,323	23,865	5	119,323	23,865
<b>TOTAL</b>	<b>54</b>	<b>1,906,184</b>	<b>35,300</b>	<b>379</b>	<b>18,920,851</b>	<b>49,923</b>	<b>433</b>	<b>20,827,035</b>	<b>48,099</b>
<i>OTHER BENEFICIARIES:</i>									
UNDER 30	97	1,558,412	16,066	127	1,995,845	15,715	224	3,554,257	15,867
30 TO 34	96	1,324,743	13,799	118	1,475,567	12,505	214	2,800,310	13,086
35 TO 39	124	1,730,442	13,955	165	2,270,562	13,761	289	4,001,004	13,844
40 TO 44	165	2,108,821	12,781	221	2,763,052	12,502	386	4,871,873	12,621
45 TO 49	178	2,244,866	12,612	291	3,804,671	13,074	469	6,049,537	12,899
50 TO 54	175	1,976,066	11,292	395	5,080,992	12,863	570	7,057,058	12,381
55 TO 59	212	2,861,332	13,497	585	9,822,211	16,790	797	12,683,543	15,914
60 TO 64	186	1,889,741	10,160	946	17,706,473	18,717	1,132	19,596,214	17,311
65 TO 69	204	2,771,696	13,587	1,368	28,685,249	20,969	1,572	31,456,945	20,011
70 TO 74	204	2,516,730	12,337	1,801	37,808,439	20,993	2,005	40,325,169	20,112
75 TO 79	172	2,252,135	13,094	2,100	43,749,787	20,833	2,272	46,001,922	20,247
80 TO 84	149	2,052,036	13,772	2,131	40,911,781	19,198	2,280	42,963,817	18,844
85 TO 89	82	1,052,225	12,832	1,638	28,819,534	17,594	1,720	29,871,759	17,367
90 & UP	64	645,887	10,092	1,966	30,722,039	15,627	2,030	31,367,926	15,452
<b>TOTAL</b>	<b>2,108</b>	<b>26,985,132</b>	<b>12,801</b>	<b>13,852</b>	<b>255,616,202</b>	<b>18,453</b>	<b>15,960</b>	<b>282,601,334</b>	<b>17,707</b>
<i>ALL PENSIONERS AND BENEFICIARIES:</i>									
UNDER 30	107	1,841,842	17,213	132	2,141,864	16,226	239	3,983,706	16,668
30 TO 34	98	1,383,771	14,120	124	1,672,017	13,484	222	3,055,788	13,765
35 TO 39	174	3,878,767	22,292	197	3,400,817	17,263	371	7,279,584	19,622
40 TO 44	378	13,366,681	35,362	299	5,911,990	19,773	677	19,278,671	28,477
45 TO 49	818	36,972,530	45,199	631	20,583,545	32,621	1,449	57,556,075	39,721
50 TO 54	1,909	91,922,891	48,152	1,288	47,164,698	36,619	3,197	139,087,589	43,506
55 TO 59	6,917	343,055,555	49,596	4,012	140,166,870	34,937	10,929	483,222,425	44,215
60 TO 64	12,734	568,361,742	44,633	9,213	292,799,570	31,781	21,947	861,161,312	39,238
65 TO 69	18,161	731,168,220	40,260	13,917	423,888,931	30,458	32,078	1,155,057,151	36,008
70 TO 74	18,042	677,339,060	37,542	14,078	401,235,770	28,501	32,120	1,078,574,830	33,580
75 TO 79	14,906	523,667,802	35,131	11,680	306,430,131	26,235	26,586	830,097,933	31,223
80 TO 84	10,124	324,095,570	32,013	8,502	197,582,571	23,240	18,626	521,678,141	28,008
85 TO 89	5,246	152,739,406	29,115	5,164	103,739,204	20,089	10,410	256,478,610	24,638
90 & UP	2,994	81,006,898	27,056	4,786	81,732,030	17,077	7,780	162,738,928	20,918
<b>TOTAL</b>	<b>92,608</b>	<b>3,550,800,735</b>	<b>38,342</b>	<b>74,023</b>	<b>2,028,450,008</b>	<b>27,403</b>	<b>166,631</b>	<b>5,579,250,743</b>	<b>33,483</b>

**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 <sup>1</sup>	Number	Annual Allowances	Number	Annual Allowances <sup>2</sup>		
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
2022	11,050	460,225,948	6,568	169,124,847	166,631	5,579,250,743	5.5%	33,483

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

<sup>2</sup> 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
ACCNYS	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