



A nighttime photograph of the New York City skyline. The Freedom Tower is the central focus, illuminated in blue and white. To its right are other skyscrapers, including the 111 West 57th Street building, also lit up. In the foreground, the Manhattan Bridge spans across the water, its stone towers and suspension cables illuminated with warm yellow lights. The water in the foreground is dark with some light reflections. The sky is a deep blue and purple, indicating twilight.

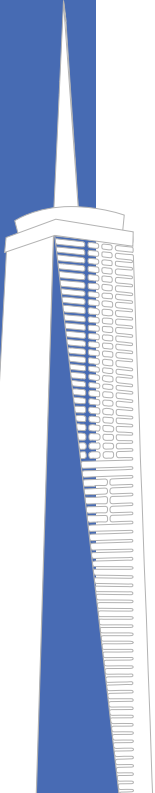
# 2018

## Comprehensive Annual Financial Report

**FOR THE FISCAL YEARS ENDED JUNE 30, 2018 AND JUNE 30, 2017**

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - A FIDUCIARY FUND OF THE CITY OF NEW YORK

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**THE NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
**BROOKLYN, NEW YORK**  
**A FIDUCIARY FUND OF THE CITY OF NEW YORK**  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
**FOR THE FISCAL YEARS ENDED**  
**JUNE 30, 2018 AND JUNE 30, 2017**

**Prepared by:** The Finance Division of the  
New York City Employees' Retirement System  
Michael A. Goldson, Director, Finance

**Executive Director:** Melanie Whinnery

**Actuary:** Sherry Chan, Chief Actuary

**Custodian of Funds:** Scott Stringer,  
Comptroller of the City of New York

**Headquarters Address:** 335 Adams Street, Suite 2300  
Brooklyn, N.Y. 11201-3724

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FOR THE FISCAL YEARS ENDED JUNE 30, 2018 AND JUNE 30, 2017**

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**PART 1**  
**INTRODUCTORY SECTION**



# BOARD OF TRUSTEES

## Mayor's Representative

Chairperson

**Honorable Scott Stringer**  
Comptroller of the City of New York

**Honorable Ruben Diaz, Jr.**  
Borough President of The Bronx

**Honorable Letitia James**  
Public Advocate

**Honorable James Oddo**  
Borough President of Staten Island

**Honorable Gale Brewer**  
Borough President of Manhattan

**Mr. Henry Garrido**  
Executive Director  
District Council 37, AFSCME

**Honorable Eric Adams**  
Borough President of Brooklyn

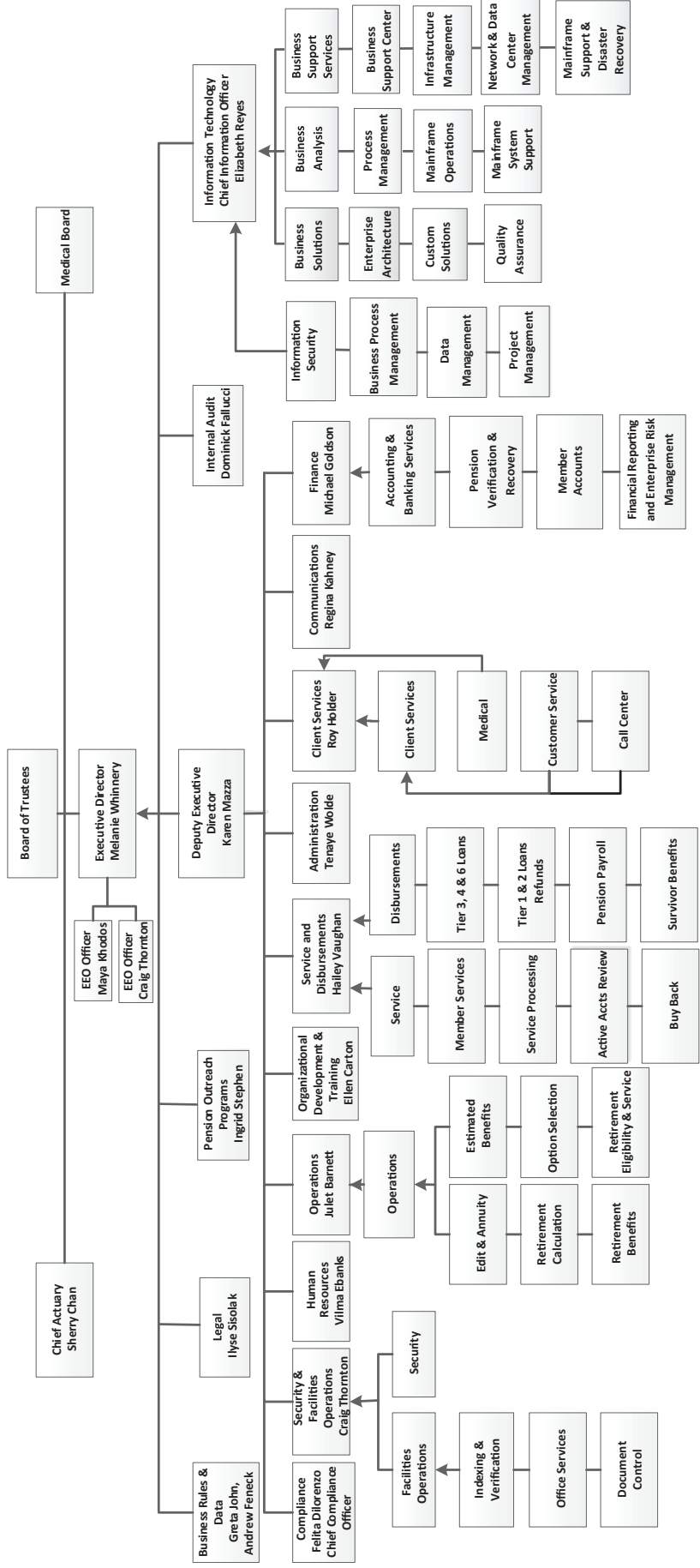
**Mr. Anthony Utano**  
President  
Transport Workers Union, Local 100

**Honorable Melinda Katz**  
Borough President of Queens

**Mr. Gregory Floyd**  
President  
International Brotherhood of Teamsters,  
Local 237

**Melanie Whinnery**  
NYCERS Executive Director

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)  
Organization Chart





Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**New York City  
Employees' Retirement System  
New York**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2017**

*Christopher P. Morrill*

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award  
For Funding and Administration  
2018***

Presented to

**New York City Employees' Retirement System**

In recognition of meeting professional standards for  
plan funding and administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in cursive script that reads "Alan H. Winkle".

Alan H. Winkle  
Program Administrator



December 31, 2018

Board of Trustees  
New York City Employees' Retirement System  
335 Adams Street  
Brooklyn, NY 11201-3724

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the New York City Employees' Retirement System (Plan) for the fiscal year ended June 30, 2018. The CAFR consists of five sections:

1. The *Introductory Section* contains this Letter of Transmittal, the Administrative Organization, the Certificate of Achievement for Excellence in Financial Reporting, the Public Pension Standards Award, the Summary of Plan Provisions, and a summary of legislation enacted during the fiscal year.
2. The *Financial Section* contains the opinion of the independent certified public accountant, the Management Discussion and Analysis (MD&A), the financial statements of the Plan and other required supplementary financial information and tables. The MD&A provides an overview of the current year's financial activity with an analysis of the effects of any significant changes from the prior year.
3. The *Investment Section* contains a report on investment policies and activity, investment results, and various investment schedules.
4. The *Actuarial Section* contains the Plan's actuarial certification letter and various actuarial tables.
5. The *Statistical Section* contains various statistical tables consisting of significant data pertaining to the Plan.

## ACCOUNTING SYSTEM AND REPORTS

This CAFR has been prepared in conformity with generally accepted accounting principles (GAAP) for governmental units, as set forth by the Governmental Accounting Standards Board (GASB), as well as the reporting requirements prescribed by the Government Finance Officers Association of the United States and Canada (GFOA). Preparation of the CAFR is the responsibility of the Plan's management. The accrual basis of accounting is used to record assets and liabilities and revenue and expenses. Revenues for the system are taken into account when earned, without regard to date of collection, and expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Investments are valued at fair value.

The management of the Plan is responsible for establishing and maintaining a system of internal accounting control. In fulfilling this responsibility, estimates and judgments made by management are required to assess the expected benefits and related costs of control procedures so that the cost of a control does not exceed the benefits to be derived. The objective of a system of internal accounting control is to provide management with reasonable, but not necessarily absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition. It should also ensure that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial statements in conformity with generally accepted accounting principles.

The internal accounting controls of the system are adequate to meet the above objectives. There have been no irregularities that would have a material effect on the financial statements. The supporting schedules and statistical tables also fairly reflect the status and operations of the system.

In fiscal year 2015, the Plan adopted GASB Statement No. 72, *Fair Value Measurement and Application*. GASB 72 requires the funds to use valuation techniques which are appropriate under the circumstances and are either a market approach, a cost approach, or an income approach. GASB 72 also requires additional related note disclosures. There was no material impact on the Plan's financial statement as a result of the implementation of Statement No. 72.

## **AWARDS**

The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to NYCERS for its CAFR for the fiscal year ended June 30, 2017. In order to be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized CAFR, the contents of which conform to program standards. Such financial reports must satisfy both generally accepted accounting principles and applicable legal requirements. The Plan has received this certificate for the last 32 years.

A Certificate of Achievement is valid for a period of one year only. We believe our CAFR for the fiscal year ended June 30, 2018 continues to conform to the Certificate of Achievement Program requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The Public Pension Coordinating Council (PPCC) awarded a Public Pension Standards Award for Funding and Administration to NYCERS for 2018. This is the ninth year that NYCERS has applied for and received this award. In order to be awarded a Public Pension Standards Award, a public pension program must meet professional standards for plan design, administration, and funding, as set forth in the Public Pension Standards. The Public Pension Standards are intended to reflect minimum expectations for public retirement system management and administration, as well as serve as a benchmark by which all defined benefit public plans should be measured. A Public Pension Standards Award is valid for a period of one year.

## ADMINISTRATION

NYCERS was established by an act of the Legislature of the State of New York under Chapter 427 of the laws of 1920. Chapter 427 created a retirement system in accordance with sound actuarial principles. The governing statutes are contained in the New York State Retirement and Social Security Law (RSSL) and the New York City Administrative Code. The head of the retirement system is the Board of Trustees. The system became operational on October 1, 1920 with 13,331 original members. As of June 30, 2016, the date of the Plan's most recent actuarial valuation, the Plan's membership included 185,481 members in active pay status, 147,514 retirees and beneficiaries receiving benefits, 8,895 terminated vested members who are not yet receiving benefits, and 17,989 members who are no longer on payroll, but not otherwise classified.

## INITIATIVES

During fiscal year 2018, NYCERS continued along the journey of transformation through the accomplishment of several key initiatives designed to help us deliver a world-class customer experience and enhance our operations, while preparing for the replacement of our legacy systems. The data analysis and cleansing initiatives that started prior to the current fiscal year continued in the current fiscal year and will help to lay the foundation for the new pension administration system. In July 2017, NYCERS established an Enterprise Risk Management program to assess and analyze risks across the organization. In August 2017, NYCERS completely redesigned its website, enhancing the accuracy and scope of the benefit estimates and enabling members to get a clearer picture of the benefits to which they are entitled. Along with development of the new website, NYCERS also rolled out electronic delivery of members' Annual Disclosure Statements and established a streamlined method of registering members with secure access to their accounts. NYCERS also established a World Trade Center (WTC) section of the website, designed to provide assistance and updates to our members who were affected by the WTC disaster and its aftermath.

In October 2017, NYCERS established a formal pension outreach program to inform and educate NYCERS' membership about the pension benefits available to them and the services that NYCERS offers. As part of the pension outreach effort, NYCERS partnered with other organizations such as Social Security and the New York City Office of Labor Relations to provide participants with a well-rounded perspective on what to expect in retirement, including information not only about NYCERS pension benefits, but also defined contribution plans, Social Security benefits, and health insurance. In conjunction with the program, NYCERS initiated a process to accept new membership applications at benefit seminars at off-site locations in real-time.

As part of the program to update our legacy systems, NYCERS began work on a Customer Relationship Management System (CRM), which is at the heart of our digital transformation. The CRM platform will offer many tangible benefits. For starters, it offers multiple channels (e.g. email, chat, and text messaging) by which our members and retirees can interact with NYCERS, faster delivery of written communication, new online applications, the ability to upload medical evidence, and the launch of our first MyNYCERS mobile application. The CRM will also expand our service offerings to Employers through the implementation of a new secured online portal. For our internal staff, the CRM provides a 360-degree view of our Clients, enabling employees to resolve inquiries more quickly. It also introduces our very first knowledge-base tool to share content and improve the quality and completeness of information.

## MEMBERSHIP

Membership in NYCERS is available to all New York City employees who are not eligible to participate in the New York City Teachers' Retirement System, the New York City Police Pension Fund, the New York City Fire Department Pension Fund, or the New York City Board of Education Retirement System.

All persons holding permanent civil service positions in the competitive or labor class are required to become members of the system six months after their date of appointment, but may voluntarily elect to join the system prior to their mandated membership date. All other eligible employees have the option of joining the system upon appointment or at any time thereafter.

All members who joined NYCERS prior to July 1, 1973 are Tier 1 members.

All members who joined NYCERS on or after July 1, 1973, but prior to July 27, 1976, and Investigator Members employed in any New York City District Attorney Office who joined NYCERS on or after July 1, 1973, but prior to April 1, 2012, are Tier 2 members subject to Article 11 of the RSSL.

All members of the uniformed force of the NYC Department of Correction who joined NYCERS on or after July 27, 1976, but prior to April 1, 2012, are Tier 3 members subject to Article 14 of the RSSL.

All members (except members of the uniformed force of the Department of Correction and Investigator Members employed in a New York City District Attorney Office) who joined NYCERS on or after July 27, 1976, but prior to April 1, 2012, are Tier 4 members subject to Article 15 of the RSSL. Tier 4 members who joined NYCERS on or after July 27, 1976, but prior to September 1, 1983, retain all rights, benefits, and privileges provided under Article 14 of the RSSL (Tier 3).

All members who joined or join NYCERS on or after April 1, 2012 are Tier 6 members except members of the uniformed force of the Department of Correction, members of the uniformed force of the Department of Sanitation, and Investigator Members employed in a New York City District Attorney Office. These members are subject to Article 14 of the RSSL.

## EMPLOYERS

The Plan is a cost-sharing, multiple-employer public employee retirement system. In addition to the various departments of the City of New York, members of NYCERS are also employed by the New York City Transit Authority, the Triborough Bridge and Tunnel Authority, the New York City Housing Authority, the New York City Health and Hospitals Corporation, the New York City Housing Development Corporation, the City University of New York, the New York City School Construction Authority, and the New York City Municipal Water Finance Authority. A table listing these employers and the number of their respective participating employees may be found on page 190 in the Actuarial Section.



## CONTRIBUTIONS

The benefits of the system are financed by employer contributions, employee contributions, and from earnings on the invested funds of the system.

As of July 1, 1970, Tier 1 and Tier 2 Transit operating-force employees enrolled in the Transit 20-Year Plan are non-contributory. For all other Tier 1 and Tier 2 members, contributions are dependent upon the member's age and the retirement plan elected. For Tier 3 and Tier 4 members, Basic Member Contributions (BMCs) are 3% of gross wages and cease upon the attainment of 10 years of Credited Service or the tenth anniversary of membership (except for certain Corrections, Sanitation and District Attorney members as noted below), whichever occurs first. Tier 4 Transit operating-force members, however, pay 2% of gross wages for as long as they remain in service. Certain Tier 2, Tier 3, and Tier 4 members who are participants in special retirement plans are required to make Additional Member Contributions (AMCs) in addition to their BMCs.

Tier 6 members are generally mandated to contribute BMCs until they separate from City service or until they retire. The BMC rate for most Tier 6 members is dependent on annual wages earned during a plan year; the rate ranges from 3% for salaries up to \$45,000, to 6% for salaries greater than \$100,000. Tier 6 Special Plan members, such as those in the Special Peace Officer 25-Year Plan, must also contribute AMCs in accordance with the rates and durations specified for their particular special plan.

Uniformed members of the Department of Correction, uniformed members of the Department of Sanitation and District Attorney ("DA") Investigator members employed in a District Attorney office, who became employed in one of these titles on or after April 1, 2012, participate in a 22-Year Plan. These members are required to contribute 3% of gross wages until the later of 25 years of service or until they retire.

The Chief Actuary of the system determines employer contributions annually.

## REVENUES

As mentioned previously, the funds needed to finance retirement benefits are accumulated from a combination of employer contributions, employee contributions, and through income on investments. Contributions and investment income for fiscal year 2018 totaled \$9.0 billion, a decrease of \$1.8 billion from \$10.8 billion for fiscal year 2017. As discussed further in the Management Discussion and Analysis in the Financial Section, this decrease in revenue is primarily due to the fact that gains in Fiscal Year 2018 did not reach levels achieved in Fiscal Year 2017. However, equity markets were relatively strong and accounted for a significant portion of the increase in the value of the portfolio. The Table of Revenue by Source on page 206 presents figures for the last 10 years.

## EXPENSES

The primary expenses of a retirement system relate to the purpose that the system was created -- to pay benefits to eligible retirees and beneficiaries. Consequently, recurring monthly retirement benefit payments, death benefit payments, and refunds of contributions to terminated members comprise the major expenses of the Plan. The Table of Benefit Payments by Type on page 208 and the Table of Changes in Fiduciary Net Position on page 207 present the details of the different expenses over the last 10 years.

## FUNDING

One of the most important measures for a retirement system is the level of funding. A higher funding percentage translates into a larger ratio of assets available to meet the system's future obligations. A well-funded plan improves the likelihood that the assets that are irrevocably committed to the payment of benefits will be adequate to cover the required benefit payments. The goal is to fund members' future retirement benefits during their working careers. As of June 30, 2016, the Plan's most recent actuarial valuation date, the Plan's funded ratio is 71.4%, an increase from 69.9% as of June 30, 2015. This ratio was determined by the Actuary using the Entry Age Actuarial Cost Method. Please refer to the Actuarial Section for details concerning the actuarial methods and assumptions used in determining the required funding.

Under the Accounting Standard "GASB Statement No. 67, Financial Reporting for Pension Plans," a defined-benefit pension plan is also required to report fiduciary net position as a percentage of the plan's total pension liability. This method reports assets at current fair value and, as such, is more sensitive to market volatility. As of June 30, 2018, the fiduciary net position represents 78.8% of total pension liability for NYCERS and the five Variable Supplement Funds.

## INVESTMENTS

The investment portfolio is a significant component in the funding of the system. The Administrative Code of the City of New York authorizes the investment of Plan assets subject to the terms, conditions, limitations and restrictions imposed by law for investments by savings banks. The New York State Retirement and Social Security Law (RSSL) establishes the criteria for permissible investments.

The Plan's Board of Trustees adopts investment policies. The Board creates the overall investment policy under which the Plan's funds are invested and, in defining the investment objectives, develops a framework under which specific objectives are established with regard to allocating the assets of the Plan among various investment types. The current policy target mix consists of 29.0% in Domestic Equities, 20.0% in an International Equity fund, 33.0% in Domestic Fixed Income, and 18.0% in Alternative Investments.

For the one-year period that ended on June 30, 2018, the Plan's rate of return on investments was 8.56%, more than NYCERS' policy benchmark, which had a rate of return of 7.84%. Further details concerning the criteria for the Plan's investments, policies, investment performance, and other investment tables may be found in the Investment Section. Listings of the Plan's major domestic equity and long-term bond holdings can be found on pages 141 and 142. Although this CAFR does not include a full list of the Plan's investment securities, such information is available upon request from the NYC Comptroller's Office.

## ECONOMIC CONDITIONS

The City's economy in Fiscal Year 2018 grew 3.1% in real gross city product, higher than the 2.1% in fiscal year 2017. The City's economic growth exceeded the national GDP growth of 2.6% in Fiscal Year 2018, making this the sixth consecutive year that the City's economic growth has outperformed that of the nation.

The unemployment rate fell to 4.3% in fiscal year 2018, the lowest level on record. The labor force grew by 17,000, rising to a record level of over 4.2 million New Yorkers. All five boroughs within the city enjoyed a broad decline in the unemployment rate during the fiscal year. Overall, the City added 76,600 private sector jobs, a gain of 2%, in fiscal year 2018, slightly less than the

2.1% added in fiscal year 2017. About 64% of those new jobs were in the lower-wage sector (below \$62,000 per year); 17.5% were in the middle-wage sector (\$62,000 to \$124,000); 18.5% were in the higher-wage sector (over \$124,000).

Earnings and wages continued to increase in Fiscal Year 2018. Average hourly earnings of all private New York City employees rose 2.8%, slightly higher than the 2.7% growth in Fiscal Year 2017.

## PROFESSIONAL SERVICES

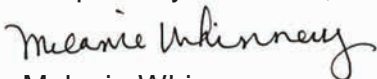
The opinion of the independent certified public accounting firm on the Plan's financial statements is included in this CAFR. The Comptroller of the City of New York is the custodian of the Plan's assets and provides investment services through independent advisors and consultants who are listed in the Investment Section's Schedule of Fees paid to Investment Managers and Consultants on page 144. A listing of brokerage firms, and the amounts paid to such firms, can be found in the Schedule of Brokers' Commissions on page 152. Other consultant services are shown in the Financial Section's Schedule of Payments to Consultants on page 131. Actuarial services are provided to the Plan by the Chief Actuary of the City of New York, who is appointed by the Board of Trustees. The City's Corporation Counsel provides legal services to the Plan.

## ACKNOWLEDGMENTS

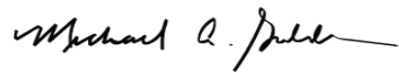
The compilation of this CAFR reflects the combined effort of NYCERS' staff, under the leadership of the Board of Trustees. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship for the assets contributed by the members and their employers.

On behalf of the Board of Trustees, we would like to take this opportunity to express our gratitude to the staff, the advisors, and to the many people who have worked diligently to ensure the continued successful operation of the system.

Respectfully submitted,



Melanie Whinnery  
Executive Director



Michael A. Goldson  
Director, Finance

# LEGISLATION ENACTED DURING FISCAL YEAR 2018 (July 1, 2017 – June 30, 2018)

## Laws of 2017 (enacted between July 1, 2017 and December 31, 2017)

### Chapter 71 – Extension of Interest Rate

This bill extends for one fiscal year, until June 30, 2018, the 7% rate of interest used by the Chief Actuary for NYCERS in valuing the retirement system liabilities for the purpose of computing the amount of employer contributions. The bill also extends for one fiscal year the rate of interest to be paid into certain constituent funds of the City retirement systems and the amount of interest to be credited on AMCs and ITHP reserves for Tier 1 and Tier 2 members. The effective date of this law is July 1, 2017.

### Chapter 76 – Increase in Special Accidental Death Benefit

Chapter 76 of the Laws of 2017 increases the salary used in the computation of the special accidental death benefit provided under Section 208-f of the NYS General Municipal Law by 3%. The beneficiaries of the following NYCERS members are covered: members of the Uniformed Correction Force, Housing and Transit Police, Emergency Medical Technicians and Triborough Bridge and Tunnel Authority (TBTA) members. The benefit is payable to the widow, widower, or the children of the deceased (under 18 years of age or under 23 if the child is a student) if the widow or widower is deceased. Chapter 76 is deemed to have been in full force and effect on July 1, 2017.

### Chapter 368 – Increase to Overtime Ceiling Percentage

Commencing on January 1, 2018 and for each year thereafter, the overtime ceiling percentage shall be increased by an amount equal to annual inflation, which will be determined based on the increase in the consumer price index (CPI) in the one-year period ending on the September 30th prior to the overtime ceiling adjustment effective on the following January 1st. This changes the reporting of the overtime limit from a fiscal year basis to a calendar year basis. This law is effective as of October 23, 2017.

### Chapter 445 – T25/55 Purchase of Service when on Preferred Eligible List

This bill amends section 604-b of the RSSL to allow members of the T25/55 Plan who were placed on a preferred eligible list during the period between 5/11/2010 and 7/25/2012 by reason of the abolition of their position, to purchase back the service for the time period that they were on the preferred eligible list. These members will be allowed to purchase back this time by making the required contributions to the plan covering the period they were on the preferred eligible list, including interest. This buy back time will be credited as allowable service in the T25/55 Plan. Chapter 445 is deemed to have been in full force and effect on November 30, 2017.

### Chapter 457 – Special Accidental Death Benefits for Sanitation

This law amends section 208-f of the New York State General Municipal Law. It provides Special Accidental Death Benefits to eligible beneficiaries of NYCERS members who are employed in the Uniformed Force of the Department of Sanitation, if the member dies as a natural and proximate result of an accident sustained in the performance of duty on or after November 1, 1996.

The new legislation further amends New York State Retirement and Social Security Law (RSSL) §§ 501 and 601 to prospectively expand the definition of a Tier 4 and modified Tier 3 Uniformed Sanitation Workers' eligible beneficiaries for Accidental Death Benefits contained in RSSL §§ 509 and 607. The new definition includes: (1) a surviving spouse who has not renounced survivorship rights in a separation agreement, (2) surviving children until age twenty-five, (3) dependent parents, determined under regulations promulgated by the comptroller, and (4) any other person who qualified as a dependent on the final federal income tax return of the member or the return filed in the year immediately preceding the year of death, until such person reaches twenty-one years of age.

The law is effective as of December 13, 2017. The amendment to General Municipal Law section 208-f is retroactive to accidental deaths sustained in the performance of duty on and after November 1, 1996. The amendments to RSSL sections 501 and 601 are effective as of December 13, 2017.

## **Chapter 467 – Allows Special Plan members to Use Basic or Additional Member Contributions to offset MCAF or RRF Deficits**

This bill allows participants in Special Plans to, upon retirement, use a surplus in their Additional Member Contributions (AMCs) to offset any deficit in their Basic Member Contribution account (MCAF), or to use a surplus in Basic Member Contributions (BMCs) to offset a deficit in the Additional Member Contribution account (RRF). Participants in the following Plans are affected by this legislation:

### **Article 14 Special Plans:**

- 20-Year Retirement Plan for New York City Correction Members below the Rank of Captain – CO-20 (RSSL § 504-a)
- 20-Year Retirement Plan for New York City Correction Members of the Rank of Captain or above – CC-20 (RSSL § 504-b)
- 20-Year Retirement Plan for New York City Correction Members – CF-20 (RSSL § 504-d)

### **Article 15 Special Plans:**

- 20-Year Retirement Plan for New York City Sanitation Members — SA-20 (RSSL § 604-a)
- 25-Year and Age 55 Retirement Plan for New York City Transit Authority Members – T2555 (RSSL § 604-b)
- Optional 25-Year Early Retirement Plan for Certain New York City Members – 55/25 (RSSL § 604-c)
- 20-Year/Age 50 Retirement Plan for Triborough Bridge and Tunnel Members – TBTA 20/50 (RSSL § 604-c)
- Age 57 Retirement Plan for Certain New York City Members — 57/5 (RSSL § 604-d)
- 25-Year Retirement Plan for Dispatcher Members – DIS-25 (RSSL § 604-e)
- 25-Year Retirement Plan for EMT Members – EMT-25 (RSSL § 604-e)
- 25-Year Retirement Plan for Deputy Sheriff Members – DSH-25 (RSSL § 604-f)
- 25-Year Retirement Plan for Special Officer, Parking Control Specialist, School Safety Agent, Campus Peace Officer or New York City Taxi and Limousine Inspector Members – SPO-25 (RSSL § 604-f)
- 25-Year/Age 50 Retirement Plan for Automotive Members – AUT-25 (RSSL § 604-g)
- 25-Year Retirement Plan for Police Communications Members – PCT-25 (RSSL § 604-h)

This bill is effective as of December 18, 2017.

## **Laws of 2018 (enacted between January 1, 2018 and June 30, 2018)**

### **Internal Revenue Code (IRC) section 402(c) - Corrected**

The new tax law amends IRC section 402(c) and extends the time that a pensioner has to roll over his or her outstanding loan balance at retirement in order to avoid tax consequences. When a pensioner has an outstanding loan balance at retirement, the pensioner's retirement allowance is actuarially reduced, which is referred to as a loan offset under the IRC. A loan offset is treated as an actual distribution, which, under the previous law, is eligible for a tax-free rollover to another eligible retirement plan within 60 days. Under the new law, the retiree has until the due date of his or her tax return for the year in which the distribution was made. For example, if a member retires on January 1, 2018 with an outstanding loan balance, the member will have until April 15, 2019 (or later if there are extensions to the due date of the member's tax return) to roll over the outstanding balance amount to an eligible retirement plan. This law does not affect members who leave city service (not retired) with an outstanding loan balance because NYCERS requires that the member continue to pay back the loan. This law took effect on January 1, 2018.

### **Chapter 266 – Extension of Time to File a Notice of Participation in WTC Rescue, Recovery, and Cleanup Operations**

Chapter 266 of the Laws of 2018 extends the time for members or eligible beneficiaries to file a Notice of Participation in World Trade Center Rescue, Recovery, and Cleanup Operations to September 11, 2022. This law shall take effect immediately and is deemed to have been in full force and effect on and after September 11, 2001.

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## SUMMARY OF PLAN PROVISIONS

### GLOSSARY OF TERMS

#### ***Accumulated Deductions***

The total of all contributions made by members, **plus** compounded interest earned on such contributions (8.25% for Tiers 1 and 2; 5% for Tiers 3, 4 and 6).

#### ***Active Service***

Service rendered while a member is on the payroll and being paid by the City of New York or a Participating Employer.

#### ***Additional Member Contributions (AMCs)***

Contributions made by participants in a special plan in addition to Basic Member Contributions. AMC rates vary according to special plan provisions. AMCs are held in the Retirement Reserve Fund for each special plan.

#### ***Allowable Correction Service***

Service rendered in the uniformed force of the New York City (NYC) Department of Correction or any of the following uniformed forces:

- o NYC Housing Police
- o NYC Transit Police
- o NYC Department of Sanitation
- o NYC Police Department
- o NYC Fire Department

Service in one of the above-mentioned uniformed forces must have been rendered immediately prior to becoming a member of the uniformed force of the NYC Department of Correction to count as Allowable Correction Service.

Note: The 22-Year Plan for Uniformed Correction Force members (CF-22) is a Credited Service plan, not an Allowable Service plan.

#### ***Allowable Sanitation Service***

Service rendered in the uniformed force of the New York City (NYC) Department of Sanitation or any of the following uniformed forces:

- o NYC Housing Police
- o NYC Transit Police
- o NYC Department of Correction
- o NYC Police Department
- o NYC Fire Department

Service in one of the above-mentioned uniformed forces must have been rendered immediately prior to becoming a member of the uniformed force of the NYC Department of Sanitation to count as Allowable Sanitation Service.

Note: The 22-Year Plan for Uniformed Sanitation Force members (SA-22) is a Credited Service plan, not an Allowable Service Plan.

***Allowable Service as a Dispatcher Member***

Service rendered while employed by the City of New York as a Fire Alarm Dispatcher, Supervising Fire Alarm Dispatcher, levels 1 and 2, Director of Dispatch Operations or Deputy Director of Dispatch Operations, and all service rendered in the following NYC Civil Service titles, or in a title whose duties require the supervision of employees serving in such titles:

Chief Fire Alarm Dispatcher	Administrative Fire Alarm Dispatcher	Bus Operator (Transit)
Train Dispatcher (Transit)	Firefighter	Police Officer
Correction Officer	Fire Marshal	Probation Officer
Police Communications Technician	Supervising Police Communications Technician	Principal Police Communications Technician
Police Administrative Aide	Senior Police Administrative Aide	Emergency Medical Technician
Advanced Emergency Medical Technician	Emergency Medical Service Specialist, Levels 1 and 2	Fire Prevention Inspector
Fire Protection Inspector	Senior Fire Prevention Inspector	Principal Fire Prevention Inspector
Associate Fire Protection Inspector	County Detective	Detective (NYPD)
Detective Investigator	Senior Detective Investigator	Deputy Sheriff
Senior Deputy Sheriff	Inspector of Fire Alarm Boxes	Radio Operator
Radio Repair Technician	Supervisor of Radio Repair Operations	Taxi and Limousine Inspector
Senior Taxi and Limousine Inspector	MTA Bridge and Tunnel Officer	

***Allowable Service as an EMT Member***

Service rendered while employed by the City of New York or the NYC Health & Hospitals Corporation in a title whose duties are those of an Emergency Medical Technician or Advanced Emergency Medical Technician, or in a title whose duties require the supervision of employees serving in such titles. Service rendered in the title of Motor Vehicle Operator with the City of New York or NYC Health & Hospitals Corporation is also considered Allowable Service as an EMT Member.

***Allowable Service as a Special Officer***

Service rendered in the following titles whose duties are those of a peace officer under the NYS Criminal Procedure Law:

- o Special Officer (employed by a City agency, the NYC Health and Hospitals Corporation, or the NYC Housing Authority)
- o Urban Park Ranger (employed by the NYC Parks Department)
- o Parking Control Specialist (employed by the NYC Department of Transportation)
- o School Safety Agent (employed by the NYPD/NYC Department of Education)
- o Campus Peace Officer (employed by the City University of New York)
- o Taxi and Limousine Inspector (employed by the NYC Taxi and Limousine Commission)

***Allowable Service in the Transit Authority***

Membership Service (not purchased service) while employed by the New York City Transit Authority in a Career and Salary title or Transit Operating Force title.

***Annuity***

Payments made for the life of a Tier 1 or Tier 2 retiree derived from his or her Accumulated Deductions. These payments are typically based on the contributions the employee made to NYCERS throughout his or her membership.

***Average Compensation (applies only to certain Tier 1 and 2 plans)***

The average of compensation earned from the completion of 20 years to the date of retirement.

***Career Pension Plan Position***

Any position in City service other than a Transit Operating Force position, a position in the uniformed force of the NYC Department of Sanitation, or the uniformed force of the NYC Department of Correction.

***Career Pension Plan Qualifying Service***

In general, Membership Service rendered in a Career Pension Plan Position or Membership Service rendered prior to July 1, 1968, Transferred Service from another New York City or New York State public employee retirement system, up to six months of Purchased Service, provided such service was continuous and immediately preceded membership prior to January 1, 1968, or Pension Enhancement Service.

***Credited Service***

The total amount of service used for members' pension calculations, except for participants of special plans that exclusively have an Allowable Service requirement. The following types of service are included in the total:

- o Service rendered while a member of NYCERS, and
- o Service rendered while a member of another retirement system within New York City or New York State and transferred to NYCERS, and
- o Service purchased under applicable laws and rules for buy-back
- o Membership Reinstatement Service
- o Military Service
- o Union Leave Service

***Designated Beneficiary***

The person(s) nominated by a member or retiree to receive an Ordinary Death Benefit or Post-Retirement Death Benefit, respectively, upon his or her death. A Designated Beneficiary can be a Primary Beneficiary or a Contingent Beneficiary (entitled to receive benefits only if there are no surviving Primary Beneficiaries).

### **Eligible Beneficiary**

A person who is eligible to be paid an Accidental Death Benefit, in the following order of priority:

- o a surviving spouse who has not remarried (A surviving spouse of a Tier 1 or Tier 2 uniformed worker of the NYC Department of Sanitation may subsequently remarry and still retain the Accidental Death Benefit.)
- o dependent child - up to age 18 for Tiers 1 and 2 members
- o dependent child - up to age 25 for Tiers 3, 4 and 6 members
- o dependent parents, or for Tiers 3, 4 and 6 members only, any person up to age 21 who qualified as a dependent on the member's final Federal income tax return.
- o anyone you name as your beneficiary for your Ordinary Death Benefit (not applicable to 22-Year Plan members)

An Eligible Beneficiary must apply for an Accidental Death Benefit and NYCERS' Medical Board and Board of Trustees must approve the application.

In the event that a class of Eligible Beneficiaries consists of more than one person (for example, two or more children under the age of 25), benefits will be divided equally among such persons.

### **Enhanced Disability Benefit (EDB)**

A retirement benefit enhancement program for eligible 22-Year Plan members of the Uniformed Correction Force and Uniformed Sanitation Force.

### **Excess Contributions**

Contributions a Tier 1 or Tier 2 member makes, and all interest earned on such contributions, after the member has satisfied the requirements for his or her plan.

### **Excess Increased-Take-Home-Pay**

Contributions made by the employer of a Tier 1 or Tier 2 member after the member has satisfied the requirements for his or her plan.

### **Final Average Salary (FAS)**

*For Tiers 2, 3 and 4:*

The greater of the average annual wages earned during any three consecutive calendar years or the final 36 months immediately preceding a member's retirement date. **But**, if the salary earned during any year included in the calculation of the member's FAS exceeds the specific limits for Tier 2, Tier 3 or Tier 4 members, the amount in excess of such limits is excluded from the computation.

*For 22-Year Plans and Tier 6:*

The greater of the average annual wages earned during any five consecutive calendar years or the final 60 months immediately preceding a member's retirement date. **But**, if the salary earned during any year included in the calculation of the member's FAS exceeds the specific limits for Tier 6 members, the amount in excess of such limits is excluded from the computation.

### **Final Compensation**

The average compensation earned during the five-year period immediately preceding a member's retirement date or any consecutive five calendar years prior to the member's retirement date that would provide him or her with the greatest average compensation.

***Final Salary (Tier 1 Members and Tier 2 DA Investigators in the 20-Year Plan)***

*For members of the uniformed forces of the departments of Sanitation and Correction who joined the retirement system prior to July 1, 1973:*

- o the annual rate of salary earnable on the day before the date of retirement.

*For all others:*

- o Earned or earnable salary in the year before retirement or the average of annual compensation earned during any three calendar years.

Tier 1 members with a membership date after June 17, 1971 and Tier 2 DA Investigators in the 20-Year Plan are subject to certain limits if their Final Salary exceeds that of the prior year by more than 20%.

***Increased-Take-Home-Pay (ITHP)***

Contributions for Tier 1 and Tier 2 members that are contributed by their employer equal to 2% of the members' gross salaries; 2.5% for Correction Officers.

***Pension Reserve***

The total amount computed to pay retirement benefits over a retiree's lifetime, including ITHP but excluding Accumulated Deductions.

***Physically-Taxing Position***

A position in City service included on the Official List of Physically-Taxing Positions promulgated and maintained by the NYC Office of Labor Relations.

***Post-Retirement Death Benefit (Death Benefit Plan 2 only)***

A lump-sum death benefit payable to the person(s) designated by certain Tier 2, 3, 4 and 6 members. The amount of the benefit is dependent upon the date of the member's death after retirement. This benefit is in addition to any benefit payable under a retirement option.

***Primary Social Security Benefit***

The benefit payable by the Social Security Administration which is determined by a formula based upon wages earned from a public employer from which Social Security deductions were taken.

***Reserve for Increased-Take-Home-Pay (ITHP)***

For some Tier 1 and Tier 2 members, an amount which at the time of death or retirement is equal to the accumulation of the contributions for ITHP, **plus** interest earned thereon.

***Total Reserve***

The total amount computed to pay retirement benefits over a retiree's lifetime, including ITHP and Accumulated Deductions.

## CAREER PENSION PLAN (PLAN A)

### SERVICE RETIREMENT

- ♦ Participants may retire: at age 55 with 25 or more years of Career Pension Plan (CPP) Qualifying Service; at age 50 with 25 or more years of physically-taxing service; with 20 or more years of CPP service, but benefits are payable when member would have completed 25 years of service or reached age 55 (age 50 for physically-taxing)
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 25 years of CPP Qualifying Service: 2.20% of Final Salary; less Required Amount; plus Accumulated Deductions; plus
  - ♦ For all years other than the first 25 years of CPP Qualifying Service: 1.20% of Final Salary (years prior to 07/01/68); plus 1.70% of Final Salary (years after 06/30/68); plus
  - ♦ A Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for vesting. CPP members must withdraw from Plan A and switch to Plan B (See Plan B)

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: 1.53% x Final Salary for each year after June 30, 1968; 1.20% x Final Salary for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary; 20 or more years - 24 months of Earnable Salary
- ♦ Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## FIFTY-FIVE YEAR INCREASED SERVICE FRACTION PLAN (PLAN B)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55 with benefits payable immediately
- ♦ The Service Retirement Benefit is:
  - ♦ For each year of Credited Service prior to July 1, 1968: 1.20% of Final Salary; plus
  - ♦ For each year of Credited Service after June 30, 1968: 1.53% of Final Salary; plus
  - ♦ a Pension for Increased-Take-Home-Pay (ITHP); plus
  - ♦ Annuity of Accumulated Deductions

### VESTED RETIREMENT

- ♦ Eligible with at least five years of service; benefit payable at age 55
- ♦ Vested Retirement Benefit is calculated the same as the Service Retirement Benefit

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: 1.53% x Final Salary for each year after June 30, 1968; 1.20% x Final Salary for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- ♦ Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## TRANSIT 20-YEAR RETIREMENT PLAN (T-20) TRANSIT 20-YEAR NON-CONTRIBUTORY RETIREMENT PLAN (20N/C)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 50 with 20 or more years of Transit Operating Service (TOS)
- ♦ The Service Retirement Benefit is:
  - ♦ First 20 years of TOS: 50% of Final Salary, plus
  - ♦ Each year of TOS above 20:  $1.5\% \times \text{Final Compensation} \times \text{TOS rendered on or after 07/01/68}$ , plus
  - ♦ Each year of other service:  $1\% \times \text{Final Compensation} \times \text{years of other service}$ , plus
  - ♦ Pension for Increased-Take-Home-Pay (ITHP), plus
  - ♦ Pension for members prior to 07/01/70 who elected to make voluntary contributions.
  - ♦ If 55 with less than 20 years of TOS, may switch to the Age 55 1/100 Plan and retire with immediate payability

### VESTED RETIREMENT

- ♦ No provision for vesting

### DISABILITY RETIREMENT

- ♦ Ordinary: Must have ten or more years of Credited Service
- ♦ Accidental: No minimum service but disability resulted from an on-the-job accident
  - ♦ Ordinary: Less than age 50:  $2.5\% \times \text{Final Compensation} \times \text{TOS up to 20}$ ; plus  $1.5\% \times \text{Final Compensation} \times \text{TOS above 20 rendered on or after 07/01/68}$ ; plus  $1\% \times \text{Final Compensation} \times \text{all other service}$ . If 20 or more years of TOS and age 50, benefit equals Service Retirement Benefit
  - ♦ Accidental: Pension of 75% of Final Compensation; plus a pension based on the ITHP; plus an annuity based on any Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service: six months of Earnable Salary; 10 or more years: 12 months of Earnable Salary
- ♦ Accidental: Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## SANITATION 20-YEAR RETIREMENT PLAN (S-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Allowable Sanitation Service
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 20 years of Allowable Service: 50% of Final Salary, less Required Amount, plus Accumulated Deductions
  - ♦ For each year of service (other than the first 20) prior to July 3, 1965: 1% of Final Compensation; plus
  - ♦ For each year of service (other than the first 20) after July 2, 1965: 1.5% of Final Compensation, plus
  - ♦ a Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ Must have five or more years of Allowable Sanitation Service, but less than 20; payable the date the member would have reached 20 years if he/she had not discontinued service
- ♦ For each year of Allowable Service: 2.5% of Final Salary; plus
- ♦ For years other than Allowable Service: 1% of Final Compensation

### DISABILITY RETIREMENT

- ♦ Ordinary - must have five or more years of Credited Service; Accidental - no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: If 10 or more years of Allowable Service - 50% of Final Salary; If less than 10 years - 1/3 of Final Salary; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Salary; plus ITHP; plus Accumulated Deductions; plus if more than 20 years of Allowable Service,  $1\% \times \text{Average Compensation} \times \text{years in excess of 20}$ ; plus  $.5\% \times \text{Average Compensation} \times \text{years in excess of 20 rendered on or after July 1, 1967}$
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- ♦ Members may file for benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- ♦ Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Heart Presumption: Death due to heart ailment presumed accidental; accidental death benefit payable
- ♦ Death Benefit for Vested Members (See Plan B)
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## SANITATION 25-YEAR RETIREMENT PLAN (S-25)

### SERVICE RETIREMENT

- ♦ Participants may retire with 25 or more years of Allowable Sanitation Service
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 25 years of Allowable Service: 50% of Final Salary, less Required Amount plus Accumulated Deductions
  - ♦ For each year of service (other than the first 20) prior to July 3, 1965: 1% of Final Compensation; plus
  - ♦ For each year of service (other than the first 20) after July 2, 1965: 1.5% of Final Compensation; plus
  - ♦ A Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ Must have five or more years of Allowable Sanitation Service, but less than 25; benefit payable when member would have reached 25 years if he/she had not discontinued service
- ♦ For each year of Allowable Service: 1% x Final Compensation; plus
- ♦ For each year of Allowable Sanitation Service rendered after July 2, 1965: .5% x Final Compensation

### DISABILITY RETIREMENT

- ♦ Ordinary - must have five or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: If 10 or more years of Allowable Service – 50% of Final Salary; If less than 10 years – 1/3 of Final Salary; If eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Salary; plus ITHP; plus Accumulated Deductions
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- ♦ Members may file for benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- ♦ Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Heart Presumption: Death due to heart ailment presumed accidental; accidental death benefit payable
- ♦ Death Benefit for Vested Members (See Plan B)
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## AGE 55 ONE-PERCENT RETIREMENT PLAN (1/100)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55 irrespective of the amount of Credited Service attained by such age
- ♦ The Service Retirement Benefit is:
  - ♦ For each year of Credited Service: 1% of Final Compensation; plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP); plus
  - ♦ An Annuity for Accumulated Member Contributions

### VESTED RETIREMENT

- ♦ There is no provision for vesting

### DISABILITY RETIREMENT

- ♦ Ordinary – must have 10 or more years of Membership Service; Accidental – no minimum service, but disability resulted from on-the-job accident.
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: If age 55, benefit = Service Retirement Benefit
    - ♦ If less than age 55, benefit =  $2 \times 1/100$  for each year of service that would have been completed upon reaching age 55 for eligibility for service retirement x Final Compensation, up to 25% of Final Compensation; or, if greater:
      - ♦  $2 \times 1/100$  for each year of actual service completed to date x Final Compensation
    - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation for same injury
  - ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- ♦ Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met



## DISPATCHERS 25-YEAR RETIREMENT PLAN (D-25)

### SERVICE RETIREMENT

- Participants may retire after 25 years of Allowable Service as a Dispatcher Member
- The Service Retirement Benefit is:
  - ♦ For the first 25 years of Allowable Service: An Annuity (the actuarial equivalent of the member's required contributions), plus a Pension for Increased-Take-Home-Pay (ITHP), plus a Pension, which when added to the Annuity and Pension for ITHP equals 55% of Final Salary; plus
  - ♦ For each year beyond the first 25 years of Allowable Service: 1.70% of Final Salary; plus
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- Must have five or more years of Allowable Service as a Dispatcher Member, but less than 25
- Payability Date: The date the member would have reached 25 years if he/she had not discontinued service
- Vested Benefit: For each year of Allowable Service as a Dispatcher Member: 2.2% of Final Salary

### DISABILITY RETIREMENT

- Ordinary - must have ten or more years of Credited Service; Accidental - no minimum service, but disability resulted from an on-the-job accident
- Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times$  Final Salary for each year after June 30, 1968;  $1.20\% \times$  Final Salary for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## EMERGENCY MEDICAL TECHNICIAN (EMT) 25-YEAR RETIREMENT PLAN (E-25)

### SERVICE RETIREMENT

- Participants may retire after 25 years of Allowable Service as an EMT Member
- The Service Retirement Benefit is:
  - ♦ For the first 25 years of Allowable Service: An Annuity (the actuarial equivalent of the member's required contributions), plus a Pension for Increased-Take-Home-Pay (ITHP), plus a Pension, which when added to the Annuity and Pension for ITHP equals 55% of Final Salary; plus
  - ♦ For each year beyond the first 25 years of Allowable Service: 1.7% of Final Salary; plus
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- Need five or more years of Allowable Service, but less than 25; payable when member would have reached 25 years
- For each year of Allowable Service: 2.2% of Final Salary

### DISABILITY RETIREMENT

- Ordinary - must have ten or more years of Credited Service; Accidental - no minimum service, but disability resulted from an on-the-job accident
- Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times$  Final Salary for each year after June 30, 1968;  $1.20\% \times$  Final Salary for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- Heart Presumption: Heart ailments resulting in disability presumed line-of-duty; accidental benefit payable
- HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; accidental benefit payable
- Members may file for benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- Heart Presumption: Death due to heart ailment presumed line-of-duty; accidental benefit payable
- Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## SPECIAL OFFICER 25-YEAR RETIREMENT PLAN (SPO)

### SERVICE RETIREMENT

- ♦ Participants may retire after 25 years of Allowable Service as a Special Officer Member
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 25 years of Allowable Service: An Annuity (the actuarial equivalent of the member's required contributions), plus a Pension for Increased-Take-Home-Pay (ITHP), plus a Pension, which when added to the Annuity and Pension for ITHP equals 55% of Final Salary; plus
  - ♦ For each year beyond the first 25 years of Allowable Service: 1.70% of Final Salary; plus
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ Must have five or more years of Allowable Service as a Special Officer Member, but less than 25
- ♦ Payability Date: The date the member would have reached 25 years if he/she had not discontinued service
- ♦ Vested Benefit: For each year of Allowable Service: 2.2% of Final Salary

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times \text{Final Salary}$  for each year after June 30, 1968;  $1.20\% \times \text{Final Salary}$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental:  $75\%$  of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ A Presumptive Death Benefit (Death Gamble): If eligible for Service Retirement at time of death, payable to the Designated Beneficiary(ies)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- ♦ Accidental: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Gamble: The greater of the Ordinary Death Benefit or Total Reserve
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 20-YEAR RETIREMENT PLAN FOR CORRECTION OFFICERS (P-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Allowable Correction Service (ACS) regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ First 20 years of ACS: 50% of Final Salary, plus
  - ♦ For years other than the first 20 years of ACS: 1.67% of the Average Compensation, plus
  - ♦ a Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions, plus
  - ♦  $75\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service}$  on or after 09/30/51
  - ♦  $55\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service}$  prior to 10/1/51

### VESTED RETIREMENT

- ♦ Need at least five years but less than 20 years of ACS; payable when member would have reached 20 years of ACS
- ♦ The Vested Retirement Benefit is:
  - ♦  $2.5\% \times \text{Final Salary} \times \text{Years of ACS}$  up to 20 years, plus
  - ♦  $75\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service}$  on or after 09/30/51, plus
  - ♦  $55\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service}$  prior to 10/1/51

### DISABILITY RETIREMENT

- ♦ Ordinary: If less than 10 years of ACS - 1/3 of Final Salary; more than 10, but less than 20 - 50% of Final Salary; more than 20 - 2.5% of Final Salary x Credited Service
- ♦ Accidental: 75% of Final Salary; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed accidental; accidental benefit payable
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary: lump sum of ITHP; plus lump sum of Accumulated Deductions; plus if less than 10 years of service - six months of Earnable Salary; 10 or more years - 12 months of Earnable Salary
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; 50% of salary payable
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## TIER 1 RETIREMENT OPTIONS

### MAXIMUM RETIREMENT ALLOWANCE

If a member upon retirement does not elect one of the options below, his or her benefit will be paid as a Maximum Retirement Allowance payable in monthly installments throughout his or her life, with all payments ceasing at death.

#### OPTION 1: UNMODIFIED AND MODIFIED INITIAL RESERVE

Option 1 provides the pensioner with a reduced monthly lifetime allowance. If the pensioner dies before his or her payments equal the total value of the initial reserve set aside to provide his or her benefits on the date of retirement, the balance is paid to the designated beneficiary(ies) in either a lump-sum or monthly payments. More than one beneficiary may be named and the beneficiary(ies) may be changed at any time.

#### OPTION 2: 100% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives 100% of the reduced allowance for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 3: 50% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives 50% of the reduced allowance for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTIONS 4-2 AND 4-3: POP-UP JOINT-AND-SURVIVOR OPTIONS

These pop-up options are variations of Options 2 and 3. The pensioner receives a reduced monthly lifetime allowance under either a 100% or 50% joint-and-survivor arrangement, but if the beneficiary dies before the pensioner, the pensioner's benefit "pops-up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.

#### OPTION 4: LUMP-SUM PAYMENT

The pensioner receives a reduced monthly lifetime allowance with the provision that when he or she dies, the beneficiary receives a limited lump-sum payment specified by the pensioner at the time he or she chose this option. More than one beneficiary can be named and the beneficiary(ies) can be changed at any time.

**NOTE:** A pensioner may elect to receive any form of payment that is the actuarial equivalent of his or her Maximum Retirement Allowance, as certified by NYCERS' Chief Actuary and approved by the Board of Trustees.

#### **OPTION 4: FIVE-YEAR CERTAIN, TEN-YEAR CERTAIN**

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within five years (or ten years) from the date of retirement having designated only one primary beneficiary, the reduced monthly retirement benefit will continue to be paid to the designated primary beneficiary for the unexpired balance of the five year (or ten-year) period. In the event of the death of the primary beneficiary after such beneficiary has begun to receive payment, the unexpended benefit will be paid in a lump sum to the contingent beneficiary or, if no contingent beneficiary exists, to the estate of the primary beneficiary.

If multiple primaries have been designated, the unexpended benefit will be paid in a lump sum divided equally to the surviving primary beneficiaries. In the event that all primary beneficiaries predecease the pensioner, then upon the death of the pensioner the unexpended benefit will be paid in a lump sum divided equally to the surviving contingent beneficiaries. If all beneficiaries predecease the pensioner, the unexpended benefit will be paid in a lump sum to the pensioner's estate. If the pensioner dies later than five years (or ten years) following the effective retirement date, all retirement allowance payments will cease.

The pensioner may change the beneficiary(ies) any time within the five or ten-year period.

#### **OPTION 4: CONTINUING BENEFIT**

The pensioner receives a reduced monthly lifetime benefit with the provision that when he or she dies, a percentage of the reduced monthly benefit or a specific dollar amount will continue to be paid to the beneficiary. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### **OPTION 4-4: CONTINUING BENEFIT WITH POP-UP**

The pensioner receives a reduced monthly lifetime benefit with the provision that when he or she dies, a percentage of the reduced monthly benefit or a specific dollar amount will continue to be paid to the beneficiary. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect. If the beneficiary predeceases the pensioner, the pensioner's benefit "pops up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.

#### **SPLIT OPTION**

Under certain circumstances, you may split your retirement allowance and receive payment of your Pension Reserve (City portion and ITHP) and your Annuity Reserve (your accumulated salary deductions) under different options. If you wish to elect a split option, NYCERS will supply you with figures and the necessary forms, upon request.

## MODIFIED CAREER PENSION PLAN (PLAN C)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 62, or 55 on a reduced basis, with 25 years of Career Pension Plan Qualifying Service
- ♦ The Service Retirement Benefit is:
  - ♦ 55% of Final Average Salary (FAS), plus  
For all years other than the first 25:
  - ♦ 1.7% x FAS x years after June 30, 1968, plus
  - ♦ 1.2% x FAS x years before July 1, 1968, plus
  - ♦ A Pension based on excess Increased-Take-Home-Pay (ITHP) and an Annuity based on Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. Plan C members must switch to Plan D to become eligible for a Vested Retirement Benefit (See Plan D). However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service
- ♦ Accidental – no minimum service requirement, but disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: 1.53% x FAS for each year after June 30, 1968; 1.20% x FAS for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## MODIFIED INCREASED SERVICE FRACTION PLAN (PLAN D)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 62, or 55 on a reduced basis, with five or more years of Credited Service
- ♦ The Service Retirement Benefit is:
  - ♦ 1.53% x Final Average Salary (FAS) x years of service after June 30, 1968, plus
  - ♦ 1.20% x FAS x years of service before July 1, 1968, plus
  - ♦ a Pension based on Increased-Take-Home-Pay (ITHP), plus
  - ♦ An Annuity based on Accumulated Deductions

### VESTED RETIREMENT

- ♦ Need a minimum of five years of Credited Service
- ♦ Payability Date: Age 62 on an unreduced basis or age 55 on a reduced basis
- ♦ Vested Retirement Benefit is the same as the Service Retirement Benefit

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service
- ♦ Accidental – no minimum service requirement, but disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: 1.53% x FAS for each year after June 30, 1968; 1.20% x FAS for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## AGE 55 IMPROVED BENEFIT RETIREMENT PLAN (CPP-I)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55, or age 50 in a physically-taxing position, with 25 years of Career Pension Plan Qualifying Service
- ♦ The Service Retirement Benefit is:
  - ♦ *First 25 years of Career Pension Plan Qualifying Service: 55% of Final Average Salary (FAS), plus*
  - ♦ *1.7% x FAS x years of service after June 30, 1968, plus*
  - ♦ *1.2% x FAS x years of service before July 1, 1968, plus*
  - ♦ *a Pension based on excess Increased-Take-Home-Pay (ITHP) and an Annuity based on Excess Contributions*

### VESTED RETIREMENT

- ♦ No provision for Vesting. Plan CPP-I members must switch to Plan ISF-I to become eligible for a Vested Retirement Benefit (See Plan ISF-I). However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service
- ♦ Accidental – no minimum service requirement, but disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit:
  - ♦ *Ordinary: 1.53% x FAS for each year after June 30, 1968; 1.20% x FAS for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit*
  - ♦ *Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury*
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions (basic and employee portion of Additional Member Contributions). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions (basic and employee portion of Additional Member Contributions).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## AGE 55 IMPROVED INCREASED SERVICE FRACTION PLAN (ISF-I)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55 with twenty-five or more years of Credited Service
- ♦ The Service Retirement Benefit is:
  - ♦ *1.53% x Final Average Salary x years of service after June 30, 1968, plus*
  - ♦ *1.20% x FAS x years of service before July 1, 1968, plus*
  - ♦ *A Pension based on Increased-Take-Home-Pay (ITHP), plus*
  - ♦ *an Annuity based on Accumulated Deductions*

### VESTED RETIREMENT

- ♦ Need a minimum of five years of Credited Service
- ♦ Payability Date: Age 62 on an unreduced basis or Age 55 on a reduced basis
- ♦ Vested Retirement Benefit is the same as the Service Retirement Benefit

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service
- ♦ Accidental – No minimum service requirement, but disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit:
  - ♦ *Ordinary: 1.53% x FAS for each year after June 30, 1968; 1.20% x FAS for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit.*
  - ♦ *Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury*
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental: Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## MODIFIED 20-YEAR PLAN FOR CORRECTION OFFICERS (P-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with an unreduced pension after completing 25 years of Allowable Correction Service (ACS):
- ♦ The Service Retirement Benefit is:
  - ♦ *First 20 years of ACS: 50% of Final Average Salary (FAS), plus*
  - ♦ *Each year of ACS after 20: 1.67% x Average Compensation (or FAS if the comp period is less than 3 years) x the years of ACS in excess of 20, plus*
  - ♦ *Each year of Credited Service: 75% x 1.67% x Final Compensation x Credited Service, plus*
  - ♦ *Pension based on the excess Increased-Take-Home-Pay (ITHP), and an Annuity for excess contributions*
  - ♦ *Benefit limited to 30 years*

### VESTED RETIREMENT

- ♦ Need at least five but less than 20 years of ACS; payable when member would have reached 20 years of ACS
- ♦ Vested Retirement Benefit is:
  - ♦ *2.5% x FAS x the years of ACS, plus*
  - ♦ *75% x 1.67% x Final Compensation x Credited Service on or after 10/01/51*

### DISABILITY RETIREMENT

- ♦ Ordinary: If less than 10 years of ACS - 1/3 of FAS; more than 10, but less than 20 - 50% of FAS; more than 20 - 2.5% x FAS x Credited Service
- ♦ Accidental: 75% of FAS; 1.67% x Average Compensation x years of ACS in excess of 20; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed accidental; accidental benefit payable
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Designated Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit: Need more than 90 days of service; benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions
- ♦ Accidental Death Benefit: A pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Vested Members: With 10 or more years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## MODIFIED ONE PERCENT RETIREMENT PLAN (1/100) TRANSIT ONLY

### SERVICE RETIREMENT

- ♦ Participants may retire at age 62 with an unreduced benefit or at age 55 with a reduced benefit regardless of the amount of Credited Service attained
- ♦ The Service Retirement Benefit is:
  - ♦ *For each year of Credited Service 1% of Final Compensation; plus*
  - ♦ *A Pension based on Increased-Take-Home-Pay (ITHP), plus*
  - ♦ *An Annuity based on Accumulated Member Contributions*

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary – must have 10 or more years of Membership Service; Accidental – no minimum service, but disability resulted from on-the-job accident.
- ♦ Disability Retirement Benefit:
  - ♦ *Ordinary: If age 62, benefit = Service Retirement Benefit*
    - ♦ *If less than age 62, benefit = 2 x 1/100 for each year of service that would have been completed upon reaching age 62 for eligibility for service retirement x Final Compensation, up to 25% of Final Compensation; or, if greater:*
    - ♦ *2 x 1/100 for each year of actual service completed to date x Final Compensation*
  - ♦ *Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation for same injury*
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary: Need more than 90 days of service; benefit equal to three times current salary in a lump sum
- ♦ Accidental: Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of the death benefit in force at time of separation from service
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## MODIFIED TRANSIT 20-YEAR RETIREMENT PLAN (20N/C)

### SERVICE RETIREMENT

- Participants may retire at age 55 with 25 or more years of Transit Operating Service (TOS) but may retire with a reduced benefit as early as age 50 with at least 20 years of TOS.
- The Service Retirement Benefit is:
  - First 20 years of TOS: 50% of Final Average Salary (FAS), plus
  - Each year of TOS above 20:  $1.5\% \times \text{Final Compensation} \times \text{years of TOS on or after 07/01/68}$ , plus
  - Each year of other service:  $1\% \times \text{Final Compensation} \times \text{years of other service}$
- The Reduced Service Retirement Benefit is:
  - $2\% \times \text{FAS} \times \text{Credited Service}$  (exclusive of any benefit provided on account of member contributions)
- Members may switch to the Modified Age 55 1/100 Plan and retire with immediate payability (See Modified 1/100 Plan)

### VESTED RETIREMENT

- No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- Ordinary: Must have ten or more years of Credited Service
- Accidental: No minimum service but disability resulted from an on-the-job accident
  - Ordinary: *Less than age 55 and less than 25 years of TOS:  $2.5\% \times \text{Final Compensation} \times \text{TOS up to 20}$ ; plus  $1.5\% \times \text{Final Compensation} \times \text{TOS above 20}$  rendered on or after 07/01/68; plus  $1\% \times \text{Final Compensation} \times \text{all other service}$ . If 25 or more years of TOS and age 55, benefit equals Service Retirement Benefit*
  - Accidental: *Pension of 75% of Final Compensation; plus a pension based on the ITHP; plus an annuity based on any Accumulated Deductions; less 100% of Workers' Compensation payments for same injury*
- Members may file for benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- Ordinary: Need more than 90 days of service; benefit equal to three times current salary in a lump sum
- Accidental: Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of the death benefit in force at time of separation from service
- Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 20-YEAR PLAN FOR CORRECTION MEMBERS BELOW THE RANK OF CAPTAIN (CI-20)

### SERVICE RETIREMENT

- Participants may retire with 20 or more years of Allowable Correction Service (ACS) regardless of age (Benefit limited to 30 years)
- The Service Retirement Benefit is:
  - First 20 years of ACS: 50% of Final Average Salary (FAS), plus
  - For years other than the first 20 years of ACS: 1.67% of the Average Compensation, plus
  - a Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity based on Excess Contributions, plus
  - $75\% \times 1.67\% \times \text{Final Compensation}$  for each year on or after 09/30/51
  - $55\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service}$  prior to 10/1/51
- Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- Need at least five years but less than 20 years of ACS; benefit payable when member would have reached 20 years of ACS
- The Vested Retirement Benefit is:
  - $2.5\% \times \text{FAS} \times \text{years of ACS up to 20 years}$ , plus
  - $75\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service on or after 09/30/51}$ , plus
  - $55\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service prior to 10/1/51}$

### DISABILITY RETIREMENT

- Ordinary: If less than 10 years of ACS - 1/3 of FAS; more than 10, but less than 20 - 50% of FAS; more than 20 -  $2.5\% \times \text{FAS} \times \text{Credited Service}$
- Accidental: 75% of FAS; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed accidental; accidental benefit payable
- Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- Ordinary Death Benefit: Need more than 90 days of service; benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions (basic and additional)
- Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions (basic and additional); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- Vested Members: With 10 or more years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions (basic and additional)
- Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met



## 20-YEAR PLAN FOR CORRECTION MEMBERS ABOVE THE RANK OF CAPTAIN (CP-20)

### SERVICE RETIREMENT

- Participants may retire with 20 or more years of Allowable Correction Service (ACS) regardless of age
- The Service Retirement Benefit is:
  - First 20 years of ACS: 50% of Final Average Salary (FAS), plus
  - For years other than the first 20 years of ACS: 1.67% of the Average Compensation, plus
  - a Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity based on Excess Contribution, plus
  - 75% x 1.67% x Final Compensation for each year on or after 09/30/51
  - 55% x 1.67% x Final Compensation x Credited Service prior to 10/1/51
  - Benefit limited to 30 years

### VESTED RETIREMENT

- Need at least five years but less than 20 years of ACS; payable when member would have reached 20 years of ACS
- The Vested Retirement Benefit is:
  - 2.5% x FAS x Years of ACS up to 20 years, plus
  - 75% x 1.67% x Final Compensation x Credited Service on or after 09/30/51, plus
  - 55% x 1.67% x Final Compensation x Credited Service prior to 10/1/51

### DISABILITY RETIREMENT

- Ordinary: If less than 10 years of ACS - 1/3 of FAS; more than 10, but less than 20 - 50% of FAS; more than 20 - 2.5% x FAS x Credited Service
- Accidental: 75% of FAS; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed accidental; accidental benefit payable
- Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- Ordinary Death Benefit: Need more than 90 days of service; benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions (basic and additional)
- Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions (basic and additional); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- Vested Members: With 10 or more years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions (basic and additional)
- Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## MODIFIED SANITATION 20-YEAR RETIREMENT PLAN (S-20)

### SERVICE RETIREMENT

- Participants may retire with 25 years of Allowable Sanitation Service or with a reduced benefit after 20 years
- The Service Retirement Benefit is:
  - First 20 years of Allowable Sanitation Service: 50% of Final Average Salary (FAS), plus
  - 1.5% x Final Compensation x Allowable Sanitation Service after first 20 years, plus
  - 1% x Final Compensation x all other service, plus
  - A Pension based on excess Increased-Take-Home-Pay (ITHP) and an Annuity based on Excess Contributions
- The Reduced Service Retirement Benefit is:
  - Same as above except employer portion of the benefit cannot exceed 2% x FAS x years of Credited Service

### VESTED RETIREMENT

- Need at least 5, but less than 20 years of Allowable Sanitation Service; payable when member would have reached 20 years of such service
- 2.5% x FAS x each year of Allowable Sanitation Service; plus
- 1% x Final Compensation x each year of Credited Service

### DISABILITY RETIREMENT

- Ordinary: Need 5 or more years of Credited Service;
- Accidental: No minimum service, but disability resulted from an on-the-job accident
- Disability Retirement Benefit:
  - Ordinary: Less than 10 years of Allowable Sanitation Service: 1/3 of FAS; 10 - 20 years: 50% of FAS; more than 25 years: Benefit = Service Retirement Benefit
  - Accidental: 75% of FAS; plus ITHP; plus Accumulated Deductions, plus if more than 25 years of Allowable Sanitation Service, 1% x Average Compensation x years in excess of 20, plus .5% x Average Compensation x years of Allowable Sanitation Service in excess of 20
- Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- Ordinary: Need more than 90 days of service; benefit equal to three times current salary in a lump sum; plus Accumulated Deductions
- Accidental: Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of the death benefit in force at time of separation from service, plus Accumulated Deductions
- Heart Presumption: Death due to heart ailment presumed accidental; accidental death benefit payable
- Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 20-YEAR RETIREMENT PLAN FOR UNIFORMED SANITATION MEMBERS (SI-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Allowable Sanitation Service regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ First 20 years of Allowable Sanitation Service: 50% of Final Average Salary (FAS), plus
  - ♦ Other than the first 20 years of such service: 1.5% of Final Compensation, plus
  - ♦ For each year of all other Credited Service: 1% of Final Compensation, plus
  - ♦ a Pension based on excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions
  - ♦ Benefit limited to 30 years
- ♦ Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- ♦ Need at least five years but less than 20 years of Allowable Sanitation Service; benefit payable when member would have reached 20 years of such service
- ♦ The Vested Retirement Benefit is:
  - ♦  $2.5\% \times \text{FAS} \times \text{each year of Allowable Sanitation Service}$ , plus
  - ♦  $1\% \times \text{Final Compensation} \times \text{each year of Credited Service}$

### DISABILITY RETIREMENT

- ♦ Ordinary - must have five or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: If 10 or more years of Allowable Sanitation Service – 50% of FAS; If less than 10 years – one-third of FAS; If eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of FAS; plus ITHP; plus Accumulated Deductions
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed accidental; accidental benefit payable
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit: Need more than 90 days of service; benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions (basic and additional)
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions (basic and additional); plus a lump sum of ITHP
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions (basic and additional)
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 20-YEAR, AGE-50 RETIREMENT PLAN FOR TBTA OFFICERS, SERGEANTS & LIEUTENANTS (2050I)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Allowable Service at age 50
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 20 years of Allowable Service: 50% of Final Average Salary (FAS), plus
  - ♦ For each additional year of Allowable Service (up to a maximum of 30 years):  $1.5\% \times \text{FAS}$
- ♦ Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times \text{FAS}$  for each year after June 30, 1968;  $1.20\% \times \text{FAS}$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; If eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than 15 years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR RETIREMENT PLAN FOR DISTRICT ATTORNEY INVESTIGATORS (25IDA)

### SERVICE RETIREMENT

- ♦ Participants may retire with 25 or more years of Credited Service regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 25 years of Credited Service:  $55\% \times \text{Final Salary}$ , plus
  - ♦ For each additional year (up to a maximum of 32):  $1.70\% \times \text{Final Average Salary (FAS)}$
  - ♦ A Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ Need at least 15 but less than 25 years of Credited Service
- ♦ Benefit payable when member could have completed 25 years of such service
- ♦ The Vested Retirement Benefit is:
  - ♦  $2.20\% \times \text{FAS} \times \text{each year of Credited Service}$

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times \text{FAS}$  for each year after June 30, 1968;  $1.20\% \times \text{FAS}$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental:  $75\%$  of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 20-YEAR RETIREMENT PLAN FOR DISTRICT ATTORNEY INVESTIGATORS (20IDA)

### SERVICE RETIREMENT

- ♦ Participants may retire with credit for 20 or more years of Allowable Service in a District Attorney's Office as an Investigator (Allowable IDA Service)
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 20 years of Allowable IDA Service:  $50\%$  of Final Salary, plus
  - ♦ For each additional year of Allowable IDA Service:  $1.67\%$  of Average Compensation, plus
  - ♦  $75\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service on or after September 30, 1951}$ , plus
  - ♦  $55\% \times 1.67\% \times \text{Final Compensation} \times \text{Credited Service prior to October 1, 1951}$
  - ♦ A Pension for excess Increased-Take-Home-Pay (ITHP) and an Annuity for Excess Contributions
  - ♦ Benefit limited to 32 years

### VESTED RETIREMENT

- ♦ Need at least 5 but less than 20 years of Allowable IDA Service
- ♦ Benefit payable when member could have reached 20 years of such service
- ♦ Vested Retirement Benefit is:  $2.5\%$  of Final Salary for each year of Allowable IDA Service

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times \text{FAS}$  for each year after June 30, 1968;  $1.20\% \times \text{FAS}$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental:  $75\%$  of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions; plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR RETIREMENT PLAN FOR DISPATCHERS (DIS-D)

### SERVICE RETIREMENT

- ♦ Participants may retire with 25 or more years of Allowable Service as a Dispatcher Member
- ♦ The Service Retirement Benefit is:
  - ♦ An Annuity (the actuarial equivalent of contributions for the first 25 years of Allowable Service), plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP) for the first 25 years, plus
  - ♦ A Pension, which when added to the Annuity and ITHP equals 50% of Final Average Salary (FAS), plus
  - ♦ 2% of FAS for each year beyond the first 25 years of Allowable Service (not to exceed five years)
  - ♦ A Pension for excess (ITHP) and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times FAS$  for each year after June 30, 1968;  $1.20\% \times FAS$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than 15 years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR RETIREMENT PLAN FOR EMERGENCY MEDICAL TECHNICIANS (EMT-D)

### SERVICE RETIREMENT

- ♦ Participants may retire with 25 or more years of Allowable Service as an EMT Member
- ♦ The Service Retirement Benefit is:
  - ♦ An Annuity (the actuarial equivalent of contributions for the first 25 years of Allowable Service), plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP) for the first 25 years, plus
  - ♦ A Pension, which when added to the Annuity and ITHP equals 50% of Final Average Salary (FAS), plus
  - ♦ 2% of FAS for each year beyond the first 25 years of Allowable Service (not to exceed five years)
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times FAS$  for each year after June 30, 1968;  $1.20\% \times FAS$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed line-of-duty; accidental benefit payable
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; accidental benefit payable
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than 15 years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed line-of-duty; accidental benefit payable
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR RETIREMENT PLAN FOR NYC DEPUTY SHERIFFS (DSH-I)

### SERVICE RETIREMENT

- ♦ Participants may retire after having credit for 25 or more years of Credited Service regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ An Annuity (the actuarial equivalent of contributions for the first 25 years of Credited Service), plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP) for the first 25 years, plus
  - ♦ A Pension, which when added to the Annuity and ITHP equals 55% of Final Average Salary (FAS), plus
  - ♦ 1.7% of FAS for each year beyond the first 25 years of Credited Service (not to exceed five years)
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: 1.53% x FAS for each year after June 30, 1968; 1.20% x FAS for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than five years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than five years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR/AGE-50 RETIREMENT PLAN FOR AUTOMOTIVE WORKERS (AUT-I)

### SERVICE RETIREMENT

- ♦ Participants with 25 or more years of Credited Service may retire at age 50
- ♦ The Service Retirement Benefit is:
  - ♦ An Annuity (the actuarial equivalent of contributions for the first 25 years of Credited Service), plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP) for the first 25 years, plus
  - ♦ A Pension, which when added to the Annuity and ITHP equals 50% of Final Average Salary (FAS), plus
  - ♦ 2% of FAS for each year beyond the first 25 years of Credited Service (not to exceed five years)
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary: 1.53% x FAS for each year after June 30, 1968; 1.20% x FAS for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than five years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than five years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR RETIREMENT PLAN FOR SPECIAL OFFICERS (SPO-I)

### SERVICE RETIREMENT

- ♦ Participants may retire with 25 or more years of Allowable Service as a Special Officer regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ An Annuity (the actuarial equivalent of contributions for the first 25 years of Allowable Service), plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP) for the first 25 years, plus
  - ♦ A Pension, which when added to the Annuity and ITHP equals 50% of Final Average Salary (FAS), plus
  - ♦ 2% of FAS for each year beyond the first 25 years of Allowable Service (not to exceed five years)
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times \text{FAS}$  for each year after June 30, 1968;  $1.20\% \times \text{FAS}$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than 15 years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than 15 years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 25-YEAR RETIREMENT PLAN FOR POLICE COMMUNICATION OPERATORS (911)

### SERVICE RETIREMENT

- ♦ Participants with 25 or more years of Credited Service may retire regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ An Annuity (the actuarial equivalent of contributions for the first 25 years of Credited Service), plus
  - ♦ A Pension for Increased-Take-Home-Pay (ITHP) for the first 25 years, plus
  - ♦ A Pension, which when added to the Annuity and ITHP equals 50% of Final Average Salary (FAS), plus
  - ♦ 2% of FAS for each year beyond the first 25 years of Credited Service (not to exceed five years)
  - ♦ A Pension for excess ITHP and an Annuity for Excess Contributions

### VESTED RETIREMENT

- ♦ No provision for Vesting. However, all Tier 2 members with at least 10 years of Credited Service are eligible for the Death Benefit for Vested Members (see below).

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service; Accidental – no minimum service, but disability resulted from an on-the-job accident
- ♦ Disability Retirement Benefit:
  - ♦ Ordinary:  $1.53\% \times \text{FAS}$  for each year after June 30, 1968;  $1.20\% \times \text{FAS}$  for each year before July 1, 1968; plus ITHP; plus Accumulated Deductions; if eligible for service retirement, benefit = Service Retirement Benefit
  - ♦ Accidental: 75% of Final Compensation; plus ITHP; plus Accumulated Deductions; less 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of Final Compensation; plus a lump sum of Accumulated Deductions, basic and additional (if less than 5 years of service); plus a lump sum of ITHP; less 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional (if less than five years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## TIER 2 RETIREMENT OPTIONS

### MAXIMUM RETIREMENT ALLOWANCE

If a member, upon retirement, does not elect one of the options listed below, his or her benefit will be paid as a Maximum Retirement Allowance payable in monthly installments throughout his or her life, with all payments ceasing at death.

#### OPTION 1: RETURN OF ANNUITY RESERVE

Option 1 provides the pensioner with a reduced monthly lifetime allowance. If the pensioner dies before the Annuity portion of his or her payments equal the total value of the Annuity reserve set aside to pay his or her Annuity on the date of retirement, the balance is paid to the designated beneficiary in either a lump sum or monthly payments. Option 1 cannot be elected for the ITHP or Pension portions of the retirement allowance. More than one beneficiary may be named and the beneficiary(ies) may be changed at any time.

#### OPTION 2: 100% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives 100% of the reduced monthly allowance for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 3: 50% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives 50% of the reduced monthly allowance for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTIONS 4-2 AND 4-3: POP-UP JOINT-AND-SURVIVOR OPTIONS

These options are variations of Options 2 and 3. The pensioner receives a reduced monthly lifetime allowance under either a 100% or 50% joint-and-survivor arrangement, but if the beneficiary dies before the pensioner, the pensioner's benefit "pops-up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.

#### OPTION 4: LUMP-SUM PAYMENT

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary(ies) receives a limited lump-sum payment specified by the pensioner at the time he or she chose this option. More than one beneficiary can be named and the beneficiary(ies) can be changed at any time.

#### **OPTION 4: CONTINUING BENEFIT**

The pensioner receives a reduced monthly lifetime benefit with the provision that when he or she dies, a percentage of the reduced monthly benefit or a specific dollar amount will continue to be paid to the beneficiary. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### **OPTION 4-4: CONTINUING BENEFIT WITH POP-UP**

The pensioner receives a reduced monthly lifetime benefit with the provision that when he or she dies, a percentage of the reduced monthly benefit or a specific dollar amount will continue to be paid to the beneficiary. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect. If the beneficiary predeceases the pensioner, the pensioner's benefit "pops up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.

**NOTE:** A pensioner may elect to receive any form of payment that is the actuarial equivalent of their Maximum Retirement Allowance, as certified by NYCERS' Chief Actuary and approved by the Board of Trustees.

#### **OPTION 5 (FIVE-YEAR CERTAIN)**

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within five years from the date of retirement having designated only one primary beneficiary, the reduced monthly retirement benefit will continue to be paid to the designated primary beneficiary for the unexpired balance of the five-year period. In the event of the death of the primary beneficiary after such beneficiary has begun to receive payment, the unexpended benefit will be paid in a lump sum to the contingent beneficiary or, if no contingent beneficiary exists, to the estate of the primary beneficiary.

If multiple primaries have been designated, the unexpended benefit will be paid in a lump sum divided equally to the surviving primary beneficiaries. In the event that all primary beneficiaries predecease the pensioner, then upon the death of the pensioner the unexpended benefit will be paid in a lump sum divided equally to the surviving contingent beneficiaries. If all beneficiaries predecease the pensioner, the unexpended benefit will be paid in a lump sum to the pensioner's estate. If the pensioner dies later than five years following the effective retirement date, all retirement allowance payments will cease.

The pensioner may change the beneficiary(ies) any time within the five-year period.

#### **OPTION 6 (TEN-YEAR CERTAIN)**

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within ten years from the date of retirement having designated only one primary beneficiary, the reduced monthly retirement benefit will continue to be paid to the designated primary beneficiary for the unexpired balance of the ten-year period. In the event of the death of the primary beneficiary after such beneficiary has begun to receive payment, the unexpended benefit will be paid in a lump sum to the contingent beneficiary or, if no contingent beneficiary exists, to the estate of the primary beneficiary.



If multiple primaries have been designated, the unexpended benefit will be paid in a lump sum divided equally to the surviving primary beneficiaries. In the event that all primary beneficiaries predecease the pensioner, then upon the death of the pensioner the unexpended benefit will be paid in a lump sum divided equally to the surviving contingent beneficiaries. If all beneficiaries predecease the pensioner, the unexpended benefit will be paid in a lump sum to the pensioner's estate. If the pensioner dies later than ten years following the effective retirement date, all retirement allowance payments will cease.

The pensioner may change the beneficiary(ies) any time within the ten-year period.

### **SPLIT OPTION**

Under certain circumstances, you may split your retirement allowance and receive payment of your Pension Reserve (City portion and ITHP) and your Annuity Reserve (your accumulated salary deductions) under different options. If you wish to elect a split option, NYCERS will supply you with figures and the necessary forms, upon request.

## RETIREMENT PLAN FOR GENERAL MEMBERS

### SERVICE RETIREMENT

- ♦ Participants may retire with an unreduced benefit at age 62 and as early as age 55, with a reduced benefit
- ♦ Service Retirement Benefit is:
  - ♦ *Less than 20 years of Credited Service:*  $1.67\% \times \text{each year of Credited Service} \times \text{Final Average Salary (FAS)}$
  - ♦ *20 or more years of Credited Service:*  $2\% \times \text{each year of Credited Service} \times \text{FAS}$
- ♦ Benefit is reduced by 50% of the Primary Social Security Benefit (PSSB) beginning at age 62
- ♦ Post-retirement escalations depending on age at retirement

### VESTED RETIREMENT

- ♦ A member with five or more years of Credited Service at age 62 may receive an unreduced vested retirement benefit or the member may elect to receive a reduced benefit prior to age 62, as early as age 55
- ♦ Benefit calculation same as service retirement benefit calculation

### DISABILITY RETIREMENT

- ♦ May receive an Ordinary Disability Benefit (ODB) or Accidental Disability Benefit (ADB)
- ♦ ODB: If you have at least five years of service and deemed disabled by the Social Security Administration the ODB is equal to the greater of one-third of FAS or  $2\% \times \text{Credited Service} \times \text{FAS}$  (both are reduced by 50% of the PSSB & 100% of Workers' Compensation payments for any injury)
- ♦ ADB: Eligible if your disability is deemed to be the result of an accidental injury sustained in the performance of duty. The benefit is 60% of FAS minus 50% of the PSSB and 100% of Workers' Compensation payments for any injury.
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum. A return of Basic Member Contributions included. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Accumulated Deductions
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service. A return of Basic Member Contributions included.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## UNIFORMED CORRECTION FORCE 25 - YEAR PLAN (CO-25)

### SERVICE RETIREMENT

- ♦ Correction Officers appointed after July 27, 1976 can retire after 25 years of Credited Service without regard to age, and without a benefit reduction due to retirement prior to age 62
- ♦ The Service Retirement Benefit is 50% of Final Average Salary (FAS)

### VESTED RETIREMENT

- ♦ There is no Vesting provision with this plan; however, members may vest under the basic Tier 3 vesting provisions (See "Retirement Plan for General Members") and are eligible for the Death Benefit for Vested Members if they have 10 or more years of Credited Service (see below)

### DISABILITY RETIREMENT

- ♦ May receive an Ordinary Disability Benefit (ODB), special disability benefit, performance of duty disability benefit or Accidental Disability Benefit (ADB)
- ♦ ODB: See "Retirement Plan for General Members"
- ♦ Dual Purpose Disability Benefit: Eligible with 10 or more years of Credited Service. If less than 10 years, may qualify if injury is due to an on-the-job accident. Benefit =  $1/3$  of FAS or  $1.67\% \times \text{each year of Credited Service} \times \text{FAS}$ . If eligible for service retirement, benefit = Service Retirement Benefit.
- ♦ Performance of Duty Disability Benefit: Eligible if your disability is deemed to be the result of an accidental injury sustained in the performance of duty, by an act of an inmate; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury.
- ♦ ADB: See "Retirement Plan for General Members"
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit: members with more than 90 days of service will receive a death benefit equal to three times current salary in a lump sum, plus a return of Basic Member Contributions
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Basic Member Contributions
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## UNIFORMED CORRECTION OFFICER 20 - YEAR RETIREMENT PLAN (CO-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Credited Service or Allowable Correction Service (ACS) (type of service required depends on membership date), without regard to age.
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 20 years of Credited Service or ACS: 50% of FAS
  - ♦ For all years of Credited Service or ACS, other than the first 20 years of such service, 1.67% x years of service x FAS (not to exceed 30 years)
- ♦ Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- ♦ Must have at least five years of Credited Service or ACS, but less than 20 years of such service
- ♦ Benefit payable on the earliest date the member could have retired with 20 years of Credited Service or ACS
- ♦ The Vested Retirement Benefit is: 2.5% x years of service x FAS
- ♦ Not eligible for vested retirement with a deficit in AMCs.

### DISABILITY RETIREMENT

- ♦ May receive an Ordinary Disability Benefit (ODB), special disability benefit, performance of duty disability benefit or Accidental Disability Benefit (ADB)
- ♦ ODB: See "Retirement Plan for General Members"
- ♦ Dual Purpose Disability Benefit: Eligible with 10 or more years of Credited Service. If less than 10 years, may qualify if injury is due to an on-the-job accident. Benefit = 1/3 of FAS or 1.67% x each year of Credited Service x FAS. If eligible for service retirement, benefit = Service Retirement Benefit.
- ♦ Performance of Duty Disability: Eligible if your disability is deemed to be the result of an injury sustained in the performance of duty by an act of an inmate; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ ADB: See "Retirement Plan for General Members"
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit: members with more than 90 days of service will receive a death benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## CORRECTION CAPTAIN 20 - YEAR RETIREMENT PLAN (CC-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Credited Service or Allowable Correction Service (ACS) (type of service required depends on membership date), without regard to age.
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 20 years of Credited Service or ACS: 50% of FAS
  - ♦ For all years of Credited Service or ACS, other than the first 20 years of such service, 1.67% of FAS times the years of such service (not to exceed 30 years)

### VESTED RETIREMENT

- ♦ Must have at least five years of Credited Service or ACS, but less than 20 years of such service
- ♦ Benefit payable on the earliest date the member could have retired with 20 years of Credited Service or ACS
- ♦ The Vested Retirement Benefit is: 2.5% x years of service x FAS

### DISABILITY RETIREMENT

- ♦ May receive an Ordinary Disability Benefit (ODB), special disability benefit, performance of duty disability benefit or Accidental Disability Benefit (ADB)
- ♦ ODB: See "Retirement Plan for General Members"
- ♦ Dual Purpose Disability Benefit: Eligible with 10 or more years of Credited Service. If less than 10 years, may qualify if injury is due to an on-the-job accident. Benefit = 1/3 of FAS or 1.67% x each year of Credited Service x FAS. If eligible for service retirement, benefit = Service Retirement Benefit.
- ♦ Performance of Duty Disability Benefit: Eligible if your disability is deemed to be the result of an injury sustained in the performance of duty by an act of an inmate; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ ADB: See "Retirement Plan for General Members"
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit: members with more than 90 days of service will receive a death benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional
- ♦ Accidental Death Benefit: A pension equal to 50% of salary payable, plus a return of Additional Member Contributions
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## UNIFORMED CORRECTION FORCE 20 - YEAR RETIREMENT PLAN (CF-20)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Allowable Correction Service (ACS), without regard to age
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 20 years of ACS: 50% of Final Average Salary (FAS)
  - ♦ For all years of ACS other than the first 20 years of such service: 1.67% of FAS times years of such service (not to exceed 30 years)

### VESTED RETIREMENT

- ♦ Must have at least five years of ACS, but less than 20 years of such service
- ♦ Benefit payable on the earliest date the member could have retired with 20 years of ACS
- ♦ The Vested Retirement Benefit is: 2.5% of FAS for each year of ACS

### DISABILITY RETIREMENT

- ♦ May receive an Ordinary Disability Benefit (ODB), special disability benefit, performance of duty disability benefit or Accidental Disability Benefit (ADB)
- ♦ ODB: See "Retirement Plan for General Members"
- ♦ Dual Purpose Disability Benefit: Eligible with 10 or more years of Credited Service. If less than 10 years, may qualify if injury is due to an on-the-job accident. Benefit = 1/3 of FAS or 1.67% x each year of Credited Service x FAS. If eligible for service retirement, benefit = Service Retirement Benefit.
- ♦ Performance of Duty Disability Benefit: Eligible if your disability is deemed to be the result of an injury sustained in the performance of duty by an act of an inmate; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ ADB: See "Retirement Plan for General Members"
- ♦ Heart Presumption: Diseases of the heart resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit: members with more than 90 days of service will receive a death benefit equal to three times current salary in a lump sum, plus a return of Accumulated Deductions, basic and additional
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions, basic and additional
- ♦ Heart Presumption: Diseases of the heart resulting in death presumed accidental; accidental benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## DA INVESTIGATORS 22-YEAR RETIREMENT PLAN (DA-22)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 22 years of Credited Service regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS), minus
  - ♦ 50% of Primary Social Security Benefit commencing at age 62.
- ♦ Participants may retire with Early Service Retirement benefit with at least 20 years of Credited Service:
  - ♦ 2.1% x FAS x years of Credited Service at the completion of 20 years of Credited Service; plus
  - ♦ .33% x FAS x each month of service in excess of 20 years, but not more than 50% of FAS; minus
  - ♦ 50% of member's Primary Social Security Benefit commencing at age 62

### VESTED RETIREMENT

- ♦ Must have at least five years of Credited Service
- ♦ Payability Date: the date member would have attained 20 years of Credited Service
- ♦ The Vested Retirement Benefit is:
  - ♦ 2.1% x FAS x years of Credited Service; minus
  - ♦ 50% of member's Primary Social Security Benefit commencing at age 62
- ♦ May elect to receive reduced vested benefit prior to date member would have attained 20 years of Credited Service but not earlier than age 55

### DISABILITY RETIREMENT

- ♦ Ordinary Disability: Must have at least five years of Credited Service and be considered disabled by Social Security Administration. Benefit equal to the greater of:
  - ♦ 1/3 of FAS or
  - ♦ 2% x FAS x Credited Service, if eligible for service retirement, not in excess of 22 years of such service, minus
  - ♦ 50% of Primary Social Security Disability Benefit and 100% of Workers' Compensation payments for any injury
- ♦ Accidental Disability: Disabled because of a natural or proximate result of an accident sustained on the job. Benefit is:
  - ♦ 50% of FAS, minus
  - ♦ 50% of Primary Social Security Disability Benefit or Primary Social Security Benefit, whichever begins first, and 100% of Workers' Compensation payments for any injury

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit payable to the designated beneficiary(ies) if member was in City service for at least 90 days and in active service at time of death. Benefit is three times salary lump sum, plus a return of Accumulated Deductions
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law): A Pension equal to 50% of salary payable
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service plus a return of Accumulated Deductions

### ESCALATION

- ♦ Escalation of Service Retirement, Vested Retirement, or Early Service Retirement benefit based on years of service and date of election of payment
- ♦ Escalation of Ordinary Disability benefits, Accident Disability benefits, and Accidental Death benefits first day of the month following date retiree or beneficiary becomes eligible for benefit.

## UNIFORMED CORRECTION FORCE 22-YEAR RETIREMENT PLAN (CF-22)

### SERVICE RETIREMENT

- ◆ Participants may retire for service with 22 years of Credited Service regardless of age
- ◆ The Service Retirement Benefit is:
  - ◆ 50% of Final Average Salary (FAS), minus
  - ◆ 50% of Primary Social Security Benefit commencing at age 62.
- ◆ Participants may retire with Early Service Retirement benefit with at least 20 years of Credited Service:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service at the completion of 20 years of Credited Service}$ ; plus
  - ◆  $.33\% \times \text{FAS} \times \text{each month of service in excess of 20 years}$ , but not more than 50% of FAS; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62.

### VESTED RETIREMENT

- ◆ Must have at least five years of Credited Service
- ◆ Payability Date: the date member would have attained 20 years of Credited Service
- ◆ The Vested Retirement Benefit is:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service}$ ; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62.
- ◆ May elect to receive reduced vested benefit prior to date member would have attained 20 years of Credited Service but not earlier than age 55

### DISABILITY RETIREMENT

- ◆ Ordinary Disability: Must have at least five years of Credited Service and be considered disabled by Social Security Administration. Benefit equal to the greater of:
  - ◆  $1/3$  of FAS or
  - ◆  $2\% \times \text{FAS} \times \text{years of Credited Service}$ , if eligible for service retirement, not in excess of 22 years of such service, minus
  - ◆ 50% of Primary Social Security Disability Benefit and 100% of Workers' Compensation payments for any injury
- ◆ Accidental Disability: Disabled because of a natural or proximate result of an accident sustained on the job. Benefit is:
  - ◆ 50% of FAS, minus
  - ◆ 50% of Primary Social Security Disability Benefit or Primary Social Security Benefit, whichever begins first, and 100% of Workers' Compensation payments for any injury

### DEATH BENEFITS

- ◆ An Ordinary Death Benefit payable to designated beneficiary(ies) if member was in City service for at least 90 days and in active service at time of death. Benefit is three times salary lump sum, plus a return of Accumulated Deductions
- ◆ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable annually to the Eligible Beneficiary(ies) (defined in law): A Pension equal to 50% of salary payable
- ◆ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments.
- ◆ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service plus a return of Accumulated Deductions

### ESCALATION

- ◆ Escalation of Service Retirement, Vested Retirement, or Early Service Retirement benefit based on years of service and date of election of payment
- ◆ Escalation of Ordinary Disability benefits, Accidental Disability benefits, and Accidental Death benefits first day of the month following date retiree or beneficiary becomes eligible for benefit.

## UNIFORMED CORRECTION FORCE 22-YEAR ENHANCED DISABILITY RETIREMENT PLAN (CF-22E)

### SERVICE RETIREMENT

- ◆ Participants may retire with Service Retirement benefit upon attaining 22 years of Credited Service regardless of age
- ◆ The Service Retirement Benefit is:
  - ◆ 50% of Final Average Salary (FAS), minus
  - ◆ 50% of Primary Social Security Benefit commencing at age 62.
- ◆ Participants may retire with Early Service Retirement benefit after attaining at least 20 years of Credited Service
- ◆ The Early Service Retirement Benefit is:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service at the completion of 20 years of Credited Service}$ ; plus
  - ◆  $.33\% \times \text{FAS} \times \text{each month of service in excess of 20 years}$ , but not more than 50% of FAS; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62

### VESTED RETIREMENT

- ◆ Must have at least five years of Credited Service
- ◆ Payability Date: the date member would have attained 20 years of Credited Service
- ◆ The Vested Retirement Benefit is:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service}$ ; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62
- ◆ May elect to receive reduced vested benefit prior to date member would have attained 20 years of Credited Service, but not earlier than age 55

### ENHANCED DISABILITY RETIREMENT

- ◆ Ordinary Disability Benefit: Must have at least five years of Credited Service and be considered disabled by Social Security Administration. Benefit equal to the greater of:
  - ◆  $1/3$  of FAS or
  - ◆  $2\% \times \text{FAS} \times \text{years of Credited Service}$ , but not in excess of 22 years of such service
- ◆ Disability Retirement RSSL §507-a: Must have at least 10 years of Credited Service or disabled because of a natural or proximate result of an accident sustained on-the-job. Benefit equal to the greater of:
  - ◆  $1/3$  of FAS or
  - ◆  $1.67\% \times \text{FAS} \times \text{years of Credited Service up to 22 years}$ , or
  - ◆ If eligible to retire for service, the service retirement benefit
- ◆ Accidental Disability Benefit: Must be awarded Primary Social Security Disability Benefits or found to be disabled by NYCERS Medical Board, and the Board of Trustees determines the disability is the natural and proximate result of an accident sustained on-the-job. Benefit equal to:
  - ◆ 60% of FAS less
  - ◆ 50% of Primary Social Security Disability Benefit, if any, and 100% of any Workers' Compensation.
- ◆ Heart Law: Certain diseases of the heart resulting in disability presumed line-of-duty. Benefit equal to 75% of FAS minus 100% of Workers' Compensation payments for same injury.
- ◆ HAT Law: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty. Benefit equal to 75% of FAS minus 100% of Workers' Compensation payments for same injury.
- ◆ Act of an Inmate: Eligible for Accidental Disability benefit if disabled as a natural and proximate result of an act of an inmate. Benefit equal to 75% of FAS minus 100% of Workers' Compensation payments for same injury.
- ◆ World Trade Center Law: Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met. Benefit equal to 75% of FAS minus 100% of Workers' Compensation payments for same injury.

### DEATH BENEFITS

- ◆ Ordinary Death Benefit payable to the designated beneficiary(ies) if member was in City service for at least 90 days and in active service at time of death. Benefit is three times salary lump sum, plus a return of Accumulated Deductions – basic and additional.
- ◆ Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law). Benefit equal to 50% of member's wages during last year in City service.
- ◆ Death Benefit for Vested Members who die prior to retirement payable if member had at least 10 years of Credited Service. Benefit equal to 50% of death benefit in force at time of separation from service plus a return of Accumulated Deductions.

### ESCALATION AND COLA

- ◆ Escalation of Service Retirement, Vested Retirement, or Early Service Retirement benefit based on years of service and date of election of payment.
- ◆ Disability retirees who have been retired for at least five years are eligible for Cost-of-Living Adjustment (COLA), not escalation.

## UNIFORMED SANITATION FORCE 22-YEAR RETIREMENT PLAN (SA-22)

### SERVICE RETIREMENT

- ◆ Participants may retire for service with 22 years of Credited Service regardless of age
- ◆ The Service Retirement Benefit is:
  - ◆ 50% of Final Average Salary (FAS), minus
  - ◆ 50% of Primary Social Security Benefit commencing at age 62.
- ◆ Participants may retire with Early Service Retirement benefit with at least 20 years of Credited Service:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service at the completion of 20 years of Credited Service}$ ; plus
  - ◆  $.33\% \times \text{FAS} \times \text{each month of service in excess of 20 years, but not more than 50\% of FAS}$ ; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62.

### VESTED RETIREMENT

- ◆ Must have at least five years of Credited Service
- ◆ Payability Date: the date member would have attained 20 years of Credited Service
- ◆ The Vested Retirement Benefit is:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service}$ ; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62.
- ◆ May elect to receive reduced vested benefit prior to date member would have attained 20 years of Credited Service but not earlier than age 55

### DISABILITY RETIREMENT

- ◆ Ordinary Disability: Must have at least five (5) years of Credited Service and be considered disabled by Social Security Administration. Benefit equal to the greater of:
  - ◆  $1/3$  of FAS or
  - ◆  $2\% \times \text{FAS} \times \text{Credited Service, if eligible for service retirement, not in excess of 22 years of such service, minus}$
  - ◆ 50% of Primary Social Security Disability Benefit
- ◆ Accidental Disability: Disabled because of a natural or proximate result of an accident sustained on the job. Benefit is:
  - ◆ 50% of FAS, minus
  - ◆ 50% of Primary Social Security Disability Benefit or Primary Social Security Benefit, whichever begins first

### DEATH BENEFITS

- ◆ An Ordinary Death Benefit payable to designated beneficiary(ies) if member was in City service for at least 90 days and in active service at time of death. Benefit is three times salary lump sum, plus a return of Accumulated Deductions
- ◆ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable annually to an Eligible Beneficiary(ies) (defined in law): A Pension equal to 50% of salary payable
- ◆ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service plus a return of Accumulated Deductions

### ESCALATION

- ◆ Escalation of Service Retirement, Vested Retirement, or Early Service Retirement benefit based on years of service and date of election of payment
- ◆ Escalation of Ordinary Disability benefits, Accidental Disability benefits, and Accidental Death benefits first day of the month following date retiree or beneficiary becomes eligible for benefit.

## UNIFORMED SANITATION FORCE 22-YEAR ENHANCED DISABILITY RETIREMENT PLAN (SA-22E)

### SERVICE RETIREMENT

- ◆ Participants may retire with Service Retirement benefit upon attaining 22 years of Credited Service regardless of age
- ◆ The Service Retirement Benefit is:
  - ◆ 50% of Final Average Salary (FAS), minus
  - ◆ 50% of Primary Social Security Benefit commencing at age 62.
- ◆ Participants may retire with Early Service Retirement benefit after attaining at least 20 years of Credited Service:
  - ◆ The Early Service Retirement Benefit is:
    - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service at the completion of 20 years of Credited Service}$ ; plus
    - ◆  $.33\% \times \text{FAS} \times \text{each month of service in excess of 20 years, but not more than 50\% of FAS}$ ; minus
    - ◆ 50% of member's Primary Social Security Benefit commencing at age 62

### VESTED RETIREMENT

- ◆ Must have at least five years of Credited Service
- ◆ Payability Date: the date member would have attained 20 years of Credited Service
- ◆ The Vested Retirement Benefit is:
  - ◆  $2.1\% \times \text{FAS} \times \text{years of Credited Service}$ ; minus
  - ◆ 50% of member's Primary Social Security Benefit commencing at age 62
- ◆ May elect to receive reduced vested benefit prior to date member would have attained 20 years of Credited Service but not earlier than age 55

### ENHANCED DISABILITY RETIREMENT

- ◆ Ordinary Disability: Must have at least five years of Credited Service and be considered disabled by Social Security Administration. Benefit equal to the greater of:
  - ◆  $1/3$  of FAS or
  - ◆  $2\% \times \text{FAS} \times \text{years of Credited Service, but not in excess of 22 years of such service}$
- ◆ Accidental Disability Benefit: Must be awarded Primary Social Security Disability Benefits or found to be disabled by NYCERS Medical Board, and Board of Trustees determines disability is the natural and proximate result of an accident sustained on-the-job. Benefit equal to 75% of FAS.
- ◆ Heart Law: Certain diseases of the heart resulting in disability presumed line-of-duty. Benefit equal to 75% of FAS.
- ◆ World Trade Center Law: Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met. Benefit equal to 75% of FAS.

### DEATH BENEFITS

- ◆ Ordinary Death Benefit payable to the designated beneficiary(ies) if member was in City service for at least 90 days and in active service at time of death. Benefit is three times salary in a lump sum, plus a return of Accumulated Deductions -- basic and additional.
- ◆ Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law). Benefit equal to 50% of member's wages during last year in City service.
- ◆ Death Benefit for Vested Members who die prior to retirement payable if member had at least 10 years of Credited Service. Benefit equal to 50% of death benefit in force at time of separation from service plus a return of Accumulated Deductions.

### ESCALATION AND COLA

- ◆ Escalation of Service Retirement, Vested Retirement, or Early Service Retirement benefit based on years of service and date of election of payment.
- ◆ Disability retirees who have been retired for at least five years are eligible for an annual Cost-of-Living Adjustment (COLA), not escalation.

## TIER 3 RETIREMENT OPTIONS

### MAXIMUM RETIREMENT ALLOWANCE

If a member, upon retirement, does not elect one of the options listed below, his or her benefit will be paid as a Maximum Retirement Allowance, payable in monthly installments throughout his or her life, with all payments ceasing at death.

#### OPTION 1: 100% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime benefit. When the pensioner dies, the surviving beneficiary receives the same reduced monthly benefit for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 2: OTHER JOINT-AND-SURVIVOR OPTIONS

The pensioner receives a reduced monthly lifetime benefit. When the pensioner dies, the surviving beneficiary receives a benefit of 90% or less (amount depends on the pensioner's choice, in increments of not less than 10%) of the pensioner's reduced monthly benefit for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 3: FIVE-YEAR CERTAIN

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within five years from the date of retirement having designated only one primary beneficiary, the reduced monthly retirement benefit will continue to be paid to the designated primary beneficiary for the unexpired balance of the five-year period. In the event of the death of the primary beneficiary after such beneficiary has begun to receive payment, the unexpended benefit will be paid in a lump sum to the contingent beneficiary or, if no contingent beneficiary exists, to the estate of the primary beneficiary.

If multiple primary beneficiaries have been designated, the unexpended benefit will be paid in a lump sum divided equally to the surviving primary beneficiaries. In the event that all primary beneficiaries predecease the pensioner, then upon the death of the pensioner the unexpended benefit will be paid in a lump sum divided equally to the surviving contingent beneficiaries. If all beneficiaries predecease the pensioner, the unexpended benefit will be paid in a lump sum to the pensioner's estate. If the pensioner dies later than five years following the effective retirement date, all retirement allowance payments will cease. The pensioner may change the beneficiary(ies) any time within the five-year period.

#### OPTION 4: TEN-YEAR CERTAIN

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within ten years from the date of retirement having designated only one primary beneficiary, the reduced monthly retirement benefit will continue to be paid to the designated primary beneficiary for the unexpired balance of the ten-year period.

In the event of the death of the primary beneficiary after such beneficiary has begun to receive payment, the unexpended benefit will be paid in a lump sum to the contingent beneficiary or, if no contingent beneficiary exists, to the estate of the primary beneficiary.

If multiple primary beneficiaries have been designated, the unexpended benefit will be paid in a lump sum divided equally to the surviving primary beneficiaries. In the event that all primary beneficiaries predecease the pensioner, then upon the death of the pensioner the unexpended benefit will be paid in a lump sum divided equally to the surviving contingent beneficiaries. If all beneficiaries predecease the pensioner, the unexpended benefit will be paid in a lump sum to the pensioner's estate. If the pensioner dies later than ten years following the effective retirement date, all retirement allowance payments will cease.

The pensioner may change the beneficiary(ies) any time within the ten-year period.

**Members who retire on or after November 21, 1992 are eligible to elect Option 5, the *Pop-Up Option*.**

#### **OPTION 5: POP-UP OPTION**

The Pop-Up Option is a variation of a joint-and-survivor option. The pensioner receives a reduced monthly lifetime benefit under a 100% or 50% joint-and-survivor option. If the beneficiary dies before the pensioner, the pensioner's benefit "pops-up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.



## BASIC 62/5 RETIREMENT PLAN

### SERVICE RETIREMENT

- ♦ Participants may retire at age 62 with five or more years of Credited Service
- ♦ Participants may retire as early as age 55 with a reduced benefit
- ♦ The Service Retirement Benefit is:
  - ♦ *Less than 20 years of Credited Service:*  $1.67\% \times \text{each year of Credited Service} \times \text{Final Average Salary (FAS)}$
  - ♦ *Between 20 and 30 years of Credited Service:*  $2\% \times \text{each year of Credited Service} \times \text{FAS}$
  - ♦ *More than 30 years of Credited Service:*  $2\% \times \text{each year for first 30 years of Credited Service} \times \text{FAS}$ , plus  $1.5\% \times \text{each year of Credited Service in excess of 30 years} \times \text{FAS}$

### VESTED RETIREMENT

- ♦ Need a minimum of five years of Credited Service, two of which must be Membership Service
- ♦ Payability Date: Age 62
- ♦ Benefit calculation same as Service Retirement Benefit calculation for the 62/5 Plan

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of  $1/3$  of FAS or  $1.67\% \times \text{each year of Credited Service} \times \text{FAS}$
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 55/25 RETIREMENT PLAN – CHAPTER 96 OF THE LAWS OF 1995

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55 with at least 25 years of Credited Service
- ♦ The Service Retirement Benefit is:
  - ♦ *Between 25 and 30 years of Credited Service:*  $2\% \times \text{each year of Credited Service} \times \text{FAS}$
  - ♦ *More than 30 years of Credited Service:*  $2\% \times \text{each year for first 30 years of Credited Service} \times \text{FAS}$ , plus  $1.5\% \times \text{each year of Credited Service in excess of 30 years} \times \text{FAS}$

### VESTED RETIREMENT

- ♦ There is no vesting provision under this plan; however, members always retain the right to vest under the basic 62/5 plan and are eligible for the Death Benefit for Vested Members if they have 10 or more years of Credited Service (see below)
- ♦ Benefit calculation same as Service Retirement Benefit calculation

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of  $1/3$  of FAS or  $1.67\% \times \text{each year of Credited Service} \times \text{FAS}$
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions - basic and employee portion (50%) of Additional Member Contributions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of the employee portion (50%) of Additional Member Contributions
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions - basic and employee portion (50%) of Additional Member Contributions.
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## 57/5 RETIREMENT PLAN – CHAPTER 96 OF THE LAWS OF 1995

### SERVICE RETIREMENT

- ♦ Participants may retire at age 57 with five or more years of Credited Service
- ♦ The Service Retirement Benefit is:
  - ♦ *Less than 20 years of Credited Service:* 1.67% x each year of Credited Service x Final Average Salary (FAS)
  - ♦ *Between 20 and 30 years of Credited Service:* 2% x each year of Credited Service x FAS
  - ♦ *More than 30 years of Credited Service:* 2% x each year for first 30 years of Credited Service x FAS, plus 1.5% x each year of Credited Service in excess of 30 years x FAS

### VESTED RETIREMENT

- ♦ Need a minimum of five years of Credited Service, two of which must be Membership Service
- ♦ Payability Date: Age 57
- ♦ Benefit calculation same as Service Retirement Benefit calculation

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions – basic and employee portion (50%) of Additional Member Contributions (AMCs). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of the employee portion (50%) of Additional Member Contributions
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions – basic and employee portion (50%) of Additional Member Contributions (AMCs).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## SANITATION 30-YEAR RETIREMENT PLAN (SA-30)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55 with 30 or more years of Credited Service
- ♦ The Service Retirement Benefit is:
  - ♦ *With 30 years of Credited Service:* 2% x each year of Credited Service x FAS
  - ♦ *More than 30 years of Credited Service:* 2% x each year for first 30 years of Credited Service x FAS, plus 1.5% x each year of Credited Service in excess of 30 years x FAS

### VESTED RETIREMENT

- ♦ Need a minimum of five years of Credited Service, two of which must be Membership Service
- ♦ Payability Date: Age 62
- ♦ Benefit calculation same as Service Retirement Benefit calculation in the Basic 62/5 Plan

### DISABILITY RETIREMENT

- ♦ Ordinary - must have ten or more years of Credited Service, unless disability resulted from accident sustained on-the-job
- ♦ Accidental - no minimum service, but disability resulted from an on-the-job accident
- ♦ Ordinary: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS; If eligible for service retirement, the benefit equals the Service Retirement Benefit
- ♦ Accidental: 75% of FAS
- ♦ Heart Presumption: Heart ailment presumed accidental; member eligible for benefit of 75% of FAS
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary: Need more than 90 days of service; benefit equal to three times current salary in a lump sum, plus Accumulated Deductions
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of the death benefit in force at time of separation from service, plus Accumulated Deductions
- ♦ Heart Presumption: Death due to heart ailment presumed accidental; accidental death benefit payable
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## UNIFORMED SANITATION 20-YEAR RETIREMENT PLAN (SA-20)

### SERVICE RETIREMENT

- ◆ Participants may retire after 20 years of Allowable Sanitation Service, without regard to age
- ◆ The Service Retirement Benefit is:
  - ◆ For the first 20 years of Allowable Sanitation Service: 50% of Final Average Salary (FAS)
  - ◆ For all years of Allowable Sanitation Service in excess of the first 20: 1.5% of Final Compensation x years of such service; plus
  - ◆ For each year of Credited Service, other than Allowable Sanitation Service: 1% of Final Compensation
  - ◆ Benefit limited to 30 years
- ◆ Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- ◆ Must have five or more years of Allowable Sanitation Service but less than 20
- ◆ Payability Date: The date the participant would have reached 20 years if he/she had not discontinued service
- ◆ Vested Benefit: For each year of Allowable Sanitation Service: 2.5% of FAS; plus, for each year of Credited Service other than Allowable Sanitation Service: 1% of Final Compensation
- ◆ Not eligible for vested retirement with a deficit in AMCs.

### DISABILITY RETIREMENT

- ◆ Ordinary Disability: Must have ten or more years of Credited Service: Benefit equals the greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ◆ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ◆ Accidental Disability: Disabled because of a natural or proximate result of an accident sustained on-the-job; benefit equal to 75% of FAS
- ◆ Heart Presumption: Heart ailment presumed accidental; member eligible for benefit of 75% of FAS
- ◆ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ◆ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ◆ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ◆ Ordinary Death Benefit: Need at least 90 days of service; benefit equal to three times current salary in a lump sum, plus Accumulated Deductions - basic and additional
- ◆ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions
- ◆ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus Accumulated Deductions - basic and additional
- ◆ Heart Presumption: Heart ailment presumed accidental; Accidental Death Benefit payable
- ◆ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## TRANSIT 25 - YEAR / AGE - 55 RETIREMENT PLAN (T2555)

### SERVICE RETIREMENT

- ◆ Participants may retire at age 55 with credit for 25 or more years of Allowable Service in the Transit Authority
- ◆ The Service Retirement Benefit is:
  - ◆ For the first 25 years of Allowable Service in the Transit Authority, 50% of Final Average Salary (FAS), plus
  - ◆ For each additional year beyond the first 25 (up to 30 years of such service), 2% of FAS, plus
  - ◆ For each additional year in excess of 30 years of such service, 112% of FAS

### VESTED RETIREMENT

- ◆ A participant must have at least 25 years of Allowable Service and not have attained age 55; payable on his/her 55th birthday and calculated the same as the Service Retirement Benefit
- ◆ A participant with at least five years of Allowable or Credited Service, but less than 25, can vest under the Basic 62/5 Plan

### DISABILITY RETIREMENT

- ◆ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ◆ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ◆ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ◆ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ◆ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ◆ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ◆ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ◆ Accidental Death Benefit: A Pension equal to 50% of salary payable
- ◆ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions.
- ◆ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY 20 - YEAR / AGE - 50 RETIREMENT PLAN (TBTA-20/50)

### SERVICE RETIREMENT

- ♦ Participants may retire with 20 or more years of Credited Service and as early as age 50
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 20 years of Credited Service, plus
  - ♦ 1.5% of FAS for each year of Credited Service in excess of 20
  - ♦ Benefit limited to 30 years
- ♦ Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- ♦ Must have at least five years but less than 20 years of Credited Service
- ♦ Payable on the earliest date the member could have retired for service
- ♦ 2.5% of FAS for each year of Credited Service
- ♦ Not eligible for vested retirement with a deficit in AMCs.

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions – basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions – basic and additional (if less than 15 years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## DISPATCHER 25 - YEAR RETIREMENT PLAN (DIS-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Allowable Service as a Dispatcher Member, regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Allowable Service, plus
  - ♦ 2% of FAS for each year of Allowable Service in excess of 25
  - ♦ Benefit limited to 30 years

### VESTED RETIREMENT

- ♦ Must have at least five years but less than 25 years of Allowable Service
- ♦ Payable on the date the member would have completed 25 years of Allowable Service
- ♦ 2% of FAS for each year of Allowable Service

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions – basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions – basic and additional (if less than 15 years of service.)
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## EMERGENCY MEDICAL TECHNICIAN 25-YEAR RETIREMENT PLAN (EMT-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Allowable Service as an EMT Member, regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Allowable Service, plus
  - ♦ 2% of FAS for each year of Allowable Service in excess of 25
  - ♦ Benefit limited to 30 years

### VESTED RETIREMENT

- ♦ Must have at least five years but less than 25 years of Allowable Service
- ♦ Payable on the date the member would have completed 25 years of Allowable Service
- ♦ 2% of FAS for each year of Allowable Service

### DISABILITY RETIREMENT

- ♦ Ordinary Disability: Must have ten or more years of Credited Service; Benefit equals the greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Line-of-Duty Disability: Disabled because of an injury sustained in the performance of duty; benefit equal to 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ Heart Presumption: Heart ailment presumed line-of-duty; benefit equals 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; benefit equals 75% of FAS payable minus 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions – basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions – basic and additional (if less than 15 years of service).
- ♦ Heart Presumption: Heart ailment presumed accidental; Accidental Death Benefit payable
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 (or 23 if student). A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## NYC DEPUTY SHERIFFS 25 - YEAR RETIREMENT PLAN (DSH-25)

### SERVICE RETIREMENT

- ♦ Participants may retire with 25 or more years of Credited Service, without regard to age
- ♦ The Service Retirement Benefit is:
  - ♦ For the first 25 years of Credited Service: 55% of Final Average Salary (FAS), plus
  - ♦ 1.7% of FAS for each year of Credited Service in excess of 25
  - ♦ Benefit limited to 30 years

### VESTED RETIREMENT

- ♦ Must have at least five, but less than 25 years of Credited Service
- ♦ Payable on the date the member would have completed 25 years of Credited Service
- ♦ 2.2% of FAS for each year of Credited Service

### DISABILITY RETIREMENT

- ♦ Ordinary Disability: Must have ten or more years of Credited Service and are deemed physically or mentally incapacitated
- ♦ Ordinary Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Accidental Disability: Disabled because of a natural or proximate result of an accident sustained on-the-job; benefit equal to 75% of Final Compensation, minus 100% of Workers' Compensation payments for same injury
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions - basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions - basic and additional (if less than 15 years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## AUTOMOTIVE SERVICE WORKERS 25 - YEAR / AGE - 50 RETIREMENT PLAN (AUT-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Credited Service, at age 50
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Credited Service, plus
  - ♦ An additional 2% of FAS for each year in excess of 25
  - ♦ Benefit limited to 30 years

### VESTED RETIREMENT

- ♦ Must have at least five but less than 25 years of Credited Service
- ♦ Payable on the date the member reaches at least age 50 AND would have completed 25 years of Credited Service
- ♦ 2% of FAS for each year of Credited Service

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions - basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than five years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions - basic and additional (if less than five years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## SPECIAL OFFICER 25 - YEAR RETIREMENT PLAN (SPO-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Allowable Service as a Special Officer, regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Allowable Service, plus
  - ♦ 2% of FAS for each year of Allowable Service in excess of 25
  - ♦ Benefit limited to 30 years

### VESTED RETIREMENT

- ♦ Must have at least five years but less than 25 years of Allowable Service
- ♦ Payable on the date the member would have completed 25 years of Allowable Service
- ♦ 2% of FAS for each year of Allowable Service

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions - basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions - basic and additional (if less than 15 years of service)
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## POLICE COMMUNICATIONS (911) TECHNICIANS 25-YEAR RETIREMENT PLAN (PCT 25)

### SERVICE RETIREMENT

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- ♦ Participants may retire for service with 25 or more years of Credited Service, regardless of age
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Credited Service, plus
  - ♦ 2% of FAS for each year of Credited Service in excess of 25
  - ♦ Benefit limited to 30 years

### VESTED RETIREMENT

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- ♦ Must have at least five years but less than 25 years of Credited Service
- ♦ Payable on the date the member would have completed 25 years of Credited Service
- ♦ 2% of FAS for each year of Credited Service

### DISABILITY RETIREMENT

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- ♦ Eligibility: Must have ten or more years of Credited Service, unless disability resulted from an accident sustained on-the-job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x each year of Credited Service x FAS
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement Benefit if greater than above
- ♦ Members may file for disability benefits in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

### DEATH BENEFITS

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- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum, plus a return of Accumulated Deductions - basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than five years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service, plus a return of Accumulated Deductions - basic and additional (if less than five years of service).
- ♦ Eligible Beneficiaries may file for accidental death benefits if member's death deemed in connection with the World Trade Center tragedy on 9/11/01 provided certain criteria are met

## TIER 4 RETIREMENT OPTIONS

### MAXIMUM RETIREMENT ALLOWANCE

If a member, upon retirement, does not elect one of the options listed below, his or her benefit will be paid as a Maximum Retirement Allowance payable in monthly installments throughout his or her life, with all payments ceasing at death.

#### OPTION 1: 100% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives the same reduced monthly allowance for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 2: OTHER JOINT-AND-SURVIVOR OPTIONS

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives a lifetime benefit of 25%, 50% or 75% of the pensioner's reduced monthly benefit, depending on the pensioner's choice. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 3: FIVE-YEAR CERTAIN

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within five years from the date of retirement, the reduced monthly benefit will be paid to the surviving designated primary beneficiary for the unexpired balance of the five-year period. If the pensioner's designated primary beneficiary predeceases the pensioner, then upon the death of the pensioner the balance of the payments due for the unexpired balance of the five-year period is paid in a lump sum to the pensioner's contingent beneficiary or, if none exists, to the estate of the pensioner. Should a designated primary beneficiary die after having started to receive payments and before the unexpired balance of the five-year period, the balance will be paid in a lump sum to the designated contingent beneficiary or, if none exists, to the estate of the primary beneficiary. The pensioner may change the beneficiary(ies) any time within the five-year period.

#### OPTION 4: TEN-YEAR CERTAIN

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within 10 years from the date of retirement, the reduced monthly benefit will be paid to the surviving designated primary beneficiary for the unexpired balance of the 10-year period. If the pensioner's designated primary beneficiary predeceases the pensioner, then upon the death of the pensioner the balance of the payments due for the unexpired balance of the 10-year period is paid in a lump sum to the pensioner's contingent beneficiary or, if none exists, to the estate of the pensioner.



Should a designated primary beneficiary die after having started to receive payments and before the unexpired balance of the 10-year period, the balance will be paid in a lump sum to the designated contingent beneficiary or, if none exists, to the estate of the primary beneficiary. The pensioner may change the beneficiary(ies) any time within the ten-year period.

#### **OPTION 5: POP-UP OPTION**

The Pop-Up Option is a variation of a joint-and-survivor option. The pensioner receives a reduced monthly lifetime benefit under a 100% or 50% joint-and-survivor option. If the beneficiary dies before the pensioner, the pensioner's benefit "pops-up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.

## BASIC 63/10 RETIREMENT PLAN

### SERVICE RETIREMENT

- ♦ Participants may retire at age 63 with 10 or more years of Credited Service
- ♦ Participants may retire as early as age 55 with a reduced benefit
- ♦ The Service Retirement is:
  - ♦ *Less than 20 years of Credited Service:  $1.67\% \times \text{Final Average Salary (FAS)} \times \text{years of Credited Service}$*
  - ♦ *20 or more years of Credited Service: 35% of FAS for the first 20 years of Credited Service, plus  $2\% \times \text{FAS} \times \text{each year of Credited Service in excess of 20}$*

### VESTED RETIREMENT

- ♦ Need a minimum of 10 years of Credited Service, two of which must be Membership Service
- ♦ Payability Date: age 63
- ♦ Benefit calculation same as Service Retirement calculation for the 63/10 Plan

### DISABILITY RETIREMENT

- ♦ Must have 10 or more years of Credited Service unless disability resulted from an accident sustained on the job
- ♦ Disability Retirement Benefit: The greater of  $1/3$  of FAS or  $1.67\% \times \text{FAS} \times \text{years of service}$
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable.
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service plus return of Accumulated Deductions.

## TRANSIT 25-YEAR/AGE 55 RETIREMENT PLAN (6TR-25)

### SERVICE RETIREMENT

- ♦ Participants may retire at age 55 with 25 or more years of Allowable Service in the Transit Authority
- ♦ The Service Retirement Benefit is:
  - ♦  $2\% \times \text{Final Average Salary (FAS)} \times \text{the number of years of Allowable Service, up to 30 years of such service, plus}$
  - ♦  $1.5\% \times \text{FAS} \times \text{the number of years of Allowable Service in excess of 30 years of such service.}$

### VESTED RETIREMENT

- ♦ A Participant with at least 25 years of Allowable Service who has not yet attained the age of 55 is eligible for a Vested Retirement Benefit that becomes payable at age 63. The Vested Benefit payable is:
  - ♦  $2\% \times \text{Final Average Salary (FAS)} \times \text{the number of years of Allowable Service, up to 30 years of such service, plus}$
  - ♦  $1.5\% \times \text{FAS} \times \text{the number of years of Allowable Service in excess of 30 years of such service.}$
- ♦ A Participant with at least 10 years of Credited Service (all service, at least two years of which are membership service) is entitled to a Vested Retirement Benefit that becomes payable at age 63. The Vested Benefit payable is:
  - ♦ *For a participant with less than 20 years of Credited Service:  $1.67\% \times \text{FAS} \times \text{years of Credited Service}$*
  - ♦ *For a participant with more than 20 years of Credited Service: 35% of FAS for the first 20 years of Credited Service, plus  $2\% \times \text{FAS} \times \text{each year of Credited Service in excess of 20}$*

### DISABILITY RETIREMENT

- ♦ Must have 10 or more years of Credited Service unless disability resulted from an accident sustained on the job
- ♦ Disability Retirement Benefit: The greater of  $1/3$  of FAS or  $1.67\% \times \text{FAS} \times \text{years of service}$
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions. Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable.
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation from service plus return of Accumulated Deductions.

## TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY 20-YEAR/AGE 50 RETIREMENT PLAN (6TB-20)

### SERVICE RETIREMENT

- ◆ Participants may retire with 20 or more years of Credited Service and as early as age 50.
- ◆ The Service Retirement Benefit is:
  - ◆ 50% of Final Average Salary (FAS) for the first 20 years of Credited Service, plus
  - ◆ 1.5% x FAS x the number of years of Credited Service in excess of 20, up to a maximum of 30 years.
- ◆ Not eligible for service retirement with a deficit in Additional Member Contributions (AMCs).

### VESTED RETIREMENT

- ◆ Must have at least 10 but less than 20 years of Credited Service
- ◆ Payability Date: age 63
- ◆ 2.5% x FAS x the number of years of Credited Service
- ◆ Not eligible for vested retirement with a deficit in AMCs.

### DISABILITY RETIREMENT

- ◆ Must have 10 or more years of Credited Service, unless disability resulted from an accident sustained on the job
- ◆ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x FAS x years of service
- ◆ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

- ◆ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ◆ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ◆ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ◆ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ◆ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions -- basic and additional (if less than 15 years of service)
- ◆ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 or child under 23 if student. A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury.

## DISPATCHER 25-YEAR RETIREMENT PLAN (6DI-25)

### SERVICE RETIREMENT

- ◆ Participants may retire for service with 25 or more years of Allowable Service as a Dispatcher Member regardless of age.
- ◆ The Service Retirement Benefit is:
  - ◆ 50% of Final Average Salary (FAS) for the first 25 years of Allowable Service, plus
  - ◆ 2% of FAS for each additional year of Allowable Service, up to a maximum of 30 years of such service.

### VESTED RETIREMENT

- ◆ Must have at least 10 but less than 25 years of Allowable Service
- ◆ Payability Date: age 63
- ◆ 2% x FAS x the number of years of Allowable Service

### DISABILITY RETIREMENT

- ◆ Must have 10 or more years of Credited Service unless disability resulted from an accident sustained on the job
- ◆ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x FAS x years of service
- ◆ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

- ◆ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ◆ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ◆ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ◆ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ◆ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions -- basic and additional (if less than 15 years of service)

## EMERGENCY MEDICAL TECHNICIAN 25-YEAR RETIREMENT PLAN (6EM-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Allowable Service regardless of age.
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Allowable Service, plus
  - ♦ 2% of FAS for each additional year of Allowable Service, up to a maximum of 30 years of such service.

### VESTED RETIREMENT

- ♦ Must have at least 10 but less than 25 years of Allowable Service
- ♦ Payability Date: age 63
- ♦ 2% x FAS x the number of years of Allowable Service

### DISABILITY RETIREMENT

- ♦ Ordinary Disability: Must have 10 or more years of Credited Service; benefit equals the greater of 1/3 of FAS or 1.67% x FAS x years of service
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.
- ♦ Line-of-Duty Disability: Disabled because of an injury sustained in the performance of duty; benefit equal to 75% of FAS minus 100% of Workers' Compensation payments for same injury.
- ♦ Heart Presumption: Heart ailment presumed line-of-duty; benefit equals 75% of FAS minus 100% of Workers' Compensation payments for same injury.
- ♦ HAT Presumption: HIV, tuberculosis or hepatitis resulting in disability presumed line-of-duty; benefit equals 75% of FAS minus 100% of Workers' Compensation payments for same injury.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions – basic and additional (if less than 15 years of service).
- ♦ Special Accidental Death Benefit (resulted from accident on-the-job or while in military service) payable to widow or widower or child under 18 or child under 23 if student. A Pension equal to 50% of salary payable, minus Social Security benefits and 100% of Workers' Compensation payments for same injury.
- ♦ Heart Presumption: Heart ailment presumed accidental; Accidental and Special Accidental Death Benefits payable.

## NYC DEPUTY SHERIFF 25-YEAR RETIREMENT PLAN (6DS-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Credited Service regardless of age.
- ♦ The Service Retirement Benefit is:
  - ♦ 55% of Final Average Salary (FAS) for the first 25 years of Credited Service, plus
  - ♦ 1.7% of FAS for each additional year of Credited Service, up to a maximum of 30 years of such service.

### VESTED RETIREMENT

- ♦ Must have at least 10 but less than 25 years of Credited Service
- ♦ Payability Date: age 63
- ♦ 2.2% x FAS x the number of years of Credited Service

### DISABILITY RETIREMENT

- ♦ Ordinary Disability: Must have 10 or more years of Credited Service; benefit equals the greater of 1/3 of FAS or 1.67% x FAS x years of service
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.
- ♦ Accidental Disability: Disabled because of a natural or proximate result of an accident sustained on the job; benefit equal to 75% of Final Compensation minus 100% of Workers' Compensation payments for same injury.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions – basic and additional (if less than 15 years of service)

## AUTOMOTIVE MEMBER 25-YEAR/AGE 50 RETIREMENT PLAN (6AU-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Credited Service at age 50 or older.
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Credited Service, plus
  - ♦ 2% of FAS for each additional year of Credited Service, up to a maximum of 30 years of such service.

### VESTED RETIREMENT

- ♦ Must have at least 10 but less than 25 years of Credited Service
- ♦ Payability Date: age 63
- ♦ 2% x FAS x the number of years of Credited Service

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have 10 or more years of Credited Service unless disability resulted from an accident sustained on the job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x FAS x years of service
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than five years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions -- basic and additional (if less than five years of service)

## SPECIAL PEACE OFFICER 25-YEAR RETIREMENT PLAN (6SO-25)

### SERVICE RETIREMENT

- ♦ Participants may retire for service with 25 or more years of Allowable Service as a Special Peace Officer regardless of age.
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Allowable Service, plus
  - ♦ 2% of FAS for each additional year of Allowable Service, up to a maximum of 30 years of such service.

### VESTED RETIREMENT

- ♦ Must have at least 10 but less than 25 years of Allowable Service
- ♦ Payability Date: age 63
- ♦ 2% x FAS x the number of years of Allowable Service

### DISABILITY RETIREMENT

- ♦ Eligibility: Must have 10 or more years of Credited Service, unless disability resulted from an accident sustained on the job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x FAS x years of service
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than 15 years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than 15 years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions -- basic and additional (if less than 15 years of service).

## POLICE COMMUNICATIONS TECHNICIAN 25-YEAR RETIREMENT PLAN (6PC-25)

### SERVICE RETIREMENT

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- ♦ Participants may retire for service with 25 or more years of Credited Service regardless of age.
- ♦ The Service Retirement Benefit is:
  - ♦ 50% of Final Average Salary (FAS) for the first 25 years of Credited Service, plus
  - ♦ 2% of FAS for each additional year (or fraction thereof) of Credited Service, up to a maximum of 30 years of such service.

### VESTED RETIREMENT

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- ♦ Must have at least 10 but less than 25 years of Credited Service
- ♦ Payability Date: age 63
- ♦ 2% x FAS x the number of years of Credited Service

### DISABILITY RETIREMENT

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- ♦ Eligibility: Must have 10 or more years of Credited Service, unless disability resulted from an accident sustained on the job
- ♦ Disability Retirement Benefit: The greater of 1/3 of FAS or 1.67% x FAS x years of service
- ♦ If eligible for Service Retirement, the benefit equals the Service Retirement if greater than above.

### DEATH BENEFITS

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- ♦ An Ordinary Death Benefit (need not have been on-the-job) payable to the Designated Beneficiary(ies) (member's designation)
- ♦ An Accidental Death Benefit (resulted from an accident on-the-job or while in military service) payable to the Eligible Beneficiary(ies) (defined in law)
- ♦ Ordinary Death Benefit (Plan 2): 1-2 years of service = one year's current salary in a lump sum; 2-3 years of service = two times current salary in a lump sum; 3 or more years of service = three times current salary in a lump sum; plus a return of Accumulated Deductions -- basic and additional (if less than five years of service). Retirees are eligible for a Post-Retirement Death Benefit.
- ♦ Accidental Death Benefit: A Pension equal to 50% of salary payable, plus a return of Additional Member Contributions (if less than five years of service)
- ♦ Death Benefit for Vested Members: Need at least 10 years of Credited Service; 50% of death benefit in force at time of separation plus return of Accumulated Deductions -- basic and additional (if less than five years of service)

## TIER 6 RETIREMENT OPTIONS

### MAXIMUM RETIREMENT ALLOWANCE

If a member, upon retirement, does not elect one of the options listed below, his or her benefit will be paid as a Maximum Retirement Allowance payable in monthly installments throughout his or her life, with all payments ceasing at death.

#### OPTION 1: 100% JOINT-AND-SURVIVOR

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives the same reduced monthly allowance for life. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 2: OTHER JOINT-AND-SURVIVOR OPTIONS

The pensioner receives a reduced monthly lifetime allowance. When the pensioner dies, the surviving beneficiary receives a lifetime benefit of 25%, 50% or 75% of the pensioner's reduced monthly benefit, depending on the pensioner's choice. Only one beneficiary may be named, and the beneficiary may not be changed once named and the option is in effect.

#### OPTION 3: FIVE-YEAR CERTAIN

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within five years from the date of retirement, the reduced monthly benefit will be paid to the surviving designated primary beneficiary for the unexpired balance of the five-year period. If the pensioner's designated primary beneficiary predeceases the pensioner, then upon the death of the pensioner the balance of the payments due for the unexpired balance of the five-year period is paid in a lump sum to the pensioner's contingent beneficiary or, if none exists, to the estate of the pensioner. Should a designated primary beneficiary die after having started to receive payments and before the unexpired balance of the five-year period, the balance will be paid in a lump sum to the designated contingent beneficiary or, if none exists, to the estate of the primary beneficiary. The pensioner may change the beneficiary(ies) any time within the five-year period.

#### OPTION 4: TEN-YEAR CERTAIN

The pensioner receives a reduced monthly lifetime benefit. If the pensioner dies within 10 years from the date of retirement, the reduced monthly benefit will be paid to the surviving designated primary beneficiary for the unexpired balance of the 10-year period. If the pensioner's designated primary beneficiary predeceases the pensioner, then upon the death of the pensioner the balance of the payments due for the unexpired balance of the 10-year period is paid in a lump sum to the pensioner's contingent beneficiary or, if none exists, to the estate of the pensioner. Should a designated primary beneficiary die after having started to receive payments and before the unexpired balance of the 10-year period, the balance will be paid in a lump sum to the designated contingent beneficiary or, if none exists, to the estate of the primary beneficiary. The pensioner may change the beneficiary(ies) any time within the 10-year period.

## **OPTION 5: POP-UP OPTION**

The Pop-Up Option is a variation of a joint-and-survivor option. The pensioner receives a reduced monthly lifetime benefit under a 100% or 50% joint-and-survivor option. If the beneficiary dies before the pensioner, the pensioner's benefit "pops-up," that is, it automatically becomes the Maximum Retirement Allowance, and all payments cease at death.





TO THE DEFENDERS OF THE UNION 1861-1865

# PART 2 FINANCIAL SECTION



## INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the  
New York City Employees' Retirement System

### Report on the Combining Financial Statements

We have audited the accompanying combining statements of fiduciary net position of the New York City Employees' Retirement Fund, New York City Correction Officers' Variable Supplements Fund, New York City Housing Police Officers' Variable Supplements Fund, New York City Housing Police Superior Officers' Variable Supplements Fund, New York City Transit Police Officers' Variable Supplements Fund, and New York City Transit Police Superior Officers' Variable Supplements Fund, which collectively comprise the New York City Employees' Retirement System (the "Funds"), a fiduciary fund of the City of New York, as of June 30, 2018 and 2017, and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to the combining financial statements, which collectively comprise the Funds' basic combining financial statements as listed in the table of contents.

### *Management's Responsibility for the Combining Financial Statements*

Management is responsible for the preparation and fair presentation of these combining financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the combining financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditors' Responsibility*

Our responsibility is to express opinions on these combining financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require we plan and perform the audit to obtain reasonable assurance about whether the combining financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combining financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the combining financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Funds' preparation and fair presentation of the combining financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Funds' internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combining financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

### *Opinions*

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the combining fiduciary net position of the Funds as of June 30, 2018 and 2017, and the changes in combining fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule 1, Schedule 2, and Schedule 3, as listed in the table of contents, be presented to supplement the basic combining financial statements. Such information, although not a part of the basic combining financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic combining financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic combining financial statements, and other knowledge we obtained during our audits of the basic combining financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Other Supplementary Information*

Our audits were conducted for the purpose of forming an opinion on the basic combining financial statements. The Introductory Section, Additional Supplementary Information, Investment Section, Actuarial Section, and Statistical Section, as listed in the foregoing table of contents, are presented for the purpose of additional analysis and are not a required part of the basic combining financial statements.

The Additional Supplementary Information (Schedules of Investment Expenses, Administrative Expenses and Payments to Consultants) is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic combining financial statements. Such information has been subjected to the auditing procedures, applied in the audit of the basic combining financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic combining financial statements or to the basic combining financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion the Additional Supplementary Information is fairly stated, in all material respects, in relation to the basic combining financial statements taken as a whole.

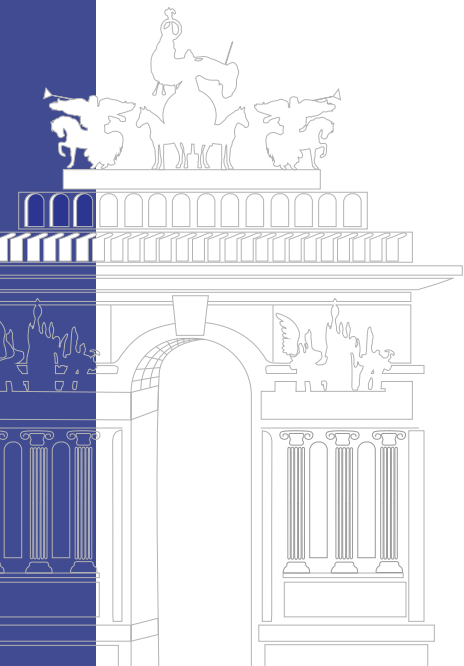
The Introductory Section, Investment Section, Actuarial Section and Statistical Section have not been subjected to the auditing procedures applied in the audit of the basic combining financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

*Marks Paneth LLP*

October 26, 2018

(except for the Other Supplementary Information,  
as to which the date is December 21, 2018)

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**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

This narrative discussion and analysis of the New York City Employees' Retirement System's (NYCERS or the Fund) financial performance provides an overview of the Funds' combining financial activities for the Fiscal Years ended June 30, 2018 and 2017. It is meant to assist the reader in understanding NYCERS' combining financial statements by providing an overall review of the combining financial activities during the years and the effects of significant changes, as well as a comparison with the prior year's activity and results. This discussion and analysis is intended to be read in conjunction with the Funds' combining financial statements.

NYCERS administers the New York City Employees' Retirement System Qualified Pension Plan (the QPP), Correction Officers' Variable Supplements Fund (COVSF), Housing Police Officers' Variable Supplements Fund (HPOVSF), Housing Police Superior Officers' Variable Supplements Fund (HPSOVSF), Transit Police Officers' Variable Supplements Fund (TPOVSF), and the Transit Police Superior Officers' Variable Supplements Fund (TPSOVSF) (collectively, the Funds).

### **OVERVIEW OF BASIC COMBINING FINANCIAL STATEMENTS**

The following discussion and analysis are intended to serve as an introduction to the Funds' basic combining financial statements. The basic combining financial statements, which are prepared in accordance with Governmental Accounting Standards Board (GASB) pronouncements and include the financial statements of each of the Funds, are:

- **The Combining Statements of Fiduciary Net Position** — presents the financial position of the Funds at fiscal year-end. It provides information about the nature and amounts of resources with present service capacity that the Funds presently controls (assets), consumption of net assets by the Funds that is applicable to a future reporting period (deferred outflow of resources), present obligations to sacrifice resources that the Funds has little or no discretion to avoid (liabilities), and acquisition of net assets by the Funds that is applicable to a future reporting period (deferred inflow of resources) with the difference between assets/deferred outflow of resources and liabilities/deferred inflow of resources being reported as net position. Investments are shown at fair value. All other assets and liabilities are determined on an accrual basis.
- **The Combining Statements of Changes in Fiduciary Net Position** — presents the results of activities during the fiscal year. All changes affecting the assets/deferred outflow and liabilities/deferred inflow of the Funds are reflected on an accrual basis when the activity occurred, regardless of the timing of the related cash flows. In that regard, changes in the fair values of investments are included in the year's activity as net appreciation (depreciation) in fair value of investments.
- **The Notes to Combining Financial Statements** — provide additional information that is essential to a full understanding of the data provided in the combining financial statements. The notes present information about the Funds' accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.
- **Required Supplementary Information** — as required by the GASB includes the management discussion and analysis and information presented after the notes to the combining financial statements.

### **FINANCIAL HIGHLIGHTS**

The Funds' combined net position restricted for benefits increased by \$4 billion (6.5%) from \$61.6 billion at June 30, 2017 to \$65.6 billion at June 30, 2018. The main reason for the higher net position was an increase in return on the investment portfolio, primarily in the equity markets.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

The Funds' combined net position restricted for benefits increased by \$6.1 billion (11.0%) from \$55.5 billion at June 30, 2016 to \$61.6 billion at June 30, 2017. The main reason for the increase was an increase in return on the investment portfolio, especially in the international and domestic equity markets.

The cash balances were \$22 million at June 30, 2018. The Funds' practice is to fully invest its day-end cash balances in a pooled short term investment fund. A typical benefit payment account would show an overdrawn balance, since funds are only deposited as outstanding benefit checks are presented to the banks for payments each day. These overdrawn balances are the main component of accounts payable.

Receivables for investment securities sold amounted to \$495 million as of June 30, 2018, a decrease of \$192 million (-28.0%) from \$687 million as of June 30, 2017, which was a decrease of \$726 million (-51.4%) from \$1.4 billion as of June 30, 2016. Although trades typically do not settle until a few days after trade dates, sales of investment securities are reflected on trade dates. The resulting receivables are caused by these timing differences.

#### Fiduciary Net Position

June 30, 2018, 2017 and 2016

(in thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Cash	\$ 21,621	\$ 172,223	\$ 166,041
Receivables for investment securities sold	494,566	687,047	1,413,529
Receivables for member loans	1,129,906	1,102,986	1,081,783
Receivables for accrued earnings	326,371	301,717	280,765
Other receivables	11	12	11
Investments at fair value	65,450,206	60,784,591	54,756,585
Securities lending collateral	9,918,700	7,034,093	5,267,092
Other assets	109,895	93,948	84,632
Total assets	<u>77,451,276</u>	<u>70,176,617</u>	<u>63,050,438</u>
Accounts payable	468,687	209,227	177,909
Payable for investment securities purchased	1,023,260	955,572	1,794,940
Accrued benefits payable	430,223	371,690	314,386
Due to other retirement systems	1,412	1,088	1,590
Payables for securities lending transactions	9,918,700	7,034,093	5,267,092
Total liabilities	<u>11,842,282</u>	<u>8,571,670</u>	<u>7,555,917</u>
Net position restricted for pensions	<u>\$ 65,608,994</u>	<u>\$ 61,604,947</u>	<u>\$ 55,494,521</u>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

The receivables for member loans increased \$27 million (2.4%), from \$1.10 billion at June 30, 2017 to \$1.13 billion at June 30, 2018. The principal reason for the increase was that the amount of loans issued was higher than that of fiscal year 2017.

The receivables for member loans increased \$21 million (2.0%), from \$1.08 billion at June 30, 2016 to \$1.10 billion at June 30, 2017. The principal reason for the increase was that the amount of loans issued was higher than that of fiscal year 2016.

Fair value of investments, including securities lending collateral at June 30, 2018 was \$75.4 billion, an increase of \$7.6 billion (11.1%) from the June 30, 2017 investment value of \$67.8 billion. The investment portfolio increased in value mainly due to favorable performance in the domestic and international equity sectors. Additionally, the amount of securities lending collateral held at June 30, 2018 increased \$2.9 billion from the amount held at June 30, 2017.

Fair value of investments, including securities lending collateral at June 30, 2017 was \$67.8 billion, an increase of \$7.8 billion (13.0%) from the June 30, 2016 investment value of \$60.0 billion. The increase was due to the fact that the amount of holdings of debt securities and international equity increased by \$6.5 billion from \$20.7 billion at June 30, 2016 to \$27.2 billion at June 30 2017.

Other Assets increased \$16 million (17.0%) from \$94 million in Fiscal Year 2017 to \$110 million in Fiscal Year 2018. This increase was due to an increase in the receivable resulted from unpaid employer pension contribution by New York City Off-Track Betting Corporation (OTB) for Fiscal Year 2018.

Other Assets increased \$9 million (11.0%) from \$85 million in Fiscal Year 2016 to \$94 million in Fiscal Year 2017. This increase was due to an increase in the receivable resulted from unpaid employer pension contribution by New York City Off-Track Betting Corporation (OTB) for Fiscal Year 2017.

Payables for investment securities purchased amounted to \$1.0 billion as of June 30, 2018, an increase of \$67.7 million (7.1 %) from \$956 million as of June 30, 2017, which was a decrease of \$839 million (-46.8%) from \$1.8 million as of June 30, 2016. Although trades typically do not settle until a few days after trade dates, purchases of investment securities are reflected on trade dates. The resulting payables are the result of those timing differences.

Accrued benefits payable increased \$58 million (15.7%), from \$372 million at June 30, 2017 to \$430 million at June 30, 2018. The increase in payable was primarily due to the fact that collective bargaining cases were still being revised and pensioners were receiving upgraded benefits.

Accrued benefits payable at June 30, 2017 increased \$58 million (18.2%), from \$314 million at June 30, 2016 to \$372 million at June 30, 2017. The increase in payable was primarily due to an ongoing revision of the benefit payment of current pensioners whose salaries were affected, retroactively, by the settlement of union contracts.



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

Changes in Fiduciary Net Position  
Years Ended June 30, 2018, 2017, and 2016  
(in thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Additions:			
Member contributions	\$ 523,535	\$ 513,514	\$ 485,508
Employer contributions	3,377,024	3,328,193	3,365,454
Investment earnings:			
Interest and dividend income	1,778,736	1,685,569	1,529,447
Net appreciation (depreciation) in fair value of investments	3,591,521	5,489,005	(174,204)
Net securities lending income	27,080	31,334	29,657
Investment expenses	(241,818)	(223,756)	(212,996)
Net investment income	<u>5,155,519</u>	<u>6,982,152</u>	<u>1,171,904</u>
Other income	<u>3,422</u>	<u>3,266</u>	<u>2,928</u>
Total additions	<u>9,059,500</u>	<u>10,827,125</u>	<u>5,025,794</u>
Deductions:			
Benefit payments and withdrawals	4,986,709	4,648,941	4,496,180
Payments to other retirement systems	9,055	8,087	7,440
Administrative expenses	59,689	59,671	56,683
Total deductions	<u>5,055,453</u>	<u>4,716,699</u>	<u>4,560,303</u>
Net increase in net position	4,004,047	6,110,426	465,491
Net position restricted for pensions:			
Beginning of year	<u>61,604,947</u>	<u>55,494,521</u>	<u>55,029,030</u>
End of year	<u>\$ 65,608,994</u>	<u>\$ 61,604,947</u>	<u>\$ 55,494,521</u>

Employer contributions remained relatively level in Fiscal Year 2018, increasing by \$49 million (1.5%). The increase was primarily due to the increase in the amortization payment of the initial unfunded actuarial accrued liability. Employer contributions remained relatively level in Fiscal Year 2017, decreasing by \$37 million (-1.1 %). The decrease was primarily due to the net result of actuarial gains and losses.

Net investment income for Fiscal Year 2018 totaled \$5.2 billion, compared to \$7 billion in Fiscal Year 2017. Although gains in Fiscal Year 2018 did not reach levels achieved in Fiscal Year 2017, equity markets were relatively strong and accounted for a significant portion of the increase in the value of the portfolio.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

Net investment income for Fiscal Year 2017 totaled \$7 billion, compared to \$1.2 billion in Fiscal Year 2016. This \$5.8 billion increase in investment gains was a result of investment portfolio experiencing \$5.5 billion appreciation in Fiscal Year 2017, as compared to the \$174 million depreciation during Fiscal Year 2016. Domestic and international equity portfolios were comparatively the best performers on a percentage basis.

Investment expenses for Fiscal Year 2018 were \$242 million, compared to \$224 million in Fiscal Year 2017. The \$18 million increase (8.1%) was primarily due to increases in the private equity, private real estate and international equity expenses.

Investment expenses for Fiscal Year 2017 were \$224 million, compared to \$213 million in Fiscal Year 2016. The \$11 million increase (5.1%) was primarily due to increases in the private equity, private real estate and international equity expenses.

Benefit payments and withdrawals for the Fiscal Year ended June 30, 2018 totaled \$5 billion, a \$338 million (7.3%) increase from the \$4.6 billion of Fiscal Year 2017. The increase is due to the increasing number of retirees and their corresponding higher average retirement allowances.

Benefit payments and withdrawals for the Fiscal Year ended June 30, 2017 totaled \$4.6 billion, a \$153 million (3.4%) increase from the \$4.5 billion of Fiscal Year 2016. The increase is due to the increasing number of retirees and their corresponding higher average retirement allowances.

Administrative expenses remained level at \$60 million in Fiscal Year 2018. Administrative expenses increased \$3 million (5.3%), from \$57 million in Fiscal Year 2016 to \$60 million in Fiscal Year 2017. The increase was primarily due to the increase of employee salaries upon the settlement of union contracts, a project to modernize NYCERS' information technology systems, and the improvement of NYCERS' facilities.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

**Investments** — The table below summarizes the NYCERS investment allocation.

**Investment Summary**

**June 30, 2018**

(in thousands)

<b>Investments - At fair value:</b>	<u>OPP</u>	<u>COVSF</u>	<u>Combined</u>
<b>Short-term investments:</b>			
Commercial paper	\$ 644,809	\$ -	\$ 644,809
Discount notes	71,958	-	71,958
Short term investment fund	612,219	213,478	825,697
U.S. treasury bills and agencies	40,216	-	40,216
<b>Debt securities:</b>			
Bank loans	55,456	-	55,456
Corporate and other	5,848,844	-	5,848,844
Mortgage debt securities	1,856,281	-	1,856,281
U.S. government and agency	9,933,718	-	9,933,718
<b>Equity securities:</b>			
Domestic equity	17,979,085	-	17,979,085
<b>Collective trust funds:</b>			
Bank loans	1,107,139	-	1,107,139
Corporate and other	32,046	-	32,046
International equity	13,315,724	-	13,315,724
Mortgage debt securities	704,148	-	704,148
Treasury inflation protected securities	2,858,313	-	2,858,313
<b>Alternative investments:</b>			
Infrastructure	396,468	-	396,468
Opportunistic fixed income	1,850,722	-	1,850,722
Private equity	4,467,161	-	4,467,161
Private real estate	3,395,746	-	3,395,746
Hedge fund	66,675	-	66,675
Collateral from securities lending	9,918,700	-	9,918,700
<b>Total</b>	<u>\$ 75,155,428</u>	<u>\$ 213,478</u>	<u>\$ 75,368,906</u>

**INVESTMENT PERFORMANCE**

Total portfolio performance (net of fees) for Fiscal Year 2018 was 8.56%, more than NYCERS' Policy benchmark, which had a rate of return of 7.84%. Domestic equities returned 14.71%, less than the Russell 3000 benchmark of 14.78%. International equity (non-US equities) holdings returned 11.15%, more than the World EX USA Custom benchmark of 7.82%. International equity (emerging markets) holdings returned 1.57%, less than the FTSE Custom NYCERS All Emerging benchmark of 2.30%. Fixed income securities returned 1.29%.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2018 AND 2017**

**Investment Summary**  
**June 30, 2017**  
**(in thousands)**

<b>Investments -At fair value:</b>	<u><b>QPP</b></u>	<u><b>COVSF</b></u>	<u><b>Combined</b></u>
Short-term investments:			
U.S. treasury bills and agencies	\$ 49,816	\$ -	\$ 49,816
Commercial paper	422,635	-	422,635
Short-term investment fund	455,429	43,529	498,958
Discount notes	158,568	-	158,568
Debt securities:			
U.S. Government and agencies	7,299,927	-	7,299,927
Corporate and other	6,221,059	-	6,221,059
Equity securities	18,956,302	-	18,956,302
Alternative investments	9,258,955	-	9,258,955
Collective trust funds:			
International equity	13,360,204	-	13,360,204
Mortgage debt security	640,950	-	640,950
Treasury inflation protected securities	2,531,110	-	2,531,110
Fixed income	1,386,107	-	1,386,107
Collateral from securities lending	7,034,093	-	7,034,093
<b>Total</b>	<u><u>\$ 67,775,155</u></u>	<u><u>\$ 43,529</u></u>	<u><u>\$ 67,818,684</u></u>

**INVESTMENT PERFORMANCE**

Total portfolio performance (net of fees) for Fiscal Year 2017 was 12.99%, more than NYCERS' Policy benchmark, which had a rate of return of 12.93%. Domestic equities returned 18.09%, less than the Russell 3000 benchmark of 18.51%. International equity holdings returned 22.69%, more than the MSCI AC World Index of 20.45%. Fixed income securities returned 3.14%.

**CONTACT INFORMATION**

This financial report is designed to provide a general overview of the New York City Employees' Retirement System's finances. Questions concerning any data provided in this report or requests for additional information should be directed to Michael Goldson, Director of Finance, New York City Employees' Retirement System, 335 Adams Street, Suite 2300, Brooklyn, NY 11201-3751.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
**COMBINING STATEMENTS OF FIDUCIARY NET POSITION**  
**JUNE 30, 2018**  
(In thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Eliminations	Total
<b>ASSETS:</b>								
Cash and cash equivalents	\$ 19,139	\$ 1,917	\$ 134	\$ 121	\$ 171	\$ 139	\$ -	\$ 21,621
<b>RECEIVABLES:</b>								
Investment securities sold	494,566	-	-	-	-	-	-	494,566
Member loans (Note 7)	1,129,906	-	-	-	-	-	-	1,129,906
Accrued interest and dividends	326,006	365	-	-	-	-	-	326,371
Other receivables	-	11	-	-	-	-	-	11
Receivables from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	812	1,202	1,657	1,324	(4,995)	-
COVSF	-	234,000	-	-	-	-	(234,000)	-
Total receivables	1,950,478	234,376	812	1,202	1,657	1,324	(238,995)	1,950,854
<b>INVESTMENTS – At fair value (Notes 2 and 3):</b>								
<b>Short-term investments:</b>								
Commercial paper	644,809	-	-	-	-	-	-	644,809
Discount notes	71,958	-	-	-	-	-	-	71,958
Short term investment fund	612,219	213,478	-	-	-	-	-	825,697
U.S. treasury bills and agencies	40,216	-	-	-	-	-	-	40,216
<b>Debt securities:</b>								
Bank Loans	55,456	-	-	-	-	-	-	55,456
Corporate and other	5,848,844	-	-	-	-	-	-	5,848,844
Mortgage debt securities	1,856,281	-	-	-	-	-	-	1,856,281
U.S. government and agency	9,933,718	-	-	-	-	-	-	9,933,718
<b>Equity securities:</b>								
Domestic equity	17,979,085	-	-	-	-	-	-	17,979,085
<b>Collective trust funds:</b>								
Bank Loans	1,107,139	-	-	-	-	-	-	1,107,139
Corporate and other	32,046	-	-	-	-	-	-	32,046
International equity	13,315,724	-	-	-	-	-	-	13,315,724
Mortgage debt securities	704,148	-	-	-	-	-	-	704,148
Treasury inflation protected securities	2,858,313	-	-	-	-	-	-	2,858,313
<b>Alternative investments:</b>								
Infrastructure	396,468	-	-	-	-	-	-	396,468
Opportunistic Fixed Income	1,850,722	-	-	-	-	-	-	1,850,722
Private Equity	4,467,161	-	-	-	-	-	-	4,467,161
Private Real Estate	3,395,746	-	-	-	-	-	-	3,395,746
Hedge Fund	66,675	-	-	-	-	-	-	66,675
Collateral from securities lending	9,918,700	-	-	-	-	-	-	9,918,700
Total investments	75,155,428	213,478	-	-	-	-	-	75,368,906
<b>OTHER ASSETS</b>								
Total assets	77,234,940	449,771	946	1,323	1,828	1,463	(238,995)	77,451,276
<b>LIABILITIES:</b>								
Accounts payable	468,665	-	-	-	22	-	-	468,687
Payable for investment securities purchased	1,023,260	-	-	-	-	-	-	1,023,260
Accrued benefits payable	377,156	47,529	946	1,323	1,806	1,463	-	430,223
Payable from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	4,995	-	-	-	-	-	(4,995)	-
COVSF	234,000	-	-	-	-	-	(234,000)	-
Due to other retirement systems	1,412	-	-	-	-	-	-	1,412
Securities lending (Note 2)	9,918,700	-	-	-	-	-	-	9,918,700
Total liabilities	12,028,188	47,529	946	1,323	1,828	1,463	(238,995)	11,842,282
<b>NET POSITION RESTRICTED FOR BENEFITS</b>								
Benefits to be provided by QPP	65,206,752	-	-	-	-	-	-	65,206,752
Benefits to be provided by VSF	-	402,242	-	-	-	-	-	402,242
Total net position restricted for benefits	\$ 65,206,752	\$ 402,242	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 65,608,994

The accompanying notes are an integral part of these combining financial statements.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
**COMBINING STATEMENTS OF FIDUCIARY NET POSITION**  
**JUNE 30, 2017**  
(In thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Eliminations	Total
<b>ASSETS:</b>								
Cash and cash equivalents	\$ 163,875	\$ 8,106	\$ 69	\$ 58	\$ 45	\$ 70	\$ -	\$ 172,223
<b>RECEIVABLES:</b>								
Investment securities sold	687,047	-	-	-	-	-	-	687,047
Member loans (Note 7)	1,102,986	-	-	-	-	-	-	1,102,986
Accrued interest and dividends	301,680	37	-	-	-	-	-	301,717
Other receivables	-	12	-	-	-	-	-	12
Receivables from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	901	1,274	1,886	1,432	(5,493)	-
COVSF	-	281,000	-	-	-	-	(281,000)	-
Total receivables	2,091,713	281,049	901	1,274	1,886	1,432	(286,493)	2,091,762
<b>INVESTMENTS – At fair value (Notes 2 and 3):</b>								
<b>Short-term investments:</b>								
U.S. treasury bills and agencies	49,816	-	-	-	-	-	-	49,816
Commercial paper	422,635	-	-	-	-	-	-	422,635
Short-term investment fund	455,429	43,529	-	-	-	-	-	498,958
Discount notes	158,568	-	-	-	-	-	-	158,568
<b>Debt securities:</b>								
U.S. government and agency	7,299,927	-	-	-	-	-	-	7,299,927
Corporate and other	6,221,059	-	-	-	-	-	-	6,221,059
Equity securities	18,956,302	-	-	-	-	-	-	18,956,302
Alternative investments	9,258,955	-	-	-	-	-	-	9,258,955
<b>Collective trust funds:</b>								
International equity	13,360,204	-	-	-	-	-	-	13,360,204
Mortgage debt securities	640,950	-	-	-	-	-	-	640,950
Treasury inflation protected securities	2,531,110	-	-	-	-	-	-	2,531,110
Fixed income	1,386,107	-	-	-	-	-	-	1,386,107
Collateral from securities lending	7,034,093	-	-	-	-	-	-	7,034,093
Total investments	67,775,155	43,529	-	-	-	-	-	67,818,684
<b>OTHER ASSETS</b>	93,948	-	-	-	-	-	-	93,948
Total assets	70,124,691	332,684	970	1,332	1,931	1,502	(286,493)	70,176,617
<b>LIABILITIES:</b>								
Accounts payable	209,206	-	-	-	21	-	-	209,227
Payable for investment securities purchased	955,572	-	-	-	-	-	-	955,572
Accrued benefits payable	321,457	44,519	970	1,332	1,910	1,502	-	371,690
Payable from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	5,493	-	-	-	-	-	(5,493)	-
COVSF	281,000	-	-	-	-	-	(281,000)	-
Due to other retirement systems	1,088	-	-	-	-	-	-	1,088
Securities lending (Note 2)	7,034,093	-	-	-	-	-	-	7,034,093
Total liabilities	8,807,909	44,519	970	1,332	1,931	1,502	(286,493)	8,571,670
<b>NET POSITION RESTRICTED FOR BENEFITS</b>								
Benefits to be provided by QPP	61,316,782	-	-	-	-	-	-	61,316,782
Benefits to be provided by VSF	-	288,165	-	-	-	-	-	288,165
Total net position restricted for benefits	\$ 61,316,782	\$ 288,165	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 61,604,947

The accompanying notes are an integral part of these combining financial statements.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
**COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION**  
**FOR THE YEAR ENDED JUNE 30, 2018**  
(In thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	ELIM	Total
<b>ADDITIONS:</b>								
Contributions:								
Member contributions	\$ 523,535	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 523,535
Employer contributions	3,377,024	-	-	-	-	-	-	3,377,024
Total contributions	<u>3,900,559</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,900,559</u>
Investment income (Note 2):								
Interest income	878,598	2,265	-	-	-	-	-	880,863
Dividend income	897,873	-	-	-	-	-	-	897,873
Net appreciation in fair value of investments	3,591,521	-	-	-	-	-	-	3,591,521
Total investment income	5,367,992	2,265	-	-	-	-	-	5,370,257
Less:								
Investment expenses	241,818	-	-	-	-	-	-	241,818
Net income	<u>5,126,174</u>	<u>2,265</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,128,439</u>
Securities lending transactions:								
Securities lending income	30,089	-	-	-	-	-	-	30,089
Less - securities lending fees	3,009	-	-	-	-	-	-	3,009
Net securities lending income	<u>27,080</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>27,080</u>
Net investment income	<u>5,153,254</u>	<u>2,265</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,155,519</u>
Other - other income	3,410	12	-	-	-	-	-	3,422
Transfer from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	1,825	2,573	3,612	2,887	(10,897)	-
COVSF	-	205,000	-	-	-	-	(205,000)	-
Total additions	<u>9,057,223</u>	<u>207,277</u>	<u>1,825</u>	<u>2,573</u>	<u>3,612</u>	<u>2,887</u>	<u>(215,897)</u>	<u>9,059,500</u>
<b>DEDUCTIONS:</b>								
Benefit payments and withdrawals (Note 1)	4,882,612	93,200	1,825	2,573	3,612	2,887	-	4,986,709
Payments to other retirement systems	9,055	-	-	-	-	-	-	9,055
Transfer from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	10,897	-	-	-	-	-	(10,897)	-
COVSF	205,000	-	-	-	-	-	(205,000)	-
Administrative expenses	59,689	-	-	-	-	-	-	59,689
Total deductions	<u>5,167,253</u>	<u>93,200</u>	<u>1,825</u>	<u>2,573</u>	<u>3,612</u>	<u>2,887</u>	<u>(215,897)</u>	<u>5,055,453</u>
NET INCREASE IN NET POSITION	3,889,970	114,077	-	-	-	-	-	4,004,047
<b>NET POSITION RESTRICTED FOR BENEFITS:</b>								
Beginning of year	61,316,782	288,165	-	-	-	-	-	61,604,947
End of year	<u>\$ 65,206,752</u>	<u>\$ 402,242</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 65,608,994</u>

The accompanying notes are an integral part of these combining financial statements.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
**COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION**  
**FOR THE YEAR ENDED JUNE 30, 2017**  
(In thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	ELIM	Total
<b>ADDITIONS:</b>								
Contributions:								
Member contributions	\$ 513,514	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 513,514
Employer contributions	3,328,193	-	-	-	-	-	-	3,328,193
Total contributions	<u>3,841,707</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,841,707</u>
Investment income (Note 2):								
Interest income	753,789	300	-	-	-	-	-	754,089
Dividend income	931,480	-	-	-	-	-	-	931,480
Net appreciation in fair value of investments	5,489,457	(452)	-	-	-	-	-	5,489,005
Total investment income	7,174,726	(152)	-	-	-	-	-	7,174,574
Less:								
Investment expenses	223,756	-	-	-	-	-	-	223,756
Net income	<u>6,950,970</u>	<u>(152)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6,950,818</u>
Securities lending transactions:								
Securities lending income	33,703	-	-	-	-	-	-	33,703
Less - securities lending fees	2,369	-	-	-	-	-	-	2,369
Net securities lending income	<u>31,334</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>31,334</u>
Net investment income	<u>6,982,304</u>	<u>(152)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6,982,152</u>
Other - other income	<u>3,266</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,266</u>
Transfer from QPP to:								-
VSFs (HPO, HPSO, TPO, TPSO)	-	-	1,889	2,595	3,830	2,983	(11,297)	-
COVSF	-	285,924	-	-	-	-	(285,924)	-
Total additions	<u>10,827,277</u>	<u>285,772</u>	<u>1,889</u>	<u>2,595</u>	<u>3,830</u>	<u>2,983</u>	<u>(297,221)</u>	<u>10,827,125</u>
<b>DEDUCTIONS:</b>								
Benefit payments and withdrawals (Note 1)	4,635,020	2,624	1,889	2,595	3,830	2,983	-	4,648,941
Payments to other retirement systems	8,087	-	-	-	-	-	-	8,087
Transfer from QPP to:								-
VSFs (HPO, HPSO, TPO, TPSO)	11,297	-	-	-	-	-	(11,297)	-
COVSF	285,924	-	-	-	-	-	(285,924)	-
Administrative expenses	59,671	-	-	-	-	-	-	59,671
Total deductions	<u>4,999,999</u>	<u>2,624</u>	<u>1,889</u>	<u>2,595</u>	<u>3,830</u>	<u>2,983</u>	<u>(297,221)</u>	<u>4,716,699</u>
NET INCREASE IN NET POSITION	5,827,278	283,148	-	-	-	-	-	6,110,426
<b>NET POSITION RESTRICTED FOR BENEFITS:</b>								
Beginning of year	55,489,504	5,017	-	-	-	-	-	55,494,521
End of year	<u>\$ 61,316,782</u>	<u>\$ 288,165</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 61,604,947</u>

The accompanying notes are an integral part of these combining financial statements.



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
NOTES TO COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2018 AND 2017**

## 1. PLAN DESCRIPTION

The City of New York (The City) maintains a number of pension systems providing benefits for employees of its various agencies (as defined within New York State (State) statutes and City laws). The City's five major actuarially-funded pension systems are the New York City Employees' Retirement System (NYCERS), the Teachers' Retirement System of the City of New York ("TRS"), the New York City Board of Education Retirement System (BERS), the New York City Police Pension Fund (POLICE), and the New York City Fire Pension Fund (FIRE). Each pension system is a separate public employee retirement system (PERS) with a separate oversight body and is financially independent of the others.

NYCERS administers the New York City Employees' Retirement System Qualified Pension Plan (the QPP or Plan), Correction Officers' Variable Supplements Fund (COVSF), Housing Police Officers' Variable Supplements Fund (HPOVSF), Housing Police Superior Officers' Variable Supplements Fund (HPSOVSF), Transit Police Officers' Variable Supplements Fund (TPOVSF), and the Transit Police Superior Officers' Variable Supplements Fund (TPSOVSF), (collectively the Funds) which are included in the combining financial statements.

The QPP is a cost-sharing, multiple-employer PERS. The QPP provides a pension benefit for employees of The City and various related employers not covered by The City's four other main pension systems. The employers (collectively, the Employer), in addition to The City, principally include five authorities, four public benefit corporations, The City University of New York (CUNY) and the State. Substantially all employees of The City not covered by one of the other four pension systems are covered by the QPP. Permanent employees become QPP members within six months of their employment and may elect to become members earlier. All other employees may become members at their option.

The QPP functions in accordance with existing State statutes and City laws, which are the basis by which benefit terms and Employer and member contribution requirements are established and amended. The QPP combines features of a defined benefit pension plan with those of a defined contribution pension plan, but is considered a defined-benefit pension plan for financial reporting purposes.

The COVSF, HPOVSF, HPSOVSF, TPOVSF, and TPSOVSF (collectively, the VSFs) operate pursuant to the provisions of Title 13, Chapter 1 of the Administrative Code of the City of New York (ACNY) 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 20 or more years of service, and be receiving a service retirement benefit from the QPP.

**HPOVSF:** QPP 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:** QPP 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:** QPP 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:** QPP 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.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
NOTES TO COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2018 AND 2017**

Under current law, the VSFs are not to be construed as constituting a pension or retirement system. Instead, they provide defined supplemental payments, other than pension or retirement system allowances, in accordance with applicable statutory provisions. While The City guarantees these payments, the New York State Legislature has reserved to itself and the State of New York (the State) the right and power to amend, modify, or repeal the VSFs and the payments they provide. For financial reporting purposes, however, the VSFs are considered single-employer defined benefit pension plans.

NYCERS is a fiduciary component of The City and is in the Pension and Other Employee Benefit Trust Funds section of The City's Comprehensive Annual Financial Report (CAFR).

**Boards of Trustees**

The QPP's Board of Trustees consists of 11 members; the Mayor's representative is the Chairperson of the Board, Borough Presidents of Manhattan, the Bronx, Brooklyn, Queens, and Staten Island, the Comptroller of The City of New York, the Public Advocate, and Presidents of the three unions with the largest number of participating employees, which are District Council 37 – AFSCME, International Brotherhood of Teamsters, Local 237, and the Transport Workers Union Local 100. The Board of Trustees for the VSFs each have one vote (unless noted otherwise) and consist of the Mayor's representative, the Comptroller and the Commissioner of Finance. Additional trustees are: For the COVSF, an officer of The New York City Correction Officers' Benevolent Association (1 ½ vote) and a representative of the Correction Captains employee organization (1/2 vote). For the HPOVSF, two members of the association designated by the board, each of whom are entitled to cast one vote. For the HPSOVSF, two representatives of the housing police superior officers recognized employee organization, each of whom are entitled to cast one vote. For TPOVSF, two members of the association designated by the board, each of whom are entitled to cast one vote. For TPSOVSF, two representatives of the transit police superior officers recognized employee organization, each of whom are entitled to cast one vote.

At June 30, 2018 (preliminary), June 30, 2017 (preliminary), and June 30, 2016 the QPP's membership consisted of:

	<b>2018</b>	<b>2017</b>	<b>2016</b>
Retirees and beneficiaries receiving benefits	152,245	150,419	147,514
Terminated vested members not yet receiving benefits	17,791	8,417	8,895
Other inactives*	15,934	19,149	17,989
Active members receiving salary	195,847	186,898	185,481
Total	<u>381,817</u>	<u>364,883</u>	<u>359,879</u>

\* Represents members who are no longer on payroll but not otherwise classified.

Note that 2016 data is final and supports the most recent actuarial valuation. 2017 and 2018 data is preliminary and may be subject to future adjustments as the data is refined.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
NOTES TO COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2018 AND 2017**

At June 30, 2017 and 2016, the dates of the VSF's most recent actuarial valuations, membership consisted of:

	COVSF		HPOVSF		HPSOVSF		TPOVSF		TPSOVSF	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Retirees currently receiving payments	7,858	7,424	153	160	215	220	315	325	243	247
Active members	9,406	8,815	-	-	-	-	-	-	-	-
<b>Total</b>	<b>17,264</b>	<b>16,239</b>	<b>153</b>	<b>160</b>	<b>215</b>	<b>220</b>	<b>315</b>	<b>325</b>	<b>243</b>	<b>247</b>

The QPP provides three main types of retirement benefits: Service Retirements, Ordinary Disability Retirements (non-job-related disabilities) and Accident Disability Retirements (job-related disabilities) to members who are in different "Tiers." The members' Tiers are generally determined by the date of membership in the Plan.

The Service Retirement benefits provided by the QPP for employees who joined before July 1, 1973 (Tier 1), fall into four categories according to the level of benefits provided and the years of service required. Three of the four categories provide annual benefits of 50% to 55% of "final salary" (as defined within State statutes and City laws) after 20 or 25 years of service, with additional benefits equal to a specified percentage per year of service (currently 1.2% to 1.7%) of "final salary" payable for years in excess of the 20-year or 25-year minimum. These benefits are reduced on an actuarial basis for any loans with unpaid balances outstanding at the date of retirement. These benefits are increased, where applicable, by an annuity attributable to member contributions in excess of the required amount and by any benefits attributable to the Increased-Take-Home-Pay (ITHP) contributions accumulated after the 25th year of member's qualifying service. ITHP represents amounts contributed by The City in lieu of members' own contributions. These amounts reduce the contributions that members would have to make to the QPP during their service and thereby increase their take-home pay. Members have the choice of waiving their ITHP reduction, which would reduce their take-home pay but provide them with additional benefits upon retirement.

The fourth category has no minimum service requirement and instead provides an annual benefit for each year of service equal to a specified percentage (currently 0.7% to 1.53%) of "final salary."

The State Constitution provides that the pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976, 1983, and 2012, significant amendments made to the State Retirement and Social Security Law (RSSL) modified certain benefits for employees joining the Plan on or after the effective date of such amendments.

Members who joined on or after July 1, 1973 and before July 27, 1976 (Tier 2), have provisions similar to Tier 1, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit. This maximum benefit limitation was subsequently eliminated under Chapter 574 of the Laws of 2000 for all Tier 2 members who retired after December 8, 2000.

Members who joined the QPP on or after July 27, 1976 and prior to September 1, 1983 (Tier 3), were later mandated into Tier 4, but could retain their Tier 3 rights. Tier 3 requires member contributions of salary for a period not to exceed 30 years, has benefits reduced by one half of the primary Social Security benefit attributable to service with the Employer, and provides for an automatic annual cost-of-living escalator in

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pension benefits of not more than 3.0%. Effective October 1, 2000, these members are not required to make contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier.

Members, who joined the QPP on or after September 1, 1983 and prior to April 1, 2012 (Tier 4), must make basic contributions of 3.0% of salary until termination of service. Effective October 1, 2000, these members, except for certain Transit Authority employees, are not required to make contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. Effective December 2000, certain Transit Authority members make basic contributions of 2.0% of salary in accordance with Chapter 10 of the Laws of 2000. Certain members also make additional member contributions. The annual benefit is 1.67% of "final average salary" per year of service for members with less than 20 years of service, 2% of "final average salary" per year of service for members with 20 to 30 years, plus 1.5% of "final average salary" per year of service for service in excess of 30 years.

The QPP also provides death benefits; and certain retirees also receive supplemental benefits.

Subject to certain conditions, members generally become fully vested as to benefits upon the completion of 5 years of service.

During the Spring 2000 session, the State Legislature approved and the State Governor (Governor) signed laws that provide automatic Cost-of-Living Adjustments (COLA) for certain retirees and beneficiaries (Chapter 125 of the Laws of 2000), additional service credits for certain Tier 1 and Tier 2 members and reduced member contributions for certain Tier 3 and Tier 4 members (Chapter 126 of the Laws of 2000).

Subsequent legislation, affecting members of Tiers 2, 3 and 4, has created various improved early retirement benefit programs under which eligible employees may elect to pay additional contributions. Members first employed after the effective date of such legislation are generally mandated into these programs.

Tier 6 — During March 2012, the Governor signed Chapter 18 of the Laws of 2012 (Chapter 18/12) that placed certain limitations on the Tier 3 and Tier 4 benefits available to participants in most New York State PERS who join a system on and after April 1, 2012, including NYCERS. In general, these changes, commonly referred to as Tier 6, increase the age requirement to 63 for most non-uniformed employees to retire and receive a full pension, require member contributions for all years of service for non-uniformed employees, institute progressive member contributions for non-uniformed employees, lengthen the final average salary (FAS) period from 3 to 5 years, cap FAS for non-uniformed employees to an amount equal to the Governor's salary, extend and harmonize the Tier 3 benefits for POLICE and FIRE to other uniformed forces and to DA Investigators and offer an optional defined-contribution plan to certain non-represented employees. Note that the 22-year retirement plans for Correction, Sanitation and DA Investigator members established under Chapter 18/12 are not considered Tier 6 plans.

Certain members of Tier 1 and Tier 2 have the right to make voluntary member contributions (Voluntary Contributions) in excess of their required member contributions (Required Contributions). Both the Voluntary Contributions and the Required Contributions are credited with interest at a statutory rate (currently 8.25% APR). At the time of retirement or refund of contributions, a member's aggregate balance of actual Required Contributions and Voluntary Contributions, including statutory interest, less the outstanding balance of any member loans (Net Actual Contributions), may exceed (Excess of Contributions) or fall short of (Deficiency of Contributions) the member's Expected Balance. The Expected Balance is the sum of the Required Contributions which a member should have made during his or her credited service, plus statutory earnings thereon. The amount of the member's retirement annuity

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or the refund of contributions that he or she is entitled to is increased by any Excess of Contributions or reduced by any Deficiency of Contributions. The total value of members' Excesses of Contributions, net of all Deficiencies of Contributions, has not been determined, for the years ended June 30, 2018 and 2017, respectively. Actuarial estimates of the impacts of Excesses and Deficiencies are incorporated into calculation of the QPP's net pension liability (see footnote 6).

### **VSFs**

#### **COVSF**

The COVSF provides supplemental benefits, varying by calendar year according to a schedule and available Fund assets, for those NYCERS members who retire for service as UCF members with 20 (25) or more years of service on or after July 1, 1999. The annual scheduled amount is \$8,500 for Calendar Year 2000. The annual scheduled amount increases \$500 each year thereafter to a maximum of \$12,000 for Calendar Year 2007 and thereafter. In the calendar year of retirement or death, the annual scheduled amount is prorated.

Chapter 255/00 provides that prior to Calendar Year 2019, when COVSF provides for a guaranteed schedule of defined supplemental benefits, benefits are payable in a calendar year only if there are sufficient Fund assets to pay that year's scheduled amounts to all who are entitled to it unless The City guarantee becomes effective. The City guarantee of benefits payable prior to Calendar Year 2019 comes into effect if the market value of assets of the Fund exceeds the actuarial present value of the defined schedule of benefits payable through Calendar Year 2018.

The Funds' Chief Actuary (the Actuary) has also determined that benefits were payable for Calendar Year 2000 through Calendar Year 2005. However, the Actuary determined that no benefits were payable for Calendar Years 2006 through 2013. Benefits were payable for Calendar Years 2014 and 2015. No benefits were payable for Calendar Year 2016. Benefits were payable for Calendar Year 2017 and are expected to be paid for Calendar Year 2018 due to the application of the City guarantee of benefits payable prior to Calendar Year 2019.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLA payable from NYCERS to a retiree of the Fund under legislation enacted on or after December 29, 1999 will reduce benefits payable from the Fund to such retiree by an amount equal to such increase until the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) January 1, 2007.

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997 effective September 2000. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to these retirees.

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**HPOVSF**

For those Housing Police Officers who became members of NYCERS prior to July 1, 1988, and who retired between July 1, 1987 and December 31, 1991, the annual supplemental benefit was \$4,500 for calendar year 1992. For those who retired during 1992, the benefit was a proportion of \$4,500. The benefit increases \$500 each year thereafter to a maximum of \$12,000 in calendar year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988, and who retire after calendar year 1992, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement and the full amount thereafter.

For those Housing Police Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first twelve months of retirement, increasing by \$500 each year until a maximum of \$12,000 is payable in the twentieth and later years of retirement. This was later modified by Chapter 719 of the Laws of 1994 as discussed below.

Chapter 375 of the Laws of 1993 (Chapter 375/93) provided that prior to calendar year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the Fund, or if the New York City (The City) guarantee comes into effect. The City guarantee of benefits comes into effect prior to calendar year 2007 if the market value of assets of the Fund exceeds the actuarial present value of the defined schedules of benefits payable through calendar year 2006 plus 15% of the assets of the Fund at that time.

Chapter 719 of the Laws of 1994 (Chapter 719/94), signed on August 2, 1994, made further changes to the Fund. Supplemental benefit payments became guaranteed. In addition, Housing Police Officers who became members on or after July 1, 1988, will receive the maximum \$12,000 benefit beginning in calendar year 2008.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that in the event that, for any calendar year covered by a payment guarantee, the assets of the Fund are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the Fund. The law also provided that transfers to the Fund for supplemental benefits could begin as early as calendar year 2001, if needed.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLA payable from NYCERS to a retiree of the Fund under legislation enacted on or after January 1, 1993 will reduce benefits payable from the Fund to such retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) January 1, 2007.
- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) the earlier of (1) the first day of the month following the 19<sup>th</sup> anniversary of such retiree's date of retirement and January 1, 2008.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation payable from NYCERS on and after December 1, 1996, for certain retirees of the Fund effective as enacted by the City Council on October 25, 1995.

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Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided Supplementation benefits from NYCERS for certain retirees who retired before calendar year 1997 effective September 2000. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

#### **HPSOVSF**

For those Housing Police Superior Officers who became members of NYCERS prior to July 1, 1988 and who retired between July 1, 1987 and December 31, 1992, the annual supplemental benefit was \$5,000 in calendar year 1993. For those who retired during 1993, the benefit was a proportion of \$5,000. The benefit increases \$500 each year thereafter to a maximum of \$12,000 in calendar year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988 and who retired after calendar year 1993, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement and the full amount thereafter.

For those Housing Police Superior Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first twelve months of retirement, increasing by \$500 each year until a maximum of \$12,000 is payable in the twentieth and later years of retirement.

Chapter 719 of the Laws of 1994 (Chapter 719/94) provided that after calendar year 2006 payments are guaranteed, while prior to calendar year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the Fund, or if The City guarantee comes into effect. The City guarantee of benefits comes into effect prior to calendar year 2007 if the market value of assets of the Fund exceeds the actuarial present value of the defined schedules of benefits payable through calendar year 2006 plus 15% of the assets of the Fund at that time.

Chapter 719/94 also provided that, whenever the guarantee of the defined schedules of benefits comes into effect, the Fund will then transfer 15% of the market value of its assets to The City's General Fund.

Based on the calculations of the Funds' Chief Actuary of the Office of the Actuary (the Actuary), The City guarantee of the defined schedules of benefits prior to calendar year 2007 had not yet come into effect as discussed more fully below.

Also, in conjunction with the April 30, 1995 merger of the Housing Police force into the New York City Police Department (the Merger), The City signed a letter of agreement with affected unions to ensure that the payment of benefits provided under the defined schedules prior to calendar year 2007 will be made. Thus, there will be no suspension of benefits prior to calendar year 2007 even if assets of the Fund become insufficient to pay these benefits.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that in the event that, for any calendar year covered by a payment guarantee, the assets of the Fund are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the Fund. The law also provided that supplemental benefits become guaranteed commencing with calendar year 2001.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLAs payable from NYCERS to a retiree of the Fund under legislation

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enacted on or after January 1, 1994 will reduce benefits payable from the Fund to such retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) January 1, 2007.
- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) the first day of the month following the 19<sup>th</sup> anniversary of such retiree's date of retirement.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation from NYCERS payable on and after December 1, 1996 for certain retirees of the Fund, effective as enacted by The City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided Supplementation benefits from NYCERS for certain retirees who retired before calendar year 1997 effective September 2000. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

#### **TPOVSF**

For those Transit Police Officers who became members of NYCERS prior to July 1, 1988 and who retired between July 1, 1987 and December 31, 1991, the annual supplemental benefit was \$4,500 in Calendar Year 1992. For those who retired during 1992, the benefit was a proportion of \$4,500. The benefit increases \$500 each year thereafter to a maximum of \$12,000 in Calendar Year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988, and who retired after Calendar Year 1992, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement and the full amount thereafter.

For those Transit Police Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first 12 months of retirement, increasing by \$500 each year until a maximum of \$12,000 is payable in the twentieth and later years of retirement.

Chapter 577 of the Laws of 1992 (Chapter 577/92) also provided that prior to Calendar Year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the Fund, or if The City guarantee comes into effect. The City guarantee of benefits comes into effect prior to Calendar Year 2007 if the market value of assets of the Fund exceeds the actuarial present value of the defined schedules of benefits payable through Calendar Year 2006 plus 15% of the assets of the Fund at that time.

Chapter 577/92 also provided that, whenever the guarantee of the defined schedules of benefits comes into effect, the Fund will then transfer 15% of the market value of its assets to The City's General Fund.

As a result of calculations performed by the Funds' Chief Actuary of the Office of the Actuary (the Actuary) during November 1993, the City guarantee became effective.



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Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that in the event that, for any calendar year covered by a payment guarantee, the assets of the Fund are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the Fund. The law also provides that transfers to the Fund for supplemental benefits can begin as early as Calendar Year 2001, if needed.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLAs payable from NYCERS to a retiree of the Fund under legislation enacted on or after January 1, 1992 will reduce benefits payable from the Fund to such retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) January 1, 2007.
- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) the first day of the month following the 19<sup>th</sup> anniversary of such retiree's date of retirement.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation payable from NYCERS on and after December 1, 1996, for certain retirees of the Fund effective as enacted by the City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997 effective September 2000. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

#### **TPSOVSF**

For those Transit Police Superior Officers who became members of NYCERS prior to July 1, 1988, and who retired between July 1, 1987 and December 31, 1992, the annual supplemental benefit was \$5,000 in calendar year 1993. For those who retired during 1993, the benefit was a proportion of \$5,000. The benefit increases \$500 each year thereafter to a maximum of \$12,000 in calendar year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988, and who retired after calendar year 1993, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement and the full amount thereafter.

For those Transit Police Superior Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first 12 months of retirement, increasing by \$500 each year until a maximum of \$12,000 is payable in the twentieth and later years of retirement.

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Chapter 720 of the Laws of 1994 (Chapter 720/94) also provided that after Calendar Year 2006 payments are guaranteed, while prior to calendar year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the Fund, or if The City guarantee comes into effect. The City guarantee of benefits comes into effect prior to calendar year 2007 if the market value of assets of the Fund exceeds the actuarial present value of the defined schedules of benefits payable through calendar year 2006 plus 15% of the assets of the Fund at that time.

Chapter 720/94 also provided that whenever the guarantee of the defined schedules of benefits comes into effect, the Fund will then transfer 15% of the market value of its assets to The City's General Fund.

Based on the calculations of the Funds' Chief Actuary of the Office of the Actuary (the Actuary), the City guarantee of the defined schedules of benefits prior to calendar year 2007 had not yet come into effect as discussed more fully below.

Also, in conjunction with the April 2, 1995 merger of the Transit Police force into the New York City Police Department (the Merger), The City signed a letter of agreement with the affected unions to ensure that the payment of benefits provided under the defined schedules prior to calendar year 2007 will be made. Thus, there will be no suspension of benefits prior to calendar year 2007, even if assets of the Fund become insufficient to pay these benefits.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that in the event that, for any calendar year covered by a payment guarantee, the assets of the Fund are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the Fund. The law also provided that supplemental benefits become guaranteed commencing with calendar year 2001.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLAs payable from NYCERS to a retiree of the Fund under legislation enacted on or after January 1, 1994 will reduce benefits payable from the Fund to such retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) January 1, 2007.
- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month such retiree attains age 62 and (b) the first day of the month following the 19<sup>th</sup> anniversary of such retiree's date of retirement.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation from NYCERS payable on and after December 1, 1996, for certain retirees of the Fund effective as enacted by the City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997 effective September 2000. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

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## **2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND PLAN ASSET MATTERS**

**Basis of Accounting** — The Funds uses the accrual basis of accounting where the measurement focus is on the flow of economic resources. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred. Contributions from members are recognized when the employers makes payroll deductions from Plan members. Employer contributions are recognized when due and the employer has a legal obligation to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the Funds.

**Use of Estimates** — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Equivalents** — Cash Equivalents consist of financial instruments with original maturity dates of three months or less.

**Investment Valuation** — Investments are reported at fair value. Securities purchased pursuant to agreements to resell are carried at the contract price, exclusive of interest, at which the securities will be resold. Fair value is defined as the closing market value on the last trading day of the period, except for the Short-Term Investment Fund (STIF, a money market fund), International Investment Fund (IIF) and Alternative Investment Funds (ALTINVF). The IIF are private funds of publicly traded securities that are managed by various investment managers on behalf of the QPP. Fair value is determined by NYCERS management based on information provided by the various investment managers. The investment managers determine fair value using the last available quoted price for each security owned, adjusted by any contributions to or withdrawals from the fund during the period. The ALTINVF are investments for which exchange quotations are not readily available and are valued at estimated fair value, as determined in good faith by the General Partner (GP). These investments are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results, and other factors deemed relevant by the GP. Fair value is determined by plan management based on information provided by the various GPs after review by an independent consultant and the custodian bank for NYCERS.

Purchases and sales of securities are reflected on the trade date. Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

**Income Taxes** — Income earned by the QPP and VSFs are not subject to Federal Income Tax.

**Accounts Payable** — Accounts payable is principally comprised of amounts owed to the QPP's banks for overdrawn bank balances. The QPP's practice is to fully invest the cash balances of most bank accounts on a daily basis. Overdrawn balances result primarily from outstanding benefit checks that are presented to the banks for payment on a daily basis. These balances are routinely settled each day.

**Accrued Benefits Payable** — Accrued benefits payable represent either: (1) benefits due and unpaid by the Funds as of year-end or (2) related to the VSFs, benefits deemed incurred and unpaid (an accrual for a portion of the current calendar year benefit) for the Fiscal Year ended on June 30.

**Securities Lending Transactions** — State statutes and Board policies permit the QPP to lend its investments to broker-dealers and other entities for collateral, with a simultaneous agreement to return the collateral for the same securities in the future. The QPP's custodian lends the following types of securities: Short-term securities, common stock, long-term corporate bonds, U.S. Government and U.S. Government agencies' bonds, asset-backed securities, and International Equities and bonds held in collective investment funds.

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In return, it receives collateral in the form of cash and U.S. Treasury and U.S. Government agency securities at 102 percent to 105 percent of the principal plus accrued interest for reinvestment. At June 30, 2018, management believes the Plan had no credit risk exposure to borrowers because the amounts the Plan owed the borrowers equaled or exceeded the amounts the borrowers owed the Plan. The contracts with the Plan custodian require borrowers to indemnify the Plan if the borrowers fail to return the securities and if the collateral is inadequate to replace the securities loaned or fail to pay the QPP for income distributions by the securities' issuers while the securities are on loan. All securities loans can be terminated on demand within a period specified in each agreement by either the QPP or the borrowers. Cash collateral is invested in the lending agents' short-term investment pools, which have a weighted average maturity of 47 days. The securities lending program in which QPP participates only allows pledging or selling securities in the case of borrower default. The underlying fixed income securities have an average maturity of 5 years.

During Fiscal Year 2003, the value of certain securities, which had been purchased with cash collateral, became impaired because of the credit failure of the issuer. Accordingly, the carrying amount of the collateral reported in the QPP's statement of plan net position for Fiscal Year 2003 was reduced by \$30 million to reflect this impairment and reflect the net realizable value of the securities purchased with collateral from securities lending transactions. In the Fiscal Years 2004 to 2009, the QPP received \$20 million from distributions in bankruptcy proceedings from the defaulted issuer, as well as litigation settlements. The Plan has received an additional recoupment of \$5,000 during Fiscal Year 2015. The remaining amount due of \$1.7 million was written off as a loss.

GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, requires that securities loaned as assets and related liabilities be reported in the statements of fiduciary net position. Cash received as collateral on securities lending transactions and investments made with that cash are reported as assets. Securities received as collateral are also reported as assets if the government entity has the ability to pledge or sell them without a borrower default. Accordingly, NYCERS recorded the investments purchased with the cash collateral as collateral from securities lending with a corresponding liability for securities lending.

Securities on loan are carried at fair value and the value as of June 30, 2018 and 2017 was \$9.8 billion and \$6.9 billion, respectively. Cash collateral received related to securities lending as of June 30, 2018 and 2017 was \$9.9 billion and \$7 billion, respectively. As of the date of the combining statements of fiduciary net position, the maturities of the investments made by the Plan with cash collateral, on average, exceed the maturities of the securities loans by approximately 30 days.

GASB Statement No. 72, *Fair Value Measurement and Application* requires the Funds to use valuation techniques which are appropriate under the circumstances and are either a market approach, a cost approach or income approach. GASB 72 establishes a hierarchy of inputs used to measure fair value consisting of three levels. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs, and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. GASB 72 also contains note disclosure requirements regarding the hierarchy of valuation inputs and valuation techniques that was used for the fair value measurements. There was no material impact on the Funds' financial statements as a result of the implementation of GASB 72.

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### 3. INVESTMENTS AND DEPOSITS

The City Comptroller (the Comptroller) acts as an investment advisor to the Funds administered by NYCERS that have investments (the QPP and COVSF). In addition, the QPP employs an independent investment consultant as an investment advisor. The QPP utilizes several investment managers to manage the long-term debt and equity portfolios. The managers are regularly reviewed, with regard to both their investment performance and their adherence to investment guidelines. The COVSF investments are held in a short-term investment fund. The other VSFs do not hold investments. The investment policy is approved by the Board of Trustees of the funds within NYCERS. The Boards create the overall investment policy under which the system's funds are invested and, in defining the investment objectives, develops a framework under which specific objectives are established with regard to allocating the assets of the funds among various investment types.

The Funds do not possess an investment risk policy statement. Nor do they actively manage QPP assets to specified risk targets. Rather, investment risk management is an inherent function of our asset allocation process. Assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk.

The asset allocation targeted for the funds in Fiscal Year 2018 and 2017 included the securities in the following categories:

	<u>2018</u>	<u>2017</u>
Domestic Equities	29.0%	29.0%
International Equity Fund	20.0%	20.0%
Domestic Fixed Income	33.0%	33.0%
Alternative Investments	18.0%	18.0%
Total	<u>100.0%</u>	<u>100.0%</u>

**Concentrations** – The QPP does not have any investments in any one entity that represents 5% or more of fiduciary net position. The COVSF only holds one investment in a short-term investment fund.

**Credit Risk** — Portfolios other than U.S. Government and related portfolios have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of BBB and above except that they are also permitted a 10% maximum exposure to BB & B rated securities. While non-investment grade managers are primarily invested in BB & B rated securities, they can also invest up to 7% of their portfolio in securities rated CCC. Non-rated securities are considered to be non-investment grade. The quality ratings of QPP investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, are as follows:

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June 30, 2018 Investment Type (in percent)	Moody's Quality Ratings											Caa & Below		Not Rated	Total					
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3			B1	B2	B3		
U.S. Government	61.01%	0.02%	0.04%	0.01%	0.02%	0.02%	0.09%	0.00%	0.11%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.58%	61.91%
Corporate bonds	0.77%	0.15%	0.12%	0.23%	0.54%	0.88%	1.78%	2.13%	2.26%	2.34%	1.53%	1.65%	2.86%	2.74%	2.18%	2.30%	1.52%	6.06%	32.04%	
Commercial Paper	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.73%	2.73%	
Pooled Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.67%	2.67%	
Discount Notes & T-Bills	0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.48%	0.65%	
<b>Percent of Rated Portfolio</b>	<b>61.95%</b>	<b>0.17%</b>	<b>0.16%</b>	<b>0.24%</b>	<b>0.56%</b>	<b>0.90%</b>	<b>1.87%</b>	<b>2.13%</b>	<b>2.37%</b>	<b>2.34%</b>	<b>1.53%</b>	<b>1.66%</b>	<b>2.86%</b>	<b>2.74%</b>	<b>2.18%</b>	<b>2.30%</b>	<b>1.52%</b>	<b>12.52%</b>	<b>100.00%</b>	

June 30, 2017 Investment Type (in percent)	Moody's Quality Ratings											Caa & Below		Not Rated	Total					
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3			B1	B2	B3		
U.S. Government	36.64%	0.07%	0.07%	0.02%	0.01%	0.03%	0.12%	0.01%	0.08%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.90%	50.99%
Corporate bonds	0.84%	0.29%	0.28%	0.46%	1.43%	1.40%	2.65%	4.37%	4.08%	4.36%	2.44%	1.74%	3.55%	2.77%	2.14%	3.00%	1.95%	5.12%	42.87%	
Commercial Paper	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.91%	2.91%	
Pooled Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.88%	2.88%	
Discount Notes & T-Bills	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.35%	0.35%	
<b>Percent of Rated Portfolio</b>	<b>37.48%</b>	<b>0.36%</b>	<b>0.35%</b>	<b>0.48%</b>	<b>1.44%</b>	<b>1.43%</b>	<b>2.77%</b>	<b>4.38%</b>	<b>4.16%</b>	<b>4.40%</b>	<b>2.44%</b>	<b>1.74%</b>	<b>3.55%</b>	<b>2.77%</b>	<b>2.14%</b>	<b>3.00%</b>	<b>1.95%</b>	<b>25.16%</b>	<b>100.00%</b>	

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The quality ratings of the COVSF investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2018 and 2017 are as follows:

**COVSF-2018**Moody's Quality Ratings

Investment Type (in percent)	Moody's Quality Ratings						Caa & Below Caa1	Not Rated	Total
	Aaa	Aa1	Ba3	B1	B2	B3			
U.S. Government	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Corporate bonds	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Commercial Paper	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pooled Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Discount Notes & T-Bills	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent of Rated Portfolio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

**COVSF-2017**Moody's Quality Ratings

Investment Type (in percent)	Moody's Quality Ratings						Caa & Below Caa1	Not Rated	Total
	Aaa	Aa1	Ba3	B1	B2	B3			
U.S. Government	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Corporate bonds	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Commercial Paper	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pooled Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Discount Notes & T-Bills	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent of Rated Portfolio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%

**Custodial Credit Risk** — Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. Custodial credit risk is the risk that, in the event of a failure of the counterparty, NYCERS will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the QPP or respective VSF and are held by either the counterparty or the counterparty's trust department or agent but not in the QPP or respective VSF's name.

Consistent with NYCERS' investment policy, the investments are held by the NYCERS' custodian and registered in the name of NYCERS or its Funds.

Cash deposits are insured by the Federal Deposit Insurance Corporation for up to \$250,000 per Plan member and are, therefore, insured up to such limit.

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All of the NYCERS deposits are insured and or collateralized by securities held by a financial institution separate from NYCERS depository financial institution.

All of NYCERS' securities are held by NYCERS' custodial bank in NYCERS' name.

**Interest Rate Risk** — Interest rate risk is the risk that the fair value of investments could be adversely affected by the change in interest rates. Duration limits are used to control the portfolios exposure to interest rate changes. In the investment grade core fixed income portfolios duration is limited to a range of 0 to.75 years versus the duration of the benchmark indices. Duration range is a measure of the overall portfolio, while statements of the stated maturity reflect the specific maturities of the individual securities held. NYCERS has no formal risk policy. The lengths of investment maturities (in years) for QPP, as shown by the percent of the rated portfolio, are as follows:

Years to Maturity  
Investment Type  
(In Thousands)

	Investment Maturities (In Years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
<b>June 30, 2018</b>					
U.S. Government	61.91%	0.55%	27.02%	15.96%	18.38%
Corporate bonds	32.04%	0.89%	10.61%	13.78%	6.76%
Commerical paper	2.73%	2.73%	0.00%	0.00%	0.00%
Pooled funds	2.67%	2.67%	0.00%	0.00%	0.00%
Discount Notes & T-Bills	0.65%	0.65%	0.00%	0.00%	0.00%
Percent of rated portfolio	<u>100.00%</u>	<u>7.49%</u>	<u>37.63%</u>	<u>29.74%</u>	<u>25.14%</u>

Years to Maturity  
Investment Type  
(In Thousands)

	Investment Maturities (In Years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
<b>June 30, 2017</b>					
U.S. Government	50.99%	0.77%	11.87%	16.35%	22.00%
Corporate bonds	42.87%	1.36%	13.25%	18.03%	10.23%
Commerical paper	2.91%	2.91%	0.00%	0.00%	0.00%
Pooled funds	2.89%	2.89%	0.00%	0.00%	0.00%
Discount Notes & T-Bills	0.34%	0.34%	0.00%	0.00%	0.00%
Percent of rated portfolio	<u>100.00%</u>	<u>8.27%</u>	<u>25.12%</u>	<u>34.38%</u>	<u>32.23%</u>



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
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The length of investment maturities (in years) of the COVSF investments, as shown, by the percent of the rated portfolio, at June 30, 2018 and 2017 are as follows:

Investment Maturities (In Years)					
Years to Maturity Investment Type June 30, 2018	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
U.S. Government	0.00%	0.00%	0.00%	0.00%	0.00%
Corporate bonds	0.00%	0.00%	0.00%	0.00%	0.00%
Short-term - Pooled Funds:	100.00%	100.00%	0.00%	0.00%	0.00%
Percent of rated portfolio	<u>100.00%</u>	<u>100.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>

Investment Maturities (In Years)					
Years to Maturity Investment Type June 30, 2017	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
U.S. Government	0.00%	0.00%	0.00%	0.00%	0.00%
Corporate bonds	0.00%	0.00%	0.00%	0.00%	0.00%
Short-term - Pooled Funds:	100.00%	100.00%	0.00%	0.00%	0.00%
Percent of rated portfolio	<u>100.00%</u>	<u>100.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>

**Foreign Currency Risk** — Foreign currency risk is the risk that changes in the exchange rates will adversely impact the fair value of an investment. Currency risk is present in underlying portfolios that invest in foreign stocks and/or bonds. The currency markets have proven to be good diversifiers in a total portfolio context; therefore, NYCERS has numerous managers that invest globally. In general, currency exposure is viewed as a benefit for its diversification reasons and not as an inherent risk within the portfolio. NYCERS has no formal risk policy.

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In addition, the QPP has investments in foreign stocks and/or bonds denominated in foreign currencies. QPP's foreign currency exposures as of June 30, 2018 and 2017 are as follows (amounts in thousands of U.S. dollars):

Trade Currency	2018	2017
Euro Currency	\$ 2,914,358	\$ 2,717,126
Japanese Yen	1,729,233	1,674,327
Pound Sterling	1,478,130	1,381,640
South Korean Won	1,073,952	1,115,952
New Taiwan Dollar	758,874	817,601
Indian Rupee	702,405	692,019
Swiss Franc	666,898	716,251
South African Rand	496,456	459,367
Canadian Dollar	414,281	310,303
Hong Kong Dollar	359,346	418,353
Brazilian Real	357,039	358,508
Australian Dollar	272,974	293,234
Danish Krone	219,874	207,664
Thailand Baht	212,182	172,950
Swedish Krona	205,135	261,745
Malaysian Ringgit	192,798	197,197
Mexican Peso (New)	183,802	219,483
Indonesian Rupiah	141,677	148,173
Singapore Dollar	113,758	101,127
Turkish Lira	101,925	142,901
Polish Zloty	96,969	103,152
Norwegian Krone	94,687	70,838
Philippine Peso	73,780	85,489
Chilean Peso	69,165	67,333
Qatari Rial	50,418	40,140
Uae Dirham	35,351	35,817
Colombian Peso	31,677	30,195
Hungarian Forint	23,087	22,918
New Israeli Sheqel	20,823	25,389
Czech Koruna	15,776	16,192
Moroccan Dirham	12,281	12,626
New Zealand Dollar	8,099	16,311
Peruvian Nouveau Sol	4,703	4,000
Yuan Renminbi	3	3
Total	<u>\$ 13,131,916</u>	<u>\$ 12,936,324</u>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
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### Securities Lending Transactions

*Credit Risk*— The quality ratings of investments held as collateral for Securities Lending of the QPP at June 30, 2018 and 2017 are as follows:

**Investment Type and Fair Value  
of Securities Lending Transactions  
(In Thousands)**

June 30, 2018	S&P Quality Ratings									
	AAA	AA	AA-	A+	A	A-	BBB+ & Below	CCC & Below	Not Rated	Total
Corporate bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Short-term:										
Reverse repurchase agreement	-	-	390,000	3,072,998	1,429,203	349,146	341,306	-	3,217,752	8,800,405
Money market	9,142	-	-	1,451	-	-	25,640	-	100,238	136,471
Bank notes	-	-	-	-	-	-	-	-	7,255	7,255
Cash or cash equivalents	-	-	-	972,818	-	-	-	-	-	972,818
Uninvested	-	-	-	-	-	-	-	-	1,751	1,751
<b>Total</b>	<b>\$ 9,142</b>	<b>\$ -</b>	<b>\$ 390,000</b>	<b>\$ 4,047,267</b>	<b>\$ 1,429,203</b>	<b>\$ 349,146</b>	<b>\$ 366,946</b>	<b>\$ -</b>	<b>\$ 3,326,996</b>	<b>\$ 9,918,700</b>
Percent of securities lending portfolio	0.09%	0.00%	3.93%	40.80%	14.41%	3.52%	3.70%	0.00%	33.54%	100.00%

**Investment Type and Fair Value  
of Securities Lending Transactions  
(In Thousands)**

June 30, 2017	S&P Quality Ratings									
	AAA	AA	AA-	A+	A	A-	BBB+ & Below	CCC & Below	Not Rated	Total
Corporate bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Short-term:										
Reverse repurchase agreement	-	-	520,759	1,526,171	1,360,577	890,000	55,000	-	1,979,772	6,332,279
Money market	-	-	-	-	-	-	-	-	-	-
Bank notes	-	-	-	-	-	-	-	-	-	-
Cash or Cash equivalents	-	-	-	698,809	-	-	-	-	-	698,809
Uninvested	-	-	-	-	-	-	-	-	1,751	1,751
Payable/Receivable	-	-	-	-	-	-	-	-	1,254	1,254
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 520,759</b>	<b>\$ 2,224,980</b>	<b>\$ 1,360,577</b>	<b>\$ 890,000</b>	<b>\$ 55,000</b>	<b>\$ -</b>	<b>\$ 1,982,777</b>	<b>\$ 7,034,093</b>
Percent of securities lending portfolio	0.00%	0.00%	7.40%	31.63%	19.34%	12.65%	0.78%	0.00%	28.20%	100.00%

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*Interest Rate Risk* — The lengths of investment maturities (in years) of the collateral for Securities Lending of the QPP are as follows:

**Years to Maturity  
Investment Type  
(In thousands)**

	<b>Investment Maturities (In Years)</b>				
	<b>Fair Value</b>	<b>Less Than One Year</b>	<b>One to Five Years</b>	<b>Six to Ten Rated</b>	<b>More Than Ten Years</b>
<b>June 30, 2018</b>					
Short-term:					
Reverse repurchase agreement	\$ 8,800,405	\$ 8,800,405	\$ -	\$ -	\$ -
Money market	136,471	136,471	-	-	-
Bank notes	7,255	7,255	-	-	-
Cash	972,818	972,818	-	-	-
Uninvested	1,751	1,751	-	-	-
<b>Total</b>	<b>\$ 9,918,700</b>	<b>\$ 9,918,700</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Percent of securities lending portfolio	100.00 %	100.00 %	- %	- %	- %

**Years to Maturity  
Investment Type  
(In thousands)**

	<b>Investment Maturities (In Years)</b>				
	<b>Fair Value</b>	<b>Less Than One Year</b>	<b>One to Five Years</b>	<b>Six to Ten Rated</b>	<b>More Than Ten Years</b>
<b>June 30, 2017</b>					
Short-term:					
Reverse repurchase agreement	\$ 6,332,279	\$ 6,332,279	\$ -	\$ -	\$ -
Money market	-	-	-	-	-
Bank notes	-	-	-	-	-
Cash	698,809	698,809	-	-	-
Uninvested	3,005	3,005	-	-	-
<b>Total</b>	<b>\$ 7,034,093</b>	<b>\$ 7,034,093</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Percent of securities lending portfolio	100.00 %	100.00 %	- %	- %	- %

**Rate of Return** – For the years ended June 30, 2018 and 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, for the Funds were as follows:

	<u><b>2018</b></u>	<u><b>2017</b></u>
<b>QPP</b>	8.61%	12.99%
<b>COVSF</b>	1.63%	0.64%

The money-weighted rate of return expresses investment performance, net of investment expense adjusted for the changing amounts actually invested.

In Fiscal Year 2015, the Fund adopted GASB Statement No. 72 (GASB 72), *Fair Value Measurement and Application*. GASB 72 was issued to address accounting and financial reporting issues related to fair value measurements.

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The Fund categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The Fund has the following recurring fair value measurements as of June 30, 2018 and June 30, 2017:

	2018			Total
	Level One	Level Two	Level Three	
<b>GASB 72 Disclosure</b>				
<b>(in thousands)</b>				
<b>INVESTMENTS – At fair value</b>				
Short-term investments:				
Commercial paper	\$ -	\$ 644,809	\$ -	\$ 644,809
Discount notes	-	71,958	-	71,958
Short term investment fund	-	825,697	-	825,697
U.S. Treasury bills and agencies	39,936	280	-	40,216
Debt securities:				
Bank loans	-	55,456	-	55,456
Corporate and other	-	5,736,321	112,523	5,848,844
Mortgage debt securities	-	1,856,281	-	1,856,281
U.S. Government and agency	-	9,933,718	-	9,933,718
Equity securities:				
Domestic equity	17,979,085	-	-	17,979,085
International equity	-	-	-	-
Collective trusts funds:				
Bank loans	-	1,107,139	-	1,107,139
Corporate and other	-	32,046	-	32,046
Domestic equity	-	-	-	-
International equity	13,186,622	-	129,102	13,315,724
Mortgage debt securities	-	160,825	543,323	704,148
Opportunistic fixed income	-	-	-	-
Treasury inflation protected securities	-	2,858,313	-	2,858,313
Alternative investments:				
Infrastructure	-	-	396,468	396,468
Opportunistic fixed income	-	-	1,850,722	1,850,722
Private equity	14,242	-	4,452,919	4,467,161
Private real estate	-	-	3,395,746	3,395,746
Total investments	<u>\$ 31,219,885</u>	<u>\$ 23,282,843</u>	<u>\$ 10,880,803</u>	<u>65,383,531</u>
Hedge fund investment measured at net asset value				66,675
Total				<u>\$ 65,450,206</u>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
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	2017			Total
	Level One	Level Two	Level Three	
<b>GASB 72 Disclosure</b>				
<b>(in thousands)</b>				
<b>INVESTMENTS – At fair value</b>				
Short-term investments:				
Commercial Paper	\$ -	\$ 422,635	\$ -	\$ 422,635
Short-term investment fund	-	498,958	-	498,958
U.S. treasury bills and agencies	-	49,816	-	49,816
Discount notes	-	158,568	-	158,568
Short term hedge fund	-	-	-	-
Debt securities:				
U.S. government and agency	-	7,299,927	-	7,299,927
Corporate and other	-	6,040,386	180,673	6,221,059
Equity securities	18,954,811	85	1,406	18,956,302
Alternative investments	-	-	9,162,968	9,162,968
Collective trusts funds:				
International equity	13,357,564	1	2,639	13,360,204
Mortgage debt security	-	106,404	534,546	640,950
Domestic equity	-	-	-	-
Treasury inflation protected securities	-	2,531,110	-	2,531,110
Fixed income	-	353,538	1,032,569	1,386,107
Total investments	<u>\$ 32,312,375</u>	<u>\$ 17,461,428</u>	<u>\$ 10,914,801</u>	60,688,604
Alternative investments valued at net asset value				<u>95,987</u>
Total				<u>\$ 60,784,591</u>

### Equity and Fixed Income Securities

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors for these securities. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using prices determined by the use of matrix pricing techniques maintained by the various pricing vendors for these securities. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Debt and equity securities classified in Level 3 are securities whose stated market price is unobservable by the market place, many of these securities are priced by the issuers or industry groups for these securities. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by our custodian bank. Debt and equity securities held in Collective Trust Funds are held in those funds on behalf of the pension system and there is no restriction on the use and or liquidation of those assets for the exclusive benefit of the funds participants.

### Alternative Investments

Alternative investments include private equity, real estate, opportunistic fixed Income, and infrastructure investments. These are investments for which exchange quotations are not readily available and are valued at estimated fair value, as determined in good faith by the General Partner (GP). These investments are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results and other factors deemed relevant by the GP. The assets in our alternative investment program are classified as Level 3 assets.

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A more detailed explanation of the Level 3 valuation methodologies follows:

Investments in non-public equity securities are valued by the GP using one or more valuation methodologies outlined in ASC 820, depending upon the availability of data required by each methodology. In some cases, the GP may use multiple approaches to estimate a valuation range. For the immediate time period following a transaction, the determination of fair value for equity securities, in which no liquid trading market exists, can generally be approximated based on the transaction price (absent any significant developments).

Thereafter, or in the interim, if significant developments relating to such portfolio company or industry occur which may suggest a material change in value, the GP should value each investment by applying generally accepted valuation methods including: (1) the market approach (such as market transaction and comparable public company multiples, which are based on a measurement of the company's historical and projected financial performance with typical metrics including enterprise value/latest 12 months EBITDA or projected fiscal year EBITDA) or (2) the income or discounted cash flow approach.

In the market approach, valuation multiples that are relevant to the industry and company in the investments held should be considered and relied upon. Valuation multiples should be assessed and may be adjusted on a go-forward basis based on the business risk associated with the subject company in which the investment is held. In addition, the implied entry multiples should be considered as benchmarks in valuing unlisted equity. In circumstances where no financial performance metrics are available, the GP should rely on other non-financial related metrics applicable to relevant progress from the original investment date to the valuation date. In the income or discounted cash flow approach, forecasted cash flows that may be generated by the subject company are discounted to present value at an appropriate discount rate. These methodologies can be utilized to determine an enterprise value (Enterprise Valuation Methodologies) from which net debt is subtracted to estimate equity value.

The determination of fair value using these methodologies should take into consideration a range of factors, including but not limited to, the price at which the investment was acquired, the nature of the investment, local market conditions, trading values on public exchanges for comparable securities, current and projected operating performance and financing transactions subsequent to the acquisition of the investment. Because of the subjective nature of estimated fair value of the private investments, such value may differ significantly from the values that would have been used had a ready market existed for these investments. These financial instruments have been classified as Level 3 in the fair value hierarchy.

In accordance within the scope of paragraphs 820-10-15-4, alternative investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient in paragraph 820-10-35-59 have not been classified in the fair value hierarchy. The fair value quantities presented in the table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the entity's financial statements.

Certain alternative investments have additional future commitments. Others have redemption notice requirements and redemption restrictions. Management does not believe these commitments, notice requirements, and redemption restrictions have a material effect on the fair value of the portfolio of investments.

#### **4. TRANSFER TO VARIABLE SUPPLEMENTS FUNDS**

The Administrative Code of the City of New York (ACNY) provides that the QPP transfer to the VSFs an amount equal to certain excess earnings in equity investments, limited to the unfunded Accumulated Benefit Obligation (ABO) for each VSF. Excess earnings are defined as the amount by which earnings on equity investments of the QPP exceed what the earnings would have been had such funds been invested at a yield comparable to that available from fixed income securities (Hypothetical Fixed Income Security Earnings or HFISE), less any cumulative deficiencies of prior years' excess earnings that fell below the yield of fixed income investments.

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The calculation of the Hypothetical Fixed Income Security Earnings requires the determination of the Hypothetical Interest Rate (HIR), which is computed by the Comptroller.

Due to the merging of Housing Police and Transit Police into The City's Police Department, there are no active members of the Housing Police and Transit Police; therefore, excess earnings on equity investments from the QPP, if any, do not produce any transfers to the HPOVSF, HPSOVSF, TPOVSF and TPSOVSF (collectively, the Housing and Transit Police VSFs).

However, with the passage of Chapter 255/00, the QPP is required to transfer assets to the Housing and Transit Police VSFs whenever the assets of these VSFs are not sufficient to pay benefits. Such funding is provided through The City's annual required contributions to the QPP, which serves as the initial source of funding of VSF benefits. With respect to the benefits payable from HPSOVSF for Fiscal Years 2018 and 2017, the QPP was required to transfer approximately \$2.6 million for each year. With respect to the benefits payable from TPSOVSF, for Fiscal Years 2018 and 2017, the QPP was required to transfer approximately \$3.0 million for each year. With respect to the benefits payable from HPOVSF for Fiscal Years 2018 and 2017, the QPP was required to transfer approximately \$1.9 million each year. With respect to the benefits payable from TPOVSF for Fiscal Years 2018 and 2017, the QPP was required to transfer approximately \$3.8 million and \$3.9 million, respectively.

With respect to the COVSF, for Fiscal Year 2018, the excess earnings of the QPP, inclusive of prior years' cumulative deficiencies exceeded zero and a liability and transfer of \$205 million, is due from the QPP to COVSF as of and for the year end June 30, 2018. For Fiscal Year 2017, the excess earnings of the QPP, inclusive of prior years' cumulative deficiencies exceeded zero and a liability and transfer of \$281 million was due from QPP to COVSF as of June 30, 2017.

The amount shown below as the ABO is a measure of the present value of scheduled supplemental benefits estimated to be payable in the future as a result of employee service-to-date. The ABO is calculated as the actuarial present value of credited projected benefits, prorated on service and is intended to help users assess the funded status of the Fund on an ongoing-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due and make a comparison among VSFs.

Actuarial valuations of the VSFs are performed annually as of June 30.

A comparison of the ABO as calculated by the Actuary, with the net position restricted for pensions for the COVSF, HPOVSF, HPSOVSF, TPOVSF and TPSOVSF as of June 30, 2017 and June 30, 2016 follows (in millions):

	COVSF		HPOVSF		HPSOVSF		TPOVSF		TPSOVSF		Total	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Accumulated benefit obligation												
Retirees currently receiving benefits	\$1,027.4	\$1,019.1	\$13.9	\$15.0	\$19.9	\$20.9	\$29.1	\$30.7	\$22.3	\$23.4	\$1,112.7	\$1,109.1
Active Members	315.0	338.2									315.0	338.2
Total accumulated benefit obligation	\$1,342.4	\$1,357.3	\$13.9	\$15.0	\$19.9	\$20.9	\$29.1	\$30.7	\$22.3	\$23.4	\$1,427.7	\$1,447.3
Net position held in trust for benefits	288.2	46.9									288.2	46.9
Unfunded accumulated benefit obligation	\$1,054.2	\$1,310.4	\$13.9	\$15.0	\$19.9	\$20.9	\$29.1	\$30.7	\$22.3	\$23.4	\$1,139.5	\$1,400.4

For purposes of the June 30, 2017 and June 30, 2016 actuarial valuations of the Fund, Chapter 125/00 has been taken into account in the determination of the unfunded ABO related to the Supplementation benefit increases that began Fiscal Year 2001 and the automatic COLA that began Fiscal Year 2002 (see Note 1).



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The June 30, 2017 and June 30, 2016 ABOs decreased by approximately \$12.9 million and \$13.1 million respectively, in actuarial liabilities attributable to Chapter 125/00.

Section 13-194 of the ACNY provides that the Board of Trustees of NYCERS shall adopt, upon the recommendation of the Actuary, actuarial assumptions as to interest rate, mortality of retirees and estimated number of active UCF members of NYCERS as of each June 30 who are expected to retire from service with at least 20 or 25 years of service as UCF members, depending on the Plan for use in making annual valuations of liabilities.

The following actuarial assumptions represent the recommendations of the Actuary and were used in the actuarial calculations to determine the preceding ABOs as of June 30, 2017 and June 30, 2016:

	<b>June 30, 2017</b>	<b>June 30, 2016</b>
Investment rate of return	7.0% per annum. <sup>1</sup>	7.0% per annum. <sup>1</sup>
Post-retirement mortality	Tables adopted by NYCERS during Fiscal Year 2016 based on recent experience of UCF members of NYCERS for COVSF and on recent experience of POLICE for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.	Tables adopted by NYCERS during Fiscal Year 2016 based on recent experience of UCF members of NYCERS for COVSF and on recent experience of POLICE for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.
Active service: withdrawal death, and disability	Tables adopted by NYCERS during Fiscal Year 2012 based on recent experience of UCF members of NYCERS for COVSF. NA for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.	Tables adopted by NYCERS during Fiscal Year 2012 based on recent experience of UCF members of NYCERS for COVSF. NA for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.
Service retirement	Tables adopted by NYCERS during Fiscal Year 2012 based on recent experience of UCF members of NYCERS for COVSF. Varies from earliest age member is eligible to retire (age at completion of 20 years (25 years) of service) until age 63. Not applicable for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.	Tables adopted by NYCERS during Fiscal Year 2012 based on recent experience of UCF members of NYCERS for COVSF. Varies from earliest age member is eligible to retire (age at completion of 20 years (25 years) of service) until age 63. Not applicable for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.
COLA adjustments for future NYCERS' COLA benefits <sup>1</sup>	1.5% per annum for Auto COLA 2.5% per annum for Escalation.	1.5% per annum for Auto COLA 2.5% per annum for Escalation.

<sup>1</sup> Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per year.

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**5. QPP CONTRIBUTIONS**

The financial objective of the QPP is to fund members' retirement benefits during their active service and to establish Employer contribution rates which, expressed as a percentage of annualized covered payroll, will remain approximately level from year to year. The Employer contributes amounts that, together with Member Contributions and investment income, are intended to ultimately be sufficient to accumulate assets to pay benefits when due.

**Member Contributions** — Members, who joined prior to July 27, 1976, contribute by salary deductions based on a normal rate of contribution that is assigned by the Plan at membership. The member normal rate, which is dependent upon age and actuarial tables in effect at the time of membership, is determined to provide approximately one-fourth of the service retirement allowance at the earliest age for service retirement. For age at membership equal to 20, the member normal rate ranges between 5.80% and 9.10%. For age at membership equal to 40, the member normal rate ranges between 4.30% and 4.80%.

Members who joined on or after July 27, 1976 and before April 1, 2012, are mandated to contribute 3.0% of salary during all years of coverage except for Department of Correction members who contribute 3.0% for not more than 30 years. Effective October 1, 2000, certain members are not required to make contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. In addition, certain members who are Tier 2 or Tier 3 corrections officers and certain other Tier 2 and Tier 4 members contribute additional amounts ranging from 1.85% to 7.46% for improved early retirement benefits.

Members, who join on and after April 1, 2012 (Tier 6), are mandated to contribute Basic Member Contributions (BMC) until they separate from City service or until they retire. The BMC rate is dependent on annual wages earned during a plan year and ranges from 3.0% for salaries up to \$45,000 and as much as 6.0% for salaries greater than \$100,000.

In addition to the BMC, Tier 6 Special Plan members must contribute Additional Member Contributions (AMC). The AMC rate is plan-specific. Tier 6 Special Plan members must contribute AMC until they attain 30 years of service or retire, whichever comes first, except for TBTA 20/50 Plan members who must contribute AMC for 20 years.

Uniformed members of the Department of Correction, uniformed members of the Department of Sanitation and District Attorney (DA) Investigator members employed in a District Attorney office, who became employed in one of these titles on or after April 1, 2012, participate in a 22-year Plan. These members are required to contribute 3% of gross wages until the later of 25 years of service or until they retire, except DA Investigator members who must contribute 3% of gross wages until they retire.

**Employer Contributions** — Statutorily-required contributions (Statutory Contributions) to the QPP, determined by the Funds' Chief Actuary of the Office of the Actuary (the "Actuary") in accordance with State statutes and City laws, are generally funded by the Employer within the appropriate fiscal year. The Statutory Contribution for the year ended June 30, 2018, based on an actuarial valuation as of June 30, 2016 was \$3,377,024 million, and the Statutory Contribution for the year ended June 30, 2017, based on an actuarial valuation as of June 30, 2015 was \$3,328,193 million. The Statutory Contributions for Fiscal Years 2018 and 2017 were equal to the Actuarial Contributions. Refer to the Schedule of Employer Contributions in the accompanying required supplementary information for more information on the actuarial methods and assumptions applied by the Actuary to determine Statutory Contributions.

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**6. NET PENSION LIABILITY**

The components of the net pension liability of the Employer at June 30, 2018 and 2017, for the Funds, were as follows (in thousands):

June 30, 2018	(in thousands)						TOTAL
	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	
Total pension liability	\$ 81,812,947	\$ 1,400,402	\$ 14,457	\$ 20,079	\$ 29,598	\$ 22,295	\$ 83,299,778
Fiduciary net position <sup>1</sup>	65,211,747	449,771	134	121	171	139	65,662,083
Employers' net pension liability	\$ 16,601,200	\$ 950,631	\$ 14,323	\$ 19,958	\$ 29,427	\$ 22,156	\$ 17,637,695
Fiduciary net position as a percentage of the total pension liability	79.71%	32.12%	0.93%	0.60%	0.58%	0.62%	78.83%

June 30, 2017	(in thousands)						TOTAL
	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	
Total pension liability	\$ 80,897,611	\$ 1,432,384	\$ 15,685	\$ 21,061	\$ 30,950	\$ 23,777	\$ 82,421,468
Fiduciary net position <sup>1</sup>	61,322,275	332,684	69	58	45	70	61,655,201
Employers' net pension liability	\$ 19,575,336	\$ 1,099,700	\$ 15,616	\$ 21,003	\$ 30,905	\$ 23,707	\$ 20,766,267
Fiduciary net position as a percentage of the total pension liability	75.80%	23.23%	0.44%	0.28%	0.15%	0.29%	74.80%

<sup>1</sup> Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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***Actuarial Methods and Assumptions***

The total pension liability as of June 30, 2018 and 2017, were determined by actuarial valuations as of June 30, 2016 and June 30, 2015, respectively that were rolled forward to develop the total pension liability to the respective fiscal year end. The following actuarial assumptions were applied to all periods included in the measurement:

Projected Salary Increases	In general, merit and promotion increases, plus assumed General Wage Increases of 3.0% per annum
Investment Rate of Return	7.0% per annum, net of Investment Expenses
	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.

The above assumptions were developed assuming a long-term Consumer Price Inflation assumption of 2.5% per annum.

Mortality tables for Service and Disability pensioners were developed from an experience study of the QPP's pensioners. Mortality tables for beneficiaries were also developed from an experience study of the QPP's beneficiaries.

Pursuant to Section 96 of the New York City Charter, studies of the actuarial assumptions used to value liabilities of the five actuarially-funded NYCRS are conducted every two years.

The June 30, 2016 (Lag) actuarial valuation was used to determine the Fiscal Year 2018 Employer Contributions. There were no changes in actuarial assumptions and methods from the prior actuarial valuation.

The June 30, 2010 (Lag) actuarial valuation used to determine the Fiscal Year 2012 Employer Contributions was based on revised actuarial assumptions and methods proposed by the Actuary (the "2012 A&M"). The Board of Trustees of the Plan adopted those changes to the actuarial assumptions and methods that require Board approval during Fiscal Year 2012. The New York State Legislature and the Governor enacted Chapter 3 of the Laws of 2013 (Chapter 3/13) to provide for those changes in actuarial assumptions and methods that require legislation, including the Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of investment expenses, the Entry Age Actuarial Cost Method and the amortization of Unfunded Actuarial Accrued Liabilities.

Beginning with the June 30, 2010 (Lag) actuarial valuation under the 2012 A&M, the Entry Age Actuarial Cost Method ("EAACM") of funding is utilized by the Plan's Actuary to calculate the contribution required of the Employer.

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

The excess, if any, of the AAL over the Actuarial Asset Value (AAV) is the Unfunded Actuarial Accrued Liability (UAAL).

Under this method, actuarial gains (losses), as they occur, reduce (increase) the UAAL and are explicitly identified and amortized.

Increases (decreases) in obligations due to benefit changes, actuarial assumption changes and/or actuarial method changes are also explicitly identified and amortized.

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The Fiscal Year 2018 and Fiscal Year 2017 Employer Contributions do not reflect any potential impact related to the bankruptcy filing on December 3, 2009 by the New York City Off-Track Betting Corporation (OTB) and to its shutdown on December 7, 2010. The results were developed herein assuming OTB is an ongoing concern.

The APV of projected benefits includes the obligations of the Plan to the HPOVSF, the HPSOVSF, the TPOVSF, the TPSOVSF and the COVSF (referred to collectively as the NYCERS VSFs), which are recognized through the Liability Valuation Method.

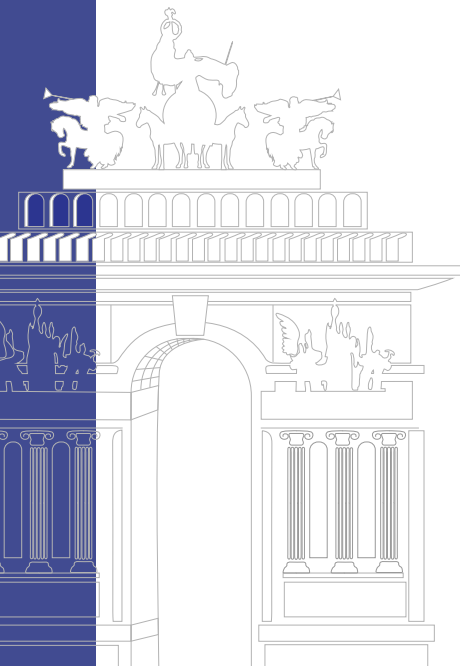
Under this method, the APV of Future SKIM from the Plan to the NYCERS VSFs is included directly as an actuarial liability of the Plan. SKIM is all or a portion of the excess earnings on equity securities of the Plan which are transferrable to the NYCERS VSFs. The APV of Future SKIM is computed as the excess, if any, of the APV of benefits of each individual NYCERS VSF offset by the AAV of that individual NYCERS VSF, respectively. Under the EAACM, a portion of the APV of Future SKIM is reflected in the APV of Future Normal Costs and a portion is reflected in the UAAL.

The concept in use for the Actuarial Asset Valuation Method (AAVM) for actuarial valuations on and after June 30, 2012 is the same as that in use for the June 30, 2009 (Lag) actuarial valuation.

In accordance with this AAVM, actual Unexpected Investment Returns (UIR) for Fiscal Years 2012, 2013, etc. are phased into the Actuarial Asset Value (AAV) beginning June 30, 2012, June 30, 2013, etc. at rates of 15%, 15%, 15%, 15%, 20%, and 20% per year (i.e., cumulative rates of, 15%, 30%, 45%, 60%, 80%, and 100% over a period of six years).

The Actuary reset the Actuarial Asset Value to the Market Value of Assets (MVA) as of June 30, 2011 (i.e., Market Value Restart).

For the June 30, 2010 (Lag) actuarial valuation, the AAV is defined to recognize Fiscal Year 2011 investment performance. The June 30, 2010 AAV is derived as equal to the June 30, 2011 MVA, discounted by the AIR assumption (adjusted for cash flow) to June 30, 2010.



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***Expected Rate of Return on Investments***

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected real rates of return (i.e., expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

<b><u>Asset Class</u></b>	<b><u>Asset Allocation</u></b>	<b><u>Expected Real Rate of Return</u></b>
U.S. Public Markets Equities	29%	6.3%
International Public Markets Equities	13%	7.0%
Emerging Public Markets Equities	7%	9.5%
Private Market Equities	7%	10.4%
Fixed Income (Core, TIPS, High Yield, Opportunistic, Convertibles)	33%	2.2%
Alternatives (Real Assets, Hedge Funds)	<u>11%</u>	5.5%
Total	<u>100%</u>	

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**Discount Rate**

The discount rate used to measure the total pension liability as of June 30, 2018 and 2017 was 7.0% per annum. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that City's contributions will be made in accordance with the Statutory contributions determined by the Actuary. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The following presents the net pension liability of the Employer for the Plans, calculated using the discount rate of 7.0%; as well as what the Employer's net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.0%) or 1-percentage point higher (8.0%) than the current rate.

<b>(In thousands)</b>	<b>1% Decrease (6%)</b>	<b>Discount Rate (7%)</b>	<b>1% Increase (8%)</b>
<b>Employer net pension liability June 30, 2018</b>			
QPP	\$ 25,840,074	\$ 16,601,200	\$ 8,806,157
COVSF	1,105,539	950,631	820,634
HPOVSF	15,242	14,323	13,503
HPSOVSF	21,287	19,958	18,777
TPOVSF	31,320	29,428	27,740
TPSOVSF	23,606	22,156	20,864
Total	<u>\$ 27,037,068</u>	<u>\$ 17,637,696</u>	<u>\$ 9,707,675</u>

**7. MEMBER LOANS**

In general, members are permitted to borrow up to 75% of their own contributions, including accumulated interest. The balance of member loans receivable at June 30, 2018 and 2017 is \$1.1 billion and \$1.1 billion, respectively.

**8. RELATED PARTIES**

The Comptroller of The City of New York has been appointed by law as custodian for the assets of NYCERS. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller also provides cash receipt and cash disbursement services to NYCERS. Actuarial services are provided to NYCERS by the Office of the Actuary employed by the Boards of Trustees of The City's main pension systems. The City's Corporation Counsel provides legal services to NYCERS. Other administrative services are also provided by the City. The aforementioned services are provided by employees or officers of The City who may also be participants in NYCERS.

**9. ADMINISTRATIVE AND INVESTMENT EXPENSES**

Chapter 593 of the Laws of 1996, effective July 1, 1997, authorized the Board of Trustees to draw upon QPP assets to pay the administrative expenses incurred by the QPP. Prior to that year, The City had directly paid all QPP administrative expenses. Under Chapter 593/96, both the administrative and investment expenses were billed to the participating employers in the following year. Under Chapter 152 of the Laws of 2006, those expenses are billed in the second following fiscal year.

In Fiscal Year 2018, total non-investment expenses attributable to the Plan were approximately \$67.5 million, of which \$59.7 million was paid from the assets of the QPP and \$7.8 million was incurred on behalf of the QPP by other City agencies. In Fiscal Year 2017, total non-investment expenses attributable to the Plan were approximately \$67 million, of which \$59.7 million was paid from the assets of the QPP and \$7.3 million was incurred on behalf of the QPP by other City agencies.

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Investment expenses, exclusive of fees related to securities lending transactions, for Fiscal Year 2018 were \$244 million, of which \$242 million was charged to the investment earnings of the Plan; and \$2 million was incurred by the Comptroller's Office. Investment expenses, exclusive of fees related to securities lending transactions, for Fiscal Year 2017 were \$226 million, of which \$224 million was charged to the investment earnings of the Plan; and \$2 million was incurred by the Comptroller's Office.

During Fiscal Year 2000, the Plan entered into a new lease agreement to rent office space for its headquarters. The agreement expires in 2020, with options to renew the agreement through 2030. The future minimum rental payments required under this operating lease are shown in the table below.

Rent expenses, under the lease agreement, for the Fiscal Years ended June 30, 2018 and 2017, were approximately \$4.5 million each.

During Fiscal Year 2006, the Plan entered into a new lease agreement to rent office space for a business recovery site in case its headquarters was not operational. The agreement expired in 2016, and the Plan exercised the options to renew the agreement through April 2021. The future minimum rental payments required under the renewed lease are shown in the table below.

Rent expenses, under the lease agreement, for the Fiscal Years ended June 30, 2018 and 2017, were approximately \$1.2 million and \$927 thousand, respectively.

Fiscal Years Ending	Headquarters	Fiscal Years Ending	Business Recovery Site
	Minimum Rental Payments		Minimum Rental Payments
2019	\$ 4,535,366	2019	\$ 1,262,087
2020	4,535,366	2020	1,290,507
		2021	1,319,538

**10. CONTINGENT LIABILITIES AND OTHER MATTERS**

**Contingent Liabilities** — The Fund has a number of claims pending against it and has been named as a defendant in a number of lawsuits and also has certain other contingent liabilities. Management of the Plan, on the advice of legal counsel, believes that such proceedings and contingencies will not have a material effect on the plan's net position or changes in the plan's net position. Under the State statutes and City laws that govern the functioning of the Fund, increases in the obligations of the Fund to members and beneficiaries ordinarily result in increases in the obligations of the employers to the Fund.

**Actuarial Audit** — Pursuant to Section 96 of the New York City Charter, studies of the actuarial assumptions used to value liabilities of the five actuarially-funded NYCERS are conducted every two years. Refer to Note 5 for a discussion of the most recent actuarial studies for NYCERS.

**Revised Actuarial Assumptions and Methods** — In accordance with the ACNY and with appropriate practice, the Boards of Trustees of the five major actuarially-funded NYCERS are to periodically review and adopt actuarial assumptions as proposed by the Actuary for use in the determination of Employer Contributions.



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
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**OTB Bankruptcy** — During December 2009, the New York City Off-Track Betting Corporation (OTB) filed a petition with the United States Bankruptcy Court of the Southern District of New York under Chapter 9 of the Bankruptcy Code.

The Fiscal Year 2018 and Fiscal Year 2017 employer contributions do not take into account OTB's filing. The Fiscal Year 2018 and Fiscal Year 2017 employer contributions, and the allocation to OTB, assumed that OTB was a going-concern. Any amounts due but unpaid by OTB for Fiscal Year 2017 and Fiscal Year 2017 are treated as a receivable that is expected to be paid in full.

**New York State Legislation (only significant laws since Fiscal Year 2012 are included):**

Chapter 18 of the Laws of 2012 placed certain limitations on Tier 3 and Tier 4 benefits available to participants hired on and after April 1, 2012 in most New York State PERS, including NYCERS. Some of the provisions in this law are commonly referred to as Tier 6.

Chapter 3 of the Laws of 2013 (Chapter 3/13) implemented changes in the actuarial procedures for determining Employer Contributions beginning Fiscal Year 2012. In particular, Chapter 3/13 continued the One-Year Lag Methodology (OYLM), employed the Entry Age Actuarial Cost Method (EAACM), an Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of expenses and defined the amortization of Unfunded Actuarial Accrued Liabilities (UAAL).

Chapter 489 of the Laws of 2013 extended the Notice of Participation filing deadline to September 11, 2014 for vested members to file a sworn statement indicating participation in the World Trade Center Rescue, Recovery, and Clean-up Operations.

Chapter 427 of the Laws of 2014 (Chapter 427/14) provides non-contributory retirement service credit for members called to active military duty on or after September 11, 2001 and prior to January 1, 2006 who did not receive their full salary from a participating employer and is otherwise eligible to receive retirement service credit for such service. Such member would not be required to make member contributions to receive such credit.

Chapter 510 of the Laws of 2015 clarifies for Tier 6 the definition of multiple employers for the purpose of exclusion of wages and changes the plan year for contributions from plan year April 1 to March 31 to plan year January 1 to December 31.

Chapter 41 of the Laws of 2016 removes the specified periods of time, medal requirements, and theaters of operation in which military service would have had to have been rendered for a service purchase pursuant to New York State Retirement and Social Security Law ("RSSL") § 1000. Accordingly, for a member to be eligible to purchase service credit pursuant to RSSL § 1000 for pre-membership military service, the member need only have been honorably discharged from the military; all other requirements of RSSL § 1000 remain the same. This law is not retroactive and does not permit retired members to purchase service credit.

Petition for Retirement Benefit Enhancement, dated August 15, 2016 and signed by the Mayor on August 30, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Sanitation Workers. Sanitation Workers who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. Sanitation Workers who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 1.3% of wages.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM**  
**NOTES TO COMBINING FINANCIAL STATEMENTS**  
**JUNE 30, 2018 AND 2017**

Petition for Retirement Benefit Enhancement, dated November 2, 2016 and signed by the Mayor on November 29, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Correction Officers. Correction Officers who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. Correction Officers who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 0.8% of wages.

Petition for Retirement Benefit Enhancement, dated November 21, 2016 and signed by the Mayor on November 29, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Wardens, including Assistant Deputy Wardens, Deputy Wardens and Deputy Wardens in Command (collectively, ADW/DWs). ADW/DWs who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. ADW/DWs who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 0.8% of wages.

Petition for Retirement Benefit Enhancement, dated November 25, 2016 and signed by the Mayor on November 29, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Correction Captains. Correction Captains who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. Correction Captains who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 0.8% of wages.

Chapter 61 of the Laws of 2017 permits NYCERS uniformed correction/sanitation revised plan members and investigator revised plan members ("Eligible Members"), who would be ineligible for disability retirement benefits solely on account of being eligible for a normal service retirement benefit, to be eligible for disability benefits. It also relaxed the safeguards provisions regarding restrictions on post-retirement employment for Eligible Members who are awarded Accidental Disability Retirement ("ADR") and modified the process for reducing or eliminating an ADR benefit based on post-retirement earnings, making said process more difficult.

The following outlines the changes for the New York City uniformed correction/sanitation revised plan members (i.e., a 22-Year Plan member).

### **1. Member Contributions**

- Tier 3 Enhanced Members contribute 3% of pensionable earnings PLUS an additional contribution rate to help fund the enhanced disability benefit. Currently, the additional contribution rate is 1.3% for Sanitation Workers and 0.8% for Correction Officers, ADW/AWs and Correction Captains that can be raised to 3% based on a financial analysis by the Office of the Actuary every three years. At no time can the total contribution rate exceed 6%.
- Taxability
  - Base Member Contributions
    - Pre-tax
  - Increased Member Contributions for Enhanced Disability Provisions
    - Pre-tax for Sanitation Workers appointed September 1, 2016 and later and for Correction Officers, ADW/DWs and Correction Captains appointed January 1, 2017 and later (i.e., the dates the respective new members are mandated into the Plan).
    - Post-tax for those who were eligible to elect the Enhanced Disability Plan provisions and elected such provisions.

### **2. Accidental Disability Retirement (ADR)**

- The ADR benefit for Tier 3 Enhanced Members is 75% of their Five-Year Final Average Salary (FAS5).
- Tier 3 Enhanced Members have statutory presumptions (i.e. Heart).

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
NOTES TO COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2018 AND 2017**

**3. Ordinary Disability Retirement (ODR)**

- The ODR benefit for Tier3 Enhanced Members is the greater of:
  - 33 1/3% of FAS5; or
  - FAS5 multiplied by years of credited service (not greater than 22 years).

**4. Escalation**

- Tier 3 Enhanced Members who retire for ODR or ADR are not subject to escalation. Tier 3 Enhanced Members are subject to COLA, the same as Tier 1 and 2 members.

**5. Social Security Offset**

- Tier 3 Enhanced Members who retire for ODR or ADR are not subject to the Social Security offset.
- Tier 3 Enhanced Members who retire for a Service or Vested Retirement are subject to the Social Security offset.

**6. Final Average Salary**

- Tier 3 Enhanced Members are subject to a FAS5 calculation for ODR, ADR, Service and Vested Retirement.

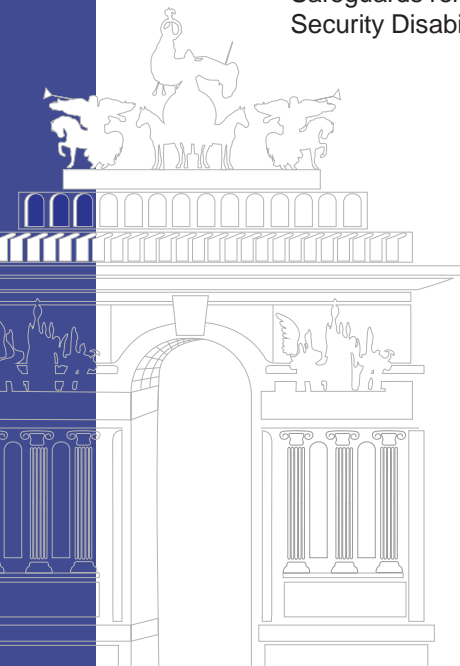
The following changes apply to Eligible Members:

**1. Eligibility for ADR**

- Members no longer cease to be eligible for ADR at 22 years, and can apply at any time as long as they are active.

**2. Safeguards**

- RSSL § 507(d) no longer applies to ADR retirees. The safeguards in effect prior to April 1, 2012 apply to Uniformed Correction/Sanitation Revised Plan members and those in effect prior to July 1, 2009 apply to retired Investigator Revised Plan Members. The safeguards include earnings limitations and re-employment.
- Safeguards remain unchanged for ODR retirees. Thus, they must continue to be in receipt of Social Security Disability benefits to maintain their receipt of pension benefits.



SCHEDULE 1

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
 SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS  
 (in thousands)

June 30, 2018	OPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	\$ 1,923,683	\$ 24,029	\$ -	\$ -	\$ -	\$ -	\$ 1,947,712
Interest	5,514,669	94,615	1,004	1,397	2,052	1,552	5,615,289
Changes of benefit terms							
Differences between expected and actual experience	(1,700,346)	(61,728)	(472)	131	83	(216)	(1,762,548)
Changes of assumptions	17,939	(206)	-	-	-	-	17,733
Changes of benefit terms	42,501	1,498	-	-	-	-	43,999
Benefit payments and withdrawals	(4,883,110)	(90,190)	(1,760)	(2,510)	(3,486)	(2,818)	(4,983,874)
Net change in total pension liability	915,336	(31,982)	(1,228)	(982)	(1,351)	(1,482)	878,311
Total pension liability - beginning	80,897,611	1,432,384	15,685	21,061	30,950	23,777	82,421,468
Total pension liability - ending (a)	81,812,947	1,400,402	14,457	20,079	29,599	22,295	83,299,779
Plan fiduciary net position:							
Employer contributions	3,377,024	-	-	-	-	-	3,377,024
Member contributions	523,535	-	-	-	-	-	523,535
Net investment income	5,153,254	2,265	-	-	-	-	5,155,519
Benefit payments and withdrawals	(4,883,110)	(90,190)	(1,760)	(2,510)	(3,486)	(2,818)	(4,983,874)
Payments to Other Retirement Systems	(9,055)	-	-	-	-	-	(9,055)
Transfers to VSFs	(10,897)	-	1,825	2,573	3,612	2,887	(59,689)
Administrative Expenses	(59,689)	-	-	-	-	-	(59,689)
Other	3,410	12	-	-	-	-	6,832
Net change in plan fiduciary net position	4,094,472	(87,913)	65	63	126	69	4,010,292
Accrued transfers to/from VSF's	(205,000)	205,000	-	-	-	-	-
Plan fiduciary net position - beginning	65,211,747	449,771	134	121	171	139	65,662,083
Plan fiduciary net position - ending (b) *	\$ 16,601,200	\$ 950,631	\$ 14,323	\$ 19,958	\$ 29,428	\$ 22,156	\$ 17,637,696
Employers' net pension liability - ending (a)-(b)							
Plan fiduciary net position as a percentage of the total pension liability	79.71%	32.12%	0.93%	0.60%	0.58%	0.62%	78.83%
Covered payroll	\$ 12,834,130	N/A	N/A	N/A	N/A	N/A	\$ 12,834,130
Employers' net pension liability as a percentage of covered payroll	129.35%	N/A	N/A	N/A	N/A	N/A	137.43%

Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.

\* Such amounts represent the preliminary Funds' fiduciary net position and may differ from the Funds' final fiduciary net position.

SCHEDULE 1

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
 SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS  
 (In thousands)

June 30, 2017

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:	\$ 1,897,067	\$ 23,391	\$ -	\$ -	\$ -	\$ -	\$ 1,920,458
Service cost	5,446,543	93,708	1,088	1,464	2,151	1,654	5,546,608
Interest							
Changes of benefit terms							
Differences between expected and actual experience	(221,856)	(16,615)	(51)	(216)	198	286	(238,254)
Changes of assumptions							
Benefit payments and withdrawals	(4,635,251)	(30)	(1,850)	(2,581)	(3,814)	(2,953)	(4,646,479)
Net change in total pension liability	2,486,503	100,454	(813)	(1,333)	(1,465)	(1,013)	2,582,333
Total pension liability – beginning	78,411,108	1,331,930	16,498	22,394	32,415	24,790	79,839,135
Total pension liability – ending (a)	80,897,611	1,432,384	15,685	21,061	30,950	23,777	82,421,468
Plan fiduciary net position:							
Employer contributions	3,328,193	-	-	-	-	-	3,328,193
Member contributions	513,514	-	-	-	-	-	513,514
Net investment income	6,982,304	(152)	-	-	-	-	6,982,152
Benefit payments and withdrawals	(4,635,251)	(30)	(1,850)	(2,581)	(3,814)	(2,953)	(4,646,479)
Payments to Other Retirement Systems	(8,087)	-	-	-	-	-	(8,087)
Transfers to VSF's	(11,297)	-	1,889	2,595	3,830	2,983	-
Administrative expenses	(59,671)	-	-	-	-	-	(59,671)
Other	3,266	-	-	-	-	-	3,266
Net change in plan fiduciary net position	6,112,971	(182)	39	14	16	30	6,112,888
Accrued transfers to/from VSFs	(285,924)	285,924	-	-	-	-	-
Plan fiduciary net position – beginning	55,495,228	46,942	30	44	29	40	55,542,313
Plan fiduciary net position – ending (b) *	61,322,275	332,684	69	58	45	70	61,655,201
Employers' net pension liability – ending (a)-(b)	\$19,575,336	\$1,099,700	\$ 15,616	\$ 21,003	\$ 30,905	\$ 23,707	\$20,766,267
Plan fiduciary net position as a percentage of the total pension liability	75.80%	23.23%	0.44%	0.28%	0.15%	0.29%	74.80%
Covered payroll	\$12,555,242	N/A	N/A	N/A	N/A	N/A	\$12,555,242
Employers' net pension liability as a percentage of covered payroll	155.91%	N/A	N/A	N/A	N/A	N/A	165.40%

Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.

\*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the Funds' final fiduciary net position.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS**  
(In thousands)

June 30, 2016

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	\$ 1,875,969	\$ 24,025	\$ -	\$ -	\$ -	\$ -	\$ 1,899,994
Interest	5,276,141	89,794	1,145	1,553	2,251	1,720	5,372,604
Differences between expected and actual experience	(793,016)	(25,259)	(195)	(57)	273	283	(817,971)
Changes of assumptions	2,539,112	21,269	479	625	915	692	2,563,092
Benefit payments and withdrawals	(4,402,729)	(79,917)	(1,968)	(2,643)	(3,932)	(2,957)	(4,494,146)
Net change in total pension liability	4,495,477	29,912	(539)	(522)	(493)	(262)	4,523,573
Total pension liability – beginning	73,915,631	1,302,018	17,037	22,916	32,908	25,052	75,315,562
Total pension liability – ending (a)	78,411,108	1,331,930	16,498	22,394	32,415	24,790	79,839,135
Plan fiduciary net position:							
Employer contributions	3,365,454	-	-	-	-	-	3,365,454
Member contributions	485,508	-	-	-	-	-	485,508
Net investment income	1,171,720	184	-	-	-	-	1,171,904
Benefit payments and withdrawals	(4,402,729)	(79,917)	(1,968)	(2,643)	(3,932)	(2,957)	(4,494,146)
Payments to Other Retirement Systems	(7,440)	-	-	-	-	-	(7,440)
Transfers to VSFs	(11,525)	-	1,968	2,648	3,945	2,964	-
Administrative Expenses	(56,683)	-	-	-	-	-	(56,683)
Other	2,928	-	-	-	-	-	2,928
Net change in plan fiduciary net position	547,233	(79,733)	-	5	13	7	467,525
Accrued transfers to/from VSFs	52,724	(52,724)	-	-	-	-	-
Plan fiduciary net position – beginning	54,895,271	179,399	30	39	16	33	55,074,788
Plan fiduciary net position – ending (b) *	55,495,228	46,942	30	44	29	40	55,542,313
Employers' net pension liability – ending (a)-(b)	\$ 22,915,880	\$ 1,284,988	\$ 16,468	\$ 22,350	\$ 32,986	\$ 24,750	\$ 24,296,822
Plan fiduciary net position as a percentage of the total pension liability	70.77%	3.52%	0.18%	0.20%	0.09%	0.16%	69.57%
Covered payroll	\$ 12,336,979	N/A	N/A	N/A	N/A	N/A	\$ 12,336,979
Employers' net pension liability as a percentage of covered payroll	185.75%	N/A	N/A	N/A	N/A	N/A	196.94%

Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.

\*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the Funds' final fiduciary net position.

## SCHEDULE 1

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS**  
(In thousands)

June 30, 2015

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	\$ 1,808,955	\$ 23,532	\$ -	\$ -	\$ -	\$ -	\$ 1,832,487
Interest	4,976,487	87,727	1,184	1,588	2,288	1,741	5,071,015
Differences between expected and actual experience	(372,645)	84,301	(312)	131	(203)	129	(288,599)
Changes of assumptions	-	-	-	-	-	-	-
Benefit payments and withdrawals	(4,235,644)	(76,606)	(2,083)	(2,682)	(4,047)	(3,073)	(4,324,135)
Net change in total pension liability	2,177,153	118,954	(1,211)	(963)	(1,962)	(1,203)	2,290,768
Total pension liability – beginning	71,738,478	1,183,064	18,248	23,879	34,870	26,255	73,024,794
Total pension liability – ending (a)	73,915,631	1,302,018	17,037	22,916	32,908	25,052	75,315,562
Plan fiduciary net position:							
Employer contributions	3,160,258	-	-	-	-	-	3,160,258
Member contributions	467,129	-	-	-	-	-	467,129
Net investment income	1,175,099	10	-	-	-	-	1,175,109
Benefit payments and withdrawals	(4,235,644)	(76,606)	(2,083)	(2,682)	(4,047)	(3,073)	(4,324,135)
Payments to Other Retirement Systems	(7,142)	-	-	-	-	-	(7,142)
Transfers to VSFs	(11,918)	12	2,100	2,686	4,040	3,080	-
Administrative expenses	(54,635)	-	-	-	-	-	(54,635)
Other	4,140	-	-	-	-	-	4,140
Net change in plan fiduciary net position	497,287	(76,584)	17	4	(7)	7	420,724
Accrued transfers to VSFs	(30,000)	30,000	-	-	-	-	-
Plan fiduciary net position – beginning *	54,427,984	225,983	13	35	23	26	54,654,064
Plan fiduciary net position – ending (b) **	54,895,271	179,399	30	39	16	33	55,074,788
Employers' net pension liability – ending (a)-(b)	\$ 19,020,360	\$ 1,122,619	\$ 17,007	\$ 22,877	\$ 32,892	\$ 25,019	\$ 20,240,774
Plan fiduciary net position as a percentage of the total pension liability	74.27%	13.78%	0.18%	0.17%	0.05%	0.13%	73.13%
Covered payroll	\$ 12,314,958	N/A	N/A	N/A	N/A	N/A	\$ 12,314,958
Employers' net pension liability as a percentage of covered payroll	154.45%	N/A	N/A	N/A	N/A	N/A	164.36%

**Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.**

\* Includes an adjustment of \$(351,463,000).

\*\*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the Funds' final fiduciary net position.

SCHEDULE 1

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
 SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS  
 (In thousands)

June 30, 2014	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	\$ 1,783,734	\$ 23,329	\$ -	\$ -	\$ -	\$ -	\$ 1,807,063
Interest	4,825,904	77,397	1,267	1,655	2,416	1,820	4,910,459
Changes of benefit terms	-	-	-	-	-	-	-
Differences between expected and actual experience	-	-	-	-	-	-	-
Changes of assumptions	-	-	-	-	-	-	-
Benefit payments and withdrawals	(3,990,569)	-	(2,187)	(2,782)	(4,054)	(3,089)	(4,002,681)
Net change in total pension liability	2,619,069	100,726	(920)	(1,127)	(1,638)	(1,269)	2,714,841
Total pension liability – beginning	69,119,408	1,082,338	19,169	25,006	36,508	27,524	70,309,953
Total pension liability – ending (a)	71,738,477	1,183,064	18,249	23,879	34,870	26,255	73,024,794
Plan fiduciary net position:							
Employer contributions	3,114,068	-	-	-	-	-	3,114,068
Member contributions	447,689	-	-	-	-	-	447,689
Net investment income	8,262,467	20	-	-	-	-	8,262,487
Benefit payments and withdrawals	(3,990,569)	-	(2,187)	(2,782)	(4,054)	(3,089)	(4,002,681)
Payments to Other Retirement Systems	(7,228)	-	-	-	-	-	(7,228)
Transfers to VSFs	(12,125)	-	2,168	2,797	4,070	3,090	-
Administrative expenses	(50,431)	-	-	-	-	-	(50,431)
Other	4,881	-	-	-	-	-	4,881
Net change in plan fiduciary net position	7,768,752	20	(19)	15	16	1	7,768,785
Accrued transfers to VSFs	(190,000)	190,000	-	-	-	-	-
Plan fiduciary net position – beginning	47,200,695	35,963	32	20	7	25	47,236,742
Plan fiduciary net position – ending (b) *	54,779,447	225,983	13	35	23	26	55,005,527
Employers' net pension liability – ending (a)-(b)	\$ 16,959,030	\$ 957,081	\$ 18,236	\$ 23,844	\$ 34,847	\$ 26,229	\$ 18,019,267
Plan fiduciary net position as a percentage of the total pension liability	76.36%	19.10%	0.07%	0.15%	0.07%	0.10%	75.32%
Covered payroll	\$ 12,183,011	N/A	N/A	N/A	N/A	N/A	\$ 12,183,011
Employers' net pension liability as a percentage of covered payroll	139.20%	N/A	N/A	N/A	N/A	N/A	147.90%

Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.

\*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the Funds' final fiduciary net position.



SCHEDULE 2

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
 QUALIFIED PENSION PLAN  
 SCHEDULE OF CITY CONTRIBUTIONS

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contributions	\$ 3,377,024	\$ 3,328,193	\$ 3,365,454	\$ 3,160,258	\$ 3,114,068	\$ 3,046,845	\$ 3,017,004	\$ 2,387,216	\$ 2,197,717	\$ 2,150,438
Contributions in relation to the actuarially determined contributions	<u>3,377,024</u>	<u>3,328,193</u>	<u>3,365,454</u>	<u>3,160,258</u>	<u>3,114,068</u>	<u>3,046,845</u>	<u>3,017,004</u>	<u>2,387,216</u>	<u>2,197,717</u>	<u>2,150,438</u>
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered payroll	<u>12,834,130</u>	<u>12,555,242</u>	<u>12,336,979</u>	<u>12,314,958</u>	<u>12,183,011</u>	<u>11,954,975</u>	<u>11,812,858</u>	<u>11,465,975</u>	<u>10,977,607</u>	<u>10,454,244</u>
Contribution as a percentage of covered payroll	<u>26.31 %</u>	<u>26.51 %</u>	<u>27.28 %</u>	<u>25.66 %</u>	<u>25.56 %</u>	<u>25.49 %</u>	<u>25.54 %</u>	<u>20.82 %</u>	<u>20.02 %</u>	<u>20.57 %</u>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
QUALIFIED PENSION PLAN  
SCHEDULE OF CITY CONTRIBUTIONS**

**Notes to Schedule:**

The above actuarially determined contributions were developed using a One-Year Lag Methodology, under which the actuarial valuation determines the employer contribution for the second following fiscal year (e.g. Fiscal Year 2018 contributions were determined using an actuarial valuation as of June 30, 2016). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009- June 30, 2007	
Actuarial cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Frozen Initial Liability <sup>1</sup>	
Amortization method for Unfunded Actuarial Accrued Liabilities:									
Initial Unfunded	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	NA <sup>2</sup> NA <sup>2</sup>	
Post-2010 Unfunded	16 years (closed) NA	17 years (closed) 1 years (closed)	18 years (closed) 2 years (closed)	19 years (closed) 3 years (closed)	20 years (closed) 4 years (closed)	21 years (closed) 5 years (closed)	22 years (closed) NA	NA <sup>2</sup> NA <sup>2</sup>	
Remaining amortization period:									
Initial Unfunded	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	15 years (closed)	NA <sup>2</sup>	
2011 Actuarial Gains/Losses	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA <sup>2</sup>	
2012 Actuarial Gains/Losses	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA <sup>2</sup>	
2013 Actuarial Gains/Losses	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA <sup>2</sup>	
2014 Actuarial Gains/Losses	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA	NA <sup>2</sup>	
2015 Actuarial Gains/Losses	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 1989.
Actuarial Asset Valuation (AAV) Method <sup>3</sup>	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	8.0% per annum, gross investment expenses	
Actuarial assumptions: Assumed rate of return <sup>4</sup>	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2006	
Post-retirement mortality	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2006	
Active service; withdrawal, death, disability, service retirement	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	
Salary increases <sup>4</sup>	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.5% per annum for Auto COLA, 2.5% per annum for Escalation	1.3% per annum	
Cost-of-Living Adjustments <sup>4</sup>									

<sup>1</sup> Under this actuarial cost method, the initial liability was reestablished as of June 30, 1999, by the Entry Age Actuarial Cost Method but with the unfunded actuarial accrued liability (UAAL) not less than \$0. The financial results using this Frozen Initial Liability Actuarial Cost Method are the same as those that would be produced using the Aggregate Actuarial Cost Method.

<sup>2</sup> In conjunction with Chapter 85 of the Laws of 2000, there is an amortization method. However, the June 30, 1999 UAAL for the OPP equaled \$0 and no amortization period was required.

<sup>3</sup> As of the June 30, 2014 (Lag) valuation, the AAV is constrained to be no more than 20% from the Market Value

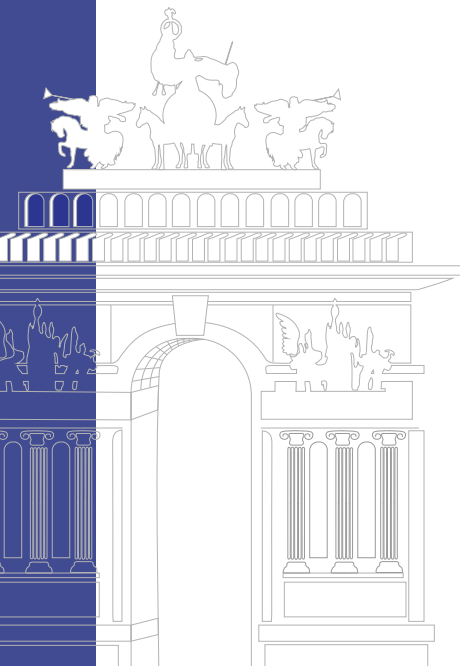
<sup>4</sup> Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
QUALIFIED PENSION PLAN  
SCHEDULE OF INVESTMENT RETURNS**

The following table displays annual money-weighted rate of return, net of investment expense, for the Funds for each of the past five fiscal years:

<u>Fiscal year ended</u>	<u>QPP</u>	<u>COVSF</u>
June 30, 2018	8.61%	1.63%
June 30, 2017	12.99%	0.64%
June 30, 2016	1.45%	0.19%
June 30, 2015	3.10%	0.03%
June 30, 2014	17.01%	0.06%

Note: In accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.



**Additional Supplementary Information**  
**SCHEDULE OF INVESTMENT EXPENSES**  
Year Ended June 30, 2018

**Investment Expenses Paid from the Investment Earnings of the Plan**

Fees Paid to Investment Managers for FY 2018 Services <sup>1</sup>	\$ 180,525,340
--------------------------------------------------------------------	----------------

Fees Paid to Investment Consultants <sup>1</sup>	3,769,671
--------------------------------------------------	-----------

Investment-related Legal Fees <sup>1</sup>	405,499
--------------------------------------------	---------

<b>Fees Paid to Investment Managers and Consultants</b>	<b>184,700,510</b>
---------------------------------------------------------	--------------------

Private Equity Organizational Costs	13,064,536
-------------------------------------	------------

Real Estate Partnership Organizational Costs	9,510,109
----------------------------------------------	-----------

Alternative Opportunity & Global Fixed Organizational Costs	1,820,851
-------------------------------------------------------------	-----------

Foreign Taxes Withheld	26,456,516
------------------------	------------

Reimbursement to NYC Comptroller's Office for Investment Expenses Paid	4,203,498
------------------------------------------------------------------------	-----------

Miscellaneous Investment Expenses	2,061,778
-----------------------------------	-----------

<b>Total Investment Expenses Paid Directly by the Plan</b>	<b>241,817,798</b>
------------------------------------------------------------	--------------------

Fees Related to Securities Lending Transactions	3,008,835
-------------------------------------------------	-----------

<b>Total Investment Expenses and Fees Paid Directly by the Plan</b>	<b>244,826,633</b>
---------------------------------------------------------------------	--------------------

Total Paid by the NYC Comptroller's Office	2,250,502
--------------------------------------------	-----------

<b>Total Investment Expenses and Fees</b>	<b>247,077,135</b>
-------------------------------------------	--------------------

Note:

1) For details, see Schedule of Fees Paid to Investment Managers and Consultants beginning on Page 144.

**Additional Supplementary Information**  
**SCHEDULE OF ADMINISTRATIVE EXPENSES**  
 Year Ended June 30, 2018

<b>Personal Services</b>	Employee Compensation	<b>\$ 40,444,145</b>
	Consultants <sup>1</sup>	3,415,393
<b>Professional Services</b>	Medical Board and Medical Consultants	815,549
	Steno for Medical and Trustees' Boards	<u>79,485</u>
		<b>4,310,427</b>
	Telephone	493,009
<b>Communication</b>	Postage	455,934
	Printing	<u>123,134</u>
		<b>1,072,077</b>
<b>Rentals</b>	Office and Storage Space	<b>6,348,888</b>
	Software, Licenses, and Support	2,609,197
	Office Supplies and Services	1,736,849
<b>Other</b>	Facilities Services	1,376,354
	Equipment Maintenance	1,281,153
	Office and Data Processing Equipment	<u>509,680</u>
		<b>7,513,233</b>
<b>NYCERS' Direct Expenses</b>		<b>59,688,770</b>
	Financial Information Services	5,179,737
<b>Incurred by Other City Agencies</b>	Law Department	1,136,165
	Office of the Comptroller	884,379
	Office of Payroll Administration	399,284
	Office of Management and Budget	<u>172,548</u>
		<b>7,772,113</b>
<b>Total Administrative Expenses</b>		<b>67,460,883</b>

Note:

1) For details, see Schedule of Payments to Consultants on next page.

**Additional Supplementary Information**  
**SCHEDULE OF PAYMENTS TO CONSULTANTS**  
Year Ended June 30, 2018

Nature of Service	Firm	Fees
<b>Consultant Services</b>	Gartner Inc	\$ 575,000
	Deloitte & Touche LLP	225,000
	CWI Coaching and Consulting	184,693
	Column Technologies	72,900
	CEM Benchmarking	45,000
	The Predictive Index	32,797
	Compulink Technologies	26,056
	Jean North Brewer	17,200
	Image Access Corporation	16,000
	Executive Safety & Health Consultants Inc	15,000
	EFL Associates	13,021
	IBM	7,117
	Onsolve LLC	6,500
	MSA Security	3,020
	enChoice	(135,889)
	<b>Computer Services</b>	QED National
Granwood Inc		192,136
Elegant Enterprise Wide Solutions Inc		187,392
Msquare Systems Inc		176,186
UTC Associates Inc		175,482
Geomatrix Software Services Inc		174,672
Diaspark Inc		173,594
Spruce Technology Inc		171,951
Computer Management Resources Corporation		167,880
Integrated Technology Solutions & Services Inc		161,029
Trigyn Technologies Inc		110,848
Infojini Inc		101,985
Astro Tech		14,420
CNC Consulting Inc	9,880	
<b>Architectural Services</b>	Mancini Duffy	270,000
<b>Mechanical and Electrical Engineering</b>	Syska Hennessy Group	20,000
	Cosentini	(10,160)
<b>Total Payment to Consultants</b>		<b>3,415,393</b>



# PART 3 INVESTMENT SECTION





## REPORT ON INVESTMENT ACTIVITY AND POLICIES

### Investment Policies and Objectives

The purpose of the New York City Employees' Retirement System is to provide its members the benefits to which they are legally entitled. The funds necessary to finance these benefits are accumulated through the contributions of the members and participating employers and the investment earnings of the Plan.

The Plan's Board of Trustees adopts investment policies. The Board is composed of eleven members: the Mayor's representative, who is the chairperson; the City Comptroller; the Public Advocate; the heads of the three unions with the largest number of participating employees, which are District Council 37-AFSCME, Transport Workers Union Local 100, and the International Brotherhood of Teamsters; and the five Borough Presidents. The Board creates the overall investment philosophy under which the Plan's funds are invested and, in defining the investment objectives, develops a framework under which specific objectives are established with regard to allocating the assets of the Plan among the various investment types. The following is a brief outline of the Plan's philosophy and objectives:

- In order for the Plan to meet its responsibility of providing its members with their legally entitled retirement and other benefits, the level of investment risk should be prudent and not jeopardize the Plan's financial stability. The Plan's assets must be protected from severe adverse market conditions and wide fluctuations in investment results.
- Since higher investment returns are generally associated with a certain amount of risk, it is reasonable and justified to assume a moderate level of risk in order to strengthen long-term results.
- Diversification fundamentally reduces the overall portfolio risk. This is achieved by allocating funds among different asset categories and then, within each category, having a broad representation of industries and companies. A majority of the portfolio is invested in a wide variety of domestic stocks and bonds. The Policy Mix consists of 29.0% in U.S. equities, 20.0% in an International Equity Fund involving only New York City pension plans, 33.0% in U.S. fixed income, and 18.0% in alternative investments, which includes private equity, real estate, and infrastructure investments. Public equity investments are allocated among actively and passively managed components, market sectors, and approaches that focus on companies of various size capitalizations. Fixed-income securities are primarily allocated among government, government guaranteed mortgage-backed, and corporate securities. The Plan also invests a portion of its fixed-income allocation in inflation-linked treasury securities. As noted in the Asset Allocation chart on page 140, over the last six years, U.S fixed-income investments have increased as a percentage of the overall portfolio, reducing the Plan's concentration in U.S. equity securities.
- Since retirement benefits are paid on a monthly basis, and other payments such as loans, refunds, and death benefits are made weekly, the liquidity of the portfolio must be considered. The cash flow from employer contributions, dividends, and interest must be managed so that benefits can be paid in a timely manner. A portion of the portfolio is kept in short-term investments to assure that this is so.
- Achieving long-term results is a chief objective for an institution such as a retirement system that is accumulating resources for liabilities that are primarily due in the distant future.

- As has been the case for several years, the Plan is continuing to increase its holdings of economically targeted investments (ETIs). ETIs are investments that provide risk-adjusted market rates of return, while providing additional benefits to the geographic target area, which includes the five boroughs and the six New York State counties where City employees are permitted to live (Nassau, Orange, Putnam, Rockland, Suffolk, and Westchester). With the Plan financing the underlying mortgages of low-, moderate-, and middle-income housing, residents have benefited from the increased access to affordable housing, as well as from the economic effect of the construction industry jobs that have been created. During fiscal year 2018, the ETI Plan issued additional investments and commitments for new loans to finance the rehabilitation or new construction of individual multi-family projects through its Public/Private Apartment Rehabilitation program. The Plan maintained its investment in the Access Capital Strategies with RBC Global Asset Management, which invests in mortgage-backed securities comprised of loans screened for anti-predatory lending compliance. The loans can be issued to single-family homeowners making below 200% of the Area Median Income and includes a veterans housing target. In addition, the Plan maintained its separately managed account with the AFL-CIO Housing Investment Trust to invest in union-constructed, affordable multi-family mortgages and bonds. The Plan also maintains an investment in the CPC construction loan facility. The construction loans are for low- and moderate-income housing.
- Investments are only made in accordance with the governing statutes of the New York City Administrative Code and the New York State Retirement and Social Security Law.
- The Board also determines the criteria used in evaluating the investment advisors. While the Board utilizes an investment consultant to provide technical support in evaluating asset mix and its investment advisors, Board members take a very active role in determining the direction that the Plan is taking towards achieving its objectives. In addition, as well as being a Board member, the City Comptroller is the custodian of the funds of the Plan and oversees all of the City's pension trust funds. The Comptroller's Office is the avenue by which the Board's directives are implemented. The Comptroller's Office manages the actual flow of funds to the investment advisors, and it assures that the investments recommended by the advisors meet the legal restrictions for plan investments. It also conducts its own performance analysis of individual advisors and of the different investment categories. The Comptroller is responsible for cash management related to the Plan and provides various cash receipt and cash disbursement services to the Plan.

## Investment Accounting

Investments are reported at fair value. Securities purchased pursuant to agreements to resell are carried at the contract price, exclusive of interest, at which the securities will be resold. Fair value is defined as the quoted market value at the end of the last trading day of the period, except for the International Investment Funds (the "IIF") and Alternative Investment Funds (the "ALTINVF"). The IIF are private funds of publicly traded securities which are managed by various investment managers on behalf of the Plan. Fair value is determined by Plan management based on information provided by the various investment managers. The investment managers determine fair value using the last available quoted price for each security owned, adjusted by any contributions to or withdrawals from the Plan during the period. The ALTINVF are investments for which exchange quotations are not readily available and are valued at estimated fair value as determined in good faith by the General Partner (GP). These investments are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results and other factors deemed relevant by the GP. Fair value is determined by Plan management based on information provided by the various GPs after review by an independent consultant and the custodian bank for the fund.

Purchases and sales of securities are recorded on the trade date.

Dividend income is recorded on the ex-dividend date. Interest income is accrued as earned.

## Investment Criteria

The criteria for non-equity investments are as follows:

Fixed-income investments may be made only in U.S. Government securities, securities of government agencies backed by the U.S. Government, securities of companies rated BBB or better or securities rated below BBB (up to 10% of the total asset allocation) by both Standard & Poor's Corporation and Moody's Investors' Service, or any bond on the list of Legal Investments for New York Savings Banks as published by the Department of Financial Services.

Short-term investments may be made only in the following instruments:

- U.S. Government securities or government agencies' securities which are fully guaranteed by the U.S. Government.
- Commercial paper rated A1 or P1 or F1 by Standard & Poor's Corporation or Moody's Investors' Service, or Fitch, respectively.
- Repurchase agreements collateralized in a range of 102% to 105% of matured value, purchased through primary dealers of U.S. Government securities.
- Investments in bankers' acceptances, certificates of deposit, and time deposits are limited to banks with worldwide assets in excess of \$50 billion that are rated within the highest categories of the leading bank rating services and selected regional banks which are also rated within the highest categories.

The criterion for equity investments is that they may consist only of those stocks that meet the qualifications of the New York State Retirement and Social Security Law, the New York State Banking Law, and the New York City Administrative Code.

In addition, investments of up to 25.0% of total pension fund assets may be made in instruments not specifically covered by the New York State Retirement and Social Security Law.

No investment in any one corporation may represent more than either 2% of the Plan net assets or 5% of the corporation's total outstanding issues.

Cash deposits are insured by the Federal Deposit Insurance Corporation for a maximum of \$250,000 per plan member and are, therefore, fully insured.



## Investment Returns

Over time, the Plan's returns on investments have generally constituted the most significant component of total Plan income, whether that is positive or negative for a given year. During Fiscal Year 2018 the net investment income earned by the portfolio, including interest and dividends, contributed \$5.2 billion to the Plan's revenue, which was a decrease from the \$7 billion in net investment income that the portfolio earned in Fiscal Year 2017. The Table of Revenue by Source on page 206 outlines the contributions to Plan revenue from investment earnings as well as the contributions of employees and employers.

It is important that in the long term that the value of the Plan's investment portfolio continues to grow and generate an adequate return, so that the funding of the Plan does not become an undue burden to the participating employers. To the extent that the investment portfolio provides a sufficiently high return for the Plan, the amount necessary to be provided by employer contributions is decreased. The goal is to maintain a strong diversified investment portfolio that will provide a significant percentage of the long-term funding required to support benefit payments into the future.

The total fair value of the Plan's investment portfolio as of June 30, 2018 was \$65.4 billion. This excludes securities lending collateral of \$9.9 billion. This detailed asset allocation is shown in the Investment Summary on page 138.

The total return on the investment portfolio during Fiscal Year 2018 was 8.56%, which is higher than the NYCERS' Policy Benchmark of 7.84%. Domestic equities, which comprise 27.5% of the total portfolio, returned 14.71%, slightly lower than the Russell 3000 Index of 14.78%. The majority of the domestic equity portfolio is passively managed, with the remaining being actively managed by various managers with diverse investment strategies, such as specializations in value, growth, small capitalization stocks, or emerging markets.

The international equity portfolio is externally managed as part of a fund that only includes NYC retirement systems as shareholders. It makes up 20.3% of the total portfolio. The non-US equities portion of the portfolio returned 11.15%, higher than the MSCI World ex USA IMI NR Index of 7.82%. The emerging markets portion returned 1.57%, lower than the FTSE Custom NYCERS All Emerging Index of 2.30%.

The total fixed-income segment, constituting 36.7% of the portfolio, returned 1.29%. The structured fixed-income segment returned -0.34%, as compared to the NYC Core Plus Five Index of -0.48%. The high-yield fixed-income segment returned 1.65% as compared to the FTSE BB & B Index of 2.42%.

The alternative investment segment accounted for 15.5% of the investment portfolio. This segment is comprised primarily of private equity, which returned 17.83%, and private real estate, which returned 12.19%. The corresponding index performance relating to these components is published in the Schedule of Investment Results on page 143.

All investment results are time-weighted rates of return that are reported net of fees, and are based on market values.

Listings of the Plan's investment securities are available upon request from the NYC Comptroller's Office.

The Finance Division of the Plan has prepared this Report on Investment Activity and Policies. It is based on the investment policies of the Plan's Board of Trustees, New York State regulations governing the Plan, documents provided by the NYC Comptroller as the custodian of the Plan, and the Plan's internal documents.

## INVESTMENT SUMMARY (QPP & VSF)

June 30, 2018

Type of Investment	Market Value (in thousands)	Percent of Total Market Value
<b>US Equity</b>	<b>\$ 17,979,085</b>	<b>27.5%</b>
<b>US Fixed Income</b>		
Short Term Investments <sup>1</sup>	1,582,680	2.4%
Long Term Bonds - U.S. Government	11,612,008	17.8%
Long Term Bonds - Corporate	6,082,292	9.3%
Collective Trust Funds - Mortgages	704,148	1.1%
Collective Trust Funds - Fixed Income	1,139,185	1.7%
Collective Trust Funds - TIPS	2,858,313	4.4%
<b>Total US Fixed Income</b>	<b>23,978,626</b>	<b>36.7%</b>
<b>International Equity</b>	<b>13,315,724</b>	<b>20.3%</b>
<b>Alternative Investments</b>		
Private Equity Holdings	10,110,096	15.4%
Hedge Fund	66,675	0.1%
<b>Total Alternative Investments</b>	<b>10,176,771</b>	<b>15.5%</b>
<b>Total Investments<sup>2</sup></b>	<b>65,450,206</b>	<b>100.0%</b>

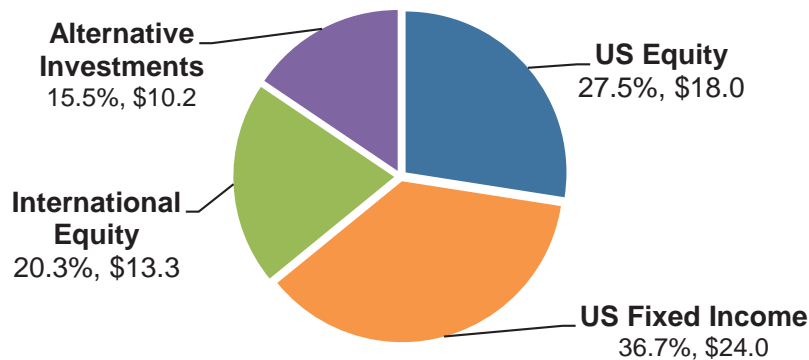
*Notes:*

1) Includes \$213.478 million held separately by the Correction Officers' Variable Supplement Fund.

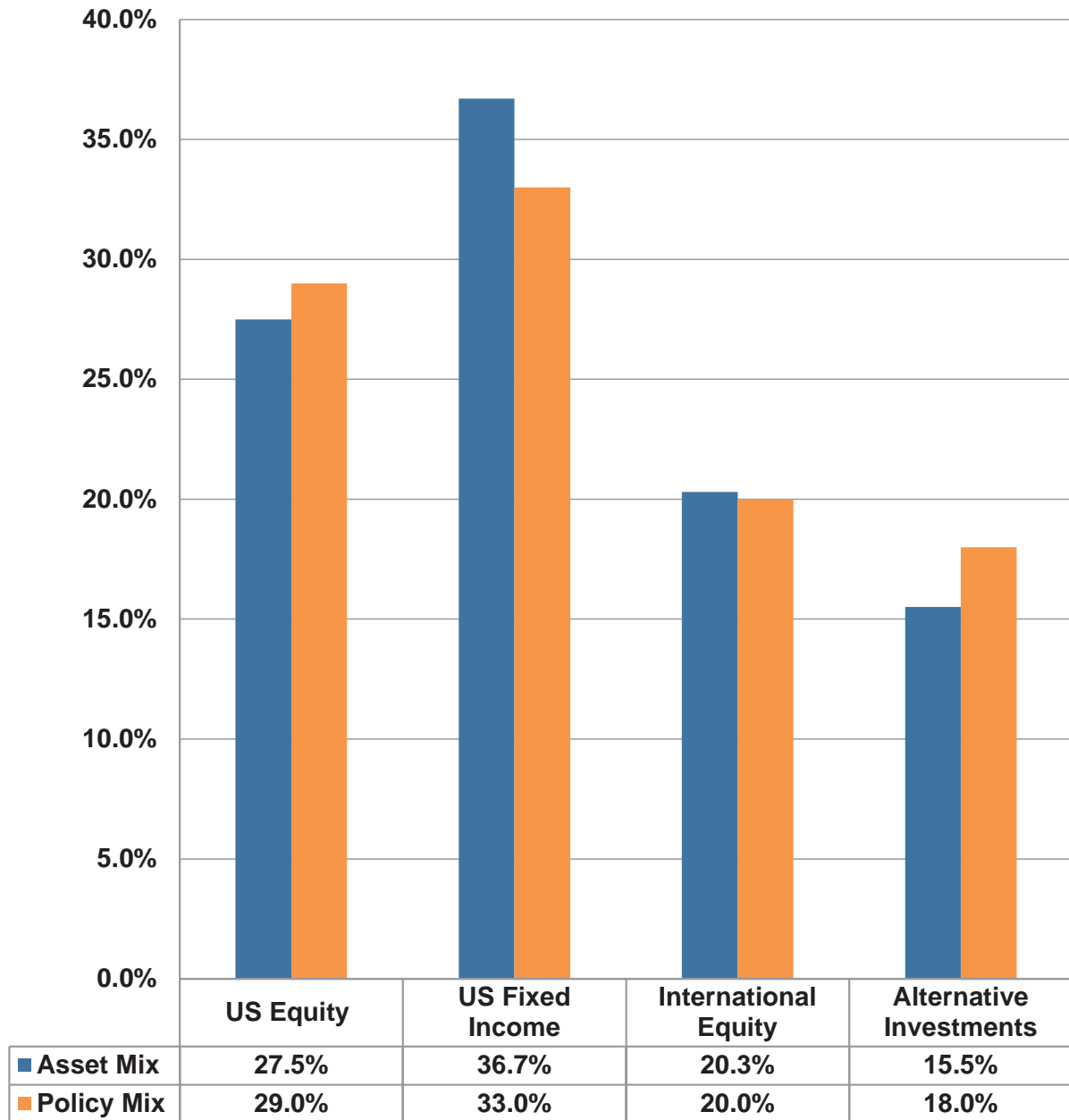
2) Excludes \$9.918 billion in collateral from securities lending.

### TOTAL INVESTMENT ASSET ALLOCATION

June 30, 2018  
(in billions)



## COMPARISON OF ASSET ALLOCATION AND POLICY MIX June 30, 2018

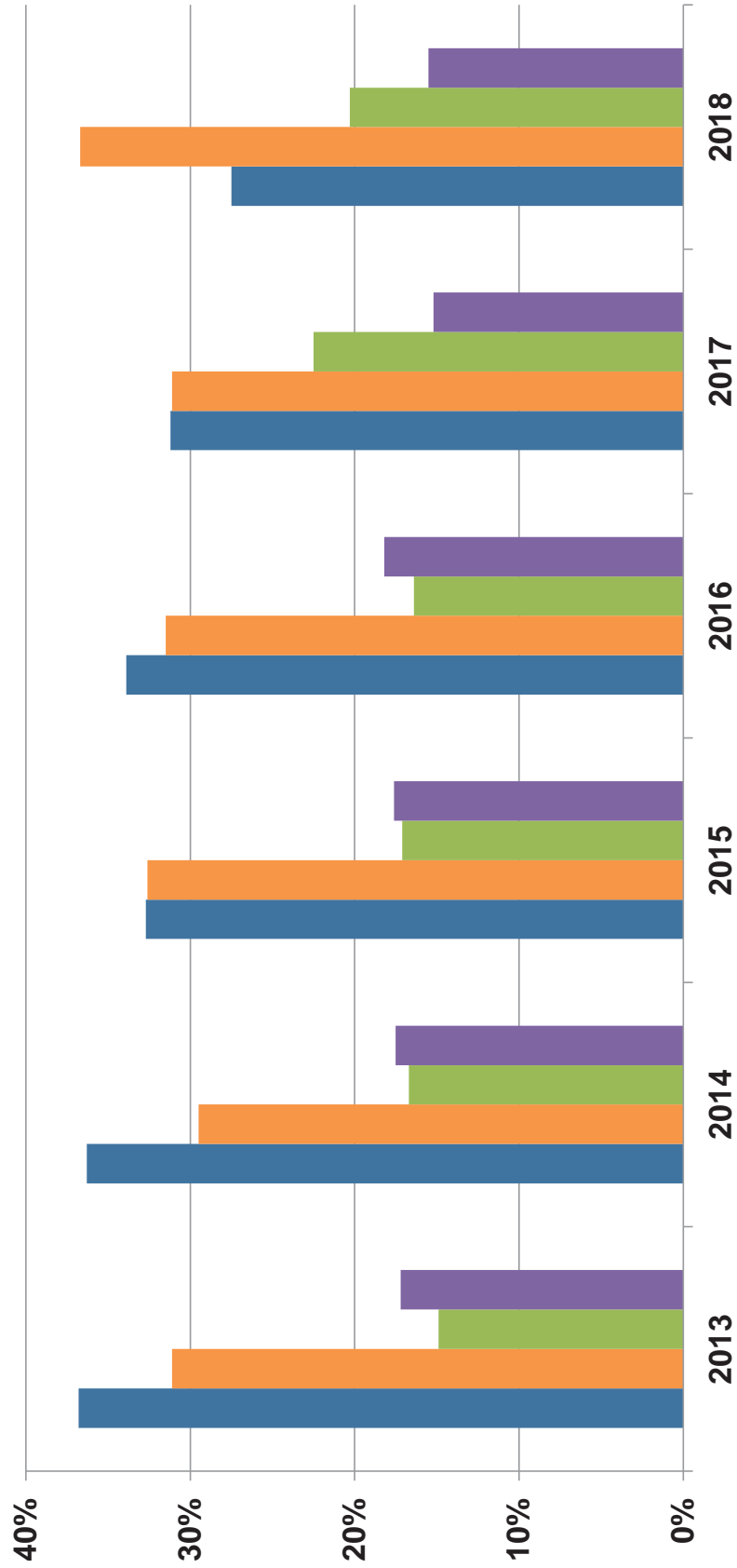


*Note: Percentages exclude collateral from securities lending.*



### ASSET ALLOCATION June 30, 2013 - June 30, 2018

■ US Equity ■ US Fixed Income ■ International Equity ■ Alternative Investments



**LIST OF LARGEST EQUITY HOLDINGS**  
(at Fair Value)  
June 30, 2018

	Security	Shares	Fair Value	Percent of Domestic Equities
1	Apple Inc	3,099,091	\$ 573,672,735	3.19%
2	Microsoft Corporation	4,518,141	445,533,884	2.48%
3	Amazon.com Inc	224,192	381,081,562	2.12%
4	Alphabet Inc	338,146	379,488,878	2.11%
5	Facebook Inc	1,313,664	255,271,188	1.42%
6	J.P. Morgan Chase & Company	2,242,671	233,686,318	1.30%
7	Exxon Mobil Corporation	2,782,297	230,179,431	1.28%
8	Berkshire Hathaway Inc	1,144,978	213,710,144	1.19%
9	Johnson & Johnson Company	1,652,250	200,484,015	1.12%
10	Wells Fargo & Company	2,918,315	184,050,101	1.02%
11	Bank Of America Corporation	6,097,708	181,583,640	1.01%
12	Pfizer Inc	4,435,005	160,901,981	0.89%
13	Intel Corporation	3,169,602	157,560,915	0.88%
14	Chevron Corporation	1,220,855	154,352,698	0.86%
15	AT&T Inc	4,782,370	153,561,901	0.85%
16	UnitedHealth Group Inc	592,881	145,457,425	0.81%
17	Verizon Communications Inc	2,814,293	141,587,081	0.79%
18	Home Depot Inc	722,256	140,912,146	0.78%
19	Visa Inc	984,807	130,437,687	0.73%
20	Cisco Systems Inc	3,026,794	130,242,946	0.72%
21	Procter & Gamble Company	1,636,085	127,712,795	0.71%
22	Citigroup Inc	1,857,012	124,271,243	0.69%
23	iShares Russell 1000 ETF	801,149	121,758,625	0.68%
24	Boeing Company	342,217	114,817,226	0.64%
25	Merck & Company Inc	1,847,505	112,143,554	0.62%
26	International Business Machines Corporation	753,548	105,270,656	0.59%
27	Coca-Cola Company	2,386,491	104,671,495	0.58%
28	Master Card Inc	506,463	99,530,109	0.55%
29	PepsiCo Inc	907,056	98,751,187	0.55%
30	The Walt Disney Company	922,887	96,727,786	0.54%
31	Walmart Inc	1,103,117	94,481,971	0.53%
32	Comcast Corporation	2,861,403	93,882,632	0.52%
33	Netflix Inc	229,610	89,876,242	0.50%
34	DowDuPont Inc	1,360,239	89,666,955	0.50%
35	Abbvie Inc	966,148	89,513,612	0.50%
36	General Electric Company	6,503,029	88,506,225	0.49%
37	Oracle Corporation	1,931,868	85,118,104	0.47%
38	McDonald's Corporation	513,971	80,534,116	0.45%
39	Amgen Inc	424,711	78,397,403	0.44%
40	Nvidia Corporation	320,288	75,876,227	0.42%
	Total		6,565,264,839	36.52%

Note: A full list of the plan's securities is available upon request from the NYC Comptroller's Office.



**LIST OF LARGEST BOND HOLDINGS**  
(at Fair Value)  
June 30, 2018

	Security Description	Fair Value	Percent of Long Term Fixed Income
1	U.S. Treasury Securities	\$ 9,390,110,286	53.07%
2	FNMA Securities	953,024,843	5.39%
3	GNMA Securities	566,110,513	3.20%
4	Federal Home Loan Mortgage Corporation	473,778,881	2.68%
5	Community/Economic Development Bonds	127,468,585	0.72%
6	Federal Home Loan Bank	100,157,350	0.57%
7	Citigroup & Subsidiaries	82,696,644	0.47%
8	The Tennessee Valley Authority	72,009,302	0.41%
9	Charter Communications Operating LLC	64,148,771	0.36%
10	Goldman Sachs Group	60,214,563	0.34%
11	J.P. Morgan Chase & Subsidiaries	58,723,120	0.33%
12	Bank of America Corporation	55,681,558	0.31%
13	Morgan Stanley	54,896,327	0.31%
14	HCA Inc	53,645,536	0.30%
15	Sprint Corporation	48,144,487	0.27%
16	Dish DBS Corporation	42,846,208	0.24%
17	Navient Corporation	36,290,729	0.21%
18	Tenet Healthcare Corporation	34,445,927	0.19%
19	NRG Energy Inc	33,351,418	0.19%
20	Verizon Communications Inc	32,043,658	0.18%
21	Bausch Health Companies Inc	31,619,307	0.18%
22	Vereit Inc	28,189,926	0.16%
23	T-Mobile US Inc	28,018,065	0.16%
24	CVS Health Corporation	27,929,440	0.16%
25	Frontier Communications Corporation	27,859,438	0.16%
26	Anheuser-Busch InBev	27,265,151	0.15%
27	Anthem Inc	26,825,348	0.15%
28	Banco Santander, S.A. & Subsidiaries	26,497,733	0.15%
29	Wells Fargo & Company	26,383,842	0.15%
30	Capital One Financial Corporation	26,107,139	0.15%
31	Federal Farm Credit Banks	25,811,355	0.15%
32	Ford Company & Subsidiaries	25,459,596	0.14%
33	Apple Inc	24,947,489	0.14%
34	AT&T Inc	24,939,912	0.14%
35	Ares Capital Corporation	24,906,235	0.14%
36	Ally Financial Inc	24,608,552	0.14%
37	Lloyds Banking Group Plc	23,055,507	0.13%
38	CSC Holdings LLC	22,543,929	0.13%
39	General Motors Company	22,434,350	0.13%
40	Booking Holdings Inc	22,273,660	0.13%
	Total	12,857,464,678	72.68%

*Note: This table lists the issuers of NYCERS' 40 largest long term fixed income securities. For most issuers, the amount shown is comprised of multiple securities with various maturity dates and interest rates. A full list of the plan's securities is available upon request from the NYC Comptroller's Office.*

## SCHEDULE OF INVESTMENT RESULTS

### Time-Weighted Rates of Return

	Year Ended June 30 <sup>1</sup>			Trailing <sup>2</sup>		
	2018	2017	2016	3 Years	5 Years	10 Years
Total Portfolio	8.56%	12.99%	1.52%	7.82%	8.69%	7.08%
NYCERS' Policy Benchmark	7.84%	12.93%	2.28%	7.60%	8.61%	7.30%
<b>Managed by Outside Advisors</b>						
US Equity	14.71%	18.09%	1.68%	11.34%	12.92%	10.14%
Russell 3000 Index	14.78%	18.51%	2.14%	11.58%	13.29%	10.23%
International Equity (Non-US Equities)	11.15%	22.20%	-7.59%	8.15%	8.67%	4.05%
MSCI World ex USA IMI NR Index <sup>3</sup>	7.82%	20.67%	-9.33%	5.67%	7.12%	3.35%
International Equity (Emerging Markets)	1.57%	23.31%	-10.00%	4.37%	3.77%	2.46%
FTSE Custom NYCERS All Emerging Index	2.30%	22.20%	-7.71%	4.88%	3.85%	2.29%
Total Fixed Income	1.29%	3.14%	4.44%	3.03%	3.65%	5.35%
Fixed Income - Structured	-0.34%	0.34%	6.56%	2.20%	3.02%	4.88%
NYC - Core Plus Five Index	-0.48%	-0.21%	7.16%	2.10%	2.77%	4.38%
Fixed Income - Enhanced Yield	1.65%	11.62%	0.28%	4.75%	5.32%	7.70%
FTSE BB & B Index	2.42%	11.47%	0.83%	4.80%	5.07%	6.62%
Private Equity	17.83%	16.45%	6.36%	13.43%	13.54%	9.67%
NYC R3000 + 3% Lagged Index	17.19%	21.56%	2.65%	13.51%	16.21%	13.73%
Private Real Estate	12.19%	10.24%	12.95%	11.79%	12.91%	4.53%
NCREIF NFI-ODCE NET + 100 BP Index	8.54%	7.96%	11.90%	9.45%	11.12%	-
Hedge Funds	8.43%	2.49%	-3.58%	2.33%	3.53%	-
HFRI Composite + 1% Index	6.18%	7.54%	-4.50%	2.95%	4.49%	-
<b>In-House Portfolio</b>						
Short Term Investments	1.48%	0.72%	0.51%	0.91%	0.69%	0.85%

**Notes:**

1) For 2018, 2017, and 2016, the investment returns are reported net of fees.

2) For trailing 3, 5, and 10 years, the investment returns are reported gross of fees.

3) For 2017 and 2016, the benchmark was MSCI AC World ex US (Net) Index.

**SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS**  
Year Ended June 30, 2018

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
<b>Investment Managers' Fees</b>		
<b>Fixed Income</b>		
Advent (Convertible Bonds)	\$ 421,781	\$ 2,034,633
Barrow, Hanley, Mewhinney & Strauss (Credit Sector)	462,751	560,364
BlackRock (Corporate)	398,811	105,052
BlackRock (Government Sector)	2,117,454	930,957
BlackRock (Mortgage)	858,224	352,562
Fort Washington (Enhanced Yield)	124,860	282,717
GIA Partners LLC (Emerging Mgrs)	106,992	265,094
Goldman Sachs-TCW (Mortgage)	-	(125,000)
Hillswick Asset (Emerging Mgrs)	9,903	34,006
Integrity Fixed Income (Emerging Mgrs)	12,139	41,520
LM Capital-MTA (Oppt.Strategic/Envir Global)	295,453	452,796
Loomis Sayles (Enhanced Yield)	451,770	1,482,491
Neuberger Berman Fixed Income (Enhanced Yield)	405,564	1,489,785
Neuberger Berman Fixed Income (Mortgage Sector)	513,582	316,310
New Century Advisors-Core Plus (Emerging Mgrs)	27,290	94,096
Oaktree (Enhanced Yield)	380,726	1,533,568
Penn Capital Management (Enhanced Yield)	138,368	524,721
PIM Ramirez Asset (Emerging Mgrs)	38,747	133,227
Prudential (Corporate)	933,652	656,723
Pugh Capital Mangement-Core (Emerging Mgrs)	30,467	105,209
Shenkman Capital Management (Enhanced Yield)	202,620	714,898
Smith Breeden Associates-TCW (Mortgage)	340,167	597,427
SSGA 1-3 Treasury Inde (Gov't)	2,215,919	205,523
SSGA Int Gov Bond Inde (Gov't)	105,460	22,092
State Street Bank and Trust Co (Gov't)	2,276,907	993,303
Stone Harbor (Enhanced Yield)	232,786	869,245
T. Rowe Price (Corporate)	928,570	1,066,341
T. Rowe Price (Enhanced Yield)	601,052	2,027,893
Taplin Canida & Habacht (Corporate)	471,240	372,862
Victory (Convertible Bonds)	297,036	842,139
Wellington Management (Mortgage)	-	(176,000)
<b>Total Fixed Income</b>	<b>15,400,291</b>	<b>18,806,553</b>
<b>Domestic Equity</b>		
Amalgamated S&P 500	4,330,431	127,517
Attucks Asset Management (Emerging)	-	(420,000)
BlackRock Inst. R 1000 (Core)	14,827,595	83,775
BlackRock Inst. R 1000 (Growth)	2,499,231	84,834
BlackRock Inst. R 1000 VAL	2,378,715	80,442
Capital Prospects LLC (Emerging)	-	(125,000)
Ceredex SCV (Small Cap Value)	280,852	1,427,840
F.I.S. Fund Mgmt. (Emerging)	-	(300,000)
LEG - Altravue - SCV	15,762	93,277
LEG - Bowling - SCV	17,259.13	101,676
LEG - Bridge City - SCG	21,836.94	125,714

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## SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS

Year Ended June 30, 2018

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
LEG - Dean - SCV	\$ 21,550	\$ 127,857
LEG - Essex - SCG	19,579	113,539
LEG - Lisanti - SCG	12,504	21,631
LEG - Pacific - SCG	8,667	60,495
LEG - Transition	1	2,073
RAFI Enhanced Large Companies	1,790,665	2,150,282
RAFI Enhanced Small Companies	776,705	1,657,848
State Street (Russell 3000)	1,485,034	99,528
State Street (S&P 400 Mid Cap)	644,896	30,319
VTL S&P 500 (Large Cap)	333,272	389,305
Walden Asset Mgmt (Oppt. Strategic/Envir Global)	-	17,441
Wellington SCV (Small Cap Value)	216,002	1,579,392
<b>Total Domestic Equity</b>	<b>29,680,554</b>	<b>7,529,786</b>
<b>Private Equity</b>		
ACON Equity Partners III LP	9,565	112,744
Aisling Capital II LP	1,324	(127)
Aisling Capital III LP	9,958	84,934
Altaris Health Partners III LP	7,636	125,220
American Securities Partners VII LP	42,275	282,402
Ampersand 2006 LP	18,279	51,216
Ampersand 2011 LP	27,895	244,175
Apax Partners LLP	42,476	1,671,648
Apollo Investment Fd VI	24,725	104,785
Apollo Investment Fd VII	24,444	146,954
Apollo Investment Fund VIII	113,548	1,059,381
Ardian Secondary VI	53,501	435,586
Ardian-ASF VII	24,107	945,000
Ares Corp Opportunities Fund III	72,634	250,930
Ares Corp Opportunities Fund IV	108,659	357,807
Ares Corp Opportunities Fund V	17,566	1,330,000
Arsenal Capital Partners II	9,959	15,468
Avista Capital Partners	7,538	61,669
AXA Secondary Fund V BLP	29,609	244,972
BC European Capital IX	120,299	979,640
BC European Capital X	20,477	1,080,029
BC European Capital X - SC	6,933	170
BDCM Opportunity Fd III	54,800	606,761
BDCM Opportunity Fund II	26,699	159,241
Blackstone Capital Partners V	12,801	6,829
Blackstone Capital Partners VI	113,496	494,109
Bridgepoint Europe IV	14,967	109,685
Bridgepoint Europe V	38,636	852,786
Bridgepoint Europe V SC	11,770	390
Capital Partners III	1,279	59,658
Capital Partners Private Equity Income Fund II LP	5,124	117,250
Carlyle Partners V	16,087	88,902

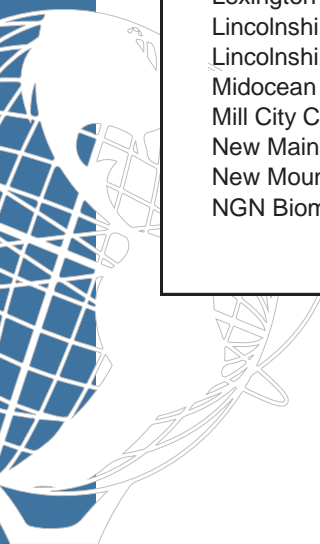
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## SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS

Year Ended June 30, 2018

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
Carlyle Partners VI	\$ 66,872	\$ 541,357
Carpenter Community Bancfund	8,328	96,716
Catterton Partners VI	26,401	299,494
Centerbridge Cap III	11,645	354,937
CO-Investment Partners Europe	7,178	68,779
Constellation Ventures III	8,278	92,568
Craton Equity Investors I LP	1,870	75,270
Credit Suisse Emerging Market Domestic Mgrs Fund	80,818	919,926
Crestview Partners II	41,887	324,742
Crestview Partners III	26,424	802,890
CVC Capital Partners VI	96,802	1,124,695
CVC Capital Partners VII	-	467,067
EQT VI LP	94,260	855,157
EQT VII LP	108,012	2,137,500
Fairview Capl Ptnrs III	22,568	174,128
Fairview Emerging Managers	45,170	40,689
First Reserve Fund XII	11,554	208,332
FS Equity Partners V	1,868	6,729
FS Equity Partners VI	39,423	53,746
FT Ventures Fd III	10,422	115,317
FTV Capital IV	19,210	265,578
FTV Capital V	3,280	430,000
GI Partners Fund III	11,120	51,560
Green Equity Investors VI	125,421	908,690
Green Equity Investors VII	23,634	1,370,274
Grey MT Ptnrs Fund III	3,487	94,391
GSO Capital Opportunities Fund	1,278	(2,275)
Halyard Capital II	5,483	36,149
ICV Partners IV LP	1,134	381,699
Incline Equity Partners III LP	7,991	24,920
InterMedia Partners VII	13,034	30,236
J.P. Morgan Fleming Tranche B	28,989	208,416
J.P. Morgan Investment Management	17,678	110,418
KKR Americas Fund XII LP	9,511	3,957,950
Landmark Equity Ptnrs XIV	34,489	744,473
Landmark Equity Ptnrs XV	29,095	750,000
Landmark Fd XIII	12,621	134,036
Levine Leichtman CAP Partners IV	12,170	151,886
Lexington Capital Partners VII	18,463	215,567
Lexington Capital Partners VIII	52,985	966,416
Lincolnshire Equity Fund III	21,139	291,077
Lincolnshire Equity Fund IV	20,432	155,507
Midocean Partners III	26,775	252,404
Mill City Capital	3,225	82,149
New Mainstream Capital II	6,460	48,392
New Mountain Partners III	72,684	121,514
NGN Biomed Opportunity II	11,818	125,738

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**SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS**  
**Year Ended June 30, 2018**

<b>Entity Name</b>	<b>Assets under Management (in thousands)</b>	<b>Fees (in dollars)</b>
NMS Fund III (New MainStream Capital III)	\$ 1,228	\$ 42,799
NYC-ERS-Platinum IV	33,827	49,017
Olympus Growth Fund VI	52,512	808,483
Onex Partners III	46,200	218,121
Paladin Homeland Security III	294	459,084
Palladium EQ Partners IV	42,004	183,590
Patriot Financial Partners II	8,241	150,000
Patriot Financial Partners III	606	182,609
PCGAM Clean Energy & Tech Fund	26,219	10,125
Pegasus Partners IV LP	11,018	165,855
Pegasus Partners V LP	31,701	189,355
Pine Brook Capital Partners	11,099	72,813
Quaker BioVentures II LP	6,951	157,185
Raine Partners II	10,131	360,000
Riverstone/Carlyle GLB EP IV	23,069	53,757
RLJ Equity Partners Fund 1	15,621	135,448
RRE Ventures III	1,316	(50,000)
RRE Ventures IV	41,615	155,271
Siris Capital Group LLC	19,387	439,007
Snow Phipps Group II	20,875	295,463
Snow, Phipps & Guggenheim	8,738	45,721
Starvest Partners II	17,492	87,335
Stellex Capital Management LP	8,676	339,363
Trident V LP A160	106,006	1,120,582
Trilantic Capital Partners IV	13,703	67,630
Trilantic Capital Partners V	55,954	694,366
Trilantic Capital Ptnrs III	1,014	377
US Power Fund II	43,283	386,093
US Power Fund III	39,222	572,103
Valor Equity Partners III	9,657	128,530
Valor Equity Partners IV	6,655	591,535
Vista Equity Partners III	10,025	53,314
Vista Equity Partners IV	80,213	854,144
Vista Equity Partners V	133,716	1,848,727
Vista Equity Partners VI	106,772	1,713,200
Vista Foundation Fund II	15,895	300,000
Warburg Pincus PE	10,787	374,970
Warburg Pincus PE XI	101,772	237,017
Warburg Pincus PE XII	99,635	1,968,584
Webster Capital Management LLC	11,327	209,153
Well Spring Capital Partners V	18,933	(495,000)
Welsh Carson Anderson & Stowe XI	23,623	124,232
Welsh Carson Anderson & Stowe XII (WCAS XII)	38,112	1,000,876
Yucaipa American Alliance Fund II	135,308	929,942
Yucaipa Corp Initiative II	25,074	139,308
<b>Total Private Equity</b>	<b>3,917,960</b>	<b>50,117,502</b>

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## SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS

Year Ended June 30, 2018

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
<b>Private Equity-Opport. &amp; Global Fixed Income</b>		
Angelo Gordon CT ST Partners	\$ 133,969	\$ 1,001,890
Apollo Centre St. Partnership LP	243,641	1,863,056
Brightwood Capital Fund III LP	23,637	105,000
Brightwood Capital Fund IV LP	15,931	1,258,973
Contrarian C A LLC	106,035	786,290
Fortress CTR ST Partners	134,315	1,513,994
Golden Tree OD MTA 111	198,958	1,325,755
ICG Centre St Partnership	51,051	183,256
KKR SP-OFI(KKR-NYC Credit)	36,550	113,312
Lone Star Fd VIII	35,535	181,755
Marathon CTR ST Partners	295,582	2,028,935
NYC-ERS-ARES Centre Street	159,311	1,695,966
Oak Hill Ctr. St. Partners	194,851	1,412,986
Oaktree OPP FD IX	80,607	1,393,709
Torchlight Investors	43,214	670,000
<b>Total Private Equity-Opport. &amp; Global Fixed Income</b>	<b>1,753,186</b>	<b>15,534,877</b>
<b>Private Real Estate</b>		
Actis GP LLP also known as Actis Energy IV	13,216	223,799
Almanac Realty Securities VII	34,994	525,849
Almanac Realty Securities VII-SideCar	8,454	16,004
AMB Alliance Fd III (Prologis Targeted US Logistics Fd)	39,477	198,902
Amer Value Ptnrs I	10,215	191,974
Apollo Europe III	3,432	50,745
Apollo Real Estate Fd V	9,883	106,871
Artemis Co-Investment	20,862	183,562
ASF VII Infrastructure	3,578	605,869
Avanath Capital (Avanath Aff Housing II)	8,045	106,414
Big Real Estate Fund I	3,125	39,275
Blackstone RE Europe IV	135,864	1,371,693
Blackstone RE PTN Europe III	24,999	300,405
Blackstone Real Estate Ptnrs VI	18,881	147,194
Blackstone Real Estate Ptnrs VII	145,281	1,262,494
Blackstone Real Estate Ptnrs VIII	79,410	1,887,500
Brookfield Infra Fund II	67,824	604,918
Brookfield Infra Fund III	18,334	896,350
Brookfield Property Group	100,493	739,570
Brookfield Strategic RE Part GP LLC	115,606	579,976
Capri Urban Investors	18,517	246,856
Carlyle Fund VII	61,106	582,958
Carlyle Property Investors GP	67,603	272,850
Carlyle R.P. Fd V	6,550	89,107
Carlyle R.P. Fd VI	19,659	85,985
Clarion Partners LLC (Lion Industrial Trust)	66,331	642,819
Colony Realty Ptnrs II	1,219	43,000
Divco Fund V Advisor LLC	16,256	484,529
Divco West FD IV	6,215	88,907

Continued on next page

## SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS

Year Ended June 30, 2018

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
DRA Advisors LLC	\$ 15,350	\$ 419,886
EMMES Interborough Fund LLC (NYC Vanbarton Interborough)	66,376	523,286
EQT Infrastructure III	14,794	1,309,147
Exeter Fd II LP	12,601	88,239
Exeter Value Fd IV	5,043	345,000
First Reserve Energy Infrastructure GP II	17,270	351,242
FRM Sandy Manager LLC	100,333	778,963
Global Infrastructure Prt. III	32,522	1,770,461
H/2 SO Manager IV LP	8,887	682,500
H/2 Spec Opportunity Fd II	16,916	309,682
H/2 Spec Opportunity Fd III	62,456	650,000
Heitman America RE Trust	235,009	1,433,614
Hudson Sandy Manager LLC	33,095	282,643
IFM Global infrastructure	99,286	965,310
J.P. Morgan Chase SP Fund	286,121	2,265,253
J.P. Morgan Chase SS Fund	121,602	1,904,599
Jamestown Premier Fund	37,282	231,296
KKR GI Inf. Fd II	57,008	382,733
KKR Real Estate Credit Opp Prtnrs Agg I	48,785	826,733
KKR Real Estate Partners Americas II LP	10,187	1,223,248
LaSalle US Property Fund	70,508	332,487
Lone Star RE Fd III	43,403	157,214
Metlife Core Property	60,604	335,511
Pramerica VI LP	17,733	139,902
Prisa	116,607	961,487
Prisa II	201,350	1,899,912
Prisa III	143,980	1,985,096
PW Real Estate Fund III LP	20,737	440,000
RREEF America II Inc	118,895	1,119,072
RREEF America III Inc	446	2,732
Silverpeak Legacy Partners III	5,299	62,554
Stockbridge Real Estate Fd	14,594	101,211
Taconic NY Inv Fd LP	3,470	16,288
The City Investment Fd	378	73,476
Thor Urban Property Fd II	19,773	152,865
Tristan European Property Inv	21,202	549,991
UBS Trumbull Property Fund (TPF)	288,998	1,961,942
USAA Eagle Real Estate Fund	59,634	306,376
Walton St Ref VI	20,396	244,238
Westbrook RE Fund X CO-INVEST	9,761	592,477
Westbrook Real Estate VII LP	12,865	132,235
Westbrook Real Estate VIII LP	10,058	105,806
<b>Total Private Real Estate</b>	<b>3,667,045</b>	<b>40,993,082</b>
<b>International Equity</b>		
Acadian (Emerging Markets)	788,142	2,685,157
Acadian (Small Cap)	451,350	1,476,230
Baillie Gifford (Growth)	810,915	4,329,680
Baillie Gifford Overseas Ltd (MTA)	1,307,890	3,313,981

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**SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS**  
Year Ended June 30, 2018

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
BlackRock-MSCI EM MKTS INDEX MTA	\$ 2,027,968	\$ 1,051,037
Causeway EAFE Large Cap Value	1,279,919	4,610,324
DFA (Emerging Markets)	807,219	3,448,461
Eaton Vance EM MTA 321 (Emerging Markets)	661,148	2,505,175
Generation GE (Opportunistic Strategic)	110,132	6,785,777
Pyramis EAFE Small Cap MTA	375,598	2,465,463
Sprucegrove (Value)	1,292,870	2,730,393
SSGA EAFE MTA 121 (Value)	2,009,069	233,180
SSGA MSCI EAFE Small Cap Index MTA	487,746	250,778
Total International Bivium	118,521	676,445
Total International FIS	124,466	392,785
Total International Leading Edge	134,590	733,088
Walter Scott EAFE Large Cap	1,258,732	3,820,704
<b>Total International Equity</b>	<b>14,046,275</b>	<b>41,508,658</b>
<b>Hedge Funds</b>		
Brevan Howard	53,804	242,358
Permal Asset Mgt-Citco Fund Serv (Curacao) NV	5,473	16,280
Perry Capital	8,706	87,095
<b>Total Hedge Funds</b>	<b>67,983</b>	<b>345,733</b>
<b>Mutual Fund - Mortgages</b>		
Access Capital Strategies	149,143	279,857
AFL-CIO Housing Investment Trust	305,906	1,235,491
<b>Total Mutual Funds - Mortgages</b>	<b>455,049</b>	<b>1,515,348</b>
<b>Treasury Inflation Protected Securities (TIPS)</b>		
BlackRock	634,956	348,622
State Street (Passive)	1,951,944	148,285
<b>Total TIPS</b>	<b>2,586,900</b>	<b>496,907</b>
<b>Mutual Fund - Domestic Equity</b>		
BlackRock Inst. R 2000 (Growth)	283,084	12,488
BlackRock Inst. R 2000 (Value)	69,828	3,161
<b>Total Mutual Funds - Domestic Equity</b>	<b>352,912</b>	<b>15,649</b>
<b>Mutual Fund - Fixed Income Bank Loan</b>		
Babson Capital Management MTA	305,479	1,016,351
Credit Suisse BL MTA	314,330	713,574
Guggenheim BL MTA	197,797	788,884
Invesco BL MTA	302,708	1,142,436
<b>Total Mutual Funds - Fixed Income Bank Loan</b>	<b>1,120,315</b>	<b>3,661,246</b>
<b>Total For All Investment Managers</b>	<b>73,048,469</b>	<b>180,525,340</b>

Continued on next page

**SCHEDULE OF FEES PAID TO INVESTMENT MANAGERS AND CONSULTANTS**  
**Year Ended June 30, 2018**

Entity Name	Assets under Management (in thousands)	Fees (in dollars)
<b>Consultant Fees</b>		
Aksia		\$ (61,921)
Burgiss		26,809
Callan Associates Inc		1,286,250
Courtland Partners Ltd		305,084
Ernst & Young		40,012
Foley & Lardner LLP		58,044
Global Trading Analytics		2,333
Institutional Shareholders Services		88,628
MERCER		83,037
MSCI BARRA LLC		336,735
Price Waterhouse Coopers		10,146
S&P Trucost Limited		5,712
Squire Patton Boggs LLP		38,971
Stepstone Group LLC		1,314,492
The Townsend Group		230,453
Zeno Consulting Group		4,887
<b>Total Consultant Fees</b>		<b>3,769,671</b>
<b>Legal Fees</b>		
Bryan Cave LLP		15,436
Cox, Castle & Nicholson LLP		73,472
CSC		136
Daypitney LLP		17,325
Foster, Pepper PLLC		47,546
Hitchcock Law Firm		600
Morgan, Lewis & Bockius LLP		177,640
Morris Nicolas Arsht & Tunnell LLP		1,320
Nixon Peabody LLP		13,830
Phillsbury Winthrop Shaw Pittman LLP		(7,386)
Reinhart Boerner Van Deuren		71,328
Seward Kissel		(5,746)
<b>Total Legal Fees</b>		<b>405,499</b>
<b>Total Fees FY 2018</b>		<b>184,700,510</b>

*Note: Investment managers' fees paid out of investment income.*

## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
ABG SECURITIES AS (STOCKHOLM)	37,800	\$ 394
ABLE NOSER	75,770	3,789
ALLEN & COMPANY LLC	9,373	271
ARQAAM CAPITAL LIMITED	175	6
ARQAAM CAPITAL SOUTH AFRICA (PTY)	43,605	52
ARQAAM SECURITIES LLC	140,094	707
AUTONOMOUS	1,500	30
AUTREPAT-DIV RE	1,940	124
BAADER BANK AG	3,334	247
BANCO ITAU SA	236,885	5,390
BANCO SANTANDER CENTRAL HISPANO	1,799,475	18,311
BANK J VONTOBEL UND CO AG	50,180	1,881
BANK OF AMERICA MERRILL LYNCH SECUR INC	163,637	2,443
BANK OF NOVA SCOTIA SCUSA	57,660	416
BANKHAUS HERMANN LAMPE	108,190	2,762
BARCLAYS CAPITAL	7,264,385	49,028
BARCLAYS CAPITAL INC	41,236	230
BARCLAYS CAPITAL INC/LE	7,865,429	40,030
BARCLAYS CAPITAL LE	798,364	12,624
BARCLAYS CAPITAL SECURITES LIMITED	2,800	121
BARRINGTON RESEARCH ASSOCIATES	17,847	535
BLOOMBERG TRADEBOOK LLC	1,336,582	17,233
BMO CAPITAL MARKETS	141,089	4,804
BNP PARIBAS SECURITIES (ASIA) LTD	67,946	641
BNP PARIBAS SECURITIES SERVICES	689,009	3,754
BNP PARIBAS SECURITIES SERVICES AUSTR BR	3,603,001	2,843
BNP PARIBAS SECURITIES SERVICES FRANCE	9,718,103	30,720
BNP PARIBAS SECURITIES SERVICES SA	78,429,599	61,351
BRADESCO SA CTVM	386,236	2,974
BROADCORT CAPITAL (THRU ML)	73,916	1,502
BTG PACTUAL CHILE SA CORREDORES DE BOL	29,725	175
BTIG LLC	705,384	22,462
CABRERA CAPITAL MARKETS	128,839	2,100
CABRERA CAPITAL MARKETS LLC	53,664	557
CANACCORD GENUITY CORP	2,800	44
CANACCORD GENUITY INC	122,391	2,765
CANACCORD GENUITY LIMITED	5,995	57
CANADIAN IMPERIAL BANK OF COMMERCE	248,022	1,849
CANTOR FITZGERALD & CO	1,976,263	22,503
CARNEGIE BANK AS	90,460	4,306
CARNEGIE INVESTMENT BANK AB	153,273	1,063
CASABLANCA FINANCE MARKETS	3,201	194
CESKA SPORITELNA	34,102	2,525
CHEEVERS & CO INC	1,074,408	10,744
CHINA INTERNATIONAL CAPITAL CO	371,000	768
CIBC WORLD MARKETS CORP	97,607	488

*Continued on next page*

## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
CIBC WORLD MARKETS INC	91,271	\$ 1,582
CITIBANK LIMITED	109,263	475
CITIBANK NA	101,476	7,189
CITIBANK OF COLOMBIA	21,965,465	1,414
CITIGROUP GLOBAL MARKETS AUSTRALIA PTY	168,495	203
CITIGROUP GLOBAL MARKETS INC	90,290,338	121,690
CITIGROUP GLOBAL MARKETS INDIA	997,789	2,438
CITIGROUP GLOBAL MARKETS KOREA SECS LTD	298,153	4,261
CITIGROUP GLOBAL MARKETS LIMITED	10,092,596	92,753
CITIGROUP GLOBAL MARKETS TAIWAN	9,982,375	4,099
CL SECURITIES TAIWAN COMPANY LIMITED	1,522,030	5,604
CLSA AUSTRALIA PTY LTD	581,376	1,811
CLSA SECURITIES (THAILAND) LTD	236,100	1,362
CLSA SECURITIES KOREA LTD	150,593	9,962
CLSA SECURITIES MALAYSIA SDN BHD	4,756,390	4,708
CLSA SINGAPORE PTE LTD	10,527,403	36,786
COL FINANCIAL GROUP INC	5,629,883	1,406
COMMERZBANK CAPITAL MARKETS CORPORATION	69,197	1,038
COMPASS POINT RESEARCH & TRADING LLC	12,698	444
CONVENCAO S/A CORRETORA DE VALORES	3,368,295	22,612
CONVERGEX LLC	375,545	5,634
CORNERSTONE MACRO LLC	3,850	193
CORREDORES ASOCIADOS SA	5,198,273	108
COWEN AND COMPANY LLC	660,118	15,707
COWEN EXECUTION SERVICES LLC	35,580,983	184,742
CRAIG HALLUM	31,757	1,160
CREDIBOLSA SOCIEDAD AGENTE	83,051	1,247
CREDICORP CAPITAL COLOMBIA SA	744,155	3,183
CREDIT LYONNAIS SECURITIES (ASIA)	19,868,993	16,991
CREDIT LYONNAIS SECURITIES (USA) INC	595,000	3,262
CREDIT LYONNAIS SECURITIES INDIA	10,682,078	76,919
CREDIT SUISSE CANADA	36,100	310
CREDIT SUISSE FIRST BOSTON	20,129,862	22,993
CREDIT SUISSE FIRST BOSTON (EUROPE)	79,854	6,036
CREDIT SUISSE FIRST BOSTON SA CTVM	53,600	752
CREDIT SUISSE INTERNATIONAL	277,553	325
CREDIT SUISSE SECS INDIA PRIVATE LTD	21,091,330	33,071
CREDIT SUISSE SECURITIES (EUROPE) LTD	31,212,781	130,531
CREDIT SUISSE SECURITIES (USA) LLC	107,585,216	136,274
CREST DEPOSITORY LIMITED	62,439	480
CS FIRST BOSTON (HONG KONG) LIMITED	1,137,500	4,584
CSFB AUSTRALIA EQUITIES LTD	271,688	667
CUTTONE & CO	15,600	312
DAIWA SBCM EUROPE	96,100	793
DAIWA SECURITIES (HK) LTD	54,956	596
DAIWA SECURITIES AMERICA INC	1,237,616	35,409

*Continued on next page*

## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
DAIWA SECURITIES COMPANY LTD	123,596	\$ 658
DAIWA SECURITIES SMBC-CATHAY CO	6,438,000	6,247
DANARESKA SECURITIES PT	8,738,530	894
DANSKE BANK AS	5,600	71
DAVIDSON DA & COMPANY INC	11,063	368
DAVY STOCKBROKERS	658,584	5,802
DBS VICKERS (HONG KONG) LIMITED	277,000	2,332
DBS VICKERS SECURITIES (SINGAPORE)	593,000	2,424
DEUTSCHE BANK AG LONDON	2,828,957	15,028
DEUTSCHE BANK SECURITIES INC	23,626,913	67,985
DEUTSCHE SECURITIES ASIA LIMITED	3,850,783	5,126
DEUTSCHE WERTPAPIERSERVICE BANK AG	33,870	1,094
DNB NOR MARKETS CUSTODY DNB NORBANK ASA	8,111	357
DOUGHERTY & COMPANY LLC	17,367	521
DOWLING & PARTNERS	12,538	439
DREXEL HAMILTON LLC	9,749	215
DSP MERRILL LYNCH LTD	1,754,337	7,790
DUPONT GILBERT SA	7,640	734
EDELWEISS SECURITIES PVT LTD	12,526,840	295
EUROMOBILIARE SIM SPA	117,460	2,225
EXANE SA	1,146,438	23,516
FBR CAPITAL MARKETS & CO	132,114	3,876
FIDELITY CAPITAL MARKETS	32,123	819
FIDELITY CLEARING CANADA	80,943	1,355
FIDELITY CLEARING CANADA ULC	460,100	9,202
FIG PARTNERS LLC	6,848	218
FINANCIAL BROKERAGE GROUP (FBG)	1,156,770	15,403
FLOW CORRETORA DE MERCADORIAS LTDA	1,012,417	7,965
GMP SECURITIES LTD	27,400	107
GOLDMAN SACHS & CO	22,838,906	132,363
GOLDMAN SACHS & CO INTL	34,500	133
GOLDMAN SACHS (ASIA) LLC	8,973,490	11,811
GOLDMAN SACHS (INDIA)	2,648,765	10,667
GOLDMAN SACHS DO BRASIL CORRETORA	713,800	4,820
GOLDMAN SACHS INTERNATIONAL	11,948,405	42,920
GOODBODY STOCKBROKERS	246,437	2,902
GREEN STREET TRADING LLC	32,886	1,249
GUGGENHEIM	8,266	83
GUGGENHEIM CAPITAL MARKETS LLC	108,740	2,152
GUZMAN AND COMPANY	526,660	2,460
HEIGHT SECURITIES LLC	28,084	814
HONGKONG AND SHANGHAI BANKING CORPORATION	436,589	1,193
HSBC BANK PLC	17,325,461	135,385
HSBC BANK USA	41,772	201
HSBC SECURITIES (USA) INC	25,309,882	9,999
HSBC SECURITIES INDIA HOLDINGS	3,583,880	56

*Continued on next page*

## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
ICAP DO BRASIL DTVM LTDA	1,801,397	\$ 8,814
ICBCFS LLC	468,712	1,990
ICICI BROKERAGE SERVICES	8,402,966	54,988
IM TRUST SA CORREDORES DE BOLSA	23,612,035	13,787
INDIA INFOLINE LTD	201,501	1,090
INSTINET	1,457,943	13,537
INSTINET AUSTRALIA CLEARING SRVC PTY LTD	2,063,251	6,461
INSTINET LLC	17,609,225	75,521
INSTINET PACIFIC LIMITED	78,705,334	54,486
INSTINET SINGAPORE SERVICES PT	3,929,572	7,128
INSTINET UK LTD	25,310,557	168,800
INTERACCIONES CASA DE BOLSA	16,074	54
INTESA SANPAOLO SPA	8,488	121
INVESTEC BANK PLC	527,705	1,327
INVESTEC SECURITIES LTD	900,042	1,247
INVESTMENT TECHNOLOGY GROUP INC	19,784,786	123,405
INVESTMENT TECHNOLOGY GROUP LTD	7,252,247	51,066
IS YATIRIM MENKUL DEGERLER AS	152,965	249
ISI GROUP INC	951,110	17,797
ITAU USA SECURITIES INC	30,273	908
ITG AUSTRALIA LTD	28,780,056	23,324
ITG CANADA	999,490	6,236
ITG INC	887,223	3,250
ITG SECURITIES (HK) LTD	4,502,500	2,006
IVY SECURITIES INC	1,432,316	47,266
JANNEY MONTGOMERY SCOTT INC	18,004	401
JB CAPITAL MKTS SOCIEDAD DE VALORES SA	30,850	151
JEFFERIES & COMPANY INC	4,069,077	40,000
JEFFERIES HONG KONG LIMITED	1,500	4
JEFFERIES INDIA PRIVATE LIMITED	4,090,137	26,092
JEFFERIES INTERNATIONAL LTD	29,794,774	36,550
JM FINANCIAL INSTITUTIONAL SECURITIES PR	299,840	3,741
JMP SECURITIES	77,607	2,340
JOH BERENBERG GOSSLER & CO KG	1,630,279	29,276
JONESTRADING INSTITUTIONAL SERVICES LLC	835,146	14,942
JP MORGAN	8,500	175
JP MORGAN CHASE BANK	18,980	178
JP MORGAN CLEARING CORP	6,256,887	35,065
JP MORGAN INDIA PRIVATE LTD	65,000	192
JP MORGAN SECURITIES (ASIA PACIFIC) LTD	31,408,776	13,492
JP MORGAN SECURITIES (FAR EAST) LTD SEOUL	168,533	1,287
JP MORGAN SECURITIES (TAIWAN) LTD	2,933,000	2,570
JP MORGAN SECURITIES AUSTRALIA LTD	713,870	1,331
JP MORGAN SECURITIES INC	4,858,302	12,085
JP MORGAN SECURITIES LIMITED	80,403	3,912
JP MORGAN SECURITIES LLC	1,034,322	18,026

*Continued on next page*

## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
JP MORGAN SECURITIES PLC	6,763,531	\$ 75,637
JP MORGAN SECURITIES SINGAPORE	90,400	40
KALLPA SECURITIES SAB	73,842	129
KAS-ASSOCIATIE NV	83	1
KCG AMERICAS LLC	224,355	2,350
KEEFE BRUYETTE & WOODS INC	128,212	4,166
KEMPEN & CO NV	61,981	870
KEPLER EQUITIES PARIS	37,990	3,703
KEYBANC CAPITAL MARKETS INC	156,612	5,056
KIM ENG SECURITIES (HK) LTD	53,400	682
KING CL & ASSOCIATES INC	70,196	3,476
KNIGHT SECURITIES INTERNATIONAL	628,051	3,151
KOREA INVESTMENT AND SECURITIES CO LTD	49,345	2,759
LADENBURG THALMAN & CO	17,800	712
LARRAIN VIAL	1,110,965	1,813
LEERINK PARTNERS LLC	14,539	448
LEK SECURITIES CORP	19,100	382
LIQUIDNET CANADA INC	57,851	1,005
LIQUIDNET EUROPE LIMITED	7,649	558
LIQUIDNET INC	2,170,433	43,599
LONGBOW SECURITIES LLC	3,400	68
LOOP CAPITAL MARKETS	25,410,898	137,032
LOOP CAPITAL MARKETS LLC	2,357,600	13,639
LUMINEX TRADING AND ANALYTICS LLC	135,211	1,591
MACQUARIE BANK LIMITED	18,462,364	45,542
MACQUARIE CAPITAL (EUROPE) LTD	600	77
MACQUARIE CAPITAL (USA) INC	166,880	1,643
MACQUARIE SEC NZ LTD	31,653	76
MACQUARIE SECURITIES (USA) INC	1,520	65
MACQUARIE SECURITIES KOREA LIMITED	602,542	10,425
MAINFIRST BANK DE	149,839	5,183
MAXIM GROUP	87,500	1,750
MAYBANK KIM ENG SECURITIES PTE LTD	270,600	1,064
MEDIOBANCA SPA	248,903	5,045
MERRILL LYNCH	37,588	1,879
MERRILL LYNCH AND CO INC	488,601	4,838
MERRILL LYNCH CANADA INC	4,700	45
MERRILL LYNCH INTERNATIONAL	50,548,829	176,688
MERRILL LYNCH JAPAN INCORPORATED	6,000	229
MERRILL LYNCH PIERCE FENNER & SMITH	906,341	8,327
MERRILL LYNCH PIERCE FENNER & SMITH INC	20,106,386	98,189
MERRILL LYNCH PROFESSIONAL CLEARING CORP	31,500	119
MIRAE ASSET DAEWOO CO LTD	303,833	29,720
MISCHLER FINANCIAL GROUP INC EQUITIES	987,261	2,470
MITSUBISHI UFJ SECURITIES	26,880	1,075
MITSUBISHI UFJ SECURITIES (USA)	476,800	19,490

*Continued on next page*

## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
MITSUBISHI UFJ SECURITIES INT PLC	15,900	\$ 472
MIZUHO INTERNATIONAL PLC	31,600	1,821
MIZUHO SECURITIES ASIA LIMITED	6,200	117
MIZUHO SECURITIES USA INC	723,723	18,971
MKM PARTNERS LLC	25,770	561
MORGAN STANLEY AND CO INTERNATIONAL	16,035,326	52,477
MORGAN STANLEY CO INCORPORATED	87,676,284	276,636
MORGAN STANLEY INDIA COMPANY PVT LTD	4,874,190	18,304
MORGAN STANLEY TAIWAN LIMITED	15,861,162	19,294
NATIONAL FINANCIAL SERVICES CORPORATION	1,858,237	11,911
NATIONAL FINANCIAL SERVICES LLC	62,174	1,485
NATIXIS SECURITIES	487	80
NBC CLEARING SERVICES INCORPORATED	54,620	368
NEEDHAM AND COMPANY LLC	21,193	921
NESBITT BURNS	3,800	41
NH INVESTMENT AND SECURITIES CO LTD	432,291	10,471
NOMURA FINANCIAL ADVISORY & SEC INDIA	3,080,226	10,949
NOMURA FINANCIAL INVESTMENT KOREA CO LTD	57,674	1,136
NORDEA BANK AB (PUBL) FINNISH BRANCH	6,200	98
NORTHERN TRUST BROKERAGE INSTITUTION	3,300	25
NORTHLAND SECURITIES INC	47,251	1,463
NUMIS SECURITIES INC	8,370	107
O'NEIL WILLIAM AND CO INC/BCC CLRG	1,500	50
ODDO ET CIE	3,299	189
OKASAN INTERNATIONAL (ASIA) LTD	2,100	553
OLIVETREE USA LLC	4,299	115
OPPENHEIMER & CO INC	57,863	1,956
PAREL	981	35
PARIBAS	9,344	20
PAVILION GLOBAL MARKETS LTD	568,531	2,960
PEEL HUNT LLP	67,497	42
PENSERRA SECURITIES	1,190,941	12,067
PENSERRA SECURITIES LLC	2,588,005	13,007
PERSHING LLC	6,459,702	35,297
PERSHING SECURITIES LIMITED	736,377	3,015
PETERS & CO LIMITED	13,152	460
PIPER JAFFRAY	56,753	1,717
PIPER JAFFRAY & CO	98,776	3,486
PT MANDIRI SEKURITAS	1,991,651	270
RAYMOND JAMES AND ASSOCIATES	379,343	3,634
RAYMOND JAMES AND ASSOCIATES INC	218,982	6,998
RAYMOND JAMES LTD	39,840	719
RBC CAPITAL MARKETS LLC	3,858,048	56,921
RBC DOMINION SECURITIES CORPORATION	1,402	8
RBC DOMINION SECURITIES INC	3,753,225	35,289
REDBURN (EUROPE) LIMITED	489,090	16,077

*Continued on next page*



## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
ROBERT W BAIRD CO INCORPORATED	592,710	\$ 17,845
ROYAL BANK OF CANADA	60,516	1,064
ROYAL BANK OF CANADA EUROPE LTD	613,433	5,264
SAMSUNG SECURITIES CO LTD	614,736	15,222
SANDLER O'NEILL AND PARTNERS LP	34,966	785
SANFORD C BERNSTEIN AND CO LLC	6,728,888	49,615
SANFORD C BERNSTEIN LTD	3,281,410	26,760
SANTANDER SECURITIES SERVICES SA	515,669	3,333
SBICAP SECURITIES LIMITED	21,040	624
SCOTIA CAPITAL (USA) INC	9,417	152
SCOTIA CAPITAL INC	78,500	462
SEAPORT GROUP SECURITIES LLC	224,589	3,669
SG AMERICAS SECURITIES LLC	5,645,444	28,722
SG ASIA SECURITIES (INDIA) PVT LTD	3,395,475	9,559
SG SECURITIES (LONDON) LTD	18,521,331	13,683
SG SECURITIES HK	63,363,024	28,421
SHENYIN WANGUO SECURITIES (HK) LTD	5,500	18
SIDOTI & COMPANY LLC	11,577	405
SINGER CAPITAL MARKETS LIMITED	2,535	39
SKANDINAVISKA ENSKILDA BANKEN	102,460	2,851
SKANDINAVISKA ENSKILDA BANKEN LONDON	22,592	371
SMBC NIKKO CAPITAL MARKETS LIMITED	2,406,700	31,546
SMBC NIKKO SECURITIES (HONG KONG) LTD	48,200	915
SMBC SECURITIES INC	179,117	2,382
SOCIETE GENERALE	35,690	846
SOCIETE GENERALE LONDON BRANCH	13,416,960	81,462
STATE STREET GLOBAL MARKETS LLC	21,308	433
STEPHENS INC	197,839	6,817
STIFEL NICOLAUS AND COMPANY INCORPORATED	421,537	11,840
STIFEL NICOLAUS EUROPE LIMITED	153,208	412
STRATEGAS SECURITIES LLC	19,734	592
SUNTRUST CAPITAL MARKETS INC	152,857	4,689
SVENSKA HANDELSBANKEN	7,545	143
TAIWAN DEPOSITORY CLEARING CORPORATION	1,118,000	4,349
TD SECURITIES (USA) LLC	3,566	71
TELSEY ADVISORY GROUP LLC	47,769	2,092
THE FIG GROUP LLC	67,600	618
THOM P REYNOLDS SEC.(THRU BEAR STEARNS)	133,300	533
TORONTO DOMINION SECURITIES INC	533,300	3,288
TRIGON DOM MAKLERSKI SA	33,000	499
UBS AG	5,022,151	21,100
UBS AG LONDON	1,914,600	99
UBS LIMITED	47,315,339	174,651
UBS SECURITIES ASIA LTD	19,584,314	38,705
UBS SECURITIES CANADA INC	1,065,924	7,816

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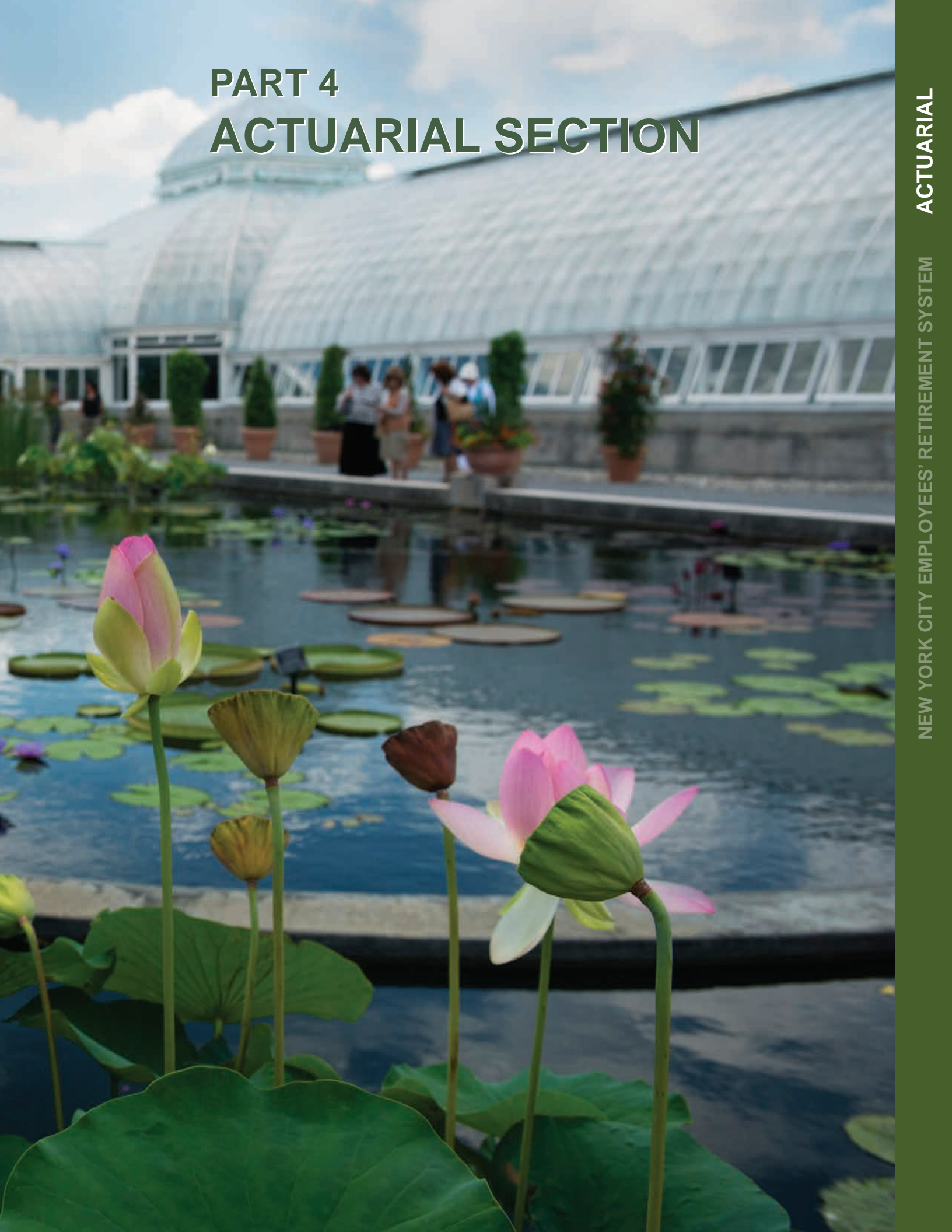
## SCHEDULE OF BROKERS' COMMISSIONS

Year Ended June 30, 2018

Brokerage Firm	Number of Shares Traded	Total Commissions
UBS SECURITIES INDIA PRIVATE LTD	1,886,648	5,903
UBS SECURITIES LLC	3,493,333	30,296
UBS SECURITIES PTE LTD	4,177,000	11,411
UBS SECURITIES PTE LTD SEOUL	185,016	2,770
UBS WARBURG AUSTRALIA EQUITIES	1,442,406	3,434
UOB KAY HIAN PTE LIMITED	448,600	902
VALORES BANCOLOMBIA	4,500,000	62
VANDHAM SECURITIES CORP	6,680	200
VIRTU AMERICAS LLC	830,450	17,374
WALL STREET ACCESS	197,185	1,292
WEDBUSH MORGAN SECURITIES INC	19,592	505
WEEDEN & CO	12,882,537	79,045
WELLS FARGO SECURITIES LLC	1,092,715	13,610
WILLIAM BLAIR & COMPANY LLC	262,570	8,886
WILLIAMS CAPITAL GROUP LP (THE)	4,257,312	66,810
WILSON HTM LTD	10,773	46
WOLFE TRAHAN SECURITIES	2,294	69
XP INVESTIMENTOS CCTVM SA	1,085,480	9,681
<b>TOTAL</b>	<b>1,536,655,851</b>	<b>5,007,327</b>



# PART 4 ACTUARIAL SECTION





## OFFICE OF THE ACTUARY

255 GREENWICH STREET • 9<sup>TH</sup> FLOOR  
NEW YORK, NY 10007  
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**SHERRY S. CHAN**  
CHIEF ACTUARY

December 13, 2018

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

Re: Actuarial Information for the Comprehensive Annual Financial Report (CAFR) for the Fiscal Year Ended June 30, 2018

Dear Members of the Board of Trustees:

The financial objective of the New York City Employees' Retirement System (NYCERS or the Plan) is to fund members' retirement benefits during their active service by establishing employer normal contribution rates that, expressed as a percentage of active member annualized covered payroll, would remain approximately level over the future working lifetimes of those active members and, together with member contributions and investment income, are intended to ultimately be sufficient to accumulate assets to pay benefits when due.

An actuarial valuation of the Plan is performed annually as of the second June 30 preceding each fiscal year to determine the Employer Contributions to be paid for that fiscal year (i.e. June 30, 2016 (Lag) actuarial valuation to determine Fiscal Year 2018 Employer Contributions (the Actuarial Contributions)).

The funding policy of the City of New York (the City) is to contribute statutorily-required contributions (Statutory Contributions) and these contributions are generally funded by the City within the appropriate fiscal year.

For Fiscal Year 2018, the Actuarial Contributions to NYCERS, are equal to those recommended by the Actuary of the New York City Pension Funds and Retirement Systems (the Actuary) and represent the Statutory Contributions.

During June 2012 the Governmental Accounting Standards Board (GASB) released two accounting standards for public pension plans, Statement No. 67 (GASB67) and Statement No. 68 (GASB68), collectively "GASB67/68."



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On September 28, 2018, the Actuary published the "GASB 67/68 Report for the City of New York and the New York City Retirement Systems For Fiscal Year Ended June 30, 2018" (the Fiscal Year 2018 GASB67/68 Report). Appendix A of the Fiscal Year 2018 GASB67/68 Report contains information developed in accordance with GASB67 for NYCERS.

### **Actuarial Assumptions and Methods**

The Actuary issued a Report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2011 for the New York City Employees' Retirement System," dated February 10, 2012. Components of the Actuary's proposed changes required the enactment of legislation by the New York State Legislature and the Governor.

The Board of Trustees of NYCERS adopted those changes in actuarial assumptions that require Board approval during Fiscal Year 2012. The New York State Legislature and the Governor enacted Chapter 3 of the Laws of 2013 (Chapter 3/13) to provide for those changes to the actuarial assumptions and methods that require legislation, including the Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of investment expenses. Together, this package of actuarial assumptions and methods is referred to as the "2012 A&M."

In Fiscal Year 2016, the Actuary proposed and the Board of Trustees adopted, revised post-retirement mortality assumptions for use in determining employer contributions beginning in Fiscal Year 2016. In addition, beginning in Fiscal Year 2016, the Actuary revised the Actuarial Asset Valuation Method by constraining the Actuarial Value of Assets to be no more than 20% from the Market Value of Assets. The 2012 A&M reflecting these revisions is referred to herein as the "2016 A&M."

The "Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2016 (Lag) Actuarial Valuation" provided later in this Actuarial Section of the CAFR presents the 2016 A&M. There were no changes to the actuarial assumptions and methods since the prior year except for (1) revisions to the probabilities of Accidental Disability for Tier III Sanitation and Correction members of NYCERS which were made to reflect the change in the Accidental Disability Retirement benefits and (2) inclusion of actuarial liabilities associated with the Special Accidental Death Benefit (SADB) payable pursuant to Section 208(f) of the General Municipal Law, including a Cost of living Adjustment on these benefits of 3.0% per year. These actuarial assumptions and methods (2016 A&M) used for funding purposes meet the parameters set forth by the Actuarial Standards of Practice (ASOPs).

### **Benefits and Census Data**

A summary of the benefits applicable to Plan members included in the June 30, 2016 (Lag) actuarial valuation is shown earlier in the Introductory Section of the CAFR. Accidental Disability benefits for Tier III Sanitation and Correction members were improved. These benefit enhancements are expected to be paid for by an increase in member contributions for those members who elected the enhanced benefit. There are no other changes in any of the plan provisions since the prior year.

Census data is submitted by the Plan's administrative staff and by the employer's payroll facilities and is reviewed by the Office of the Actuary (OA) for consistency and reasonability.

A summary of the census data used in the June 30, 2016 (Lag) actuarial valuation is included in this CAFR. A summary of the census data used in the June 30, 2015 (Lag) actuarial valuation of the Plan is available in the Fiscal Year 2017 CAFR.

### **Funded Status**

The Funded Status of the Plan is usually expressed by the relationship of Assets to Liabilities.

With respect to the Funded Status of the Plan, included in the Actuarial Section of the CAFR is a schedule of Funded Status based on the Entry Age Normal cost method (Table 16).

Also included in the Actuarial Section of the CAFR is a Solvency Test (i.e. Comparative Summary of Accrued Liabilities Funded by Actuarial Value of Assets) (Table 17) as prescribed by the Government Finance Officers Association (GFOA). This Solvency Test represents an alternative approach to describing progress toward funding objectives.

### **Presentation Style and Sources of Information**

The actuarial information herein is being presented in a manner believed to be consistent with the requirements of the GFOA and, where applicable, with GASB67.



The following items in the Actuarial Section of the CAFR were prepared by the OA:

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2016 (Lag) Actuarial Valuation.
- Active Member Valuation Data.
- Number and Salary of Active Members by Occupational Position as of June 30, 2016 (Lag) Actuarial Valuation.
- Number of Active Members by Occupational Position and Age as of June 30, 2016 (Lag) Actuarial Valuation.
- Number of Active Members by Occupational Position and Years of Service as of June 30, 2016 (Lag) Actuarial Valuation.
- Participating Employers.
- Summary of Plan Membership.
- Retirees and Beneficiaries Added to and Removed from Rolls.
- Statutory vs. Actuarial Contributions.
- Funded Status based on Entry Age Normal Cost Method.
- Comparative Summary of Accrued Liabilities Funded by Actuarial Value of Assets – Solvency Test.
- Contributions.

Some items in the Financial Section and Statistical Section of the CAFR were also provided by the OA.

If you have any questions about any of the information in this Actuarial Section or any of the actuarial information presented elsewhere in this CAFR, please do not hesitate to contact Mr. Michael J. Samet, Mr. Edward Hue, or me.



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New York City Employees' Retirement System  
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### Acknowledgement of Qualification

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

Respectfully submitted,



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

SC/mm

Att.

cc: Mr. Frankie Chen - New York City Office of the Actuary  
Mr. Michael Goldson - New York City Employees' Retirement System  
Ms. Chun Gong - New York City Employees' Retirement System  
Mr. Edward Hue - New York City Office of the Actuary  
Ms. Marlene Markoe-Boyd - New York City Office of the Actuary  
Mr. Sam Rumley - New York City Office of the Actuary  
Mr. Michael Samet - New York City Office of the Actuary  
Keith Snow, Esq. - New York City Office of the Actuary  
Ms. Melanie Whinnery - New York City Employees' Retirement System



## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION

1. Pursuant to Section 96 of the New York City Charter, studies of the actuarial assumptions used to value liabilities of the five actuarially-funded New York City Retirement Systems (NYCRS) are conducted every two years.

Also, in accordance with the Administrative Code of the City of New York (ACCNYS), the Boards of Trustees of the five actuarially-funded NYCRS are to periodically review and adopt actuarial assumptions as proposed by the Actuary for use in the determination of Employer Contributions.

The Actuary issued a Report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2011 for the New York City Employees' Retirement System," dated February 10, 2012. Components of the Actuary's proposed changes required the enactment of legislation by the New York State Legislature and the Governor.

The Board of Trustees adopted those changes that require Board approval during Fiscal Year 2012. The New York State Legislature and the Governor enacted Chapter 3 of the Laws of 2013 (Chapter 3/13) to provide for those changes in actuarial assumptions and methods that require legislation, including the Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of investment expenses. Together, this package of actuarial assumptions and methods is referred to as the "2012 A&M."

In Fiscal Year 2016, the Actuary proposed and the Board of Trustees adopted, revised post-retirement mortality assumptions for use in determining employer contributions beginning in Fiscal Year 2016. In addition, beginning in Fiscal Year 2016, the Actuary revised the Actuarial Asset Valuation Method by constraining the Actuarial Value of Assets to be no more than 20% from the Market Value of Assets. The 2012 A&M reflecting these revisions is referred to herein as the "2016 A&M."

There were no changes to the actuarial assumptions and methods since the prior year except for (1) revisions to the probabilities of Accidental Disability for Tier III Sanitation and Correction members of NYCERS which were made to reflect the change in the Accidental Disability Retirement benefits and (2) inclusion of actuarial liabilities associated with the Special Accidental Death Benefit (SADB) payable pursuant to Section 208(f) of the General Municipal Law, including a Cost of living Adjustment on these benefits of 3.0% per year.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)

2. The investment rate of return assumption is 7.0% per annum, net of investment expenses.
3. The mortality table base rates for service and disability pensioners were developed primarily from an experience study of the Plan's pensioners, and the mortality table base rates for beneficiaries were developed from an experience study of the Plan's beneficiaries. Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015, was further applied to these rates. Sample probabilities by certain occupational groups for service and disability pensioners are shown in Tables 1a and 1b, respectively, and sample probabilities for beneficiaries are shown in Table 1c.
4. Active Service tables by certain occupational groups are used to estimate various withdrawals from Active Service. Sample probabilities are shown in Table 2a for members withdrawing from Active Service due to Death or Disability who did not elect an improved retirement program and in Table 2b for members who elected an improved retirement program, in Table 3 for members withdrawing from Active Service for Other than Death, Disability, or Service Retirement, and in Table 4 for members withdrawing from Active Service for Service Retirement.
5. Salary Scales are used to estimate salaries at termination, retirement, or death. Sample percentage increases are shown in Table 5 by certain occupational groups. The Salary Scales include a General Wage Increase (GWI) assumption of 3.0% per annum.
6. The salary data was adjusted to reflect overtime earnings. A Baseline Overtime assumption is applied to most years and a separate overtime assumption, known as a Dual Overtime assumption, is applied to the years included in the calculation of Final Salary or Final Average Salary. Sample Baseline Overtime and Dual Overtime percentages are shown in Tables 6 and 7, respectively, for certain occupational groups.
7. The economic assumptions (i.e. the assumed investment return rate, GWI rate, and Cost-of-Living Adjustments (COLA)) were developed assuming a long-term Consumer Price Inflation (CPI) assumption of 2.5% per annum. The assumption is 1.5% per annum for Auto COLA and 2.5% per annum for escalation.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

8. The valuation assumes a closed group of members.
9. Beginning with the June 30, 2010 (Lag) actuarial valuation, the Entry Age Normal (EAN) cost method of funding is used by the Plan's Actuary to calculate Employer Contributions.

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 earnings between the age a member enters the plan and the 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 Employer Normal Costs or future member contributions is the Actuarial Accrued Liability (AAL).

The excess, if any, of the AAL over the Actuarial Value of Asset (AVA) is the Unfunded Actuarial Accrued Liability (UAAL).

Under this method, actuarial gains and losses, as they occur, reduce and increase the UAAL, 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.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)

10. One-Year Lag Methodology (Lag or OYLM) uses a June 30, XX-2 valuation date to determine Fiscal Year XX Employer Contributions.

The June 30, 2016 (Lag) actuarial valuation uses a June 30, 2016 valuation date to determine Fiscal Year 2018 Employer Contributions.

This methodology requires adjustments to determine the Fiscal Year 2018 Employer Contributions:

- a. Present Value of Future Salary (PVFS): The PVFS at June 30, 2016 is reduced by the value of salary projected to be paid during Fiscal Year 2017.
- b. Salary for Determining Employer Contributions: Salary used to determine the employer normal contribution is the salary projected to be paid during Fiscal Year 2018 to members on payroll at June 30, 2016.
- c. UAAL Payments: For determining the UAAL payments for Fiscal Year 2018, and to be consistent with OYLM, the UAAL as of June 30, 2016 is adjusted by the discounted value of employer normal contributions paid during Fiscal Year 2017 and the discounted value of the administrative expenses reimbursed during Fiscal Year 2017 and 2018.

11. The Actuary reset the AVA to the Market Value of Assets (MVA) as of June 30, 2011.

Beginning with the June 30, 2012 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) recognizes investment returns greater or less than expected over a period of six years.

In accordance with this AAVM, actual Unexpected Investment Returns (UIR) are phased into the AVA at rates of 15%, 15%, 15%, 15%, 20%, and 20% per year, respectively, (i.e. cumulative rates of 15%, 30%, 45%, 60%, 80%, and 100%).

Beginning with the June 30, 2014 (Lag) actuarial valuation, the AVA is constrained to be within a 20% corridor of the MVA.



## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)

12. The obligations of the New York City Employees' Retirement System (NYCERS) to the Housing Police Officer's Variable Supplements Fund (HPOVSF), Housing Police Superior Officers' Variable Supplements Fund (HPSOVSF), Transit Police Officers' Variable Supplements Fund (TPOVSF), Transit Police Superior Officers' Variable Supplements Fund (TPOVSF), and Correction Officers' Variable Supplements Fund (COVSF) (referred to collectively as NYCERS VSFs) are recognized through the Liability Valuation Method.

Under this method, the PV of Future SKIM from NYCERS to the NYCERS VSFs is included directly as an actuarial liability of NYCERS. SKIM is either a portion of the excess earnings on equity securities of NYCERS that are transferrable to an individual NYCERS VSF or the amount in excess of existing assets needed in any given Fiscal Year by an individual NYCERS VSF to pay expected benefits. The PV of Future SKIM is computed as the excess, if any, of the PV of expected benefits of each individual NYCERS VSF over the AVA of that individual NYCERS VSF. Under the EAN cost method, a portion of the PV of Future SKIM is reflected in the PV of Future Normal Costs, and a portion is reflected in the AAL.

13. The PVFB as of June 30, 2016, used to determine the Fiscal Year 2018 Employer Contributions, includes estimates of liabilities for World Trade Center (WTC) Post-Retirement Reclassifications.
14. For the June 30, 2016 actuarial valuation, the New York City Off-Track Betting Corporation (OTB) was valued on a going-concern basis.
15. For actuarial valuation purposes, members are separated into six groups:
- General (for calculation purposes, these are further subdivided into Plan Groups).
  - Transit Operating positions.
  - MTA Bridges and Tunnels members.
  - Sanitation members.
  - Members of the Housing and Transit Police Forces.
  - Members of the Correction Force.

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 1a Deaths among Service Pensioners Percentage of Pensioners Dying within Next Year</b>				
<b>All Except Housing Police and Transit Police</b>			<b>Housing Police and Transit Police (HP and TP)</b>	
<b>Age</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>
40	0.0904%	0.0674%	0.0817%	0.0562%
45	0.2524	0.1151	0.1264	0.0959
50	0.3971	0.2431	0.1885	0.1876
55	0.8014	0.4420	0.5030	0.3385
60	1.0706	0.7296	0.7570	0.5259
65	1.4334	0.9970	1.0936	0.7510
70	1.9248	1.3660	1.7737	1.1725
75	2.8272	2.1592	2.9373	2.1858
80	5.1881	3.6583	4.9441	3.6096
85	7.9854	6.0929	8.2128	6.0537
90	13.8632	10.4405	13.8437	10.0064
95	22.2136	17.6157	22.1014	16.7734
100	30.7448	21.2423	30.7448	21.2257
105	36.9822	27.2744	36.9822	27.2744
110	96.4196	96.4583	96.4196	96.4583
115	100.0000	100.0000	100.0000	100.0000

Society of Actuaries Mortality Improvement Scale MP-2015 has been applied to these rates.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 1b</b>						
<b>Deaths among Disability Pensioners</b>						
<b>Percentage of Pensioners Dying within Next Year</b>						
<b>All Except HP and TP, Sanitation and Correction Officers</b>			<b>HP and TP</b>		<b>Sanitation and Correction Officers</b>	
<b>Age</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>
40	1.1204%	1.172%	0.1325%	0.0678%	0.6894%	0.7563%
45	1.2754	1.3499	0.1965	0.1249	0.7288	0.8059
50	1.7632	1.7823	0.3648	0.2562	0.8817	0.9706
55	2.7706	2.2478	0.6129	0.4834	1.2833	1.0873
60	3.0781	2.5156	0.9374	0.6186	1.6417	1.2334
65	3.4369	2.6281	1.2874	0.9079	1.9988	1.4949
70	3.5425	2.8655	2.1777	1.5158	2.6256	2.0768
75	4.7589	3.9801	3.5010	2.6837	3.9658	3.0962
80	7.2049	5.7750	5.8162	4.5929	6.3411	4.9198
85	10.9387	8.8788	9.8107	7.6781	9.7600	8.0111
90	14.0918	13.3527	16.9079	12.6282	15.2495	12.1005
95	23.1722	19.6267	25.3782	18.2303	24.2371	19.3010
100	30.7448	22.1222	33.4990	21.4632	30.7448	22.1222
105	36.9822	27.2744	37.1787	27.2744	36.9822	27.2744
110	96.4169	96.4583	96.4196	96.4583	96.4196	96.4583
115	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

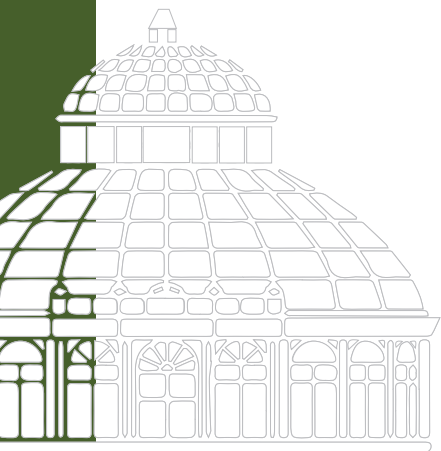
Society of Actuaries Mortality Improvement Scale MP-2015 has been applied to these rates.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 1c</b>		
<b>Deaths among Beneficiaries</b>		
<b>Percentage of Beneficiaries Dying within Next Year</b>		
<b>Age</b>	<b>Males</b>	<b>Females</b>
40	0.0904%	0.0674%
45	0.2524	0.1151
50	0.3971	0.2431
55	0.8014	0.4420
60	1.0706	0.7296
65	1.4334	0.9970
70	1.9248	1.3660
75	2.8272	2.1592
80	5.1881	3.6583
85	7.9854	6.0929
90	13.8632	10.4405
95	22.2136	17.6157
100	30.7448	21.2423
105	36.9822	27.2744
110	96.4196	96.4583
115	100.0000	100.0000

Society of Actuaries Mortality Improvement Scale MP-2015 has been applied to these rates.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 2a</b>							
<b>Withdrawals from Active Service (Due to Death or Disability) Members Who Do Not Elect An Improved Retirement Program Percentage of Eligible Active Members Separating Next Year</b>							
<b>Age</b>	<b>Accidental Disability Retirement</b>		<b>Ordinary Disability Retirement</b>		<b>Accidental Death</b>	<b>Ordinary Death</b>	
<b>General<sup>1</sup></b>							
	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>All</b>	<b>Males</b>	<b>Females</b>
20	0.04%	0.02%	0.20%	0.20%	0.00%	0.40%	0.03%
25	0.04	0.02	0.20	0.20	0.00	0.40	0.03
30	0.04	0.02	0.20	0.20	0.00	0.60	0.04
35	0.04	0.02	0.30	0.20	0.00	0.80	0.05
40	0.04	0.02	0.40	0.25	0.00	0.10	0.06
45	0.04	0.02	0.50	0.30	0.00	0.15	0.10
50	0.04	0.02	0.60	0.50	0.00	0.20	0.15
55	0.04	0.02	0.70	0.70	0.00	0.30	0.20
60	0.04	0.02	0.70	0.70	0.00	0.40	0.25
65	0.04	0.02	0.70	0.70	0.00	0.50	0.30
70	NA	NA	NA	NA	NA	NA	NA
<b>Transit Operating<sup>1</sup></b>							
20	0.02%	0.02%	0.10%	0.10%	0.01%	0.04%	0.03%
25	0.02	0.02	0.10	0.10	0.01	0.04	0.03
30	0.02	0.02	0.10	0.10	0.01	0.06	0.04
35	0.02	0.02	0.20	0.20	0.01	0.08	0.05
40	0.02	0.02	0.30	0.30	0.01	0.10	0.06
45	0.02	0.02	0.40	0.40	0.01	0.15	0.10
50	0.02	0.02	0.50	0.50	0.01	0.20	0.15
55	0.02	0.02	0.60	0.60	0.01	0.30	0.20
60	0.02	0.02	0.60	0.60	0.01	0.40	0.25
65	0.02	0.02	0.60	0.60	0.01	0.50	0.30
70	NA	NA	NA	NA	NA	NA	NA
<b>MTA Bridges and Tunnels<sup>1</sup></b>							
20	0.04%	0.04%	0.40%	0.40%	0.01%	0.05%	0.03%
25	0.04	0.04	0.40	0.40	0.01	0.04	0.02
30	0.04	0.04	0.40	0.40	0.01	0.05	0.03
35	0.04	0.04	0.40	0.40	0.01	0.05	0.03
40	0.04	0.04	0.40	0.40	0.01	0.10	0.06
45	0.04	0.04	0.40	0.40	0.01	0.15	0.09
50	0.04	0.04	0.40	0.40	0.01	0.20	0.12
55	0.04	0.04	0.40	0.40	0.01	0.25	0.16
60	0.04	0.04	0.40	0.40	0.01	0.30	0.20
65	0.04	0.04	0.40	0.40	0.01	0.40	0.25
70	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Assumed to retire for service immediately at age 70.

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 2a (Cont'd)</b>  <b>Withdrawals from Active Service (Due to Death or Disability) Members Who Do Not Elect An Improved Retirement Program Percentage of Eligible Active Members Separating Next Year</b>							
Age	Accidental Disability Retirement		Ordinary Disability Retirement		Accidental Death	Ordinary Death	
Sanitation <sup>1</sup>							
	Males	Females	Males	Females	All	Males	Females
20	0.10%	0.10%	0.10%	0.10%	0.01%	0.05%	0.03%
25	0.10	0.10	0.10	0.10	0.01	0.04	0.02
30	0.15	0.15	0.20	0.20	0.01	0.05	0.03
35	0.20	0.20	0.30	0.30	0.01	0.05	0.03
40	0.25	0.25	0.40	0.40	0.01	0.10	0.06
45	0.30	0.30	0.50	0.50	0.01	0.15	0.09
50	0.50	0.50	0.60	0.60	0.01	0.20	0.12
55	0.80	0.80	0.70	0.70	0.01	0.25	0.16
60	1.20	1.20	0.80	0.80	0.01	0.30	0.20
65	1.70	1.70	0.90	0.90	0.01	0.40	0.25
70	NA	NA	NA	NA	NA	NA	NA
Correction Officers <sup>2</sup>							
20	0.20%	0.20%	0.10%	0.10%	0.01%	0.05%	0.03%
25	0.25	0.25	0.10	0.10	0.01	0.04	0.02
30	0.30	0.30	0.10	0.10	0.01	0.05	0.03
35	0.35	0.35	0.20	0.20	0.01	0.05	0.03
40	0.40	0.40	0.30	0.30	0.01	0.10	0.06
45	0.45	0.45	0.40	0.40	0.01	0.15	0.09
50	0.50	0.50	0.50	0.50	0.01	0.20	0.12
55	0.60	0.60	0.60	0.60	0.01	0.25	0.16
60	0.70	0.70	0.70	0.70	0.01	0.30	0.20
63	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Assumed to retire for service immediately at age 70.

<sup>2</sup>Assumed to retire for service immediately at age 63.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 2b</b>							
<b>Withdrawals from Active Service (Due to Death or Disability) Members Who Elected An Improved Retirement Program Percentage of Eligible Active Members Separating Next Year</b>							
<b>Age</b>	<b>Accidental Disability Retirement</b>		<b>Ordinary Disability Retirement</b>		<b>Accidental Death</b>	<b>Ordinary Death</b>	
<b>General<sup>1</sup></b>							
	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>All</b>	<b>Males</b>	<b>Females</b>
20	0.04%	0.02%	0.20%	0.20%	0.00%	0.04%	0.03%
25	0.04	0.02	0.20	0.20	0.00	0.04	0.03
30	0.04	0.02	0.20	0.20	0.00	0.06	0.04
35	0.04	0.02	0.30	0.20	0.00	0.08	0.05
40	0.04	0.02	0.40	0.25	0.00	0.10	0.06
45	0.04	0.02	0.50	0.30	0.00	0.15	0.10
50	0.04	0.02	0.60	0.50	0.00	0.20	0.15
55	0.04	0.02	0.70	0.70	0.00	0.30	0.20
60	0.04	0.02	0.70	0.70	0.00	0.40	0.25
65	0.04	0.02	0.70	0.70	0.00	0.50	0.30
70	NA	NA	NA	NA	NA	NA	NA
<b>Transit Operating<sup>1</sup></b>							
20	0.02%	0.02%	0.10%	0.10%	0.01%	0.04%	0.03%
25	0.02	0.02	0.10	0.10	0.01	0.04	0.03
30	0.02	0.02	0.10	0.10	0.01	0.06	0.04
35	0.02	0.02	0.20	0.20	0.01	0.08	0.05
40	0.02	0.02	0.30	0.30	0.01	0.10	0.06
45	0.02	0.02	0.40	0.40	0.01	0.15	0.10
50	0.02	0.02	0.50	0.50	0.01	0.20	0.15
55	0.02	0.02	0.60	0.60	0.01	0.30	0.20
60	0.02	0.02	0.60	0.60	0.01	0.40	0.25
65	0.02	0.02	0.60	0.60	0.01	0.50	0.30
70	NA	NA	NA	NA	NA	NA	NA
<b>MTA Bridges and Tunnels<sup>1</sup></b>							
20	0.04%	0.04%	0.40%	0.40%	0.01%	0.05%	0.03%
25	0.04	0.04	0.40	0.40	0.01	0.04	0.02
30	0.04	0.04	0.40	0.40	0.01	0.05	0.03
35	0.04	0.04	0.40	0.40	0.01	0.05	0.03
40	0.04	0.04	0.40	0.40	0.01	0.10	0.06
45	0.04	0.04	0.40	0.40	0.01	0.15	0.09
50	0.04	0.04	0.40	0.40	0.01	0.20	0.12
55	0.04	0.04	0.40	0.40	0.01	0.25	0.16
60	0.04	0.04	0.40	0.40	0.01	0.30	0.20
65	0.04	0.04	0.40	0.40	0.01	0.40	0.25
70	NA	NA	NA	NA	NA	NA	NA

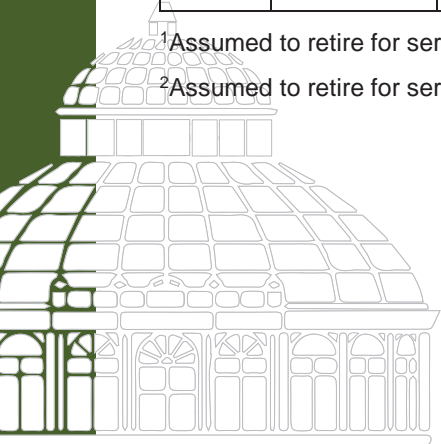
<sup>1</sup>Assumed to retire for service immediately at age 70.

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 2b (Cont'd) Withdrawals from Active Service (Due to Death or Disability) Members Who Elected An Improved Retirement Program Percentage of Eligible Active Members Separating Next Year</b>							
<b>Age</b>	<b>Accidental Disability Retirement</b>		<b>Ordinary Disability Retirement</b>		<b>Accidental Death</b>	<b>Ordinary Death</b>	
<b>Sanitation<sup>1</sup></b>							
	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>	<b>All</b>	<b>Males</b>	<b>Females</b>
20	0.10%	0.10%	0.10%	0.10%	0.01%	0.05%	0.03%
25	0.10	0.10	0.10	0.10	0.01	0.04	0.02
30	0.15	0.15	0.20	0.20	0.01	0.05	0.03
35	0.20	0.20	0.30	0.30	0.01	0.05	0.03
40	0.25	0.25	0.40	0.40	0.01	0.10	0.06
45	0.30	0.30	0.50	0.50	0.01	0.15	0.09
50	0.50	0.50	0.60	0.60	0.01	0.20	0.12
55	0.80	0.80	0.70	0.70	0.01	0.25	0.16
60	1.20	1.20	0.80	0.80	0.01	0.30	0.20
65	1.70	1.70	0.90	0.90	0.01	0.40	0.25
70	NA	NA	NA	NA	NA	NA	NA
<b>Correction Officers<sup>2</sup></b>							
20	0.20%	0.20%	0.10%	0.10%	0.01%	0.05%	0.03%
25	0.25	0.25	0.10	0.10	0.01	0.04	0.02
30	0.30	0.30	0.10	0.10	0.01	0.05	0.03
35	0.35	0.35	0.20	0.20	0.01	0.05	0.03
40	0.40	0.40	0.30	0.30	0.01	0.10	0.06
45	0.45	0.45	0.40	0.40	0.01	0.15	0.09
50	0.50	0.50	0.50	0.50	0.01	0.20	0.12
55	0.60	0.60	0.60	0.60	0.01	0.25	0.16
60	0.70	0.70	0.70	0.70	0.01	0.30	0.20
63	NA	NA	NA	NA	NA	NA	NA

<sup>1</sup>Assumed to retire for service immediately at age 70.

<sup>2</sup>Assumed to retire for service immediately at age 63.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 3</b>	
<b>Withdrawals from Other Than Death, Disability, or Service Retirement Percentage of Active Members Withdrawing within Next Year</b>	
<b>General Employees</b>	
<b>Years of Service</b>	<b>Probability of Withdrawal</b>
0	6.00%
5	3.00
10	2.00
15	1.50
20	1.00
25	1.00
30	1.00
35	1.00
40	1.00
45	1.00
<b>Transit Employees</b>	
<b>Years of Service</b>	<b>Probability of Withdrawal</b>
0	8.00%
5	1.00
10	1.00
15	0.50
20	0.50
25	0.50
30	0.50
35	0.50
<b>MTABT Employees</b>	
<b>Years of Service</b>	<b>Probability of Withdrawal</b>
0	4.00%
5	1.00
10	1.00
15	1.00
20	1.00
25	1.00
30	1.00
35	1.00

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 3 (Cont'd)</b>	
<b>Withdrawals from Other Than Death, Disability, or Service Retirement Percentage of Active Members Withdrawing within Next Year</b>	
<b>Sanitation Employees</b>	
<b>Years of Service</b>	<b>Probability of Withdrawal</b>
0	4.00%
5	1.00
10	0.50
15	0.50
20	0.50
25	0.50
30	0.50
35	0.50
<b>Correction Employees</b>	
<b>Years of Service</b>	<b>Probability of Withdrawal</b>
0	5.00%
5	1.00
10	0.50
15	0.50
20	0.50
25	0.50
30	0.50
35	0.50



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 4</b>							
<b>Withdrawals from Active Service (For Service Retirement) Percentage of Eligible Active Members Retiring</b>							
	<b>Reduced Benefits<sup>1</sup></b>	<b>Unreduced Benefits</b>					
		<b>Members Not Electing Optional Retirement Program<sup>2</sup></b>			<b>Members Electing Optional Retirement Program<sup>2</sup></b>		
		<b>Years of Service Since First Elig.</b>			<b>Years of Service Since First Elig.</b>		
<b>Age</b>		<b>0-1</b>	<b>1-2</b>	<b>2+</b>	<b>0-1</b>	<b>1-2</b>	<b>2+</b>
<b>General</b>							
50	0.00%	20.00%	15.00%	10.00%	40.00%	20.00%	15.00%
55	2.00	20.00	15.00	10.00	40.00	20.00	15.00
60	4.00	20.00	15.00	10.00	40.00	20.00	15.00
65	0.00	30.00	25.00	20.00	60.00	25.00	25.00
70	NA	100.00	100.00	100.00	100.00	100.00	100.00
<b>Transit Operating</b>							
50	0.00%	25.00%	15.00%	15.00%	25.00%	15.00%	15.00%
55	2.00	25.00	15.00	15.00	25.00	15.00	15.00
60	4.00	30.00	15.00	15.00	30.00	15.00	15.00
65	0.00	50.00	40.00	40.00	50.00	40.00	40.00
70	NA	100.00	100.00	100.00	100.00	100.00	100.00
<b>MTA Bridges and Tunnels</b>							
50	0.00%	30.00%	00.00%	00.00%	60.00%	00.00%	00.00%
55	2.00	30.00	20.00	20.00	60.00	30.00	30.00
60	4.00	30.00	20.00	20.00	60.00	30.00	30.00
65	0.00	40.00	40.00	40.00	60.00	40.00	40.00
70	NA	100.00	100.00	100.00	100.00	100.00	100.00

<sup>1</sup>Applicable only for certain Tier II, Tier IV, and Tier VI members prior to eligibility for unreduced Service Retirement benefits.

<sup>2</sup>Optional Retirement Programs such as under Chapter 96 of the Laws of 1995.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 4 (Cont'd)</b> <b>Withdrawals from Active Service (For Service Retirement) Percentage of Eligible Active Members Retiring</b>							
	Reduced Benefits <sup>1</sup>	Unreduced Benefits					
		Members Not Electing Optional Retirement Program <sup>2</sup>			Members Not Electing Optional Retirement Program <sup>2</sup>		
		Years of Service Since First Elig.			Years of Service Since First Elig.		
Age		0-1	1-2	2+	0-1	1-2	2+
<b>Sanitation</b>							
40	0.00%	40.00%	20.00%	20.00%	40.00%	20.00%	15.00%
45	0.00	40.00	20.00	20.00	40.00	20.00	15.00
50	0.00	40.00	20.00	20.00	50.00	20.00	15.00
55	2.00	40.00	20.00	20.00	60.00	20.00	15.00
60	4.00	40.00	20.00	20.00	60.00	20.00	20.00
65	0.00	60.00	40.00	40.00	60.00	40.00	30.00
70	NA	100.00	100.00	100.00	100.00	100.00	100.00
<b>Correction Officers</b>							
40	0.00%	60.00%	20.00%	20.00%	70.00%	20.00%	20.00%
45	0.00	60.00	20.00	20.00	70.00	20.00	20.00
50	0.00	60.00	20.00	20.00	70.00	20.00	20.00
55	2.00	60.00	20.00	20.00	70.00	20.00	20.00
60	4.00	60.00	20.00	20.00	70.00	20.00	20.00
63	NA	100.00	100.00	100.00	100.00	100.00	100.00

<sup>1</sup>Applicable only for certain Tier II, Tier IV, and Tier VI members prior to eligibility for unreduced Service Retirement benefits.

<sup>2</sup>Optional Retirement Programs (ORP) under Chapter 547 of the Laws of 1992, Chapter 936 of the Laws of 1990, and Chapter 631 of the Laws of 1993 for Sanitation and Corrections (Officers and Captains), respectively.



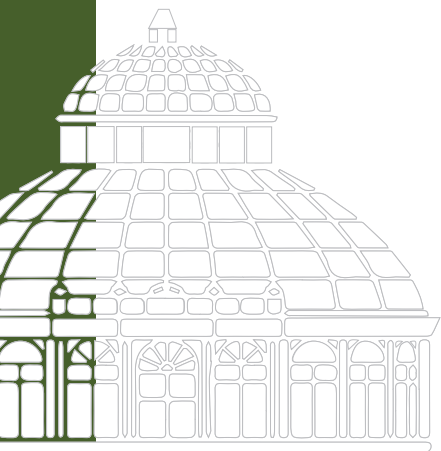
**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 5</b>					
<b>Salary Scales</b>					
<b>Assumed Annual Percentage Increases in Coming Year<sup>1</sup></b>					
<b>Years of Service</b>	<b>General</b>	<b>Transit Operating</b>	<b>MTA Bridges And Tunnels</b>	<b>Sanitation</b>	<b>Correction Officers</b>
0	9.00%	19.00%	11.00%	7.00%	14.00%
5	5.00	4.00	6.00	25.00	4.20
10	4.50	3.50	3.50	5.00	5.00
15	4.50	3.50	3.50	4.50	4.50
20	4.25	3.50	3.50	4.00	4.00
25	4.00	3.50	3.50	3.50	3.50
30	4.00	3.50	3.50	3.50	3.50
35	4.00	3.50	3.50	3.50	3.50
40	4.00	3.50	3.50	3.50	3.50
45	4.00	3.50	3.50	3.50	3.50

<sup>1</sup> Salary Scales include a General Wage Increase assumption of 3.0% per annum.

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 6 Baseline Overtime</b>					
<b>Years of Service</b>	<b>General</b>	<b>Transit Operating</b>	<b>MTA Bridges And Tunnels</b>	<b>Sanitation</b>	<b>Correction Officers</b>
0	4.00%	8.00%	20.00%	12.00%	10.00%
5	4.00	8.00	20.00	12.00	10.00
10	4.00	8.00	20.00	12.00	10.00
15	4.00	8.00	20.00	12.00	10.00
20+	4.00	8.00	20.00	12.00	15.00



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION (Cont'd)**

<b>Table 7 Dual Overtime</b>				
	<b>General</b>	<b>Transit Operating</b>		
<b>Years of Service</b>	<b>All Tiers</b>	<b>Tier I Service</b>	<b>All Other Tiers Service</b>	<b>All Tiers Disability</b>
0+	4.00%	12.00%	10.00%	6.00%

<b>Table 7 Dual Overtime (Cont'd)</b>				
	<b>MTA Bridges and Tunnels</b>			
<b>Years of Service</b>	<b>Tier I Service FAS 1</b>	<b>All Tiers Service FAS 3</b>	<b>Tier I Disability FAS 1</b>	<b>All Tiers Disability FAS 3</b>
0+	30.00%	24.00%	15.00%	18.00%

<b>Table 7 Dual Overtime (Cont'd)</b>					
	<b>Sanitation</b>		<b>Correction Officers</b>		
<b>Years of Service</b>	<b>All Tiers Service</b>	<b>All Tiers Disability</b>	<b>All Tiers Service</b>	<b>Tier I Disability</b>	<b>All Other Tiers Disability</b>
0-15	16.00%	8.00%	10.00%	5.00%	8.00%
20+	16.00	8.00	15.00	10.00	13.00

**Table 8**  
**ACTIVE MEMBER VALUATION DATA**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Payroll<sup>1</sup></b>	<b>Annual Average Salary</b>	<b>Percentage Increase in Average Pay</b>
6/30/07 (Lag)	180,482	\$10,761,963,324	\$59,629	5.2%
6/30/08 (Lag)	183,654	11,305,974,384	61,561	3.2
6/30/09 (Lag)	186,284	11,880,993,974	63,779	3.6
6/30/10 (Lag) <sup>2</sup>	184,982	12,101,416,579	65,419	2.6
6/30/11 (Lag)	182,021	12,233,572,536	67,210	2.7
6/30/12 (Lag)	187,114	12,478,129,812	66,687	(0.8)
6/30/13 (Lag)	185,971	12,642,482,697	67,981	1.9
6/30/14 (Lag)	184,762	12,672,386,846	68,588	0.9
6/30/15 (Lag)	185,758	12,917,466,528	69,539	1.4
6/30/16 (Lag)	185,481	13,216,539,355	71,255	2.5

<sup>1</sup>Annual Payroll was increased by a percentage to reflect overtime earnings, and, where applicable, adjusted to be consistent with collective bargaining agreements estimated to be achieved.

<sup>2</sup>Beginning with the June 30, 2010 (Lag) actuarial valuation, the annualized covered payroll is based on revised actuarial assumptions.



**Table 9**  
**NUMBER AND SALARY OF ACTIVE MEMBERS**  
**BY OCCUPATIONAL POSITION**  
**AS OF JUNE 30, 2016 (LAG) ACTUARIAL VALUATION**

<b>Occupation – Main Groups</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Average Annual Salary</b>
General	132,267	\$8,850,890,447	\$66,917
Transit Operating Positions	35,750	2,816,095,683	78,772
MTA Bridges and Tunnels	1,311	126,573,449	96,547
Uniform Sanitation	7,338	663,846,082	90,467
Uniform Correction Force	<u>8,815</u>	<u>759,133,694</u>	<u>86,118</u>
Total	185,481	\$13,216,539,355	\$71,255

**Table 10**  
**NUMBER OF ACTIVE MEMBERS**  
**BY OCCUPATIONAL POSITION AND AGE**  
**AS OF JUNE 30, 2016 (LAG) ACTUARIAL VALUATION**

<b>Age</b>	<b>Total</b>	<b>General</b>	<b>Transit Operating</b>	<b>MTA Bridges &amp; Tunnels</b>	<b>Sanitation</b>	<b>Correction</b>
Under 20	16	11	5	0	0	0
20 – 24	1,809	1,459	170	8	1	171
25 – 29	10,055	7,561	1,136	42	374	942
30 – 34	17,540	12,146	2,467	89	1,181	1,657
35 – 39	19,967	13,587	3,255	153	1,508	1,464
40 – 44	21,353	14,228	4,049	246	1,393	1,437
45 – 49	26,556	17,839	5,775	254	1,208	1,480
50 – 54	31,907	21,950	7,777	217	959	1,004
55 – 59	29,010	21,823	6,049	185	474	479
60 – 64	18,167	14,313	3,440	74	188	152
65 – 69	6,716	5,324	1,293	30	42	27
70 +	<u>2,385</u>	<u>2,026</u>	<u>334</u>	<u>13</u>	<u>10</u>	<u>2</u>
<b>Total</b>	<b>185,481</b>	<b>132,267</b>	<b>35,750</b>	<b>1,311</b>	<b>7,338</b>	<b>8,815</b>



**Table 11**  
**NUMBER OF ACTIVE MEMBERS**  
**BY OCCUPATIONAL POSITION AND YEARS OF SERVICE**  
**AS OF JUNE 30, 2016 (LAG) ACTUARIAL VALUATION**

<b>Years Of Service</b>	<b>Total</b>	<b>General</b>	<b>Transit Operating</b>	<b>MTA Bridges &amp; Tunnels</b>	<b>Sanitation</b>	<b>Correction</b>
Under 5	46,314	33,815	8,215	158	1,611	2,515
5 – 9	36,991	28,285	5,673	190	1,019	1,824
10 – 14	30,922	22,199	4,497	451	1,925	1,850
15 – 19	28,152	17,408	7,168	270	1,796	1,510
20 – 24	18,128	13,216	3,959	85	454	414
25 – 29	15,225	10,068	4,065	105	418	569
30 – 34	6,842	4,864	1,746	40	87	105
35 – 39	2,209	1,770	384	9	20	26
40 +	<u>698</u>	<u>642</u>	<u>43</u>	<u>3</u>	<u>8</u>	<u>2</u>
<b>Total</b>	<b>185,481</b>	<b>132,267</b>	<b>35,750</b>	<b>1,311</b>	<b>7,338</b>	<b>8,815</b>



**Table 12**  
**PARTICIPATING EMPLOYERS**

Employer	June 30, 2016 (Lag)		June 30, 2007 (Lag)	
	Number of Employees	Annual Payroll	Number of Employees	Annual Payroll
City of New York	98,755	\$ 6,888,745,142	92,479	\$ 5,500,367,075
NYC Transit	38,667	3,090,263,273	39,486	2,566,218,032
NYC Housing Authority	9,914	628,478,856	11,592	606,843,793
NYC Health and Hospitals Corporation	32,322	2,227,734,680	29,914	1,741,588,877
MTA Bridges and Tunnels	1,311	126,573,449	1,657	118,674,521
NYC Off-Track Betting Corporation	0	0	1,184	45,754,750
NYC School Construction Authority	55	6,268,836	52	4,816,290
NYC Housing Development Corporation	97	9,029,679	63	5,719,495
City University of New York – Senior Colleges	4,350	238,430,426	4,039	170,859,735
New York State	0	0	13	788,978
NYC Municipal Water Authority	<u>10</u>	<u>1,015,014</u>	<u>3</u>	<u>331,778</u>
<b>Total</b>	<b>185,481</b>	<b>\$13,216,539,355</b>	<b>180,482</b>	<b>\$10,761,963,324</b>



## SUMMARY OF PLAN MEMBERSHIP

As of the June 30, 2016 (Lag) and June 30, 2015 (Lag) actuarial valuations, the Plan's membership consisted of the following:

<b>Table 13</b>		
<b>SUMMARY OF PLAN MEMBERSHIP</b>		
<b>Group</b>	<b>June 30, 2016 (Lag)</b>	<b>June 30, 2015 (Lag)</b>
Retirees and beneficiaries currently receiving benefits	147,514	144,526
Terminated vested members not yet receiving benefits	8,895	9,402
Other Inactives <sup>1</sup>	17,989	16,907
Active members	<u>185,481</u>	<u>185,758</u>
Total	359,879	356,593

<sup>1</sup> Represents members no longer on payroll but not otherwise classified.

**Table 14**  
**RETIREEES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS**

Fiscal Year Ended	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase In Annual Allowances	Average Annual Allowances	% Increase In Average Annual Allowances
	Number	Annual Allowances <sup>1</sup>	Number	Annual Allowances	Number	Annual Allowances <sup>2</sup>			
6/30/07	6,580	\$ 236,949,056	6,088	\$ 105,839,523	129,281	\$ 2,906,243,512	4.7%	\$ 22,480	4.3%
6/30/08	6,999	222,985,559	5,616	142,159,662	130,664	2,987,069,409	2.8	22,861	1.7
6/30/09	5,821	147,278,673	5,454	70,493,395	131,031	3,063,854,687	2.6	23,383	2.3
6/30/10	6,997	201,129,110	5,541	72,297,965	132,487	3,192,685,832	4.2	24,098	3.1
6/30/11	8,564	261,133,473	5,583	101,421,090	135,468	3,352,398,215	5.0	24,747	2.7
6/30/12	7,628	274,865,758	5,109	95,823,182	137,987	3,531,440,791	5.3	25,593	3.4
6/30/13	7,334	244,447,724	5,922	116,360,332	139,399	3,659,528,183	3.6	26,252	2.6
6/30/14	8,132	276,606,560	5,436	107,547,552	142,095	3,828,587,191	4.6	26,944	2.6
6/30/15	8,219	289,143,851	5,788	117,910,540	144,526	3,999,820,502	4.5	27,675	2.7
6/30/16	8,407	295,570,322	5,419	115,894,203	147,514	4,179,496,621	4.5	28,333	2.4

<sup>1</sup>Balancing item - amounts shown include changes due to benefit finalization, change 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 Ended date and are not adjusted for anticipated changes due to finalization of benefit calculations or contract settlements.

<b>Table 15</b>			
<b>STATUTORY VS ACTUARIAL CONTRIBUTIONS</b>			
<b>Fiscal Year Ended</b>	<b>Statutory Contribution<sup>1</sup></b>	<b>Actuarial Contribution</b>	<b>Employer Rate of Contribution<sup>2</sup></b>
6/30/09	\$2,150,438,042	\$2,150,438,042	20.6%
6/30/10	2,197,717,073	2,197,717,073	20.0
6/30/11	2,387,215,772	2,387,215,772	20.8
6/30/12	3,017,004,318	3,017,004,318	25.5
6/30/13	3,046,845,264	3,046,845,264	25.5
6/30/14	3,114,068,148	3,114,068,148	25.6
6/30/15	3,160,257,868	3,160,257,868	25.7
6/30/16	3,365,454,212	3,365,454,212	27.3
6/30/17	3,328,192,582	3,328,192,582	26.5
6/30/18	3,377,024,173	3,377,024,173	26.3

<sup>1</sup>Represents total employer contributions accrued for fiscal year.

<sup>2</sup>The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 increased to reflect overtime earnings and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

## FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD

Prior to the June 30, 2010 (Lag) Actuarial Valuation, the Frozen Initial Liability (FIL) cost method was used to develop the funding requirements for the Plan. Under this method, following establishment of any Initial Unfunded Actuarial Accrued Liabilities (UAAL), actuarial gains and losses are financed over the working lifetimes of active participants and are not identified as separate UAAL.

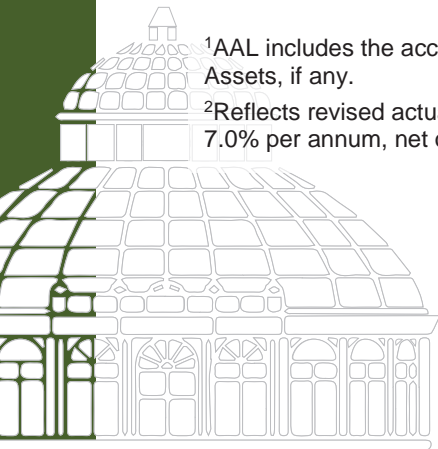
The funding status and funding progress information provided in this Schedule has been prepared using the Entry Age Normal (EAN) cost method where the Present Value (PV) of any obligations of the Plan not provided by the PV of Future Contributions (Employer and Employee), as determined under the EAN cost method, equals the Actuarial Accrued Liability (AAL). Under the EAN cost method, the UAAL equals the AAL minus the Actuarial Value of Assets.

Table 16						
FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD						
(Dollar Amounts in Thousands)						
Actuarial Valuation Date	Actuarial Value of Assets	Entry Age Actuarial Accrued Liability (AAL) <sup>1</sup>	Entry Age Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage Of Covered Payroll
	(a)	(b)	(b-a)	(a/b)	(c)	((b-a)/c)
June 30, 2007 (Lag)	\$38,925,725	\$49,253,216	\$10,327,491	79.0%	\$10,761,963	96.0%
June 30, 2008 (Lag)	40,722,228	51,114,399	10,392,171	79.7	11,305,974	91.9
June 30, 2009 (Lag)	41,710,159	53,052,658	11,342,499	78.6	11,880,994	95.5
June 30, 2010 (Lag) <sup>(2)</sup>	40,433,344	62,935,267	22,501,923	64.2	12,101,417	185.9
June 30, 2011 (Lag) <sup>(2)</sup>	42,409,059	65,269,251	22,860,192	65.0	12,233,573	186.9
June 30, 2012 (Lag) <sup>(2)</sup>	44,676,721	67,417,018	22,740,297	66.3	12,478,130	182.2
June 30, 2013 (Lag) <sup>(2)</sup>	47,282,884	70,028,252	22,745,368	67.5	12,642,483	179.9
June 30, 2014 (Lag) <sup>(2)</sup>	50,505,971	74,123,437	23,617,466	68.1	12,672,387	186.4
June 30, 2015 (Lag) <sup>(2)</sup>	53,573,694	76,678,220	23,104,526	69.9	12,917,467	178.9
June 30, 2016 (Lag) <sup>(2)</sup>	56,491,829	79,081,183	22,589,354	71.4	13,216,539	170.9

This schedule is based on actuarial assumptions used for determining Employer Contributions.

<sup>1</sup>AAL includes the accrued liabilities attributable to the Variable Supplements Funds, net of their Actuarial Value of Assets, if any.

<sup>2</sup>Reflects revised actuarial assumptions and methods based on experience review, including an AIR assumption of 7.0% per annum, net of investment expenses.



**Table 17**

**COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS  
SOLVENCY TEST  
(Dollar Amounts in Thousands)**

As of June 30	Accrued Liabilities for					Actuarial Value of Assets (D)	Percentage of Accrued Liabilities Funded by Actuarial Value of Assets (C)	
	Accumulated Member Contributions <sup>1</sup> (A)	Current Retirees and Beneficiaries (B)	Active Members' Employer Financed Portion (C)	(A)	(B)		(C)	
2007 (Lag)	\$5,739,890	\$25,020,637	\$15,514,393	100%	100%	\$38,925,725	100%	53%
2008 (Lag)	5,984,631	25,700,882	21,020,157	100	100	40,722,228	100	43
2009 (Lag)	6,336,353	26,124,122	22,459,541	100	100	41,710,159	100	41
2010 (Lag)	6,712,979	31,446,478	28,431,003	100	100	40,433,344	100	8
2011 (Lag)	7,010,301	33,116,897	29,062,680	100	100	42,409,059	100	8
2012 (Lag)	7,261,912	35,028,113	29,336,710	100	100	44,676,721	100	8
2013 (Lag)	7,611,951	36,181,288	30,646,015	100	100	47,282,884	100	11
2014 (Lag)	7,958,544	38,662,825	32,009,068	100	100	50,505,971	100	12
2015 (Lag)	8,328,939	40,648,703	32,711,419	100	100	53,573,694	100	14
2016 (Lag)	8,692,025	42,399,551	33,445,905	100	100	56,491,829	100	16

<sup>1</sup>June 30, 2008 and later amounts are provided by NYCERS' Accountant. For all prior years, the amounts are derived from The Annual Statements of the New York State Department of Financial Services.

See following "SOLVENCY TEST – NOTES."

## COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

### SOLVENCY TEST – NOTES

The ultimate test of financial soundness in a retirement system is its ability to pay all of its promised benefits when due. The retirement system's progress in accumulating assets to pay all promised benefits can be measured by comparing the Actuarial Value of Assets of the retirement system with the Accrued Liabilities for:

- a. Accumulated Member Contributions;
- b. Current Retirees and Beneficiaries; and
- c. Active Members' Employer Financed Portion.

The Accrued Liabilities are the PV of projected benefits produced by the projected benefit attribution approach prorated on service. The Accrued Liabilities were calculated in accordance with Governmental Accounting Standards Board Statement No. 5 (GASB 5).

This comparative summary allocated assets as if they were priority groups, somewhat similar to (but not identical to) the priority categories of Section 4044 of the Employee Retirement Income Security Act of 1974 (ERISA).

The values in the table are dependent upon census data, benefit levels (which have changed on occasion over the past years), and the actuarial assumptions and methods employed at each valuation date. The two most recent changes in assumptions and methods occurred in the June 30, 2014 (Lag) valuation used to compute the Employer Contributions for Fiscal Year 2016 and in the June 30, 2010 (Lag) valuation used to compute the Employer Contributions for Fiscal Year 2012. These underlying bases can be found within the Comprehensive Annual Financial Report for each respective year.

To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. Beginning with the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate assumption equals 7.0% per annum, net of investment expenses, and the General Wage Increase assumption equals 3.0% per annum. Prior to the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate assumption was 8.0% per annum, gross of expenses.



## CONTRIBUTIONS

The benefits of the System are financed by member and employer contributions and from investment earnings of the Fund.

### A. MEMBER CONTRIBUTIONS

A member of Article 15 who joined NYCERS on or after April 1, 2012 (Tier 6) and is not a member of a 22-Year Plan is required to contribute between 3.0% and 6.0% of salary, depending on salary level, for all years of service. Members in a 22-Year Plan contribute 3.0% of salary until they attain 25 years of Credited Service or separate from City service or retire, whichever comes first. A member of Article 15 (Coordinated Retirement Plan) who joined NYCERS on or before March 31, 2012, is mandated to contribute 3% of salary during all years of coverage. Effective October 1, 2000, these members are not required to make contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. Tier 4 Transit operating-force members, however, pay 2% of gross wages for as long as they remain in service. Members of Article 14 except for 22-Year Plan members are mandated to contribute 3% of salary for not more than thirty years. Effective October 1, 2000, these members are not required to make contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. This is in addition to the Social Security contribution. Should a member die, resign or be otherwise terminated from City service prior to completing five years of credited service (10 years for Tier 6 members), all of the members' contributions, with 5% interest, will be refunded for Article 14 members and Article 15 members upon request, or may be left on deposit for a maximum period of five years earning interest, so that the member retains membership.

All other members contribute by salary deductions on the basis of a rate of contribution which is assigned by the System at the time they elect their plan. This rate, which is dependent upon the member's age and plan as well as the tables in effect for such purpose, is determined to provide an annuity of approximately one-fourth of the service retirement allowance at the earliest age for service retirement in those contributory plans for which a fixed number of years of service is required for service retirement, except that in the case of the career pension plan, the rates of members' contributions are determined so as to provide an annuity of approximately one-fourth of the benefit on account of the first 25 years of service. In plans which permit retirement for service at age 55 regardless of the number of years of service earned, the rate of contribution is calculated to provide an annuity equal to 1% of final compensation for each year of service at the earliest age for service retirement. Beginning July 1, 1970, no contributions are required from members who elected the Transit 20-Year Plan.

Member contributions are accumulated with interest in individually maintained accounts. Except under Articles 14 and 15, upon retirement the amount so credited (i.e. accumulated deductions) is used to purchase an annuity on the basis of the tables adopted by the Board of Trustees (Board). Upon death, the accumulated deductions are paid to the beneficiary and on termination of employment other than by death or retirement, the accumulated deductions are returned to the member.



## CONTRIBUTIONS (Cont'd)

Beginning July 1960, on a year-to-year basis, the members' contribution rates of certain categories of members were reduced by an Increased-Take-Home-Pay (ITHP) rate equal to either two, two and one half, four, or five percent of salary. At present, the reduction is two and one-half percent of salary for Sanitation and Correction members and two percent of salary for all others except for (1) members in transit operating positions who, beginning July 1, 1970, were not required to contribute to the System, and (2) members in the Coordinated-Escalator and Coordinated Retirement Plans. In general, the retirement and death benefits payable to, or on account of members, are supplemented by the reserve for ITHP, accumulated from City contributions equal to the ITHP rate times salary, so that the total benefit is equal to the benefit which would have been paid if the members' rate of contribution had not been reduced. However, the reserve for ITHP is not payable upon the death of a member who joins after June 30, 1973.

In addition to the member contributions described previously, there are certain Additional Member Contributions ranging from 1.85% to 7.46% required for improved early retirement benefits.

### B. EMPLOYER CONTRIBUTIONS

The Entry Age Normal cost method of funding is utilized by the Plan's Actuary to calculate the contributions required of the employers.

Employer contributions are accrued by the Plan and are funded by the employers on a current basis.



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 DATA USED IN THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION  
 FOR DETERMINING FINAL FISCAL YEAR 2018 EMPLOYER CONTRIBUTIONS  
 SUMMARY OF ACTIVES

GROUP:	ALL										TIER: ALL	GENDER: M&F
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	16	0	0	0	0	0	0	0	0	0	0	16
20 TO 24	1,783	26	0	0	0	0	0	0	0	0	0	1,809
25 TO 29	8,332	1,681	42	0	0	0	0	0	0	0	0	10,055
30 TO 34	9,544	6,347	1,562	87	0	0	0	0	0	0	0	17,540
35 TO 39	7,428	6,517	4,700	1,308	14	0	0	0	0	0	0	19,967
40 TO 44	5,625	5,714	5,399	3,908	676	31	0	0	0	0	0	21,353
45 TO 49	4,843	5,212	5,590	5,957	3,403	1,503	48	0	0	0	0	26,556
50 TO 54	4,076	4,621	5,130	6,226	5,032	5,179	1,543	100	0	0	0	31,907
55 TO 59	2,764	3,619	4,250	5,312	4,780	4,676	2,795	805	9	0	0	29,010
60 TO 64	1,340	2,145	2,714	3,416	2,947	2,707	1,813	899	186	0	0	18,167
65 TO 69	428	876	1,173	1,443	934	832	447	308	275	0	0	6,716
70 & UP	135	233	362	495	342	297	196	97	228	0	0	2,385
<b>TOTAL</b>	<b>46,314</b>	<b>36,991</b>	<b>30,922</b>	<b>28,152</b>	<b>18,128</b>	<b>15,225</b>	<b>6,842</b>	<b>2,209</b>	<b>698</b>	<b>0</b>	<b>0</b>	<b>185,481</b>

## SALARIES (IN THOUSANDS):

UNDER 20	541	0	0	0	0	0	0	0	0	0	0	541
20 TO 24	78,936	1,644	0	0	0	0	0	0	0	0	0	80,580
25 TO 29	431,524	99,457	3,138	0	0	0	0	0	0	0	0	534,118
30 TO 34	554,281	412,440	120,395	7,207	0	0	0	0	0	0	0	1,094,323
35 TO 39	454,338	446,965	349,455	106,250	1,089	0	0	0	0	0	0	1,358,097
40 TO 44	354,179	400,138	407,069	317,817	55,501	2,688	0	0	0	0	0	1,537,392
45 TO 49	306,288	362,770	414,192	471,630	276,772	128,165	4,474	0	0	0	0	1,964,291
50 TO 54	262,264	317,400	371,415	483,477	407,008	433,904	133,399	8,896	0	0	0	2,417,763
55 TO 59	179,183	243,261	303,882	408,721	388,447	379,904	230,677	63,744	784	0	0	2,198,603
60 TO 64	89,482	146,151	189,920	259,776	232,308	216,143	144,345	73,168	13,761	0	0	1,365,054
65 TO 69	28,039	59,976	81,333	109,645	71,506	64,860	34,196	25,420	23,339	0	0	498,312
70 & UP	8,548	14,828	23,703	34,142	24,745	21,583	13,802	7,507	18,608	0	0	167,466
<b>TOTAL *</b>	<b>2,747,600</b>	<b>2,505,029</b>	<b>2,264,502</b>	<b>2,198,665</b>	<b>1,457,376</b>	<b>1,247,247</b>	<b>560,894</b>	<b>178,735</b>	<b>56,492</b>	<b>0</b>	<b>0</b>	<b>13,216,539</b>

## AVERAGE SALARIES: \*\*

UNDER 20	33,781	0	0	0	0	0	0	0	0	0	0	33,781
20 TO 24	44,271	63,247	0	0	0	0	0	0	0	0	0	44,544
25 TO 29	51,791	59,165	74,711	0	0	0	0	0	0	0	0	53,120
30 TO 34	58,076	64,982	77,078	82,839	0	0	0	0	0	0	0	62,390
35 TO 39	61,166	68,584	74,352	81,231	77,792	0	0	0	0	0	0	68,017
40 TO 44	62,965	70,028	75,397	81,325	82,102	86,709	0	0	0	0	0	71,999
45 TO 49	63,244	69,603	74,095	79,172	81,332	85,273	93,206	0	0	0	0	73,968
50 TO 54	64,343	68,686	72,400	77,655	80,884	83,781	86,454	88,962	0	0	0	75,775
55 TO 59	64,827	67,218	71,502	76,943	81,265	81,245	82,532	79,185	87,110	0	0	75,788
60 TO 64	66,777	68,135	69,978	76,047	78,829	79,846	79,617	81,388	73,985	0	0	75,139
65 TO 69	65,511	68,465	69,337	75,984	76,558	77,957	76,502	82,532	84,868	0	0	74,198
70 & UP	63,316	63,640	65,478	68,974	72,354	72,670	70,421	77,389	81,613	0	0	70,216
<b>TOTAL</b>	<b>59,325</b>	<b>67,720</b>	<b>73,233</b>	<b>78,100</b>	<b>80,394</b>	<b>81,921</b>	<b>81,978</b>	<b>80,912</b>	<b>80,934</b>	<b>0</b>	<b>0</b>	<b>71,255</b>

Note: Age is last birthday. Service is completed years.

\* Total may not add up due to rounding.

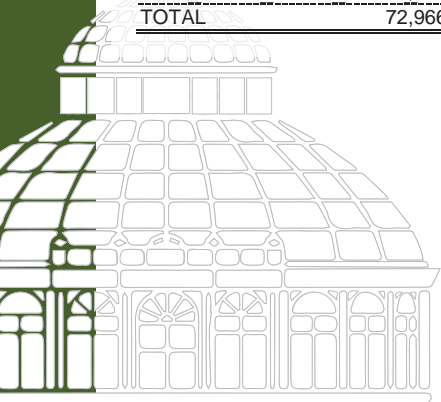
\*\* Average based on unrounded salary.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 DATA USED IN THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION  
 FOR DETERMINING FINAL FISCAL YEAR 2018 EMPLOYER CONTRIBUTIONS  
 SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ACTUARIAL NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM

ALL FILES (ALL BENEFITS)

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<b>ACCIDENTAL DISABILITY:</b>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	15	631,503	42,100	3	114,397	38,132	18	745,900	41,439
35 TO 39	48	2,216,743	46,182	5	272,692	54,538	53	2,489,435	46,970
40 TO 44	101	5,333,638	52,808	17	657,563	38,680	118	5,991,201	50,773
45 TO 49	222	10,918,854	49,184	65	3,108,899	47,829	287	14,027,753	48,877
50 TO 54	453	20,893,783	46,123	99	3,924,042	39,637	552	24,817,825	44,960
55 TO 59	391	17,009,847	43,503	85	3,366,896	39,611	476	20,376,743	42,808
60 TO 64	431	18,072,133	41,931	58	2,215,713	38,202	489	20,287,846	41,488
65 TO 69	574	20,095,631	35,010	24	765,154	31,881	598	20,860,785	34,884
70 TO 74	560	17,254,352	30,811	30	778,906	25,964	590	18,033,258	30,565
75 TO 79	342	10,423,075	30,477	21	438,660	20,889	363	10,861,735	29,922
80 TO 84	181	5,228,123	28,885	17	280,244	16,485	198	5,508,367	27,820
85 TO 89	124	3,562,968	28,734	8	142,876	17,860	132	3,705,844	28,075
90 & UP	44	1,173,800	26,677	10	174,414	17,441	54	1,348,214	24,967
<b>TOTAL</b>	<b>3,486</b>	<b>132,814,450</b>	<b>38,099</b>	<b>442</b>	<b>16,240,456</b>	<b>36,743</b>	<b>3,928</b>	<b>149,054,906</b>	<b>37,947</b>
<b>ORDINARY DISABILITY:</b>									
UNDER 30	0	0	0	1	16,400	16,400	1	16,400	16,400
30 TO 34	3	97,748	32,583	2	21,025	10,513	5	118,773	23,755
35 TO 39	22	544,159	24,735	17	399,171	23,481	39	943,330	24,188
40 TO 44	75	1,804,951	24,066	46	888,762	19,321	121	2,693,713	22,262
45 TO 49	271	5,942,131	21,927	184	3,188,210	17,327	455	9,130,341	20,067
50 TO 54	675	14,544,256	21,547	469	8,695,540	18,541	1,144	23,239,796	20,315
55 TO 59	1,116	23,033,567	20,639	741	12,814,681	17,294	1,857	35,848,248	19,304
60 TO 64	1,230	24,369,707	19,813	810	14,088,879	17,394	2,040	38,458,586	18,852
65 TO 69	1,309	24,870,553	19,000	656	10,198,745	15,547	1,965	35,069,298	17,847
70 TO 74	962	18,356,255	19,081	428	6,188,781	14,460	1,390	24,545,036	17,658
75 TO 79	564	10,201,482	18,088	263	3,339,537	12,698	827	13,541,019	16,374
80 TO 84	235	3,955,566	16,832	109	1,307,785	11,998	344	5,263,351	15,300
85 TO 89	137	2,184,200	15,943	42	383,297	9,126	179	2,567,497	14,344
90 & UP	46	840,762	18,277	28	300,647	10,737	74	1,141,409	15,424
<b>TOTAL</b>	<b>6,645</b>	<b>130,745,337</b>	<b>19,676</b>	<b>3,796</b>	<b>61,831,460</b>	<b>16,289</b>	<b>10,441</b>	<b>192,576,797</b>	<b>18,444</b>
<b>SERVICE RETIREMENT:</b>									
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	27	1,246,516	46,167	5	232,665	46,533	32	1,479,181	46,224
45 TO 49	573	27,911,471	48,711	307	14,021,388	45,672	880	41,932,859	47,651
50 TO 54	2,489	113,847,382	45,740	944	41,926,549	44,414	3,433	155,773,931	45,375
55 TO 59	5,153	218,553,231	42,413	2,257	75,752,085	33,563	7,410	294,305,316	39,717
60 TO 64	10,713	413,736,982	38,620	5,884	167,184,034	28,413	16,597	580,921,016	35,002
65 TO 69	15,376	559,647,616	36,397	10,131	277,101,120	27,352	25,507	836,748,736	32,805
70 TO 74	13,899	460,715,833	33,147	8,844	224,224,860	25,353	22,743	684,940,693	30,117
75 TO 79	10,818	324,014,502	29,951	6,634	147,684,301	22,262	17,452	471,698,803	27,028
80 TO 84	6,953	186,754,980	26,860	4,366	83,081,702	19,029	11,319	269,836,682	23,839
85 TO 89	4,454	114,934,762	25,805	3,267	56,645,017	17,339	7,721	171,579,779	22,222
90 & UP	2,511	59,328,089	23,627	2,770	38,871,263	14,033	5,281	98,199,352	18,595
<b>TOTAL</b>	<b>72,966</b>	<b>2,480,691,364</b>	<b>33,998</b>	<b>45,409</b>	<b>1,126,724,984</b>	<b>24,813</b>	<b>118,375</b>	<b>3,607,416,348</b>	<b>30,474</b>



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM  
 DATA USED IN THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATION  
 FOR DETERMINING FINAL FISCAL YEAR 2018 EMPLOYER CONTRIBUTIONS  
 SUMMARY OF PENSIONERS BY CAUSE AND GENDER

AGE	MALE			FEMALE			ALL FILES (ALL BENEFITS) BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<b>ACCIDENTAL DEATH:</b>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	1	22,165	22,165	1	22,165	22,165
35 TO 39	0	0	0	2	49,347	24,674	2	49,347	24,674
40 TO 44	1	16,567	16,567	2	65,593	32,797	3	82,160	27,387
45 TO 49	3	138,509	46,170	9	357,674	39,742	12	496,183	41,349
50 TO 54	2	69,465	34,733	16	760,804	47,550	18	830,269	46,126
55 TO 59	0	0	0	14	605,108	43,222	14	605,108	43,222
60 TO 64	4	210,046	52,512	26	966,677	37,180	30	1,176,723	39,224
65 TO 69	6	252,813	42,136	25	1,053,798	42,152	31	1,306,611	42,149
70 TO 74	0	0	0	15	571,204	38,080	15	571,204	38,080
75 TO 79	2	113,002	56,501	14	729,372	52,098	16	842,374	52,648
80 TO 84	1	23,942	23,942	8	193,739	24,217	9	217,681	24,187
85 TO 89	0	0	0	4	113,246	28,312	4	113,246	28,312
90 & UP	0	0	0	3	33,561	11,187	3	33,561	11,187
<b>TOTAL</b>	<b>19</b>	<b>824,344</b>	<b>43,387</b>	<b>139</b>	<b>5,522,288</b>	<b>39,729</b>	<b>158</b>	<b>6,346,632</b>	<b>40,169</b>
<b>OTHER BENEFICIARIES:</b>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	1	14,234	14,234	1	14,234	14,234
35 TO 39	1	9,021	9,021	4	95,028	23,757	5	104,049	20,810
40 TO 44	0	0	0	2	34,796	17,398	2	34,796	17,398
45 TO 49	1	13,647	13,647	22	457,675	20,803	23	471,322	20,492
50 TO 54	15	288,776	19,252	73	1,532,131	20,988	88	1,820,907	20,692
55 TO 59	47	1,084,867	23,082	178	4,045,354	22,727	225	5,130,221	22,801
60 TO 64	108	2,018,441	18,689	498	10,901,027	21,890	606	12,919,468	21,319
65 TO 69	213	2,759,246	12,954	976	20,366,142	20,867	1,189	23,125,388	19,449
70 TO 74	238	3,264,721	13,717	1,322	24,693,937	18,679	1,560	27,958,658	17,922
75 TO 79	225	3,076,786	13,675	1,624	28,488,260	17,542	1,849	31,565,046	17,071
80 TO 84	177	1,675,010	9,463	1,898	30,995,624	16,331	2,075	32,670,634	15,745
85 TO 89	182	1,470,188	8,078	2,219	34,493,914	15,545	2,401	35,964,102	14,979
90 & UP	336	1,925,533	5,731	4,252	50,397,580	11,853	4,588	52,323,113	11,404
<b>TOTAL</b>	<b>1,543</b>	<b>17,586,236</b>	<b>11,397</b>	<b>13,069</b>	<b>206,515,702</b>	<b>15,802</b>	<b>14,612</b>	<b>224,101,938</b>	<b>15,337</b>
<b>ALL PENSIONERS AND BENEFICIARIES:</b>									
UNDER 30	0	0	0	1	16,400	16,400	1	16,400	16,400
30 TO 34	18	729,251	40,514	7	171,821	24,546	25	901,072	36,043
35 TO 39	71	2,769,923	39,013	28	816,238	29,151	99	3,586,161	36,224
40 TO 44	204	8,401,672	41,185	72	1,879,379	26,102	276	10,281,051	37,250
45 TO 49	1,070	44,924,612	41,986	587	21,133,846	36,003	1,657	66,058,458	39,866
50 TO 54	3,634	149,643,662	41,179	1,601	56,839,066	35,502	5,235	206,482,728	39,443
55 TO 59	6,707	259,681,512	38,718	3,275	96,584,124	29,491	9,982	356,265,636	35,691
60 TO 64	12,486	458,407,309	36,714	7,276	195,356,330	26,849	19,762	653,763,639	33,082
65 TO 69	17,478	607,625,859	34,765	11,812	309,484,959	26,201	29,290	917,110,818	31,311
70 TO 74	15,659	499,591,161	31,904	10,639	256,457,688	24,105	26,298	756,048,849	28,749
75 TO 79	11,951	347,828,847	29,105	8,556	180,680,130	21,117	20,507	528,508,977	25,772
80 TO 84	7,547	197,637,621	26,188	6,398	115,859,094	18,109	13,945	313,496,715	22,481
85 TO 89	4,897	122,152,118	24,944	5,540	91,778,350	16,566	10,437	213,930,468	20,497
90 & UP	2,937	63,268,184	21,542	7,063	89,777,465	12,711	10,000	153,045,649	15,305
<b>TOTAL</b>	<b>84,659</b>	<b>2,762,661,731</b>	<b>32,633</b>	<b>62,855</b>	<b>1,416,834,890</b>	<b>22,541</b>	<b>147,514</b>	<b>4,179,496,621</b>	<b>28,333</b>



TRANSPORTATION

Staten Island Ferry

# PART 5 STATISTICAL SECTION



## Statistical Section Overview

The Statistical Section assists users in understanding the basic financial statements by presenting detailed relevant financial and demographic information that provides historical perspective to the Plan's economic condition, trends, and operations. All data in this section is derived from the Plan's internal sources.

Page #	Table Name	Table Description
Page 205	<ul style="list-style-type: none"> <li>Cash Receipts and Disbursements</li> </ul>	Activity of the year on a cash basis, for the Plan and the five Variable Supplements Funds
Page 206 - 209	<ul style="list-style-type: none"> <li>Revenue by Source</li> <li>Changes in Fiduciary Net Position</li> <li>Benefit Payments by Type</li> <li>Benefit Payments (VSF)</li> <li>Benefits Paid</li> </ul>	10 year financial information that helps the reader understand how financial activities have changed over time for the Plan and the five Variable Supplements Funds
Page 210 - 213	<p><u>Service Retirement Experience</u></p> <ul style="list-style-type: none"> <li>Average Annual Benefit Payments (6 year summary)</li> <li>Average Retirement Allowance by Age and Service</li> <li>Distribution of Retirement Allowance by Age</li> <li>Distribution of Retirement Allowance by Service</li> </ul>	Profile of a substantial percentage of members who retired during calendar year 2017, with information concerning years of service, average salary base, age of retirees, and range of retirement allowances. The benefits stated reflect the maximum benefit to which the retirees in question would have been entitled as a Single Life retirement benefit, which does not provide payments to beneficiaries
Page 214 - 215	<p><u>Disability Retirement Experience</u></p> <ul style="list-style-type: none"> <li>Ordinary Disability</li> <li>Accidental Disability</li> </ul>	10 year history of the average ages, benefit payments, and salary bases of new disability recipients of each calendar year
Page 216 - 217	<ul style="list-style-type: none"> <li>Recipients by Benefit Type and Pension Option</li> <li>Retirement Benefits by Type (10 year history)</li> </ul>	Profiles of the entire retiree and beneficiary population and the types of benefits and options under which they are being paid
Page 218 - 219	<ul style="list-style-type: none"> <li>Table of Pensioners and Active Members</li> <li>Table of Recipients (VSF)</li> </ul>	Changes over the last 10 years in the number of pensioners and active members of the Plan; and the recipients of five Variable Supplements Funds

## CASH RECEIPTS AND DISBURSEMENTS

Year Ended June 30, 2018  
(in thousands)

	NYCERS	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL								
Cash Balance July 1, 2017	\$	163,875	\$	8,106	\$	69	\$	58	\$	45	\$	70	\$	172,223	
<b><u>Receipts</u></b>															
Member Contributions	523,402	-	-	-	-	-	-	-	-	-	-	-	-	523,402	
Employer Contributions	3,358,629	-	-	-	-	-	-	-	-	-	-	-	-	3,358,629	
Member Loan Payments	378,429	-	-	-	-	-	-	-	-	-	-	-	-	378,429	
Interest and Dividends	1,779,580	1,938	-	-	-	-	-	-	-	-	-	-	-	1,781,518	
Investments Redeemed	72,063,990	84,000	-	-	-	-	-	-	-	-	-	-	-	72,147,990	
Transfers to Variable Supplement Funds	-	336,000	1,911	2,642	3,838	2,992	347,383	-	-	-	-	-	-	347,383	
Miscellaneous	3,362	30	1	1	2	1	3,397	-	-	-	-	-	-	3,397	
<b>Total Cash Receipts</b>	<b>78,107,392</b>	<b>421,968</b>	<b>1,912</b>	<b>2,643</b>	<b>3,840</b>	<b>2,993</b>	<b>78,540,748</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78,540,748</b>	
<b>Total Cash Available</b>	<b>78,271,267</b>	<b>430,074</b>	<b>1,981</b>	<b>2,701</b>	<b>3,885</b>	<b>3,063</b>	<b>78,712,971</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78,712,971</b>	
<b><u>Disbursements</u></b>															
Benefit Payments and Withdrawals	4,509,694	90,205	1,847	2,580	3,714	2,924	4,610,964	-	-	-	-	-	-	4,610,964	
Transfers to other Retirement Systems	8,730	-	-	-	-	-	8,730	-	-	-	-	-	-	8,730	
Transfers to Variable Supplement Funds	263,383	84,000	-	-	-	-	347,383	-	-	-	-	-	-	347,383	
Loans to Members	408,480	-	-	-	-	-	408,480	-	-	-	-	-	-	408,480	
Investments Purchased	72,838,321	253,950	-	-	-	-	73,092,271	-	-	-	-	-	-	73,092,271	
Investment Expenses	161,108	-	-	-	-	-	161,108	-	-	-	-	-	-	161,108	
Administrative Expenses	60,832	-	-	-	-	-	60,832	-	-	-	-	-	-	60,832	
Miscellaneous	1,580	2	-	-	-	-	1,582	-	-	-	-	-	-	1,582	
<b>Total Cash Disbursements</b>	<b>78,252,128</b>	<b>428,157</b>	<b>1,847</b>	<b>2,580</b>	<b>3,714</b>	<b>2,924</b>	<b>78,691,350</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>78,691,350</b>	
<b>Cash Balance June 30, 2018</b>	<b>19,139</b>	<b>1,917</b>	<b>134</b>	<b>121</b>	<b>171</b>	<b>139</b>	<b>21,621</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21,621</b>	



## TABLE OF REVENUE BY SOURCE (QPP &amp; VSF)

Fiscal Years 2009 through 2018  
(in thousands)

Fiscal Year Ended June 30	Member Contributions	Employer Contributions	Net Investment Income (QPP)	Net Investment Income (VSF)	Net Investment Income (QPP+VSF)	Other Income	Total Revenue
2018	\$ 523,535	\$ 3,377,024	\$ 5,153,254	\$ 2,265	\$ 5,155,519	\$ 3,422	\$ 9,059,500
2017	513,514	3,328,193	6,982,304	(152)	6,982,152	3,266	10,827,125
2016	485,508	3,365,454	1,171,720	184	1,171,904	2,928	5,025,794
2015	467,129	3,160,258	1,175,099	10	1,175,109	4,140	4,806,636
2014	447,689	3,114,068	7,911,004	20	7,911,024	4,648	11,477,429
2013	437,775	3,046,845	4,967,018	38	4,967,056	5,072	8,456,748
2012	403,641	3,017,004	578,893	n/a	578,893	4,772	4,004,310
2011	413,740	2,387,216	7,851,456	n/a	7,851,456	4,707	10,657,119
2010	398,964	2,197,717	4,318,810	n/a	4,318,810	4,696	6,920,187
2009	382,356	2,150,495	(7,036,151)	n/a	(7,036,151)	3,709	(4,499,591)

Note: Effective 2013 and forward, the financial statements include the Variable Supplements Funds.

## TABLE OF CHANGES IN FIDUCIARY NET POSITION (QPP & VSF)

Fiscal Years 2009 through 2018  
(in thousands)

Fiscal Year Ended June 30	Additions to Fiduciary Net Position <sup>1</sup>	Deductions from Plan Net Position				Net Change in Fiduciary Net Position
		Benefit Payments <sup>2</sup>	Refunds	Payments To Other Pension Systems and Funds	Administrative Expenses	
2018	\$ 9,059,500	\$ 4,897,216	\$ 89,493	\$ 9,055	\$ 59,689	\$ 4,004,047
2017	10,827,125	4,573,176	75,765	8,087	59,671	6,110,426
2016	5,025,794	4,382,120 <sup>3</sup>	72,135	7,440	56,683	507,416
2015	4,806,636	4,259,018	66,738	7,142	54,635	419,103
2014	11,477,429	3,973,698	66,747	7,228	50,431	7,379,325
2013	8,456,748	3,803,312	60,179	5,250	48,666	4,539,341
2012	4,004,310	3,642,520	59,151	17,418	51,385	233,836
2011	10,657,119	3,518,109	63,148	16,773	46,374	7,012,715
2010	6,920,187	3,332,785	58,325	11,710	49,676	3,467,691
2009	(4,499,591)	3,209,397	55,451	12,922	48,822	(7,826,183)

**Notes:**

- 1) Per Table of Revenue by Source.
- 2) Per Table of Benefit Payments by Type. Includes payments from Variable Supplements Funds. For details, please refer to Table of Benefit Payments (VSF).
- 3) Excludes an accrual of \$41,925 that was included in the June 30 2016 financial statements. In November 2016, after issuance of the financial statements, the NYC Office of the Actuary provided a memo to the COVSF Board of Trustees confirming that assets were insufficient to provide a COVSF benefit in December 2016. Management doesn't believe this change in estimated benefit payments has a material effect on the 2016 and 2017 combining financial statements.

**TABLE OF BENEFIT PAYMENTS BY TYPE (QPP & VSF)**  
Fiscal Years 2009 through 2018  
(in thousands)

Fiscal Year Ended June 30	Total Retirement Benefits (QPP)	Total Benefit Payments (VSF)	Total Retirement Benefits (QPP+VSF)	Total Death Benefits	Change in Accrued Benefits Payable	Total Benefit Payments
2018	\$ 4,633,853	\$ 104,097	\$ 4,737,950	\$ 101,419	\$ 57,847	\$ 4,897,216
2017	4,400,869	13,921	4,414,790	101,907	56,479	4,573,176
2016	4,155,638	51,749	4,207,387	118,379	56,354	4,382,120
2015	4,058,520	90,191	4,148,711	95,068	15,239	4,259,018
2014	3,855,575	50,139	3,905,714	98,532	(30,548)	3,973,698
2013	3,692,992	12,274	3,705,266	85,132	12,914	3,803,312
2012	3,544,078	12,441	3,556,519	85,546	455	3,642,520
2011	3,384,811	12,550	3,397,361	96,192	24,556	3,518,109
2010	3,220,938	12,687	3,233,625	121,586	(22,426)	3,332,785
2009	3,116,945	12,773	3,129,718	77,960	1,719	3,209,397

**TABLE OF BENEFIT PAYMENTS (VSF)<sup>1</sup>**  
Fiscal Years 2009 through 2018  
(in thousands)

Fiscal Year Ended June 30	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Total
2018	\$ 93,200	\$ 1,825	\$ 2,573	\$ 3,612	\$ 2,887	\$104,097
2017	2,624	1,889	2,595	3,830	2,983	13,921
2016	40,224 <sup>2</sup>	1,968	2,648	3,945	2,964	51,749
2015	78,285	2,100	2,686	4,040	3,080	90,191
2014	38,014	2,168	2,797	4,070	3,090	50,139
2013	-	2,188	2,823	4,142	3,121	12,274
2012	-	2,257	2,867	4,160	3,157	12,441
2011	-	2,323	2,878	4,191	3,158	12,550
2010	9	2,344	2,902	4,242	3,190	12,687
2009	10	2,393	2,911	4,275	3,184	12,773

## Notes:

1) NYCERS administers the following Variable Supplements Funds:

- Correction Officers' Variable Supplements Fund (COVSF)
- Housing Police Officers' Variable Supplements Fund (HPOVSF)
- Housing Police Superior Officers' Variable Supplements Fund (HPSOVSF)
- Transit Police Officers' Variable Supplements Fund (TPOVSF)
- Transit Police Superior Officers' Variable Supplements Fund (TPSOVSF)

TPOVSF, TPSOVSF, HPOVSF, and HPSOVSF are closed to new entrants.

2) Excludes an accrual of \$41,925 that was included in the June 30 2016 financial statements. In November 2016, after issuance of the financial statements, the NYC Office of the Actuary provided a memo to the COVSF Board of Trustees confirming that assets were insufficient to provide a COVSF benefit in December 2016. Management doesn't believe this change in estimated benefit payments has a material effect on the 2016 and 2017 combining financial statements.

**TABLE OF BENEFITS PAID (QPP & VSF)**  
Fiscal Years 2009 through 2018  
(in thousands)

Fiscal Year Ended June 30	Retirement Benefits	Member Loans		Refunds	Death Benefits	
		Amount Paid	No. Loans		In Service	After Retirement
2018	\$ 4,737,950	\$ 406,811	48,478	\$ 89,493	\$ 63,161	\$ 38,259
2017	4,414,790	404,624	47,877	75,765	69,383	32,524
2016	4,207,387	389,619	49,142	72,135	72,354	46,025
2015	4,148,711	381,243	48,449	66,738	60,493	34,575
2014	3,905,714	397,705	51,702	66,747	63,598	34,934
2013	3,705,266	392,580	52,952	60,179	57,590	27,542
2012	3,556,519	359,882	52,461	59,151	58,955	26,591
2011	3,397,361	374,382	51,881	63,148	69,659	26,533
2010	3,233,625	376,319	52,923	58,325	81,074	40,512
2009	3,129,718	337,231	49,336	55,451	56,329	21,631

*Note: Retirement benefits per Table of Benefit Payments by Type include payments from Variable Supplements Funds. For details, please refer to Table of Benefit Payments (VSF).*

**SERVICE RETIREMENT EXPERIENCE – 6 YEAR HISTORY**  
**TABLE OF AVERAGE ANNUAL BENEFIT PAYMENTS BY YEARS OF SERVICE**  
 Calendar Years 2012 through 2017

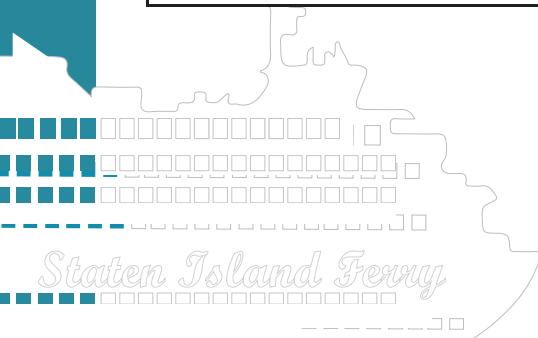
Calendar Year	Years of Service						Total Population		
	5 - 9.9	10 - 14.9	15 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9		35 - 39.9	40 & Up
2017	130	525	408	1,164	1,624	1,242	531	122	5,746
2016	143	439	376	1,057	1,873	1,134	396	150	5,568
2015	152	499	371	949	2,043	1,095	285	171	5,565
2014	134	456	347	1,075	1,884	996	250	189	5,331
2013	149	447	322	1,239	1,709	915	216	204	5,201
2012	176	436	307	1,215	1,609	842	178	182	4,945
2017	\$ 8,909	\$ 13,979	\$ 19,396	\$ 41,249	\$ 49,424	\$ 56,972	\$ 64,653	\$ 88,699	\$ 45,353
2016	7,913	13,123	19,191	40,187	47,836	55,647	64,058	88,142	44,518
2015	7,649	13,223	19,352	35,501	46,515	53,945	59,082	81,760	41,968
2014	7,243	13,312	18,431	35,761	44,660	52,326	61,222	89,189	41,316
2013	6,741	12,536	17,987	34,628	42,273	50,889	59,072	77,790	38,980
2012	6,547	12,200	17,973	35,385	42,797	50,869	60,081	73,829	38,586
2017	\$ 71,270	\$ 70,602	\$ 68,536	\$ 89,478	\$ 91,526	\$ 93,550	\$ 93,836	\$ 83,521	\$ 87,555
2016	67,056	64,965	69,281	87,362	88,750	91,375	92,837	81,162	85,447
2015	64,281	64,821	69,363	78,541	86,944	88,146	85,010	77,424	81,491
2014	60,359	64,622	65,592	79,117	84,265	85,921	87,335	85,512	80,226
2013	58,112	61,601	64,599	76,020	80,120	82,524	80,735	77,442	76,392
2012	54,558	60,396	63,734	75,933	80,597	82,714	78,846	69,914	75,659
2017	13%	20%	28%	46%	54%	61%	69%	106%	52%
2016	12%	20%	28%	46%	54%	61%	69%	109%	52%
2015	12%	20%	28%	45%	54%	61%	70%	106%	52%
2014	12%	21%	28%	45%	53%	61%	70%	104%	52%
2013	12%	20%	28%	46%	53%	62%	73%	101%	51%
2012	12%	20%	28%	47%	53%	62%	76%	106%	51%

**SERVICE RETIREMENT EXPERIENCE**  
**TABLE OF AVERAGE RETIREMENT ALLOWANCE BY AGE AND YEARS OF SERVICE**  
 Calendar Year 2017

Age at Retirement	Years of Service										Total Population
	5 - 9.9	10 - 14.9	15 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 & Up			
Under 50	0	0	0	155	37	1	0	0	193		
50-54	0	0	0	110	173	96	16	0	395		
55-59	24	76	41	159	476	398	101	0	1,275		
60-64	50	176	144	372	591	514	292	37	2,176		
65-69	44	203	157	262	275	182	106	50	1,279		
70 & Over	12	70	66	106	72	51	16	35	428		
	\$ -	\$ -	\$ -	\$ 60,616	\$ 67,998	\$ 74,430	\$ -	\$ -	\$ 62,103		
Under 50	-	-	-	59,591	61,681	68,909	82,303	-	63,691		
50-54	8,446	13,833	17,332	41,021	48,348	58,326	61,836	-	47,812		
55-59	8,329	14,010	18,701	34,987	48,034	54,976	67,208	72,773	44,831		
60-64	9,642	13,973	19,983	34,342	46,042	54,890	58,627	84,292	37,902		
65-69	9,560	14,077	20,796	33,290	41,875	51,128	58,072	111,832	38,475		
70 & Over											
Average Retirement Allowance	0%	0%	0%	50%	56%	57%	0%	0%	51%		
Average Retirement Allowance As A % of Salary Base	0%	0%	0%	50%	56%	61%	68%	0%	56%		
	13%	19%	27%	45%	52%	59%	64%	0%	52%		
	12%	20%	28%	44%	54%	62%	70%	82%	53%		
	13%	20%	28%	44%	55%	63%	71%	102%	48%		
	13%	21%	29%	43%	56%	63%	78%	141%	52%		

**SERVICE RETIREMENT EXPERIENCE  
TABLE OF DISTRIBUTION OF RETIREMENT ALLOWANCE  
BY AGE OF RETIREMENT  
Calendar Year 2017**

<b>Allowance / Age</b>	<b>Under 50</b>	<b>50-54</b>	<b>55-59</b>	<b>60-64</b>	<b>65-69</b>	<b>70 &amp; Up</b>	<b>Total</b>
\$4,999 or Less	-	-	6	15	14	2	37
5,000 - 9,999	-	-	47	82	93	36	258
10,000 - 14,999	-	-	53	127	122	37	339
15,000 - 19,999	-	2	60	126	105	44	337
20,000 - 24,999	-	1	79	145	125	52	402
25,000 - 29,999	-	8	61	173	103	42	387
30,000 - 34,999	4	16	89	180	103	45	437
35,000 - 39,999	2	13	91	175	116	30	427
40,000 - 44,999	3	21	82	165	86	22	379
45,000 - 49,999	26	31	110	167	74	26	434
50,000 - 54,999	31	46	119	155	59	15	425
55,000 - 59,999	33	43	112	146	66	14	414
60,000 - 64,999	28	46	75	109	48	10	316
65,000 - 69,999	21	40	80	110	36	8	295
70,000 - 74,999	15	31	64	59	35	7	211
75,000 - 79,999	7	15	37	59	18	2	138
80,000 - 84,999	10	21	32	42	23	3	131
85,000 - 89,999	3	20	18	37	12	4	94
90,000 - 94,999	3	15	21	30	11	3	83
95,000 - 99,999	4	9	16	15	2	2	48
\$100,000 or more	3	17	23	59	28	24	154
<b>Total</b>	<b>193</b>	<b>395</b>	<b>1,275</b>	<b>2,176</b>	<b>1,279</b>	<b>428</b>	<b>5,746</b>



**SERVICE RETIREMENT EXPERIENCE  
TABLE OF DISTRIBUTION OF RETIREMENT ALLOWANCE  
BY YEARS OF SERVICE**  
Calendar Year 2017

Allowance / Service	5-9.9 Yrs	10-14.9 Yrs	15-19.9 Yrs	20-24.9 Yrs	25-29.9 Yrs	30-34.9 Yrs	35-39.9 Yrs	40 & Up Yrs	Total
\$4,999 or Less	31	6	-	-	-	-	-	-	37
5,000 - 9,999	63	177	18	-	-	-	-	-	258
10,000 - 14,999	22	150	155	12	-	-	-	-	339
15,000 - 19,999	7	108	66	136	18	2	-	-	337
20,000 - 24,999	3	47	83	117	108	38	6	-	402
25,000 - 29,999	1	18	51	115	115	75	12	-	387
30,000 - 34,999	1	9	10	119	171	85	39	3	437
35,000 - 39,999	2	6	10	98	152	118	39	2	427
40,000 - 44,999	-	1	5	75	177	79	38	4	379
45,000 - 49,999	-	2	6	112	162	108	38	6	434
50,000 - 54,999	-	-	1	103	171	110	33	7	425
55,000 - 59,999	-	-	2	95	153	106	50	8	414
60,000 - 64,999	-	-	1	63	93	109	36	14	316
65,000 - 69,999	-	1	-	53	95	98	43	5	295
70,000 - 74,999	-	-	-	27	54	81	40	9	211
75,000 - 79,999	-	-	-	12	25	62	35	4	138
80,000 - 84,999	-	-	-	10	40	48	26	7	131
85,000 - 89,999	-	-	-	7	29	29	25	4	94
90,000 - 94,999	-	-	-	6	23	30	17	7	83
95,000 - 99,999	-	-	-	1	13	23	8	3	48
\$100,000 or more	-	-	-	3	25	41	46	39	154
<b>Total</b>	<b>130</b>	<b>525</b>	<b>408</b>	<b>1,164</b>	<b>1,624</b>	<b>1,242</b>	<b>531</b>	<b>122</b>	<b>5,746</b>



**ORDINARY DISABILITY RETIREMENT EXPERIENCE**  
**TABLE OF AVERAGE ANNUAL BENEFIT PAYMENTS**  
 Calendar Years 2008 through 2017

Calendar Year	Number of Retirees	Average Age	Average Years of Service	Average Retirement Benefit	Average Salary Base	Average Retirement Benefit As A % of Salary Base
2017	321	55	18	\$ 24,455	\$ 67,931	36%
2016	318	54	19	25,229	70,080	36%
2015	357	54	18	25,142	67,952	37%
2014	400	54	18	23,948	66,522	36%
2013	446	54	18	23,201	64,447	36%
2012	436	54	18	22,111	61,419	36%
2011	475	54	18	21,687	60,242	36%
2010	516	53	18	20,789	59,397	35%
2009	464	53	18	19,870	55,194	36%
2008	428	52	17	19,127	54,649	35%

**ACCIDENTAL DISABILITY RETIREMENT EXPERIENCE  
TABLE OF AVERAGE ANNUAL BENEFIT PAYMENTS  
Calendar Years 2008 through 2017**

Calendar Year	Number of Retirees	Average Age	Average Years of Service	Average Retirement Benefit	Average Salary Base	Average Retirement Benefit As A % of Salary Base
2017	78	47	n/a	\$ 70,933	\$ 97,168	73%
2016	106	46	n/a	70,330	96,342	73%
2015	108	47	n/a	67,799	91,621	74%
2014	70	47	n/a	69,676	94,157	74%
2013	77	45	n/a	63,221	85,434	74%
2012	89	48	n/a	64,179	86,728	74%
2011	89	49	n/a	62,119	83,945	74%
2010	75	46	n/a	55,944	75,600	74%
2009	80	46	n/a	52,653	70,204	75%
2008	101	48	n/a	50,728	68,551	74%

*Notes: Certain accidental disability benefits are reduced by amounts awarded by the New York State Workers' Compensation Board.*

**TABLE OF RECIPIENTS BY BENEFIT TYPE AND PENSION OPTION**

Year Ended June 30, 2018

Pension Option	Service	Disability (Non-Duty)	Disability and Deaths (Duty)	Total <sup>1</sup>
Single Life	75,591	6,381	4,130	86,102
Joint and Survivor	29,731	1,080	140	30,951
Lump Sum or Term Certain	11,715	2,017	445	14,177
Advanced Payments <sup>2</sup>	6,056	324	111	6,491
Surviving Annuitants	16,389	2,128	259	18,776
<b>Total</b>	<b>139,482</b>	<b>11,930</b>	<b>5,085</b>	<b>156,497</b>

Notes:

- 1) Total includes alternative payees such as recipients being paid pursuant to domestic relations orders and similar judgments.
- 2) Retirees have not yet selected a retirement option.

## TABLE OF RETIREMENT BENEFITS BY TYPE 10 YEAR HISTORY

Fiscal Years 2009 through 2018

Year Ended June 30	Service		Disability (Non-Duty)		Disability (Duty)		Surviving Beneficiaries		Total	
	No. of Recipients	Average Annual Allowance	No. of Recipients	Average Annual Allowance	No. of Recipients	Average Annual Allowance	No. of Recipients	Average Annual Allowance	No. of Recipients	Average Annual Allowance
2018	123,093	\$ 32,106	9,802	\$ 19,241	4,826	\$ 36,683	18,776	\$ 20,109	156,497	\$ 30,002
2017	119,943	31,259	9,786	18,764	4,777	36,400	18,283	19,013	152,789	29,154
2016	117,625	30,203	9,759	18,485	4,739	34,513	17,817	18,121	149,940	28,141
2015	115,139	29,613	9,795	18,056	4,701	33,328	17,177	17,694	146,812	27,567
2014	113,507	28,788	9,697	17,771	4,681	31,974	16,652	16,903	144,537	26,783
2013	113,291	27,959	9,580	17,560	4,637	31,882	16,360	16,314	143,868	26,069
2012	110,205	27,292	9,468	17,086	4,583	31,351	16,110	15,339	140,366	25,365
2011	108,161	26,544	9,248	16,581	4,581	29,563	15,834	14,881	137,824	24,636
2010	105,711	25,900	9,024	16,080	4,550	28,833	15,765	14,146	135,050	23,971
2009	104,577	25,069	8,852	15,887	4,555	28,325	15,677	13,741	133,661	23,243

**TABLE OF PENSIONERS AND ACTIVE MEMBERS**

Fiscal Years 2009 through 2018

Year Ended June 30 <sup>2</sup>	Pensioners		Active Members <sup>1</sup>			Total		
	Counts	Percentage Change	Year Ended June 30 <sup>2</sup>	Counts	Percentage Change	Year Ended June 30 <sup>2</sup>	Counts	Percentage Change
2018	152,245	1.2	2018	224,364	4.6	2018	376,609	3.2
2017	150,419	2.0	2017	214,464	1.0	2017	364,883	1.4
2016	147,514	2.1	2016	212,365	0.1	2016	359,879	0.9
2015	144,526	1.7	2015	212,067	0.5	2015	356,593	1.0
2014	142,095	1.9	2014	210,963	(0.7)	2014	353,058	0.3
2013	139,399	1.0	2013	212,539	0.1	2013	351,938	0.5
2012	137,987	1.9	2012	212,347	1.2	2012	350,334	1.4
2011	135,468	2.3	2011	209,904	(1.6)	2011	345,372	(0.1)
2010	132,487	1.1	2010	213,255	(1.6)	2010	345,742	(0.6)
2009	131,031	0.3	2009	216,664	(0.0)	2009	347,695	0.1

Notes:

- 1) Active Members include:
  - Terminated vested members not yet receiving benefits
  - Inactive members who are no longer on payroll but not otherwise classified
  - An estimate of members terminated for more than 5 years that appear to be vested (for 2018 only)
- 2) 2016 and prior data is final. 2017 and 2018 data is preliminary and may be subject to future adjustments as the data is refined.

## TABLE OF RECIPIENTS (VSF)<sup>1</sup>

Fiscal Years 2009 through 2018

Year Ended June 30	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
2018	7,844	147	212	293	238	8,734
2017	7,488	154	214	313	244	8,413
2016	7,064 <sup>2</sup>	161	218	324	248	8,015
2015	6,663	172	224	333	256	7,648
2014	6,389	179	234	342	260	7,404
2013	-	187	241	347	265	1,040
2012	-	192	246	354	271	1,063
2011	-	195	250	361	273	1,079
2010	-	200	253	368	276	1,097
2009	-	206	256	374	279	1,115

**Notes:**

1) NYCERS administers the following Variable Supplements Funds:

- Correction Officers' Variable Supplements Fund (COVSF)
  - Housing Police Officers' Variable Supplements Fund (HPOVSF)
  - Housing Police Superior Officers' Variable Supplements Fund (HPSOVSF)
  - Transit Police Officers' Variable Supplements Fund (TPOVSF)
  - Transit Police Superior Officers' Variable Supplements Fund (TPSOVSF)
- TPOVSF, TPSOVSF, HPOVSF, and HPSOVSF are closed to new entrants

2) COVSF benefits were not authorized to be paid in December 2016. This number represents the count of individuals eligible, if a benefit had been authorized to be paid.