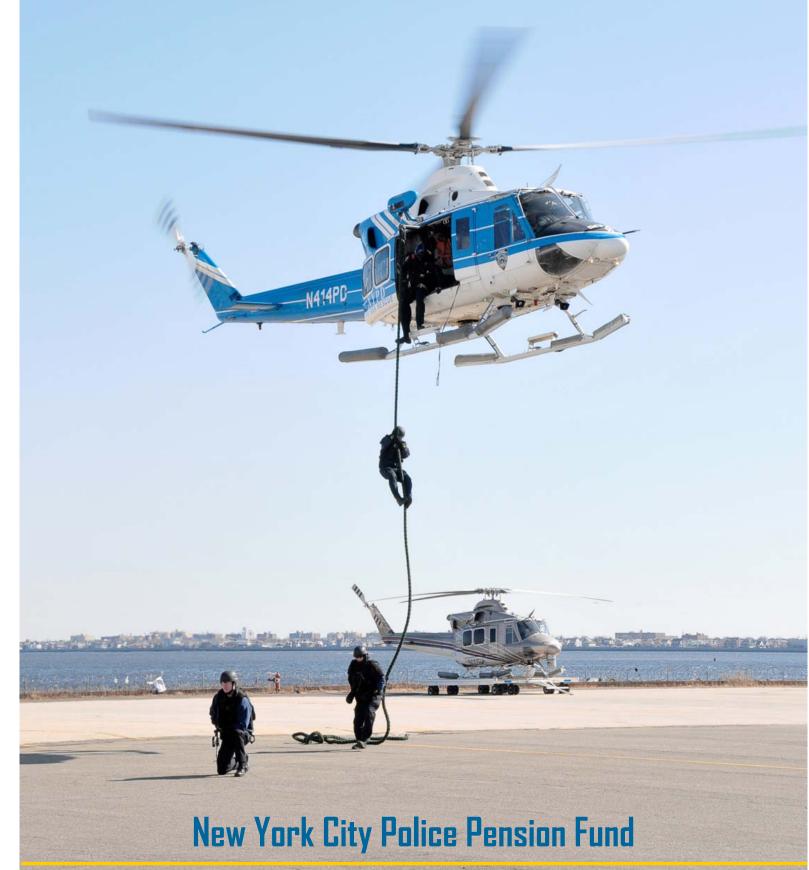
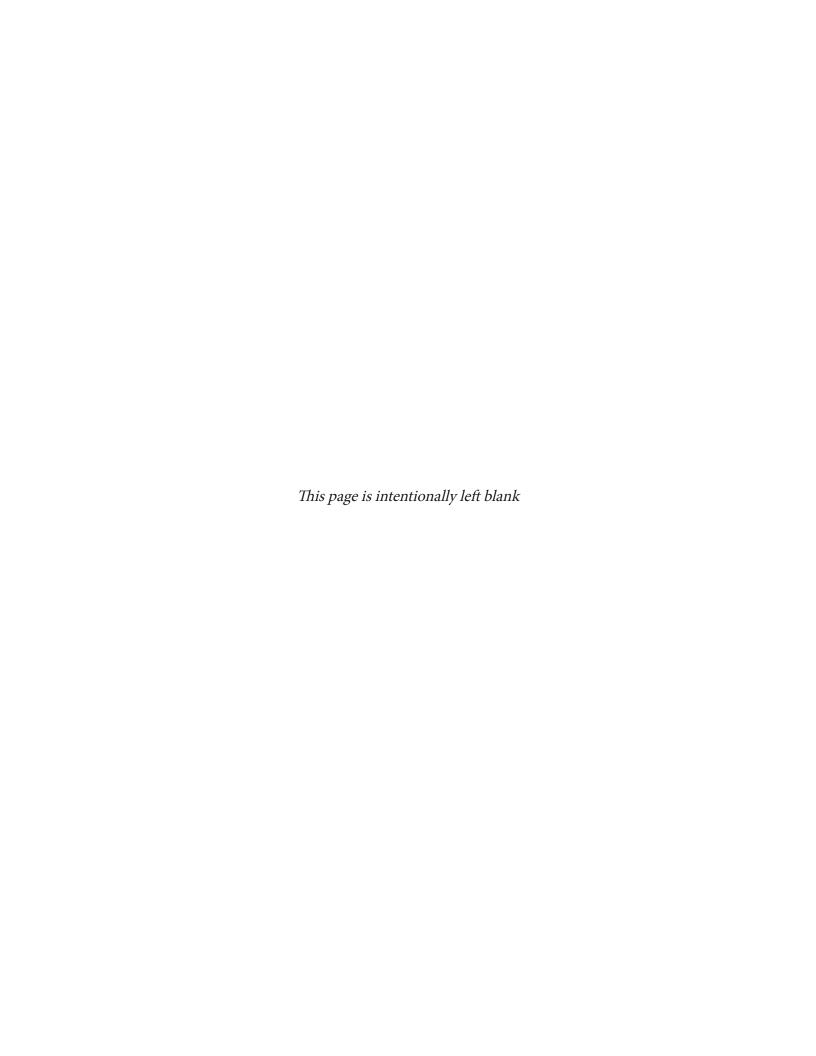
### **Annual Comprehensive Financial Report**



A Pension Trust Fund of the City of New York

For the fiscal years ended June 30, 2022 and June 30, 2021



#### NEW YORK CITY POLICE PENSION FUND

A Pension Trust Fund of the City of New York 233 Broadway, 25th Floor New York, New York 10279



#### ANNUAL COMPREHENSIVE FINANCIAL REPORT

for the fiscal years ended

June 30, 2022, and June 30, 2021

#### Prepared by:

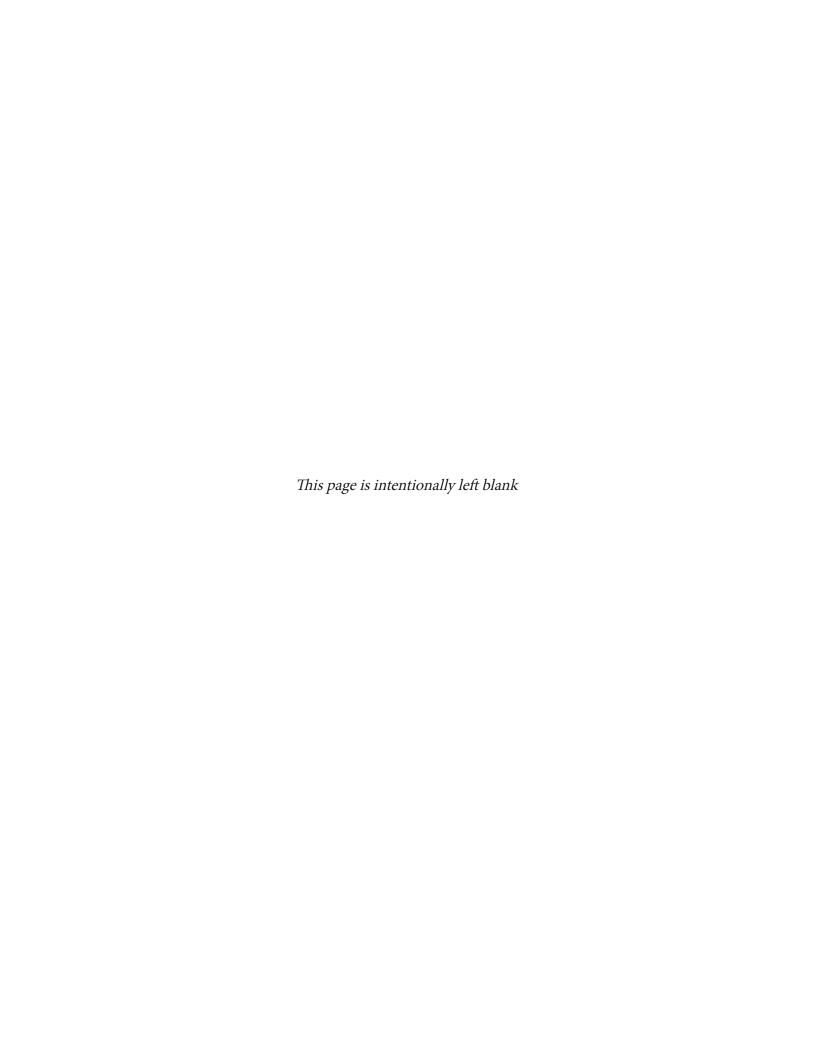
Accounting and Legal Divisions under the direction of Kevin Holloran, Executive Director, New York City Police Pension Fund

#### **Actuary:**

Marek Tyszkiewicz, Chief Actuary

#### **Custodian of Funds:**

Brad Lander, Comptroller of the City of New York

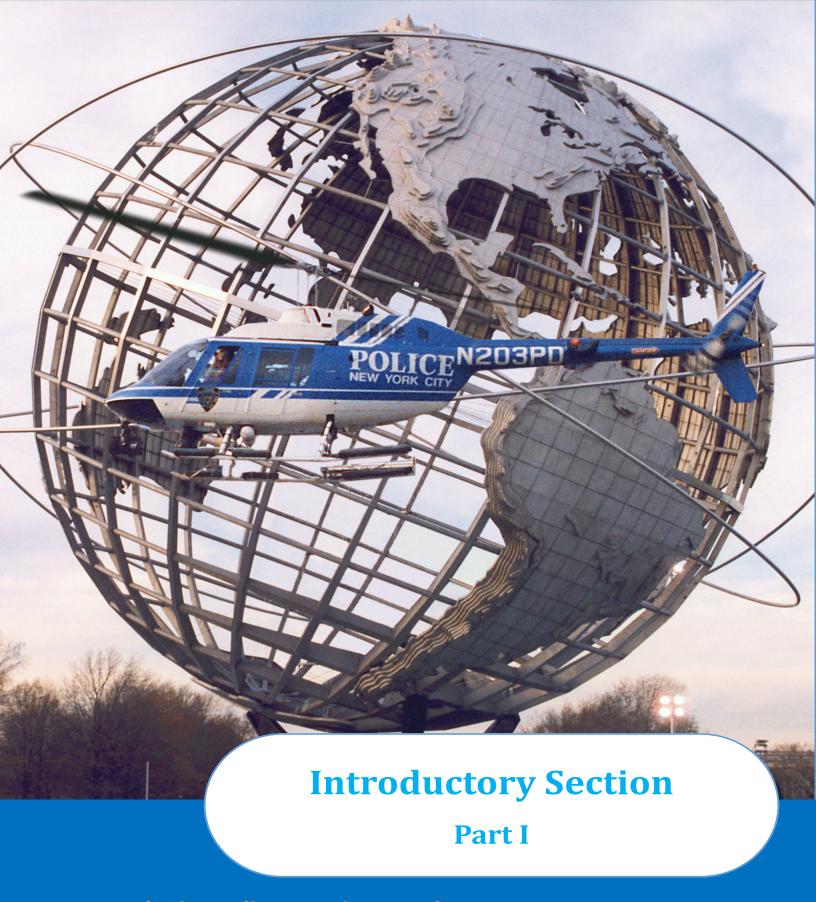


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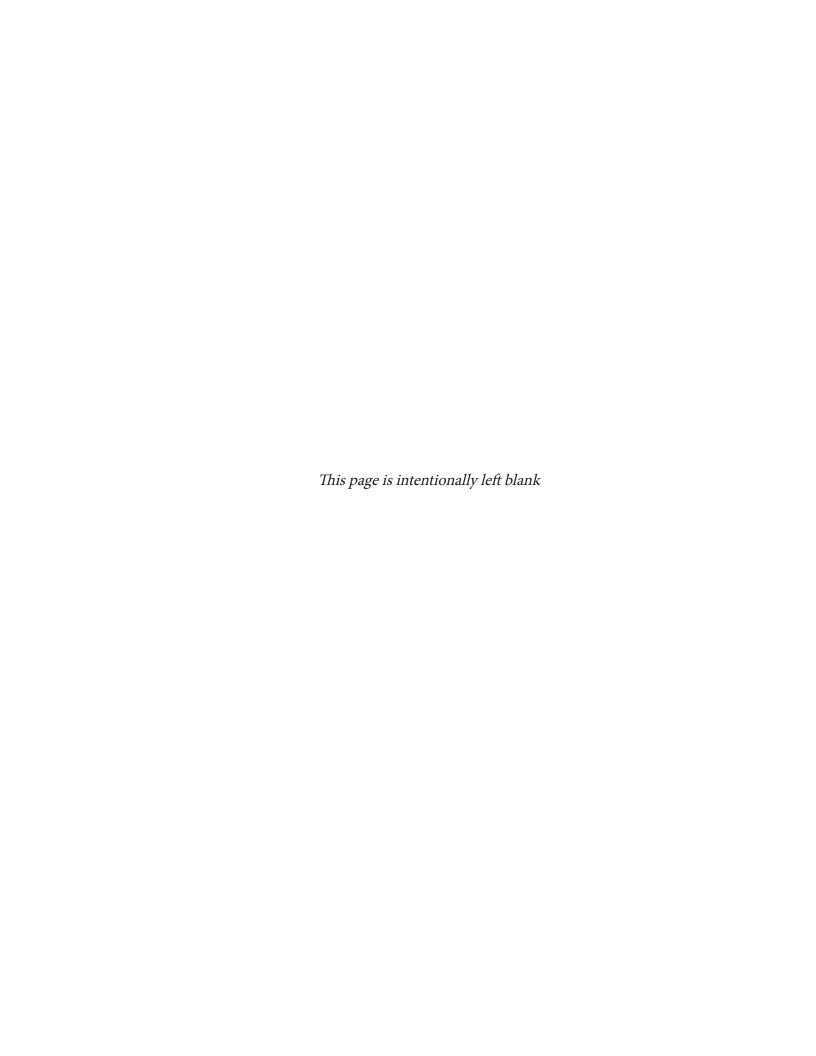
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New York City Police Pension Fund A Pension Trust Fund of the City of New York

**Annual Comprehensive Financial Report** 

For the fiscal years ended June 30, 2022 and June 30, 2021





#### Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

#### **New York City Police Pension Fund**

For its Annual Comprehensive Financial Report For the Fiscal Year Ended

June 30, 2021

Christopher P. Morrill

Executive Director/CEO

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#### **New York City Police Pension Fund**

233 Broadway New York, NY 10279 (212) 693-5100

Kevin Holloran
Executive Director

December 17th, 2022

Board of Trustees New York City Police Pension Fund 233 Broadway, 25th Floor New York, New York 10279

Dear Members of the Board of Trustees,

I am pleased to present the Annual Comprehensive Financial Report ("ACFR") of the New York City Police Pension Funds ("the Plan" or "Fund"); a pension trust fund of the City of New York, for the fiscal year ended June 30, 2022. Responsibility for accuracy of the data, the completeness and fairness of the presentation, including all disclosures, rests with the management of the Plan. To the best of the Plan's knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of the operations of the Plan. All disclosures necessary to enable the reader to gain an understanding of the financial activities of the Plan are included.

Management's Discussion and Analysis (MD&A) immediately follows the Independent Auditors' Report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complements this letter of transmittal and should be read in conjunction with it.

#### Background of the Funds

The Plan was incorporated on March 1, 1940 and commenced business on March 29, 1940. This incorporation succeeded the Police Pension Fund Article 1, established for uniformed members of the New York City Police Department prior to 1940. By legislation enacted in 1995, Article 1 was merged into the Plan.

The Fund received corpus funding in 2001 to improve service to our active and retired members. Corpus funding has enabled the Fund to establish a new headquarters and initiate major upgrades to its computer infrastructure and capabilities. Over the past twenty years, many Information Technology enhancements have been implemented.

The Plan is governed by a Board of Trustees consisting of twelve members. Voting rights are as follows: The Police Commissioner, a representative of the Mayor, the Comptroller and the Commissioner of Finance all have one and one-half votes each, four specified officers of the Patrolmen's Benevolent Association have one vote each and the president of the Detectives' Endowment Association, the Sergeants Benevolent Association, the Lieutenants Benevolent Association and the Captains Endowment Association, have one-half vote each. Board

meetings are held every month with special meetings called by the Chairman or requested by a quorum of members whose combined votes are at least seven.

#### **Major Initiatives**

#### COPS 2.0 Project

While Rollout 1 for COPS 2.0 was in production, the team focused on finalizing the design components for Rollout 2 and started the design for the foundational components for Rollout 3.

#### Rollout 1 – Production

The Fund released an updated, more secure version of the member self-service registration process that includes a PIN being mailed to the member to finalize their registration. The Fund felt this extra level of security was necessary after some recent cyber/identity fraud issues at other pension funds around the country.

#### Rollout 2 – Retiree Services

The project completed the formalized design phase for Rollout 2 and finish FY2022 focusing on identified design and scope GAPs while delivering fixes for important components identified during testing. The Fund is on pace to start the next formalized testing phases in October of FY2023.

#### Rollout 3 – Active Member Services

The project started the data mapping process for converting member contribution and service tracking accounts and design of the Employer payroll induction process. Rollout 3 activities were put on hold (as scheduled) while the entire team focused on the final phases of Rollout 2 delivery. Rollout 3 activities will restart once Rollout 2 is released into production.

#### **Financial and Budgetary Controls**

The management of the Fund is responsible for establishing and maintaining an internal control structure, designed to ensure that the assets are protected from loss, theft, or misuse and that preparation of financial statements conforms to Generally Accepted Accounting Principles (GAAP). The cost of a control should not exceed the benefits derived and therefore the objective is to provide reasonable, rather than absolute assurance, that the assets of the Fund are safeguarded, and the financial statements are free from any material misstatements. The Fund also maintains budgetary controls. An annual examination of internal controls is performed in accordance with the City Comptroller's Directive # 1 and the latest evaluation on record did not disclose any material weakness. Also, the Audit Committee of the City of New York, which includes experts in Accounting and Municipal Finance from the private sector, oversees the independent audit process. The financial statements for Fiscal Year 2022 were audited in accordance with generally accepted auditing standards and the Fund received an unmodified opinion from external auditor's Grant Thornton, LLP. A copy of the report is presented separately in this ACFR.

The primary financial objective of the Fund is to ensure that member contributions, employer contributions, and income from investments support benefit payment obligations. A review of

the Qualified Pension Fund ("QPP") assets gives an indication of the current fiscal health and the income potential from investments. It also gives participants reasonable assurance that benefits will continue into the future. According to the Governmental Accounting Standards Board Statements (GASB) Nos. 67 and 68, Schedule of Changes in Net Pension Liability prepared by the Office of the Actuary, Plan Fiduciary Net Position as a Percentage of Total Pension Liability was 84.2%, 96.6% as of June 30, 2022 and 2021, respectively.

#### Investments

Investment policy is subject to approval of the Board of Trustees and is designed to minimize risks while maintaining a competitive yield. The policy uses a strategic implementation of assets, diversified in a broad array of instruments to limit concentration risks. The operations of the Fund are governed by the Administrative Code of the City of New York and the State Retirement and Social Security Laws. The Comptroller of the City of New York acts as an Investment Advisor to the fund. In addition, several independent investment consultants are employed as investment advisors. The Fund also uses a number of investment managers to administer long-term debt and equity portfolios. Investment managers are regularly reviewed against performance and adherence to guidelines. There are four main factors influencing the philosophy of the Board of Trustees: Risk-Tolerance, Returns, Diversification, and Liquidity. As of June 30, 2022, the policy mix for the QPP portfolio asset allocation consists of the following categories; U.S. Domestic Equities 30.1%, Fixed Income 32.9%, International Equities 7.4%, Emerging Markets 4.6%, Private Real Estate and Equities 17.3%, Hedge Funds 5.5% and others 2.2%. QPP total portfolio return was (7.1)%. The asset allocation for the Police Officers' Variable Supplements Fund ("POVSF") consists of 64.2% in Total Equity and 35.8% in Total Fixed Income. POVSF total portfolio return was (13.5)%. Police Superior Officers' Variable ("PSOVSF") consists of 63.9% in Total Equity and 36.1% in Total Fixed Income. PSOVSF total portfolio return was (13.3)%. Financial information regarding investment activities, policies, safeguards, strategies and yield information of the Fund, accompanied by various charts, schedules and a consolidated performance report, is contained in the ACFR Investment section.

#### **Professional Services**

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 Additional Supplementary Schedule of Fees Paid to Investment Managers and Consultants on pages 142 through 153. Brokerage firms and the amounts paid to each firm is listing in the schedule of Broker's Commissions and Fees on Pages 188 through 194 in the Investment Section. Actuarial services are provided to the Plan by the Chief Actuary of the City of New York. The City's Corporation Counsel provides legal services to the Plan.

#### Financial Highlights

The combined financial statements of the Fund for Fiscal Year 2022 show total net position restricted for benefits decreased by \$5.5 billion to \$51.6 billion, or 9.6% below the prior fiscal year. In Fiscal Year 2021 the increase was \$10.8 billion or 23.3% to \$57.1 billion, compared to Fiscal Year 2020. The \$51.6 billion reported in the combined statements, includes net restricted amounts held for benefits under: the QPP, the PSOVSF and the POVSF for \$47.0 billion, \$2.8

billion and \$1.8 billion, respectively.

Selected accounts from the combined financial statements for the past two fiscal years are shown below, along with percentage changes for balances reported (in thousands) as of the fiscal year end:

Description	FY 2022	FY 2021	(%) Change
Member Contributions	\$281,185	\$255,789	9.93
Employer Contributions	2,490,134	2,437,728	2.15
Interest Income	768,330	581,688	32.09
Dividend Income	819,598	570,513	43.66
Benefits Paid & Withdrawals	3,821,373	3,841,319	(0.52)

#### **Economic Conditions**

The real gross domestic product (GDP) increased at an annual rate of 2.6% in the third quarter of 2022 following a 0.6% decrease in the second quarter according to the Bureau of Economic Analysis (BEA) on October 27, 2022. This deceleration of real GDP in the second quarter was led by a slowdown in private Inventory Investment, residential fixed investment, federal government spending, and state and local government spending, that were partly offset by an upturn in exports and acceleration in consumer spending.

According to the BEA, the decrease in private inventory investment was led by a decrease in retail trade (mainly "other" general merchandise stores). The decrease in residential fixed investment was led by a decrease in "other" structures (specifically real estate brokers' commissions). The decrease in federal government spending reflected a decrease in nondefense spending that was partly offset by an increase in defense spending. The decrease in nondefense spending reflected the sale of crude oil from the Strategic Petroleum Reserve, which results in a corresponding decrease in consumption expenditures. Because the oil sold by the government enters private inventories, there is no direct net effect on GDP. In addition, the decrease in state and local government spending was led by a decrease in investment in structures.

The increase in exports reflected increases in both goods (led by industrial supplies and materials) and services (led by travel). The increase in consumer spending reflected an increase in services (led by food services and accommodations as well as "other" services) that was partly offset by a decrease in goods (led by food and beverages).

According to the NYC Comptroller, New York City's jobs recovery shows strength in June 2022, with employers adding 372,000 jobs in June, exceeding the Bloomberg consensus expectation of 265,000. The unemployment rate remained unchanged at 3.6% while the growth of average hourly earnings was +5.1% year over year. At the current pace of job growth, which would assume no near-term recession, New York City is about 5 to 6 months from fully reversing pandemic job losses.

In addition, the Russian war on Ukraine is said to cost the global economy \$2.8 Trillion per the Wall Street Journal. Russia's attack on Ukraine has spiked energy prices which has weakened household spending.

#### Acknowledgements/Other

The compilation of this ACFR reflects the efforts of the management and staff of the New York City Police Pension Fund. I thank them for their assistance in this endeavor. I also thank the Office of the Actuary, the Office of the Comptroller and the investment advisors of the Plan for the data and other information provided during the preparation of this report. This ACFR is intended to provide sufficient and reliable information that serves as a basis for management decision making; in determining compliance with legal requirements; and as a means of indicating stewardship of the assets of the Plan. I am confident that this goal was achieved.

Very Truly Yours,

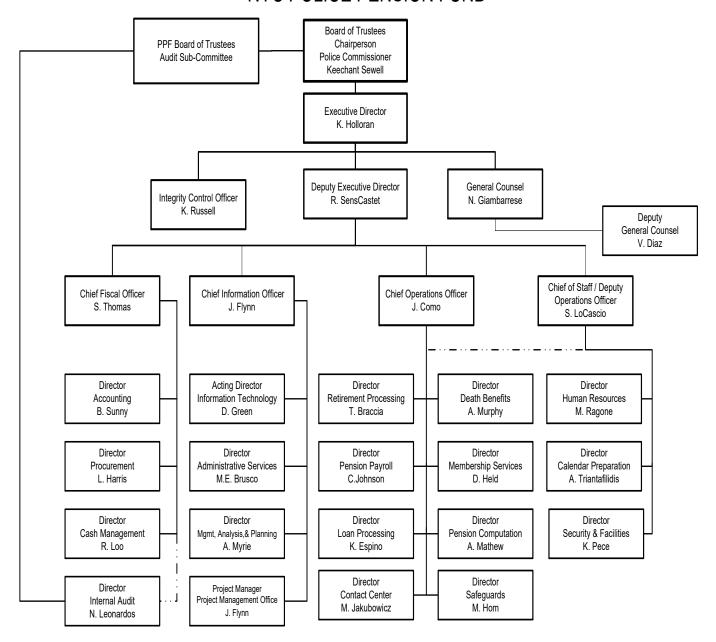
Kevin Holloran Executive Director

#### New York City Police Pension Fund A Pension Trust Fund of the City of New York Annual Comprehensive Financial Report For the Fiscal Year Ended June 30, 2022

#### **Board of Trustees:**

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Keechant L. Sewell	Police Commissioner
Preston Niblack	Commissioner of Finance
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Christopher Monahan	President CEA

#### NYC POLICE PENSION FUND



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## New York City Police Pension Fund

A Pension Trust Fund of the City of NewYork

Annual Comprehensive Financial Report



**Summary Plan Descriptions** 

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# SUMMARY PLAN DESCRIPTION

New York City Police Pension Fund
Tier 2 Members

#### New York City Police Pension Fund

**Board of Trustees** 

Mayor

**Police Commissioner** 

Commissioner of Finance

Comptroller

President-PBA

1<sup>st</sup> Vice President—PBA

2<sup>nd</sup> Vice President—PBA

Chairman, Board of Trustees-PBA

President-DEA

President-SBA

President-LBA

President-CEA



Kevin Holloran

**Executive Director** 

**Robert Sens-Castet** 

Deputy Executive Director



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#### Introduction

This booklet is called the Tier 2 Summary Plan Description (SPD). It is published by the New York City Police Pension Fund (NYCPPF, PPF, Fund), and is intended to summarize provisions relating to the retirement benefits offered to uniformed employees of the New York City Police Department (NYPD), whose membership date is between July 1, 1973 and June 30, 2009.

This booklet is not intended to be comprehensive. Laws affecting the plan can be enacted in any given year, which may result in inaccuracies within this SPD. In the event of a conflict between the contents of this booklet and any applicable law and/or rules, including, but not limited to, the Administrative Code of the City of New York (NYCAC), the New York State Retirement and Social Security Law (RSSL), and the Rules of NYCPPF, the applicable Law or Rule will govern.

#### **About PPF**

In 2001, legislation provided Corpus Funding for the Pension Fund to begin operations in September, 2002 at its new location at 233 Broadway in New York City. The PPF is governed by the Board of Trustees. The Comptroller of the City of New York is Custodian of the funds of the System, and by delegation of the Board of Trustees, has the power to invest those funds. The Executive Director is the chief administrative officer of the agency. The Chief Actuary for the City of New York provides actuarial services to the PPF. The Office of Corporation Counsel provides legal services to the Fund.

NYCPPF is a defined benefit plan. PPF manages the Fund's invested assets and pays out benefits according to formulas set forth in New York State and New York City laws. In general, Tier 2 members are governed by Title 13 of the NYCAC, the Rules of the Fund and certain other applicable statutes.

#### **How to Contact PPF**

The Fund cannot answer member specific questions regarding financial information or provide legal or tax advice.



Members can also find the answers to many questions quickly and conveniently by visiting the PPF website: www.nvc.gov/nvcppf.

available to provide webCOPS support during standard business hours - please contact the

At PPF, protecting and securing the privacy of member data is a top priority. Therefore, some transactions require notarization; please refer to the individual form or request. PPF staff does not respond to telephone or e-mail inquiries relating to private member information because the identity of the caller or e-mail writer cannot be confirmed.



For answers to questions of a **general** nature concerning retirement and pensions, please call PPF at (212) 693-5100; or visit the Pension Fund at 233 Broadway, 19th Floor, New York, New York 10279.

The Fund will respond promptly and completely to pension questions. PPF's ongoing mission is to provide excellent service to every member.

#### **Serving the Finest Online**

Call Center at (646) 905-5596 for more information.



You may send forms or letters to the Fund at 233 Broadway, 25<sup>th</sup> Floor, New York, New York 10279. = the Fund directly at <u>policepensioninquiries@nycppf.org</u>. The Fund cannot answer member specific questions regarding financial information or provide legal or tax advice.



The Fund is also now on Facebook! Members, their beneficiaries, and fans of the Fund can "like" us on Facebook at <a href="https://www.facebook.com/nycppf">www.facebook.com/nycppf</a>.

In person and online, PPF is proud to be serving the FINEST.

#### **Membership**

Uniformed members of the New York City Police Department with membership dates between July 1, 1973 and June 30, 2009 are considered Tier 2 members. Contributions to the Fund are made while employed with the NYPD in accordance with the "Contributions" section. Membership in the Fund ceases upon withdrawal of contributions.

#### **Credited Service**

Credited service is classified as Allowable Police Service or other credited service. Members may buy back any missing service under Chapter 552, as described below.

#### **Allowable Police Service**

Twenty years of Allowable Police Service are required for Service Retirement. Allowable Police Service includes:

- ✓ All service rendered as a uniformed member of the NYC Police Department.
- ✓ Credit for service rendered as a uniformed member of the NYC Fire Department.
- ✓ Credit for service rendered while a member of the New York City Employees' Retirement System uniformed force service immediately preceding appointment as a uniformed member of the New York City Police Department. Such uniformed service includes: service in the Housing Police Department, Transit Police Department, Department of Correction, Sanitation Department, and as an Emergency Medical Technician (EMT).
- ✓ Credit for uniformed service rendered while a member of the New York State Employees' Retirement System or New York State Police and Fire Retirement System.
- ✓ Credit for service as a Peace Officer in accordance with New York State Criminal Procedure Law §2.10
- ✓ Service in the United States Military
- ✓ Up to one year for each authorized Child Care Leave purchased pursuant to Chapter 594 of the Laws of 2000.

#### **Other Credited Service**

Other credited service is any service other than Allowable Police Service. This service counts as additional service credit beyond the required twenty years and will provide an additional monetary benefit.

Other credited service includes membership service rendered while a member in a non-uniformed position. In addition, uniformed service credit that does not immediately precede uniformed service in the New York City Police Department is considered to be Other Credited Service.

Please note buybacks and transfers must be completed within prescribed time limits. For further information please contact Membership Services at (212) 693-5850.

#### **Retroactive Military Seniority (RMS)**

Retroactive Military Seniority (RMS) is awarded to a member after being appointed to the NYPD from a special list, retroactive to the date the member would have been appointed had the member not been serving in the military. Information contained herein applies only to pension, not employment, benefits.

Members who are awarded RMS from the Department of Citywide Administrative Services (DCAS) are eligible to receive pension credit retroactive to their RMS date upon remitting the cost of pension contribution to the Fund. This entitles the member to the same rights, privileges and obligations as if he had served continuously in such position from the RMS date

Contributions must be completed within the repayment period prescribed by law; the maximum repayment period is the time from the RMSD to the NYPD appointment multiplied by 3, up to a maximum of 5 years. Payments can be made via certified check or money order, or through bi-weekly payroll deductions. Upon completion of the payment, interest will be credited to the account, as it would have been earned during the period.

Tier 2 members may elect to not make their contributions, forgoing the interest the Fund would have paid, thereby creating a shortage in their contribution account. If a shortage exists in the contribution account at the time of retirement, the pension will be offset by an actuarial equivalent to the shortage..

Members may also elect to make voluntary contributions, i.e., the ITHP Waiver, and/or 50% Additional Contributions, as if they were made during the RMS period. The Fund is responsible for interest on such voluntary contributions. Members who make this election must elect to participate in one or both programs for the entire RMS period.

Please note a member cannot receive RMS and credit for the same military service through a buyback. Members who have already completed a military buyback for time covering the RMS period, will receive a refund for the buyback or the Fund will credit the money toward the RMS payment.

#### **Prior Transit and Housing Service**

Former Transit and Housing Police Officers who became members of the Police Pension Fund Article II due to the 1995 merger, or a rollover, maintain their eligibility based on their original dates of membership in NYCERS.

#### **Transfer of Service**

Members with a previous membership in New York City or State public retirement system may be eligible to transfer their prior service to PPF. Members transferring uniformed Police or Fire time, Peace Officer status or EMT time will be granted allowable police service provided the application for such credited service was made within prescribed time limits and such credited service was properly transferred to PPF.

Members should discuss potential transfers with PPF, as well as a representative from the former retirement system to determine eligibility.

<u>Prior State of New York service may be transferred to PPF for up to seven years</u> from the termination of state service, after which point the member must purchase the time to obtain service credit or a pension benefit, as permitted by law. All properly transferred state time is uniformed time. Please note that the New York State Teachers' Retirement System does not allow system-to-system transfers; such prior time must be purchased. Members should initiate the transfer process with PPF Membership Services.

<u>Prior City of New York service may be transferred to PPF for up to one year from</u> termination of city service, after which point the member must purchase the time to obtain service credit or a pension benefit, as permitted by law. Members should initiate the transfer process with the former retirement system.

<u>Under Chapter 498 of the Laws of 2005</u>, active members who properly transferred City or State time that immediately preceded appointment to the NYPD may count this time as uniformed time, provided it is considered to have peace officer status under New York State Criminal Procedure Law § 2.10 or is service as a NYC Emergency Medical Technician (EMT). This law is not retroactive, and it will impact a member's contribution rate. Members who wish to have this time count as uniformed time must ask the Police Pension Fund's Membership Services Unit for application assistance. This time, if properly transferred to the New York City Police Pension Fund as an active member, shall be credited as uniformed time.

To receive credit for this time, PPF members must have had a preceding membership in either NYCERS or the Board of Education Retirement System. See Operations Order 13, dated 03/06/2006, found on the Police Pension Fund website.

#### **Buyback Information**

There are several statutory provisions that allow for the purchase of prior service. Some of these buybacks merely grant service credit that will provide an additional monetary benefit at retirement, while others may count toward the number of years necessary to reach Service Retirement. However, those that grant such service credit as "allowable" police service, typically must be immediately preceding the NYPD service (including service in the uniformed transit police force, the housing police force, uniformed corrections force or the uniformed force of the Department of Sanitation.

#### Prior Service, Chapter 646, Laws of 1999

Chapter 646 allows PPF members with former membership in a New York City or State public retirement system to receive credited service by repaying contributions that system refunded (if any) with interest.

Service purchased pursuant to Chapter 646 can either be non-uniformed service, which increases the pension's value but does not change the retirement date, or it can be uniformed service, which changes the retirement date. Both types of service change the contribution rate and may cause a shortage due to the rate change.

Former Police Pension Fund members with a lapse in service also can buy back time under Chapter 646. See Operations Order 2-25, c.s. dated 12/11/2002, found on the PPF website.

#### Military Service, RSSL § 1000

New York State Retirement and Social Security Law ("RSSL") § 1000 allows members to purchase up to three years of pre-membership military service.

To be eligible for this service credit purchase, the member must:

- ✓ Be in active City service; and
- ✓ Have five years of allowable police service with PPF, not including the military service being purchased; and
- ✓ Produce a DD-214 demonstrating an honorable discharge from any branch of the U.S Armed Forces.

The member must render payment for the service credit as follows: 3% of the member's compensation earned during the 12 months of credited service immediately preceding the application date multiplied by years of military service claimed

The member must apply and remit payment for service credit before the effective date of retirement. In the event of retirement prior to completing payment for the service credit purchase, the amount of service credited to the member shall be proportional to the total amount paid. If upon death, retirement, or separation, the service purchase does not produce a greater benefit, the cost of the service purchase must be refunded to the member with interest.

#### Prior Service, Chapter 552, Laws of 2000

Chapter 552 allows members to buy back previous service while employed by New York City, State or political subdivisions of the State prior to becoming a member of the Police Pension Fund. Service bought back under Ch. 552 can be uniformed or non-uniformed service, but only uniformed service will change the retirement date. The contribution rate under Chapter 552 always is unchanged. See Operations Order 2-24, c.s. dated 12/11/2002, found on the PPF website.

#### Child Care, Chapter 594, Laws of 2000

Chapter 594 allows members who were on leave without pay for purposes of authorized child care leave to purchase uniformed credited service. A member must file an application not later than ninety (90) days from the final date of the leave. See Operations Order 11, dated 1/22/01, found on the Police Pension Fund website.

#### Bosnia Bill, Chapter 606, Laws of 2000

Chapter 606 permits PPF members to purchase police duty rendered on behalf of the U. S. Government that is located in a foreign country (e.g., Bosnia). When such police service is combined with qualifying military service under Chapter 606, a maximum of four years of service may be purchased. See Operations Order 35, dated 05/21/2001, found on the Police Pension Fund website.

#### **Contributions**

During active service, members are required to make pension contributions until eligibility for Service retirement, at which point all contributions become voluntary. At the time of hire to the NYPD, members are assigned a contribution rate based upon their age. Member contributions in Tier 2 earn a statutory 8.25% interest, paid by the City and compounded annually. The contribution rate is applied to the member's pensionable earnings during their career and when combined with earned interest, creates what is called the "required amount." The required amount is unique to each member and is the amount necessary to remain in the account to receive a retirement benefit with no reduction. This amount "freezes" when the member becomes eligible for service retirement, as contributions are no longer necessary after such point.

Pensionable earnings consist of: base salary, overtime, night differential, holiday pay, worked vacation, portal to portal and allowable longevity..

Per Internal Revenue Code § 414(h), member contributions made on or after December 1, 1989, are not subject to federal taxation, but are subject to state and local income taxes. Member contributions made before December 1, 1989 are subject to federal, state and local taxation.

#### **Contribution Rates**

Age at Appointment	Required Rate =	= City/ITHP Rate +	Member Rate
17	8.55%	5.00%	3.55%
18	8.40%	5.00%	3.40%
19	8.20%	5.00%	3.20%
20	8.05%	5.00%	3.05%
21	7.85%	5.00%	2.85%
22	7.65%	5.00%	2.65%
23	7.50%	5.00%	2.50%
24	7.30%	5.00%	2.30%
25	7.15%	5.00%	2.15%
26	6.95%	5.00%	1.95%
27	6.80%	5.00%	1.80%
28	6.65%	5.00%	1.65%
29	6.45%	5.00%	1.45%
30	6.30%	5.00%	1.30%
31	6.15%	5.00%	1.15%
32	6.00%	5.00%	1.00%
33	5.85%	5.00%	0.85%
34	5.65%	5.00%	0.65%
35	5.50%	5.00%	0.50%
36	5.35%	5.00%	0.35%
37	5.20%	5.00%	0.20%
38	5.05%	5.00%	0.05%
39	4.90%	5.00%	0.00%
40	4.75%	5.00%	0.00%

#### **Voluntary Employee Contributions**

#### Waive ITHP

The City assumes 5% of a member's contribution rate, which is referred to as "increased take home pay" or "ITHP." The City's assumptions are placed in a separate account and partially fund the benefit. City ITHP cannot be borrowed against or otherwise taken as a distribution by the member; however, the ITHP assumption made after a member is eligible for service retirement, but continues working, is annuitized and added as an additional monetary benefit when the member ultimately retires. The City assumes this ITHP rate regardless of whether the member is making any pension contributions, as long as the member is active. A member may elect to waive the City's ITHP assumption and make their entire contribution. For instance, if a member's assigned rate is 7%, the member contributes 2% and the City assumes 5%; if ITHP is waived, the member contributes 7% to his account, all of which earns interest, and the City continues to assume the 5%, which is deposited into a separate account. This is a very common voluntary election by Tier 2 members, because it creates an excess in the account and leads to a greater retirement benefit. ITHP waiver contributions made by members are tax deferred. 5% by the City.

#### 50% Additional

In addition to the ITHP waiver, a member can also participate in another voluntary contribution program: the 50% additional. Under this program, a member can contribute an additional 50% of their required contribution rate to their account. With the above example, if a member is assigned an 7% contribution rate, the additional contribution would be 3.5%. This contribution is made post-tax, but earns the guaranteed interest in the account, which is tax deferred. Stop or Reinstate Member Contributions

Even though it is not advisable, a member may stop making pension contributions. When this occurs, the City will continue making the ITHP contribution. It is important to note that stopping member contributions will create a shortage in the ASF account; if that shortage is not repaid it will result in a lower pension upon retirement. See the "Shortages" section for further information.

Members may only stop member contributions until earnings for the year reach the level upon which FICA (Social Security) taxes are no longer imposed. If and when a member's earnings reach that level, member contributions are automatically reinstated.

A member may reinstate member contributions at any time.

#### **Member Contributions While on Military Leaves**

Members may take military leaves with or without pay during their career with the NYPD; however, all members must be given the opportunity to purchase pension credit for such leaves.

The Uniformed Services Employment and Reemployment Rights Act of 1994 ("USERRA") military service members' pensions—as well as employer and employee contributions to pension plans—are required to be computed based on the rate of compensation the employees would have received but for their periods of military service.

Therefore, when a member goes on military leave, PPF must impute, for purposes of pension calculations, overtime and night-shift differential compensation that members would have earned had they not taken military leaves during their careers with the NYPD.

For example, the member may ordinarily have earned overtime or night-shift differential compensation, but missed the opportunity to do so because of military obligations. Military service begins on the day a member begins his or her leave from the NYPD for the purposes of military service; this may include use of annual leave and/or compensatory time. The military service is deemed completed on the day before the member returns to the NYPD.

To determine the amount of earnings a member would have earned, PPF will average any additional differential payments and overtime the member earned during the 12 months immediately preceding his or her active military service. PPF will then add the base pay to the imputed earnings to reach the pensionable earnings for the military leave. Members are responsible for making additional pension contributions to the Fund.

#### **Excess Contributions/Refund of Excess**

A member with twenty or more years of service and no shortage may make an application for a refund of any excess funds in the member's account. If no refund request is made by the time of retirement, the pension will be increased by the actuarial value of the excess.

A refund of excess is the return of any funds in a member's account above the amount required on the member's 20<sup>th</sup> anniversary. All taxable distributions are subject to a 20% withholding. The withholding tax is credited toward the payment of the tax on the distribution. Members under the age of 59 ½ are also subject to a 10% penalty on the distribution; however, if a member is retiring from the service, the age for the 10% penalty is reduced from 59 ½ to age 50. Members retiring are eligible to roll over a taxable distribution into an IRA, thereby avoiding the 20% withholding and 10% penalties.

A member who requests a refund of excess will receive a 1099 from the Comptroller's Office at the end of the year for the distribution.

#### Refund of Contributions upon Separation From The Fund

If a member separates from the Fund for reasons other than retirement (resignation, termination, or death) a request for a refund of accumulated contributions plus interest may be made. If contributions are left with the Fund, the money will continue to earn interest for a maximum of five years from the date of separation. After this time, the contributions will no longer accrue interest and will be refunded. If a member has a taxable outstanding loan balance, a Form 1099-R will be generated at the end of the separation year.

#### Loans

#### **Overview**

The maximum allowable loan for members, including any outstanding loans, cannot exceed 90% of accumulated contributions, plus interest.

Loans are issued in multiples of \$10.00, with a minimum amount of \$100. Members are limited to holding 10 outstanding loans at one time, and no more than two new loans may be granted during any 12-month period.

Repayments are automatically deducted from salary checks in the amount specified by the member, but in no event less than 2% of the bi-weekly gross check. Payments may not exceed 10% of the bi-weekly gross check without written authorization from the member. Repayment on all loans must occur prior to a member's 63<sup>rd</sup> birthday. Members must appear in person at the Pension Fund if they desire to repay loans prior to termination.

Loans with a repayment schedule of five years (130 payments) or less are treated as separate loans for purposes of repayment, tax liability and tracking. Loans being repaid with a term of five years or more will be combined, resulting in a single repayment on the combined loan. If there is a prior loan outstanding, a new loan will have a separate repayment schedule unless the consolidated loan will be repaid in full by the original repayment date.

#### **Why Pension Loans Cause Shortages**

A pension loan causes a shortage even if the loan is repaid. The interest on a member's ASF account is 8.25%, whereas the interest on a pension loan 4.0%. Accordingly, making regular pension contributions during the loan repayment period, or even fully repaying the loan, does not prevent the shortage from occurring because the loan is repaid at 4.25 percentage points lower than what the borrowed funds would have earned in the account.

When a member's ASF account falls below the required amount there is a shortage in the account. If not repaid, a shortage will reduce the member's pension at retirement.

The Police Pension Fund recommends that members carefully evaluate whether taking a pension loan is the best option.

#### **Loan Repayment and Insurance**

Members may repay a loan in full or in part at any time; the minimum partial payment is \$500. Additionally, members may change the loan payment amount during the months of May and November.

If a member dies prior to retirement, loans with a combined balance up to \$25,000 are insured, subject to how long each loan has been outstanding, as follows:

Days Loan Outstanding	Percentage of Loan Insured
Less than 30 days	0%
30-59 days	25%
60-89 days	50%
90 or more days	100%

# **Deferred Compensation Plan Loans**

The NYC Deferred Compensation Loan Program (DCLP) works in conjunction with Loans taken at the Police Pension Fund.

The maximum DCLP loan is the lesser of:

- > 50% of a participant's DCP account balance; or
- ➤ \$50,000, reduced by the highest outstanding principal at the Police Pension Fund during the 12-month period ending on the date of the proposed DCLP loan.

Police Pension Fund members seeking a DCP loan must have the Police Pension Fund certify their highest outstanding PPF loan balance during the above period. NYC Deferred Compensation will not issue a loan if the combined PPF/DCP loan balance exceeds the \$50,000 DCLP maximum.

For more information visit www.nyc.gov/nycppf and click the Loan Services link, then click the Deferred Compensation Loans link.

# **Loan Taxability**

A pension loan will be taxed when the member borrows taxable contributions (i.e., 414(h) contributions made after December 1, 1989) and

➤ the cumulative loan principal is greater than \$50,000; or the term of repayment exceeds five years.

A member under the age of  $59 \frac{1}{2}$  will incur an additional 10% penalty on the taxable loan amount.

An IRS Form 1099-R is issued if taxable contributions are borrowed. The Fund sends a 1099-R to the address listed on file.

## **Principal Residence Exception**

Internal Revenue Code §72(p)(2)(B)(ii) provides an exception to the five-year rule mentioned in "Loan Taxability" above, if the loan is used to purchase a principal residence. If it can be demonstrated that the loan falls within this exception, the IRS will allow deferral of the tax payable on the loan. PPF is required by law to send an IRS Form 1099-R for this loan.

To establish the right to this exception, the IRS requires documentation of the residence purchase. Documentation examples may include: the HUD-1 Settlement Statement, an Affidavit of Occupancy, the Deed of Trust, Mortgage Terms/Note and the Home Insurance Policy. Members wishing to use this exception should consult a tax professional to ensure the appropriate documentation is provided.

# Taxability of the Final Withdrawal

A member may elect to withdraw up to 90% of the required amount at retirement. This is called the final withdrawal (sometimes called the "final loan"). The final withdrawal can consist of both taxable and/or non-taxable funds. The final withdrawal will also create a reduction in the member's retirement allowance.

The portion of the final withdrawal made up of taxable contributions is subject to federal tax withholding at 20%. Taxable contributions withdrawn are also subject to a possible 10% tax penalty for members younger than 50.

Any portion of the final withdrawal that is made up of tax-free funds may pass directly to you tax-free. Contributions made before December 1, 1989, lump sum contributions made to pay off a shortage, and/or 50% Additional contributions are all made using post-tax funds; accordingly, these contributions may be withdrawn tax-free at retirement.

Members have the option of choosing a direct rollover for the final withdrawal. By choosing a direct rollover, the Fund will make the payment of a final withdrawal directly to the IRA or employer's plan selected by the member. Part of the payment can be made to an IRA or employer's plan with the remainder paid directly to the member.

Members also have the option of receiving the entire payment directly; however, if any taxable money is paid directly to the member, the Fund will withhold 20% of the taxable amount as federal withholding taxes. Members may want to consult a professional tax adviser to assist in making this decision.

At retirement, the Police Pension Fund provides every retiree with the tax-free/taxable breakdown of their ASF contributions as well as the tax-free/taxable composition of the final withdrawal and any outstanding pension loans, as applicable.

# **Pension Shortages**

# **Shortage Causes**

A shortage occurs whenever a member's ASF balance falls below its required amount. If a member's ASF balance is higher than the required amount, the ASF has an excess. There are four possible causes of a shortage in your ASF:

#### 1. Pension loan

This creates a shortage because loans are repaid at 4% interest, whereas the ASF earns 8.25% interest. Accordingly, the ASF does not earn the additional 4.25% the loan principal would have earned had it stayed in the member's account (8.25% minus 4% = 4.25%). The lost interest creates a shortage, even if the member repays the loan before retirement and continues to make pension contributions.

#### 2. Insufficient member contributions

A shortage may be created anytime a member stops pension contributions. Some members choose to stop making pension contributions and contribute to the NYC Deferred Compensation Plan; by doing so, the member may have a pension shortage at retirement.

## 3. Service transfers and most buybacks

With service transfers and most service buybacks, the required rate must be adjusted to the rate corresponding to the member's age at the start of the service transferred or purchased, creating a shortage. PPF will inform members of any change in the required amount.

Example: A member appointed on January 9, 1996 at age 24 (7.30% required rate) purchased three years of uniformed service (January 1, 1991 to December 31, 1993), which changes the membership date to January 1, 1991. As the member was 19 years old on January 1, 1991, the new required contribution rate becomes 8.20%. Because the member was contributing at a lower rate before the buyback occurred, the member now has a shortage.

#### 4. Contract settlement

Receiving back pay from a contract settlement can also create a shortage. At the time a member receives back pay, member contributions are deposited into the ASF account. However, the ASF account did not earn the interest on these contributions while the contract was being settled. Since interest earned on contributions is part of a member's required amount, a shortage may occur.

# **Effects of a Shortage**

If a member has a shortage that has not been repaid prior to retirement, the pension will be reduced by the actuarial value of the shortage. When a member has a pension shortage, the member is given the opportunity to pay back the shortage before retirement. Shortages may be caused in any number of ways, as described above.

Example: A 45-year-old member retires for Service with a \$50,000 shortage. To create the actuarial value of this shortage, it is multiplied by the age-driven actuarial factor (per thousand dollars of shortage) of \$81.78, resulting in a pension reduction of \$4,088 per year.

# **Reducing a Shortage**

Members can reduce or eliminate a shortage in any of the following ways:

#### 1. Waive ITHP

By waiving ITHP, the member agrees to contribute 100% of the required rate; contributions assumed by the City still remain in effect when a member waives ITHP. City ITHP does not appear on your pay stub, but City ITHP plays a major role in funding your pension. Waiving ITHP can help decrease a shortage and may even result in an account excess.

#### 2. Choose 50% Additional

Choosing 50% Additional has similar benefits to waiving ITHP, but 50% Additional contributions are made from after-tax income rather than pre-tax income. Reducing a shortage by choosing 50% Additional may result in ASF funds that can be withdrawn tax-free at retirement.

#### 3. Lump Sum Contribution

A member may also eliminate a shortage by making a lump sum payment. The Fund will only accept a lump sum payment of \$500 or more. This may be done at any time either in person or by mail. The member must request a shortage evaluation at the time of the payment and submit a personal check to the Membership Services Unit payable to the New York City Police Pension Fund. This payment is then credited to the member's ASF account. *Note:* Members may only make lump sum contributions if a shortage exists in the ASF account.

## **Effect of the Final Withdrawal**

At retirement, a member may take a final withdrawal (sometimes called a "final loan"). Members may withdraw up to 90% of their required amount, as well as some or all of their excess, if applicable. Taking a final withdrawal has the same effect as creating a shortage; therefore the member's pension will be reduced for the life of the pension. Having an outstanding loan balance at the time of retirement may also have the effect of creating a shortage.

## Retirement

Applicants for Service Retirement should call the Retirement Processing Unit for an appointment three to four weeks before filing for retirement. Filing for retirement must be done in person at least ten days prior to the start of terminal leave and at least 30 days prior to the retirement date. Members are authorized to take an administrative tour for retirement processing.

A member appearing at PPF for retirement must be in possession of his or her shield and identification card.

Pension checks are mailed to a member's mailing addresses on file with the Fund unless a member requests otherwise. Members may have pension payments directly deposited to any bank upon the submission of an Electronic Funds Transfer (EFT) Form. It is the member's responsibility to keep address information current with the Fund, even after retirement.

# Procedures for all members applying for retirement

## Property Receipt—Discontinuance of Service (PD 520-013)

This form must be completed and signed by the Commanding Officer of the member's permanent command, or an officer at least a rank above the member within the command, and delivered by the member to Retirement Processing. The field, "Next Scheduled Tour After Leaves, Except Terminal Leave" must be filled out on this form. The date in this field is the starting date of terminal leave. All NYPD equipment listed on the Property Receipt (PD-520-013) must be turned in at the member's command.

#### **Firearms**

Members who are New York City residents and wish to obtain a New York City Pistol License must visit www.licensing.nypdonline.org. The Application should be submitted four weeks prior to the member's obtaining a retired ID card for processing, otherwise the member may be subject to vouchering firearms until the permit is processed. Questions regarding the Handgun License Application should be directed to the License Division at (646) 610-5536 or https://licensing.nypdonline.org.

Members who are not New York City residents may need to provide a copy of the Property Clerk Invoice (PD 521-141) for all firearms listed on the NYPD Force Record Card if an HR218 card is not obtained. Please contact your resident county for further instructions regarding their process.

## **Health Insurance Information**

Members, and in some cases beneficiaries, may be eligible for health benefits from the City of New York. Members appointed on or before December 27, 2001 need at least five years of credited service; members appointed on or after December 28, 2001 need at least ten years of credited service. Please note members who retire on an Accidental Disability Retirement are eligible for health benefits immediately; members who retire on an Ordinary Disability Retirement need at least five years of credited service to be eligible for health benefits.

Health benefits are only available to a person actually collecting a pension. For example, a member who vests with 10 years of service and does not collect a retirement allowance until what would have been the member's 20<sup>th</sup> anniversary is not eligible for health benefits until the Fund begins to disburse the retirement allowance. Members should contact Employee Health Benefits at the NYC Office of Labor Relations at 40 Rector Street, New York, NY 10006 or (212) 306-7390 for further information regarding health benefits.

For health insurance purposes, the following information must be provided when a member appears at the Fund to retire:

- ✓ GHI, HIP or other health plan card;
- ✓ Spouse's date of birth and Social Security Number;
- ✓ Date of marriage;
- ✓ Dates of birth and Social Security Numbers of dependent children;
- ✓ If spouse is employed and has health insurance, bring pertinent information (name of employer, health plan, and policy number).

# **Retirement Processing**

During the retirement process at the PPF, members are provided information on health insurance, pension survivor options, employment restrictions, withholding tax and other important retirement issues. The member's retirement date will be set, and estimates for both final pension and pre-finalization pension will be provided.

# **Estimate of Final Pension**

An applicant for retirement will receive a pension estimate after meeting with a retirement processor—this is only an estimate. Any additional overtime, night differential and worked vacation earned between the estimated retirement date and the actual retirement date will be included at finalization. Any difference in monthly average earnings between the retirement processing date and the finalization date will be disbursed as a retroactive payment.

#### Terminal Leave

Members are entitled to take all accrued time and terminal leave after the last day on active duty, or request a lump sum payment for such time. All accrued time must be used prior to the

start of terminal leave. During terminal leave, members remain on the active payroll. Terminal leave will not be granted if a member has charges pending with the Police Department.

# **Application Withdrawal**

A member being processed for Vested or Service Retirement may withdraw the retirement application while it is still pending by appearing at the Fund in person at least one business day prior to the scheduled retirement date. Any terminal or annual leave used prior to withdrawal of the retirement application may not be restored; however, unused terminal leave may be used toward a future retirement. A member must work 30 days after withdrawing an application for retirement to be eligible for annual leave in the next calendar year.

# **Final Average Salary**

- ➤ <u>Members appointed before July 1, 2000</u>—Final average salary is the greater of pensionable earnings in one of the following periods:
  - Final 12 months immediately preceding the retirement date; or
  - Average of the final 36 months immediately preceding the retirement date; or
  - Average of the best three consecutive calendar years.
- ➤ <u>Members appointed on or after July 1, 2000</u>—Final average salary is defined as pensionable earnings in the final 12 months of service.

# **Pensionable Earnings**

Pensionable earnings are made up of salary, overtime, night shift differential, worked vacation and allowable longevity. If the final 12 months immediately preceding the retirement date are used to calculate final average salary, pensionable earnings may not exceed 120% of the previous 12 months' pensionable earnings. If the average of the final 36 months immediately preceding the retirement date or average of the best three consecutive calendar years is used to calculate the final average salary, no single year's pensionable earnings may exceed 120% of the average of the two previous years' pensionable earnings.

A member's uniform allowance, Fair Labor Standards Act (FLSA) payments and excluded longevity are not pensionable earnings. After 20 years of service, longevity is pensionable only at the 5- and 10-year levels. After 25 years of service, full longevity is pensionable.

## **Vested Retirement**

A member "vests" after five years of uniformed service and becomes eligible for pension benefits. The member may apply for Vested Retirement at any point between "vesting" and eligibility for Service Retirement. The application for Vested Retirement must be filed at the Police Pension Fund at least 30 days before discontinuance of active police service.

A Vested Retirement Pension starts on the earliest date the member would have been able to retire for Service. Vested retirees are not entitled to terminal leave before separation from service, Variable Supplements Fund payments or the Reserve for Increased Take-Home Pay.

Note: New York State service may not be counted for vesting purposes until after the completion of five years of New York City uniformed service.

#### A Vested Retirement pension benefit is as follows:

1/40 x final average salary x years of uniformed service plus

75% x 1/60th x last five-year average earnings x years (to the day) of all prior non-uniform service

plus

Annuity value of ASF in excess of the required amount

less

Annuity value of ASF balance shortage

<u>Health benefits note:</u> Health benefits stop on the vested separation date, but vested retirees become eligible to receive health benefits beginning on their 20th anniversary. However, the credited service required in order to receive health benefits varies by appointment date.

## Service Retirement

Members are eligible for Service Retirement upon completion of 20 years of Allowable Police Service. The application for Service Retirement must be filed at the Police Pension Fund at least 30 days before discontinuance of active police service.

#### A Service Retirement pension benefit is as follows:

50% of final average salary

plus

1/60th of total earnings after the 20th anniversary

plus

75% x  $1/60^{th}$  x average earnings for the last five years x number of years (to the day) of all prior non-uniform service

plus

Annuity value of City ITHP contributions after the  $20^{\text{th}}$  anniversary

plus

Annuity value of ASF in excess of the required amount

less

Annuity value of ASF shortage

## **Termination**

Pursuant to Chapter 514 of the Laws of 2011, if a member is dismissed from the NYPD, for any reason other than a felony conviction, and the member has at least 20 years of Allowable Police Service, the member will be deemed to have retired as of the date of his dismissal and will suffer no loss of rights or benefits from the PPF. If a member is convicted of a felony, the member may forfeit any right to a retirement benefit. This law applies only to members who are terminated after September 23, 2011.

# **Variable Supplements Fund**

Members who **retire for Service** are eligible to receive an annual statutorily defined Variable Supplements Fund (VSF) payment in addition to regular pension payments. The VSF is prorated based upon the number of full months of retirement in the retirement year. The annual VSF benefit for 2011 and every year thereafter is \$12,000. <u>Only members who retire for Service Retirement are eligible for VSF benefits.</u>

# **VSF DROP (Deferred Retirement Option Plan)**

In addition to the annual VSF benefit discussed above, members who continue on active duty beyond the 20<sup>th</sup> anniversary, and ultimately retire for Service, may be entitled to the VSF DROP (Deferred Retirement Option Plan), also known as the "Banked Variable." The VSF DROP was designed to retain experienced members of the NYPD by guaranteeing a lump sum payment upon retirement for each year the member remains in active service beyond the member's twentieth police anniversary. Accrued VSF DROP funds are eligible for rollover, subject to IRS regulations.

The VSF DROP is not payable to members who die in active service or retire for a disability.

# **VSF Payment Schedule**

VSF payments and VSF DROP payments will be made or credited on or about December 15<sup>th</sup> of the retirement year. Members who retire in the month of December are not eligible for a prorated VSF for the month; however, if the member is eligible for the VSF DROP, it will not be paid until December of the following year.

# **Disability Retirement**

An application for Ordinary or Accident Disability may be made by a member who is incapacitated from performing the duties of a police officer.

A disability application may be filed by the member or a legally authorized person acting on the member's behalf; or by a committee or conservator duly appointed by a court of competent jurisdiction; or by the Police Commissioner.

Applications for ODR and ADR are made at the Medical Division, 1 Lefrak City Plaza, 59-17 Junction Boulevard, Corona, New York, 11368. Applicants will be notified of the time to appear before the Medical Board for examination.

After the examination, the Medical Board will report to the NYCPPF Board of Trustees with a recommendation for approval or disapproval of the disability application. After the Board of Trustees meeting, members are informed of the decision and other necessary information.

If a member has 20 years or more of allowable police service, the application for Ordinary Disability Retirement may be withdrawn and the member may retire for Service, provided the Police Pension Fund Board of Trustees has not made a final disability determination. The application withdrawal request must be sent in writing to the Executive Director of the Police

Pension Fund. This request also requires the approval of the Chairman of the Police Pension Fund Board of Trustees.

**Note:** Under either Ordinary Disability or Accident Disability Retirement, a member may choose either the Maximum Retirement Allowance or a pension option to provide for a beneficiary upon the death of the member.

# **Ordinary Disability Retirement (ODR)**

Members are eligible to apply for an Ordinary Disability Pension regardless of age or years of uniformed service. To be granted an Ordinary Disability Retirement, a member must be found to be physically or mentally unable to perform regular job duties by the Medical Board. If the Medical Board finds the member to be disabled, the Police Pension Fund Board of Trustees then makes the final determination for or against Ordinary Disability Retirement.

The ODR benefit is calculated differently depending on a member's length of credited service.

## Member with less than ten years of credited service:

Pension equal to 33 1/3% of final average salary

plus

An annuity based on ASF balance in excess of required amount

less

Annuity value of any shortage

## Member with ten or more years of credited service:

Pension equal to 50% of final average salary

plus

An annuity based on ASF balance in excess of required amount

less

Annuity value of any shortage

## Member with twenty or more years of credited service:

Pension equal to (years of all credited service) /40 x final average

salary

plus

An annuity based on ASF balance in excess of required amount

less

Annuity value of any shortage

# **Accident Disability Retirement (ADR)**

Members are eligible to apply for an Accident Disability Pension regardless of age or years of uniformed service. In order to be granted Accident Disability Retirement, the Medical Board must find the member to be physically or mentally unable to perform police duties as the result of an accident sustained in the line of duty. If the member is found to be disabled in this way, the Police Pension Fund Board of Trustees then makes the final determination regarding ADR. An ADR pension becomes effective after the last day a member is on the active NYPD payroll.

#### An ADR pension benefit is as follows:

75% of final average salary

plus

1/60<sup>th</sup> of total earnings after the 20th anniversary

plus

Annuity value of ITHP Reserve Account

plus

Annuity value of ASF account balance

## World Trade Center Disability Law

Active and retired Police Pension Fund members who participated as active member in the World Trade Center rescue, recovery, and clean-up operations may receive an Accident Disability Pension if found to be disabled as a result of such participation. A Notice of Participation must be been filed by September 11, 2022 to preserve eligibility for applying.

# 2009 Taxability Change

Pension benefits are non-taxable for members who retired on ADR before January 1, 2009.

Members who retired on ADR on or after January 1, 2009 are subject to taxation on the following portions of the Accident Disability Pension:

- ✓ The portion of the pension that is attributable to member contributions under IRC § 414 (h) and accumulated interest on all member contributions; and
- ✓ ITHP attributable to years after 20 years of service; and
- ✓ The additional 1/60<sup>th</sup> benefit for years after 20 years of service.

All other pensions (Service, Ordinary Disability and Vested) are subject to the Internal Revenue Code, but are exempt from New York City, New York State and Social Security taxes.

Members are required to ensure that federal income taxes are withheld from their pensions. The tax laws of all states are different and subject to change; when relocating after Tier 2 SPD January 2022—Page 26

retirement, the Fund recommends researching the state's tax laws, or consulting a tax professional.

# **Cost of Living Adjustments (COLA)**

A retiree becomes eligible for Cost of Living Adjustments (COLA) at age 62 if retired for at least five years, or at age 55 if retired for at least ten years, and all disability retirees are eligible for COLA after being retired for five years. The COLA amount is calculated at ½ the Federal Consumer Price Index (CPI), with the minimum amount being 1% and the maximum being 3%.

Spouses collecting a benefit under a joint and survivor option may also be eligible to receive COLA; however, the beneficiary receives 50% of the amount that the member/retiree would have received.

The COLA amount is applied to the first \$18,000 of the retirement allowance, or to the full retirement allowance if less than \$18,000. COLA payments to Service retirees are subtracted from their VSF payments until attainment of age 62, after which point the retiree will receive both the full COLA and full VSF payments.

## **Pension Options**

Through a pension option, a member may elect to receive a smaller retirement allowance while alive in order to provide a benefit for a beneficiary upon the member's death. There are nine options that provide such benefits; a member may elect one at the time of retirement. Each option has a cost, determined by the member's age and the beneficiary's age at the time of the member's retirement. Option selection is generally irrevocable.

To receive the Maximum benefit and yet still provide for a beneficiary, commercial life insurance policies or annuities should be considered.

# **Maximum Retirement Allowance**

The Maximum Retirement Allowance is the highest pension to which a member is entitled by law. Under the Maximum Retirement Allowance, the pension ceases upon the member's death, and no further pension payments may be made to any survivors.

# **Option Two: 100% Joint and Survivor**

Upon the member's death, the designated beneficiary receives 100% of the member's total monthly benefit for the rest of his or her life. Only one beneficiary may be named and may not be changed. If the beneficiary predeceases the member, pension payments continue at the

reduced rate unchanged; a new beneficiary may not be named and benefits cease upon the death of the member.

Note: Option 4-2 below has the same beneficiary and payment structure as Option 2, 100% Joint and Survivor, except that Option 4-2 allows the pension to revert to the Maximum Retirement Allowance should the beneficiary predecease the member.

# **Option Three: 50% Joint and Survivor**

Upon the member's death, the designated beneficiary receives 50% of the total monthly benefit for the rest of his or her life upon the death of the member. Only one beneficiary may be named, and that beneficiary may not be changed. If the beneficiary predeceases the member, pension payments continue at the reduced rate unchanged; a new beneficiary may not be named and all benefits cease upon the death of the member.

Note: Option 4-3 below has the same beneficiary and payment structure as Option 3, 50% Joint and Survivor, except that Option 4-3 allows the pension to revert to the Maximum Retirement Allowance should the beneficiary predecease the member.

# **Option 4: Lump Sum**

Upon the member's death, the designated beneficiary, or beneficiaries, will receive a specific amount (lump sum), determined at the time of finalization. More than one beneficiary may be designated, and such beneficiaries can be changed at any time.

# **Option 4: Annuity**

Upon the member's death, the designated beneficiary receives a retirement allowance specified by the member payable for the life of the designated beneficiary. Only one beneficiary may be named, and that beneficiary may not be changed. If the beneficiary predeceases the member, pension payments continue at the reduced rate unchanged; a new beneficiary may not be named and all benefits cease upon the death of the member.

<u>Note:</u> Option 4-4 below has the same beneficiary and payment structure as Option 4, Annuity, except that Option 4-4 allows the pension to revert to the Maximum Retirement Allowance should the beneficiary predecease the member.

# Option 4-2: 100% Joint and Survivor with "Pop-Up"

Upon the member's death, the designated beneficiary receives 100% of the member's total monthly benefit for the rest of his or her life. Only one beneficiary may be named and may not be changed. If the beneficiary predeceases the member, pension payments revert to the Maximum Retirement Allowance.

# Option 4-3: 50% Joint and Survivor with "Pop-Up"

Upon the member's death, the designated beneficiary receives 50% of the member's total monthly benefit for the rest of his or her life. Only one beneficiary may be named and may not be changed. If the beneficiary predeceases the member, pension payments revert to the Maximum Retirement Allowance.

# Option 4-4: Annuity with "Pop-Up"

Upon the member's death, the designated beneficiary receives a retirement allowance specified by the member payable for the life of the designated beneficiary. Only one beneficiary may be named, and that beneficiary may not be changed. If the beneficiary predeceases the member, pension payments revert to the Maximum Retirement Allowance.

# **Option 5: Five Year Certain**

If a member elects this option, the benefit is payable to the retiree for life; however, if the member dies within 5 years of retirement, the benefit is only payable to the designated beneficiary until the 5th anniversary of the member's retirement. For example, a member may elect this option and live for 15 years after retirement, upon the member's death the benefit would cease and not be payable to a beneficiary. Conversely, if a member died one year after retirement, under this option the benefit would be payable to the beneficiary for 4 more years.

# **Option 6: Ten Year Certain**

If a member elects this option, the benefit is payable to the retiree for life; however, if the member dies within 10 years of retirement, the benefit is only payable to the designated beneficiary until the 10th anniversary of the member's retirement. For example, a member may elect this option and live for 25 years after retirement, upon the member's death the benefit would cease and not be payable to a beneficiary. Conversely, if a member died 3 years after retirement, under this option the benefit would be payable to the beneficiary for 7 more years.

## **Pre-finalization Pension**

After retirement, members will receive a monthly pension of approximately 90% of their estimated final pension. Full monthly pension payments will not be received until the benefit is certified by the Chief Actuary of the City of New York. Upon certification by the Actuary, a pension is considered finalized. After finalization, members begin to receive full monthly pension payments. Any retroactive adjustments are included in the first full pension payment.

<u>Note:</u> Members considering choosing an option may wish to withhold more than 10% from the pre-finalization pension because choosing an option results in a pension lower than the Maximum Retirement Allowance because of the cost of the option.

# **Finalization Requirement**

A pension cannot be finalized unless either the Maximum Retirement Allowance or a pension option is selected. The Fund will send three notices for option selection; if no response is received after the third notice, the Fund will finalize the pension at the Maximum Retirement Allowance. Finalization is generally irrevocable.

## **Reinstatement and Restoration of Membership**

# Before the 20th Anniversary

## Return within five years and member contributions were not withdrawn

If member contributions have not been withdrawn and the member returns to service within five years of the separation date, membership with the Fund has not ceased. Accordingly, the prior service must be automatically credited to the member. The member's required contribution rate would continue to be based on the member's original tier and appointment date.

## Return after five years or member contributions are withdrawn

To receive credit for the prior NYPD time if contributions have been withdrawn, or if you rejoin more than five years after separation. the member must purchase the prior service through a Chapter 646 or Chapter 552 buyback.

# After the 20th Anniversary

If, after Service Retirement, a member rejoins the NYPD the pension stops and an active membership begins in the Police Pension Fund. The member will receive a new Tax ID number upon reinstatement. The member will receive a new required rate based on age at reinstatement and start pension contributions as any new PPF member would.

**Note:** If a member reinstates at age 39 and older, the member contribution rate will be negated by the ITHP unless ITHP is waived and/or the member participates in 50% Additional. The required rate for members 39 and older is less than the 5.0% the City assumes with ITHP.

A reinstated member must work at least five years after reinstatement before the new service and the prior service from the earlier retirement may be combined for purposes of retiring on a recalculated pension.

If a member qualifies for the full value of a recalculated pension, a member must first repay to the Police Pension Fund all pension funds received prior to reinstatement. Any prior pension amount not repaid at the time of the member's second retirement will be actuarially deducted from the recalculated pension. If the member retires for a second time before completing five years of uniformed service after reinstatement, the pension will be the original pension, adjusted for additional 1/60th and ITHP values.

# **Retiree Employment Restrictions**

NYCPPF retirees must comply with post-retirement earnings restrictions to ensure any portion of the retirement allowance is not jeopardized. All PPF retirees are subject to post-retirement limitations and reemployment restrictions. Violations of any of these laws and/or rules may jeopardize some or all of the retirement allowance.

#### Service and Vested Retirees-Under 65

## Section 211: Waiver Required

RSSL Section 211 enables New York State or any of its political subdivisions to hire non-disability retirees who possess certain qualifying skills; however, such an employer needs to obtain a Section 211 Waiver on behalf of the employee. It is the retiree's responsibility to ensure the employer obtains the 211 Waiver and it remains in force throughout the employment period. The NYS Civil Service Commission and the NYC Department of Citywide Administrative Services (DCAS) are among the entities empowered to grant a Section 211 Waiver.

# Section 211(a) – Earnings Cap

If the position's salary or compensation is over \$35,000 and the position is with a former employer (City of New York, except the NYC Dept. of Education), the maximum salary or compensation the non-disability retiree may receive is calculated as follows:

Base: Current salary\* at retirement rank

Less: Retirement allowance

Equals: Maximum annual earnings (rounded to the next highest \$500)

# The Police Pension Fund will suspend the retirement allowance if the retiree earns more than the maximum annual earnings.

# Section 211(b) - No Earnings Cap

If the position the non-disability retiree seeks is not with a former employer (the State, or a municipality in New York State other than NYC), the retiree may be hired with no earnings limitations. However, the employer must obtain a 211 Waiver on behalf of the employee.

<sup>\*</sup>Salary is defined as base pay plus overtime, uniform allowance for rank at retirement and worked vacation.

## Section 212: Earnings Cap

Under RSSL Section 212, a non-disability retiree under 65 years of age may be employed by New York State or any of its political subdivisions without prior approval of the New York State Civil Service Commission or DCAS. However, the employee's annual salary or compensation must be equal to, or less than, an amount determined by the New York State Legislature (currently \$35,000). A retired PPF member must notify the Executive Director of NYCPPF in writing if he intends to exercise this right, using the RSSL 212 Certification Form. If the retiree's earnings exceed the state-established limit, PPF will suspend, and if necessary recoup, the pension benefit for that year.

# Retirees Age 65 and Over

In the calendar year in which a non-disability retiree attains age 65, and every year thereafter, the retiree has no restrictions on earnings paid by New York State or any of its political subdivisions.

# **Public Benefit Corporations**

Section 1117 of the New York City Charter does not apply to Public Benefit Corporations (PBCs), so all retirees may work for such corporations with no earnings limitations.

The following are some common PBCs, including but not limited to:

- Metropolitan Transportation Authority
- New York City Housing Authority
- New York City Transit Authority
- New York City Dormitory Authority
- New York City School Construction Authority
- New York City Convention Operating Corporation
- New York City Health and Hospitals Corporation
- New York City Economic Development Corporation
- New York/New Jersey Port Authority
- New York State Urban Development Corporation
- Waterfront Commission of New York Harbor

# Safeguards

## Before the 20th Anniversary

Before the 20th anniversary, Ordinary Disability or Accident Disability retirees are not governed by Section 1117 of the New York City Charter. Accordingly, such retirees may earn more than \$1,800.00 per year when employed by New York State or any of its political subdivisions or a public benefit corporation.

However, New York City Administrative Code § 13-254 limits the earnings of pre-20th anniversary disability retirees. Maximum earnings are defined as follows:

Base: Current salary\* at next highest rank (immediately above retirement rank)

Less: Pension portion of the retirement allowance

Equals: Maximum annual earnings

\*Salary is defined as base pay plus overtime, uniform allowance for rank at retirement and worked vacation.

The Police Pension Fund will suspend the pension portion of the retirement allowance if the retiree earns more than the maximum annual earnings.

# After the 20th Anniversary

After the 20<sup>th</sup> anniversary, disability retirees are governed by Section 1117 of the New York City Charter. RSSL §§ 211 and 212 do not apply to disability retirees after the 20<sup>th</sup> anniversary as per RSSL § 210. Therefore, such retirees are prohibited from working for the State of New York or any of its political subdivisions.

**Note:** If a disability retiree becomes an employee of New York State or any of its political subdivisions after the 20<sup>th</sup> anniversary, PPF will suspend the pension portion of the member's retirement allowance; however disability retirees may be employed by public benefit corporations and non-public organizations with no earnings limitations after the 20th anniversary.

# Second Retirement System Membership

A retiree may not join another New York State retirement system as an active member while receiving a pension from the Police Pension Fund. If a retiree does so, the pension portion of the retirement allowance will be suspended; when active membership in the second retirement system ends, pension portion payments will resume.

# **Active Member Death Benefits**

This section describes death benefits available to beneficiaries following the death of an active member. Whenever such a death occurs, the Police Pension Fund Death Benefits staff is available to meet upon request with the designated beneficiary/ies to explain all available benefits.

# **Payments for All Deaths**

The following payments are made in the event of an active member's death, regardless of the cause of death:

- Refund of accumulated contributions, which includes pension loan insurance, if applicable;
- Payment of unpaid salary;
- Payment of worked vacation and lost time, if any

# Ordinary Death Benefit (non-line-of-duty, under 20)

This death benefit will be paid provided the member was in service for 90 days or more at the time of death and the member was a salaried PPF member at the time of death.

If the deceased member had under 20 years of service, and the death was not in the line of duty, the beneficiary will receive a lump sum payment equal to three times the member's final years earnings, rounded up to the nearest \$1,000.

# Death Gamble Benefit (non-line-of-duty, over 20)

The Death Gamble applies to active members with over 20 years of service and to members retired for Service awaiting finalization of their pension benefit. Under the Death Gamble, members are presumed to have taken Service Retirement the day before they died. The beneficiary of a Death Gamble may receive this benefit either as a lump sum payment of the member's pension reserve accounts or as an annuity for life.

# **Accidental Death Benefit**

An application must be made to the Medical Board to determine whether a member's death was the result of an accident sustained in the line of duty. If the Police Pension Fund Board of Trustees ratifies an affirmative determination from the Medical Board, an Accidental Death Benefit is paid.

The Accidental Death Benefit consists of four parts:

- 1. A lump sum equal to the member's accumulated deductions and any insured loan amount paid to the designated beneficiary(ies), or the member's estate if no beneficiary.
- 2. A lump sum payment of the balance in the member's ITHP reserve account.
- 3. A New York City-paid pension based on 50% of the member's determined salary. This benefit is paid to the spouse; if there is no surviving spouse, or if the surviving spouse dies before any child of the member attains the age of 18 years, or is a full-time student before such child attains the age of 23 years, then the benefit is paid to such a child (or children) while remaining eligible. If the member has no surviving spouse or qualifying child, then the benefit is paid to a dependent father or mother for life.
- 4. A Special Accidental Death benefit (SADB). This is a New York State-paid pension equal to the member's final year's salary, less the New York City-paid pension and Social Security benefits. The SADB is payable to the surviving spouse or child/children at the time of death. The SADB is not payable to dependent parents, and it may be increased periodically by the New York State Legislature. Effective September 1, 2000, any Cost of Living Adjustment (COLA) received on the New York City-paid 50% pension must be subtracted from the Special Accidental Death Benefit.

## **Vested Death Benefit**

The Vested separation period begins on the date a member leaves police service after vesting and ends on the member's 20<sup>th</sup> anniversary. A Vested Death Benefit is available to beneficiaries of members who die during the Vested separation period.

The benefit varies with the member's length of allowable police service prior to Vested Separation:

- ➤ If the member had less than ten years of service upon vested separation and dies before the 20th anniversary, the beneficiary will receive only the remaining accumulated contributions.
- ➤ If the member had ten or more years of service upon vested separation and dies before the 20th anniversary, the beneficiary is entitled to one-half the Ordinary Death Benefit that would have been payable prior to retirement.

## **Beneficiaries**

All members designate a beneficiary (or beneficiaries) for Death Benefits when joining the PPF; however, whenever a member's social condition changes (e.g., marriage, separation, divorce), the beneficiary designation should be updated.

Reviewing beneficiary designations regularly is well worth the time and effort; doing so protects both assets and heirs. Tax filing and open enrollment periods are recommended times to do this. Major life events, e.g., marriage, remarriage, divorce, birth, adoption and death, often create the need to update beneficiaries.

# **Checking Your Beneficiary**

To obtain beneficiary information, please visit webCOPS. If you do not have webCOPS, inquiries can be mailed to PPF, attention: Membership Services Unit. Due to privacy concerns, telephone and e-mail requests are not permitted.

# **Changing Line Organization Beneficiaries**

Whenever checking beneficiary information with the PPF, remember to also contact the appropriate line organization at the address and number listed below to obtain beneficiary information in those records, as well:

Police Officers	Patrolmen's' Benevolent Association (PBA)	212-349-7560
Sergeants	Sergeants' Benevolent Association (SBA)	212-431-6555
Detectives	Detectives' Endowment Association (DEA)	212-587-1000
Lieutenants	Lieutenants' Benevolent Association (LBA)	212-964-7500
Captains & above	Captains Endowment Association (CEA)	212-791-8292

# **Changing Beneficiaries**

You can change your beneficiary on webCOPS. If you do not have webCOPS, you can download the Change of Beneficiary Form on the PPF website and return it to the Fund via mail.

# **Changing Health Insurance Dependents (Active Members)**

To change the dependents on active health insurance by mail or in person, please contact the NYPD Health Insurance Section, 51 Chambers Street, 3rd Floor, New York, New York 10007 or call 646-610-5122 for information.

To change dependents on retiree health benefits, contact the NYC Health Benefits Program to request the appropriate health benefits forms. This Program is located at 40 Rector Street, 3rd Floor, New York, NY 10006 and can be reached at 212-513-0470.

# **Changing Deferred Compensation Plan Beneficiaries**

If enrolled in the NYC Deferred Compensation Plan, call 212-306-7760 for information about updating Plan Beneficiaries. Information is also available at www.nyc.gov/OLR.

# **Guide for Surviving Beneficiaries**

There are few situations in life more stressful than the loss of a loved one; there are no words of comfort at such a difficult time. This section is designed to aid the survivors of PPF members by providing a checklist of who to contact upon the death of a PPF member or retiree, and the information that is required. There are four calls to make:

#### 1. NYPD Operations Unit

Survivors should call NYPD Operations at 646-610-5580, located at NYPD Headquarters, 1 Police Plaza, New York, New York 10038. Pall bearers may be requested at that time and are available for all five City boroughs, Long Island, Westchester, Rockland, Orange and Putnam counties.

#### 2. NYC Police Pension Fund

Please notify PPF in writing at 233 Broadway, 19th Floor, New York, NY 10279, attention: Death Benefits Unit or by telephone at 212-693-5619/5919. Please have the following information available at the time of the phone call: the first, middle and last name of the deceased; the date of death; Social Security Number of the deceased; name of the next of kin; and name, address and phone number of the executor or executrix of the estate, if applicable.

The Fund will need (prompt receipt will expedite the ability to make payments):

- ✓ A certified copy of the death certificate;
- ✓ A copy of the paid funeral bill;
- ✓ A copy of the marriage certificate, if applicable; and
- ✓ A copy of the beneficiary's Social Security card.

## 3. Member's line organization

Contact the appropriate line organization below, and ask about a possible life insurance policy and whether any continuing optional benefits are available:

PBA	125 Broad St.	11th Floor	212-349-7560
DEA	26 Thomas St.		212-587-1000
SBA	35 Worth St.	First and second floor	212-431-6555
LBA	40 Peck Slip		212-964-7500
CEA	40 Peck Slip		212-791-8292

# 4. Health Benefits Program (Retired Members)

Contact the NYC Employee Health Benefits to request the appropriate health benefits forms. This office is located at 40 Rector Street, 3rd Floor, New York, NY 10006 and can be reached at 212-513-0470.



# SUMMARY PLAN DESCRIPTION

New York City Police Pension Fund Tier 3 Members

# New York City Police Pension Fund

**Board of Trustees** 

Mayor

**Police Commissioner** 

Commissioner of Finance

Comptroller

President-PBA

1<sup>st</sup> Vice President-PBA

2<sup>nd</sup> Vice President—PBA

Chairman, Board of Trustees-PBA

President-DEA

President-SBA

President-LBA

President-CEA



Kevin Holloran

**Executive Director** 

**Robert Sens-Castet** 

**Deputy Executive Director** 



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## Introduction

This booklet is called the Tier 3 Summary Plan Description ("SPD"). This SPD applies to the following Tier 3 plans: Original, Revised, and Enhanced. It is published by the New York City Police Pension Fund ("NYCPPF," "PPF," "Fund"), and is intended to summarize provisions relating to the retirement benefits offered to uniformed employees of the New York City Police Department (NYPD) who are subject to the various Tier 3 plans.

This booklet is not intended to be comprehensive. Laws affecting the plan can be added to or changed at any time, which may result in discrepancies within this SPD. In the event of a conflict between the contents of this booklet and any applicable law and/or rules, including, but not limited to, the Administrative Code of the City of New York ("NYCAC"), the New York State Retirement and Social Security Law ("RSSL"), and the Rules of NYCPPF, the applicable Law or Rule will govern.

## **About PPF**

In 2001, legislation provided Corpus Funding for the Pension Fund to begin operations in September 2002 at its new location at 233 Broadway in New York City. The PPF is governed by the Board of Trustees. The Comptroller of the City of New York is Custodian of the funds of the System, and by delegation of the Board of Trustees, has the power to invest those funds. The Executive Director is the chief administrative officer of the agency. The Chief Actuary for the City of New York provides actuarial services to the PPF. The Office of Corporation Counsel provides legal services to the Fund.

NYCPPF is a defined benefit plan, meaning that a specific benefit is provided at retirement in amounts that are paid either on a fixed-dollar basis or as a percentage of compensation. PPF manages the Fund's invested assets and pays out benefits according to formulas set forth in New York State and City laws. In general, Tier 3 members are governed by Article 14 of the RSSL, the NYCAC, the Rules of the Fund and certain other applicable statutes.

## **How to Contact PPF**

The Fund cannot answer member specific questions regarding financial information or provide legal or tax advice.



In the Fall of 2019, PPF announced a new service for our members: webCOPS. This is a secure website where members can view pension account information and connect with PPF online. Members who register on webCOPS can check their current account balance, verify contact and beneficiary information, and download and submit member request forms. This is the first release of a phased implementation.

webCOPS will evolve with scheduled updates over the next few years. Members can register by visiting https://www.webcops.org/ppfmss. PPF's Call Center is available to provide webCOPS support during standard business hours – please contact the Call Center at (646) 905-5596 for more information.

Members can also find the answers to many questions quickly and conveniently by visiting the PPF website: <a href="https://www.nyc.gov/nycppf">www.nyc.gov/nycppf</a>.

At PPF, protecting and securing the privacy of member data is a top priority. Therefore, some transactions require notarization; please refer to the individual form or request. PPF staff does not respond to telephone or e-mail inquiries relating to private member information because the identity of the caller or e-mail writer cannot be confirmed.



For answers to questions of a **general** nature concerning retirement and pensions, please call PPF at (212) 693-5100.



You may send forms or letters to the Pension Fund at 233 Broadway, 25th Floor, New York, New York 10279.



The Fund is also on Facebook! Members, their beneficiaries, and fans of the Fund can "like" us on Facebook at <a href="https://www.facebook.com/nycppf">www.facebook.com/nycppf</a>.

In person and online, PPF is proud to be serving the FINEST.

## **Membership**

Uniformed members of the New York City Police Department appointed on or after July 1, 2009 are subject to Article 14 of the RSSL, also known as Tier 3. Contributions to the Fund must be made while employed with the NYPD, but are not required after 25 years of service. Membership in the Fund ceases upon withdrawal of contributions. There are three different plans within Tier 3: Original, Revised, and Enhanced.

Members appointed	Plan
Between July 1, 2009 – March 31, 2012	Tier 3 Original
Between April 1, 2012 – March 31, 2017	Tier 3 Revised
On or after April 1, 2017	Tier 3 Enhanced

Tier 3 Original or Revised members who elected to opt-in to Tier 3 Enhanced are subject to the rights, benefits, and provisions provided by the Enhanced plan. The period to opt-in to Tier 3 Enhanced is now closed.

#### **Credited Service**

Participation in the Fund is mandatory for uniformed members of the service. A member will not receive retirement credit for any day not on the payroll, *e.g.*, suspended without pay. Military service with the federal government may be credited pursuant to New York State Military Law §243, the Uniformed Services Employment and Reemployment Rights Act (USERRA), and RSSL §1000, as explained below.

#### Prior Service Credit

A member is eligible to obtain service credit for any New York State Police and Fire time, or service with the New York City Fire Department. This credited service may count toward the requirements for vesting and retirement.

# **Transfer to New York City Police Pension Fund**

A member may transfer a membership from another public retirement system within the State of New York to PPF. In Tier 3, transferring prior City or State service, other than Police or Fire time, does not provide service credit or an additional monetary benefit. There may, however, be a transfer into a prior tier depending on membership dates. Before deciding whether to transfer service from another pension system, an eligible member should speak with Membership Services.

# **Buyback of Prior Service**

Members must apply and remit payment for all service credit purchases before their effective date of retirement. In the event of retirement prior to completing payment for the service credit

purchase, the amount of service credited to the member shall be proportional to the total amount paid.

## Chapter 646 of the Laws of 1999

Chapter 646 of the Laws of 1999 amended RSSL § 645, which allows for the purchase of prior service in another retirement system for a membership that has ceased. Chapter 646 may allow for a Tier change or Tier reinstatement. A member who may be eligible to purchase service under this provision should contact Membership Services.

## Chapter 552 of the Laws of 2000

Chapter 552 of the Laws of 2000 allows members the ability to purchase any prior service rendered before becoming a member of the Fund, or any other New York State or New York City retirement system. Only prior police or fire service will provide service credit.

## Child Care, Chapter 594, Laws of 2000

Chapter 594 allows members who were on leave without pay for purposes of authorized child care leave to purchase uniformed credited service. A member must file an application not later than 90 days from the final date of the leave.

## Military Service, RSSL § 1000

New York State Retirement and Social Security Law ("RSSL") § 1000 allows members to purchase up to three years of pre-membership military service.

To be eligible for this service credit purchase, the member must:

- ✓ Be in active City service; and
- ✓ Have five years of credited service with PPF, not including the military service being purchased; and
- ✓ Produce a DD-214 demonstrating an honorable discharge from any branch of the U.S Armed Forces.

The cost of this buyback is dependent on appointment date:

- ▶ If the member has a membership date with PPF on or prior to March 31, 2012:
  - 3% of the member's compensation earned during the 12 months of credited service immediately preceding the application date multiplied by years of military service claimed
- If the member has a membership date with PPF on or after April 1, 2012:
  - 6% of the member's compensation earned during the 12 months of credited service immediately preceding the application date multiplied by years of military service claimed.

If upon death, retirement, or separation, the service purchase does not produce a greater benefit, the cost of the service purchase must be refunded to the member with interest.

# Retroactive Military Seniority (RMS)

Retroactive Military Seniority ("RMS") is awarded to a member after being appointed to the NYPD from a special list, retroactive to the date the member would have been appointed had the member not been serving in the military. Information contained herein applies only to pension, not employment, benefits.

Members who are awarded RMS from the Department of Citywide Administrative Services (DCAS) are eligible to receive pension credit retroactive to their RMS date upon remitting the cost of the pension contributions to the Fund. This entitles the member to the same rights, privileges and obligations as if he had served continuously in such position from the RMS date, including Tier status.

Contributions must be completed within the repayment period prescribed by law; the maximum repayment period is the time from the RMSD to the NYPD appointment multiplied by 3, up to a maximum of 5 years. Payments can be made via certified check or money order or through biweekly payroll deductions. Upon completion of the payment, interest will be credited to the account as it would have been earned during the period.

Please note a member cannot receive RMS and credit for the same military service through a buyback. Members who have already completed a RSSL §1000 buyback for the same time will receive a refund for the buyback or the City will credit the money toward the RMS payment.

## **Contributions**

Contributions to the New York City Police Pension Fund are mandatory for all members, but are not required after 25 years. Contribution rates vary by Tier 3 plan. Pensionable earnings consist of: base salary, overtime, night differential, holiday pay, worked vacation, portal to portal and allowable longevity. Member contributions are based on gross pay and will be deducted from pay before federal taxes are deducted.

#### **Contribution Rates**

Member contributions and the interest they earn are known as accumulated contributions. The Tier 3 rate of interest is currently 5%. A member's accumulated contributions must equal the required amount (the 3% contribution rate plus statutory interest) to be eligible for a pension.

Plan	Contribution Rate
Tier 3 Original	3%

Tier 3 Revised	3%
Tier 3 Enhanced	4%*

<sup>\*</sup> 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%. This additional 1% can be raised to up to 3% based on a financial analysis by the Office of the Actuary, which is conducted every three years. At no time can the total contribution rate exceed 6%.

## **Taxability of Contributions**

Tier 3 Original and Revised contributions are taken pre-tax. Tier 3 Original and Revised members who opt into Tier 3 Enhanced will have split taxability: the base 3% is pre-tax, however the additional contribution (currently 1%) will be taken after tax.

Tier 3 Enhanced contributions in their entirety are taken pre-tax only for members appointed on or after April 1, 2017.

# Pensionability of Longevity

Longevity payments are not automatically pensionable. "Pensionable" means what portion of your earnings are included in the final average salary. When a member has 20 years of service, the payments for five and ten year longevity become pensionable. At 25 years of service, the payments for 15 and 20 year longevity become pensionable.

# **Member Contributions While on Military Leaves**

Members may take military leaves with or without pay during their career with the NYPD; however, all members must be given the opportunity to purchase pension credit for such leaves. The Uniformed Services Employment and Reemployment Rights Act of 1994, 38 U.S.C. §§ 4301–35 ("USERRA") requires military service members' pensions—as well as employer and employee contributions to pension plans—to be computed based on the rate of compensation the employees would have received but for their periods of military service.

Therefore, when a member goes on a military leave, PPF must impute, for purposes of pension calculations, overtime and night-shift differential compensation that members would have earned had they not taken military leaves during their careers with the NYPD.

For example, the member may ordinarily have earned overtime or night-shift differential compensation, but missed the opportunity to do so because of military obligations. Military service begins on the day a member begins his or her leave from the NYPD for the purposes of military service; this may include use of annual leave and/or compensatory time. The military service is deemed completed on the day before the member returns to the NYPD.

To determine the amount of earnings a member would have earned, PPF will average any additional differential payments and overtime the member earned during the 12 months

immediately preceding his or her active military service. PPF will then add the base pay to the imputed earnings to reach the pensionable earnings for the military leave. Members are responsible for making additional pension contributions to the Fund.

# **Refunds of Member Contributions**

A member may withdraw any excess funds within six months of appointment or at the time of separation. Excess created by errors of the Fund will be returned upon identification.

If a member separates from the Fund for reasons other than retirement (resignation, termination, or death) a request for a refund of accumulated contributions plus interest may be made. If contributions are left with the Fund, the money will continue to earn interest for a maximum of five years from the date of separation.

Upon separation of service (either by way of resignation or dismissal), contributions may be withdrawn until a member has 10 years of credited service. After 10 years of service, contributions may not be withdrawn or transferred to another system, and members will receive a vested retirement benefit.

# **Shortages**

A shortage occurs when a member's pension account balance falls below the required amount. Members are responsible for any account shortages; there is no actuarial offset if a member has a shortage at retirement. Unfortunately, a member will not be permitted to retire with a shortage.

Shortages may occur because of delays in contract settlements. Retroactive pay from a contract settlement does not include the interest that would have been earned on these contributions. Interest earned on contributions is part of a member's required amount; therefore, a shortage can occur.

The Fund will notify any member with a shortage prior to retirement. Members may opt to make a lump sum payment(s) or biweekly payroll deductions to reduce any shortage.

## Loans

There is no provision in Tier 3 that allows a member to take loans.

Members who transfer to the Fund with an active loan from their previous retirement system will be enrolled in their prior repayment plan; no changes may be made to the repayment plan.

#### Retirement

When a member decides to retire, there is no statutory minimum time period by which the member must file before retiring. However, it is recommended that applicants for Service Retirement call the Retirement Processing Unit for an appointment three to four weeks before filing for retirement.

Filing for retirement should be done in person at least 10 days prior to the start of terminal leave. Members are authorized to take an administrative tour for retirement processing.

A member appearing at PPF for retirement must be in possession of his or her shield and identification card.

Pension checks are mailed to a member's mailing address on file with the Fund unless a member requests otherwise. Members may have pension payments directly deposited to any bank upon the submission of an Electronic Funds Transfer (EFT) Form. It is the member's responsibility to keep address information current with the Fund, even after retirement.

# Procedures for all members applying for retirement

### Property Receipt—Discontinuance of Service (PD 520-013)

This form must be completed and signed by the Commanding Officer of the member's permanent command, or an officer at least a rank above the member within the command, and delivered by the member to Retirement Processing.

The field, "Next Scheduled Tour After Leaves, Except Terminal Leave" must be filled out on this form. The date in this field is the starting date of terminal leave. It is the responsibility of the member to return Department property to the appropriate locations.

#### **Firearms**

Members who are New York City residents and wish to obtain a New York City Pistol License must visit www.licensing.nypdonline.org. The Application should be submitted four weeks prior to the member's obtaining a retired ID card for processing, otherwise the member may be subject to vouchering firearms until the permit is processed. Questions regarding the Handgun License Application should be directed to the License Division at (646) 610-5536 or https://licensing.nypdonline.org.

Members who are not New York City residents may need to provide a copy of the Property Clerk Invoice (PD 521-141) for all firearms listed on the NYPD Force Record Card if an HR218 card is not obtained. Please contact your resident county for further instructions regarding their process.

### **Health Insurance Information**

Members, and in some cases their beneficiaries, may be eligible for health benefits from the City of New York. A member needs at least 10 years of credited service to be eligible for health

benefits upon retirement. Health benefits are only available to a person actually collecting a pension.

For example, a member who vests with 10 years of service and does not collect a retirement allowance until what would have been the member's 22<sup>nd</sup> anniversary is not eligible for health benefits until the Fund begins to disburse the retirement allowance. Likewise, a member who retires with 22 years of service and elects to defer payment of the pension until what would have been 25 years for escalation purposes would not be eligible to receive health benefits until collection of the pension benefit.

Members should contact Employee Health Benefits at the NYC Office of Labor Relations at 40 Rector Street, New York, NY 10006 or (212) 306-7390 for further information regarding health benefits.

For health insurance purposes, the following information must be provided when a member appears at the Fund to retire:

- ✓ GHI, HIP or other health plan card;
- ✓ Spouse's date of birth and Social Security Number;
- ✓ Date of marriage;
- ✓ Dates of birth and Social Security Numbers of dependent children;
- ✓ If spouse is employed and has health insurance, bring pertinent information (name of employer, health plan, and policy number).

### **Retirement Processing**

During the retirement process at PPF, members are provided information on health insurance, pension survivor options, employment restrictions, withholding tax, and other important retirement issues. The member's retirement date will be set, and estimates for both final pension and pre-finalization pension will be provided.

### **Estimate of Final Pension**

An applicant for retirement will receive a pension estimate after meeting with a retirement processor—this is only an estimate. Any additional overtime, night differential and worked vacation earned between the estimated retirement date and the actual retirement date will be included at finalization. Any difference in monthly average earnings between the retirement processing date and the finalization date will be disbursed as a retroactive payment.

### **Terminal Leave**

Members are entitled to take all accrued time and terminal leave after the last day on active duty, or request a lump sum payment for such time. All accrued time must be used prior to the start of terminal leave. During terminal leave, members remain on the active payroll.

# **Application Withdrawal**

A member being processed for Vested or Service Retirement may withdraw the retirement application while it is still pending by appearing at PPF in person at least one business day prior to the scheduled retirement date. Any terminal or annual leave used prior to withdrawal of the retirement application may not be restored; however, unused terminal leave may be used toward a future retirement. A member must work 30 days after withdrawing an application for retirement to be eligible for annual leave in the next calendar year.

# Final Average Salary

The compensation base that is used to calculate a pension benefit is referred to as your Final Average Salary (FAS). The FAS period is different in the various Tier 3 plans.

FAS is defined as the average of wages earned by a member during a certain continuous period of employment for which the member was credited with service. This is not determined by a mere average of wages.

The "Kingston Limitation" is a statutory provision which states wages earned in any one year used in the FAS computation cannot exceed the average of prior years by more than 10 percent. The period of exclusion under the Kingston Limitation is different throughout the various Tier 3 plans, as described below.

If the member was on a leave of absence without pay (e.g. suspension) at any time during the FAS period, that time will be excluded from the calculation and the same period of time immediately preceding the FAS period will be included for the final average salary.

# Tier 3 Original

#### Tier 3 Original (Tier 3 Original who Opt into Tier 3 Tier 3 Original Opts Into Tier 3 Enhanced Enhanced and retires for Vested or (and retires for disability)\* Service) Average wages earned by a member during any Average wages earned by a member during any 3 consecutive calendar years or 36 months 5 consecutive calendar years or 60 months immediately preceding the member's retirement immediately preceding the member's retirement date that provides the highest average wage. date that provide the highest average wage. If the wages earned during any year included in If the wages earned during any year included in the period exceeds the average of the prior two the period exceeds the average of the prior four years by more than 10%, the amount in excess years by more than 10%, the amount in excess of 10% shall be excluded. of 10% shall be excluded.

<sup>\*</sup>Tier 3 Original members who opt into Tier 3 Enhanced will only see this changed in their FAS if they retire for a disability retirement. The Original FAS calculation remains for members who retire for Vested or Service retirement.

#### Tier 3 Revised and Enhanced

FAS is the average wages earned by a member during any **5 consecutive calendar years** or **60 months immediately** preceding the member's retirement date that provide the highest average wage.

If the wages earned during any year included in the period exceeds the average of the **prior four years** by more than 10%, the amount in excess of 10% shall be excluded.

# Social Security Offset

Most pension benefits in Tier 3 are reduced by a Social Security Offset.

Members who retire for Ordinary Disability Retirement ("ODR") will have their benefit offset by 50% of their primary Social Security Disability Insurance ("SSDI") benefit. The benefit will not be further reduced if the Social Security benefit increases after separation from service.

Members who retire for Accident Disability Retirement ("ADR") follow the regular Offset, as described below, unless they receive SSDI for the same disability claimed from the Fund. Upon receipt of SSDI, ADR retirees will have their benefit offset by 50% of their SSDI, as described above.

Tier 3 Enhanced members who retire for a ADR or ODR will not have their pension benefits reduced by the Social Security Offset.

All other pension benefits are reduced by a regular Social Security Offset at age 62, regardless of whether the member is in receipt of Social Security Benefits. This offset is determined at the time of the member's retirement. All public earnings for which the member has accrued service credit will be factored into the calculation of the Offset.

# **Mandatory Retirement**

A member must separate from uniformed service upon turning 62 years old. The separation must occur regardless of whether the member is eligible for a Normal Service Retirement.

- Members appointed between July 1, 2009 and March 31, 2012: The retirement benefit may be calculated the same as Early Service Retirement, or the member may be entitled to a Vested benefit. This Vested benefit will be reduced 1/15th for each year that a member's early retirement age is in excess of age 60, as described in the Vested Retirement section. Members who must retire for mandatory retirement and do not have 20 years of service are not eligible for the VSF.
- Members appointed on or after April 1, 2012: If a member attains mandatory retirement age and does not have enough service credit for an Early Service Retirement, the member must take a Vested Retirement. Accordingly, if a member reaches age 62 with less than 20 years of NYPD service, the member is not eligible for the VSF.

### **Vested Retirement**

After five years of uniformed service a member is eligible for vested retirement benefits. Please note that to be eligible for health benefits in retirement, a member must have completed ten years of service.

Vested benefits are payable upon attainment of the 20<sup>th</sup> anniversary of NYPD service.

A member may elect to receive the Vested benefit early, if the member attains age 55 prior to reaching the 20<sup>th</sup> anniversary, subject to a reduction of 1/30th for each year the benefit commenced before the 20<sup>th</sup> anniversary.

To be eligible for annual escalation, a member may elect to defer payment of the vested pension benefit until 22 years and one month or more, up to 25 years. See the Escalation section of this SPD for an explanation of how appropriate escalation is calculated.

Vested retirees are not entitled to terminal leave before separation from service, nor eligible for Variable Supplement Fund payments.

### The vested pension benefit is as follows:

2.1% of the final average salary x years of credited service -minus-

50% of primary Social Security benefit commencing at 62

# **Early Service Retirement**

A member is eligible for Early Service Retirement after the completion of 20 years of uniformed service.

### An Early Service Retirement pension benefit is as follows:

2.1% of FAS x years of credited service (for first 20 years) -plus-

1/3% of FAS for each month in excess of 20 years
[total benefit not in excess of 50% of FAS]
-entire benefit above less50% of primary Social Security benefit commencing at 62

### **Normal Service Retirement**

A member is eligible to retire for Service without reduction upon the completion of 22 years of uniformed service.

### The Normal Service Retirement benefit is:

50% of FAS-less-

50% of primary Social Security benefit commencing at 62

# **Disability Retirement**

An application for Ordinary or Accident Disability may be made by a member in active service, who is not eligible for a Normal Service Retirement (22 years), and is incapacitated from performing the duties of a police officer. Applications for ODR and ADR are made at the Medical Division, 1 Lefrak City Plaza, 59-17 Junction Boulevard, Corona, New York, 11368. Applicants will be notified of the time to appear before the Medical Board for examination.

A disability application may be filed by the member or a legally authorized person acting on the member's behalf; or by a committee or conservator duly appointed by a court of competent jurisdiction; or by the Police Commissioner.

To apply for ODR or ADR, Tier 3 Original and Revised members must sign a waiver of the statutory presumptions. A determination of disability should be made by the Medical Board regardless of any statutory presumptions (except the World Trade Center presumption). Tier 3 Enhanced members are entitled to the benefit of statutory presumptions, which include the Heart Bill and the Exposure (HIV, AIDS, Hepatitis, and Tuberculosis) Bill.

After the examination, the Medical Board will report to the NYCPPF Board of Trustees with a recommendation for approval or disapproval of the disability application. After the Board of Trustees meeting, members are informed of the decision and other necessary information.

### Ordinary Disability Retirement (ODR)

To be eligible for Ordinary Disability Retirement, a member must be in active service and have at least five years of credited service, but not yet be eligible for a Normal Service Retirement benefit. To retire for ODR a member must be approved for primary Social Security disability benefits ("SSDI"). Payment of ODR is contingent on active receipt of SSDI, such proof is required annually until age 65.

The Ordinary Disability Retirement benefit is the greater of:

33 1/3 % of FAS

-or-

2% of FAS x years of credited service
-either benefit above, less50% of SSDI

### Accident Disability Retirement (ADR)

To be eligible for ADR, a member must be in active service and be physically or mentally incapacitated for the performance of duty as the natural and proximate result of an accident sustained in active service and not caused by the member's own willful negligence. Receipt of ADR is not conditioned on eligibility for, or receipt of, primary Social Security benefits. Accordingly, payment of a benefit from the Fund will commence after approval by the PPF Board of Trustees.

### A Tier 3 ADR pension is calculated as follows:

Tier 3 Original and Revised	Tier 3 Enhanced
50 % of FAS	
less	75 % of FAS
50% of primary Social Security Disability	

### **Taxation of Benefits**

ADR pensions are generally not subject to taxation.

All other pensions (Normal Service, Early Service, Ordinary Disability, and Vested) are subject to Federal tax, but are exempt from New York City, New York State and Social Security taxes.

The tax laws of all states are different and subject to change; if relocating after retirement, the Fund recommends researching the state's tax laws, or consulting a tax professional.

### **Escalation**

Members may be eligible for Escalation on their pension. Escalation is a post-retirement increase (or decrease) to retirement benefits and are calculated by the New York City Office of the Actuary. Escalation is capped annually at 3%. In the event of negative escalation, your benefit will never be reduced below your initial pension amount.

Tier 3 Enhanced members who retire for a disability, do not receive escalation, rather Cost of Living Adjustments ("COLA").

Tier 3 members eligible for Escalation will receive the greater of COLA or Escalation as calculated on a cumulative basis.

### **Full Escalation Date**

The full escalation date is calculated as follows for different retirement types:

- ➤ <u>Vested and Service Pensions:</u> The first day of the month after a member completes, or would have completed 25 years of service.
- ➤ <u>Disability Pensions (Tier 3 Original and Revised only):</u> The first day of the month following the day on which a member retires for ODR or ADR.
- ➤ **<u>Death Benefits:</u>** The first day of the month following the day on which a beneficiary first becomes eligible for a death benefit paid as other than a lump sum.

### **Partial Escalation**

Partial escalation is calculated on benefits that commence prior to the member's full escalation date. A retiree will be eligible to receive 1/36<sup>th</sup> of the escalation rate for each month the benefit starts after the 22<sup>nd</sup> anniversary, but before the 25<sup>th</sup> anniversary.

# Deferred Benefit for Escalation - 22 years of service or less

A member who retires for Early Service or Vests with less than 20 years of credited service may choose to defer the retirement benefit for the purpose of becoming eligible for annual escalation, in exchange for a reduction in their pension. The reduced pension benefit would then be calculated as follows:

2% x FAS x each year of credited service
-less50% of the Primary Social Security Benefit at age 62

If a member chooses the above option, the member will receive the escalation rate in effect at the time pension benefits become payable.

### Deferred Benefit for Escalation - Normal Service Retirement

A Normal Service retiree with less than 25 years of service may choose to defer the retirement benefit for the purpose of becoming eligible for full escalation.

### Deferred Benefit for Escalation and the VSF

A service retiree (Early and Normal) with over 20 years of service is eligible for the VSF, as described in the earlier VSF section. A member who defers their benefit for escalation, will be paid any banked Variable (VSF DROP) in the year he or she retires, regardless of the duration of the deferral. VSF will not be accrued during the deferral period. When the member begins receipt of the retirement benefit, payment of the VSF will resume.

### **Cost of Living Adjustments ("COLA")**

Tier 3 Enhanced members who retire for ODR or ADR become eligible for Cost of Living Adjustments ("COLA") after being retired for five years. COLA is calculated annually by the New York City Office of the Actuary.

The COLA amount is applied to the first \$18,000 of the retirement allowance, or to the full retirement allowance if less than \$18,000.

Spouses collecting a benefit under a joint and survivor option may also be eligible to receive COLA; however, the beneficiary receives 50% of the amount that the member/retiree would have received.

### Variable Supplements Fund

Members who retire for Service, with at least 20 years of credited police service are eligible to receive an annual statutorily defined Variable Supplements Fund ("VSF") payment in addition to regular pension payments. The VSF is prorated based upon the number of full months of retirement in the retirement year. The annual VSF benefit is \$12,000. Only members who retire for Early or Normal Service Retirement are eligible for VSF benefits.

### VSF DROP (Deferred Retirement Option Plan)

In addition to the annual VSF benefit discussed above, members who continue on active duty beyond the 20<sup>th</sup> anniversary, and ultimately retire for Early or Normal Service Retirement, may be entitled to the VSF DROP, also known as the "Banked Variable." Accrued VSF DROP funds are eligible for rollover, subject to IRS regulations.

The VSF DROP is not payable to members who die while in active service.

# VSF Payment Schedule

VSF payments and VSF DROP payments will be made or credited on or about December 15th of the retirement year. Members who retire in the month of December and are eligible for the VSF DROP will not be paid until December of the following year.

# **Options**

A member may elect to receive a reduced retirement allowance while alive in order to provide a continued benefit for someone else upon the member's death. There are five options that provide such benefits; a member may elect one. Each option has a cost, determined by the member's age and the beneficiary's age at the time of the member's retirement.

Members will be presented with the estimated cost at the time of retirement. A member will be required to choose the option within 30 days of the retirement date or the maximum retirement allowance will be granted. In the case of disability retirements, a member may elect to change any prior option selection within 30 days of approval of the disability benefits by the PPF Board.

- ➤ <u>Maximum Retirement Allowance:</u> The Maximum Retirement Allowance is the highest pension to which a member is entitled by law. Under the Maximum Retirement Allowance, the pension ceases upon the member's death, and no further pension payments may be made to any survivors.
- Option 1: 100% Joint and Survivor: Upon the member's death, the designated beneficiary receives 100% of the member's total monthly benefit for the rest of his or her life. Only one beneficiary may be named and may not be changed. If the beneficiary predeceases the member, pension payments continue at the reduced rate unchanged; a new beneficiary may not be named and benefits cease upon the death of the member.
- ▶ Option 2: Annuity: Upon the member's death, the designated beneficiary receives a retirement allowance of ninety percent or less (but not less than ten percent) payable for the life of the designated beneficiary. Only one beneficiary may be named, and that beneficiary may not be changed. If the beneficiary predeceases the member, pension payments continue at the reduced rate unchanged; a new beneficiary may not be named and all benefits cease upon the death of the member.
- ▶ Option 3: 5 Year Certain: If a member elects this option, the benefit is payable to the retiree for life; however, if the member dies within 5 years of retirement, the benefit is only payable to the designated beneficiary until the 5th anniversary of the member's retirement. For example, a member may elect this option and live for 15 years after retirement, upon the member's death the benefit would cease and not be payable to a beneficiary. Conversely, if a member died one year after retirement, under this option the benefit would be payable to the beneficiary for 4 more years.
- ▶ Option 4: 10 Year Certain: If a member elects this option, the benefit is payable to the retiree for life; however, if the member dies within 10 years of retirement, the benefit is only payable to the designated beneficiary until the 10th anniversary of the member's retirement. For example, a member may elect this option and live for 25 years after retirement, upon the member's death the benefit would cease and not be payable to a beneficiary. Conversely, if a member died 3 years after retirement, under this option the benefit would be payable to the beneficiary for 7 more years.
- Option 5A: 50% Joint and Survivor with "Pop-up": Upon the member's death, a retirement allowance in an amount equal to 50% of the member's retirement allowance shall be paid for life to the designated beneficiary. If the beneficiary pre-deceases the member, the retirement allowance "pops up" or reverts to the Maximum Retirement Allowance, as if no retirement option was selected. The revision is prospective from the date of the beneficiary's death.
- ➤ Option 5B: 100% Joint and Survivor with "Pop-up": Upon the member's death, a retirement allowance in an amount equal to 100 % of the member's retirement allowance shall be paid for life to the designated beneficiary. If the beneficiary pre-deceases the

member, the retirement allowance "pops up" or reverts to the Maximum Retirement Allowance, as if no retirement option was selected. The revision is prospective from the date of the beneficiary's death.

# **Reinstatement and Restoration of Membership**

# Before Service Retirement Eligibility

### Return within five years and member contributions were not withdrawn

If member contributions have not been withdrawn and the member returns to service within five years of the separation date, membership with the Fund has not ceased. Accordingly, the prior service must be automatically credited to the member. The member's required contribution rate would continue to be based on the member's original tier and appointment date.

### Return after five years or member contributions are withdrawn

To receive credit for the prior NYPD time if contributions have been withdrawn, the member must purchase the prior service through a Chapter 646 or Chapter 552 buyback. Members who are rehired and would obtain an earlier membership date that would bring them into eligibility for an earlier Tier 3 plan will be placed in that plan. A Chapter 552 buyback would not move a member to another Tier 3 Plan.

### Tier 3 to Tier 2

If a member resigned while Tier 2 was in effect and reinstated after Tier 3 was enacted (July 1, 2009) that member would have to complete a Chapter 646 buyback to tier reinstate pursuant to New York State Retirement and Social Security Law (RSSL) § 645. The member's contribution rate would be governed by RSSL § 645.

# After Service Retirement

If, after Service Retirement, a member rejoins the NYPD (i.e., reinstates as a uniformed member), the pension stops and an active membership begins in the Police Pension Fund. A reinstated member must work at least five years after reinstatement before the new service and the prior service from the earlier retirement may be combined for purposes of retiring on a recalculated pension or receiving escalation benefits.

# **Retiree Employment Restrictions**

NYCPPF retirees must comply with post-retirement earnings restrictions to ensure any portion of the retirement allowance is not jeopardized. All PPF retirees are subject to post-retirement

limitations and reemployment restrictions. Violations of any of these laws and/or rules may jeopardize some or all of the retirement allowance.

### Service and Vested Retirees Under 65

### **Section 211: Waiver Required**

RSSL Section 211 enables New York State or any of its political subdivisions to hire non-disability retirees who possess certain qualifying skills; however, such an employer needs to obtain a Section 211 Waiver on behalf of the employee. It is the retiree's responsibility to ensure the employer obtains the 211 Waiver and it remains in force throughout the employment period. The NYS Civil Service Commission and the NYC Department of Citywide Administrative Services (DCAS) are among the entities empowered to grant a Section 211 Waiver.

### Section 211(a) - Earnings Cap

If the position's salary or compensation is over \$35,000 and the position is with a former employer (City of New York, except the NYC Dept. of Ed.), the maximum salary or compensation the non-disability retiree may receive is calculated as follows:

Base: Current salary\* at retirement rank

Less: Pension

Equals: Maximum annual earnings

\*Salary is defined as base pay plus overtime, uniform allowance for rank at retirement and worked vacation.

# The Police Pension Fund will suspend the pension if the retiree earns more than the maximum annual earnings; this includes any VSF payment.

## Section 211(b) – No Earnings Cap

If the position the non-disability retiree seeks is not with a former employer (a municipality in New York State other than NYC), the retiree may be hired with no earnings limitations. However, the employer must obtain a Section 211 Waiver on behalf of the employee.

# Section 212: Earnings Cap

Under RSSL Section 212, a non-disability retiree under 65 years of age may be employed by New York State or any of its political subdivisions without prior approval of the New York State Civil Service Commission or DCAS. However, the employee's annual salary or compensation must be equal to, or less than, an amount determined by the New York State Legislature (currently \$35,000). A retired PPF member must notify the Executive Director of NYCPPF in writing if he intends to exercise this right, using the RSSL 212 Certification Form. If the retiree's earnings exceed the state-established limit, PPF will suspend, and if necessary recoup, the pension for that calendar year, including any VSF payment.

# Retirees Age 65 and Over

In the calendar year in which a non-disability retiree attains age 65, and every year thereafter, the retiree has no restrictions on retirement earnings paid by New York State or any of its political subdivisions.

# **Public Benefit Corporations**

Section 1117 of the New York City Charter does not apply to Public Benefit Corporations (PBCs), so all retirees may work for such corporations with no earnings limitations.

The following are some common PBCs, including but not limited to:

- Metropolitan Transit Authority
- New York City Housing Authority
- New York City Transit Authority
- New York City Dormitory Authority
- New York City School Construction Authority
- New York City Convention Operating Corporation
- New York City Health and Hospitals Corporation
- New York City Economic Development Corporation
- New York/New Jersey Port Authority
- New York State Urban Development Corporation
- Waterfront Commission of New York Harbor

# Safeguards: Accident Disability Retirees

# **Before 20<sup>th</sup> Anniversary**

Before the 20<sup>th</sup> anniversary, Ordinary Disability or Accident Disability retirees are not governed by Section 1117 of the New York City Charter. Accordingly, such retirees may earn more than \$1,800.00 per year when employed by New York State or any of its political subdivisions or a public benefit corporation.

However, New York City Administrative Code § 13-254 limits the earnings of pre-20th anniversary disability retirees. Maximum earnings are defined as follows:

Base: Current salary\* at next highest rank (immediately above retirement rank)

Less: Pension portion of the retirement allowance

Equals: Maximum annual earnings

\*Salary is defined as base pay plus overtime, uniform allowance for rank at retirement and worked vacation.

The Police Pension Fund will suspend the pension if the retiree earns more than the maximum annual earnings.

### After 20th Anniversary

After the 20<sup>th</sup> anniversary, disability retirees are governed by Section 1117 of the New York City Charter. RSSL §§ 211 and 212 do not apply to disability retirees after the 20<sup>th</sup> anniversary as per RSSL § 210. Therefore, such retirees are prohibited from working for the State of New York or any of its political subdivisions.

**Note:** If a disability retiree becomes an employee of New York State or any of its political subdivisions after the 20<sup>th</sup> anniversary, PPF will suspend the pension; however disability retirees may be employed by public benefit corporations and non-public organizations with no earnings limitations after the 20<sup>th</sup> anniversary.

# Safeguards: Ordinary Disability Retirees

If a disability retiree becomes **ineligible** for primary Social Security benefits before reaching age 65, the retirement benefits from the Fund shall cease.

If the disability retiree is found to be ineligible for disability benefits but is otherwise eligible for City employment, the retiree will be placed on a preferred eligible list of the City of New York. The disability benefit will continue until the retiree is offered a civil service position from the preferred eligible list, at which time the disability benefit shall cease.

# Second Retirement System Membership

A retiree may not join another New York State retirement system as an active member while receiving a pension from the Police Pension Fund. If a retiree does so, the pension will be suspended, including any VSF payments; when active membership in the second retirement system ends, pension payments will resume.

### **Death Benefits**

### In Service

To be eligible for an Ordinary Death Benefit, a member needs to have completed ninety (90) days of uniformed service with the NYPD.

### The Ordinary Death Benefit is calculated as follows:

3 x member's salary raised to the next highest multiple of \$1,000 -plus-

a return of the member's accumulated contributions

The Ordinary Death Benefit is paid to a beneficiary designated by the member. Members may designate multiple beneficiaries.

Tier 3 SPD January 2022—Page 24

Any death benefits paid, except for the Accidental Death Benefit, are in lieu of all other statutory death benefits.

# **Vested But Not Yet Collecting**

A vested member who dies prior to payability is entitled to 50% of an ordinary death benefit.

### **Accidental Death**

An accidental death benefit is payable to an eligible beneficiary if the member dies before the effective date of retirement as the natural and proximate result of an accident sustained in the performance of duty, not caused by the member's own willful negligence.

The application for Accidental Death Benefits must be filed within two years of the death of the member.

Eligible beneficiaries are dictated by statute, payable in the following hierarchy:

- 1. A surviving spouse who has not renounced survivorship rights in a separation agreement, until remarriage; or
- 2. Surviving children until age 25; or
- 3. Parents; or
- 4. Any other person qualified as a dependent on the final tax return of the member until such person reaches age 21.

In the event that a class of eligible beneficiaries consists of more than one person, the benefit will be divided equally.

### The benefit is calculated as follows:

A New York City-paid pension based on 50% of final average salary

If an Accidental Death Benefit payment to an eligible beneficiary does not exceed what an Ordinary Death Benefit would have been, a lump sum payment of the difference between the Ordinary Death Benefit and what was paid as an Accidental Death Benefit will be paid to an eligible beneficiary as described above.

If there are no eligible beneficiaries, the death benefit will be converted to an Ordinary Death Benefit and the Fund will pay the designated beneficiary on file.

Additionally, a Special Accidental Death benefit (SADB) may be payable. This benefit is payable to the member's surviving spouse. If there is no surviving spouse, it is paid to the member's child, or children, until age 18, or 23 if a full-time student. If there is no spouse or eligible children, the benefit is not paid.

#### The benefit is calculated as follows:

A New York State-paid pension equal to the member's final year's salary,

less the New York City-paid pension as calculated above and any Social Security benefits that are payable.

### **Beneficiaries**

All members designate a beneficiary (or beneficiaries) for Death Benefits when joining the PPF; however, whenever a member's social condition changes (e.g., marriage, separation, divorce), the beneficiary designation should be updated.

Reviewing beneficiary designations regularly is well worth the time and effort; doing so protects both assets and heirs. Tax filing and open enrollment periods are recommended times to do this. Major life events, e.g., marriage, remarriage, divorce, birth, adoption and death, often create the need to update beneficiaries.

# **Checking Your Beneficiary**

To obtain beneficiary information, please visit webCOPS. If you do not have webCOPS, inquiries can be mailed to PPF, attention: Membership Services Unit. Due to privacy concerns, telephone and e-mail requests are not permitted.

# **Changing Line Organization Beneficiaries**

Whenever checking beneficiary information with PPF, remember to also contact the appropriate line organization at the address and number listed below to obtain beneficiary information in those records, as well:

Police Officers	Patrolmen's Benevolent Association (PBA)	212-349-7560
Sergeants	Sergeants' Benevolent Association (SBA)	212-431-6555
Detectives	Detectives' Endowment Association (DEA)	212-587-1000
Lieutenants	Lieutenants' Benevolent Association (LBA)	212-964-7500
Captains & above	Captains' Endowment Association (CEA)	212-964-7500

### **Changing Beneficiaries**

You can change your beneficiary on webCOPS. If you do not have webCOPS, you can download Change of Beneficiary forms on PPF's website and mail them to PPF, attention: Membership Services Unit.

### **Changing Health Insurance Dependents**

To change the dependents on active health insurance by mail or in person, please contact the NYPD Health Insurance Section, 51 Chambers Street, 3rd Floor, New York, New York 10007 or call 646-610-5122 for information.

To change dependents on retiree health benefits, contact the NYC Health Benefits Program to request the appropriate health benefits forms. This Program is located at 40 Rector Street, 3rd Floor, New York, NY 10006 and can be reached at 212-513-0470.

# Changing Deferred Compensation Plan Beneficiaries

If enrolled in the NYC Deferred Compensation Plan, call 212-306-7760 for information about updating Plan Beneficiaries. Information is also available at www.nyc.gov/OLR.

# Guide for Surviving Beneficiaries

There are few situations in life more stressful than the loss of a loved one; there are no words of comfort at such a difficult time. This section is designed to aid the survivors of PPF members by providing a checklist of who to contact upon the death of a PPF member or retiree, and the information that is required. There are four calls to make:

### 1. NYPD Operations Unit

Survivors should call NYPD Operations at 646-610-5580, located at NYPD Headquarters, 1 Police Plaza, New York, New York 10038. Pall bearers may be requested at that time and are available for all five City boroughs, Long Island, Westchester, Rockland, Orange and Putnam counties.

#### 2. NYC Police Pension Fund

➤ Please notify PPF in writing at 233 Broadway, 19th Floor, New York, NY 10279, attention: Death Benefits Unit or by telephone at 212-693-5619/5919. Please have the following information available at the time of the phone call: the first, middle and last name of the deceased; the date of death; Social Security Number of the deceased; name of the next of kin; and name, address and phone number of the executor or executrix of the estate, if applicable.

#### > The Fund will need:

- ✓ A certified copy of the death certificate;
- ✓ A copy of the paid funeral bill;
- ✓ A copy of the marriage certificate, if applicable; and
- ✓ A copy of the beneficiary's Social Security card.

Prompt receipt of these items will expedite the Fund's ability to make payments to any beneficiaries.

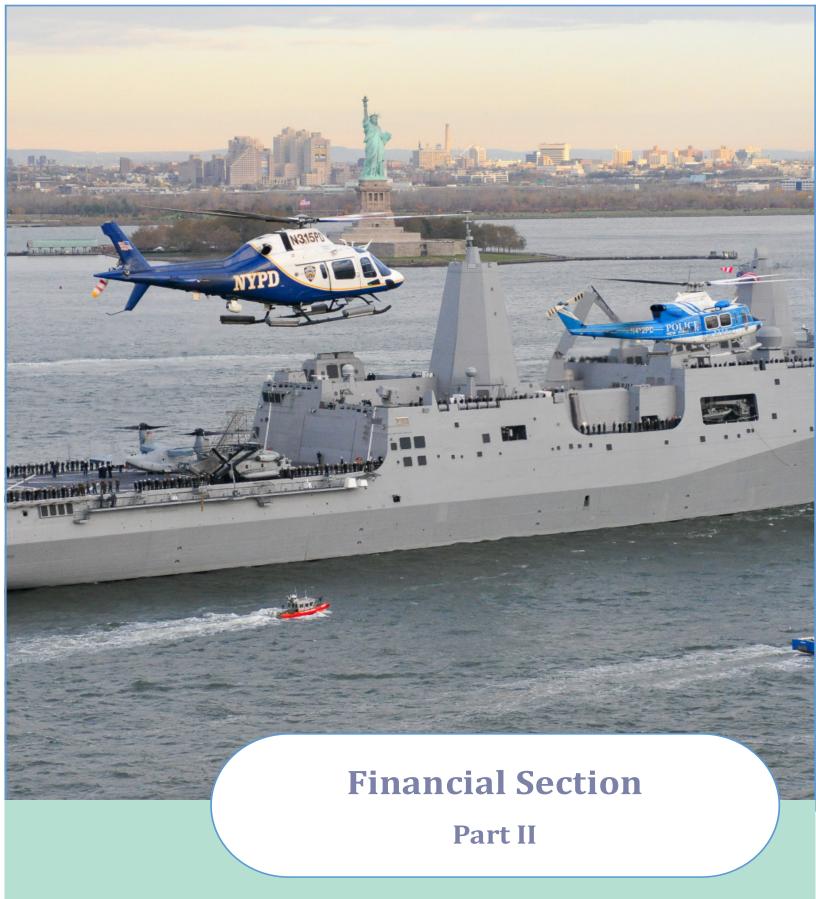
### 3. Member's line organization

➤ Contact the appropriate line organization below, and ask about a possible life insurance policy and whether any continuing optional benefits are available:

PBA	125 Broad St.	11th Floor	212-349-7560
DEA	26 Thomas St.		212-587-1000
SBA	35 Worth St.	First and second floor	212-431-6555
LBA	40 Peck Slip		212-964-7500
CEA	40 Peck Slip		212-964-7500

### 4. Health Benefits Program

➤ Contact the NYC Health Benefits Program to request the appropriate health benefits forms. This Program is located at 40 Rector Street, 3rd Floor, New York, NY 10006 and can be reached at 212-513-0470.



A Pension Trust Fund of the City of New York

# **Annual Comprehensive Financial Report**

For the fiscal years ended June 30, 2022 and June 30, 2021

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#### **GRANT THORNTON LLP**

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#### REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Board of Trustees of New York City Police Pension Funds

#### **Opinion**

We have audited the combining financial statements of New York City Police Pension Fund, New York City Police Officers' Variable Supplements Fund, and New York City Police Superior Officers' Variable Supplements Fund, which collectively comprise the New York City Police Pension Funds (the "Funds"), which comprise the combining statements of fiduciary net position as of June 30, 2022 and 2021 and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to combining financial statements, which collectively comprise the Funds' basic combining financial statements.

In our opinion, the accompanying combining financial statements present fairly, in all material respects, the combining fiduciary net position of the Funds as of June 30, 2022 and 2021, and the changes in the combining fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### Basis for opinion

We conducted our audits of the financial statements in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Funds and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Responsibilities of management for the financial statements

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for one year after the date the financial statements are available to be issued.



#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the combining financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the combining financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the combining financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the combining financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Funds' ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

#### Required supplementary information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule 1 - schedules of changes in the employer's net pension liability and related ratios for each of the nine years in the period ended June 30, 2022, schedule 2 - schedules of employer contributions for each of the ten years in the period ended June 30, 2022, and schedule 3 - schedule of investment returns for each of the nine years in the period ended June 30, 2022, be presented to supplement the basic combining financial statements. Such information is the responsibility of management and, although not a required 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 US GAAS. These limited procedures 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 audit 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.

#### Supplementary information

Our audit was conducted for the purpose of forming an opinion on the basic combining financial statements as a whole. The schedule of investment expenses, schedule of pension cost allocation and schedule of administrative expenses ("Additional Supplementary Information") for the year ended June 30, 2022, are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such supplementary information 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. The information has been subjected to the auditing procedures, applied in the audit of the basic combining financial statements and certain additional procedures. These additional procedures included 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 US GAAS. 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.

#### Other information

Management is responsible for the other information. The other information comprises the accompanying Introductory Section, Investment Section, Actuarial Section, and Statistical Section, but does not include the basic combining financial statements and our auditor's report thereon. Our opinion on the basic combining financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic combining financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic combining financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

New York, New York October 26, 2022

Sant Thornton LLP

(except for the Additional Supplementary Information and the Other information section of our report, as to which the date is December 16, 2022)

#### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

June 30, 2022 and 2021

This narrative discussion and analysis of the New York City Police Pension Funds ("POLICE", "Funds" or the "Plan"), provides an overview of the Funds combining financial activities for the Fiscal Years ended June 30, 2022 and 2021. It is meant to assist the reader in understanding the Funds 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.

The Funds administer: the New York City Police Pension Funds, Tiers 1, 2, 3, and 6 (Tier 3 Revised), in conjunction with the establishment of an administrative staff separate from the New York City Police Department, in accordance with Chapter 292 of the Laws of 2001 - Qualified Pension Plan ("QPP") – as set forth in the Administrative Code of The City of New York ("ACNY") § 13-214.1; the Police Superior Officers' Variable Supplements Fund ("PSOVSF"), as set forth in ACNY § 13-278; and the Police Officers' Variable Supplements Fund ("POVSF"), as set forth in ACNY § 12-268.

### **Overview of Combining Financial Statements**

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

- 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 control (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 have 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 (Unaudited) includes the management discussion and analysis (this section), and the notes to combining financial statements as required by the GASB.

### Financial Highlights

The Funds' net position restricted for benefits decreased by \$5.5 billion, or (9.6)% to \$51.6 billion in Fiscal Year 2022 compared to Fiscal Year 2021, and increased by \$10.8 billion, or 23.3% to \$57.1 billion in Fiscal Year 2021 compared to Fiscal Year 2020. Increases and decreases in the Funds net position are primarily due to the fluctuations of investment returns, contributions, benefit payments and withdrawals.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

### Changes in Fiduciary Net Position Years ended June 30, 2022, 2021, and 2020 (In thousands)

	2022		2021		2020	
Additions:						
Member contributions	\$	281,185	\$	255,789	\$	280,129
Employer contributions		2,490,134		2,437,728		2,458,907
Net investment income		(4,405,904)		11,961,703		2,038,305
Litigation income		3,491		2,470		4,488
Net receipts from other retirement systems		1,810		1,988		2,053
Total additions		(1,629,284)		14,659,678		4,783,882
Deductions:						
Benefit payments and withdrawals		3,821,373		3,841,319		3,491,495
Administrative expenses		24,301		24,925		26,803
Total deductions		3,845,674		3,866,244		3,518,298
Net (decrease) increase in net						
position		(5,474,958)		10,793,434		1,265,584
Net position restricted for benefits						
Beginning of year		57,056,325		46,262,891		44,997,307
End of year	\$	51,581,367	\$	57,056,325	\$	46,262,891

During Fiscal Year 2022, member contributions increased 9.9% to \$281.2 million as compared to Fiscal Year 2021 contributions of \$255.8 million. During Fiscal Year 2021, member contributions decreased 8.7% to \$255.8 million as compared to Fiscal Year 2020 contributions of \$280.1 million. Increases and decreases in member contributions are primarily due to the fluctuations of active members and their voluntary and required contributions. In accordance with the pension plan requirements, certain members, under certain conditions, may elect to increase or decrease their deductions.

Employer contributions in Fiscal Year 2022 were \$2.49 billion, an increase of 2.1% from Fiscal Year 2021 contributions of \$2.44 billion primarily due to the increase in the amortization payment for the initial unfunded liability and experience gains and losses. Employer contributions in Fiscal Year 2021 were \$2.44 billion, a decrease of 0.9% from Fiscal Year 2020 contributions of \$2.46 billion primarily due to restart of the Actuarial Value of Assets ("AVA") and experience gains offset by the cost of assumption changes.

Benefit payments and withdrawals were \$3.82 billion, \$3.84 billion, and \$3.49 billion for the Fiscal Years ended June 30, 2022, 2021, and 2020, respectively. This is primarily due to an increase and decrease in the number of retirees eligible for benefits.

In Fiscal Year 2002, Chapter 292 of the New York State Laws of 2001 provided the Funds with corpus funding for administrative expenses. In Fiscal Years 2022, 2021, and 2020, the administrative expenses were \$24.3 million, \$24.9 million, and \$26.8 million, respectively.

### Fiduciary Net Position

In Fiscal Year 2022, the Funds experienced a 9.6% decrease in the combined net position restricted for benefits is primarily due to a decrease in the fair value of investments compared to Fiscal Year 2021.

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

Fiduciary Net Position
June 30, 2022, 2021, and 2020
(In thousands)

	2022 2021		2020
Cash Receivables Investments - at fair value	\$ 36,752	\$ 75,551	\$ 17,972
	1,030,178	1,491,493	829,771
	52,024,933	57,946,124	46,807,184
Collateral from securities lending Other assets Total assets	5,271,194	5,891,076	3,559,791
	9,918	9,062	9,716
	58,372,975	65,413,306	51,224,434
Accounts payable and other liabilities	1,520,414	2,465,905	1,401,752
Securities lending	5,271,194	5,891,076	3,559,791
Total liabilities	6,791,608	8,356,981	4,961,543
Net position restricted for benefits	\$ 51,581,367	\$ 57,056,325	\$ 46,262,891

Receivables and payables related to investment securities are primarily generated through the timing differences between the trade and settlement dates for investment securities purchased or sold.

# MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED June 30, 2022 and 2021

### Investment Summary June 30, 2022 (In thousands)

Investments - at fair value:		QPP		PSOVSF		PSOVSF POVSF		Combined	
Short-term investments:									
Commercial paper	\$	280,668	\$	5,098	\$	5,542	\$	291,308	
Short-term investment fund	Ψ	517,680	Ψ	266	Ψ	5,542 91	Ψ	518,037	
U.S. treasury bills and agencies		369,797		200		-		369,797	
Fixed income securities:		309,191		-		-		309,797	
Bank loans		152,849						152,849	
Corporate and other		6,485,233		_		_		6,485,233	
Mortgage debt securities		2,161,766		_		_		2,161,766	
Treasury inflation-protected		2,101,700		_		_		2,101,700	
securities		1,589,153		_		_		1,589,153	
U.S. government and agencies		2,058,590		_		_		2,058,590	
Equity securities:		2,000,000						2,000,000	
Domestic equity	1	4,537,917		1,040,345		672,741	1	6,251,003	
International equity		4,523,566		_		-		4,523,566	
Collective trust funds:									
Bank loans		868		-		-		868	
Corporate and other		-		256,431		162,526		418,957	
Domestic equity		47,141		82,991		52,806		182,938	
International equity		856,180		726,264		468,129		2,050,573	
Mortgage debt securities		191,695		277,840		176,095		645,630	
Opportunistic-fixed income		148,230		-		-		148,230	
U.S. government and agency		-		507,527		321,671		829,198	
Alternative investments:									
Infrastructure		856,057		-		-		856,057	
Opportunistic-fixed income		1,847,299		-		-		1,847,299	
Private equity		4,753,360		-		-		4,753,360	
Private real estate		3,316,150		-		-		3,316,150	
Hedge fund investment		2,574,371		-		-		2,574,371	
Collateral from securities lending		4,697,443		359,969		213,782		5,271,194	
	e c	1 066 042	φ	2 256 724	φ	2.072.202	<b>ተ</b> ፫	7 206 427	
Total investments	<b>Φ</b> 5	1,966,013	<u>\$</u>	3,256,731	<u>\$</u>	2,073,383	<u>ф 5</u>	7,296,127	

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

### Investment Summary June 30, 2021 (In thousands)

Investments - at fair value:		QPP		PSOVSF POVSF			Combined	
Short-term investments:								
Commercial paper	\$	463,293	\$	7,000	\$	5,200	\$	475,493
Short-term investment fund	•	699,856	•	575	•	393	,	700,824
U.S. treasury bills and agencies		505,372		_		_		505,372
Fixed income securities:		, -						<b>,</b> -
Bank loans		191,531		_		_		191,531
Corporate and other		7,253,045		_		_		7,253,045
Mortgage debt securities		2,206,428		_		_		2,206,428
Treasury inflation-protected		, , -						, , -
securities		1,663,785		_		_		1,663,785
U.S. government and agencies		2,777,756		_		_		2,777,756
Equity securities:		, , ,						, ,
Domestic equity	1	7,708,155		1,336,862		800,591	1	9,845,608
International equity		5,993,485		-		-		5,993,485
Collective trust funds:								
Bank loans		1,859		-		-		1,859
Corporate and other		9		337,239		199,615		536,863
Domestic equity		149,857		127,611		80,252		357,720
International equity		1,066,994		1,003,469		602,174		2,672,637
Mortgage debt securities		211,531		324,370		191,997		727,898
Opportunistic-fixed income		161,524		-		-		161,524
U.S. government and agency		_		464,130		274,723		738,853
Alternative investments:								
Infrastructure		639,870		-		-		639,870
Opportunistic-fixed income		1,633,488		-		-		1,633,488
Private equity		3,608,731		-		_		3,608,731
Private real estate		2,459,043		-		-		2,459,043
Hedge fund investment		2,794,311		-		-		2,794,311
Collateral from securities lending		5,461,797		268,752		160,527		5,891,076
Total investments	\$ 5	7,651,720	\$	3,870,008	\$	2,315,472	\$6	3,837,200

Due to the long-term nature of the Funds' liabilities, the Funds' assets are invested with a long-term investment horizon. Assets are invested in a diversified portfolio of capital market securities. Investments in these assets are expected to produce higher returns, but are also subject to greater volatility and may produce negative returns. For example, the Russell 3000 Index, a broad measure of the United States stock market, decreased to (13.87)% from 44.16% in Fiscal Years 2022 and 2021, respectively. In 2022, the World ex-USA Custom BM Index decreased to (17.73)% from 34.82% in 2021. In Fiscal Year 2022, the Emerging International Market decreased to (25.28)% from 40.90% in 2021. For the three-year period ended June 30, 2022, the overall rate of return on investments for QPP, PSOVSF, and POVSF were 7.43%, 3.97%, and 3.87%, for the five-year period the return was 7.82%, 5.38%, and 5.13% and for the 10-year period was 8.72%, 7.02%, and 7.84%.

#### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

Assets are invested long term for the benefit of the Funds participants and their beneficiaries. All investments are managed by registered investment managers and advisors, pursuant to applicable laws and to guidelines issued by The Comptroller of The City of New York (the "Comptroller"). Collectively, the investments utilize 16 domestic equity managers, 17 international equity managers, 17 hedge fund managers, 49 private real estate managers, 13 infrastructure managers, 104 private equity investment managers, 14 public-fixed income managers, and 28 alternative credit managers and one Economically Targeted Investment ("ETI") manager.

Assets are allocated in accordance with policy adopted periodically by the Funds' Board of Trustees. The percentage in each category is determined by a study indicating the probable rates of return and levels of risk for various asset allocations. The actual allocation may vary from this policy mix as fair values shift and as investments are added or terminated.

#### **Contact Information**

This financial report is designed to provide a general overview of the New York City Police Pension Funds finances. Questions concerning any data provided in this report or requests for additional information should be directed to the Director of Accounting, New York City Police Pension Fund, 233 Broadway, 25th Floor, New York, New York 10279.

#### COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2022 (In thousands)

	QPP	PSOVSF	POVSF	Eliminations	Total Funds
ASSETS					
Cash	\$ 35,684	\$ 15	\$ 1,053	\$ -	\$ 36,752
Receivables:					
Investments securities sold	731,877	1	1	-	731,879
Member loans	162,050	-	-	-	162,050
Accrued interest and dividends	134,866	836	547		136,249
Total receivables	1,028,793	837_	548_		1,030,178
Investments - at fair value					
Short-term investments:					
Commercial paper	280,668	5,098	5,542	-	291,308
Short-term investment fund	517,680	266	91	-	518,037
U.S. treasury bills and agencies	369,797	-	-	-	369,797
Fixed income securities:					
Bank loans	152,849	-	-	-	152,849
Corporate and other	6,485,233	-	-	-	6,485,233
Mortgage debt securities	2,161,766	-	-	-	2,161,766
Treasury inflation-protected securities	1,589,153	-	-	-	1,589,153
U.S. government and agency	2,058,590	-	-	-	2,058,590
Equity securities:					
Domestic equity	14,537,917	1,040,345	672,741	_	16,251,003
International equity	4,523,566	-	-	-	4,523,566
Collective trust funds:					
Bank loans	868	-	_	-	868
Corporate and other	_	256,431	162,526	_	418,957
Domestic equity	47,141	82,991	52,806	_	182,938
International equity	856,180	726,264	468,129	_	2,050,573
Mortgage debt securities	191,695	277,840	176,095	_	645,630
Opportunistic-fixed income	148,230	277,010	-	_	148,230
Treasury inflation-protected securities	0,200	_	_	_	0,200
U.S. government and agency	_	507,527	321,671	_	829,198
Alternative investments:		001,021	021,071		023,130
Infrastructure	856,057		_	_	856,057
Opportunistic-fixed income	1,847,299	_	_	_	1,847,299
Private equity	4,753,360	-	-	-	4,753,360
Private real estate		-	-	-	
	3,316,150	-	-	-	3,316,150
Hedge fund investment	2,574,371	250,000	-	-	2,574,371
Collateral from securities lending	4,697,443	359,969	213,782		5,271,194
Total investments	51,966,013	3,256,731	2,073,383	-	57,296,127
Other assets	9,918				9,918
Total assets	53,040,408	3,257,583	2,074,984		58,372,975
LIABILITIES					
Accounts payable	54,850	2,887	644	-	58,381
Payable for investment securities purchased	1,117,344	-	-	-	1,117,344
Accrued benefits payable	127,384	133,069	84,236	-	344,689
Collateral from securities lending	4,697,443	359,969	213,782	-	5,271,194
Total liabilities	5,997,021	495,925	298,662		6,791,608
Net position restricted for benefits:					
Benefits to be provided by QPP	47,043,387	_	_	-	47,043,387
Benefits to be provided by VSF		2,761,658	1,776,322		4,537,980
Solicing to be provided by Vol		2,101,000	1,110,022		
Total net position restricted for benefits	\$ 47,043,387	\$ 2,761,658	\$ 1,776,322	\$ -	\$ 51,581,367

The accompanying notes are an integral part of this combining financial statement.

#### COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2021 (In thousands)

	QPP	PSOVSF	POVSF	Eliminations	Total Funds
ASSETS					
Cash	\$ 74,186	\$ 128	\$ 1,237		\$ 75,551
Receivables:					
Employer contribution	143,177	-	-	-	143,177
Investments securities sold	1,049,404	337	208	-	1,049,949
Member loans	174,712	- -	- -	- -	174,712
Transferrable earnings FY 19	-	35,046	104,688	(139,734)	-
Transferrable earnings FY 20	-	14,000	62,000	(76,000)	-
Accrued interest and dividends	122,171_	927	557		123,655
Total receivables	1,489,464	50,310	167,453	(215,734)	1,491,493
Investments - at fair value					
Short-term investments:					
Commercial paper	463,293	7,000	5,200	-	475,493
Short-term investment fund	699,856	575	393	-	700,824
U.S. treasury bills and agencies	505,372	-	-	-	505,372
Fixed income securities:					
Bank loans	191,531	-	-	-	191,531
Corporate and other	7,253,045	-	-	-	7,253,045
Mortgage debt securities	2,206,428	_	-	_	2,206,428
Treasury inflation-protected securities	1,663,785	_	_	_	1,663,785
U.S. government and agency	2,777,756	_	_	_	2,777,756
Equity securities:	2,111,100				2,111,100
Domestic equity	17,708,155	1,336,862	800,591	_	19,845,608
International equity	5,993,485	1,000,002	-		5,993,485
Collective trust funds:	3,333,403				0,000,400
Bank loans	1.050				1,859
	1,859	227 220	100.615	-	,
Corporate and other	9	337,239	199,615	-	536,863
Domestic equity	149,857	127,611	80,252	-	357,720
International equity	1,066,994	1,003,469	602,174	-	2,672,637
Mortgage debt securities	211,531	324,370	191,997	-	727,898
Opportunistic-fixed income	161,524	-	-	-	161,524
U.S. government and agency	-	464,130	274,723	-	738,853
Alternative investments:					
Infrastructure	639,870	-	-	-	639,870
Opportunistic-fixed income	1,633,488	-	-	-	1,633,488
Private equity	3,608,731	-	-	-	3,608,73
Private real estate	2,459,043	-	-	-	2,459,043
Hedge fund investment	2,794,311	_	-	-	2,794,311
Collateral from securities lending	5,461,797	268,752	160,527	-	5,891,076
Total investments	57,651,720	3,870,008	2,315,472	-	63,837,200
Other assets	9,062	_	-	-	9,062
Total assets	59,224,432	3,920,446	2,484,162	(215,734)	65,413,306
LIABILITIES					
Accounts payable	61,582	2,791	506	_	64,879
Payable for investment securities purchased	2,086,106	2,101	-	- -	2,086,106
Accrued benefits payable	105,275	128,309	81,336		314,920
The state of the s		120,309	01,000	(130 734)	314,320
Transferable earnings FY 19	139,734	-	-	(139,734)	
Transferable earnings FY 20 Collateral from securities lending	76,000 5 461 707	060.750	160 507	(76,000)	E 004 070
Total liabilities	5,461,797 7,930,494	268,752 399,852	<u>160,527</u> 242,369	(215,734)	5,891,076 8,356,981
Net position restricted for benefits:					
Benefits to be provided by QPP	51,293,938	-	-	-	51,293,938
Benefits to be provided by VSF		3,520,594	2,241,793		5,762,387
Total net position restricted for benefits	\$ 51,293,938	\$ 3,520,594	\$ 2,241,793	\$ -	\$ 57,056,325

The accompanying notes are an integral part of this combining financial statement.

#### COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

June 30, 2022 (In thousands)

	QPP	PSOVSF	POVSF	Eliminations	Total
Additions					
Contributions:					
Member contributions	\$ 281,185	\$ -	\$ -	\$ -	\$ 281,185
Employer contributions	2,490,134	<u> </u>			2,490,134
Total contributions	2,771,319	<u> </u>			2,771,319
Investment income (loss) (Note 2):					
Interest income	693,679	46,145	28,506	-	768,330
Dividend income	740,464	49,112	30,022	-	819,598
Net (depreciation) appreciation in fair value of investments	(4,711,781)	(554,771)	(346,712)		(5,613,264)
Total investment (loss) income	(3,277,638)	(459,514)	(288,184)		(4,025,336)
Less investment expenses	393,193	2,078	1,311		396,582
Net investment (loss) income before securities		-			
lending transactions	(3,670,831)	(461,592)	(289,495)		(4,421,918)
Securities lending transactions:					
Securities lending income	16,111	998	621	-	17,730
Less securities lending fees	1,575	87	54	-	1,716
Net securities lending income	14,536	911	567		16,014
Net investment (loss) income	(3,656,295)	(460,681)	(288,928)		(4,405,904)
Net receipts from other retirement systems	1,810	-	-	-	1,810
Litigation income	3,385	39	67	-	3,491
Transferable earnings FY 20	185	1,672	_	(1,857)	· -
Total additions	(879,596)	(458,970)	(288,861)	(1,857)	(1,629,284)
Deductions					
Benefit payments and withdrawals	3,344,982	299,966	176,425	-	3,821,373
Transferable earnings FY 20	1,672	-	185	(1,857)	-
Administrative expenses	24,301	-	_	-	24,301
Total deductions	3,370,955	299,966	176,610	(1,857)	3,845,674
Net (decrease) increase in net position	(4,250,551)	(758,936)	(465,471)	-	(5,474,958)
Net position restricted for benefits					
Beginning of year	51,293,938	3,520,594	2,241,793		57,056,325
End of year	\$ 47,043,387	\$ 2,761,658	\$ 1,776,322	\$ -	\$ 51,581,367

#### COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

June 30, 2021 (In thousands)

	QPP	PSOVSF	POVSF	Eliminations	Total
Additions					
Contributions:					
Member contributions	\$ 255,78	9 \$ -	\$ -	\$ -	\$ 255,789
Employer contributions	2,437,72	<u> </u>			2,437,728
Total contributions	2,693,51	7 -	<u> </u>		2,693,517
Investment income (Note 2):					
Interest income	537,65	2 27,405	16,631	_	581,688
Dividend income	498,58	9 45,341	26,583	_	570.513
Net appreciation in fair value of investments	9,991,70	5 694,736	405,173	_	11,091,614
Total investment income	11,027,94	6 767,482	448,387		12,243,815
Less investment expenses	290,75	2,074	1,196	-	294,020
Net investment income before securities lending					
transactions	10,737,19	6 765,408	447,191		11,949,795
Securities lending transactions:					40.400
Securities lending income	11,94		471	-	13,198
Less securities lending fees	1,17		43		1,290
Net securities lending income	10,76	5 715	428		11,908
Net investment income	10,747,96	1 766,123	447,619		11,961,703
Net receipts from other retirement systems	1,98	8 -	_	-	1,988
Transferable earnings FY 19		- 3,484	103,236	(106,720)	-
Litigation income	2,40	1 32	37	-	2,470
Total additions	13,445,86	7 769,639	550,892	(106,720)	14,659,678
Deductions					
Benefit payments and withdrawals	3,313,29	345,474	182,547	_	3,841,319
Transferable earnings FY 19	106,72		-	(106,720)	-,,
Administrative expenses	24,92		_	(	24,925
Total deductions	3,444,94		182,547	(106,720)	3,866,244
Net increase in net position	10,000,92	4 424,165	368,345	-	10,793,434
Net position restricted for benefits					
Beginning of year	41,293,01	3,096,429	1,873,448		46,262,891
End of year	\$ 51,293,93	8 \$ 3,520,594	\$ 2,241,793	\$ -	\$ 57,056,325

#### NOTES TO COMBINING FINANCIAL STATEMENTS

June 30, 2022 and 2021

### **NOTE 1 - PLAN DESCRIPTION**

The City of New York ("City" or "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 Police Pension Funds ("POLICE", "Funds" or the "Plan"), 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"), and the New York City Fire Pension Funds ("FIRE"). Each separate pension system or fund is a separate Public Employee Retirement System ("PERS") with a separate oversight body and are financially independent of the others.

POLICE administers the New York City Police Pension Funds, Tiers 1, 2, 3, and Tier 6 (Tier 3 Revised), in conjunction with the establishment of an administrative staff separate from the New York City Police Department, in accordance with Chapter 292 of the Laws of 2001 - Qualified Pension Plan ("QPP"); as set forth in Administrative Code of The City of New York ("ACNY") § 13-214.1, the Police Superior Officers' Variable Supplements Fund ("PSOVSF"), as set forth in ACNY § 13-278; and the Police Officers' Variable Supplements Fund ("POVSF"), as set forth in ACNY § 13-268.

The QPP is a single-employer pension plan. The QPP provides pension benefits for full-time uniformed employees of the New York City Police Department ("NYPD"). All full-time uniformed employees of the NYPD become members of the QPP upon employment. 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 PSOVSF and the POVSF (collectively, "VSFs") operate pursuant to the provisions of Title 13, Chapter 2 of the ACNY and provide supplemental benefits to retired Police Superior Officers (including Detectives, and Sergeants through Deputy Chiefs) and retired Police Officers, respectively. To be eligible to receive benefits from the VSFs, Police Superior Officers or Police Officers must retire on or after October 1, 1968 with 20 or more years of credited service, and be receiving a service retirement benefit from the QPP. 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 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.

POLICE is a fiduciary fund of The City and is included in the Pension and Other Employee Benefit Trust Funds section of The City's Annual Comprehensive Financial Report ("ACFR"). GASB Statement No. 98, The Annual Comprehensive Financial Report, establishes the term annual comprehensive financial report and its acronym ACFR. The new term replaces comprehensive annual financial report and its acronym in generally accepted accounting principles for state and local governments. POLICE has decided to early implement this pronouncement and has applied the change as of the issuance of this report.

### **Board of Trustees**

The QPP Board of Trustees consists of 12 members. The Trustees and their voting rights are as follows: The Police Commissioner, representative of the Mayor, The Comptroller of The City of New York (the "Comptroller"), and the Commissioner of Finance (one and one-half votes each); four specified officers of the Police Benevolent Association (one vote each); and the presidents of the Detectives' Endowment Association, the Sergeants Benevolent Association, the Lieutenants Benevolent Association, and the Captains Endowment Association (one-half vote each).

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

The PSOVSF Board of Trustees consists of seven members. The Trustees and their voting rights are as follows: a representative of the Mayor, the Comptroller and the Commissioner of Finance (two votes each), and four representatives of the Police Superior Officers' Associations who are the four members of the QPP Board of Trustees (one vote each).

The POVSF Board of Trustees consists of five members each with one vote: a representative of the Mayor, Comptroller, and Commissioner of Finance and two of the officers of the Police Benevolent Association that are members of the QPP Board of Trustees.

#### Membership Data

At June 30, 2022, 2021, and 2020, the QPP's membership consisted of:

	QPP			
	2022*	2021	2020	
Retirees and beneficiaries receiving benefits	53,949	52,837	51,465	
Terminated vested members not yet receiving benefits	1,262	851	753	
Terminated non-vested members**	2,800	1,713	1,544	
Active members receiving salary	33,574	35,006	35,895	
Total	91,585	90,407	89,657	

Estimated figures

At June 30, 2022, 2021, and 2020, the PSOVSF and POVSF membership consisted of:

	PSOVSF			POVSF		
	2022*	2021	2020	2022*	2021	2020
Retirees currently receiving						
payments	21,319	21,101	19,999	13,529	13,378	12,976
Active members***	11,804	11,874	12,538	21,770	23,132	23,357
Total	33,123	32,975	32,537	35,299	36,510	36,333

Estimated figures

### Summary of Benefits

#### **QPP**

The New York State Constitution provides that the pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, amendments were made to the New York State Retirement and Social Security Law ("RSSL") to modify certain benefits for employees joining the QPP on or after the effective date of such amendments. These amendments, which affect employees who joined the QPP on and after July 1, 1973, established certain benefit limitations relating to eligibility for retirement, the salary

<sup>\*\*</sup> Members that are on leave with insufficient service for vesting and assumed to not return to active service are classified as terminated non-vested members.

<sup>\*\*\*</sup> Represents the number of actively employed Police Superior Officers and Police Officers, respectively, as of the June 30 valuation dates.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

base for benefits and maximum benefits. Recent laws, including but not limited to Chapter 372 of the Laws of 2000, which provides a revised definition of salary base to be used in the computation of certain benefits for Tier 2 members of the QPP and Chapter 589 of the Laws of 2001, which eliminated the Tier 2 maximum 30 years of service limitation, have lessened these limitations.

The QPP currently administers the following pension tiers: Tier 1, Tier 2, Tier 3, Tier 3 Revised, and Tier 3 Enhanced. Membership is mandatory for uniformed employees of the New York City Police Department.

The QPP provides four main types of retirement benefits for all tiers: Vested Retirements, Service Retirements, Ordinary Disability Retirements ("ODR") (non-job-related disabilities), and Accident Disability Retirements ("ADR") (job-related disabilities). Additionally, the QPP provides death benefits for all tiers.

Tier 1 is applicable to members appointed to the NYPD prior to July 1, 1973. Tier 2 is applicable to members appointed between July 1, 1973 and June 30, 2009. Benefits are generally the same for Tier 1 and Tier 2.

For Tier 1 and Tier 2 members, the QPP generally provides the following:

- A Vested Retirement Benefit is payable to Tier 1 and 2 members with at least five years of uniformed service. Tier 1 and 2 members who commenced their membership with the QPP prior to February 4, 2000 must have 15 years of uniformed service to be eligible for a Vested Retirement Benefit. This benefit is generally comprised of a pension equal to 1/40 of their final average salary for every year of uniformed service and is reduced or increased based on the actuarial value of an account shortage or excess. The benefit can be increased for any purchased non-uniformed service.
- A Service Retirement Benefit provides an allowance of one-half of final average salary after 20 years or 25 years of credited service (as elected), with additional benefits equal to a specified percentage per year of service (currently approximately 1.67%) of actual earnings times the number of years of service in excess of the 20-year or 25-year minimum. These additional 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 eligibility for service retirement. ITHP represents amounts assumed 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 increase pension contributions made to the QPP.
- ODR benefits are contingent on the member's amount of credited service. Members with less than 10 years of credited service are entitled to a pension equal to 1/3 of their final average salary, members with 10-20 years of credited service are entitled to a pension equal to 50% of their final average salary; and members with 20 or more years of credited service are entitled to a pension equal to 1/40 of their final average salary for every year of credited service. All ODR benefits are either reduced for the annuity value of an account deficit, or increased for the annuity value of an account excess.
- An ADR benefit provides a pension of three-fourths of final salary plus an increment as described above based on years of service in excess of the 20-year or 25-year minimum plus an annuity based on the member's contributions with accumulated interest and the amount accumulated under the ITHP program.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

Tier 1 and Tier 2 members 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% Annual Percentage Rate ("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 ("Actual Balance"), 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 Required Amount. The Required Amount is the sum of the Required Contributions which a member should have made during his or her first 20 years of credited service, plus statutory interest earnings thereon. The amount of the member's retirement annuity or the refund of contributions that he or she is entitled to is increased by the actuarial value of any Excess of Contributions or reduced by any Deficiency of Contributions. Annuities attributable to member contributions are reduced on an actuarial basis for any loans with unpaid balances outstanding at the date of retirement.

Cost of Living Adjustments ("COLA") are automatically payable to members who are either: (1) at least age 62 and have been retired for at least five years; or (2) at least age 55 and have been retired for at least 10 years. Additionally, COLA are payable to members who retired for disability after being retired for five or more years and to beneficiaries receiving accidental death benefits who have been receiving them for at least five years. Beginning September 2001, COLA benefits equal 50% of the increase in the Consumer Price Index for All Urban Consumers ("CPI-U") based on the year ending March 31, rounded to the next higher 0.1% not less than 1% nor greater than 3% of the first \$18,000 of the sum of maximum pension allowance and prior COLA.

In June of 2009, the Governor vetoed legislation that would have extended Tier 2 to members hired after June 30, 2009. As a result of the Governor's veto, QPP members hired on and after July 1, 2009 are covered under Tier 3, as governed by Article 14 of the RSSL. As a result of Chapter 18 of the Laws of 2012, there are certain limitations on Tier 3 benefits available to participants hired on and after April 1, 2012. In most New York State PERS, including the QPP, these changes are sometimes referred to as Tier 3 Revised.

For Tier 3/Tier 3 Revised/Tier 3 Enhanced members, the QPP generally provides the following:

- A Normal Service Retirement Benefit is earned after completion of 22 years of uniformed service.
- An Early Service Retirement Benefit is payable upon completion of 20 years or age 62 for Tier 3 or upon completion of 20 years for Tier 3 Revised and is payable as a pension equal to 2.1% of Final Average Salary plus 1/3% of Final Average Salary for each month in excess of 20 years of uniformed service, such benefit not to exceed 50% of Final Average Salary.
- A Vested Benefit payable to members with at least five years of uniformed service. The benefit is
  equal to 2.1% of final average salary for every year of uniformed service, payable upon attainment of
  eligibility for early age, or 55.
- An ODR retirement allowance is payable to member who has at least five years of service and is in receipt of Social Security Disability Benefits (non-Enhanced members only). An ODR benefit is 1/3 of Final Average Salary or 2% of Final Average Salary for each year of credited service, whichever is greater and does not exceed 50% of Final Average Salary.
- An ADR retirement allowance is payable to a member who was disabled as the result of a line-of-duty accident not attributable to his own willful negligence. An ADR pension for a non-Enhanced member is 50% of a member's Final Average Salary. An ADR pension for an Enhanced member is 75% of a member's Final Average Salary.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

All of the above retirement allowances, except for Enhanced Plan ODR/ADR retirement allowances, are reduced by one-half of the member's Social Security Benefit attributable to New York State public earnings at age 62, regardless of eligibility for Social Security, except for ODR retirees, in which case the Social Security Offset occurs immediately.

Tier 3/Tier 3 Revised members are eligible for annual Escalation on the retirement allowance: (1) in full, if they have retired for service completing 25 or more years of police service (or elected to defer commencement of their benefit to that 25-year date) or on a reduced basis, by 1/36 for each month that their retirement precedes 25 years; or (2) in full, if they have retired for disability and are Non-Enhanced members; or (3) in full, to their beneficiary for accidental death benefits. Escalation is determined from the change in the CPI-U based on the prior year ending December 31, not greater than 3% nor less than -3% in the event of a decrease. Tier 3/Tier 3 Revised members, when eligible, receive the greater of the applicable increase from COLA or Escalation. Tier 3 Enhanced members who retire for disability are not entitled to Escalation.

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% 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%.

## <u>VSFs</u>

VSF benefits are payable to members who retire for a Service pension, regardless of tier.

The PSOVSF provides a guaranteed schedule of supplemental benefits for Police Superior Officers who retire (or have retired) as Police Superior Officers on Service Retirement with at least 20 years of credited service as follows:

For a Police Superior Officer hired before July 1, 1988, who retires from service as a Police Superior
Officer on or after October 1, 1988, the annual benefit was \$5,000 in Calendar Year 1993. For those
who retired during the Calendar 1993, the annual \$5,000 benefit was prorated.

The annual benefit increases \$500 each year thereafter to a maximum of \$12,000 in Calendar Year 2007 and thereafter.

- For those who were members of the QPP prior to July 1, 1988, and who retire after Calendar Year 1993, the annual benefit payment is the scheduled amount described above prorated in the year of retirement and the full amount thereafter.
- For those who become members of the QPP on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first 12 months of retirement, which increases by \$500 each year until a maximum of \$12,000 is payable in the 20<sup>th</sup> and later years of retirement. This was later modified by Chapter 444 of the Laws of 2001 ("Chapter 444/01") such that these members will receive the maximum \$12,000 benefit beginning Calendar Year 2008.

The POVSF provides a guaranteed schedule of supplemental benefits for Police Officers who retire (or have retired) as Police Officers on Service Retirement with at least 20 years of credited service as follows:

• For those who retired prior to July 1, 1988, the annual benefit was \$2,500 in Calendar Year 1988. For those who retired during Calendar Year 1988, the annual \$2,500 benefit payment was prorated. The annual benefit increases \$500 each year thereafter to a maximum of \$12,000 in Calendar Year 2007 and thereafter.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

For those who were members of the QPP prior to July 1, 1988 and who retire after Calendar Year 1988, the annual benefit payment is the scheduled amount described above prorated in the year of retirement and the full amount thereafter.

• For those who become members of the QPP on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first 12 months of retirement, which increases by \$500 each year until a maximum of \$12,000 is payable in the 20<sup>th</sup> and later years of retirement. This was modified by Chapter 503 of the Laws of 1995 ("Chapter 503/95") such that these members will receive the maximum \$12,000 benefit beginning Calendar Year 2008 and thereafter.

Chapter 503 of the Laws of 1995 ("Chapter 503/95") amended the ACNY in relation to the transfer of assets, liabilities and administration of certain pension funds in the New York City Police Department. In addition, this law permits certain active employees with prior service credit before entering the QPP to utilize their original dates of hire for determining eligibility for benefits from the PSOVSF and POVSF.

In addition to the VSF benefits discussed earlier, Chapter 216 of the Laws of 2002 ("Chapter 216/02") provides that all participants of the PSOVSF and POVSF who retire for service from the QPP on and after January 1, 2002, with more than 20 years of credited service are entitled to the Deferred Retirement Option Plan ("DROP"). The DROP, also known as "Banked Variable," represents the VSF payments that the member would have received had he retired for service upon reaching eligibility. The DROP payment is an eligible distribution that may be rolled over pursuant to Internal Revenue Service regulations. Members who retired for a disability or die in active service are not eligible for the VSF DROP.

Any increase in the amount of ad-hoc cost-of-living increases ("Supplementation") or automatic COLA payable from the QPP to a retiree of the PSOVSF under legislation enacted on or after January 1, 1993 or to a retiree of the POVSF under legislation enacted on or after January 1, 1988, will reduce benefits payable from the PSOVSF or POVSF 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 19th anniversary of such retiree's date of retirement; and (2) January 1, 2008.

Chapter 3 of the Laws of 2013 ("Chapter 3/13") provides for the transfer of assets from the QPP to the PSOVSF and POVSF if assets of the PSOVSF and POVSF are insufficient to pay scheduled benefits.

## NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** - The Funds use 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 by the QPP when the employer makes payroll deductions from QPP members. Employer contributions are recognized when due and the employer has a legal obligation to provide the contributions. Benefit payments and withdrawals are recognized when due and payable in accordance with the terms of the Funds.

**Use of Estimates** - The preparation of combining 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 combining financial statements and revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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

**Investment Valuation** - Investments are reported at fair value. Fair value is defined as the quoted market price at the end of the last trading day for the specified period, except for alternative investments which are considered long term and illiquid in nature. Alternative investments consist of limited partnership structures invested in privately held investments for which exchange quotations are not readily available and are valued at estimated fair value. Fair value at fiscal year-end is based on the fair value of net assets reported in the most recently available partnership's capital account statements from the general partner, adjusted for any subsequent contributions, distributions, management fees and changes in values of foreign currency. They include investments held within Hedge Funds, Private Equity, Real Estate, Opportunistic-Fixed Income, and Infrastructure.

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 the accrual basis.

Income Taxes - Income earned by the Funds is not subject to federal income tax.

**Accounts Payable** - Accounts payable is principally comprised of amounts owed to the Funds' banks for overdrawn bank balances. The Funds' practice is to fully invest cash balances in 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 and these balances are routinely settled each day.

**Accrued Benefits Payable** - Accrued benefits payable represents benefits due and unpaid by the Funds as of the fiscal year end.

**Inter-Plan Eliminations** - Included on the Combining Statements of Fiduciary Net Position and the Combining Statements of Changes in Fiduciary Net Position is an elimination column, the purpose of which is to remove from the statement any transactions involving dealings between reported entities.

Securities Lending Transactions - State statutes and Board policies permit the Funds to lend its investments to broker-dealers and other entities for collateral, for the same securities in the future with a simultaneous agreement to return the collateral in the form of cash, U.S. Treasury and U.S. Government securities. The Funds' agent lends the following types of securities: short-term securities, common stocks, long-term corporate bonds, U.S. Government and U.S. Government agency bonds, asset-backed securities, and international equities and bonds held in collective investment funds. In return, the Funds receive collateral in the form of cash, U.S. Treasury and U.S. Government agency securities at 100% to 105% of the principal plus accrued interest for reinvestment. At June 30, 2022 and 2021, management believes that the Funds had no credit risk exposure because the fair value of collateral held by the Funds equaled or exceeded the fair value of securities lent to the borrowers. The contracts with the Funds' Securities Lending Agent (the "Agent") require the Agent to indemnify the Funds. In the situation when a borrower goes into default, the Agent will liquidate the collateral to purchase replacement securities. Any shortfall before the replacement securities cost and the collateral value is covered by the Agent. All securities loans can be terminated on demand within a period specified in each agreement by either the Funds or the borrowers. Cash collateral is invested by the securities lending agent using approved Lender's Investment guidelines. The weighted-average maturity is 70.34 days for Collateral Investments. The securities lending program in which the Funds participate only allows pledging or selling securities in the case of borrower default.

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 statement of fiduciary net position.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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, the Funds 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, 2022 and 2021 was \$4.6 billion and \$5.4 billion, respectively, for the QPP, \$355.5 million and \$271.9 million, respectively, for the PSOVSF, and \$211.1 million and \$162.4 million, respectively, for the POVSF. Cash collateral received related to securities lending as of June 30, 2022 and 2021 was \$4.7 billion and \$5.5 billion, respectively, for the QPP, \$360.0 million and \$268.8 million, respectively, for the PSOVSF, and \$213.8 million and \$160.5 million, respectively, for the POVSF.

GASB Statement No. 72, Fair Value Measurement and Application ("GASB 72"), describes fair value as an exit price, requiring investments to be categorized under a fair value hierarchy prescribed by GASB. GASB 72 establishes a hierarchy of inputs used to measure fair value consisting of three levels based on market price observability. 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.

GASB Statement No. 87, *Leases* ("GASB 87"), establishes standards of accounting and financial reporting for leases by lessees and lessors. This statement increases the usefulness of governments financials statements by requiring recognition of certain lease assets and liabilities for leases that were previously classified as operating leases. Management has evaluated all leases of the Funds and determined there was no material impact as a result of adoption of GASB 87.

GASB Statement No. 97 Certain Component Unit Criteria, and Accounting and Financial reporting for Internal Revenue Code Section 457 Deferred Compensation Plans ("GASB 97"), clarifies component unit criteria for a potential component unit in the absence of a governing board in determining financial accountability; limits the applicability of financial burden criteria in paragraph 7 of GASB Statement No. 84; and classifies Section 457 Deferred Compensation plans as either a pension plan or other employee benefit plan. Police is financially accountable for the VSF's. Management has determined there was no material impact as a result of adoption of GASB 97.

## **NOTE 3 - INVESTMENTS AND DEPOSITS**

The Comptroller acts as an investment advisor to the Funds. In addition, the Funds employ several independent investment consultants as investment advisors. The Funds utilize 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 Funds' investment policy is approved by the respective Boards of Trustees of the Funds. The Funds' investment policy is implemented using a strategic allocation of assets that meets their objectives, while working within the confines of the ACNY and the RSSL. The ACNY authorizes the investment in assets, except equities, subject to the terms, conditions, limitations and restrictions imposed by law for investment by savings banks. Equity investments may be made only in stocks that meet the qualifications of the State RSSL. Short-term investments may be made in U.S. Government securities or other securities fully guaranteed by the U.S. Government, commercial paper rated A1 or P1 or fully collateralized repurchase agreements. Investments up to 25% of total assets held by the Funds may be made in instruments not expressly permitted by the RSSL.

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

The Funds do not possess an investment risk policy statement, nor do they actively manage assets to specified risk targets. Rather, investment risk management is an inherent function of the asset allocation process. Assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk. The policy asset allocation targeted for the Funds in Fiscal Years 2022 and 2021 included securities in the following categories:

	2022	2021
U.S. equity	30%	30%
Core U.S. fixed	12	14
EAFE markets	8	8
Private equities	8	8
Emerging market	5	5
High yield	7	7
Real estate	7	7
Infrastructure	3	3
Hedge funds	6	6
TIPS	3	5
Opportunistic fixed income	5	5
Convertible bonds	2	-
U.S. Treasuries	2	-
ETI	2	2
Total	100%	100%

State Street Bank and Trust Company is the primary custodian for substantially all the securities of the Funds.

**Concentrations** - In accordance with RSSL section 177, no investment in any individual company may represent more than 2% of the Plan's total net assets or 5% of the company's total outstanding shares. Exclusions apply for obligations of the United States, or those for which the faith of the United States is pledged to provide payment of the interest and principal.

## **NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

June 30, 2022 and 2021

Credit Risk - The possibility of a loss or default resulting from a borrower's inability to repay a loan or fulfill its contractual debt obligations. Portfolios other than U.S. Government and related portfolios, have credit rating limitations. Investment Grade portfolios are limited to mostly ratings, of BBB/Baa2 and above, except that they are also permitted a 10% maximum exposure to BB & B/Ba2 & B2 rated securities. While high yield non-investment grade managers primarily invest in BB & B / Ba2 & B2 rated securities, they can also invest up to 10% of their portfolio in securities rated CCC/Caa2. The quality ratings of the Funds' investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2022 and 2021 are as follows:

		Moody's Quality Ratings																	
Investment type and fair value June 30, 2022	Aaa	_Aa1	_Aa2	_Aa3_	A1	A2	A3	Baa1	Baa2	Baa3	_Ba1	Ba2	Ва3	B1	B2	B3	Caa & Below	Not Rated	Total
U.S. government Corporate bonds Short term	42.72% 1.29%	0.02% 0.02%	0.02% 0.22%	0.02% 0.25%	0.04% 1.64%	0.00% 2.83%	0.00% 2.38%	0.01% 3.54%	0.07% 3.93%	0.01% 4.37%	0.00% 2.11%	0.00% 2.89%	0.00% 3.21%	0.00% 3.25%	0.00% 3.15%	0.00% 2.62%	0.00% 2.48%	0.43% 7.81%	43.34% 47.99%
Commercial paper Pooled fund Discount notes and T-bills																		1.17% 2.38% 5.12%	1.17% 2.38% 5.12%
Percent of rated portfolio	44.01%	0.04%	0.24%	0.27%	1.68%	2.83%	2.38%	3.55%	4.00%	4.38%	2.11%	2.89%	3.21%	3.25%	3.15%	2.62%	2.48%	16.91%	100.00%
		Moody's Quality Ratings																	
Investment type and fair value June 30, 2021	Aaa	_Aa1_	_Aa2	_Aa3	A1	_A2_	A3	Baa1	Baa2	Baa3	Ba1_	Ba2	<u>Ba3</u>	B1	B2	B3	Caa & Below	Not Rated	Total
U.S. government Corporate bonds Short term	38.57% 0.83%	0.02% 0.18%	0.01% 0.18%	0.14%	0.89%	3.06%	2.47%	3.20%	4.02%	4.23%	2.24%	0.01% 3.06%	3.64%	3.88%	3.33%	3.30%	3.91%	0.73% 7.22%	39.34% 49.78%
Commercial paper Pooled fund Discount notes and T-bills	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83% 4.90% 3.15%	2.83% 4.90% 3.15%
Percent of rated portfolio	39.40%	0.20%	0.19%	0.14%	0.89%	3.06%	2.47%	3.20%	4.02%	4.23%	2.24%	3.07%	3.64%	3.88%	3.33%	3.30%	3.91%	18.83%	100.00%

Custodial Credit Risk - is the risk that in the event of a failure of the counterparty or depository financial institution, the Funds 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 not registered in the name of the Funds and are held by either the counterparty or the counterparty's trust department or agent but not in the name of the Funds.

Consistent with the Funds' investment policy, the investments are held by the Funds' custodian and registered in the name of the Funds. All of the Funds' deposits are insured by the Federal Deposit Insurance Corporation ("FDIC") (subject to the FDIC limit or \$250K per plan per member) and/or collateralized by securities held by a financial institution separate from the Funds' depository financial institution. However, the Plan's cash balances can exceed FDIC insured limits. Non-invested cash is swept into a State Street Short-Term investment intraday account, which is not FDIC insured.

## **NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

## June 30, 2022 and 2021

**Interest Rate Risk** - The risk that the value of debt securities will be affected by fluctuations in market interest rates. Although there is no formal interest rate risk management policy, the duration of the portfolio, relative to the duration of the portfolio's benchmark, is monitored by the Comptroller's Bureau of Asset Management. The lengths of investment maturities (in years) of the Funds' investments, as shown by the percent of the rated portfolio, at June 30, 2022 and 2021, are as follows:

Years to Maturity	Investment Maturities (in Years)								
Investment Type		Less Than	One to	Six to Ten	More Than				
June 30, 2022	Fair Value	One Year	Five Years	Years	Ten Years				
U.S. government	43.34%	0.01%	9.44%	4.72%	29.17%				
Corporate bonds Short term:	47.99	0.75	22.23	14.33	10.68				
Commercial paper	1.17	1.17	-	-	_				
Pooled fund	2.38	2.38	-	-	-				
Discount notes	5.12	5.12	<u> </u>	_					
Percent of rated portfolio	100.00%	9.43%	31.67%	19.05%	39.85%				
Years to Maturity		Investme	ent Maturities (ir	n Years)					
Investment Type	-	Less Than	One to Five	Six to Ten	More Than				
June 30, 2021	Fair Value	One Year	Years	Years	Ten Years				
U.S. government	39.35%	0.01%	11.01%	5.47%	22.86%				
Corporate bonds	49.76	0.70	19.81	18.43	10.82				
Short term:									
Commercial paper	2.83	2.83	_	-	_				
Pooled fund	4.90	4.90	_	-	_				
Discount notes	3.16	3.16							
Percent of rated portfolio	100.00%	11.60%	30.82%	23.90%	33.68%				

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

## June 30, 2022 and 2021

**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 stock and/or bonds. The currency markets are effective diversifiers in a total portfolio context; therefore, the Funds have 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. Foreign currency exposures of the Funds' investments as of June 30, 2022 and 2021, are as follows:

		(in USD, in thousands)							
Trade Currency		30, 2022 r Value		ıne 30, 2021 Fair Value					
Trade Currency		ı value		raii vaiue					
Euro Currency	\$	2,165,438	\$	2,651,123					
Hong Kong Dollar	·	897,925	•	1,112,598					
Japanese Yen		749,106		1,014,524					
Pound Sterling		655,193		802,227					
Indian Rupee		382,837		449,983					
New Taiwan Dollar		353,870		479,676					
Swiss Franc		351,530		493,844					
South Korean Won		328,821		535,611					
Canadian Dollar		313,755		336,544					
Australian Dollar		192,471		260,758					
Danish Krona		153,426		192,826					
Brazilian Real		118,043		164,043					
Swedish Krona		98.107		153,944					
Singapore Dollar		88,921		87,384					
Chinese Yuan Renminbi		82,833		106,643					
South African Rand		70,972		98,591					
Indonesian Rupiah		69,495		45,270					
China Yuan (Offshore)		58,302		49,984					
Thailand Baht		50,987		43,238					
Mexican Peso (New)		41,122		49,118					
Norwegian Krone		31,954		60,014					
UAE Dirham		23,384		14,552					
Polish Zloty		23,247		46,720					
Malaysian Ringgit		22,208		24,433					
New Israeli Sheqel		21,632		16,368					
Qatari Rial		19,760		9,208					
Hungarian Forint		12,540		23,137					
Kuwaiti Dinar		10,032		5,188					
Czech Koruna		9,232		7,449					
Philippine Peso		9,089		9,858					
Turkish Lira		8,976		10,678					
New Zealand Dollar		6,856		9,185					
Chilean Peso		6,193		8,558					
Nigerian Naira		2,154		2,299					
Colombian Peso		2,122		2,279					
Romanian Leu		1,946		2,463					
Egyptian Pound		720		1,089					
Russian Ruble		375		3,339					
Peruvian Nouveau Sol		41		3,339					
Tunisian Dinar		40		56					
Pakistan Rupee		40		351					
i anstarriupee				551					
	\$	7,435,659	\$	9,385,185					

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

**Securities Lending Transactions**: *Credit Risk* - The quality ratings of investments held as collateral for Securities Lending by the Funds at June 30, 2022 and 2021, are as follows:

Securities lending Credit quality												
June 30, 2022 (in thousands)	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below	Caa & Below	Ca & Below	Not Rated	Total
Short term: Reverse repurchase agreements Money market Cash or cash equivalent Under/Over invested cash	\$ - 244,347 -	\$ - - -	\$ - - 527,221	\$ 275,277 - -	\$2,031,369 - -	\$ 38,752 - -	\$ - - -	\$ - - -	\$ - - -	\$ - - -	\$1,706,007 449,240	\$4,051,405 693,587 527,221
collateral											(1,019)	(1,019)
Total	\$ 244,347	\$ -	\$ 527,221	\$ 275,277	\$2,031,369	\$ 38,752	<u> </u>	<u> </u>	<u> </u>	\$ -	\$2,154,228	\$5,271,194
By percent	4.64%	0.00%	10.00%	5.22%	38.54%	0.74%	0.00%	0.00%	0.00%	0.00%	40.87%	100.00%
Securities lending Credit quality						Moody's Qu	uality Ratings					
June 30, 2021 (in thousands)	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below	Caa & Below	Ca & Below	Not Rated	Total
Short term: Reverse repurchase agreements Money market Cash or cash equivalent Uninvested	\$ - 405,285 - -	\$ - - -	\$ - - 588,245	\$ 614,876 - - -	\$1,907,251 - - -	\$ 38,080 - - -	\$ - - -	\$ - - - -	\$ - - - -	\$ - - - -	\$2,291,240 36,650 - 9,449	\$4,851,447 441,935 588,245 9,449
Total	\$ 405,285	\$ -	\$ 588,245	\$ 614,876	\$1,907,251	\$ 38,080	\$ -	\$ -	\$ -	\$ -	\$2,337,339	\$5,891,076
By percent												

## **NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

June 30, 2022 and 2021

**Interest Rate Risk** - The lengths of investment maturities (in years) of the collateral for Securities Lending held by the Funds at June 30, 2022 and 2021, are as follows:

Investment Type	Investment Maturities (in Years)										
June 30, 2022	Fair	Less Than	One to Five	Six to Ten	More Than						
(In thousands)	Value	One Year	Years	Years	Ten Years						
Short term:											
Reverse repurchase agreements	\$ 4,051,405	\$ 4,051,405	\$ -	\$ -	\$ -						
Money market funds	693,587	693,587	-	-	-						
Cash or cash equivalent	527,221	527,221	-	-	-						
Under/Over invested Cash Collateral	(1,019)	(1,019)									
Total	\$ 5,271,194	\$ 5,271,194	\$ -	\$ -	\$ -						
Percent of securities lending portfolio	100.00%	100.00%	0.00%	0.00%	0.00%						
Investment Type		Investn	nent Maturities (in	Years)							
June 30, 2021	Fair	Less Than	One to Five	Six to Ten	More Than						
(In thousands)	Value	One Year	Years	Years	Ten Years						
Short term:											
Reverse repurchase agreements	\$ 4,851,447	\$ 4,851,447	\$ -	\$ -	\$ -						
Money market funds	441,935	441,935	· -	-	· -						
Cash or cash equivalent	588,245	588,245	-	-	-						
Uninvested	9,449	9,449									
Total	\$ 5,891,076	\$ 5,891,076	\$ -	\$ -	\$ -						
Percent of securities lending portfolio	100.00%	100.00%	0.00%	0.00%	0.00%						

**Rate of Return** - For the years ended June 30, 2022 and 2021, the annual money-weighted rate of return on investments, net of investment expense, for the Funds was as follows:

	2022	2021
QPP PSOVSF	(7.12)% (13.31)%	26.37% 25.95%
POVSF	(13.48)%	25.40%

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 Funds adopted GASB 72. GASB 72 was issued to address accounting and financial reporting issues related to fair value measurements.

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

## GASB 72 - Level Inputs

The Funds categorize 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 Funds have the following recurring fair value measurements as of June 30, 2022 and June 30, 2021:

GASB 72 - Disclosure	022			
(In thousands)	Level 1	Level 2	Level 3	Total
Investments - at fair value Short-term investments:				
Commercial paper	\$ -	\$ 291,308	\$ -	\$ 291,308
Short-term investment fund	· _	518,037	· -	518,037
U.S. treasury bills and agencies	-	369,797	_	369,797
Fixed income securities:		•		,
Bank loans	_	152,849	_	152,849
Corporate and other	_	6,440,277	44,956	6,485,233
Mortgage debt securities	_	2,161,766	, -	2,161,766
Treasury inflation-protected securities	-	1,589,153	-	1,589,153
U.S. government and agency	-	2,058,590	-	2,058,590
Equity securities:				, ,
Domestic equity	16,247,012	(208)	4,199	16,251,003
International equity	4,512,163	-	11,403	4,523,566
Collective trust funds:			,	
Bank loans	-	868	_	868
Corporate and other	-	418,957	_	418,957
Domestic equity	182,622	· <u>-</u>	316	182,938
International equity	2,050,114	_	458	2,050,572
Mortgage debt securities	· · · · -	538,791	106,839	645,630
Opportunistic-fixed income	285	144,665	3,280	148,230
U.S. government and agency	-	829,198	· -	829,198
Alternative investments:				
Infrastructure	-	-	856,057	856,057
Opportunistic-fixed income	-	-	1,847,299	1,847,299
Private equity	-	_	4,753,360	4,753,360
Private real estate			3,316,150	3,316,150
Total investments, at fair value	\$ 22,992,196	\$ 15,514,048	\$ 10,944,317	49,450,561
Alternative investments (Hedge Funds*) valued at NAV				2,574,371
Total investments				\$ 52,024,932

## **NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

## June 30, 2022 and 2021

GASB 72 - Disclosure	2021								
(In thousands)	Level 1	Level 2	Level 3	Total					
Investments - at fair value Short-term investments:									
Commercial paper	\$ -	\$ 475,493	\$ -	\$ 475,493					
Short-term investment fund	Ψ -	700,824	Ψ -	700,824					
U.S. treasury bills and agencies	_	505,372	_	505,372					
Fixed income securities:		000,012		000,012					
Bank loans	_	190,030	1,501	191,531					
Corporate and other	<u>-</u>	7,200,430	52,615	7,253,045					
Mortgage debt securities	<u>-</u>	2,206,428	-	2,206,428					
Treasury inflation-protected securities	<u>-</u>	1,663,785	_	1,663,785					
U.S. government and agency	_	2,777,756	_	2,777,756					
Equity securities:		_,,		_,,					
Domestic equity	19,835,938	5,331	4,339	19,845,608					
International equity	5,938,085	62	55,338	5,993,485					
Collective trust funds:	-,,			2,002,100					
Bank loans	_	1,859	_	1,859					
Corporate and other	_	536,852	11	536,863					
Domestic equity	357,280	-	440	357,720					
International equity	2,670,764	_	1,873	2,672,637					
Mortgage debt securities	, , , <u>-</u>	610,037	117,861	727,898					
Opportunistic-fixed income	7,369	149,408	4,747	161,524					
U.S. government and agency	, -	738,853	, -	738,853					
Alternative investments:		•		,					
Infrastructure	-	-	639,870	639,870					
Opportunistic-fixed income	-	-	1,633,488	1,633,488					
Private equity	5,492	-	3,603,239	3,608,731					
Private real estate			2,459,043	2,459,043					
Total investments, at fair value	\$ 28,814,928	\$ 17,762,520	\$ 8,574,365	55,151,813					
Alternative investments (Hedge Funds*) valued at NAV				2,794,311					
Total investments				\$ 57,946,124					

<sup>\*</sup> Hedge Funds that do not have a readily determinable fair value and are measured at fair value using the net asset value ("NAV") per share (or its equivalent) as a practical expedient ("NAV Practical Expedient"), have not been classified in the fair value hierarchy.

## **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. Fixed income 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. Fixed income and equity securities classified in Level 3 of the fair value are securities whose stated market price is unobservable by the marketplace, 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 the Funds' custodian bank. Fixed income 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.

## **NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

June 30, 2022 and 2021

#### **Collective Trust Funds**

Collective trust funds are separately managed accounts which are owned 100% by The City's pension systems. The investments underlying the collective trust funds are presented as Level 1, Level 2 or Level 3 based on their respective fair value hierarchy classifications.

#### 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 NAV calculated by the GP's valuation policy. Alternative investments are mainly illiquid and typically not sold or redeemed.

Investments in non-public equity securities should be valued by the GP or the fund administrator using one or more valuation methodologies outlined in GASB 72, depending upon the availability of data required by each methodology. In some cases, the GP may use multiple approaches to estimate a valuation range.

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. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will generally be liquidated within 10 years but in some cases can take longer.

Alternative investments that are measured at fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient 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.

Alternative investments are not fully funded upon subscribing to the investment. The GP can draw down or call for capital as the fund goes into more investments or when the need arises such as expenses associated with the partnership. The residual balance of uncalled capital is also known as unfunded commitments which are restricted to the maximum amount of the limited partners total committed amount. The total unfunded commitments for the alternative investments as of June 30, 2022 and 2021 amounted to \$6.3 billion and \$6.1 billion, respectively.

The fair value quantities presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the entity's combining financial statements. The following table below displays details the fair value, redemption terms, redemption notice periods, gates and redemption holdback amounts.

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

## June 30, 2022 and 2021

## NAV Practical Expedient (dollars in thousands)

ne 30, 2022 air Value	Redemption Terms	Redemption Notice Period	Gate	Redemption Holdback
\$ 240,337	Monthly redeeming on Last Business Day (Shares can be redeemed and any time other than the last Business day of the month but are subject to 1.5% fee)	3 Calendar days notice	No Yes	5%
45,085	Semester Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	This fund imposes a 50% Investor level gate with slower liquidation schedule.  Yes	10%
			This fund imposes a 25% Investor level gate with	
85,548	Quarterly redeeming on Last Business Day Of Month	90 Calendar days	slower liquidation schedule.	10%
54,640	Quarterly redeeming on Last Business Day Of Month	45 Calendar days notice	No	3%
325,682	Quarterly Calendar redeeming on Last Business Day Of Month	75 Calendar days notice	Yes This fund may impose a 8.3% Fund level gate with slower liquidation schedule	10%
132,602	Quarterly redeeming on Last Business Day Of March, June, September or December	44 Calendar days notice	Yes Fund level Gate 25% at manager's discretion	10%
185,177	Monthly redeeming on First Business Day	30 Calendar days notice	No Up to 10% of the Nav of their BMS Units Shares	5%
74,879	Monthly redeeming on First Business Day	30 Calendar days notice	No	5%
,	monany rougonang on ring gaemood gay	oo calonaar aaye neace	Yes	0.0
131,060	Quarterly redeeming on Last Business Day	90 Calendar days notice	This fund imposes 20% Firm level gate	5%
			Yes	
188,899	Quarterly Calendar redeeming on Last Business Day Of Month	65 Calendar days notice	This fund imposes 25% investor level	5%
			Yes	
150,972	Monthly redeeming on First Business Day	180 Calendar days	This fund imposes a 16.7% level gate with slower liquidation schedule	5%
135,535	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	ilquidation scrieddie No	5% 5%
212,957	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
212,937	Quarterly Caleridar redeeming on Last business Day Or World	90 Caleridal days flolice		370
195,905	Quarterly Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	Yes This fund imposes a 33.3% Investor level gate with slower liquidation schedule.	5%
52,361	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	Yes This fund imposes a 25% Investor level gate with slower liquidation schedule.	5%
			Yes. This fund imposes a 25% Fund level gate with slower liquidation schedule. This fund may impose a	
161,893	Quarterly Calendar redeeming on Last Business Day Of Month	45 Calendar days notice	25% Fund level gate with slower liquidation schedule.	5%
34,975	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
126,572	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
 39,292	Monthly redeeming on First Business Day Of Month	90 Calendar days notice	No	1%
\$ 2,574,371	Total Hedge Funds (dollars in thousands)			

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

## June 30, 2022 and 2021

ne 30, 2021 Fair Value	Redemption Terms	Redemption Notice Period	Gate	Redemption Holdback
\$ 192,348	Monthly redeeming on Last Business Day (Shares can be redeemed and any time other than the last Business day of the month but are subject to 1.5% fee)	3 Calendar days notice	No	5%
	Semester Calendar redeeming on Last Business Day Of	60 Calendar days notice		
80,014	Month		No	10%
			Yes	
248,943	Quarterly redeeming on Last Business Day Of Month	90 Calendar days	This fund imposes a 25% investor level gate with slower liquidation schedule.	10%
240,040	Quarterly Calendar redeeming on Last Business Day Of	oo Galeridar days	This fund may impose a 8.3% fund level gate with	1070
300,443	Month	75 Calendar days notice	slower liquidation schedule.	10%
142,520	Last Business Day Of March, June, September or December	44 Calendar days notice	Fund level Gate 25% at manager's discretion	10%
	Illiquid - periodic distributions and other	Illiquid - periodic	-	
4,125		distributions	No	0-10%
131,606	Monthly redeeming on First Business Day	30 Calendar days notice	Up to 10% of the NAV of their BMS Units Shares	5%
60,573	Monthly redeeming on First Business Day	30 Calendar days notice	No	5%
99,808	Monthly redeeming on Last Business Day	30 Calendar days notice	20% Firm level gate	5%
		2 Calendar days notice (no later than 5:00pm. Dublin		
189,451	Daily redeeming	time)	No	N/A
	Quarterly Calendar redeeming on Last Business Day Of			
164,071	Month	65 Calendar days notice	25% investor level	5%
78,405	Monthly redeeming on Last Business Day Of Month	90 Calendar days notice	No	10%
256,677	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
004.405	Quarterly Calendar redeeming on Last Business Day Of	000111111	05% 5	<b>5</b> 0/
261,195	Month	90 Calendar days notice	25% Fund level gate	5%
172,780	Quarterly Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	Yes This fund imposes a 33.3% investor level gate with slower liquidation schedule.	5%
64,288	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	Yes This fund imposes a 25% investor level gate with slower liquidation schedule. This fund imposes a 25% Fund level gate with	5%
167,375	Quarterly Calendar redeeming on Last Business Day Of Month	45 Calendar days notice	slower liquidation schedule. This fund may impose a 25% Fund level gate with slower liquidation schedule.	5%
29,505	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
108,520	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
41,664	Monthly redeeming on First Business Day Of Month	90 Calendar days notice	No	1%
71,004	MOTHING TEACETHING ON FIRST DUSTRIESS DAY OF MOTH	50 Galeridar days notice	IVU	1 70
\$ 2,794,311	Total Hedge Funds (dollars in thousands)			

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

## **NOTE 4 - TRANSFER TO VARIABLE SUPPLEMENTS FUNDS**

The ACNY provides that the QPP transfer to the VSFs an amount equal to certain excess earnings on equity investments, limited to the unfunded actuarial present value ("APV") of accumulated plan benefits for each VSF. Excess earnings are defined as the amount by which earnings on equity investments of the QPP exceed what those 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. The VSFs also receive credit for investment earnings on VSF assets.

The calculation of the HFISE requires the determination of the Hypothetical Interest Rate ("HIR"), which is computed by the Comptroller.

For Fiscal Year 2022, the preliminary excess earnings of the QPP are reported on the combining financial statements for the year ended June 30, 2022 to be equal to \$0, where \$0 was reported as a liability from the QPP to the PSOVSF.

For Fiscal Year 2021, the preliminary excess earnings of the QPP are reported on the combining financial statements for the year ended June 30, 2021 to be equal to \$0 (after limiting the unfunded APV of accumulated plan benefits), where \$0 was reported as a liability from the QPP to the POVSF and \$0 was reported as a liability from the QPP to the PSOVSF.

In addition, under Chapter 3 of the Laws of 2013, if the assets of the POVSF or PSOVSF are less than the amount required to pay the retirees' guaranteed supplemental benefit payments, then an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of the QPP.

The amounts shown for the APV of accumulated plan benefits, are the measure of the present value of scheduled supplemental benefits estimated to be payable in the future as a result of employee service to date. It 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 VSFs on a going-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 APV of accumulated plan benefits as calculated by the Funds' Chief Actuary (the "Actuary") with the net position restricted for benefits for the POVSF and the PSOVSF as of June 30, 2021 and June 30, 2020, is as follows:

	POVSF PSC					OVSF		
(In millions)		2021 <sup>2</sup>		2020		2021 <sup>2</sup>		2020
APV of accumulated plan benefits for: Retirees currently receiving benefits Active members Total APV of accumulated plan	\$	1,494.4 421.2	\$	1,617.1 386.6	\$	2,333.3 1,268.2	\$	2,522.2 1,221.4
benefits		1,915.6		2,003.7		3,601.5		3,743.6
Net position held in trust for benefits <sup>1</sup>		2,323.1		1,809.1		3,648.9		3,076.7
(Overfunded) Unfunded APV of accumulated plan benefits	\$	(407.5)	\$	194.6	\$	(47.4)	\$	666.9

See Note 2 for valuation of investments in the calculation of net position restricted for benefits. Reflects net position not inclusive of the SKIM amounts payable for the respective year and includes an adjustment made for accrued benefits payable for the respective year.

<sup>&</sup>lt;sup>2</sup> Preliminary.

## NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

For purposes of the June 30, 2021 and the June 30, 2020 actuarial valuations of the VSFs, Chapter 125/00 has been taken into account in the determination of the unfunded APV of accumulated plan benefits relative to the Supplementation benefit increases that began Fiscal Year 2001 and the automatic COLA that began Fiscal Year 2002 (see Note 1).

Sections 13-270 and 13-280 of the ACNY provide that the Boards of Trustees of the POVSF and the PSOVSF shall adopt, upon the recommendation of the Actuary, actuarial assumptions as to interest rate, mortality of retirees and estimated number of active members of the QPP in service as of each June 30 who will retire for service with 20 or more years of service as Police Officers and Police Superior Officers, 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 APV of accumulated plan benefits as of June 30, 2021 and June 30, 2020:

	June 30, 2021 <sup>1</sup>	June 30, 2020
Investment rate of return	7.00% per annum.²	7.00% per annum.²
Post-retirement mortality	Tables adopted by the Board of Trustees during Fiscal Year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries.	Tables adopted by the Board of Trustees during Fiscal Year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries.
Active service: withdrawal, death, and disability	Tables adopted by the Board of Trustees during Fiscal Year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries to active ordinary death mortality rates and precommencement mortality rates for deferred vesteds.	Tables adopted by the Board of Trustees during Fiscal Year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries to active ordinary death mortality rates and precommencement mortality rates for deferred vesteds.
Service retirement	Tables adopted by the Board of Trustees during Fiscal Year 2019.	Tables adopted by the Board of Trustees during Fiscal Year 2019.
Percentage of all active POLICE members estimated to retire for service with 20 or more years of service as Police Officers	40%.	40%.
Percentage of all active POLICE Superior Officers estimated to retire for service with 20 or more years of service as POLICE Superior Officers	100%.	100%.
Cost-of-Living Adjustments <sup>2</sup>	1.5% per annum AutoCOLA. 2.5% per annum for Escalation.	1.5% per annum AutoCOLA. 2.5% per annum for Escalation.

Preliminary.

Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per year.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

#### **NOTE 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** - Tier 1 and Tier 2 members contribute by salary deductions on the basis of a normal rate of contribution, based on age and actuarial tables in effect at the time of membership. Member contribution rates are reduced by 5.0% under the ITHP program as defined earlier. Additionally, members may voluntarily increase their rates of contribution by 50% for the purpose of purchasing an additional annuity. Members are permitted to borrow up to 90% of their own contributions including accumulated interest.

Tier 3 Original/Tier 3 Revised/Tier 3 Enhanced members contribute 3.0% of pensionable earnings pre-tax until attainment of 25 years of credited service. Tier 3 Enhanced members contribute an additional 1.0% (currently 1.0%, to be updated every three years) of pensionable earnings after tax until attainment of 25 years of credited service.

**Employer Contributions** - Statutory Contributions to the QPP, determined by 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, 2022, based on an actuarial valuation as of June 30, 2020 was \$2.5 billion and the Statutory Contribution for the year ended June 30, 2021, based on an actuarial valuation as of June 30, 2019 was \$2.4 billion. The Statutory Contributions for Fiscal Years 2022 and 2021 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 the Statutory Contributions.

## **NOTE 6 - NET PENSION LIABILITY**

The components of the net pension liability of the employer at June 30, 2022 and 2021 for the Funds were as follows:

June 30, 2022 (In thousands)	QPP	POVSF	PSOVSF	TOTAL			
Total pension liability* Fiduciary net position**	\$ 55,448,119 47,043,387	\$ 2,094,495 1,860,558	\$ 3,972,189 2,894,727	\$ 61,514,803 51,798,672			
Employers' net pension liability	\$ 8,404,732	\$ 233,937	\$ 1,077,462	\$ 9,716,131			
Fiduciary net position as a percentage of the total pension liability	84.84%	88.83%	72.87%	84.21%			

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

## June 30, 2022 and 2021

June 30, 2021 (In thousands)	 QPP	POVSF			PSOVSF	TOTAL
Total pension liability* Fiduciary net position**	\$ 53,309,898 51,293,938	\$	2,083,913 2,323,129	\$	3,909,614 3,648,903	\$ 59,303,425 57,265,970
Employers' net pension liability	\$ 2,015,960	\$	(239,216)	\$	260,711	\$ 2,037,455
Fiduciary net position as a percentage of the total pension liability	96.22%		111.48%		93.33%	96.56%

<sup>\*</sup> Includes liabilities from Special Accidental Death Benefits pursuant to Section 208-F of the General Municipal Law.

## Actuarial Methods and Assumptions

The total pension liability as of June 30, 2022 and 2021 was calculated from the actuarial valuations as of June 30, 2021 (Preliminary) and June 30, 2020 (Updated Preliminary), 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 increase plus assumed General Wage Increases of 3.0% per annum.
Investment Rate of Return	7.0% per annum, net of Investment Expenses.
COLAs	<ul><li>1.5% per annum for Auto COLA.</li><li>2.5% per annum for Escalation.</li></ul>

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

The Fiscal Year 2021 results reflect changes in the actuarial assumptions and methods from the prior year. These changes reflect refinements and improvements to the actuarial assumptions and methods under the judgment of the Chief Actuary. 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 most recent of these studies was performed by Bolton, Inc. and included experience through June 30, 2017. Milliman is performing the current experience study that covers the period through June 30, 2021.

On January 2, 2019, the Actuary issued a Report titled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and after July 1, 2018 for the New York City Police Pension Fund." The actuarial assumptions and methods described in that report are referred to as the "2019 A&M."

On July 28, 2021, the Actuary issued a memorandum titled "Proposed Changes to Actuarial Assumptions and Methods." The actuarial assumptions and methods described in that memorandum amend certain assumptions and methods from the 2019 A&M. This revised set of actuarial assumptions and methods are referred to as the "Revised 2021 A&M."

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

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

## June 30, 2022 and 2021

The June 30, 2021 total pension liability was calculated from the Updated Preliminary June 30, 2020 actuarial valuation, which was based on the Revised 2021 A&M.

The June 30, 2022 total pension liability was calculated from the Preliminary June 30, 2021 actuarial valuation, which was based on the Revised 2021 A&M.

The Entry Age Normal ("EAN") cost method of funding is utilized by the Funds' Actuary to calculate the contribution required of the employer.

Under this method, the Present Value ("PV") of Future Benefits ("PVFB") of each individual included in the actuarial valuation is allocated on a level basis over the expected earnings (or service) of the individual between entry age and 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 Normal Costs or future member contributions is the Accrued Liability ("AL").

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

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

The obligations of POLICE to the POVSF and the PSOVSF are recognized through a methodology where the PV of future VSF transfers from POLICE to the POVSF and PSOVSF is included directly as an actuarial liability of POLICE. This amount is computed as the excess, if any, of the PV of benefits of the POVSF and PSOVSF over the AVA of the POVSF and PSOVSF, respectively. Under EAN, a portion of the PV of future VSF transfers is reflected in the PV of future normal costs and a portion is reflected in the UAL.

#### Expected Rate of Return on Investments

The long-term expected rate of return on the Funds' 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 as of June 30, 2022 and 2021:

	As of Jun	e 30, 2022	As of June 30, 2021				
Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return	Target Asset Allocation	Long-Term Expected Real Rate of Return			
Public Markets							
U.S. public market equities	30.0%	5.7%	30.0%	5.1%			
Developed public market equities	8.0%	6.4%	8.0%	5.8%			
Emerging public market equities	5.0%	7.8%	5.0%	7.2%			
Fixed income	28.0%	3.2%	28.0%	2.2%			
Private Markets (Alternative Investments)							
Private equity	8.0%	11.0%	8.0%	10.0%			
Private real estate	7.0%	7.4%	7.0%	7.2%			
Infrastructure	3.0%	4.7%	3.0%	4.6%			
Hedge Funds	6.0%	4.5%	6.0%	3.6%			
Opportunistic-fixed income	5.0%	5.9%	5.0%	4.9%			
Total	100.0%		100.0%				

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

#### Discount Rate

The discount rate used to measure the total pension liability was 7.0%. The projection of cash flows used to determine the discount rate assumes that employee contributions will be made at the rates applicable to the current Tier for each member and that Employer contributions will be made at rates as determined by the Actuary. Based on those assumptions, the Funds' fiduciary net position was projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the long-term expected rate of return on the Funds' 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 Funds of June 30, 2022, 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 as of June 30, 2022 and 2021:

Net Pension Liability - June 30, 2022	1% Decrease	Discount Rate	1% Increase				
(In thousands)	(6.0%)	(7.0%)	(8.0%)				
QPP	\$ 14,892,471	\$ 8,404,732	\$ 3,009,221				
POVSF	452,183	233,937	49,705				
PSOVSF	1,482,870	1,077,462	734,585				
Total	\$ 16,827,524	\$ 9,716,131	\$ 3,793,511				
Net Pension Liability - June 30, 2021 (In thousands)	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)				
QPP	\$ 8,375,632	\$ 2,015,960	\$ (3,175,317)				
POVSF	(44,859)	(239,216)	(443,640)				
PSOVSF	627,698	260,711	(107,714)				
Total	\$ 8,958,471	\$ 2,037,455	\$ (3,726,671)				

#### **NOTE 7 - MEMBER LOANS**

Tier 1 and 2 members are permitted to borrow up to 90% of their own contributions, including accumulated interest. Loans are repaid at the statutory interest rate of 4%. The balance of QPP member loans receivable at June 30, 2022 and 2021, is \$162.1 million and \$174.7 million, respectively. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions, including accumulated interest, less any loans outstanding. As a result of a review of all member accounts, there were no prior year loans due from retired or inactive employees that were deemed uncollectible in Fiscal Years 2020 and 2019.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

## **NOTE 8 - RELATED PARTIES**

Pursuant to statute and resolutions, the Comptroller has been appointed as custodian for the assets of the Funds. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller, the Financial Information Services Agency ("FISA"), and the Office of Payroll Administration ("OPA") also provide cash receipt and cash disbursement services to the Funds. Actuarial services are provided to the Funds by the New York City Office of the Actuary. The City's Corporation Counsel provides legal services to the Funds. Other administrative services are also provided by The City. The aforementioned services may be provided by employees or officers of The City who may also be participants in the Funds. The cost of providing such services amounted to \$7.8 million and \$8.7 million in Fiscal Years 2022 and 2021, respectively.

#### **NOTE 9 - ADMINISTRATIVE AND INVESTMENT EXPENSES**

Chapter 292 of the Laws of 2001 provides Corpus funding of administrative expenses for the QPP commencing July 1, 2001 and allows for the appointment of an executive director for the QPP. In Fiscal Year 2022 and Fiscal Year 2021, total administrative expenses of \$24.3 million and \$24.9 million were paid from the assets of the QPP, respectively. Investment expenses charged to the investment earnings of the QPP, exclusive of expenses relating to securities-lending transactions, amounted to approximately \$397 million in 2022 and \$294 million in 2021.

In July 2010, the Funds renegotiated their lease agreement to rent office space. The agreement will expire in Fiscal Year 2031. The future minimum rental payments required under this operating lease are as follows:

Fiscal years ending June 30,	 Amount
2023 to 2025 2026 2027 to 2030 2031	\$ 6,659,226 2,425,794 9,778,104 203,711

Additionally, the Funds renegotiated their lease agreement to rent additional colocation space in 2019 pursuant to its Disaster Recovery and Business Continuity Plan. The original agreement was signed in February 2010 and terminates on July 14, 2024. The current rental payments required under this lease are as follows:

Fiscal years ending June 30,	Amount	_
2023 2024	\$ 459,219 464,244	
2025	19,343	

Rent expense under the lease agreements for each of the Fiscal Years ended June 30, 2022 and 2021, was approximately \$2.8 million.

## **NOTE 10 - CONTINGENT LIABILITIES AND OTHER MATTERS**

**Contingent Liabilities** - The Funds have claims pending against them and have been named as defendant in lawsuits and also have certain other contingent liabilities. Management of POLICE, on the advice of legal counsel, believes that such proceedings and contingencies will not have a material effect on the Funds' net position or changes in the Funds' net position. Under the existing State statutes and City laws that govern

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

the functioning of the Funds, increases in the obligations of the Funds to members and beneficiaries ordinarily result in increases in the obligations of The City to the Funds.

**Other Matters** - During Fiscal Years 2022 and 2021, certain events described below took place which, in the opinion of POLICE management, could have the effect of increasing benefits to members and/or their beneficiaries and therefore would increase the obligations of the Funds. The effect of such events has not been fully quantified. However, it is the opinion of POLICE management that such developments would not have a material effect on the Funds' combined net position restricted for benefits or cause changes in the Funds' net position restricted for benefits.

**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 New York City Retirement Systems ("NYCRS") are conducted every two years. Refer to Note 6 for the results of the most recent actuarial studies for POLICE.

**Revised Actuarial Assumptions and Methods** - In accordance with the ACNY and with appropriate practice, 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 most recently completed study was published by Bolton, Inc. dated June 2019. Bolton analyzed experience for the four- and 10-year periods ended June 30, 2017 and made recommendations with respect to the actuarial assumptions and methods based on their analysis. Based, in part, on these, recommendations, the Actuary proposed new assumptions and methods for use in determining Employer Contributions for Fiscal Years beginning on and after July 1, 2018. These assumptions and methods have been adopted by the Board of Trustees during Fiscal Year 2019.

Previously, Gabriel, Roeder, Smith & Company (GRS) published their study in October 2015.

#### New York State Legislation (only significant laws since Fiscal Year 2018 included)

Chapter 266 of the Laws of 2018 extended the Notice of Participation filing deadline to September 11, 2022 for vested members to file a sworn statement indicating participation in the Rescue, Recovery, and Clean-up Operations.

Chapter 589 of the Laws of 2019 amended Retirement and Social Security Law § 212, increased the amount of money a Service or Vested retiree may earn in retirement without diminution of their benefit from \$30,000 to \$35,000.

Chapter 89 of the Laws of 2020 provided a death benefit to statutory beneficiaries of members whose death was a result of or was contributed to by SARS-CoV-2 (also known as the coronavirus or "COVID-19").

The CARES Act of March 2020 suspended Required Minimum Distributions due in 2020. It also authorized more advantageous loans and distributions to members who certify that COVID-19 adversely affected themselves or their household. These special rules sunset on or before December 31, 2020.

## **COVID-19 and Related Legislation**

The outbreak of COVID-19, was declared a pandemic by the World Health Organization. On March 7, 2020 then Governor Cuomo enacted Executive Order 202 declaring a state of emergency for the entire State of New York. Through a series of further executive orders, the Governor temporally suspended and modified laws as it related to the disaster emergency, which included as they relate to the Police Pension Fund, a suspension of New York State Retirement and Social Security Law § 212 earnings limitations, portions of the Open Meetings Law, allowing the Board of Trustees to conduct business virtually, electronic notarization of documents, and tolled the filing deadlines and statutes of limitations for all civil actions. This series of Executive Orders expired on June 29, 2021.

#### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

On September 27, 2021, Governor Hochul signed Executive Order 4, which partially mirrored Executive Order 202 and its progeny. As the result of this Executive Order, and its subsequent extensions, RSSL § 212 earnings limitations remain suspended.

Chapter 417 of the Laws of 2021 was enacted on September 2, 2021 to continue the modification of the Open Meetings Law under the prior Executive Orders and on April 9, 2022, Chapter 56 of the Laws of 2022 was enacted, which adds new provisions specifying how and when a public body may use videoconferencing in conducting its meetings. Under this legislation, public bodies may, in the same manner as before the law's enactment, meet and provide for public attendance by remote means. This new law remains in effect until July 1, 2024, at which point it sunsets and ceases to apply. Chapter 56 requires at least a quorum of the members of a public body holding a meeting must be present at one or more physical locations where members of the public may attend in person to allow other members not required to make a quorum attend remotely by videoconference, regardless of their location or its accessibility to the public, if such attendance is necessitated by "extraordinary circumstances." Remote attendance must include audio and visual components which "ensure that members of the public body can be heard, seen and identified while the meeting is being conducted" as allowed; Members who attend remotely at locations not accessible to the public do not count towards a quorum, but may participate and vote in the meeting. As the result of Chapter 56, the Board of Trustees must formulate procedures that govern remote attendance. Moreover, the meeting notice must state the physical location or locations where the meeting will be held and where in person attendance will be possible, as well as that the meeting will include a videoconferencing component and indicate where members of the public can view and, if applicable, participate in the meeting. The record must reflect which members participated remotely, and a recording of such meeting must be posted on the public body's website within five business days of the meeting and maintained there for at least five years. Accordingly, the Board of Trustees passed a resolution stating the following:

- 1. The public noticed location for all meetings shall continue to be the Fund's headquarters at 233 Broadway.
- 2. Extraordinary circumstances shall include disability, illness, caregiving responsibilities, weather related instances, or any other significant or unexpected factor or event which precludes the member's physical attendance at such meeting.
- 3. Every meeting of this Board of Trustees shall have a teleconference component and should be noticed with the meeting; however, the Board and the Executive Director shall ensure there is a physical quorum as required by the Open Meetings Law at each meeting.
- 4. A member wishing to participate remotely must give the Executive Director of the Fund notice as soon as practicable.

## Litigation

Currently pending is a case brought by Police Benevolent Association ("PBA") president, Patrick Lynch against the Police Pension Fund challenging the fact that Tier 3 officers do not have the same service credit purchase and transfer rights as Tier 2 officers, alleging that the Funds' interpretation of the statutory provisions is in error. The Supreme Court, New York County, rendered a decision dated July 9, 2019, which was not clear in its instruction. The Plaintiff served notice of entry and leave to appeal simultaneously. The City filed leave to re-argue, and Plaintiff cross-filed for same. Both motions for re-argument were denied, and the Fund lost on appeal in a decision dated May 4, 2021. The City filed leave to appeal to the Court of Appeals, which was granted. All briefs in the case are due by September 23, 2022.

## **NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

June 30, 2022 and 2021

## Amendments to Plan Provisions

As described above, the Board of Trustees enacted a resolution relating to partially remote meetings in accordance with newly enacted legislation.

Additionally, in March of 2022 the Board of Trustees passed a resolution divesting from Russian Securities.

Lastly, in June of 2022 the Board of Trustees extended the provisions of the Group Life Insurance Plan through June 30, 2023.

# REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

# June 30, 2022 (In thousands)

		QPP*		POVSF		PSOVSF	TOTAL	
Total pension liability:								
Service cost	\$	1,330,168	\$	32,615	\$	68,938	\$	1,431,721
Interest		3,709,703		142,186		268,340		4,120,229
Differences between expected and actual experience		443,332		9,306		20,503		473,141
Changes of assumptions		-		- (470 707)		- (225.222)		-
Benefit payments and withdrawals		(3,344,982)		(173,525)		(295,206)		(3,813,713)
Net change in total pension liability		2,138,221		10,582		62,575		2,211,378
Total pension liability - beginning		53,309,898		2,083,913		3,909,614		59,303,425
Total pension liability - ending (a)		55,448,119		2,094,495		3,972,189		61,514,803
Plan fiduciary net position:								
Employer contributions		2,490,134		-		-		2,490,134
Member contributions		281,185		-		-		281,185
Net investment income		(3,656,295)		(288,928)		(460,681)		(4,405,904)
Benefit payments and withdrawals		(3,344,982)		(173,525)		(295,206)		(3,813,713)
Administrative expenses		(24,301)		-		-		(24,301)
Other		5,195		67		39		5,301
Net change in plan fiduciary net position		(4,249,064)		(462,386)		(755,848)		(5,467,298)
Accrued Transfers from POLICE to POVSF and PSOVSF		(1,487)		(185)		1,672		-
Plan fiduciary net position - beginning		51,293,938		2,323,129		3,648,903		57,265,970
Plan fiduciary net position - ending (b) **		47,043,387		1,860,558		2,894,727		51,798,672
Employer's net pension liability - ending (a)-(b)	\$	8,404,732	\$	233,937	\$	1,077,462	\$	9,716,131
Plan fiduciary net position as a percentage of								
the total pension liability		84.84%		88.83%		72.87%	_	84.21%
Covered payroll	\$	4,262,626		n/a		n/a	\$	4,262,626
Employer's net pension liability as a percentage of		107 470/		2/2		n/o		227 040/
covered payroll	_	197.17%		n/a		n/a		227.94%

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2021 (In thousands)

		QPP*		POVSF	PSOVSF		TOTAL
Total pension liability:		_		_			
Service cost	\$	1,367,875	\$	34,049	\$ 71,892	\$	1,473,816
Interest		3,573,966		140,053	266,091		3,980,110
Differences between expected and actual experience		207,282		41,669	26,999		275,950
Changes of assumptions		156,581		(7,124)	(12,698)		136,759
Benefit payments and withdrawals		(3,313,298)		(179,870)	 (338,471)		(3,831,639)
Net change in total pension liability		1,992,406		28,777	13,813		2,034,996
Total pension liability - beginning		51,317,492		2,055,136	3,895,801		57,268,429
Total pension liability - ending (a)		53,309,898		2,083,913	 3,909,614		59,303,425
Plan fiduciary net position:							
Employer contributions		2,437,728		-	-		2,437,728
Member contributions		255,789		-	-		255,789
Net investment income		10,747,961		447,619	766,123		11,961,703
Benefit payments and withdrawals		(3,313,298)		(179,870)	(338,471)		(3,831,639)
Administrative expenses		(24,925)		-	-		(24,925)
Other		4,389		37	 32		4,458
Net change in plan fiduciary net position		10,107,644		267,786	427,684		10,803,114
Accrued Transfers from POLICE to POVSF and PSOVSF		(106,720)		103,236	3,484		-
Plan fiduciary net position - beginning		41,293,014		1,952,107	 3,217,735		46,462,856
Plan fiduciary net position - ending (b) **		51,293,938		2,323,129	 3,648,903		57,265,970
Employer's net pension liability - ending (a)-(b)	\$	2,015,960	\$	(239,216)	\$ 260,711	\$	2,037,455
Plan fiduciary net position as a percentage of							
the total pension liability	_	96.22%	_	111.48%	 93.33%	_	96.56%
Covered payroll	\$	4,299,649		n/a	n/a	\$	4,299,649
Employer's net pension liability as a percentage of							
covered payroll		46.89%		n/a	n/a		47.39%

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

# REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2020 (In thousands)

		QPP*	POVSF		PSOVSF			TOTAL
Total pension liability:								
Service cost	\$	1,375,436	\$	34,291	\$	73,382	\$	1,483,109
Interest		3,427,980		139,164		266,493		3,833,637
Differences between expected and actual experience		463,894		11,750		(33,990)		441,654
Benefit payments and withdrawals		(3,039,785)		(164,908)		(282,709)		(3,487,402)
Net change in total pension liability		2,227,525		20,297		23,176		2,270,998
Total pension liability - beginning		49,089,967		2,034,839		3,872,625		54,997,431
Total pension liability - ending (a)		51,317,492		2,055,136		3,895,801		57,268,429
Plan fiduciary net position:								
Employer contributions		2,458,907		-		-		2,458,907
Member contributions		280,129		-		-		280,129
Net investment income		1,896,012		(4,221)		146,514		2,038,305
Benefit payments and withdrawals		(3,039,785)		(164,908)		(282,709)		(3,487,402)
Administrative expenses		(26,803)		-		-		(26,803)
Other		6,488		29		24		6,541
Net change in plan fiduciary net position		1,574,948		(169,100)		(136,171)		1,269,677
Accrued Transfers from POLICE to POVSF and PSOVSF		(401,358)		144,808		256,550		-
Plan fiduciary net position - beginning		40,119,424		1,976,399		3,097,356		45,193,179
Plan fiduciary net position - ending (b) **		41,293,014		1,952,107		3,217,735		46,462,856
Employer's net pension liability - ending (a)-(b)	\$	10,024,478	\$	103,029	\$	678,066	\$	10,805,573
Plan fiduciary net position as a percentage of		00.470/		0.4.000/		00.50%		04.400/
the total pension liability		80.47%		94.99%		82.59%	_	81.13%
Covered payroll	\$	4,244,806		n/a		n/a	\$	4,244,806
Employer's net pension liability as a percentage of		226 469/		2/2		2/2		254 569/
covered payroll	_	236.16%		n/a		n/a		254.56%

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

# June 30, 2019 (In thousands)

		QPP*	POVSF			PSOVSF		TOTAL
Total pension liability:								
Service cost	\$	1,396,466	\$	41,454	\$	60,989	\$	1,498,909
Interest		3,386,097		138,805		258,094		3,782,996
Differences between expected and actual experience		(868,163)		133,399		(84,202)		(818,966)
Changes of assumptions		(349,830)		(136,776)		144,204		(342,402)
Benefit payments and withdrawals		(2,853,799)		(164,281)		(260,665)		(3,278,745)
Net change in total pension liability		710,771		12,601		118,420		841,792
Total pension liability - beginning		48,379,196		2,022,237		3,754,205		54,155,638
Total pension liability - ending (a)		49,089,967		2,034,838		3,872,625		54,997,430
Plan fiduciary net position:								
Employer contributions		2,558,256		-		-		2,558,256
Member contributions		278,087		-		-		278,087
Net investment income		2,581,702		103,694		176,148		2,861,544
Benefit payments and withdrawals		(2,853,799)		(164,281)		(260,665)		(3,278,745)
Administrative expenses		(29,005)		-		-		(29,005)
Other		4,108		40		35		4,183
Net change in plan fiduciary net position		2,539,349		(60,547)		(84,482)		2,394,320
Accrued Transfers from POLICE to POVSF and PSOVSF		(378,792)		(31,836)		410,628		-
Plan fiduciary net position - beginning		37,958,867		2,068,782		2,771,210		42,798,859
Plan fiduciary net position - ending (b) **		40,119,424		1,976,399		3,097,356		45,193,179
Employer's net pension liability - ending (a)-(b)	\$	8,970,543	\$	58,439	\$	775,269	\$	9,804,251
Plan fiduciary net position as a percentage of								
the total pension liability		81.73%		97.13%		79.98%	_	82.17%
Covered payroll	\$	4,047,772		n/a		n/a	\$	4,047,772
Employer's net pension liability as a percentage of covered payroll		221.62%		n/a		n/a		242.21%
oovorou payron	_	ZZ 1.UZ /0	_	11/4	_	11/4	_	Z7Z.Z 1 /0

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

# REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

# June 30, 2018 (In thousands)

		QPP*	POVSF		PSOVSF		TOTAL	
Total pension liability:								
Service cost	\$	1,281,545	\$	57,875	\$ 46,859	\$	1,386,279	
Interest		3,257,275		137,689	254,151		3,649,115	
Changes of benefit terms		90,363		10,231	4,077		104,671	
Differences between expected and actual experience		(138,508)		(45,327)	39,715		(144,120)	
Benefit payments and withdrawals		(2,774,387)		(162,149)	 (257,017)		(3,193,553)	
Net change in total pension liability		1,716,288		(1,681)	87,785		1,802,392	
Total pension liability - beginning		46,662,909		2,023,917	 3,666,420		52,353,246	
Total pension liability - ending (a)		48,379,197		2,022,236	3,754,205		54,155,638	
Plan fiduciary net position:								
Employer contributions		2,415,153		-	-		2,415,153	
Member contributions		267,031		-	-		267,031	
Net investment income		3,925,283		294	38,433		3,964,010	
Benefit payments and withdrawals		(2,774,387)		(162,149)	(257,017)		(3,193,553)	
Administrative expenses		(21,146)		-	-		(21,146)	
Other		3,408		31	 26		3,465	
Net change in plan fiduciary net position		3,815,342		(161,824)	(218,558)		3,434,960	
Accrued Transfers from POLICE to POVSF and PSOVSF		(1,280,000)		130,000	1,150,000		-	
Plan fiduciary net position - beginning		35,423,525		2,100,606	 1,839,768		39,363,899	
Plan fiduciary net position - ending (b) **		37,958,867		2,068,782	 2,771,210		42,798,859	
Employer's net pension liability - ending (a)-(b)	\$	10,420,330	\$	(46,546)	\$ 982,995	\$	11,356,779	
Plan fiduciary net position as a percentage of								
the total pension liability		78.46%		102.30%	 73.82%		79.03%	
Covered payroll	\$	3,673,054		n/a	n/a	\$	3,673,054	
Employer's net pension liability as a percentage of covered payroll		283.70%		n/a	n/a		309.19%	
55.5.54 payron	_	200.70		11/4	 11/ U		000.1070	

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

# June 30, 2017 (In thousands)

		QPP*	POVSF PSOVSF		TOTAL			
Total pension liability:								
Service cost	\$	1,221,506	\$	52,848	\$	46,062	\$	1,320,416
Interest		3,138,263		137,697		248,372		3,524,332
Differences between expected and actual experience		(632,751)		(16,264)		3,767		(645,248)
Benefit payments and withdrawals		(2,571,999)		(159,063)		(255,938)		(2,987,000)
Net change in total pension liability		1,155,019		15,218		42,263		1,212,500
Total pension liability - beginning		45,507,890		2,008,699		3,624,157		51,140,746
Total pension liability - ending (a)		46,662,909		2,023,917		3,666,420		52,353,246
Plan fiduciary net position:								
Employer contributions		2,293,840		-		_		2,293,840
Member contributions		276,301		-		-		276,301
Net investment income		4,079,747		166,755		40,392		4,286,894
Benefit payments and withdrawals		(2,571,999)		(159,063)		(255,938)		(2,987,000)
Administrative expenses		(18,917)		-		-		(18,917)
Other		10,381		74		52	_	10,507
Net change in plan fiduciary net position		4,069,353		7,766		(215,494)		3,861,625
Accrued Transfers from POLICE to POVSF and PSOVSF		(2,128,438)		708,636		1,419,802		-
Plan fiduciary net position - beginning		33,482,610		1,384,204		635,460		35,502,274
Plan fiduciary net position - ending (b) **		35,423,525		2,100,606		1,839,768		39,363,899
Employer's net pension liability - ending (a)-(b)	\$	11,239,384	\$	(76,689)	\$	1,826,652	\$	12,989,347
Plan fiduciary net position as a percentage of								
the total pension liability	_	75.91%		103.79%	_	50.18%	_	75.19%
Covered payroll	\$	3,509,985		n/a		n/a	\$	3,509,985
Employer's net pension liability as a percentage of		000 040/						070.070
covered payroll		320.21%		<u>n/a</u>		<u>n/a</u>	_	370.07%

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

# June 30, 2016 (In thousands)

		QPP*	POVSF		PSOVSF	TOTAL		
Total pension liability:					_		_	
Service cost	\$	1,241,707	\$	53,625	\$ 45,283	\$	1,340,615	
Interest		3,059,499		136,591	245,309		3,441,399	
Differences between expected and actual experience		216,334		13,273	3,854		233,461	
Changes of assumptions		709,886		32,650	52,144		794,680	
Benefit payments and withdrawals		(2,475,738)		(155,754)	 (246,959)		(2,878,451)	
Net change in total pension liability		2,751,688		80,385	99,631		2,931,704	
Total pension liability - beginning		42,756,202		1,928,314	 3,524,526		48,209,042	
Total pension liability - ending (a)		45,507,890		2,008,699	 3,624,157		51,140,746	
Plan fiduciary net position:								
Employer contributions		2,393,940		-	-		2,393,940	
Member contributions		249,921		-	-		249,921	
Net investment income		644,318		(133,017)	(107,767)		403,534	
Benefit payments and withdrawals		(2,475,738)		(155,754)	(246,959)		(2,878,451)	
Administrative expenses		(18,478)		-	-		(18,478)	
Other		6,479		147	 130		6,756	
Net change in plan fiduciary net position		800,442		(288,624)	(354,596)		157,222	
Accrued Transfers from POLICE to POVSF and PSOVSF		326,195		(250,751)	(75,444)		-	
Plan fiduciary net position - beginning		32,355,973		1,923,579	 1,065,500	_	35,345,052	
Plan fiduciary net position - ending (b) **		33,482,610		1,384,204	635,460		35,502,274	
Employer's net pension liability - ending (a)-(b)	\$	12,025,280	\$	624,495	\$ 2,988,697	\$	15,638,472	
Plan fiduciary net position as a percentage of								
the total pension liability		73.58%	_	68.91%	 17.53%	_	69.42%	
Covered payroll	\$	3,540,326		n/a	n/a	\$	3,540,326	
Employer's net pension liability as a percentage of covered payroll		339.67%		n/a	n/a		441.72%	
SSTORES PAYTOR	_	000.07.70	_	71/4	 . 1/ 4	_	7-71.72 70	

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

## June 30, 2015 (In thousands)

	QPP*	POVSF		PSOVSF		TOTAL	
Total pension liability:							
Service cost	\$ 1,227,570	\$	54,502	\$ 43,736	\$	1,325,808	
Interest	2,875,649		131,185	238,391		3,245,225	
Differences between expected and actual experience	(213,409)		(13,154)	11,145		(215,418)	
Benefit payments and withdrawals	 (2,360,484)		(151,333)	 (234,967)		(2,746,784)	
Net change in total pension liability	1,529,326		21,200	58,305		1,608,831	
Total pension liability - beginning	 41,226,876		1,907,114	3,466,221		46,600,211	
Total pension liability - ending (a)	 42,756,202		1,928,314	 3,524,526		48,209,042	
Plan fiduciary net position:							
Employer contributions	2,309,619		-	-		2,309,619	
Member contributions	241,102		-	-		241,102	
Net investment income	1,018,506		61,019	18,695		1,098,220	
Benefit payments and withdrawals	(2,360,484)		(151,333)	(234,967)		(2,746,784)	
Administrative expenses	(17,903)		-	-		(17,903)	
Reimbursement of benefit payments to PSOVSF from QPP	(313)		-	313		-	
Other	 4,554		25	 37		4,616	
Net change in plan fiduciary net position	1,195,081		(90,289)	(215,922)		888,870	
Accrued Transfers from POLICE to POVSF and PSOVSF	(590,000)		330,000	260,000		-	
Plan fiduciary net position - beginning	 31,750,892	-	1,683,868	 1,021,422		34,456,182	
Plan fiduciary net position - ending (b) **	32,355,973		1,923,579	 1,065,500		35,345,052	
Employer's net pension liability - ending (a)-(b)	\$ 10,400,229	\$	4,735	\$ 2,459,026	\$	12,863,990	
Plan fiduciary net position as a percentage of							
the total pension liability	 75.68%		99.75%	 30.23%	_	73.32%	
Covered payroll	\$ 3,512,778		n/a	n/a	\$	3,512,778	
Employer's net pension liability as a percentage of	000 070/		/-	- /-		200 049/	
covered payroll	 296.07%		n/a	 n/a	_	366.21%	

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

<sup>\*\*</sup> The beginning total pension liability does not agree to the prior year ending total pension liability because amounts were revised to include costs and liabilities associated with the Special Accidental Death Benefits payable under Section 208-F of the General Municipal Law.

<sup>\*\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

# REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

# June 30, 2014 (In thousands)

	QPP*		POVSF		PSOVSF	TOTAL		
Total pension liability:								
Service cost	\$	1,206,036	\$	52,629	\$ 43,088	\$	1,301,753	
Interest		2,753,264		129,659	234,394		3,117,317	
Changes of benefit terms		-		-	-		-	
Differences between expected and actual experience		-		-	-		-	
Changes of assumptions		-		-	-		-	
Benefit payments and withdrawals		(2,305,609)		(147,153)	 (229,461)		(2,682,223)	
Net change in total pension liability		1,653,691		35,135	48,021		1,736,847	
Total pension liability - beginning		39,259,678		1,871,979	 3,418,199		44,549,856	
Total pension liability - ending (a)		40,913,369		1,907,114	3,466,220		46,286,703	
Plan fiduciary net position:								
Employer contributions		2,320,910		-	-		2,320,910	
Member contributions		228,783		-	-		228,783	
Net investment income		5,071,530		76,054	(101)		5,147,483	
Benefit payments and withdrawals		(2,305,609)		(147,153)	(229,461)		(2,682,223)	
Administrative expenses		(17,450)		-	-		(17,450)	
Reimbursement of benefit payments to PSOVSF from QPP		(231,024)		-	231,024		-	
Other		6,811		80	 20		6,911	
Net change in plan fiduciary net position		5,073,951		(71,019)	1,482		5,004,414	
Accrued Transfers from POLICE to POVSF and PSOVSF		(2,310,000)		1,290,000	1,020,000		-	
Plan fiduciary net position - beginning		28,986,941		464,887	 (60)		29,451,768	
Plan fiduciary net position - ending (b) **		31,750,892		1,683,868	 1,021,422		34,456,182	
Employer's net pension liability - ending (a)-(b)	\$	9,162,477	\$	223,246	\$ 2,444,798	\$	11,830,521	
Plan fiduciary net position as a percentage of the total pension liability								
		77.61%		88.29%	 29.47%		74.44%	
Covered payroll	\$	3,420,312		n/a	n/a	\$	3,420,312	
Employer's net pension liability as a percentage of		00=		,	,		0.45	
covered payroll		267.88%		n/a	 n/a		345.89%	

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

<sup>\*\*</sup> Includes liabilities from Special Accidental death benefits pursuant to Section 208-F of the General Municipal Law.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF EMPLOYER CONTRIBUTIONS

## Fiscal years ended June 30, (In thousands)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 2,490,134	\$ 2,437,728	\$ 2,458,907	\$ 2,558,256	\$ 2,415,153	\$ 2,293,840	\$ 2,393,940	\$ 2,309,619	\$ 2,320,910	\$ 2,424,690
Contributions in relation to the actuarially determined contribution	2,490,134	2,437,728	2,458,907	2,558,256	2,415,153	2,293,840	2,393,940	2,309,619	2,320,910	2,424,690
Contribution deficiency (excess)	<u>\$</u> -	\$ -	<u>\$ -</u>	\$ -	\$ -	<u>\$</u> -	<u>\$ -</u>	<u>\$ -</u>	\$ -	<u>\$ -</u>
Covered payroll	\$ 4,262,626	\$ 4,299,649	\$ 4,244,806	\$ 4,047,772	\$ 3,673,054	\$ 3,509,985	\$ 3,540,326	\$ 3,512,778	\$ 3,420,312	\$ 3,459,872
Contributions as a percentage of covered payroll*	58.418%	56.696%	57.927%	63.202%	65.753%	65.352%	67.619%	65.749%	67.857%	70.080%

<sup>\*</sup> Projected payroll at time 1.0 under previous roll-forward methodology through 2018. Actual payroll at valuation date (time = 0) beginning in 2021.

See Report of Independent Certified Public Accountants.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF EMPLOYER CONTRIBUTIONS

#### Note 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 2022 contributions were determined using an actuarial valuation as of June 30, 2020). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016
Actuarial cost method	Entry age	Entry age	Entry age	Entry age	Entry age
Amortization method for unfunded actuarial accrued liabilities:					
Initial unfunded	Increasing dollar	Increasing dollar	Increasing dollar	Increasing dollar	Increasing dollar
Post-2010 unfundeds	Level dollar	Level dollar	Level dollar	Level dollar	Level dollar
Remaining amortization period:					
Initial unfunded	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)
2011 Actuarial gain/loss	6 years (closed)	7 years (closed)	8 years (closed)	9 years (closed)	10 years (closed)
2012 Actuarial gain/loss	7 years (closed)	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)
2013 Actuarial gain/loss	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)
2014 Actuarial gain/loss	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)
2014 Assumption change	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)
2015 Actuarial gain/loss	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)
2016 Actuarial gain/loss	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
2016 SADB	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
2016 Enhanced ADR	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)
2017 Actuarial gain/loss	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA
2017 VSF Escalation offset	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	NA
2017 Non-uniformed service	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	NA
2017 Assumptions/methods	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	NA
2018 Actuarial gain/loss	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2019 Actuarial gain/loss	14 years (closed)	15 years (closed)	NA	NA	NA
2019 Assumptions/methods	19 years (closed)	20 years (closed)	NA	NA	NA
2020 Actuarial gain/loss	15 years (closed)	NA	NA	NA	NA
Actuarial asset valuation method <sup>1</sup>	Five-year moving average of market values with a "Market Value Restart" as of June 30, 2019.	Five-year moving average of market values with a "Market Value Restart" as of June 30, 2019.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.

<sup>&</sup>lt;sup>1</sup> As of June 30, 2014 (Lag) valuation, the AVA is constrained to be no more than 20% of Market Value. See Report of Independent Certified Public Accountants.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF EMPLOYER CONTRIBUTIONS

#### Note 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 2022 contributions were determined using an actuarial valuation as of June 30, 2020). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011
Actuarial cost method	Entry age				
Amortization method for unfunded					
actuarial accrued liabilities:	L	1	1	1	L
Initial unfunded	Increasing dollar				
Post-2010 unfundeds	Level dollar				
Remaining amortization period:					
Initial unfunded	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)
2011 Actuarial gain/loss	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
2012 Actuarial gain/loss	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA
2013 Actuarial gain/loss	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2014 Actuarial gain/loss	14 years (closed)	15 years (closed)	NA	NA	NA
2014 Assumption change	19 years (closed)	20 years (closed)	NA	NA	NA
2015 Actuarial gain/loss	15 years (closed)	NA	NA	NA	NA
2016 Actuarial gain/loss	NA	NA	NA	NA	NA
2016 SADB	NA	NA	NA	NA	NA
2016 Enhanced ADR	NA	NA	NA	NA	NA
2017 Actuarial gain/loss	NA	NA	NA	NA	NA
2017 VSF Escalation offset	NA	NA	NA	NA	NA
2017 Non-uniformed service	NA	NA	NA	NA	NA
2017 Assumptions/methods	NA	NA	NA	NA	NA
2018 Actuarial gain/loss	NA	NA	NA	NA	NA
2019 Actuarial gain/loss	NA	NA	NA	NA	NA
2019 Assumptions/methods	NA	NA	NA	NA	NA
2020 Actuarial gain/loss	NA	NA	NA	NA	NA
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Actuarial asset valuation method <sup>1</sup>	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.

 $<sup>^{\</sup>rm 1}$  As of June 30, 2014 (Lag) valuation, the AVA is constrained to be no more than 20% of Market Value.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF EMPLOYER CONTRIBUTIONS

Valuation Dates	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016
Actuarial assumptions:					
Assumed rate of return <sup>2</sup>	7.0% per annum, net of investment expenses.				
Post-retirement mortality <sup>3</sup>	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2016
Active service: withdrawal, death, disability, service retirement <sup>3</sup>	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2012
Salary increases <sup>2</sup>	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.
Cost-of-living adjustments <sup>2</sup>	1.5% per annum for AutoCOLA. 2.5% per annum for Escalation.	1.5% per annum for AutoCOLA. 2.5% per annum for Escalation.	1.5% per annum for AutoCOLA. 2.5% per annum for Escalation.	1.5% per annum for AutoCOLA. 2.5% per annum for Escalation.	1.5% per annum for AutoCOLA. 2.5% per annum for Escalation.

 $<sup>^{2}</sup>$  Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

<sup>&</sup>lt;sup>3</sup> As of June 30, 2019, applies mortality improvement scale MP-2020 published by the Society of Actuaries to post-retirement mortality, active ordinary death mortality rates, and pre-commencement mortality rates for terminated vesteds. Prior to June 30, 2019, MP-2018 was applied to post-retirement mortality. Prior to June 30, 2017, MP-2015 was applied to post-retirement mortality. Prior to June 30, 2014, Scale AA was applied to post-retirement mortality.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF EMPLOYER CONTRIBUTIONS

Valuation Dates	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011
Actuarial assumptions: Assumed rate of return <sup>2</sup>	7.0% per annum, net of investment expenses.				
Post-retirement mortality <sup>3</sup>	Tables adopted by Board of				
	Trustees during Fiscal Year				
	2016	2016	2012	2012	2012
Active service: withdrawal, death, disability, service retirement <sup>3</sup>	Tables adopted by Board of				
	Trustees during Fiscal Year				
	2012	2012	2012	2012	2012
Salary increases <sup>2</sup>	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.
Cost-of-living adjustments <sup>2</sup>	1.5% per annum for				
	AutoCOLA. 2.5% per annum				
	for Escalation.				

 $<sup>^{2}</sup>$  Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

<sup>&</sup>lt;sup>3</sup> As of June 30, 2019, applies mortality improvement scale MP-2020 published by the Society of Actuaries to post-retirement mortality, active ordinary death mortality rates, and pre-commencement mortality rates for terminated vesteds. Prior to June 30, 2019, MP-2018 was applied to post-retirement mortality. Prior to June 30, 2017, MP-2015 was applied to post-retirement mortality. Prior to June 30, 2014, Scale AA was applied to post-retirement mortality.

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) SCHEDULE OF INVESTMENT RETURNS

The following table displays annual money-weighted rate of return, net of investment expense, for each of the Funds for each of the past nine fiscal years:

Fiscal Years Ended	QPP	PSOVSF	POVSF
June 30, 2022	-7.12%	-13.31%	-13.48%
June 30, 2021	26.37%	25.95%	25.40%
June 30, 2020	4.74%	4.07%	4.33%
June 30, 2019	6.81%	9.27%	5.77%
June 30, 2018	9.60%	4.42%	6.71%
June 30, 2017	13.19%	12.85%	13.80%
June 30, 2016	1.18%	-1.06%	-0.33%
June 30, 2015	3.83%	5.16%	6.34%
June 30, 2014	17.69%	16.16%	19.44%

Note: In accordance with paragraph 50 of GASB Statement No. 67, *Financial Reporting for Pension Plans* ("GASB 67"), this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB 67. Additional years will be added until the 10-year requirement is met.

Fund Manager	Asset Class	<u>Total Fees</u>
Barings-Bank Loans	Bank Loans	\$ 2,753
Credit Suisse-Bank Loans	Bank Loans	769
Advent-Convertible Bonds	Convertible Bonds	1,773,241
Victory-Convertible Bonds	Convertible Bonds	1,553,327
GIA-Core Plus	CorePlus	161,572
LM Capital-Core Plus	CorePlus	103,798
Pugh-CorePlus	CorePlus	61,773
BlackRock-Credit	Credit	1,444,199
Fidelity-Credit	Credit	563,084
Neuberger Berman-Credit	Credit	395,756
Prudential-Credit	Credit	182,394
T Rowe Price-Credit	Credit	100,622
Taplin-Credit	Credit	86,503
Voya-Credit	Credit	49,481
Algert-EAFE SCC	EAFE	230,006
Dundas-EAFE ACG - Xponance	EAFE	66,899
Foresight-EAFE LMCV - Xponance	EAFE	63,461
Martin-EAFE ACG - Xponance	EAFE	61,877
Osmosis-EAFE ACV - Xponance	EAFE	58,141
Redwood-EAFE ACG - Xponance	EAFE	49,276
BlackRock MSCI-EM Core	Emerging Markets	2,857,485
Acadian-EM	Emerging Markets	1,670,110
Aubrey-EM ACG - Xponance	Emerging Markets	1,613,454
Baillie Gifford-EM	Emerging Markets	1,606,150
DFA-EM	Emerging Markets	1,568,932
North of South-EM ACV - Xponance	Emerging Markets	1,514,316
Pzena-EM ACV	Emerging Markets	89,238
Sands-EM LCG	Emerging Markets	74,928
UBS-EM ACC	Emerging Markets	58,408
Brigade-High Yield	Enhanced/High Yield	1,954,000
Eaton Vance-High Yield	Enhanced/High Yield	1,706,400
Mackay Shields-High Yield	Enhanced/High Yield	1,409,163
Neuberger Berman-High Yield	Enhanced/High Yield	1,335,972
Nomura-High Yield	Enhanced/High Yield	1,265,316
Oaktree-High Yield	Enhanced/High Yield	1,238,413
Shenkman-High Yield	Enhanced/High Yield	1,206,175
T Rowe Price-High Yield	Enhanced/High Yield	1,014,741
RBC Access MBS	ETI Investments	\$ 554,719

Fund Manager	Asset Class	<u>Total Fees</u>
AFL-CIO Housing Investment Trust	ETI Investments	\$ 162,884
AlphaQuest Original	Hedge Funds	32,755,454
Altimeter Partners Fund	Hedge Funds	7,529,753
Caspian Select Credit Fund	Hedge Funds	6,048,480
D.E. Shaw Composite Fund	Hedge Funds	3,491,477
DL Partners Opp	Hedge Funds	3,066,534
Florin Court Capital	Hedge Funds	2,676,176
Gemsstock Fund	Hedge Funds	2,169,845
Gresham Quant ACAR Fund	Hedge Funds	1,701,621
GSA Trend Fund	Hedge Funds	1,632,132
Key Square Partners	Hedge Funds	863,519
Lansdowne Euro Absolute Opp Fd	Hedge Funds	858,533
Luxor Capital Partners	Hedge Funds	848,948
SRS Partners US	Hedge Funds	653,647
Standard General Fund II	Hedge Funds	625,953
Turiya Fund	Hedge Funds	600,809
Voloridge Fund	Hedge Funds	548,210
Voloridge Sustainability Fund Master	Hedge Funds	478,684
Voloridge Trading Aggressive Fund	Hedge Funds	160,579
Actis Energy 4	Infrastructure	4,715,353
Actis Energy 5 A	Infrastructure	1,892,463
Ardian Infra Fund V	Infrastructure	1,653,777
ASF VII Infrastructure B	Infrastructure	1,544,496
ASF VIII Infrastructure B	Infrastructure	1,088,194
Axium Infrastructure Canada II Class E	Infrastructure	910,108
Axium Infrastructure Canada II Class H	Infrastructure	850,115
Axium Infrastructure US II Class A	Infrastructure	842,456
Axium Infrastructure US II Class G	Infrastructure	694,509
Basalt Infrastructure Partners III A	Infrastructure	613,355
BIF IV Co-Invest Snow	Infrastructure	595,312
BIS NYC Infra Emerging Manager Opp Fund	Infrastructure	567,943
Brookfield Infra Fund III Co-Invest	Infrastructure	401,810
Brookfield Infra Fund IV-B	Infrastructure	384,132
Brookfield Infrastructure Fund II	Infrastructure	354,584
Brookfield Infrastructure Fund III	Infrastructure	351,278
EIG Energy Ptnrs Glbl Private Debt FD A	Infrastructure	330,847
EQT Infra IV Co-Inv F SCSP Connect	Infrastructure	304,021
EQT Infra IV Co-Inv Saber	Infrastructure	\$ 279,849

Fund Manager	Asset Class	<u>Total Fees</u>
EQT Infrastructure III	Infrastructure	\$ 279,003
EQT Infrastructure IV	Infrastructure	254,620
EQT Infrastructure V NO.2 SCSP	Infrastructure	157,338
Global Energy & Power Infra Fund II	Infrastructure	144,516
Global Energy & Power Infra Fund III	Infrastructure	81,175
Global Infra Partners IV-A/B	Infrastructure	34,438
Global Infrastructure Partners III	Infrastructure	26,915
IFM Global Infrastructure	Infrastructure	12,562
InfraVia European Fund V	Infrastructure	2,915
KKR Global Infrastructure Investors III	Infrastructure	2,219
Stonepeak Infra IV Co-Invest Tiger	Infrastructure	1,967
Stonepeak Infrastructure Fund IV	Infrastructure	1,124
SSGA-IT Treasury 1-10Y	Intermediate Term Treasury	103,815
BlackRock-LI Treasury	Long Intermediate Treasury	14,459
SSGA-LI Treasury	Long Intermediate Treasury	8,932
SSGA-LT Treasury 10Y Plus	Long Term Treasury	145,634
BlackRock-Mortgages	Mortgages	691,992
Wellington-Mortgages	Mortgages	611,030
Golden Tree	OFI	4,857,756
400 Capital Centre Street	OFI	4,034,953
Angelo Gordon Ct St Ptnrs	OFI	2,410,851
Apollo Centre Street Partnership	OFI	1,517,123
Ares Centre Street Partnership	OFI	1,425,856
Brightwood Capital Advisors III	OFI	1,111,225
Brightwood Capital Advisors IV	OFI	1,076,218
Contrarian C A	OFI	1,049,880
FCO MA Centre Street II ER	OFI	891,239
FCO MA Centre Street II EXP ER	OFI	857,827
Fortress Ctr St Ptnrs	OFI	762,706
GCM Grosvenor Emerging OFI Manager	OFI	641,822
ICG Centre Street Partnership	OFI	624,679
KKR NYC Credit B	OFI	611,639
KKR NYC Credit C	OFI	556,566
Lone Star Fund VIII	OFI	515,528
Maranon Capital	OFI	325,529
Marathon Centre Street Partnership	OFI	289,155
Oak Hill Centre Street Partnership	OFI	198,223
Oaktree Opp Fd IX	OFI	\$ 181,995

Fund Manager	Asset Class	<u>Total Fees</u>
Torchlight Debt Opportunity Fund VI	OFI	\$ 158,696
Torchlight Debt Opportunity Fund VII	OFI	97,334
Torchlight Investors	OFI	(2,874,812)
ACON Equity Partners III	Private Equity	9,958,081
Aisling Capital II	Private Equity	7,491,899
Aisling Capital III	Private Equity	6,159,307
Altaris Health Partners III	Private Equity	5,083,688
American Securities Partners VI	Private Equity	5,030,608
American Securities Partners VII	Private Equity	4,904,432
Ampersand 2011	Private Equity	4,883,623
Apax IX USD	Private Equity	4,471,675
Apax X USD	Private Equity	4,062,001
Apollo Investment Fund IX	Private Equity	3,630,114
Apollo Investment Fund V	Private Equity	3,611,854
Apollo Investment Fund VI	Private Equity	3,296,853
Apollo Investment Fund VII	Private Equity	3,225,451
Apollo Investment Fund VIII	Private Equity	2,798,656
Ares Corporate Opportunities Fund I	Private Equity	2,364,168
Ares Corporate Opportunities Fund II	Private Equity	2,232,350
Ares Corporate Opportunities Fund III	Private Equity	2,190,627
Ares Corporate Opportunities Fund IV	Private Equity	2,187,514
Ares Corporate Opportunities Fund V	Private Equity	1,886,415
Arlington Capital Partners II	Private Equity	1,779,185
Arsenal Capital Partners II	Private Equity	1,686,311
ASF VI B	Private Equity	1,623,784
ASF VI B NYC Co-Invest	Private Equity	1,608,125
ASF VII B	Private Equity	1,600,890
ASF VII B NYC Co-Invest	Private Equity	1,560,439
ASF VIII B	Private Equity	1,512,871
ASF VIII B Co-Invest	Private Equity	1,492,749
Atlantic Equity Partners IV	Private Equity	1,450,895
Avista Capital Partners	Private Equity	1,411,075
Avista Capital Partners II	Private Equity	1,392,756
AXA Secondary Fund V B	Private Equity	1,391,016
BC European Capital IX	Private Equity	1,371,259
BC European Capital X	Private Equity	1,358,449
BC European Capital X SideCar	Private Equity	1,305,419
BC Partners XI	Private Equity	\$ 1,257,874

Fund Manager	Asset Class	<u>Total Fees</u>
BC Partners XI Co-Invest	Private Equity	\$ 1,175,007
BDCM Opportunity Fund III	Private Equity	1,140,102
Blackstone Capital Partners IV	Private Equity	1,097,935
Blackstone Capital Partners V	Private Equity	1,094,375
Blackstone Capital Partners VI	Private Equity	1,026,486
Blackstone Capital Partners VIII	Private Equity	1,022,927
Blue Wolf Capital Fund II	Private Equity	973,694
Bridgepoint Europe IV	Private Equity	905,300
Bridgepoint Europe V	Private Equity	875,793
Bridgepoint Europe V Co-Invest	Private Equity	868,929
Bridgepoint Europe VI	Private Equity	868,694
Bridgepoint Europe VI Co-Invest	Private Equity	839,546
Carlyle Partners V	Private Equity	832,049
Carlyle Partners VI	Private Equity	797,352
Carlyle Partners VI SideCar	Private Equity	796,232
Catterton Partners VI	Private Equity	785,870
Centerbridge Capital Partners III	Private Equity	781,752
Centerbridge Capital Partners IV	Private Equity	776,596
Centerbridge Capital Partners IV Co-Inv	Private Equity	762,543
Clearlake Capital Partners VI	Private Equity	755,859
Clearlake Capital Partners VII	Private Equity	748,188
ComVest Investment Partners III	Private Equity	744,701
ComVest Investment Partners IV	Private Equity	717,027
Constellation Venture Capital III	Private Equity	690,673
Crestview Partners II	Private Equity	684,665
Crestview Partners III	Private Equity	684,060
Crestview Partners III SideCar	Private Equity	639,769
Crestview Partners IV	Private Equity	637,330
Crestview Partners IV SideCar	Private Equity	609,267
CVC Capital Partners VI	Private Equity	597,496
CVC Capital Partners VII	Private Equity	549,776
CVC Capital Partners VIII A	Private Equity	548,024
CVC European Equity Partners V	Private Equity	538,283
CVC European Equity Partnership III USD	Private Equity	518,022
EQT IX Co-Invest	Private Equity	516,852
EQT IX USD	Private Equity	438,953
EQT VI	Private Equity	429,234
EQT VII	Private Equity	\$ 420,127

Fund Manager	Asset Class	<u>Total Fees</u>
EQT VIII	Private Equity	\$ 401,595
EQT VIII Co-Invest	Private Equity	400,360
Euro Choice IV	Private Equity	395,285
Falconhead Capital Partners II	Private Equity	393,718
First Reserve Fund XI	Private Equity	371,130
First Reserve Fund XII	Private Equity	344,095
FS Equity Partners V	Private Equity	343,967
FS Equity Partners VI	Private Equity	337,317
FTV IV	Private Equity	307,406
FTV V	Private Equity	305,615
FTV VI	Private Equity	293,042
FTV VII	Private Equity	290,753
FTVENTURES III	Private Equity	280,750
GCM Emerging Manager Fund	Private Equity	279,077
GF Capital Private Equity Fund	Private Equity	273,392
Gleacher Mezzanine Fund II	Private Equity	255,714
Grain Comm Opp Fd II	Private Equity	235,554
Grain Communications Opportunity FD III	Private Equity	232,913
Green Equity Investors VI	Private Equity	226,717
Green Equity Investors VII	Private Equity	223,322
Green Equity Investors VIII	Private Equity	214,150
Green Equity Investors VIII Co-Invest	Private Equity	213,893
Grey Mountain Partners Fund III	Private Equity	212,725
GSO Capital Opportunities Fund	Private Equity	203,394
HarbourVest Centre Street Co-Investment	Private Equity	196,921
Heartwood Partners II	Private Equity	189,684
Heartwood Partners III	Private Equity	185,996
Hg Genesis 9 A	Private Equity	185,621
Hg N1 Co-Invest	Private Equity	184,667
Highland Consumer Fund I	Private Equity	170,815
ICG Strategic Equity Co-Invest Fund IV	Private Equity	163,821
ICG Strategic Equity Fund IV	Private Equity	155,717
ICV Partners III	Private Equity	149,315
ICV Partners IV	Private Equity	146,987
Incline Equity Partners III	Private Equity	138,939
Insight Partners XII	Private Equity	132,247
Insight Partners XII Buyout Annex Fund	Private Equity	129,134
Intermedia Partners VII	Private Equity	\$ 125,054

Fund Manager	Asset Class	<u>Total Fees</u>
JP Morgan Fleming Tranche A	Private Equity	\$ 121,969
KKR Americas Fund XII	Private Equity	118,579
KKR Asian Fund IV	Private Equity	108,617
KKR Europe V	Private Equity	101,080
KKR North America Fund XIII SCSP	Private Equity	101,037
Landmark - NYC Fund I	Private Equity	100,839
Landmark Equity Partners XIII	Private Equity	100,238
Landmark Equity Partners XIV	Private Equity	99,573
Landmark Equity Partners XV	Private Equity	92,665
Levine Leichtman Capital Partners IV	Private Equity	85,856
Lexington Capital Partners IX	Private Equity	83,326
Lexington Capital Partners IX Co-Invest	Private Equity	76,944
Lexington Capital Partners VII	Private Equity	75,112
Lexington Capital Partners VIII	Private Equity	73,503
Lincolnshire Equity Fund III	Private Equity	71,675
Lincolnshire Equity Fund IV	Private Equity	70,997
Lindsay Goldberg V	Private Equity	69,136
MidOcean Partners III	Private Equity	68,005
Milestone Partners III	Private Equity	62,934
Mill City Fund II	Private Equity	62,074
Montreux Equity Partners IV	Private Equity	61,230
NB Co-Investment Partners	Private Equity	53,932
NB Strategic Co-Invest II	Private Equity	51,655
New Mainstream Capital II	Private Equity	50,099
New Mountain Partners II	Private Equity	47,651
New Mountain Partners III	Private Equity	45,811
NGN BioMed Opportunity II	Private Equity	45,320
NMS Fund III	Private Equity	44,886
NorthBound Emerging Manager Custom Fund	Private Equity	40,878
NYC-NorthBound Emerging Managers Program	Private Equity	40,302
Olympus Capital Asia III	Private Equity	38,566
Olympus Growth Fund VI	Private Equity	37,793
One Rock Capital Partners III	Private Equity	37,286
Onex Partners III	Private Equity	36,445
Paladin III	Private Equity	35,013
Palladium Equity Partners III	Private Equity	34,729
Palladium Equity Partners IV	Private Equity	34,689
Palladium V	Private Equity	\$ 33,998

Fund Manager	Asset Class	<u>Total Fees</u>
Patriot Financial Partners II	Private Equity	\$ 33,602
Patriot Partners III	Private Equity	33,164
PCG Clean Energy Tech Fund East	Private Equity	32,379
PECP V Co-Investment	Private Equity	31,432
Pegasus Partners IV	Private Equity	30,999
Pegasus Partners V	Private Equity	29,255
Permira IV	Private Equity	28,793
Pine Brook Capital Partners	Private Equity	28,116
Platinum Equity Capital Partners IV	Private Equity	26,549
Platinum Equity Capital Partners V	Private Equity	25,334
Platinum Equity Capital Partners-C III	Private Equity	24,990
Platinum Equity Small Cap Fund	Private Equity	24,968
Platinum Equity Titan IV Co-Investors	Private Equity	23,249
PSG V	Private Equity	22,852
Quaker BioVentures II	Private Equity	22,045
Raine Partners II	Private Equity	18,705
Raine Partners III	Private Equity	17,668
Reverence Capital Partners II	Private Equity	16,487
Reverence Capital Partners II Co-Invest	Private Equity	16,177
Reverence Capital Partners III	Private Equity	15,349
Reverence Capital Partners III Co-Invest	Private Equity	13,379
Riverstone/Carlyle Global Energy&PowerIV	Private Equity	12,509
RRE Ventures IV	Private Equity	11,454
Scale Venture Partners III	Private Equity	11,233
SCP Private Equity Partners II	Private Equity	10,638
SCP Vitalife Partners II	Private Equity	9,948
Siris Partners III	Private Equity	7,634
Siris Partners IV	Private Equity	6,716
Snow Phipps Group	Private Equity	6,636
Snow Phipps Group II	Private Equity	5,599
Stellex Capital Partners	Private Equity	5,534
Stellex Capital Partners II	Private Equity	5,079
Summit Partners Growth Equity VIII-A	Private Equity	5,024
Terra Firma Capital Partners III	Private Equity	4,993
The Resolute Fund V	Private Equity	4,738
Thoma Bravo Fund XV	Private Equity	4,264
Thoma Bravo XV Co-Invest	Private Equity	4,121
Thomas, McNerney & Partners II	Private Equity	\$ 3,969

Fund Manager	Asset Class		Total Fees
Trident V	Private Equity	\$	3,744
Trilantic Capital Partners IV	Private Equity	-	3,584
Trilantic Capital Partners V	Private Equity		3,158
Trilantic Capital Partners VI N. America	Private Equity		2,844
United States Power Fund III	Private Equity		2,809
USPF II Institutional Fund	Private Equity		2,731
Valor Equity Partners III	Private Equity		2,489
Valor Equity Partners IV	Private Equity		2,242
Valor Equity Partners V	Private Equity		1,935
Vista Equity Partners Fund III	Private Equity		1,726
Vista Equity Partners Fund IV	Private Equity		1,525
Vista Equity Partners Fund V	Private Equity		1,261
Vista Equity Partners Fund VI	Private Equity		1,039
Vista Equity Partners Fund VII	Private Equity		978
Vista Foundation Fund II	Private Equity		926
Vistria Fund III	Private Equity		890
Vistria Fund IV	Private Equity		814
Warburg Pincus Financial Sector Fund	Private Equity		532
Warburg Pincus Financial Sector II	Private Equity		240
Warburg Pincus Global Growth	Private Equity		163
Warburg Pincus XI	Private Equity		70
Warburg Pincus XII	Private Equity		(7,468)
WCAS XI	Private Equity		(12,603)
WCAS XII	Private Equity		(39,515)
WCAS XIII	Private Equity		(111,150)
Webster Capital III	Private Equity		(150,607)
Wellspring Capital Partners V	Private Equity		(233,546)
Yucaipa American Alliance I	Private Equity		(1,173,601)
Yucaipa American Alliance II	Private Equity		(1,234,249)
Yucaipa Corporate Initiatives II	Private Equity		(4,630,337)
Harrison St Core Prop SideCar	Private Real Estate Core		1,033,642
Harrison Street Core Prop Fd	Private Real Estate Core		760,607
Heitman America Real Estate Trust	Private Real Estate Core		388,587
Heitman Capital Management LLC	Private Real Estate Core		301,807
JP Morgan Strategic Property Fund	Private Real Estate Core		242,305
Kayne Anderson Core Real Estate	Private Real Estate Core		205,375
LaSalle Property Fund	Private Real Estate Core		202,501
MetLife Core Property Fund	Private Real Estate Core	\$	187,696

Fund Manager	Asset Class	Total Fees
Prudential PRISA	Private Real Estate Core	\$ 150,081
RREEF America REIT II	Private Real Estate Core	134,891
UBS Trumbull Property Fund	Private Real Estate Core	10,102
Almanac Realty Securities VI	Private Real Estate CorePlus	7,709,608
Almanac Realty Securities VI SideCar	Private Real Estate CorePlus	2,012,869
Almanac Realty Securities VII	Private Real Estate CorePlus	964,593
Almanac Realty Securities VII SideCar	Private Real Estate CorePlus	875,450
Almanac Realty Securities VIII	Private Real Estate CorePlus	804,605
Almanac Realty Securities VIII SideCar	Private Real Estate CorePlus	794,103
Ares Industrial Real Estate Fund	Private Real Estate CorePlus	585,925
Artemis Co-Investment	Private Real Estate CorePlus	439,062
Artemis Income & Growth	Private Real Estate CorePlus	282,952
Brookfield Premier Real Estate Partners	Private Real Estate CorePlus	282,030
Carlyle Property Investors	Private Real Estate CorePlus	280,908
Cortland Growth and Income	Private Real Estate CorePlus	280,141
Exeter Core Industrial Club Fund II	Private Real Estate CorePlus	239,851
Exeter Industrial Core Fund III	Private Real Estate CorePlus	232,167
Jamestown Premier Property Fund	Private Real Estate CorePlus	196,880
JP Morgan Special Situation Property	Private Real Estate CorePlus	156,582
Lion Industrial Trust	Private Real Estate CorePlus	116,124
NYC Asset #2 - Related (fka Sandy)	Private Real Estate CorePlus	87,986
Prologis Targeted U.S. Logistic Fund	Private Real Estate CorePlus	83,830
Prudential PRISA II	Private Real Estate CorePlus	81,217
TPG RE Thematic Advantage Core-Plus IV	Private Real Estate CorePlus	63,488
USAA Eagle Real Estate Feeder 1	Private Real Estate CorePlus	30,279
Aermont Capital Real Estate Fund IV	Private Real Estate Non-Core	6,772,916
AG Realty Fund VII	Private Real Estate Non-Core	6,252,189
Almanac Realty Securities IX	Private Real Estate Non-Core	4,493,941
American Value Partners Fund I	Private Real Estate Non-Core	4,033,398
Apollo Real Estate Investment Fund V	Private Real Estate Non-Core	3,850,016
Ares European Real Estate Fund III	Private Real Estate Non-Core	3,488,035
Avanath Affordable Housing II	Private Real Estate Non-Core	2,665,873
BIG Real Estate Fund I	Private Real Estate Non-Core	1,952,825
Big Real Estate Fund II	Private Real Estate Non-Core	1,569,686
Blackstone RE Partners EUR VI	Private Real Estate Non-Core	1,344,524
Blackstone RE Partners Europe III	Private Real Estate Non-Core	1,239,789
Blackstone RE Partners Europe IV	Private Real Estate Non-Core	1,203,140
Blackstone RE PTNRS IX	Private Real Estate Non-Core	\$ 1,200,606

Fund Manager	<u>Asset Class</u>	<u>Total Fees</u>
Blackstone Real Estate Partners IV	Private Real Estate Non-Core	\$ 1,197,305
Blackstone Real Estate Partners VI	Private Real Estate Non-Core	1,030,638
Blackstone Real Estate Partners VII	Private Real Estate Non-Core	946,228
Blackstone Real Estate Partners VIII	Private Real Estate Non-Core	892,559
Brookfield Strategic RE Partners I	Private Real Estate Non-Core	877,518
Brookfield Strategic RE Partners III	Private Real Estate Non-Core	863,591
Canyon Johnson Urban Fund III	Private Real Estate Non-Core	799,096
Carlyle Realty Partners IX	Private Real Estate Non-Core	773,107
Carlyle Realty Partners V	Private Real Estate Non-Core	583,191
Carlyle Realty Partners VI	Private Real Estate Non-Core	572,676
Carlyle Realty Partners VII	Private Real Estate Non-Core	494,872
CIREP Centre Street	Private Real Estate Non-Core	491,093
Colony Investors VIII	Private Real Estate Non-Core	464,909
DivcoWest Fund III	Private Real Estate Non-Core	407,154
DivcoWest Fund IV	Private Real Estate Non-Core	347,163
DivcoWest Fund V	Private Real Estate Non-Core	323,730
Divcowest Fund VI-A	Private Real Estate Non-Core	276,509
DRA Growth and Income Fund IX	Private Real Estate Non-Core	261,530
DRA Growth and Income Fund X	Private Real Estate Non-Core	227,465
Elmtree U.S. Net Lease Fund IV	Private Real Estate Non-Core	220,510
EPISO IV	Private Real Estate Non-Core	213,738
Exeter Industrial Value Fund IV	Private Real Estate Non-Core	200,983
Exeter Industrial Value Fund V	Private Real Estate Non-Core	195,787
GreenOak Asia USD III	Private Real Estate Non-Core	192,420
H/2 Special Opportunities II	Private Real Estate Non-Core	181,220
H/2 Special Opportunities III	Private Real Estate Non-Core	158,906
H/2 Special Opportunities IV	Private Real Estate Non-Core	97,107
KKR RE Security Dislocation Opp Colnvest	Private Real Estate Non-Core	88,226
KKR Real Estate Credit Opp Prtnrs Agg I	Private Real Estate Non-Core	65,767
KKR Real Estate Partners Americas II	Private Real Estate Non-Core	57,111
KKR Real Estate Partners Americas III	Private Real Estate Non-Core	55,846
KKR Real Estate Partners Europe II USD	Private Real Estate Non-Core	42,404
Lone Star Real Estate Fund III	Private Real Estate Non-Core	41,262
Lone Star Real Estate Fund V	Private Real Estate Non-Core	40,620
Metropolitan Workforce Housing Fund, LLC	Private Real Estate Non-Core	38,719
NYC Asset #1 - Vanbarton (fka Emmes)	Private Real Estate Non-Core	37,456
NYC Asset #3 - Hudson	Private Real Estate Non-Core	32,739
PGIM Real Estate Capital VII	Private Real Estate Non-Core	\$ 24,912

Fund Manager	Asset Class	Total Fees
Wellington-US MCC	U.S. Equity	\$ 233
William Blair-US SCG	U.S. Equity	6
SSGA-WorldxUS LMC MSCI Core	World ex USA	2,744,578
SSGA-WorldxUS SC MSCI	World ex USA	2,369,010
Acadian-WorldxUS SCC	World ex USA	1,958,840
ARGA-WorldxUS LMCV - Xponance	World ex USA	1,763,474
Ativo-WorldxUS ACC - Leading Edge	World ex USA	1,012,653
Baillie Gifford-WorldxUS LMCC	World ex USA	236,946
Blackcrane-WorldxUS ACC - Leading Edge	World ex USA	221,945
Causeway-WorldxUS LMCC	World ex USA	195,158
Haven-WorldxUS LMCV - Leading Edge	World ex USA	181,296
Henry James-WorldxUS LMCC - Leading Edge	World ex USA	107,628
Leading Edge Transition-WorldxUS	World ex USA	93,665
Promethos-WorldxUS ACC - Leading Edge	World ex USA	79,959
Redwood-WorldxUS LMCC - Leading Edge	World ex USA	48,624
Solstein-WorldxUS ACC - Leading Edge	World ex USA	16,393
Sprucegrove-WorldxUS LMCC	World ex USA	10,822
Walter Scott-WorldxUS LMCC	World ex USA	6,662
Xponance Transition-WorldxUS	World ex USA	258
Total Police FY 2022		\$ 372,674,364
Legal Fees		
Cox Castle Nicholson LLP		\$ 28,142
Day Pitney LLP		29,366
Foley and Lardner LLC		53,421
Foster Garvey PC		83,221
Foster Pepper PLLC		19,528
Morgan Lewis Bockius LLP		65,568
Pillsbury Winthrop Shaw Pittman LLP		216,482
Reinhart Boerner Van Dueren		93,173
Seward Kissel LLP		32,108
Total Legal Fees		\$ 621,009
Consultant Fees		
Aksia LLC		\$ 309,055
Aksia TorreyCove Partners LLC		1,272,750
MSCI - ESG Research LLC		51,179
MSCI - RiskMetrics Group		110,705
MSCI BARRA LLC		131,606
MSCI Inc.		196
MSCI-Investment Property Databank Ltd		32,184
StepStone Group, LP - Consulting Fees		341,859
The Burgiss Group		33,035
Townsend Holdings LLC		383,320
Wilshire Associates		423,689
Total Consultant Fees		\$ 3,089,577
Operating Expenses/Misc Exp		\$ 16,808,934
Total QPP Expenses		\$ 393,193,884
(In thousands)		
QPP		\$ 393,193
POVSF		1,311
PSOVSF		2,078
Total Investment Expenses, incurred by the Fund		\$ 396,582

32,114,359

### New York City Police Pension Fund Schedule of Pension Cost Allocation Fiscal Year ended June 30, 2022

Administrative Expenses:	
Salaries and Fringe Benefits Paid to Plan Personnel	\$ 15,904,826
Pension Overhead Expenses	 8,395,922
Total	24,300,748
Comptrollers Expenses:	
Trading & other	3,568,403
Pension Division	210,990
Administration	157,931
General Administrative	94,972
Management Division	48,796
Publication	10,600
Utilities, Maintenance & Telephone	7,808
Mailroom / Non data Processing	 927
Total	4,100,427
Professional Services:	
OA	1,583,566
FISA	1,381,846
LAW	334,551
OPA	218,432
OMB	194,789
Total	3,713,184

This amount represents expenses incurred by the Fund and also by other City agencies. From these expenses, \$24,300,748 are incurred and paid by NYCPPF and the balance is incurred by other city agencies and paid by the city of New York on behalf of the Fund.

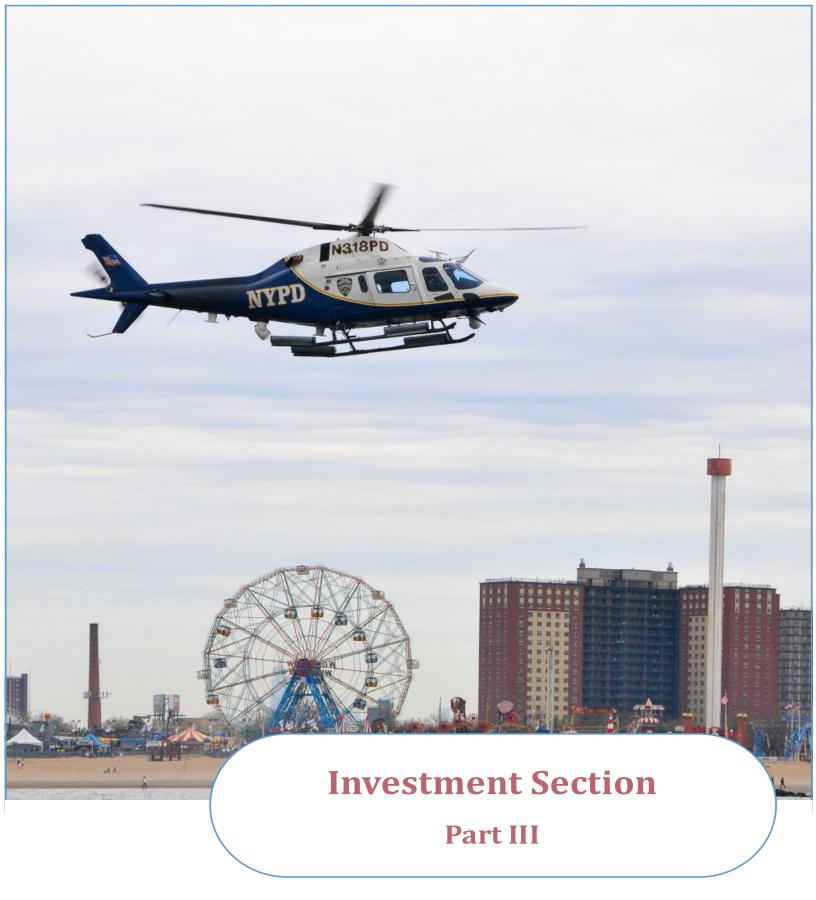
**Total Pension Cost Allocation** 

## **Additional Supplementary Information**

## New York City Police Pension Fund Schedule of Administrative Expenses Fiscal Year ended June 30, 2022

Salaries & Fringe Benefits Paid to Plan Personnel	
Salaries Paid to Plan Personnel	\$ 12,527,118
Fringe Benefits Paid to Plan Personnel	3,377,708
Total Salaries	15,904,826
Pension Overhead Expenses	
COPS 2.0	2,903,719
Contracts	3,983,537
Equipment and Furnitures	442,414
Office Services	385,117
Maintenance and Repairs	122,015
Supplies and Materials	 559,120
Total Pension Overhead Expenses	8,395,922
Total Administrative Expenses	\$ 24,300,748

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A Pension Trust Fund of the City of New York

## **Annual Comprehensive Financial Report**

For the fiscal years ended June 30, 2022 and June 30, 2021

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#### **Investment Report**

This section is prepared by management from data provided by the Investment Managers. The Comptroller administers the Fund's investments, subject to the management and control of the Board of Trustees. The Board of Trustees has the ultimate responsibility of ensuring that all the assets of the Fund are managed prudently, in compliance with the administrative code of the City of New York and the State Retirement Social Security Laws. The Board monitors and measures market and various other risk factors associated with investments. Independent investment consultants are employed as investment advisors to the Fund. Investment managers are utilized to manage long term debt and equity portfolios and seek to increase investment returns and provide greater safety for the assets of the Fund. The performance of the investment managers is reviewed frequently to ensure that their activities in dealing securities are consistent with the best practices in the industry.

#### **Investment Policy**

Investment Policy is approved by the Board of Trustees. The New York City Comptroller is the Treasurer, Chief Custodian and Investment Advisor to the Board. The primary objective of the Board is to provide retirement and other benefits for its members.

The Board realizes that increasing investment returns will strengthen the Fund and significantly enhance benefits enjoyed by the members. Increased returns will further assure the safety of assets held in trust for pension benefits. The Investment Policy adopted by the Board of Trustees is one that minimizes credit and market risks while maintaining a competitive yield on the Fund's portfolio. All returns are time-weighted rates of return. For periods greater than one year, returns are analyzed.

### **Investment Philosophy**

The investment philosophy of the Board is influenced by key factors that affect investment and strategy, i.e. Risk Tolerance, Returns, Diversification and Liquidity.

### 1-Risk Tolerance

The Board shall always act to assure that the level of investment risk in the portfolio will be prudent and not exceed levels that may jeopardize the primary objective.

#### 2-Returns

The Board believes that over the long term there is a relationship between the level of investment risk taken and the rate of investment return realized. In order to enhance the level of returns, the assumption of a moderate level of risks is therefore reasonable and justified.

#### 3-Diversification

The Board seeks diversification through investing in a broad array of instruments in order to reduce overall portfolio risks.

#### 4-Liquidity

The system anticipates positive cash flow over the near and intermediate term. Liquidity requirements for payment of current and intermediate benefits will therefore not be an issue for the future.

#### **Investment Objectives**

The Board has adopted the following general investment objectives in order to enhance returns, provide greater benefits and ensure the safety of assets held in trust for benefits.

- 1. In recognition that obligations of the Fund will increase as a result of inflation, the Board seeks to maximize the total return on assets held in trust for pension benefits, while operating within the bounds of regulatory restrictions and prudent parameters of risk.
- 2. The Board also aims to protect the system from depreciation of assets during adverse market conditions and to attain a level of return that is competitive, not only with similar funds but also with the wider market. These results are attained through broad diversification, careful review of risks and emphasis on long term results.
- 3. The Board of Trustees, where possible and not in conflict with other provisions, is interested in increased economic activity in local communities. The Comptroller's Office has made substantial efforts to broaden the Pension Fund's activity in economically targeted investments in the City of New York. This will promote growth in communities while increasing returns. All existing targeted investments are guaranteed by government agencies and earn a rate of return commensurate with risk.

#### **Asset Allocation**

The Board's investment policy is implemented using a strategic allocation of assets that meet its objectives, while working within the confines of the Administrative Code of New York City and the State Retirement and Social Security Laws. The code authorizes the investment of Plan Assets, except equities, subject to the terms, conditions, limitations and restrictions imposed by law for investment by Savings Banks. The code imposes specific criteria for Plan investments. Fixed income investments may be made mostly in U.S. Government securities or agencies backed by the U.S Government, companies rated BBB or better by the Standard and Poor's Corporation or Moody's Investor's Services or in companies on the Legal Investments lists published by the New York State Banking Department.

Equity investments may be made only in stocks that meet the qualifications of the New York State Retirement and Social Security Laws. Short Term Investments may be made in U.S. Government Securities or other securities fully guaranteed by the Government, commercial paper rated AI or PI or fully collateralized repurchase agreements. Investments are made in a broad array of financial instruments; including domestic stocks, bonds and international securities, through a collective fund investment vehicle. Diversification of investments provides greater security for the assets held in trust, enabling the Fund to become stronger and to meet its obligation. The policy mix targeted asset allocation for the QPP in fiscal year 2022 included securities from the following categories: U.S. Domestic Equities 30.1%, Fixed Income 32.9% International Equities 7.4%, Emerging Markets 4.6%, Private Real Estate and Equities 17.3%, Hedge Funds 5.5% & others 2.2%. The asset allocation for POVSF consists of 64.2% in Total Equity and 35.8% in Total Fixed Income. PSOVSF consists of 63.9% in Total Equity and 36.1% in Total Fixed Income.

#### Results

For the fiscal year that just ended, Police Pension Fund Total Investments decreased from \$63,837,200 thousand in fiscal year 2021 to \$57,296,127 thousand in fiscal year 2022. Total assets decreased from \$65,413,306 thousand to \$58,372,975 thousand respectively, with net investment income decreasing from \$11,961,703 thousand to (\$4,405,904) thousand respectively. The total investment returns for QPP, POVSF, and PSOVSF are (7.12%), (13.48%), and (13.31%) respectively.

#### The following are Consultants and Advisors for the various investment types:

**U.S. Equities** 

Altravue US SCV - Legato Ballast-US SCV - Legato

BlackRock US LMC R1000 Core

BlackRock US SCG R2000

BlackRock US SCV R2000 Bridge City US SCG - Legato Brown Asset Mgmt US SCG

Cooke and Bieler-US MCV

Cooke and Bieler-US SCV Dean US SCV - Legato

DFA US SCC

Earnest-US MCC

Essex US SCG - Legato

Legal General US LMCE

Lisanti US SCG - Legato

MFS-US MCG

Nicholas Investment-US SCG - Legato

PIMCO RAFI US LMCE

Pzena-US SCV

SSGA-US LC Russell TOP 200 Core

Wellington US MCC

William Blair-US SCG

**International Equities** 

Acadian EM

Acadian EM

Acadian WorldxUS SCC Acadian WorldxUS SCC

Algert EAFE SCC

ARGA-WorldxUS LMCV - Xponance

Ativo-WorldxUS ACC - Leading Edge

Aubrey-EM ACG - Xponance

Baillie Gifford EM

Baillie Gifford WorldxUS LMCC

Baillie Gifford WorldxUS LMCC

Blackcrane-WorldxUS ACC - Leading Edge

BlackRock MSCI EM Core Causeway WorldxUS LMCC

Causeway WorldxUS LMCC

DFA EM

Dundas-EAFE ACG - Xponance

Fidelity WorldxUS SCC

Foresight-EAFE LMCV - Xponance

Haven-WorldxUS LMCV - Leading Edge Henry James-WorldxUS LMCC - Leading Edge

Martin-EAFE ACG - Xponance

North of South-EM ACV - Xponance

Osmosis-EAFE ACV - Xponance

Parametric EM

Promethos-WorldxUS ACC - Leading Edge

Pzena-EM ACV

Redwood-EAFE ACG - Xponance

Redwood-WorldxUS LMCC - Leading Edge

Sands-EM LCG

Solstein-WorldxUS ACC - Leading Edge

Sprucegrove WorldxUS LMCC Sprucegrove WorldxUS LMCC

SSGA WorldxUS LMC NYC Custom IDX

SSGA WorldxUS SC Custom IDX

**UBS-EM ACC** 

Walter Scott WorldxUS LMCC

Walter Scott WorldxUS LMCC

**Hedge Funds** 

Altimeter Partners

Caledonia Fund US Caspian Select CF

D.E. Shaw Composite FD

DL Partners OPP LP

Florin Court Capital

Gemsstock Fund

Gresham Quant ACAR FD

**GSA Trend Fund** 

Key Square Partners

Kontiki Onshore Fund

**Luxor Capital Partners** 

Pharo Gaia Fund

AlphaQuest Original

SRS Partners US

Standard General Fund II

Turiya Fund

Voloridge Trading Aggressive Fund

Voloridge Fund

Voloridge Sustainability Fund Master

**Private Equities** 

ACON Equity Partners III

Aisling Capital II, LP

Aisling Capital III, L.P.

Altaris Health Partners III, L.P.

American Securities Partners VI

American Securities Partners VII

Ampersand 2011

APAX IX USD

Apax X USD

Apollo Investment Fund V, L.P.

#### The following are Consultants and Advisors for the various investment types:

Apollo Investment Fund VI, L.P. Constellation Venture Capital III, L.P.

Apollo Investment Fund VII, L.P.

Apollo Investment Fund VIII

Apollo IX

Ardian Secondary VI

Crestview III SC

Crestview IV Side Car

Crestview Partners II, L.P.

Crestview Partners IV

Ares Corporate Opportunities Fund I

Ares Corporate Opportunities Fund II

Ares Corporate Opportunities Fund III

CVC Capital Partners VIII A

CVC Capital Partners VIII A

Ares Corporate Opportunities Fund IV CVC European Equity Partners III, L.P.

Ares Corporate Opportunities Fund V CVC European Equity Partners V, L.P. (Global)

Arlington Capital Partners II, L.P. CVC V

ASF VI Co-Invest Cypress Merchant Banking Partners II, L.P.

ASF VII Side Car EQT IX Co-Invest

ASF VIII B EQT IX USD

EQT IX USD

EQT VI

EQT VI

EQT VI

EQT VI

ASF VIII B Co-Invest EQT VII
Atlantic Equity Partners IV, L.P. EQT VIII

Avista Capital Partners II, L.P EQT VIII CO-INVEST Avista Capital Partners, L.P. Euro Choice III L.P.

AXA Secondary Fund V B L.P. Euro Choice IV L.P. (Global)
BC European Capital IX Falconhead Capital Partners II, L.P.

BC Partners XI FdG Capital Partners II LP
BC Partners XI Co-Invest First Reserve Fund XI, L.P.
BC PRTNR X First Reserve Fund XII, L.P.

BC Prtnr X - SC FirstMark IV, L.P.

BDCM Opportunity Fund III, L.P.

FS Equity Partners V, L.P.

Blackstone Capital Partners IV, L.P.

FS Equity Partners VI, L.P.

Blackstone Capital Partners V, L.P. FTV IV
Blackstone Capital Partners VI, L.P. FTV V
Blackstone Capital Partners VIII FTV VI
Blue Wolf Capital Fund II FTV VII

Bridgepoint EUR V FTV VII Co-Investment Bridgepoint EUR V SC FTVENTURES III

Bridgepoint Europe IV GCM Emerging Manager Fund

Bridgepoint VI GEI VII

Bridgepoint VI CO-INV GF Capital Private Equity Fund, L.P.

Carlyle Acosta GI Partners Fund III

Carlyle Partners V, L.P. Gleacher Mezzanine Fund II

Carlyle Partners VI, L.P. Grain Communications Opportunity FD III

Catterton Partners VI, L.P.

Centerbridge Cap III

Centerbridge Capital Partners IV

Grain Comm Opp Fd II

Green Equity Investors VI

Green Equity Investors VIII

Centerbridge Capital Partners IV Co-Inv

Clearlake Capital Partners VI

Clearlake Capital Partners VII

Clearlake Capital Partners VII

GSO Capital Opportunities Fund, L.P.

Coller International Partners V, L.P.

HarbourVest Centre Street Co-Investment

ComVest Investment Partners III, L.P. Heartwood Partners II
ComVest Investment Partners IV, L.P. Heartwood Partners III

#### The following are Consultants and Advisors for the various investment types:

Onex Partners III LP Hq Genesis 9 A Hg N1 Co-Invest Paladin III. L.P.

Highland Consumer Fund I Palladium Equity Partners III, L.P. ICG Strategic Equity Co-Invest Fund IV Palladium Equity Partners IV

ICG Strategic Equity Fund IV Palladium V ICV Partners III, L.P. Patriot III **ICV PTR IV** Patriot Partners II

Incline Equity Partners III, L.P. PCG Clean Energy Tech Fund East, L.P.

Insight Partners XII Pegasus Partners IV, L.P. Insight Partners XII Buyout Annex Fund Pegasus Partners V, L.P.

Intermedia Partners VII, L.P. Permira IV JP Morgan Fleming, L.P. Pine Brook Capital Partners

KKR Americas Fund XII Platinum Equity Capital Partners-C III KKR Asian Fund IV Platinum Equity V

PECP V Co-Investment KKR Europe V

KKR North America Fund XIII SCSP Platinum Equity Capital Partners IV Platinum Equity Titan IV Co-Investors Landmark Equity Partners XIII Landmark Equity Partners XIV Platinum Equity Small Cap Fund

Landmark Equity Partners XV PSG V

Landmark - NYC Fund I Quaker BioVentures II, L.P. Levine Leichtman Capital Partners IV LP Raine Partners II

Lexington Capital Partners VIII Raine Partners III Lexington Capital Partners VII Reverence Capital Partners II

Lexington Capital Partners IX Reverence Capital Partners II Co-Invest

Lexington Capital Partners IX Co-Invest Reverence Capital Partners III

Lexington Capital Partners X Co-Invest Reverence Capital Partners III Co-Invest Lincolnshire Equity Fund II, L.P. Riverstone/Carlyle Global Energy&PowerIV Lincolnshire Equity Fund III, L.P. RRE Ventures IV, L.P.

Lincolnshire Equity Fund IV, L.P. Scale Venture Partners III, LP Lindsay Goldber V SCP Private Equity Partners II, L.P.

Markstone Capital Partners, L.P. SCP Vitalife Partners II, L.P.

Medica III Investments (Intl) L.P. Siris Partners III MidOcean Partners III, L.P. Siris Partners IV Snow Phipps Group, L.P. Milestone Partners III, LP

Snow Phipps II, L.P. Mill City Capital II Stellex Capital Management LP Montreux Equity Partners IV L.P.

NB Co-Investment Partners LP Stellex Capital Partners II NB Strategic Co - Invest II, LP Summit Partners Growth Equity VIII-A

New Mainstream Capital II The Fourth Cinven Fund New Mountain Partners II, L.P. The Resolute Fund V New Mountain Partners III, L.P. Thoma Bravo Fund XV NGN BioMed Opportunity II, L.P. Thoma Bravo XV Co-Invest

NMS Fund III Thomas, McNerney & Partners II

NorthBound Emerging Manager Custom Fund Trident V, L.P. NYC-NorthBound Emerging Managers Program Trilantic Capital Partners IV L.P. Olympus Capital Asia III Trilantic Capital Partners V L.P.

Olympus Growth Fund VI, L.P. Trilantic Capital VI One Rock Capital Partners III

United States Power Fund III, L.P.

#### The following are Consultants and Advisors for the various investment types:

US Power Fund II Valor Equity III

Valor Equity Partners V

Valor IV

Vista Equity Partners Fund IV Vista Equity Partners Fund III

Vista Equity Partners Fund V

Vista Foundation Fund II Vista Equity Partners Fund VI

Vista Equity Partners Fund VII

Vistria Fund III Vistria Fund IV Warburg Pincus

Warburg Pincus Financial Sector II Warburg Pincus Private Equity XI, LP

Warburg Pincus XII

WCAS XII WCAS XIII

Webster Capital III

Wellspring Capital Partners V, L.P.

WCAS XI

WP Global Growth

Yucaipa American Alliance Fund I, L.P. Yucaipa American Alliance Fund II, LP Yucaipa Corporate Initiatives Fund II LP

#### **Private Real Estate**

Aermont Fund IV

AG Realty Fund VII (Global) Almanac Realty Securities VIII Almanac Realty Securities VII Almanac Realty Securities VII

Almanac Realty Securities VII SideCar Almanac Realty Securities VIII SideCar

Almanac Realty Securities IX Amer Value Ptnrs I LP Ares European RE Fund III

Ares RE FD V (fka Apollo RE Fund V) Almanac Realty Securities VI SideCar

Artemis Co-Investment Artemis Income & Growth Big Real Estate Fund I Big Real Estate Fund II

Ares Industrial Real Estate Fund

Blackstone Europe IV Blackstone RE EUR VI Blackstone RE PTNRS IX Blackstone Real Estate VIII Blackstone REP EUR III
Blackstone REP IV

Blackstone REP VI Blackstone REP VII

**Brookfield Premier Real Estate Partners** 

Brookfield STRA RE III Brookfield Strat RE Partners

Brookfield Strategic RE Partners IV-B

Canyon Johnson Urban Fd III Carlyle Property Investors Carlyle Reality Fund VII

Carlyle Realty V
Carlyle Realty VI
CIREP Centre Street
City Investment Fund
Colony Investors VIII

Cortland Growth and Income

DIVCO WEST FD III DIVCO WEST FD IV DivcoWest Fund V, LP Divcowest Fund VI-A DRA G&I Fund IX. LLC

DRA Growth and Income Fund X Elmtree U.S. Net Lease Fund IV

**EMMES** 

Exeter Industrial Core Fund III
Exeter Core Industrial Club Fund II
Exeter Industrial Value Fund V

Exeter Value Fnd IV GREENOAK ASIA USD III H/2 SO MANAGER IV, LP H/2 Special Opp Fund III

H/2 Special Opportunities Fund II

Harrison Core Prop Harrison Core Prop SC Heitman America RE Trust

Heitman Credit Hudson SEP AC

Jamestown Premier Property Fund JP Morgan Special Situation Property JPMC Strategic Property Fund Kayne Anderson Core Real Estate

KKR RE Security Dislocation Opp Colnvest KKR Real Estate Credit Opp Prtnrs Agg I KKR Real Estate Partners Americas II KKR Real Estate Partners Americas III KKR Real Estate Partners Europe II USD

LaSalle US Property Fund

#### The following are Consultants and Advisors for the various investment types:

LBA Logistics Value Fund IX

Lion Industrial Trust Lone Star RE FD III

Lone Star Real Estate Fund V

Metlife Core Property

Metropolitan Workforce Housing Fund

PGIM Real Estate Capital VII

Pramerica VI LP

Prisa

Prudential Prisa II

Prisa III

Prologis Targeted U.S. Logistic Fund

PW Real Estate Fund III LP NYC Asset 2 - Related

Rialto Real Estate Fund IV - Debt

RREEF America REIT II

Silverpeak Legacy Partners III(Lehman REP III)

Stockbridge Real Estate Fund III Taconic NYC Investmt Fd Thor Urban Property Fd II

TPG RE Thematic Advantage Core-Plus IV

Tristan Euro Property
UBS Trumbull Property Fd

USAA Eagle Real Estate Feeder 1 Walton ST REF VI (Global)

Westbrook Fund XI Westbrook RE X CO-INV

Westbrook Real Estate Fund VIII

Infrastructure

Actis Energy IV Ardian Infr Fund V

Ardian Infra Fund V Co-Invest Eden

ASF VII Infrastructure B ASF VIII Infrastructure B

Basalt Infrastructure Partners III A

**BIF III COINV** 

BIF IV Co-Invest Snow

BIS NYC Infra Emerging Manager Opp Fund

Brookfield Infr Fd II Brookfield Infra IV-B

EIG Energy Ptnrs Glbl Private Debt FD A

**EQT INF III** 

**EQT Infrastructure IV** 

EQT Infra IV Co-Inv F SCSP Connect EQT Infra IV Co-Inv G SCSP Lightspeed

EQT Infra IV Co-Inv Saber

EQT Infrastructure V NO.2 SCSP

Global Energy & Power Infra Fund II Global Energy & Power Infra Fund III

Global Infr PTR IV-A/B

Global Infrastructure MGMT LLC

IFM GL Infrastructure Infrastructure-BIF III InfraVia European Fund V

KKR Global Infrastructure Investors IV

KKR Infra III

Stonepeak Infrastructure Fund IV Stonepeak Infra IV Co-Invest Tiger

**Total Axium North America** 

**NYC Fixed Income** 

400 Capital Centre Street Advent Convertible Bonds

**AFL-CIO Housing Investment Trust** 

Angelo Gordon Ct St Ptnrs Apollo Centre Street Partnership Ares Centre Street Partnership Ave Special Situation Fund VI

Barings Bank Loans BlackRock Corporate BlackRock LI Treasury BlackRock Mortgages BlackRock TIPS BOA PPAR FNMA BOA PPAR GNMA

Brigade High Yield

Brightwood Capital Advisors FD IV, LP Brightwood Capital Advisors III, LP

Brightwood Capital Fund V

CFSB PPAR FNMA
CFSB PPAR GNMA
Citibank PPAR FNMA
Citibank PPAR GNMA
Contrarian Partnership, L.P
CPC Construction Facility

CPC PPAR FNMA

Credit Suisse Bank Loans Eaton Vance High Yield ECLF PPAR FNMA

FCO MA Centre Street II ER FCO MA Centre Street II EXP ER

Fidelity Corporate Fortress Ctr St Ptnrs

GCM Grosvenor NYCRS Emerging OFI Manager

#### The following are Consultants and Advisors for the various investment types:

**GIA-Core Plus** 

Golden Tree OD

ICG Centre Street Partnership

JPMC PPAR FNMA

KKR NYC Credit A & B

KKR NYC Credit C

LIIF PPAR FNMA

LIIF PPAR GNMA

LISC PPAR FNMA

LM Capital-Core Plus

Lone Star Fd VIII

Mackay Shields High Yield

Maranon Partnership

Marathon Centre Street Partnership, L.P.

NCBCI PPAR FNMA

NCBCI PPAR GNMA

Neuberger Berman High Yield

Neuberger Berman-Corporate

NHS PPAR GNMA

Nomura High Yield

Oak Hill Centre Street Partnership

Oaktree High Yield

Oaktree Opp Fd IX

Pinebridge Bank Loans

**Prudential Corporate** 

Pugh-CorePlus

**RBC Access MBS** 

Shenkman High Yield

SSGA IT Treasury 1-10Y

SSGA LI Treasury

SSGA LT Treasury 10Y Plus

SSGA ST Treasury 1-3Y

SSGA TIPS

Stone Harbor High Yield

T Rowe Price High Yield

T Rowe Price-Corporate

**Taplin Corporate** 

Targeted Investment

Torchlight Debt Opp V

Torchlight Debt Opp VI

Torchlight Debt Opportunity Fund VII

Victory Convertible Bonds

Voya-Corporate

Wellington Mortgages

Wells Fargo PPAR FNMA



	SYSTEM RETURN SUMINARY	Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
5	POLICE-TOTAL PORTFOLIO - GROSS	47,036	100.00	(848)	(6.71)	(11.34)	26.73	14.61	15.00	17.68	(6.71)	7.43	7.82	8.72	8.52	07/01/1987
	POLCE - ESTIMATED INVESTMENT FEES  EST MANAGEMENT FEES - PUBLIC MARKET (ACCRUAL)			(012)	(0.46)	(0.20)	(0.36)	(0.50)	(0.25)	(0.26)	(0.46)	(0.36)	(0.30)			
	EST MANAGEMENT FEES - ALTERNATIVE MARKETS (CASH) EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(010)	(0.35)	(0.15)	(0.24)	(0.38)	(0.14)	(0.15)	(0.35)	(0.25)	(0.19)			
	POLICE-TOTAL PORTFOLIO - NET MGR			(860)	(7.17)	(11.54)	26.37	14.11	14.76	17.41	(7.17)	7.08	7.52			
	POLICE POLICY BENCHMARK			(1007)	(8.84)	(13.01)	27.03	13.62	15.50	18.89	(8.84)	6.75	7.29	8.45		
	EXCESS RETURN			<b>.47</b>	1.67	1.47	(0.67)	0.49	(0.74)	(1.48)	1.67	0.33	0.22	0.27		
	EQUITY RETURN DETAIL															
18	POLCE-TOTAL EQUITY (INCLUDES ALTERNATIVES & REITS) - GROSS	31,563	67.10	(957)	(5.73)	(11.85)	37.93	20.72	16.91	21.58	(5.73)	10.21	10.15	11.23	8.49	04/01/2004
	ESTMATED INVESTMENT FEES			(016)	(0.64)	(0.27)	(0.49)	(0.70)	(0.29)	(0.33)	(0.64)	(0.47)	(0.39)			
	EST MANAGEMENT FEES EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(016)	(0.64)	(0.27)	(0.49)	(0.70)	(0.29)	(0.33)	(0.64)	(0.47)	(0.39)			
	POLCE-TOTAL EQUITY (INCLUDES ALTERNATIVES & REITS) - NET MGR			(973)	(6.37)	(12.11)	37.44	20.02	16.63	21.24	(6.37)	9.74	9.77			
26	POLICE-TOTAL EQUITY - GROSS	20,011	42.54	(1547)	(16.89)	(20.50)	43.69	18.47	19.15	27.51	(16.89)	6.98	7.97	10.29	8.67	08/01/1993
	ESTMATED INVESTMENT FEES			(003)	(0.12)	(0.06)	(0.22)	(0.19)	(0.18)	(0.18)	(0.12)	(0.16)	(0.16)			
	EST MANAGEMENT FEES EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(003)	(0.12)	(0.06)	(0.22)	(0.19)	(0.18)	(0.18)	(0.12)	(0.16)	(0.16)			
	POLICE-TOTAL EQUITY - NET MGR			(1550)	(17.01)	(20.56)	43.47	18.28	18.97	27.33	(17.01)	6.82	7.81			
34	POLICE-TOTAL DOMESTIC EQUITY - GROSS	14,140	30.06	(1577)	(12.75)	(19.74)	44.06	25.26	18.72	30.01	(12.75)	9.48	10.30	12.43	10.98	12/01/1984
	ESTMATED INVESTMENT FEES			(002)	(0.07)	(0.03)	(0.12)	(0.11)	(0.11)	(0.11)	(0.07)	(0.09)	(0.09)			
	POLICE-TOTAL DOMESTIC EQUITY - NET MGR			(1579)	(12.81)	(19.76)	43.94	25.15	18.61	29.91	(12.81)	9.39	10.21			
	RUSSELL 3000 (DAILY)			(1670)	(13.87)	(21.10)	44.16	25.66	20.89	31.02	(13.87)	9.77	10.60	12.57	11.08	
	EXCESS RETURN			0.91	1.05	1.33	(0.23)	(0.51)	(2.27)	(1.11)	1.05	(0.39)	(0.39)	(0.14)	(0.11)	
44	POLICE-TOTAL SMALL CAP ACTIVE - GROSS	746	1.59	(1695)	(22.46)	(23.79)	51.37	14.55	24.01	23.89	(22.46)	4.48	5.95	10.42	8.03	04/01/2004
	ESTMATED INVESTMENT FEES			(013)	(0.51)	(0.24)	(1.14)	(0.85)	(0.86)	(0.70)	(0.51)	(0.71)	(0.67)			
	POLICE-TOTAL SMALL CAP ACTIVE - NET MGR			(1708)	(22.98)	(24.03)	50.23	13.70 14.82	23.15	23.19	(22.98)	3.77	5.28	0.25	7.14	
	RUSSELL 2000 (DAILY) EXCESS RETURN			(1720)	(25.20) 2.22	(23.43)	62.03 (11.80)	(1.12)	19.96 3.19	25.52 (2.34)	(25.20) 2.22	(0.44)	5.17 0.11	9.35 1.06	7.41 <b>0.63</b>	



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
56	POLICE-TOTAL SMALL CAP PASSIVE - GROSS ESTMATED INVESTMENT FEES	28	0.06	(1633) (000)	(17.49) (0.00)	(20.82) 0.00	68.76 (0.01)	27.88 (0.01)	15.48 (0.00)	28.07 (0.01)	(17.49) (0.00)	7.58 (0.00)	8.32 (0.00)		8.67	10/01/2013
	POLICE-TOTAL SMALL CAP PASSIVE - NET MGR RUSSELL 2000 (DAILY) EXCESS RETURN			(1633) (1720) 0.87	(17.49) (25.20) 7.70	(20.82) (23.43) 2.61	68.76 62.03 6.73	27.87 14.82 13.05	15.48 19.96 (4.48)	28.06 25.52 2.54	(17.49) (25.20) 7.70	7.58 4.21 3.37	8.32 5.17 3.15		6.86	
66	POLICE-TOTAL MIDICAP - GROSS ESTMATED INVESTMENT FEES	1,102	2.34	(1666)	(24.24) (0.29)	(25.56) (0.10)	44.23 (0.84)	10.72 (0.74)	26.32 (1.19)	30.17 (1.01)	(24.24) (0.29)	3.27 (0.65)	4.93 (0.70)	10.10		04/01/2004
	POLICE-TOTAL MIDCAP - NET MGR RUSSELL MIDCAP (DALY) EXCESS RETURN			(1672) (1685) 0.13	(24.52) (17.30) (7.22)	(25.66) (21.57) (4.09)	43.39 49.80 (6.41)	9.99 22.58 (12.60)	25.13 17.10 8.03	29.16 30.54 (1.38)	(24.52) (17.30) (7.22)	2.61 6.59 (3.98)	4.23 7.96 (3.74)	11.29	9.23	
86	POLICE-TOTAL RUSSELL 1000 ACTIVE - GROSS ESTMATED INVESTMENT FEES POLICE-TOTAL RUSSELL 1000 ACTIVE - NET MGR	2,879	6.12	(1315) (002) (1317)	(8.63) (0.09) (8.71)	(14.32) (0.04) (14.36)	45.83 (0.14) 45.69	25.83 (0.12) 25.71	6.89 (0.12) 6.77	23.96 (0.11) 23.84	(8.63) (0.09) (8.71)	7.96 (0.10) 7.86	8.33 (0.11) 8.22	11.44	8.31	04/01/2004
	RUSSELL 1000 (DAILY) EXCESS RETURN			(1667) 3.50	(13.04) 4.32	(20.94) 6.58	43.07 2.62	26.45 (0.74)	20.96	31.43 (7.58)	(13.04) 4.32	10.17	11.00 (2.78)	12.82	9.09	
96	POLICE-TOTAL RUSSELL 1000 PASSIVE - GROSS ESTMATED INVESTMENT FEES	6,779	14.41	(1635)	(12.66)	(20.65)	42.97 (0.00)	26.46 (0.00)	21.20 (0.00)	31.48 (0.00)	(12.66) (0.00)	10.38			(0.00)	04/01/2018
	POLICE-TOTAL RUSSELL 1000 PASSIVE - NET MGR RUSSELL 1000 (DAILY) EXCESS RETURN			(1635) (1667) 0.32	(12.66) (13.04) 0.38	(20.65) (20.94) 0.30	42.96 43.07 (0.11)	26.46 26.45 <b>0.01</b>	21.20 20.96 0.23	31.48 31.43 0.05	(12.66) (13.04) 0.38	10.37 10.17 0.20			10.66 10.42 0.24	
106	POLCE-TOTAL RUSSELL TOP 200 PASSIVE - GROSS ESTMATED INVESTMENT FEES	2,517	5.35	(1729) (000)	(12.19) (0.00)	(21.37) (0.00)	40.72 (0.01)	27.79 (0.01)	22.45 (0.01)	31.75 (0.00)	(12.19) (0.00)	11.19 (0.01)			11.53	05/01/2018
	POLICE-TOTAL RUSSELL TOP 200 PASSIVE - NET MGR RUSSELL TOP 200 INDEX (DAILY) EXCESS RETURN			(1729) (1661) (068)	(12.19) (11.46) (0.73)	(21.37) (20.73) (0.64)	40.71 40.81 (0.10)	27.79 27.90 (0.11)	22.44 22.37 0.07	31.74 31.75 (0.01)	(12.19) (11.46) (0.73)	11.18 11.50 (0.32)			11.52 11.74 (0.22)	
116	POLICE-TOTAL FUND OF FUNDS - GROSS ESTIMATED INVESTMENT FEES POLICE-TOTAL FUND OF FUNDS - NET MGR	89	0.19	(1188) (018) (1206)	(16.87) (0.48) (17.35)	(19.54) (0.26) (19.80)	67.75 (0.94) 66.81	25.65 (0.70) 24.95	20.00 (0.60) 19.40	23.95 (0.62) 23.33	(16.87) (0.48) (17.35)	8.76 (0.59) 8.17	8.28 (0.57) 7.71		8.14 (0.58) 7.56	05/01/2017
	RUSSELL 2000 (DAILY EXCESS RETURN			(1720)	(25.20) 7.85	(23.43)	62.03 4.78	14.82 10.13	19.96 (0.56)	25.52 (2.19)	(25.20)	4.21 3.96	5.17 2.54		5.27 2.29	



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
128	POLCE-TOTAL WORLD ex-USA - GROSS ESTMATED INVESTMENT FEES	3,457	7.35	(1540) (005)	(24.45) (0.18)	(23.69) (0.09)	41.24 (0.33)	7.78 (0.26)	22.39 (0.28)	25.50 (0.30)	(24. <b>4</b> 5) (0.18)	2.91 (0.24)	4.10 (0.25)	7.02	5.62	04/01/2004
	EST MANAGEMENT FEES EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(0 05)	(0.18)	(0.09)	(0.33)	(0.26)	(0.28)	(0.30)	(0.18)	(0.24)	(0.25)			
	POLICE-TOTAL WORLD ex-USA - NET MGR			(1545)	(24.62)	(23.78)	40.90	7.52	22.11	25.20	(24.62)	2.67	3.85		400	
	WOPLD EX-USA CUSTOM BM  EXCESS RETURN			(1515)	(17.73)	(19.54)	34.82 6.09	12.39	8.32 13.79	22.91	(17.73)	1.72 0.95	2.60 1.25	5.86 1.16	4.92 0.70	
	EAGLOS RETURN			(030)	(0.30)	(4.24)	0.03	(4.07)	13.73	2.30	(0.30)	0.55	1.23	1.10	0.70	
138	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID ACTIVE - GROSS	2,570	5.46	(1497)	(25.71)	(24.32)	40.86	5.59	26.25	26.54	(25.71)	3.01	4.68			11/01/2013
	ESTMATED INVESTMENT FEES			(006)	(0.20)	(0.10)	(0.39)	(0.29)	(0.35)	(0.35)	(0.20)	(0.28)	(0.29)		(0.29)	
	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID ACTIVE - NET MGR NYCCUSTOM WORLD EX-USA LG & MID ACT INDEX			(1503) (1466)	(25.91) (16.76)	(24.42) (18.76)	40.47 33.60	5.30 12.62	25.91 7.59	26.19 22.49	(25.91) (16.76)	2.73 1.70	4.39 2.64		4.03 2.74	
	EXCESS RETURN			(038)	(9.15)	(5.66)	6.87	(7.32)	18.32	3.70	(9.15)	1.03	1.74		1.29	
148	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP ACTIVE - GROSS	297	0.63	(1812)	(23.11)	(23.95)	54.91	19.17	19.53	22.73	(23.11)	5.62	4.39		6.97	05/01/2013
	ESTMATED INVESTMENT FEES  POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP ACTIVE - NET MGR			(1819)	(0.25)	(0.12)	(0.51)	(0.39)	(0.36)	(0.55)	(0.25)	(0.35)	(0.41)			
	S&PEPAC SMALL CAF USD NET			(1759)	(26.27)	(25.52)	42.23	8.06	13.78	23.71	(26.27)	0.22	0.96		4.54	
	EXCESS RETURN			(059)	2.92	1.45	12.17	10.72	5.38	(1.53)	2.92	5.04	3.03		2.43	
150	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP PASSIVE - GROSS	251	0.53	(1770)	(22.69)	(23.56)	42.54	11.31	13.22	25.70	(22.69)	2.34	2.57		454	02/01/2014
150	ESTMATED INVESTMENT FEES	201	0.00	(001)	(0.02)	(0.01)	(0.04)	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.03)		(0.03)	02/01/2014
	POLICE-TOTAL TOTAL WORLD ex-USA SMALL CAP PASSIVE - NET MGR			(1770)	(22.71)	(23.58)	42.50	11.27	13.18	25.67	(22.71)	2.31	2.54		4.51	
	WORLD EX USA SC PASSIVE CUSTOM BM			(1794)	(23.02)	(23.87)	42.28	11.14	12.78	25.41	(23.02)	1.97	2.29		4.20	
	EXCESS RETURN			0.23	0.31	0.29	0.21	0.14	0.40	0.26	0.31	0.35	0.25		0.32	
168	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE - GROSS	339	0.72	(1444)	(16.31)	(18.42)	34.02	12.91	8.10	22.76	(16.31)	2.10	2.98	5.82	4.02	02/01/2011
	ESTMATED INVESTMENT FEES			(000)	(0.01)	(0.00)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)			
	POLICE-TOTAL TOTAL WORLD ex-USA LARGE & MID CAP PASSIVE - NET MGR			(1444)	(16.32)	(18.42)	34.01	12.90	8.09	22.75	(16.32)	2.09	2.97			
	NYCCUSTOM WORLD EX US INDEX			(1466)	(16.76)	(18.76)	33.60	12.62	7.59	22.49	(16.76)	1.70	2.66	5.53	3.70	
	EXCESS RETURN			0.22	0.43	0.34	0.40	0.28	0.50	0.26	0.43	0.39	0.31	0.28	0.32	



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	EQUITY RETURN DETAIL															
180	POLCE-EMERGING MARKETS - GROSS ESTMATED INVESTMENT FEES	2,155	4.58	(1363) (009)	(27.22) (0.30)	(19.78) (0.16)	45.57 (0.58)	(0.85) (0.42)	16.54 (0.39)	18.09 (0.32)	(27.22) (0.30)	(0.51) (0.36)	1.66 (0.33)	3.32	6.25	11/01/1996
	POLICE-EMERGING MARKETS - NET MGR MSCI EMERGING MARKETS			(1371) (1145)	(27.52) (25.28)	(19.94) (17.63)	44.99 40.90	(1.27) (2.54)	16.15 18.31	17.77 18.42	(27.52) (25.28)	(0.88) 0.57	1.33 2.18	3.06		
	EXCESS RETURN			(227)	(2.24)	(2.31)	4.08	1.27	(2.16)	(0.65)	(2.24)	(1.44)	(0.85)	0.25		
190	POLCE-EMERGING MARKETS ACTIVE - GROSS ESTMATED INVESTMENT FEES	1,878	3.99	(1396) (010)	(27.57) (0.34)	(20.14) (0.18)	46.38 (0.71)	(0.67) (0.48)	15.23 (0.53)	17.78 (0.47)	(27.57) (0.34)	(1.11) (0.45)	1.38	3.40	6.94	04/01/2004
	POLICE-EMERGING MARKETS ACTIVE - NET MGR			(1406)	(27.91)	(20.32)	45.68	(1.15)	14.70	17.32	(27.91)	(1.56)	0.94	2.00	0.00	
	MSCI EMERGING MARKETS EXCISS RETURN			(1145) (261)	(25.28) (2.62)	(17.63)	40.90	1.39	18.31 (3.61)	18.42 (1.11)	(25.28) (2.62)	(2.13)	2.18 (1.24)	3.06 <b>0.34</b>	6.60 <b>0.34</b>	
200	POLICE-EMERGING MARKETS PASSIVE - GROSS ESTMATED INVESTMENT FEES	277	0.59	(1131) (000)	(24.78) (0.01)	(17.22) 0.00	40.69 (0.03)	(2.08) (0.02)	17.29 (0.03)	18.79 (0.03)	(24.78) (0.01)	0.63 (0.02)	2.25 (0.03)	3.21	1.11	04/01/2011
	POLICE-EMERGING MARKETS PASSIVE - NET MGR			(1131)	(24.79)	(17.22)	40.66	(2.10)	17.27	18.76	(24.79)	0.61	2.22			
	MSCI EMERGING MARKETS			(1145)	(25.28)	(17.63)	40.90	(2.54)	18.31	18.42	(25.28)	0.57	2.18	3.06	1.04	
	EXCESS RETURN			0.14	0.49	0.41	(0.24)	0.44	(1.04)	0.34	0.49	0.05	0.04	0.14	0.07	
210	POLCE-TOTAL INTERNATIONAL FUND OF FUND - GROSS ESTMATED INVESTMENT FEES POLCE-TOTAL INTERNATIONAL FUND OF FUND - NET MGR	260	0.55	(1492) (010) (1502)	(22.33) (0.37) (22.69)	(22.06) (0.18) (22.24)	38.06 (0.77) 37.28	9.67 (0.60) 9.07	16.22 (0.64) 15.58	25.71 (0.62) 25.10	(22.33) (0.37) (22.69)	2.35 (0.54) 1.81	3.72 (0.53) 3.19		4.28 (0.53) 3.75	05/01/2017
	MSCI ACWI EX USA IMI NET			(1428)	(19.86)	(19.08)	37.18	8.53	11.12	21.63	(19.86)	1.55	2.50		3.10	
	EXCESS RETURN			(073)	(2.84)	(3.16)	0.11	0.55	4.46	3.47	(2.84)	0.26	1.22		0.65	

Through June 30, 2022



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	ALTERNATIVE EQUITY RETURN DETAIL															
228	POLCE-TOTAL HEDGE FUNDS' - NET MGR HFR FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	2,576	5.48	(274) (364) 0.90	0.17 (4.49) 4.66	(1.79) (6.06) 4.27	13.65 19.46 (5.82)	5.91 7.23 (1.32)	16.91 11.98 4.93	5.49 9.47 (3.98)	0.17 (4.49) 4.66	6.58 4.99 1.59	6.64 4.67 1.97	5.54 4.79 0.76	4.80 4.00 0.80	07/01/2011
238	POLICE-TOTAL DIRECT HEDGE FUNDS*- NET MGR HFR FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN	2,578	5.48	(274) (364) 0.90	0.21 (4.49) 4.70	(1.79) (6.06) 4.27	13.62 19.46 (5.85)	5.95 7.23 (1.28)	17.67 11.98 5.69	5.46 9.47 (4.01)	0.21 (4.49) 4.70	6.77 4.99 1.78	6.88 4.67 <b>2.21</b>	5.73 4.79 0.94	5.62 4.70 <b>0.92</b>	01/01/2012
248	POLICE-TOTAL PERMAL HEDGE FUNDS* - NET MGR HFR FUND OF FUNDS COMPOSITE INDEX + 1% EXCESS RETURN			(364)	(4.49)	(6.06)	17.98 19.46 (1.48)	7.23	11.98	9.47	(4.49)	4.99	4.67	4.79	4.00	

\*Information provided by Alpha Frontier.



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	ALTERNATIVE EQUITY RETURN DETAIL															
266	POLCE-TOTAL PRIVATE EQUITY (TIME WEIGHTED) - GROSS ESTMATED INVESTMENT FEES	4,792	10.19	′.51 (050)	31.31 (3.79)	7.95 (1.01)	52.69 (2.46)	50.48 (4.40)	16.49 (1.20)	11.94 (1.21)	31.31 (3.79)	26.72 (2.31)	22.85 (1.76)	17.33	15.60	04/01/2004
	POLCE-TOTAL PRIVATE EQUITY (TIME WEIGHTED) - NET MGR NYCR3000 +3% LAGŒD			′.01 (456)	27.53 15.25	6.94 5.04	50.23 67.21	46.08 35.74	15.30 18.42	10.72 6.00	27.53 15.25	24.41 21.74	21.09 18.82	17.62	14.42	
	EXCESS RETURN			5.57	12.27	1.90	(16.98)	10.34	(3.12)	4.72	12.27	2.67	2.27	(0.29)	1.18	
276	POLCE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED) - GROSS ESTMATED INVESTMENT FEES	3,329	7.08	8.10 (066)	34.21 (2.41)	16.80 (1.15)	9.59 (0.92)	23.54 (1.62)	1.04 (0.69)	7.20 (0.69)	34.21 (2.41)	14.73 (1.27)	13.09 (1.01)	13.70	9.54	04/01/2004
	POLCE-TOTAL PRIVATE REAL ESTATE (TIME WEIGHTED) - NET MGR NCREIF NFI-ODCE NET + 100 BP			7.44 4.80	31.80 29.57	15.66 12.55	8.67 8.15	21.91 22.21	0.35 1.35	6.51 5.43	31.80 29.57	13.46 12.77	12.08 10.64	11.25		
	EXCESS RETURN			2.64	2.23	3.11	0.52	(0.29)	(1.00)	1.08	2.23	0.69	1.44	2.45		
286	POLCE-TOTAL INFRASTRUCTURE (TIME WEIGHTED) - GROSS ESTMATED INVESTMENT FEES	856	1.82	6.02 (075)	18.30 (2.93)	10.13 (1.32)	19.71 (1.74)	16.92 (2.62)	7.89 (1.35)	13.99 (1.48)	18.30 (2.93)	14.30 (2.09)	15.05 (2.03)		15.30 (2.60)	
	POLICE-TOTAL INFRASTRUCTURE (TIME WEIGHTED) - NET MGR			5.27	15.37	8.81	17.97	14.30	6.53	12.51	15.37	12.21	13.02		12.70	
	CPI - 4% EXCESS RETURN			3.66 '.61	13.36	7.51 1.29	9.55 8.41	11.38 2.92	5.33 1.20	6.35	13.36 2.01	9.16 3.05	8.03 4.99		6.86 5.84	

## <u>Consolidated Performance Report</u>

Through June 30, 2022



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	FIXED INCOME RETURN DETAIL															
298	ESTMATED INVESTMENT FEES	15,473	32.90	(630) (004)	(8.71) (0.13)	(10.35) (0.06)	6.14 (0.15)	2.82 (0.15)	10.39 (0.15)	10.57 (0.14)	(8.71) (0.13)	1.63 (0.14)	2.84 (0.14)	3.35	7.62	02/01/1980
	EST MANAGEMENT FEES EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(0 04)	(0.13)	(0.06)	(0.15)	(0.15)	(0.15)	(0.14)	(0.13)	(0.14)	(0.14)			
	POLCE-TOTAL FIXED INCOME - NET MGR			(634)	(8.85)	(10.41)	5.99	2.66	10.25	10.42	(8.85)	1.49	2.70			
306	POLCE-TOTAL FIXED INCOME (ex ALTERNATIVE CREDIT & CASH) - GROSS ESTMATED INVESTMENT FEES	9,739	20.71	(682) (002)	(11.16) (0.07)	(12.18) (0.03)	1.63 (0.09)	(0.24) (0.08)	12.90 (0.09)	10.79 (0.08)	(11.16) (0.07)	0.62 (0.08)	2.16 (0.08)		2.70 (0.08)	11/01/2013
	EST MANAGEMENT FEES EST INCENTIVE FEES EST OTHER FEES EST FEE OFFSETS			(0 02)	(0.07)	(0.03)	(0.09)	(0.08)	(0.09)	(80.0)	(0.07)	(80.0)	(0.08)		(0.08)	
	POLCE-TOTAL FIXED INCOME (ex ALTERNATIVE CREDIT & CASH) - NET MGR			(684)	(11.24)	(12.21)	1.54	(0.32)	12.81	10.71	(11.24)	0.54	2.08		2.61	
314	POLCE-TOTAL STRUCTURED FIXED INCOME - GROSS ESTMATED INVESTMENT FEES	6,694	14.23	(663) (001)	(12.58) (0.05)	(13.09) (0.02)	(2.11) (0.05)	(2.56) (0.05)	13.70 (0.06)	10.80 (0.05)	(12.58) (0.05)	(0.35) (0.05)	1.58 (0.05)	2.32	6.86	01/01/1985
	POLCE-TOTAL STRUCTURED FIXED INCOME - NET MGR NYCCUSTOM STRUCTURED INDEX-POLICE			(664) (635)	(12.63) (12.31)	(13.11) (12.82)	(2.17) (2.24)	(2.61) (2.50)	13.64 15.71	10.75 13.17	(12.63) (12.31)	(0.40) 0.58	1.53 2.41	2.69		
	EXCESS RETURN			(029)	(0.32)	(0.29)	0.07	(0.11)	(2.08)	(2.42)	(0.32)	(0.98)	(0.87)	(0.37)		
324	POLCE-TOTAL GOVERNMENT - GROSS ESTMATED INVESTMENT FEES	1,947	4.14	(750) (000)	(13.12) (0.01)	(14.58) (0.00)	(10.57) (0.01)	(6.15) (0.01)	12.87 (0.02)	10.48 (0.03)	(13.12) (0.01)	(2.51) (0.02)	0.27 (0.02)	0.95	6.31	02/01/1987
	POLICE-TOTAL GOVERNMENT - NET MGR CUSTOM GOVERNMENT BENCHMARK - POLICE			(750) (759)	(13.13) (13.32)	(14.58) (14.90)	(10.58) (10.50)	(6.16) (6.11)	12.84 17.72	10.45 14.89	(13.13) (13.32)	(2.53)	0.25 1.77	2.07		
	EXCESS RETURN			0.09	0.20	0.32	(0.08)	(0.04)	(4.88)	(4.44)	0.20	(1.63)	(1.52)	(1.12)		
334	POLCE-TOTAL MORTGAGE - GROSS ESTMATED INVESTMENT FEES	1,999	4.25	(390)	(8.75) (0.06)	(8.58) (0.02)	0.14 (0.04)	(0.81) (0.05)	4.42 (0.06)	6.87 (0.05)	(8.75) (0.06)	(1.11) (0.05)	0.65 (0.05)	1.47	5.67	02/01/1987
	POLICE-TOTAL MORTGAGE - NET MGR NYCCUSTON MORTGAGE BENCHMARK			(391) (401)	(8.81)	(8.60)	0.10 (0.48)	(0.85)	4.36 3.91	6.83 6.68	(8.81)	(1.16)	0.60 0.43	1.20	5.47	
	EXCESS RETURN			0.10	0.22	0.18	0.57	0.19	0.45	0.15	0.22	0.22	0.17	0.27	0.20	
344	POLICE-TOTAL INVESTMENT GRADE CORPORATE - GROSS ESTMATED INVESTMENT FEES	2,748	5.84	(768) (002)	(14.54) (0.08)	(14.77) (0.04)	3.86 (0.10)	(0.73) (0.09)	9.76 (0.11)	14.56 (0.11)	(14.54) (0.08)	(1.01) (0.09)	1.32 (0.10)	2.83	6.37	01/01/1987
	POLICE-TOTAL INVESTMENT GRADE CORPORATE - NET MGR NYCCUSTOM IGC BENCHMARK			(770) (726)	(14.62) (14.19)	(14.81) (14.39)	3.75 3.34	(0.83)	9.65 9.70	14.44 13.40	(14.62) (14.19)	(1.10) (1.05)	1.22 1.16	2.41		
	EXCESS RETURN			(044)	(0.43)	(0.42)	0.41	0.02	(0.06)	1.05	(0.43)	(0.05)	0.06	0.42		

## <u>Consolidated Performance Report</u>

Through June 30, 2022



		Market Value					FYE	CYE	CYE	CYE						Inception
		(\$MM)	% of Total	3 Month	FYTD	CYTD	2021	2021	2020	2019	1 Year	3 Year	5 Year	10 Year	ITD	Date
	FIXED INCOME RETURNDETAIL															
356	POLICE-TOTAL CORE FI- DEVELOPING MGRS - GROSS ESTMATED INVESTMENT FEES	160	0.34	(526) (004)	(10.57) (0.17)	(10.67) (0.08)	1.87 (0.19)	(0.84) (0.19)	8.82 (0.21)	10.01 (0.22)	(10.57) (0.17)	(0.31) (0.19)	1.25 (0.20)	2.16	3.70	05/01/2009
	POLICE-TOTAL CORE FI- DEVELOPING MGRS - NET MGR BLODMBERG U.S. AGGREGATE			(530) (469)	(10.74) (10.29)	(10.76) (10.35)	1.68 (0.33)	(1.02) (1.54)	8.62 7.51	9.79 8.72	(10.74) (10.29)	(0.50)	1.05 0.88	1.54	2.83	
	EXCESS RETURN			(061)	(0.44)	(0.41)	2.01	0.52	1.11	1.08	(0.44)	0.44	0.18	0.62	0.87	
376	POLICE-TOTAL TIPS - GROSS ESTMATED INVESTMENT FEES	1,593	3.39	(623) (000)	(5.12) (0.02)	(8.85) (0.01)	6.44 (0.02)	5.88 (0.02)	11.11 (0.02)	8.46 (0.02)	(5.12) (0.02)	3.08 (0.02)	3.25 (0.02)	1.79	3.70	06/01/2005
	POLICE-TOTAL TIPS - VET MGR			(623)	(5.14)	(8.86)	6.42	5.86	11.09	8.44	(5.14)	3.06	3.23		. 200	
	BLODMBERG GLOBAL INFL-LINKED: U.S. TIPS			(608)	(5.14)	(8.92)	6.51	5.96	10.99	8.43	(5.14)	3.04	3.21	1.73	3.59	
	EXCESS RETURN			(015)	0.00	0.06	(0.09)	(0.10)	0.10	0.01	0.00	0.02	0.02	0.06	0.11	
386	POLCE-TOTAL CONVERTIBLE BONDS - GROSS ESTMATED INVESTMENT FEES	894	1.90	(1077) (008)	(11.04) (0.29)	(12.19) (0.15)	24.01 (0.43)	7.25 (0.35)	14.81 (0.42)	17.38 (0.44)	(11.04) (0.29)	4.97 (0.37)	6.17 (0.38)	7.73	6.77	07/01/2008
	POLICE-TOTAL CONVERTIBLE BONDS - NET MGR			(1084)	(11.34)	(12.33)	23.58	6.90	14.39	16.94	(11.34)	4.61	5.79			
	ICE BOFA ALL US CONV EX MANDATORY			(1624)	(22.73)	(20.80)	48.00	4.12	52.05	22.89	(22.73)	10.44	10.53	11.04	9.34	
	EXCESS RETURN			5.40	11.40	8.47	(24.41)	2.78	(37.66)	(5.95)	11.40	(5.83)	(4.74)	(3.31)	(2.57)	
396	POLICE-TOTAL TARGETED INVESTMENTS (NO CASH) - GROSS ESTMATED INVESTMENT FEES	397	0.85	(367)	(8.74) (0.15)	(8.89) (0.07)	0.76 (0.17)	(0.56) (0.16)	6.91 (0.18)	8.88 (0.19)	(8.74) (0.15)	(0.34) (0.16)	1.48 (0.18)	3.01 (0.20)	(0.10)	12/01/1984
	POLICE-TOTAL TARGETED INVESTMENTS (NO CASH) - NET MGR POLICE CUSTOM BENCHMARK (NO CASH)			(371)	(8.89) (8.95)	(8.97)	(0.16)	(0.72)	6.74 5.83	8.69 7.60	(8.89)	(0.50)	1.30 0.96	2.81 1.60	7.20	
	EXCESS RETURN			(.29	0.05	(0.03)	0.75	0.36	0.91	1.09	0.05	0.29	0.34	1.20		

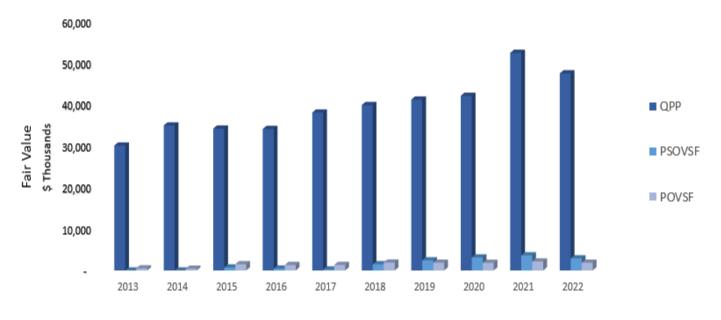
## <u>Consolidated Performance Report</u>

Through June 30, 2022



		Market Value (\$MM)	% of Total	3 Month	FYTD	CYTD	FYE 2021	CYE 2021	CYE 2020	CYE 2019	1 Year	3 Year	5 Year	10 Year	ITD	Inception Date
	ALTERNATIVE CREDIT INCOME RETURN DETAIL															
408	POLICE-TOTAL HIGH YIELD - GROSS ESTMATED INVESTMENT FEES POLICE-TOTAL HIGH YIELD - NET MGR HIGH YIELD CUSTOM BENCHMARK EXCESS RETURN	3,258	6.93	(971) (007) (978) (984)	(11.65) (0.27) (11.92) (12.82) 0.90	(13.18) (0.13) (13.30) (14.19)	15.94 (0.37) 15.56 15.34	5.91 (0.33) 5.58 5.26 0.32	7.63 (0.34) 7.29 7.05 0.24	14.99 (0.36) 14.63 14.32 0.31	(11.65) (0.27) (11.92) (12.82) 0.90	1.09 (0.32) 0.78 0.18	2.50 (0.32) 2.18 2.05 0.13	4.59 4.11 0.48	6.94 6.16 0.78	10/01/1994
418	POLCE-TOTAL BANK LOANS - GROSS ESTMATED INVESTMENT FEES POLCE-TOTAL BANK LOANS - NET MGR CSFB LEVERAGED LCAN INDEX EXCESS RETURN	1	0.00				11.67	5.40	1.68 (0.29) 1.40 2.78 (1.38)	8.33 (0.32) 8.02 8.17 (0.16)						12/01/2012
428	POLCE-TOTAL OPPORTUNISTIC FIXED INCOME - GROSS ESTMATED INVESTMENT FEES POLCE-TOTAL OPPORTUNISTIC FIXED INCOME - NET MGR OPPORTUNISTIC FIXED INCOME JPMGHY / CSFB 50/50 BLEND PLUS 300 EXCESS RETURN	1,998	4.25	0.31 (008) 0.23 (613) 6.36	8.18 (0.27) 7.91 (4.95) 12.87	1.41 (0.11) 1.29 (7.61) 8.90	21.81 (0.23) 21.59 17.35 4.24	18.00 (0.30) 17.70 8.29 9.41	5.49 (0.17) 5.32 7.22 (1.90)	5.47 (0.18) 5.29 14.66 (9.37)	8.18 (0.27) 7.91 (4.95) 12.87	8.95 (0.22) 8.72 4.01 4.71	7.86 (0.20) 7.65 5.58 2.07	7.33 1.09	8.16 8.10 0.06	10/01/2007
	CASH SUMMARY															
440	Shor Term - POLICE - 6ROSS ESTMATED INVESTMENT FEES Shor Term - POLICE - NET MGR	477	1.02	0.10 0.00 0.10	0.04 0.00 0.04	0.03 0.00 0.03	0.12 0.00 0.12	0.07 0.00 0.07	0.56 0.00 0.56	2.25 0.00 2.25	0.04 0.00 0.04	0.55 0.00 0.55	1.10 0.00 1.10	0.79 0.00 0.79		04/01/1982
444	Cash Account	0	0.00													
446	Securities Lending	D	0.00													
448	KKR Cash Account															

### New York City Police Pension Fund Investment Performance 10 Year Comparison June 30, 2013 - June 30, 2022



## **Investment Summary**

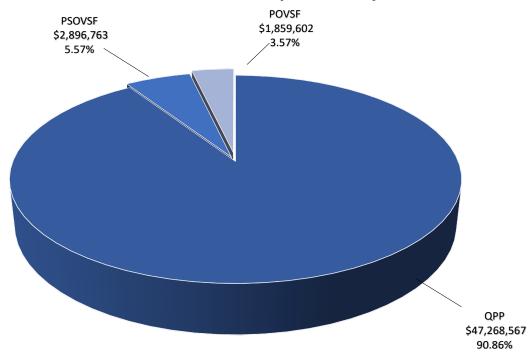
Year Ended June 30, 2022 (In thousands)

Type of Investments	Fair Value	Percentage of Total Fair Value
Type of misosimonic	1 4 1 4	
Fixed Income Securities:		
U.S Government Agency Corporate & Other	\$12,447,591	23.93%
Equity Securities:		
Domestic Equity	16,251,003	31.24%
International Equity	4,523,566	8.69%
	20,774,569	39.93%
Alternative Investments:		
Infrastructure	856,057	1.65%
Opportunistic Fixed Income	1,847,299	3.55%
Private Equity	4,753,360	9.14%
Private Real Estate	3,316,150	6.37%
Hedge Fund Investment	2,574,371	4.95%
	13,347,237	25.66%
Collective Trusts Funds:		
Bank Loans	868	0.00%
Corporate and Other	418,957	0.81%
Domestic Equity	182,938	0.35%
International Equity	2,050,573	3.94%
Mortgage Debt Securities	645,630	1.24%
Opportunistic Fixed Income	148,230	0.28%
U.S. Government and Agency	829,198	1.59%
	4,276,394	8.21%
Short-Term Investments:		
Short-Term Investments	518,037	1.00%
Commercial Paper	291,308	0.56%
Discount Notes & Treasury Bills	369,797	0.71%
	1,179,142	2.27%
Total Investments*	\$52,024,933	100.00%

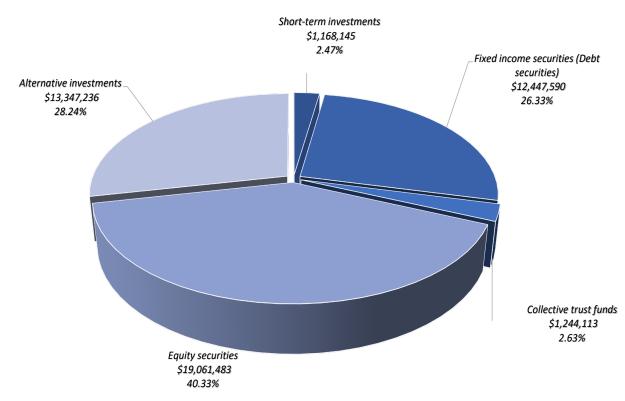
<sup>\*</sup>Security lending transactions of \$5,271,194 not included in total. All returns are time weighted rates of return.

### New York City Police Pension Fund Investment Charts Year Ended June 30, 2022

### **Total Investments (\$52.0Billion)**

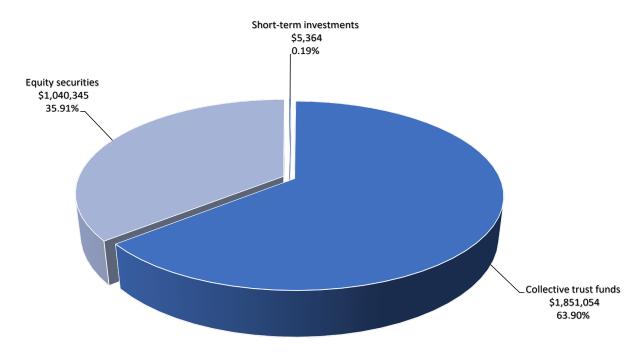


### **Qualified Pension Plan (\$47.3Billion)**

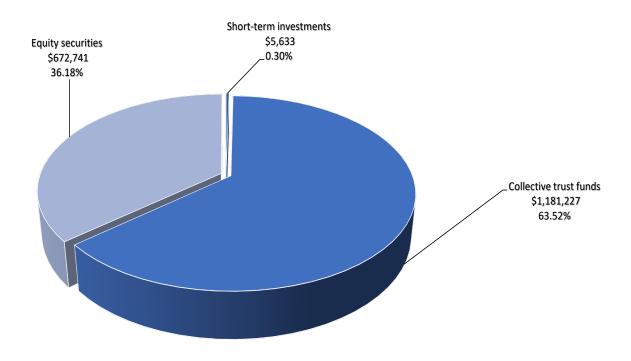


### New York City Police Pension Fund Investment Charts Year Ended June 30, 2022

### Police Superior Officers Variable Supplements Fund (\$2.9Billion)



Police Officers Variable Supplements Fund (\$1.8Billion)



## New York City Police Pension Fund List of Top 100 Fixed Asset Holdings As of June 30, 2022

CUSIP	Security Description	Maturity Date	Nominal Interest Rate	Quantity		Fair Value		<u>Par Value</u>	!	Gain/Loss
'923CXG908	AFL CIO HOUSING INV TRUST		0.00	159,818	\$	161,999,710	\$	179,703,923	\$	(17,704,212)
'01F020679	FNMA TBA 30 YR 2	7/14/2052	2.00	69,946,900	*	60,690,127	*	60,054,447	*	635,680
'3140XHHS9	FNMA POOL FS2040	2/1/2052	2.00	60,420,053		52,499,588		51,314,562		1,185,026
'21H030674	GNMA II TBA 30 YR 3	7/21/2052	3.00	45,035,000		42,449,090		41,516,218		932,872
'3132DVMA0	FED HM LN PC POOL SD7553	3/1/2052	3.00	44,346,556		41,701,727		41,941,253		(239,526)
'3132DVL94	FED HM LN PC POOL SD7552	1/1/2052	2.50	42,012,195		38,081,114		39,249,457		(1,168,343)
'21H022671	GNMA II TBA 30 YR 2.5	7/21/2052	2.50	39,265,900		35,928,299		36,404,361		(476,062)
'3140XBNR7	FNMA POOL FM7599	1/1/2051	3.50	36,492,446		35,532,694		37,324,930		(1,792,235)
'01F022683	FNMA TBA 30 YR 2.5	8/11/2052	2.50	38,686,047		34,737,749		34,254,807		482,942
'723787AP2	PIONEER NATURAL RESOURCE	5/15/2025	0.25	15,225,000		32,916,450		17,556,807		15,359,643
'94973VBG1	ELEVANCE HEALTH INC	10/15/2042	2.75	4,365,000		29,945,646		12,088,678		17,856,968
'01F022675	FNMA TBA 30 YR 2.5	7/14/2052	2.50	32,610,000		29,320,955		29,303,899		17,056
'01F022683	FNMA TBA 30 YR 2.5	8/11/2052	2.50	32,610,000		29,281,823		29,070,682		211,142
'958102AP0	WESTERN DIGITAL CORP	2/1/2024	1.50	28,925,000		27,478,750		28,325,715		(846,965)
'3132DWDR1	FED HM LN PC POOL SD8212	5/1/2052	2.50	30,015,908		27,029,925		27,382,068		(352,142)
'3140XFK67	FNMA POOL FS0316	11/1/2041	1.50	30,608,973		26,227,604		28,208,081		(1,980,477)
'844741BG2	SOUTHWEST AIRLINES CO	5/1/2025	1.25	21,805,000		25,675,388		27,874,993		(2,199,606)
'21H022671	GNMA II TBA 30 YR 2.5	7/21/2052	2.50	27,290,000		24,970,350		24,344,286		626,064
'298736AL3	EURONET WORLDWIDE INC	3/15/2049	0.75	24,401,000		24,675,511		26,712,468		(2,036,956)
'36179WTY4	GNMA II POOL MA7767	12/20/2051	2.50	26,490,027		24,326,587		26,551,174		(2,224,587)
'09857LAN8	BOOKING HOLDINGS INC	5/1/2025	0.75	20,270,000		24,299,676		25,077,286		(777,610)
'452327AK5	ILLUMINA INC	8/15/2023	0.01	24,986,000		23,749,193		28,656,443		(4,907,250)
'36179V4U1	GNMA II POOL MA7135	1/20/2051	2.00	26,595,455		23,734,316		23,882,657		(148,341)
'21H020675	GNMA II TBA 30 YR 2	7/21/2052	2.00	25,846,900		22,949,204		22,749,825		199,379
'01F020679	FNMA TBA 30 YR 2	7/14/2052	2.00	25,680,000		22,281,509		22,419,573		(138,064)
'01F020687	FNMA TBA 30 YR 2	8/11/2052	2.00	25,680,000		22,257,370		22,055,709		201,660
'48129KAE0	JPMORGAN CHASE FINANCIAL	5/1/2023	0.25	21,523,000		22,222,498		21,615,946		606,551
'01F040685	FNMA TBA 30 YR 4	4/25/2052	4.00	22,174,000		21,824,538		21,661,370		163,168
'36179V4W7	GNMA II POOL MA7137	1/20/2051	3.00	22,175,343		20,999,385		23,200,938		(2,201,553)
'01F040677	FNMA TBA 30 YR 4	7/14/2052	4.00	21,085,000		20,791,286		20,907,580		(116,294)
'30212PBE4	EXPEDIA GROUP INC	2/15/2026	0.01	22,920,000		20,685,300		24,982,870		(4,297,570)
'04010LAW3	ARES CAPITAL CORP	3/1/2024	4.63	19,525,000		20,281,594		21,024,506		(742,912)
'3132DWDH3 '3140QNYE6	FED HM LN PC POOL SD8204 FNMA POOL CB3408	4/1/2052 4/1/2052	2.00 2.50	22,047,055		19,158,009 18,727,698		20,919,584 19,512,133		(1,761,575)
'21H032688	GNMA II TBA 30 YR 3.5	8/18/2052	3.50	20,785,228 17,962,500		17,425,062		17,251,316		(784,435) 173,746
'3132DWDJ9	FED HM LN PC POOL SD8205	4/1/2052	2.50	19,356,584		17,423,002		17,231,310		(509,982)
'00287YCA5	ABBVIE INC	11/21/2039	4.05	19,328,000		17,425,249		22,597,548		(5,362,190)
'3140QLN36	FNMA POOL CB1309	8/1/2051	2.00	19,320,000		16,733,993		16,973,031		(239,038)
'21H030674	GNMA II TBA 30 YR 3	7/21/2052	3.00	17,079,348		16,098,652		16,247,218		(148,566)
'3140QLN44	FNMA POOL CB1310	8/1/2051	2.00	18,451,112		16,087,340		16,274,457		(187,117)
'95000U2Q5	WELLS FARGO + COMPANY	4/30/2041	3.07	18,925,000		14,655,899		19,505,343		(4,849,444)
'80281LAM7	SANTANDER UK GROUP HLDGS	8/21/2026	1.53	15,415,000		13,806,136		15,328,707		(1,522,571)
'345370CZ1	FORD MOTOR COMPANY	3/15/2026	0.01	15,100,000		13,771,200		17,828,418		(4,057,218)
'31418EAA8	FNMA POOL MA4500	12/1/2041	1.50	15,862,078		13,587,773		14,731,905		(1,144,132)
'01F032674	FNMA TBA 30 YR 3.5	7/14/2052	3.50	13,906,071		13,372,634		13,499,724		(127,089)
'06738EBB0	BARCLAYS PLC	5/16/2024	4.34	12,850,000		12,843,190		13,760,980		(917,791)
'36259RAA0	GSK FINANCE NO 3 PLC	6/22/2023	0.01	13,190,000		12,596,450		13,487,778		(891,328)
'3132DNAY9	FED HM LN PC POOL SD0923	1/1/2052	2.50	13,678,868		12,368,159		12,786,002		(417,842)
'31418DYB2	FNMA POOL MA4305	4/1/2051	2.00	14,147,567		12,297,631		13,113,026		(815,395)
'06738G8A1	BARCLAYS BANK PLC	2/4/2025	0.01	9,260,000	\$	12,260,888	\$	10,759,753	\$	1,501,135

Full listing of holdings can be obtained at

NYC Police Pension Fund - 233 Broadway, 25th Floor, New York, NY 10279

## New York City Police Pension Fund List of Top 100 Fixed Asset Holdings As of June 30, 2022

CHOID	Consults Donosiution	Maturity Data	Nominal	Overtite	Fair Value	Don Volus		Daim!! and
CUSIP	Security Description	Maturity Date	Interest Rate	<b>Quantity</b>	Fair Value	Par Value	<u>'</u>	Gain/Loss
'31418EAM2	FNMA POOL MA4511	1/1/2052	2.00	13,950,007	\$ 12,124,230	\$ 13,438,326	\$	(1,314,095)
'87265KAD4	SIXTH STREET SPECIALTY	8/1/2022	4.50	10,830,000	11,479,800	11,569,585		(89,785)
'3132DWDY6	FED HM LN PC POOL SD8219	6/1/2052	2.50	12,518,531	11,273,187	11,336,605		(63,418)
'01F022675	FNMA TBA 30 YR 2.5	7/14/2052	2.50	12,513,600	11,251,478	10,952,041		299,438
'404280CG2	HSBC HOLDINGS PLC	6/4/2026	2.10	12,140,000	11,213,232	12,305,528		(1,092,296)
'928298AP3	VISHAY INTERTECHNOLOGY	6/15/2025	2.25	11,815,000	11,180,535	12,589,750		(1,409,216)
'842587DE4	SOUTHERN CO	4/30/2030	3.70	11,948,000	11,086,430	13,697,868		(2,611,438)
'21H020675	GNMA II TBA 30 YR 2	7/21/2052	2.00	12,485,000	11,085,307	10,764,886		320,420
'26884LAK5	EQT CORP	5/1/2026	1.75	4,695,000	11,059,073	12,849,633		(1,790,560)
'01F030678	FNMA TBA 30 YR 3	7/14/2052	3.00	11,654,595	10,852,409	10,883,449		(31,040)
'49803XAB9	KITE REALTY GROUP LP	4/1/2027	0.75	12,310,000	10,825,414	12,388,546		(1,563,132)
'05971KAE9	BANCO SANTANDER SA	5/28/2025	2.75	11,400,000	10,794,546	11,818,878		(1,024,332)
'3132DVL52	FED HM LN PC POOL SD7548	11/1/2051	2.50	11,730,599	10,648,686	11,237,089		(588,403)
'682189AP0	ON SEMICONDUCTOR CORP	10/15/2023	1.63	4,360,000	10,629,680	6,133,464		4,496,216
'3140X9WD3	FNMA POOL FM6043	6/1/2049	3.50	10,824,458	10,586,753	11,513,671		(926,919)
'36179VSF8	GNMA II POOL MA6818	8/20/2050	2.00	11,838,364	10,583,261	11,629,773		(1,046,513)
'3132DWBB8	FED HM LN PC POOL SD8134	3/1/2051	2.00	12,066,414	10,518,534	10,546,800		(28,266)
'31418D7E6	FNMA POOL MA4492	12/1/2051	2.00	12,072,930	10,507,312	10,641,527		(134,215)
'3133KNL84	FED HM LN PC POOL RA6651	1/1/2052	2.00	11,971,329	10,436,006	11,798,774		(1,362,767)
'01F042673	FNMA TBA 30 YR 4.5	7/14/2052	4.50	10,325,000	10,364,132	10,250,254		113,878
'36179WQA9	GNMA II POOL MA7649	10/20/2051	2.50	11,215,702	10,303,193	11,240,675		(937,482)
'01F030686	FNMA TBA 30 YR 3	8/11/2052	3.00	11,000,000	10,230,000	10,105,262		124,738
'36179VXX3	GNMA II POOL MA6994	11/20/2050	2.00	11,456,534	10,227,133	11,046,268		(819,135)
'91324PDY5	UNITEDHEALTH GROUP INC	5/15/2040	2.75	13,130,000	10,226,301	14,163,929		(3,937,628)
'552848AB9	MGIC INVESTMENT CORP	4/1/2063	9.00	7,635,000	10,192,725	10,231,273		(38,548)
'95000U2S1	WELLS FARGO + COMPANY	6/2/2028	2.39	11,335,000	10,150,833	11,761,526		(1,610,693)
'55903VAG8	MAGALLANES INC	3/15/2027	3.76	10,775,000	10,106,842	10,725,434		(618,592)
'3132DMUR4	FED HM LN PC POOL SD0592	9/1/2050	3.00	10,579,354	10,038,749	10,298,753		(260,004)
'3140QKM96	FNMA POOL CB0383	5/1/2051	2.50	10,980,890	9,954,506	9,747,256		207,251
'42809HAG2	HESS CORP	4/1/2027	4.30	10,180,000	9,923,362	10,626,837		(703,475)
'785592AS5	SABINE PASS LIQUEFACTION	3/15/2027	5.00	9,882,000	9,905,914	10,976,903		(1,070,988)
'31418ECG3	FNMA POOL MA4570	3/1/2042	2.00	11,013,193	9,790,288	10,684,762		(894,474)
'06738EBL8	BARCLAYS PLC	5/7/2026	2.85	10,295,000	9,721,569	10,621,995		(900,426)
'21925AAE5	CORNERSTONE CHEMICAL CO	8/15/2024	6.75	10,820,000	9,662,909	9,989,085		(326, 176)
'78016FZQ0	ROYAL BANK OF CANADA	5/4/2032	3.88	10,080,000	9,614,707	10,061,453		(446,746)
'3132DVL60	FED HM LN PC POOL SD7549	1/1/2052	2.00	10,910,015	9,553,682	10,337,273		(783,591)
'78403DAN0	SBA TOWER TRUST	1/15/2050	2.84	9,870,000	9,525,375	10,333,770		(808,395)
'29427BAF6	EPIC Y GRADE SERVICES, LP	6/30/2027	0.00	10,834,089	9,506,913	9,249,797		257,116
'172967ME8	CITIGROUP INC	3/20/2030	3.98	9,930,000	9,287,132	11,483,714		(2,196,582)
'25470MAB5	DISH NETWORK CORP	8/15/2026	3.38	13,512,000	9,127,356	12,815,422		(3,688,066)
'110122AN8	BRISTOL MYERS SQUIBB CO	9/15/2023	1.33	4,565,000	9,021,810	6,644,540		2,377,270
'3132DWCT8	FED HM LN PC POOL SD8182	12/1/2051	2.00	10,337,643	8,989,407	9,106,817		(117,410)
'3140XFM32	FNMA POOL FS0377	2/1/2052	2.50	9,974,312	8,988,451	10,016,002		(1,027,551)
'3133KNL76	FED HM LN PC POOL RA6650	1/1/2052	2.00	10,255,701	8,940,407	10,117,489		(1,177,082)
'3132DMSG1	FED HM LN PC POOL SD0519	8/1/2050	3.00	9,407,175	8,896,271	10,233,505		(1,337,234)
'08161YBG7	BENCHMARK MORTGAGE TRUST	4/15/2055	3.79	9,115,000	8,723,402	9,388,036		(664,633)
'05526DBJ3	BAT CAPITAL CORP	9/6/2026	3.22	9,165,000	8,560,110	9,910,358		(1,350,248)
'3140QKP28	FNMA POOL CB0440	5/1/2051	2.50	9,321,536	8,401,034	8,479,685		(78,650)
'70202LAB8	PARSONS CORP	8/15/2025	0.25	7,925,000	8,325,213	8,407,516		(82,304)
'01F012478	FNMA TBA 15 YR 1.5	7/18/2037	1.50	9,100,000	\$ 8,274,630	\$ 8,119,617	\$	155,013

Full listing of holdings can be obtained at

NYC Police Pension Fund - 233 Broadway, 25th Floor, New York, NY 10279

## New York City Police Pension Fund List of Top 100 Equity Asset Holdings As of June 30, 2022

CUSIP	Security Description	Quantity		Fair Value		Par Value		Gain/Loss
'037833100	APPLE INC	2,920,574	\$	399,300,877	\$	130,964,141	\$	268,336,736
'594918104	MICROSOFT CORP	1,429,136	Ċ	367,044,999	·	140,283,013	·	226,761,986
'037833100	APPLE INC	1,467,480		200,633,866		159,722,504		40,911,361
'594918104	MICROSOFT CORP	718,117		184,433,989		144,435,296		39,998,693
'023135106	AMAZON.COM INC	1,697,624		180,304,645		139,218,952		41,085,693
'02079K305	ALPHABET INC CL A	57,445		125,187,591		65,941,484		59,246,106
'02079K107	ALPHABET INC CL C	52,463		114,760,189		59,813,646		54,946,543
'88160R101	TESLA INC	161,953		109,062,389		24,709,004		84,353,386
'084670702	BERKSHIRE HATHAWAY INC CL B	344,582		94,077,778		71,220,789		22,856,989
'91324P102	UNITEDHEALTH GROUP INC	178,652		91,761,027		41,661,911		50,099,116
'023135106	AMAZON.COM INC	852,800		90,575,888		98,348,825		(7,772,937)
'478160104	JOHNSON + JOHNSON	502,664		89,227,887		66,672,170		22,555,717
'717081103	PFIZER INC	1,596,945		83,727,826		56,173,817		27,554,010
'30303M102	META PLATFORMS INC CLASS A	437,946		70,618,793		78,253,591		(7,634,798)
'67066G104	NVIDIA CORP	460,241		69,767,933		28,027,457		41,740,477
'30231G102	EXXON MOBIL CORP	805,199		68,957,242		59,020,003		9,937,239
'742718109	PROCTER + GAMBLE CO/THE	456,484		65,637,834		37,142,476		28,495,358
'17275R102	CISCO SYSTEMS INC	1,537,978		65,579,382		74,735,129		(9,155,747)
'037833100	APPLE INC	475,057		64,949,793		17,830,138		47,119,655
'91913Y100	VALERO ENERGY CORP	603,975		64,190,463		44,191,272		19,999,191
'02079K305	ALPHABET INC CL A	28,848		62,867,292		54,669,853		8,197,439
'46625H100	JPMORGAN CHASE + CO	557,103		62,735,369		62,996,160		(260,791)
'92826C839	VISA INC CLASS A SHARES	314,439		61,909,895		39,673,334		22,236,561
'02079K107	ALPHABET INC CL C	26,325		57,584,621		49,276,036		8,308,585
'717081103	PFIZER INC	1,079,508		56,598,604		38,168,411		18,430,193
'949746101	WELLS FARGO + CO	1,444,049		56,563,399		68,794,323		(12,230,924)
'88160R101	TESLA INC	81,365		54,792,818		49,739,046		5,053,772
'166764100	CHEVRON CORP	375,350		54,343,173		44,467,169		9,876,004
'437076102	HOME DEPOT INC	197,349		54,126,910		35,476,942		18,649,968
'532457108	ELI LILLY + CO	160,934		52,179,631		13,715,215		38,464,416
'57636Q104	MASTERCARD INC A	164,416		51,869,960		30,417,211		21,452,748
'00287Y109	ABBVIE INC	337,558		51,700,383		35,734,773		15,965,611
'56585A102	MARATHON PETROLEUM CORP	600,437		49,361,926		38,840,339		10,521,587
'084670702	BERKSHIRE HATHAWAY INC CL B	172,981		47,227,273		46,625,973		601,300
'191216100	COCA COLA CO/THE	745,560		46,903,180		33,068,054		13,835,126
'91324P102	UNITEDHEALTH GROUP INC	89,663		46,053,607		34,156,301		11,897,306
'375558103	GILEAD SCIENCES INC	742,272		45,879,832		50,418,249		(4,538,416)
'031162100	AMGEN INC	187,231		45,553,302		41,484,529		4,068,773
'478160104	JOHNSON + JOHNSON	252,333		44,791,631		39,415,743		5,375,888
'58155Q103	MCKESSON CORP	135,771		44,289,858		25,645,897		18,643,960
'58933Y105	MERCK + CO. INC.	483,167		44,050,335		26,735,770		17,314,566
'713448108	PEPSICO INC	264,043		44,005,406		29,761,544		14,243,862
'30231G102	EXXON MOBIL CORP	505,960		43,330,414		36,602,952		6,727,462
'931427108	WALGREENS BOOTS ALLIANCE INC	1,117,868		42,367,197		54,380,507		(12,013,310)
'060505104	BANK OF AMERICA CORP	1,341,448		41,759,276		41,965,081		(205,805)
'92343V104	VERIZON COMMUNICATIONS INC	802,763		40,740,222		39,586,965		1,153,257
'883556102	THERMO FISHER SCIENTIFIC INC	74,731		40,599,858		16,503,445		24,096,412
'22160K105	COSTCO WHOLESALE CORP	84,562		40,528,875		16,483,120		24,045,755
'58933Y105	MERCK + CO. INC.	422,620		38,530,265		29,312,617		9,217,648
'718546104	PHILLIPS 66	463,782	\$	38,025,486	\$	37,344,194	\$	681,292

Full listing of holdings can be obtained at NYC Police Pension Fund - 233 Broadway, 25th Floor, New York, NY 10279

## New York City Police Pension Fund List of Top 100 Equity Asset Holdings As of June 30, 2022

CUSIP	Security Description	Quantity		Fair Value		Par Value		Gain/Loss
'11135F101	BROADCOM INC	76,270	\$	37,052,729	\$	20,821,969	\$	16,230,760
'002824100	ABBOTT LABORATORIES	327,511		35,584,070	Ċ	21,237,854	·	14,346,216
'30303M102	META PLATFORMS INC CLASS A	219,853		35,451,296		40,282,531		(4,831,234)
'67066G104	NVIDIA CORP	230,908		35,003,344		33,792,763		1,210,580
'580135101	MCDONALD S CORP	141,149		34,846,865		23,160,004		11,686,861
'30231G102	EXXON MOBIL CORP	404,058		34,603,527		31,521,423		3,082,104
'17275R102	CISCO SYSTEMS INC	794,122		33,861,362		35,776,884		(1,915,522)
'G1151C101	ACCENTURE PLC CL A	121,021		33,601,481		19,742,404		13,859,076
'931142103	WALMART INC	275,336		33,475,351		24,886,086		8,589,265
'20030N101	COMCAST CORP CLASS A	849,342		33,328,180		30,609,485		2,718,695
'00724F101	ADOBE INC	90,111		32,986,033		20,239,252		12,746,781
'742718109	PROCTER + GAMBLE CO/THE	229,066		32,937,400		27,779,113		5,158,287
'254687106	WALT DISNEY CO/THE	348,661		32,913,598		35,684,121		(2,770,522)
'46625H100	JPMORGAN CHASE + CO	279,560		31,481,252		33,272,592		(1,791,340)
'235851102	DANAHER CORP	123,639		31,344,959		13,487,443		17,857,516
'110122108	BRISTOL MYERS SQUIBB CO	406,767		31,321,059		25,166,547		6,154,512
'458140100	INTEL CORP	831,194		31,094,968		33,444,373		(2,349,405)
'92826C839	VISA INC CLASS A SHARES	157,824		31,073,967		27,243,337		3,830,630
'79466L302	SALESFORCE INC	183,814		30,336,663		25,152,558		5,184,105
'747525103	QUALCOMM INC	235,532		30,086,858		15,282,824		14,804,034
'458140100	INTEL CORP	781,594		29,239,432		39,487,440		(10,248,008)
'718172109	PHILIP MORRIS INTERNATIONAL	295,963		29,223,387		29,480,054		(256,668)
'65339F101	NEXTERA ENERGY INC	374,706		29,024,727		15,469,683		13,555,043
'00206R102	AT+T INC	1,364,904		28,608,388		36,808,450		(8,200,063)
'717081103	PFIZER INC	541,553		28,393,624		23,142,472		5,251,152
'949746101	WELLS FARGO + CO	724,354		28,372,946		39,375,496		(11,002,550)
'14149Y108	CARDINAL HEALTH INC	530,658		27,737,494		27,669,425		68,069
'G5494J103	LINDE PLC	95,957		27,590,516		29,097,809		(1,507,293)
'747525103	QUALCOMM INC	214,013		27,338,021		13,050,420		14,287,600
'75513E101	RAYTHEON TECHNOLOGIES CORP	284,015		27,296,682		22,804,161		4,492,521
'166764100	CHEVRON CORP	188,320		27,264,970		25,698,850		1,566,120
'437076102	HOME DEPOT INC	98,987		27,149,164		24,129,964		3,019,201
'882508104	TEXAS INSTRUMENTS INC	176,103		27,058,226		19,161,038		7,897,188
'532457108	ELI LILLY + CO	80,692		26,162,767		15,763,500		10,399,267
'57636Q104	MASTERCARD INC A	82,473		26,018,582		22,539,476		3,479,106
'00287Y109	ABBVIE INC	169,342		25,936,421		21,538,447		4,397,973
'911312106	UNITED PARCEL SERVICE CL B	140,402		25,628,981		15,547,556		10,081,426
'907818108	UNION PACIFIC CORP	119,905		25,573,338		16,437,087		9,136,251
'031162100	AMGEN INC	101,988		24,813,680		19,341,346		5,472,335
'500255104	KOHLS CORP	681,707		24,330,123		26,301,072		(1,970,949)
'459200101	INTL BUSINESS MACHINES CORP	171,599		24,228,063		24,997,539		(769,477)
'654106103	NIKE INC CL B	234,029		23,917,764		16,605,278		7,312,486
'007903107	ADVANCED MICRO DEVICES	308,492		23,590,383		8,572,260		15,018,123
'30161N101	EXELON CORP	519,341		23,536,534		19,114,535		4,422,000
'191216100	COCA COLA CO/THE	374,025		23,529,913		20,412,205		3,117,707
'126650100	CVS HEALTH CORP	250,363		23,198,636		17,036,331		6,162,305
'09062X103	BIOGEN INC	113,319		23,110,277		25,938,106		(2,827,829)
'464287622	ISHARES RUSSELL 1000 ETF	110,494		22,956,233		24,690,003		(1,733,770)
'G5960L103	MEDTRONIC PLC	255,281	φ	22,911,470	ф	21,362,618	ø	1,548,852
'03027X100	AMERICAN TOWER CORP	88,616	\$	22,649,363	\$	13,561,754	\$	9,087,610

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NYC Police Pension Fund - 233 Broadway, 25th Floor, New York, NY 10279

## New York City Police Pension Fund List of Top 100 Alternative Asset Holdings As of June 30, 2022

CUSIP	Security Description	Quantity		Fair Value		Par Value		Gain/Loss
'922VQL904	DE SHAW COMPOSITE FUND, LLC	64,161	\$	325,682,113	\$	100,354,886	\$	225,327,227
'ACI06VJX8	OAK HILL CTR ST PARTNERSHIP	10,448,473		276,823,720	·	178,341,051	·	98,482,669
'962BFY903	LION INDUSTRIAL TRUST	127,006,600		255,083,739		127,006,600		128,077,139
'ACI06VJW0	MARATHON CTR ST PARTNERSHIP	5,697,307		243,192,268		174,262,068		68,930,200
'ACI06DFK0	ALPHAQUEST ORIGINAL	152,136		240,337,349		163,000,000		77,337,349
'935TNH906	PHARO GAIA FUND LTD CL A S 1	98,948		212,957,085		196,161,059		16,796,026
'926FDP900	SRS PARTNERS US	39,064,312		195,904,713		103,312,497		92,592,216
'932SBK907	KEY SQUARE PARTNERS	193,290		188,898,858		194,500,000		(5,601,142)
'ACI06VHR3	APOLLO CENTRE ST PARTNERSHIP	14,082,423		187,510,153		149,233,059		38,277,094
'933JWW907	FLORIN COURT CAPITAL FUND	101,000,000		185,177,339		101,000,000		84,177,339
'ACI08B440	LASALLE US PROPERTY FUND	114,872,323		175,366,386		114,872,323		60,494,063
'976ENK902	TURIYA FUND	114,194		161,892,976		111,067,989		50,824,987
'966ACCII3	BLACK CREEK INDUSTRIAL FUND	121,311,055		159,712,434		121,311,055		38,401,378
'ACI0B2M46	ARES CENTRE STREET PARTNERSHIP	84,681		158,991,559		90,000,000		68,991,559
'935XRS909	PLATINUM EQTY CAP PTRS V LP	104,639,328		153,186,954		104,639,328		48,547,626
'944DMJII8	KONTIKI ONSHORE FUND	150,000,000		150,972,000		150,000,000		972,000
'979GFS906	PRUDENTIAL PRISA III	108,438,979		148,722,866		108,438,979		40,283,888
'ACI084PS0	METLIFE CORE PROPERTY FUND	99,000,000		142,200,432		99,000,000		43,200,432
'ACI06VK08	AG CENTRE ST PARTNERSHIP	72,760		135,600,089		98,832,335		36,767,754
'ACI08C7T0	LUXOR CAPITAL PARTNERS	117,596		135,535,165		112,956,596		22,578,569
'962RLN905	KKR NYC CREDIT B LP	92,654,542		132,719,200		101,200,585		31,518,615
'963ECW903	DL PARTNERS OPPORTUNITIES FUND	120,500		132,601,568		120,500,000		12,101,568
'963DBT903	VISTA EQUITY PARTNERS FUND VII	85,992,549		132,250,951		85,992,549		46,258,402
'976HWQ902	WARBURG PINCUS XII	64,924,865		131,409,354		64,924,865		66,484,490
'964KPR905	GRESHAM QUANT ACAR FD LLC	77,000		131,059,526		77,000,000		54,059,526
'933GHF907	VOLORIDGE FUND	75,000		126,572,011		75,000,000		51,572,011
'931KLY904	APOLLO IX	82,004,263		122,630,159		82,004,263		40,625,896
'ACI082WV9	VISTA EQUITY PARTNERS FUND V	51,021,311		119,415,480		50,051,160		69,364,320
'932TWH909	KKR AMERICAS FUND XII LP	61,236,024		116,123,648		62,041,197		54,082,451
'931PNS904	CVC VII	60,018,163		115,963,296		67,887,690		48,075,606
'928EDW906	VISTA EQUITY PARTNERS VI, L.P.	57,499,964		114,843,643		57,499,964		57,343,679
'962BGA904	BROOKFIELD PREMIER RE PARTNERS	77,581,909		114,715,791		77,581,909		37,133,882
'74199B911	PRUDENTIALS PRISA II	48,071,785		114,271,391		48,071,785		66,199,607
'930MHC904	CARLYLE PROPERTY INVESTORS	75,738,932		112,339,620		75,738,932		36,600,688
'926BKS905	IFM GLOBAL INFRASTURE (US) LP	61,910,894		107,550,552		61,910,894		45,639,658
'ACI06CN64	CVC CAPITAL PARTNERS VI	43,878,016		105,637,272		50,103,049		55,534,223
'932SJQ906	EQT VIII	45,705,488		103,929,879		52,055,250		51,874,628
'933GHE900	BREP IX	56,735,674		93,920,859		56,735,674		37,185,185
'933KTZ901	WP GLOBAL GROWTH	67,432,419		93,847,586		67,432,419		26,415,167
'966MGT905	CORTLAND GROWTH AND INCOME LP	65,508,433		92,859,579		65,508,433		27,351,146
'962SKE904	WARBURG PINCUS FINANCIAL SECTO	45,939,291		91,071,245		45,939,291		45,131,954
'ACI0C35L4	BLACKSTONE RE PRTNRS VIII	57,100,383		85,554,646		57,100,383		28,454,263
'922VQE900	CASPIAN SELECT CREDIT FUND	68,894		85,548,214		72,653,276		12,894,938
'927RTF908	USAA EAGLE RE FUND	63,676,661		84,804,831		63,676,661		21,128,171
'962TGC901	BROOKFIELD STRATEGIC RE III LP	60,111,720		81,960,827		60,111,720		21,849,107
'930LAB905	APAX IX USD L.P.	32,917,343		81,698,246		35,074,177		46,624,069
'976LFP904	GLOBAL INFRASTRUCTURE PRT III	58,114,515		81,507,467		58,114,515		23,392,952
'964MXY907	EXETER INDUSTRIAL CORE FND III	62,500,000		81,499,125		62,500,000		18,999,125
'962VGP907	BRIDGEPOINT VI	53,942,556	<b>ው</b>	77,656,559	Φ	61,224,872	Φ	16,431,687
'933REU903	MARANON PARTNERSHIP	11,828,205	ф	75,436,283	ф	59,286,538	ф	16,149,745

Full listing of holdings can be obtained at NYC Police Pension Fund - 233 Broadway, 25th Floor, New York, NY 10279

## New York City Police Pension Fund List of Top 100 Alternative Asset Holdings As of June 30, 2022

CUSIP	Security Description	Quantity		Fair Value		Par Value		Gain/Loss
'932SBJ900	ICG CENTRE ST PARTNERSHIP	10,484,170	\$	74,916,642	\$	61,175,787	\$	13,740,855
'966MRQ909	GEMSSTOCK FUND LP	45,000		74,879,305		45,000,000		29,879,305
'934LCY909	ASF VIII B	40,674,296		74,670,035		40,674,295		33,995,740
'ACI006PI5	JP MORGAN STR PROPERTY FD	5,325,358		74,544,358		44,929,340		29,615,018
'ACI06VJ42	FORTRESS CNTRE ST PARTNERSHIP	361,797		70,609,038		51,443,745		19,165,293
'932TTQ903	KKR RE CREDIT OPP PRNTS AGG I	72,243,221		69,835,499		72,243,221		(2,407,722)
'ACI018UL7	GREEN EQUITY INVESTORS VI	36,435,624		68,318,689		36,435,624		31,883,065
'930HBL901	H/2 SPECIAL OPP IV LP	53,953,395		68,269,227		53,953,395		14,315,832
'962VLX904	SIRIS PARTNERS IV	41,396,558		67,952,781		41,396,558		26,556,223
'ACI06VK40	CONTRARIAN CTR ST PARTNERSHIP	5,547,288		66,987,334		55,000,000		11,987,334
'934KTV909	LEXINGTON IX	39,412,637		66,691,424		39,412,636		27,278,788
'965SET905	FCO MA CENTRE ST II	2,105,494		66,289,106		55,033,691		11,255,415
'928QUK906	GREEN EQUITY INVESTORS VII	28,333,313		65,233,741		28,333,313		36,900,428
'931ARB900	PLATINUM EQUITY CAP PTNRS IV	34,124,902		64,509,511		34,124,902		30,384,608
'979GFM909	PROLOGIS INC	22,646,674		62,081,870		34,594,860		27,487,010
'935XQV903	EQT INFRA FUND IV	41,746,334		60,869,078		41,746,334		19,122,743
'962PYT902	FIRSTMARK CAPITAL I	4,987,144		59,765,964		5,532,523		54,233,441
'ACI07YY48	LEXINGTON CAPT PRTNS VIII	43,615,283		58,287,507		43,615,283		14,672,225
'966RYG902	EQT IX USD	43,309,838		57,986,460		43,309,838		14,676,622
'965RHN907	GREEN EQUITY INVESTORS VIII	52,411,148		57,624,380		52,411,148		5,213,232
'963DBS905	WCAS FUND XIII	42,636,151		55,952,786		42,636,150		13,316,635
'975EFB902	VISTA EQUITY PARTNERS FUND IV,	22,946,826		55,825,796		22,946,826		32,878,970
'967HRT002	MARATHON CTR ST PARTNERSHIP B	13,719,285		55,428,341		43,593,750		11,834,591
'943GGV000	KKR RE PARTNERS AMERICAS III	53,650,359		54,957,121		53,650,359		1,306,762
'937TQC902	CALEDONIA FUND US LP	100,000		54,639,936		100,000,000		(45,360,064)
'ACI064Z93	APOLLO INVESTMENT FUND VIII	46,183,785		53,236,603		46,183,785		7,052,818
'ACI0CLXD1	EQT VII	37,256,470		53,134,968		42,509,340		10,625,627
'928DCR900	PW REAL ESTATE FUND III LP	17,195,747		53,005,398		19,718,162		33,287,235
'ACI05JGB7	OAKTREE OPPORTUNITIES FUND IX,	15,538,374		52,557,448		29,307,738		23,249,711
'930VRP904	BC EUROPEAN CAPITAL X	30,492,570		52,053,817		34,762,020		17,291,797
'ACI00PZ50	SUMMIT PTN GROWTH EQTY FD VIII	13,508,532		51,604,619		13,508,532		38,096,087
'964KDS906	BROOKFIELD INFRA FUND IV B	42,203,574		50,616,223		42,203,574		8,412,649
'ACI0BCBL8	AMERICAN SEC PTNRS VII	29,260,649		50,164,808		29,260,649		20,904,159
'ACI076JS3	BROOKFIELD INFR FD II	36,604,200		49,380,053		36,604,200		12,775,854
'ACI0CDWS7	WCAS XII	20,519,426		48,410,682		20,519,426		27,891,256
'976XMN905	BRIGHTWOOD CAPITAL FUND IV LP	7,555,601		47,491,236		38,235,876		9,255,360
'922WLC907	RFM NYCERS SANDY LLC	42,071,444		46,120,274		42,071,444		4,048,830
'928BWN901	ALTIMETER PARTNERS FUND LP	38,000		45,085,023		39,242,354		5,842,669
'ACI06CZS3	CARLYLE PARTNERS VI	20,318,471		44,683,650		20,318,471		24,365,179
'943BTZ909	HARBOURVEST CENTRE ST COINV	44,000,000		44,406,692		44,000,000		406,692
'964MXZ904	TORCHLIGHT DEBT OPPORTUNITY VI	5,693,446		43,650,125		36,367,124		7,283,001
'927NJZ904	ARES CORPORATE OPPORTUNITIES	33,083,930		43,143,330		33,083,929		10,059,401
'942SGH907	CIREP CENTRE STREET	39,215,686		42,911,333		39,215,686		3,695,647
'933SWZ900	KKR GLOBAL INFRASTRUCTURE III	39,414,441		42,419,240		39,414,441		3,004,799
'930ADP905	BROOKFIELD INFRA FUND III	34,471,765		42,379,898		34,471,765		7,908,133
'966ACUII3	CLEARLAKE CAPITAL PARTNERS VI	26,202,252		41,963,116		26,202,252		15,760,864
'933LDF900	KKR EUROPE V	35,995,870		41,917,227		35,995,870		5,921,357
'967HBJ902	THE RESOLUTE FUND V	22,840,826		41,258,206		22,840,825		18,417,381
'976TPJ900	EXETER CORE IN CLUB FUND II LP	18,227,800	•	40,849,648	_	18,227,800	<b>^</b>	22,621,848
'ACI08L1H2	CRESTVIEW PRTNR III	33,233,023	\$	40,387,727	\$	33,233,023	\$	7,154,704

Full listing of holdings can be obtained at

NYC Police Pension Fund - 233 Broadway, 25th Floor, New York, NY 10279

## New York City Police Pension Fund List of Top 100 Treasury Inflation Protected Securities As of June 30, 2022

CUSIP	Security Description	Quantity		Fair Value		Par Value		Gain/Loss		Accrued Income
'9128285P1	US TREASURY N/B	64,000,000	\$	63,917,440	\$	67,932,500	\$	(4,015,060)	\$	<u>Income</u> 155,847
'912810SF6	US TREASURY N/B	48,200,000	Ψ	45,931,226	Ψ	52,456,227	Ψ	(6,525,001)	Ψ	543,249
'912828VM9	TSY INFL IX N/B	44,874,008		45,662,893		45,310,151		352,741		77,631
'912828B25	TSY INFL IX N/B	41,336,946		42,044,221		42,556,165		(511,944)		119,186
'912810SA7	US TREASURY N/B	44,500,000		41,927,455		45,474,314		(3,546,859)		501,547
'912810TA6	US TREASURY N/B	54,000,000		41,075,640		52,214,147		(11,138,507)		355,028
'912810SX7	US TREASURY N/B	47,000,000		39,676,460		51,626,228		(11,949,768)		142,565
'912810TB4	US TREASURY N/B	51,250,000		38,453,388		49,880,355		(11,426,967)		122,728
'912828WU0	TSY INFL IX N/B	37,666,026		38,026,490		37,755,103		271,387		21,720
'912810RZ3	US TREASURY N/B	42,400,000		37,984,464		47,736,629		(9,752,165)		148,918
'912810SZ2	US TREASURY N/B	49,000,000		37,869,650		47,879,492		(10,009,842)		368,177
'91282CDX6	TSY INFL IX N/B	39,834,266		37,810,685		41,910,843		(4,100,158)		22,971
'912810SQ2	US TREASURY N/B	54,500,000		37,651,870		49,668,072		(12,016,202)		230,345
'9128283R9	TSY INFL IX N/B	36,546,486		36,296,508		36,015,827		280,681		84,299
'912810SC3	US TREASURY N/B	37,200,000		36,001,044		39,674,603		(3,673,559)		148,471
'91282CCM1	TSY INFL IX N/B	37,836,314		35,974,389		42,229,991		(6,255,602)		21,819
'912810RU4	US TREASURY N/B	38,825,000		35,397,529		42,600,842		(7,203,313)		142,561
'912828XL9	TSY INFL IX N/B	34,909,296		35,258,738		34,778,649		480,089		60,392
'912828Z37	TSY INFL IX N/B	36,794,298		35,119,789		38,166,281		(3,046,492)		21,218
'912828ZZ6	TSY INFL IX N/B	36,090,216		34,417,435		39,754,485		(5,337,050)		20,812
'912810TC2	US TREASURY N/B	43,000,000		34,151,460		40,870,156		(6,718,696)		109,837
'91282CBF7	TSY INFL IX N/B	35,810,400		34,061,062		39,179,831		(5,118,769)		20,650
'912810SR0	US TREASURY N/B	48,700,000		33,899,583		48,314,732		(14,415,149)		69,973
'9128282L3	TSY INFL IX N/B	33,484,699		33,363,150		33,168,082		195,068		57,928
'912828YL8	TSY INFL IX N/B	32,672,560		32,872,516		33,121,825		(249,309)		8,592
'912828N71	TSY INFL IX N/B	32,457,703		32,821,230		33,150,547		(329,317)		93,585
'912810SJ8	US TREASURY N/B	39,800,000		32,656,298		44,279,508		(11,623,210)		336,431
'912810RN0	US TREASURY N/B	35,875,000		32,590,285		39,634,479		(7,044,194)		387,490
'91282CEJ6	TSY INFL IX N/B	32,762,030		32,256,512		33,326,692		(1,070,180)		8,616
'912810SU3	US TREASURY N/B	43,000,000		32,255,160		41,512,031		(9,256,871)		302,901
'912810SD1	US TREASURY N/B	34,000,000		32,125,920		36,509,337		(4,383,417)		383,204
'912828H45	TSY INFL IX N/B	31,893,934		32,087,211		32,218,927		(131,716)		36,784
'912828S50	TSY INFL IX N/B	31,306,370		31,052,788		31,119,826		(67,037)		18,053
'912810RK6	US TREASURY N/B	36,500,000		30,956,745		34,673,583		(3,716,838)		342,818
'91282CDC2	TSY INFL IX N/B	31,205,395		30,921,114		33,786,600		(2,865,486)		8,206
'912828ZJ2	TSY INFL IX N/B	30,886,056		30,901,190		32,343,080		(1,441,890)		8,122
'91282CAQ4	TSY INFL IX N/B	30,914,055		30,889,942		33,220,620		(2,330,678)		8,130
'912810SH2	US TREASURY N/B	32,900,000		30,675,302		37,572,356		(6,897,054)		120,805
'912810RB6	US TREASURY N/B	33,500,000		30,547,980		34,370,785		(3,822,805)		123,008
'912810QY7	US TREASURY N/B	33,500,000		29,996,905		34,756,101		(4,759,196)		117,660
'912828V49	TSY INFL IX N/B	29,868,832		29,757,720		29,730,952		26,767		51,672
'912810RT7	US TREASURY N/B	36,750,000		29,632,628		32,948,771		(3,316,144)		310,649
'912828ZC7	US TREASURY N/B	31,000,000		29,505,800		31,114,484		(1,608,684)		116,566
'912810SN9	US TREASURY N/B	45,500,000		28,949,375		43,608,253		(14,658,878)		72,639
'9128287B0	US TREASURY N/B	30,000,000		28,691,100		31,457,813		(2,766,713)		1,529
'912810RQ3	US TREASURY N/B	33,830,000		28,685,472		32,092,350		(3,406,878)		317,740
'912810SK5	US TREASURY N/B	33,500,000		28,294,435		35,555,464		(7,261,029)		101,615
'9128286L9	US TREASURY N/B	29,000,000		28,177,560		30,904,258		(2,726,698)		164,016
'912810SS8	US TREASURY N/B	40,000,000		28,132,800		34,893,164		(6,760,364)		83,016
'912810RY6	US TREASURY N/B	31,300,000	\$	27,989,086	\$	33,520,269	\$	(5,531,183)	\$	323,376

Full listing of holdings can be obtained at

## New York City Police Pension Fund List of Top 100 Treasury Inflation Protected Securities As of June 30, 2022

CUSIP	Security Description	Quantity		Fair Value		Par Value		Gain/Loss		Accrued Income
'91282CBZ3	US TREASURY N/B	31,000,000	\$	27,961,690	\$	30,773,555	\$	(2,811,865)	\$	65,285
'9128284V9	US TREASURY N/B	28,000,000	Ψ	27,658,680	*	31,110,625	Ψ	(3,451,945)	•	302,431
'912810SL3	US TREASURY N/B	35,600,000		27,587,152		41,168,598		(13,581,446)		267,492
'912828Y38	TSY INFL IX N/B	26,669,666		26,860,355		26,586,458		273,896		92,276
'9128287D6	TSY INFL IX N/B	26,838,213		26,023,136		26,984,679		(961,543)		30,953
'912810RJ9	US TREASURY N/B	27,450,000		25,437,366		28,810,307		(3,372,941)		105,175
'91282CCA7	TSY INFL IX N/B	25,571,272		25,331,925		27,782,293		(2,450,368)		6,725
'912828G38	US TREASURY N/B	25,000,000		24,576,250		25,938,806		(1,362,556)		71,841
'91282CDG3	US TREASURY N/B	26,500,000		24,426,640		26,359,929		(1,933,289)		50,228
'9128285W6	TSY INFL IX N/B	23,837,337		24,059,501		24,426,431		(366,930)		96,222
'912810RS9	US TREASURY N/B	28,000,000		23,732,240		26,522,643		(2,790,403)		89,402
'912828H45	TSY INFL IX N/B	23,449,986		23,592,093		24,938,915		(1,346,822)		27,045
'912810FR4	TSY INFL IX N/B	21,237,165		22,503,537		23,881,134		(1,377,597)		232,685
'91282CCJ8	US TREASURY N/B	24,500,000		22,491,245		24,476,981		(1,985,736)		583
'912810QN1	US TREASURY N/B	18,530,000		22,315,679		25,324,015		(3,008,336)		330,673
'91282CCK5	US TREASURY N/B	22,000,000		21,399,180		21,781,646		(382,466)		75
'912810TD0	US TREASURY N/B	26,000,000		21,397,220		25,300,312		(3,903,092)		219,779
'912828VM9	TSY INFL IX N/B	20,885,743		21,252,915		22,201,217		(948,303)		36,132
'9128286N5	TSY INFL IX N/B	20,542,696		20,826,802		20,675,129		151,672		21,609
'91282CAQ4	TSY INFL IX N/B	20,375,426		20,359,533		22,107,041		(1,747,508)		5,358
'912810RL4	TSY INFL IX N/B	21,300,981		19,070,129		22,062,785		(2,992,656)		60,019
'912810TG3	US TREASURY N/B	20,145,000		19,027,557		19,054,862		(27,305)		80,265
'912810QE1	US TREASURY N/B	15,900,000		18,921,000		21,841,640		(2,920,640)		276,273
'912810QH4	US TREASURY N/B	16,200,000		18,669,204		23,185,307		(4,516,103)		90,520
'912828V49	TSY INFL IX N/B	18,640,348		18,571,006		20,141,103		(1,570,097)		32,247
'91282CDY4	US TREASURY N/B	20,327,000		18,415,042		18,634,460		(219,417)		143,187
'912810FH6	TSY INFL IX N/B	14,898,245		17,987,099		19,751,811		(1,764,713)		121,455
'912810QW1	US TREASURY N/B	19,060,000		17,867,225		22,537,135		(4,669,910)		73,029
'91282CCM1	TSY INFL IX N/B	18,544,464		17,631,891		20,546,406		(2,914,515)		10,694
'91282CDX6	TSY INFL IX N/B	18,529,845		17,588,529		19,446,449		(1,857,919)		10,685
'912810QX9	US TREASURY N/B	19,600,000		17,585,708		19,710,269		(2,124,561)		202,497
'912810FD5	TSY INFL IX N/B	15,024,390		17,548,037		18,936,154		(1,388,118)		114,581
'912828B25	TSY INFL IX N/B	17,083,328		17,375,624		17,540,117		(164,493)		49,256
'912810QU5	US TREASURY N/B	18,100,000		17,335,637		19,470,883		(2,135,246)		212,500
'912810RF7	TSY INFL IX N/B	16,917,283		17,301,136		19,174,586		(1,873,450)		87,390
'912810QL5	US TREASURY N/B	15,200,000		17,177,824		19,407,868		(2,230,044)		82,505
'912810TF5	US TREASURY N/B	20,000,000		16,959,400		20,343,750		(3,384,350)		178,453
'912810SP4	US TREASURY N/B	25,200,000		16,587,648		21,305,756		(4,718,108)		130,177
'91282CDJ7	US TREASURY N/B	19,070,000		16,540,174		18,359,972		(1,819,798)		33,489
'912828WU0	TSY INFL IX N/B	16,293,012		16,448,937		17,283,416		(834,480)		9,395
'912828ZZ6	TSY INFL IX N/B	17,046,288		16,256,193		18,805,555		(2,549,363)		9,830
'91282CBF7	TSY INFL IX N/B	16,744,832		15,926,847		18,304,007		(2,377,160)		9,656
'912810FS2	TSY INFL IX N/B	14,988,857		15,874,099		16,622,474		(748,375)		138,295
'912828YL8	TSY INFL IX N/B	15,564,532		15,659,787		16,105,969		(446,182)		4,093
'912828S50	TSY INFL IX N/B	15,639,317		15,512,639		16,130,312		(617,674)		9,019
'912810QV3	TSY INFL IX N/B	16,841,063		15,385,827		16,607,362		(1,221,535)		47,453
'9128283R9	TSY INFL IX N/B	15,188,348		15,084,460		16,233,832		(1,149,373)		35,034
'9128282L3	TSY INFL IX N/B	15,024,807		14,970,267		15,820,551		(850,285)		25,992
'9128286R6	US TREASURY N/B	15,000,000	_	14,804,250	_	15,775,195	_	(970,945)	_	56,861
'9128286Z8	US TREASURY N/B	15,000,000	\$	14,640,300	\$	15,580,664	\$	(940,364)	\$	713

Full listing of holdings can be obtained at

Fiscal Year Beginning July 1, 2021 Report includes the following period: June 2022

Broker Name	Shares/Par Value	Base Commission	
ABEL NOSER	\$ 66,205	\$ 3,310	
ABN AMRO CLEARING BANK N.V.	90,272	1,787	
ACADEMY SECURITIES INC	5,321	106	
ALLEN & COMPANY LLC	41,667	1,250	
APEX CLEARING CORPORATION	273,982	9,750	
ARQAAM CAPITAL LIMITED	628,583	3,360	
ARQAAM SECURITIES LLC	1,989,183	2,850	
AUTREPAT-DIV RE	16,178	448	
BANCO ITAU SA	225,392	2,723	
BANCO PACTUAL S.A.	459,944	1,824	
BANCO SANTANDER (BRASIL) S.A.	397,800	717	
BANCO SANTANDER CENTRAL HISPANO	211,320	1,244	
BANCO SANTANDER CHILE	540,537	113	
BANCO SANTANDER MEXICANO, S.A.	127,132	539	
BANCROFT CAPITAL LLC	15,785	126	
BANK OF AMERICA CORPORATION	1,410,988	10,729	
BARCLAYS CAPITAL	1,180,367	17,512	
BARCLAYS CAPITAL INC	652,382	2,500	
BARCLAYS CAPITAL INC./LE	826,549	6,476	
BARCLAYS CAPITAL LE	1,895,794	27,017	
BARRINGTON RESEARCH ASSOCIATES	3,370	101	
BERENBERG CAPITAL MARKETS LLC	72,329	2,532	
BERNSTEIN AUTONOMOUS LLP	6,412,878	58,674	
BMO CAPITAL MARKETS	493,353	15,428	
BMO NESBITT BURNS INC	166,567	3,921	
BNP PARIBAS	351,255	1,729	
BNP PARIBAS PRIME BROKERAGE, INC.	1,318,484	10,275	
BNP PARIBAS SECURITIES (ASIA) LTD.	983,589	704	
BNP PARIBAS SECURITIES SERVICES	3,486,098	20,886	
BNP PARIBAS SECURITIES SERVICES SA	2,452,557	2,517	
BOFA SECURITIES, INC	756,142	4,189	
BOFA SECURITIES, INC.	39,864,666	249,268	
BRADESCO S.A. CTVM	1,181,710	5,287	
BTG PACTUAL CASA DE BOLSA	148,462	129	
BTG PACTUAL CHILE S.A. CORREDORES DE BOL	21,153,961	837	
BTIG, LLC	256,046	8,141	
CABRERA CAPITAL MARKETS	3,934,628	21,749	
CABRERA CAPITAL MARKETS LLC	118,858	7,196	
CANACCORD GENUITY INC.	187,192	7,260	
CANTOR FITZGERALD + CO.	546,926	7,809	
CANTOR FITZGERALD EUROPE	142,442	2,070	
CAPITAL INSTITUTIONAL SVCS INC EQUITIES	887,359	31,058	
CARNEGIE A S	761,040	22,283	
CARNEGIE INVESTMENT BANK AB	27,260	1,594	
CARNEGIE SECURITIES FINLAND	121,410	2,548	
CASTLEOAK SECURITIES LP	4,004,034	10,111	
CF GLOBAL TRADING LLC	\$ 27,777	\$ 1,370	

Fiscal Year Beginning July 1, 2021 Report includes the following period: June 2022

Broker Name	Shares/Par Value	Base Commission
CGS-CIMB SECURITIES (HONG KONG) LTD	\$ 1,972,710	\$ 1,050
CHINA INTERNATIONAL CAPITAL CO	1,114,896	3,332
CHINA RENAISSANCE SECURITIES HK LTD	604,500	4,408
CIBC WORLD MARKETS CORP	1,643	66
CIBC WORLD MKTS INC	460,471	2,530
CIMB SECURITIES LTD., KOREA BRANCH	1,692	81
CIMB-GK SECURITIES PTE.LTD.	1,287,100	1,101
CITIBANK CANADA	2,335	64
CITIBANK INTERNATIONAL PLC	4,722	96
CITIBANK N.A.	378,380	2,993
CITIBANK OF COLOMBIA	435,724	484
CITIBANK SOUTH AFRICA	22,583	507
CITIGROUP GLBL MARKTET KOERA SECS LTD	143,173	1,037
CITIGROUP GLOBAL MARKETS AUSTRALIA PTY	86,573	23
CITIGROUP GLOBAL MARKETS EUROPE AG	2,465,377	32,913
CITIGROUP GLOBAL MARKETS INC	33,800,535	25,653
CITIGROUP GLOBAL MARKETS INC.	503,082	1,600
CITIGROUP GLOBAL MARKETS INDIA	6,950,812	19,768
CITIGROUP GLOBAL MARKETS LIMITED	6,544,921	42,653
CITIGROUP GLOBAL MARKETS TAIWAN	2,121,196	5,505
CL SECURITIES TAIWAN COMPANY LIMITED	2,025,283	4,343
CLSA AUSTRALIA PTY LTD	641,711	937
CLSA SECURITIES KOREA LTD.	881,413	22,769
CLSA SECURITIES MALAYSIA SDN BHD	1,673,400	665
CLSA SINGAPORE PTE LTD.	10,231,606	24,877
CLSA UK	94,883.00	331.09
COAST PARTNERS SECURITIES	18,684	93
COMMERCIAL BANK OF QATAR, LTD.	457,548	1,017
COMPASS POINT	12,930	517
CORNERSTONE MACRO LLC	9,565	478
COWEN AND COMPANY, LLC	2,115,840	44,585
CRAIG-HALLUM	105,594	3,961
CREDIT LYONNAIS SECURITIES (USA) INC	53,300	264
CREDIT LYONNAIS SECURITIES INDIA	7,850,360	17,891
CREDIT LYONNAIS SECURITIES(ASIA)	129,374,529	101,748
CREDIT SUISSE FIRST BOSTON	862,674	9,973
CREDIT SUISSE FIRST BOSTON (EUROPE)	5,912	1,382
CREDIT SUISSE FIRST BOSTON SA CTVM	1,618,089	9,874
CREDIT SUISSE INTERNATIONAL	5,658,846	12,048
CREDIT SUISSE SECS INDIA PRIVATE LTD	265,730	5,330
CREDIT SUISSE SECURITIES (USA) LLC	14,753,665	101,015
CS FIRST BOSTON (HONG KONG) LIMITED	1,869,855	4,603
CSFB AUSTRALIA EQUITIES LTD	656,716	184
CUTTONE & CO. INC.	4,451	178
DAIWA CAPITAL MARKETS AMERICA INC.	797,726	39,673
DAIWA SBCM EUROPE	\$ 102,400	\$ 1,921

Fiscal Year Beginning July 1, 2021 Report includes the following period: June 2022

Broker Name	Shares/Par Value	Base Commission
DAIWA SECURITIES (HK) LTD.	\$ 1,454,200	\$ 1,574
DAIWA SECURITIES COMPANY LTD	12,277	503
DAIWA SECURITIES SB CAPITAL MARKETS	715,537	6,653
DAIWA SECURITIES SMBC INDIA PR	16,464	640
DAVIDSON D.A. + COMPANY INC.	18,707	561
DBS VICKERS SECURITIES (SINGAPORE)	385,600	8,000
DNB BANK ASA	75,271	94
DNB MARKETS CUSTODY, A BUSINESS UNIT OF	112	57
DOM INWESTYCYJNY BRE BANKU S.A.	149,770	289
DSP MERRILL LYNCH LTD	447,405	12,368
EUROMOBILIARE SIM S.P.A.	8,713	527
EVERCORE GROUP L.L.C.	83,699	1,958
EVERCORE ISI	85,527	2,162
EXANE S.A.	1,761,604	28,804
FIDELITY CAPITAL MARKETS	594,610	9,733
FIDELITY CLEARING CANADA ULC	481,300	3,628
FINANCIAL BROKERAGE GROUP (FBG)	1,053,820	2,939
FLOW CORRETORA DE MERCADORIAS LTDA.	832,081	2,414
FUBON SECURITIES CO. LTD	19,000	213
GOLDMAN SACHS (ASIA) L.L.C.	9,597,644	4,517
GOLDMAN SACHS (ASIA) LLC	158,279	2,732
GOLDMAN SACHS (INDIA)	3,320,726	14,304
GOLDMAN SACHS (JAPAN) LTD.	300	214
GOLDMAN SACHS + CO LLC	38,684,515	145,852
GOLDMAN SACHS AUSTRALIA PTY LTD	634,714	330
GOLDMAN SACHS DO BRASIL CORRETORA	115,584	2,153
GOLDMAN SACHS INTERNATIONAL	8,003,606	44,445
GOLDMAN SACHS(ASIA)L.L.C.	6,797,058	2,340
GOODBODY STOCKBROKERS	13,018	32
GORDON HASKETT CAPITAL CORP	59,976	2,099
GUZMAN + CO	25,727	34
GUZMAN AND COMPANY	169,152	985
HAITONG INTERNATIONAL SECURITIES COMPANY	1,988,679	7,932
HANWHA SECURITIES SEOUL	37,534	2,148
HILLTOP SECURITIES INC	235,330	9,041
HONGKONG + SHANGHAI BANKING	102,529	938
HONGKONG AND SHANGHAI BANKING CORPORATIO	1,180,259	5,688
HSBC BANK PLC	7,105,908	37,689
HSBC BROKERAGE (USA) INC.	4,791	24
HSBC SECURITIES (USA) INC.	45,845,237	30,570
HSBC SECURITIES INDIA HOLDINGS	355,635	535
HYUNDAI SECURITIES	58,865	2,357
ICBCFS LLC	14,415	279
ICICI BROKERAGE SERVICES	12,090,636	45,192
IM TRUST S.A. CORREDORES DE BOLSA	966,184	129
INDIA INFOLINE LTD	\$ 32,106	\$ 852
HIDEATHA CENTE ETD	ψ 52,100	ψ 552

Fiscal Year Beginning July 1, 2021

Report includes the following period: June 2022

Broker Name	Shares/Par Val	ue Ba	se Commission
INSTINET	\$ 994,7	759 \$	10,046
INSTINET AUSTRALIA CLEARING SRVC PTY LTD	5,104,0		4,775
INSTINET EUROPE LIMITED	9,3		276
INSTINET LLC	6,534,1		10,078
INSTINET PACIFIC LIMITED	149,982,8		57,206
INSTINET SINGAPORE SERVICES PT	1,184,7		2,047
INSTINET U.K. LTD	28,733,5	34	135,829
INTERNAL SWAP	6,1	30	42
INTL TRADING INC.	7,3	30	147
INVESTEC MARKETS(PROPRIETARY)LIMITED	665,7	79	1,685
INVESTMENT TECHNOLOGY GROUP INC.	20,9	166	629
ITG AUSTRALIA LTD.	13,744,7	'35	5,643
ITG CANADA	241,3	880	936
ITG INC	218,1	95	985
J P MORGAN INDIA PRIVATE LTD	804,0	24	3,552
J P MORGAN SECURITIES INC	3,262,4	59	12,972
J.P. MORGAN SECURITIES (TAIWAN) LTD	1,140,4	.94	1,358
J.P. MORGAN SECURITIES LIMITED	130,2	283	1,522
J.P. MORGAN SECURITIES LLC	2,344,3	05	45,230
J.P. MORGAN SECURITIES PLC	14,061,6	80	97,504
J.P.MORGAN SECURITIES(FAR EAST)LTD SEOUL	58,8	329	2,946
JANNEY MONTGOMERY SCOTT INC.	18,4	70	679
JB CAPITAL MKTS SOCIEDAD DE VALORES SA	63,8	802	207
JEFFERIES HONG KONG LIMITED	458,0	50	6,227
JEFFERIES INDIA PRIVATE LIMITED	1,973,9	15	29,418
JEFFERIES INTERNATIONAL LTD	23,034,1	46	19,563
JEFFERIES LLC	5,597,2	252	56,625
JMP SECURITIES	27,0	182	573
JOH. BERENBERG, GOSSLER & CO. KG	522,3	33	13,714
JONESTRADING INSTITUTIONAL SERVICES LLC	927,9		12,746
JONESTRADING INSTITUTIONAL SERVICES, LLC	6,2		34
JP MORGAN BROKING HK LIMITED	91,0		1,420
JP MORGAN SECURITIES (FAR EAST) SEOUL BR	6,2		4,777
JP MORGAN SECURITIES AUSTRALIA LTD	1,463,9	95	1,785
JP MORGAN SECURITIES SINGAPORE	5,859,3		1,285
JPMORGAN SECURITIES(ASIA PACIFIC)LTD	20,290,2		22,536
JUPITER SECURITIES SDN BHD	110,0		52
KEEFE BRUYETTE + WOODS INC	164,8		4,592
KEPLER CHEUVREUX	59,8		3,890
KEYBANC CAPITAL MARKETS INC	246,5		6,595
KIM ENG SECURITIES (HK) LTD.	137,3		189
KOREA INVESTMENT AND SECURITIES CO., LTD	14,5		432
KOTAK SECURITIES LTD	208,6		8,457
LARRAIN VIAL	756,6		215
LEERINK PARTNERS LLC	35,8		1,079
LIQUIDNET CANADA INC	8,6		7
LIQUIDNET CANADA INC	\$ 12,1	80 \$	85

Fiscal Year Beginning July 1, 2021 Report includes the following period: June 2022

Broker Name	Shares/Par Value	Base Commiss	sion
LIQUIDNET EUROPE LIMITED	\$ 1,608,245	\$ 19,	073
LIQUIDNET INC	925,502		777
LOOP CAPITAL MARKETS	13,837,452	131,	239
LOOP CAPITAL MARKETS LLC	79,184		396
LUMINEX TRADING AND ANALYTICS	9,814		49
LUMINEX TRADING AND ANALYTICS LLC	75,563		378
MACQUARIE BANK LIMITED	3,565,479		775
MACQUARIE CAPITAL (EUROPE) LTD	207,642		771
MACQUARIE CAPITAL (USA) INC	113,202		386
MACQUARIE CAPITAL SECURITIES S	19,791,461		327
MACQUARIE SEC NZ LTD	261,386		102
MACQUARIE SECURITIES (INDIA) PVT LTD	37,739		128
MACQUARIE SECURITIES KOREA LIMITED	165,889		648
MACQUARIE SECURITIES LIMITED	172,984		210
MAXIM GROUP	2,694		54
MERRIL LYNCH CORREDORES DE BOL	149,449	7.	472
MERRILL LYNCH EQUITIES (AUSTRALIA)	995,250		346
MERRILL LYNCH INTERNATIONAL	17,250,292	102,	
MERRILL LYNCH PIERCE FENNER AND S	497,000		625
MERRILL LYNCH PROFESSIONAL CLEARING CORP	354	.,	7
MERRILL LYNCH, PIERCE FENNER AND SMITH	674,000		707
MERRILL LYNCH, PIERCE FENNER SMITH	680,774		039
MIRAE ASSET SEC USA	5,116		153
MISCHLER FINANCIAL GROUP	364,226		945
MISCHLER FINANCIAL GROUP, INC-EQUITIES	22,513		393
MITSUBISHI UFJ SECURITIES (USA)	78,759		894
MIZUHO SECURITIES USA INC	84,295		550
MIZUHO SECURITIES USA INC.	44,140		241
MKM PARTNERS LLC	8,276		296
MORGAN STAN INTERNATIONAL LTD	1,213	•	10
MORGAN STANLEY AND CO INTERNATIONAL	392,553	17	677
MORGAN STANLEY AND CO. INTERNATIONAL PLC	10,262,171		184
MORGAN STANLEY AUSTRALIA SECURITIES LTD	745,238		458
MORGAN STANLEY BANK	166		430 69
MORGAN STANLET BANK MORGAN STANLEY BANK AG	21,969	۵	097
MORGAN STANLEY CO INCORPORATED	42,907,422	151,	
MORGAN STANLEY INDIA COMPANY PVT LTD	718,416		680
MORGAN STANLEY TAIWAN LIMITED	10,894,013		296
MOTILAL OSWAL SECURITIES LIMITED	7,600		561
NATIONAL FINANCIAL SERVICES CORPORATION	106,581		896
NATIONAL FINANCIAL SERVICES LLC	4,050	1,	50
NBC CLEARING SERVICES INCORPORATED	22,995		43
NEEDHAM AND COMPANY LLC	243,878	10	035
NOMURA FINANCIAL ADVISORY + SEC INDIA	1,223,364		704
NOMURA FINANCIAL INVESTMENT KOREA CO LTD	1,159	4,	69
NORTH SOUTH CAPITAL LLC	49,044		598
NORTHLAND SECURITIES INC.	\$ 34,905		596 698
NOITHEAND SECURITIES INC.	φ 34,900	φ	050

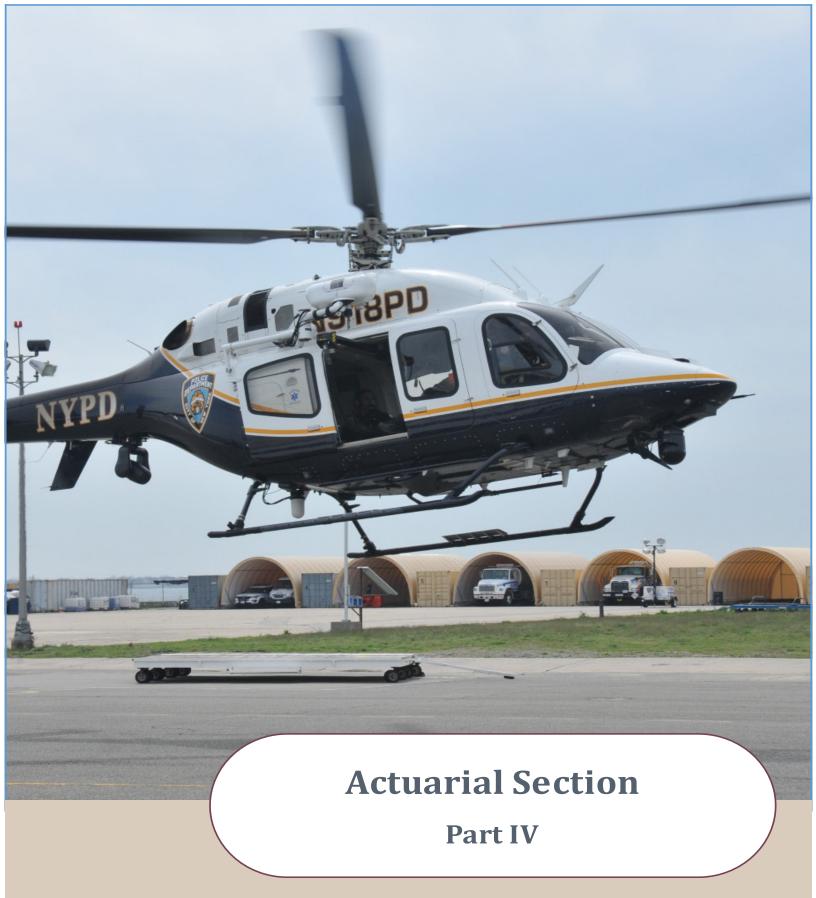
Fiscal Year Beginning July 1, 2021

Report includes the following period: June 2022

Broker Name	Shares/Par Value	Base Commission
OPPENHEIMER + CO. INC.	\$ 71,425	\$ 1,969
PAREL	25,514	663
PAVILION GLOBAL MARKETS LTD	262,400	7,279
PEEL HUNT LLP	6,822	446
PENSERRA SECURITIES	338,544	7,134
PENSERRA SECURITIES LLC	599,615	1,414
PERSHING LLC	16,127,388	137,075
PERSHING SECURITIES CANADA LIMITED	40,140	965
PERSHING SECURITIES LIMITED	7,102,018	76,665
PIPER JAFFRAY & CO.	460,318	15,266
PIPER, JAFFRAY AND HOPWOOD	118,380	432
RAYMOND JAMES AND ASSOCIATES INC	397,312	16,374
RBC CAPITAL MARKETS LLC	559,760	5,521
RBC CAPITAL MARKETS, LLC	518,347	8,827
RBC DOMINION SECURITIES INC.	406,968	2,231
REDBURN (EUROPE) LIMITED	793,933	10,444
RENAISSANCE SECURITIES (CYPRUS) LIMITED	79,843	838
ROBERT W. BAIRD CO.INCORPORATED	1,807,085	39,859
ROSENBLATT SECURITIES INC.	9,358	47
ROTH CAPITAL PARTNERS LLC	22,845	1,142
ROYAL BANK OF CANADA EUROPE LTD	1,096,797	26,457
SAMSUNG SECURITIES CO LTD	6,909	442
SANFORD C BERNSTEIN CO LLC	394,154	8,105
SANFORD C. BERNSTEIN (INDIA) PRIVATE LIM	255,164	4,310
SANFORD C. BERNSTEIN AND CO. LLC	18,085,101	39,271
SCOTIA CAPITAL (USA) INC	68,721	497
SCOTIA CAPITAL INC	122,751	681
SG ASIA SECURITIES (INOIA) PVT LTD	2,544,230	6,148
SG SECURITIES (HK) LIMITED	18,350,107	9,416
SG SECURITIES (LONDON) LTD.	1,818,128	1,658
SIDCO/VIRTU AMERICAS	1,272	51
SINOPAC SECURITIES CORPORATION	261,000	1,160
SKANDINAVISKA ENSKILDA BANKEN AB GLOBAL	32,510	1,800
SMBC NIKKO CAPITAL MARKETS LIMITED	67,587	1,129
SMBC SECURITIES INC	30,900	365
SOCIETE GENERALE	3,613,320	7,405
STATE STREET GLOBAL MARKETS, LLC	175,898	4,865
STEPHENS INC	159,704	6,048
STIFEL NICOLAUS + CO INC	301,991	10,871
STIFEL NICOLAUS EUROPE LIMITED	717,638	3,630
STONEX FINANCIAL INC.	788	32
STRATEGAS SECURITIES LLC	27,694	1,007
STUART FRANKEL + CO INC	1,276	13
SUNTRUST CAPITAL MARKETS, INC.	208,437	5,505
TELSEY ADVISORY GROUP	685,435	27,259
THE BANK OF NEW YORK MELLON	140,713	695
THE HONGKONG AND SHANGHAI BANKING	\$ 1,420	\$ 1,014

Fiscal Year Beginning July 1, 2021 Report includes the following period: June 2022

Broker Name	Shares/Par Value	Bas	e Commission
TIGRESS FINANCIAL PARTNERS LLC	\$ 2,007	\$	80
TORONTO DOMINION SECURITIES INC	281,580		1,550
TOURMALINE PARTNERS	3,779,834		34,475
TUNISIE VALEURS	1,337		36
UBS AG	24,638,861		97,869
UBS AG LONDON BRANCH	354,771		8,228
UBS SECURITIES ASIA LTD	19,145,038		10,980
UBS SECURITIES CANADA INC	502,552		3,422
UBS SECURITIES HONG KONG LIMITED	258,000		213
UBS SECURITIES INDIA PRIVATE LTD	360,709		1,461
UBS SECURITIES LLC	5,836,785		34,097
UBS SECURITIES PTE.LTD	2,144,168		944
UBS SECURITIES PTE.LTD., SEOUL	93,508		12,339
UBS SWITZERLAND AG	349,483		2,048
UBS WARBURG AUSTRALIA EQUITIES	248,644		293
UOB KAY HIAN PTE LIMITED	304,700		1,323
VIRTU AMERICAS	111,021		555
VIRTU AMERICAS LLC	691,069.00		19,465.05
VIRTU ITG EUROPE LIMITED	1,415,358		3,677
VTB BANK EUROPE PLC	476,006,204		1,716
WEDBUSH SECURITIES INC	16,120		564
WELLS FARGO SECURITIES LLC	713,660		5,706
WELLS FARGO SECURITIES, LLC	138,796		5,315
WILLIAM BLAIR & COMPANY L.L.C	389,805		16,565
WILLIAMS CAPITAL GROUP LP (THE)	415,373		9,599
XP INVESTIMENTOS CCTVM SA	315,820		1,568
YUANTA SECURITIES CO., LTD.	\$ 499,000	\$	618
QPP	\$ 1,526,377,367	\$	3,584,587
POVSF	\$ 23,834,634	\$	49,804
PSOVSF	\$ 37,077,827	\$	78,004
Grand Total	\$ 1,587,289,828	\$	3,712,395
Grana rotal	Ψ 1,557,265,626	Ψ	3,7 12,033



## **New York City Police Pension Fund**

A Pension Trust Fund of the City of New York

## **Annual Comprehensive Financial Report**

For the fiscal years ended June 30, 2022 and June 30, 2021

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#### OFFICE OF THE ACTUARY

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

MAREK TYSZKIEWICZ
CHIEF ACTUARY

December 1, 2022

Board of Trustees New York City Police Pension Fund 233 Broadway New York, NY 10279

Re: Actuarial Information for the Annual Comprehensive Financial Report (ACFR) for the Fiscal Year Ended June 30, 2022

Dear Members of the Board of Trustees:

The financial objective of the New York City Police Pension Fund (POLICE 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. the June 30, 2020 actuarial valuation is used to determine Fiscal Year 2022 Employer Contributions (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 2022, the Actuarial Contributions to POLICE, are equal to those recommended by the Actuary of the New York City Retirement Systems and Pension Funds (the Actuary) and represent the Statutory Contributions.

Pursuant to the Governmental Accounting Standards Board (GASB) Statement No. 67 (GASB67) and Statement No. 68 (GASB68), on September 23, 2022, the Office of the Actuary published the "Fiscal Year 2022 GASB 67/68 Report for the City of New York and the New York City Retirement Systems" (the Fiscal Year 2022 GASB67/68 Report). Appendix D of the Fiscal Year 2022 GASB67/68 Report contains information developed in accordance with GASB67 for POLICE.

Board of Trustees New York City Police Pension Fund December 1, 2022 Page 2

#### **Actuarial Assumptions and Methods**

The assumptions and methods used for the June 30, 2020 valuation were presented in the memorandum titled "Proposed Changes to Actuarial Assumptions and Methods (Revised 2021 A&M)" dated July 28, 2021 and were adopted by the Board of Trustees at the September 8, 2021 Board meeting. These actuarial assumptions and methods used for funding purposes meet the parameters set forth by the Actuarial Standards of Practice (ASOPs).

#### Benefits, Financial Information, and Census Data

The June 30, 2020 and June 30, 2019 actuarial valuations are based upon the census data as of those dates submitted by the Plan's administrative staff and the employer's payroll facilities. A summary of the census data used in the June 30, 2020 actuarial valuation is included in this ACFR. A summary of the census data used in the June 30, 2019 actuarial valuation of the Plan is available in the Fiscal Year 2021 ACFR.

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

A summary of the benefits available under the terms of the Plan is shown in the Introductory Section of this ACFR. The benefits under the Plan are unchanged from the prior valuation.

#### **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 ACFR is a schedule of funded status based on the Entry Age Normal cost method (Table 13).

Also included in the Actuarial Section of the ACFR are Solvency Tests (i.e. Comparative Summary of Accrued Liabilities Funded by Actuarial Value of Assets) (Tables 14a-c), as prescribed by the Government Finance Officers Association (GFOA). These Solvency Tests represent an alternative approach to describing progress toward funding objectives.

Board of Trustees New York City Police Pension Fund December 1, 2022 Page 3

#### **Presentation Style and Sources of Information**

The actuarial information herein is believed to be presented in a manner consistent with the requirements of the GFOA and, where applicable, with GASB67.

The following items in the Actuarial Section of the ACFR were prepared by the OA:

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2020 Actuarial Valuation.
- Summary of Active Member Valuation Data.
- Summary of Plan Membership Data.
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls.
- Actuarial and Statutory Contribution History.
- Funded Status Based on Entry Age Normal Cost Method.
- Comparative Summary of Accrued Liabilities Funded by Actuarial Value of Assets Solvency Test.
- Contributions.

The following items in the Financial Section of the ACFR were also prepared by the OA:

- Membership Data.
- Net Pension Liability.
- Actuarial Assumptions and Methods.
- Schedule of Changes in Employers' Net Pension Liability and Related Ratios.
- Schedule of Employer Contributions.

If you have any questions about the information in this Actuarial Section or the actuarial information presented elsewhere in this ACFR, please do not hesitate to contact Anderson Huynh, Edward Hue, or me.

Board of Trustees New York City Police Pension Fund December 1, 2022 Page 4

#### **Acknowledgement of Qualification**

I, Marek Tyszkiewicz am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am an Associate of the Society of Actuaries and a Member of the American Academy of 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,

Marek Tyszkiewicz, ASA, MAAA

**Chief Actuary** 

MT/eh

Att.

cc: Kevin Holloran - New York City Police Pension Fund Edward Hue, EA - New York City Office of the Actuary Anderson Huynh, FSA, EA - New York City Office of the Actuary Keith Snow, Esq. - New York City Office of the Actuary Bavakutty Sunny - New York City Police Pension Fund Stanley Thomas - New York City Police Pension Fund

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 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 (ACCNY), 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 memorandum titled, "Proposed Changes to Actuarial Assumptions and Methods (Revised 2021 A&M)" dated July 28, 2021. The actuarial assumptions and methods described in that memorandum were adopted by the Board of Trustees at the September 8, 2021 Board meeting and are referred to as the "Revised 2021 A&M." These actuarial assumptions and methods are effective beginning with Fiscal Year 2021.

- 2. The Actuarial Interest Rate (AIR) assumption is 7.0% per annum, net of investment expenses.
- 3. Active service tables are used to estimate various withdrawals from active service. Probabilities are shown in Tables 1 and 2 for members withdrawing from active service for service retirement, Table 3 for members terminating from active service, and Tables 4 and 5 for members withdrawing from active service due to disability or death, respectively. Mortality improvement scale MP-2020, published by the Society of Actuaries, is applied to probabilities of ordinary death for actives and precommencement mortality for deferred vesteds.
- 4. The service retiree mortality, disabled retiree mortality, and beneficiary mortality base tables are projected from 2012 using mortality improvement scale MP-2020. The base tables are also multiplied by adjustment factors to convert from livesweighted to amounts-weighted tables to reflect socioeconomic effects on mortality. Base table probabilities for service and disability pensioners are shown in Tables 6a and 6b, respectively, and for beneficiaries in Table 6c.
- 5. A salary scale is used to estimate salaries at termination, retirement, or death. Percentage increases are shown in Table 7. The salary scale includes a General Wage Increase (GWI) assumption of 3.0% per annum.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

- 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. Baseline Overtime and Dual Overtime percentages are shown in Table 8.
- 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 AutoCOLA and 2.5% per annum for escalation.
- 8. The valuation assumes a closed group of members.
- 9. The Actuary reset the Actuarial Value of Assets (AVA) to market value as of June 30, 2019.

Beginning with the June 30, 2020 actuarial valuation, the Actuarial Asset Valuation Method (AAVM) recognizes investment returns greater or less than expected over a period of five years. In accordance with this AAVM, the Unexpected Investment Returns are phased into the AVA over a five-year period at 20% per year.

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

10. The Entry Age Normal (EAN) cost method of funding is used by the Actuary to calculate the Employer Contribution.

Under this method, the Present Value (PV) of Future Benefits (PVFB) of each individual included in the actuarial valuation is allocated on a level basis over the expected earnings (or service) of the individual between entry age and 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 Normal Costs or future member contributions is the Accrued Liability (AL).

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

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

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

The explicit UALs that are developed under EAN each year are generally financed over fixed periods.

Under EAN, the Normal Cost as a percentage of pay remains constant by individual and changes gradually over time for the entire plan as the characteristics of the group changes (e.g. more Tier 3 Enhanced active members decrease the average Normal Cost as a percentage of pay).

- 11. The Employer Contribution for a fiscal year is increased by the interest-adjusted amount of administrative expenses paid from POLICE during the second prior fiscal year.
- 12. Obligations attributable to the World Trade Center (WTC) Disability Benefits Law and to the WTC Death Benefits Law are determined through estimation techniques for post-retirement reclassifications.
- 13. One-Year Lag Methodology (OYLM) uses a June 30, XX-2 valuation date to determine Fiscal Year XX employer contributions.

This methodology requires adjustments to certain components used to determine the Fiscal Year XX employer contributions as follows:

#### a. Normal Cost

The normal cost as of June 30, XX-2 is rolled forward with the assumed AIR of 7.0% to derive the normal cost as of December 31, XX-1.

#### b. UAL Payments

For determining the UAL payments for Fiscal Year XX, and to be consistent with the OYLM, the UAL as of June 30, XX-2 is adjusted by the discounted value of the employer normal cost and UAL payments paid during Fiscal Year XX-1 and the discounted value of Administrative Expenses reimbursed during Fiscal Years XX-1 and XX.

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

14. The obligations of POLICE to the POVSF and the PSOVSF are recognized through a methodology where the PV of future VSF transfers from POLICE to the POVSF and PSOVSF is included directly as an actuarial liability of POLICE. This amount is computed as the excess, if any, of the PV of benefits of the POVSF and PSOVSF over the AVA of the POVSF and PSOVSF, respectively. Under EAN, a portion of the PV of future VSF transfers is reflected in the PV of future normal costs and a portion is reflected in the UAL.

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

#### Table 1

PROBABILITIES OF SERVICE RETIREMENT WITH FULL COLA/ESCALATION FOR THOSE ELIGIBLE FOR UNREDUCED

	Years of Service Since First Eligible				
Age	Year 1 Ultim			Year 1 Ultimat	
19	0.00%	0.00%			
20	0.00%	0.00%			
21	0.00%	0.00%			
22	0.00%	0.00%			
23	0.00%	0.00%			
24	0.00%	0.00%			
25	0.00%	0.00%			
26	0.00%	0.00%			
27	0.00%	0.00%			
28	0.00%	0.00%			
29	0.00%	0.00%			
30	0.00%	0.00%			
31	0.00%	0.00%			
32	0.00%	0.00%			
33	0.00%	0.00%			
34	0.00%	0.00%			
35	0.00%	0.00%			
36	45.00%	0.00%			
37	45.00%	10.00%			
38	45.00%	10.00%			
39					
	45.00%	10.00%			
10	45.00%	10.00%			
11	45.00%	10.00%			
12	45.00%	10.00%			
13	45.00%	10.00%			
14	45.00%	10.00%			
15	45.00%	10.00%			
46	45.00%	11.00%			
17	45.00%	12.00%			
48	45.00%	13.00%			
49	45.00%	14.00%			
50	45.00%	15.00%			
51	45.00%	15.00%			
52	45.00%	15.00%			
53	45.00%	15.00%			
54	45.00%	15.00%			
55	45.00%	15.00%			
56	45.00%	15.00%			
57	45.00%	15.00%			
58	45.00%	15.00%			
59	45.00%	15.00%			
60	45.00%	20.00%			
61	45.00%	30.00%			
62	$45.00\%^{1}$	50.00% <sup>1</sup>			
63	100.00%	100.00%			
		70			

<sup>&</sup>lt;sup>1</sup>100% for Tier 3, Tier 3 Revised, and Tier 3 Enhanced members.

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

#### Table 2

# PROBABILITIES OF EARLY SERVICE RETIREMENT FOR

TIER 3, TIER 3 REVISED, AND TIER 3 ENHANCED MEMBERS

Years of Service	Reduced Service Retirement	Unreduced Before Full Escalation
20	5.00%	N/A
21	2.00%	N/A
22	N/A	5.00%
23	N/A	2.00%
24	N/A	2.00%

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table 3		
PROBABILITIES OF TERMINATION		
Years Of Service Probability of Termina		
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	3.00% 2.25% 1.50% 1.50% 1.50% 1.50% 1.50% 1.35% 1.20% 1.05% 0.90% 0.75% 0.60% 0.45% 0.38% 0.30% 0.23% 0.15% 0.15% 0.15% 0.15% 0.15%	

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Age	Table 4					
Age         Ordinary Disbility         Tier 1 & Tier 2 Eligible for WTC Benefits         Tier 3 Enhanced Plan         Tier 3 & Tier 3 Revised Non-Enhanced Plan           15         0.0360%         0.168%         0.098%         0.098%           16         0.0360%         0.168%         0.098%         0.098%           17         0.0360%         0.168%         0.098%         0.098%           18         0.0360%         0.168%         0.098%         0.098%           19         0.0360%         0.168%         0.098%         0.098%           20         0.0400%         0.168%         0.098%         0.098%           21         0.0440%         0.192%         0.112%         0.112%           22         0.0480%         0.204%         0.119%         0.112%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.228%         0.133%         0.133%           25         0.0600%         0.228%         0.132%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.358%         0.308%         0.308%           30         0.		PROBABILITIES OF DISABILITY RETIREMENT				
Tier 1 & Tier 2   Eligible for WTC   Renefits   Revised   Non-Enhanced   Plan		Accidental Disability				
16         0.0360%         0.168%         0.098%         0.098%           17         0.0360%         0.168%         0.098%         0.098%           19         0.0360%         0.168%         0.098%         0.098%           20         0.0400%         0.168%         0.098%         0.098%           20         0.0440%         0.192%         0.112%         0.112%           21         0.0440%         0.192%         0.112%         0.112%           22         0.0480%         0.204%         0.119%         0.112%           23         0.0520%         0.216%         0.126%         0.126%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0660%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.345%         0.224%         0.224%         0.226%           28         0.0720%         0.456%         0.266%         0.266%         2.26%           29         0.0760%         0.528%         0.308%         0.308%         0.308%           31         0.0840%         0.7	Age		Eligible for WTC	Not Eligible for WTC AND	Revised Non-Enhanced	
17         0.0360%         0.168%         0.098%         0.098%           19         0.0360%         0.168%         0.098%         0.098%           20         0.0400%         0.180%         0.105%         0.112%           21         0.0440%         0.192%         0.112%         0.112%           21         0.0440%         0.204%         0.119%         0.112%           22         0.0480%         0.228%         0.133%         0.133%           23         0.0520%         0.216%         0.126%         0.126%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.344%         0.224%         0.224%           27         0.0680%         0.344%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%	15	0.0360%	0.168%	0.098%	0.098%	
18         0.0360%         0.168%         0.098%         0.098%           19         0.0360%         0.168%         0.098%         0.098%           20         0.0400%         0.180%         0.105%         0.105%           21         0.0440%         0.192%         0.112%         0.112%           22         0.0480%         0.204%         0.119%         0.119%           23         0.0520%         0.216%         0.126%         0.126%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.3484%         0.224%         0.224%           29         0.0760%         0.528%         0.308%         0.308%           30         0.800%         0.500%         0.350%         0.350%           31         0.840%         0.720%         0.420%         0.420%           32         0.0880%         0.360%         0.450%         0.560%           33         0.0920%         0.560%         0.560%         0.560%      <		· ·				
19	17	0.0360%	0.168%	0.098%	0.098%	
20         0.0440%         0.180%         0.105%         0.105%           21         0.0440%         0.192%         0.112%         0.112%           22         0.0480%         0.204%         0.119%         0.112%           23         0.0520%         0.216%         0.126%         0.126%           24         0.0560%         0.2240%         0.140%         0.140%           25         0.0600%         0.240%         0.140%         0.182%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.344%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.359%           30         0.800%         0.528%         0.308%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.260%         0.560%         0.630%	18	0.0360%	0.168%	0.098%	0.098%	
21         0.0440%         0.192%         0.112%         0.112%           22         0.0480%         0.204%         0.119%         0.119%           23         0.0520%         0.216%         0.126%         0.126%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.384%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.560%           35         0.1000%         1.200%         0.700%         0.700%	19	0.0360%	0.168%	0.098%	0.098%	
22         0.0480%         0.204%         0.119%         0.119%           23         0.0520%         0.216%         0.126%         0.126%         0.126%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.384%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.756%           36         0.1140%         1.260%         0.735%         0.		0.0400%	0.180%	0.105%	0.105%	
23         0.0520%         0.216%         0.126%         0.126%           24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.384%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.3550%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           34         0.0960%         1.080%         0.560%         0.560%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%	21	0.0440%	0.192%	0.112%	0.112%	
24         0.0560%         0.228%         0.133%         0.133%           25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.384%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           40         0.1200%         1.500%         0.875%         0.840%	22	0.0480%	0.204%	0.119%	0.119%	
25         0.0600%         0.240%         0.140%         0.140%           26         0.0640%         0.312%         0.182%         0.122%           27         0.0680%         0.384%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%         0.490%           34         0.0960%         1.800%         0.560%         0.560%           34         0.0960%         1.200%         0.700%         0.700%           35         0.1000%         1.200%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           40         0.1200%         1.550%         0.812%         0.812%           41         0.1240%         1.550%         0.910%         0.	23	0.0520%	0.216%	0.126%	0.126%	
26         0.0640%         0.312%         0.182%         0.182%           27         0.0680%         0.344%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.09220%         0.960%         0.560%         0.560%           34         0.0960%         1.200%         0.700%         0.700%           35         0.1000%         1.200%         0.735%         0.728%           37         0.1080%         1.320%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.868%	24	0.0560%	0.228%	0.133%	0.133%	
27         0.0680%         0.384%         0.224%         0.224%           28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.380%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.550%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.380%         0.805%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           40         0.1200%         1.500%         0.840%         0.812%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%	25	0.0600%	0.240%	0.140%	0.140%	
28         0.0720%         0.456%         0.266%         0.266%           29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.680%         0.980%         0.882%           43         0.1320%         1.680%         0.986%         0.886%	26	0.0640%	0.312%	0.182%	0.182%	
29         0.0760%         0.528%         0.308%         0.308%           30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0966%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.945%         0.882%           44         0.1360%         1.740%         1.015%         0.886%	27	0.0680%	0.384%	0.224%	0.224%	
30         0.0800%         0.600%         0.350%         0.350%           31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.260%         0.735%         0.728%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1220%         1.560%         0.910%         0.854%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%	28	0.0720%	0.456%	0.266%	0.266%	
31         0.0840%         0.720%         0.420%         0.420%           32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%	29	0.0760%	0.528%	0.308%	0.308%	
32         0.0880%         0.840%         0.490%         0.490%           33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.844%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.680%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.996%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%	30	0.0800%	0.600%	0.350%	0.350%	
33         0.0920%         0.960%         0.560%         0.560%           34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           40         0.1200%         1.500%         0.840%         0.812%           40         0.1220%         1.560%         0.910%         0.854%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%	31	0.0840%	0.720%	0.420%	0.420%	
34         0.0960%         1.080%         0.630%         0.630%           35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1220%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%	32	0.0880%	0.840%	0.490%	0.490%	
35         0.1000%         1.200%         0.700%         0.700%           36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.944%           49         0.1560%         2.400%         1.400%         1.050%	33	0.0920%	0.960%	0.560%	0.560%	
36         0.1040%         1.260%         0.735%         0.728%           37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%	34	0.0960%	1.080%	0.630%	0.630%	
37         0.1080%         1.320%         0.770%         0.756%           38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%	35	0.1000%	1.200%	0.700%	0.700%	
38         0.1120%         1.380%         0.805%         0.784%           39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%	36	0.1040%	1.260%	0.735%	0.728%	
39         0.1160%         1.440%         0.840%         0.812%           40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.260%         1.330%	37	0.1080%	1.320%	0.770%	0.756%	
40         0.1200%         1.500%         0.875%         0.840%           41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.540%         1.120%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.360%         1.960%         1.330%	38	0.1120%	1.380%	0.805%	0.784%	
41         0.1240%         1.560%         0.910%         0.854%           42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.540%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.600%         2.100%         1.330%           55         0.6400%         3.600%         2.100%         1.540%	39	0.1160%	1.440%	0.840%	0.812%	
42         0.1280%         1.620%         0.945%         0.868%           43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.120%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.360%         1.960%         1.330%           55         0.6400%         3.600%         2.100%         1.400%           56         0.8000%         4.080%         2.380%         1.540%	40	0.1200%	1.500%	0.875%	0.840%	
43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.360%         1.960%         1.330%           55         0.6400%         3.600%         2.100%         1.400%           56         0.8000%         4.080%         2.380%         1.540%           57         1.6000%         4.560%         2.660%         1.680%	41	0.1240%	1.560%	0.910%	0.854%	
43         0.1320%         1.680%         0.980%         0.882%           44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.360%         1.960%         1.330%           55         0.6400%         3.600%         2.100%         1.400%           56         0.8000%         4.080%         2.380%         1.540%           57         1.6000%         4.560%         2.660%         1.680%	42	0.1280%	1.620%	0.945%	0.868%	
44         0.1360%         1.740%         1.015%         0.896%           45         0.1400%         1.800%         1.050%         0.910%           46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.360%         1.960%         1.330%           55         0.6400%         3.600%         2.100%         1.400%           56         0.8000%         4.080%         2.380%         1.540%           57         1.6000%         4.560%         2.660%         1.680%           59         3.2000%         5.520%         3.220%         1.960%	43					
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46         0.1440%         1.920%         1.120%         0.938%           47         0.1480%         2.040%         1.190%         0.966%           48         0.1520%         2.160%         1.260%         0.994%           49         0.1560%         2.280%         1.330%         1.022%           50         0.1600%         2.400%         1.400%         1.050%           51         0.2000%         2.640%         1.540%         1.120%           52         0.2400%         2.880%         1.680%         1.190%           53         0.3200%         3.120%         1.820%         1.260%           54         0.4800%         3.360%         1.960%         1.330%           55         0.6400%         3.600%         2.100%         1.400%           56         0.8000%         4.080%         2.380%         1.540%           57         1.6000%         4.560%         2.660%         1.680%           58         2.4000%         5.040%         2.940%         1.820%           59         3.2000%         5.520%         3.220%         1.960%           60         4.8000%         6.000%         3.500%         2.100%	45					
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59     3.2000%     5.520%     3.220%     1.960%       60     4.8000%     6.000%     3.500%     2.100%       61     6.4000%     7.200%     4.200%     2.240%       62     8.0000%¹     8.4000%¹     4.900%¹     2.450%¹	I .	· ·				
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N/A N/A N/A N/A						
	0.3	N/A	IN/A	N/A	IN/A	

<sup>&</sup>lt;sup>1</sup>N/A for Tier 3, Tier 3 Revised, and Tier 3 Enhanced members.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table 5					
PROBABILITIES OF ACTIVE MEMBER MORTALITY BASE RATES					
	Ordinary Death Accide				
Age	Males	Females	All		
15	0.040%	0.030%	0.010%		
16	0.040%	0.030%	0.010%		
17	0.040%	0.030%	0.010%		
18	0.040%	0.030%	0.010%		
19	0.040%	0.030%	0.010%		
20	0.040%	0.030%	0.010%		
21	0.040%	0.030%	0.010%		
22	0.040%	0.030%	0.010%		
23	0.040%	0.030%	0.010%		
24	0.040%	0.030%	0.010%		
25	0.040%	0.030%	0.010%		
26	0.040%	0.030%	0.010%		
27	0.040%	0.030%	0.010%		
28	0.040%	0.030%	0.010%		
29	0.040%	0.030%	0.010%		
30	0.040%	0.030%	0.010%		
31	0.040%	0.030%	0.011%		
32	0.040%	0.030%	0.012%		
33	0.040%	0.030%	0.013%		
34	0.040%	0.030%	0.014%		
35	0.040%	0.030%	0.015%		
36	0.042%	0.032%	0.016%		
37	0.044%	0.034%	0.017%		
38	0.046%	0.036%	0.018%		
39	0.048%	0.038%	0.019%		
40	0.050%	0.040%	0.020%		
41	0.060%	0.046%	0.021%		
42	0.070%	0.052%	0.022%		
43	0.080%	0.058%	0.023%		
44	0.090%	0.064%	0.024%		
45	0.100%	0.070%	0.025%		
46	0.110%	0.076%	0.026%		
47	0.120%	0.082%	0.027%		
48	0.130%	0.088%	0.028%		
49	0.140%	0.094%	0.029%		
50	0.150%	0.100%	0.030%		
51	0.160%	0.110%	0.031%		
52	0.170%	0.120%	0.032%		
53	0.180%	0.130%	0.033%		
54	0.190%	0.140%	0.034%		
55	0.200%	0.150%	0.035%		
56	0.220%	0.160%	0.036%		
57	0.240%	0.170%	0.037%		
58	0.260%	0.180%	0.037%		
59	0.280%	0.190%	0.039%		
60	0.300%	0.200%	0.039%		
61	0.320%	0.220%	0.040%		
62		0.220%			
63	0.340% <sup>1</sup>		0.042% <sup>1</sup>		
US	N/A	N/A	N/A		

<sup>&</sup>lt;sup>1</sup>N/A for Tier 3, Tier 3 Revised, and Tier 3 Enhanced members.

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

## Table 6a PROBABILITIES OF MORTALITY FOR SERVICE RETIREES BASE RATES

Age	Males	Females	Age	Males	Females	
15	0.0100%	0.0084%	68	1.4988%	1.0632%	
16	0.0135%	0.0103%	69	1.6917%	1.1644%	
17	0.0181%	0.0112%	70	1.8929%	1.2629%	
18	0.0217%	0.011276	71	2.1028%	1.4563%	
19	0.0240%	0.013170	72	2.3212%	1.6586%	
20	0.0251%	0.0142%	73	2.5833%	1.8689%	
21	0.0268%	0.011270	74	2.8558%	2.0889%	
22	0.0284%	0.0158%	75	3.1397%	2.3314%	
23	0.0301%	0.0168%	76	3.4343%	2.6045%	
24	0.0301%	0.0179%	77	3.7415%	2.8700%	
25	0.031376	0.0175%	78	4.2304%	3.1787%	
26	0.0342%	0.0204%	79	4.7399%	3.4795%	
27	0.0354%	0.0217%	80	5.2682%	3.8105%	
28	0.0334%	0.0217%	81	5.7202%	4.3289%	
29	0.0371%	0.0231%	82	6.1782%	4.8678%	
30	0.0394%	0.0247%	83	7.0179%	5.4288%	
31	0.0427%	0.0263%	84	7.8631%	5.9122%	
32	0.0492%	0.0316%	85	8.7167%	6.3661%	
33	0.0556%	0.0360%	86	9.5810%	7.1650%	
34	0.0669%	0.0427%	87	10.4516%	8.0050%	
35	0.0724%	0.0455%	88	11.8437%	8.8541%	
36	0.0755%	0.0474%	89	13.2486%	9.6498%	
37	0.0779%	0.0497%	90	14.6752%	10.5687%	
38	0.0808%	0.0521%	91	16.3354%	12.0267%	
39	0.0845%	0.0551%	92	18.0374%	13.4340%	
40	0.0901%	0.0588%	93	19.7642%	14.8636%	
41	0.1003%	0.0633%	94	21.5622%	16.4543%	
42	0.1106%	0.0702%	95	23.4692%	17.7952%	
43	0.1212%	0.0792%	96	25.3619%	19.0707%	
44	0.1323%	0.0907%	97	27.1816%	20.2419%	
45	0.1439%	0.1052%	98	29.0095%	21.1759%	
46	0.1563%	0.1228%	99	30.6920%	21.8544%	
47	0.1693%	0.1427%	100	32.1584%	22.1859%	
48	0.1827%	0.1652%	101	33.7521%	23.0680%	
49	0.1964%	0.1865%	102	35.1259%	24.0803%	
50	0.2104%	0.1992%	103	36.3671%	25.2770%	
51	0.2802%	0.2104%	104	37.3834%	26.6309%	
52	0.3506%	0.2186%	105	38.1051%	28.0912%	
53	0.4209%	0.2250%	106	38.4698%	29.6244%	
54	0.4903%	0.2863%	107	38.6325%	31.1943%	
55	0.5297%	0.3409%	108	38.8076%	32.7579%	
56	0.5857%	0.3910%	109	38.9794%	34.2712%	
57	0.6387%	0.4376%	110	50.0000%	50.0000%	
58	0.6875%	0.4613%	111	50.0000%	50.0000%	
59	0.7316%	0.5005%	112	50.0000%	50.0000%	
60	0.7720%	0.5393%	113	50.0000%	50.0000%	
61	0.8439%	0.5785%	114	50.0000%	50.0000%	
62	0.9155%	0.6152%	115	50.0000%	50.0000%	
63	0.9888%	0.6536%	116	50.0000%	50.0000%	
64	1.0644%	0.7279%	117	50.0000%	50.0000%	
65 66	1.1433%	0.8032%	118	50.0000%	50.0000%	
66 67	1.2263% 1.3135%	0.8884% 0.9736%	119 120	50.0000% 100.0000%	50.0000% 100.0000%	
07	1.313370	0.973070	120	100.000070	100.000070	
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L	

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table 6b	
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES BASE RATES	

		I			
Age	Males	Females	Age	Males	Females
15	0.0138%	0.0095%	68	1.8368%	1.2141%
16	0.0187%	0.0117%	69	2.0342%	1.3912%
17	0.0252%	0.0127%	70	2.2544%	1.5837%
18	0.0301%	0.0148%	71	2.5045%	1.7848%
19	0.0334%	0.0159%	72	2.7644%	1.9944%
20	0.03347%	0.0168%	73	3.0535%	2.2258%
21	0.0371%	0.0185%	74	3.3359%	2.4880%
22	0.0402%	0.0205%	75	3.6300%	2.7766%
23	0.0431%	0.0203%	76	4.1253%	3.0785%
24	0.0451%	0.0251%	77	4.6178%	3.3525%
25	0.0503%	0.0231%	78	5.1289%	3.6752%
26	0.0544%	0.027470	78 79	5.5682%	4.1794%
27	0.0586%	0.0298%	80	6.0116%	4.7030%
28	0.0633%	0.0322%	81	6.7832%	5.2484%
29	0.0633%	0.0348%	82	7.6009%	5.7185%
30	0.0730%	0.0374%	83	8.4279%	6.1948%
31	0.0730%	0.0400%	84	9.2040%	7.0110%
32	0.0781%	0.0425%	85	10.1002%	7.8321%
33	0.0830%	0.0450%	86	11.5115%	8.6046%
					The state of the s
34 35	0.0933% 0.0972%	0.0491% 0.0512%	87 88	12.7944%	9.3702% 10.2595%
				14.1662%	-
36	0.1019%	0.0534%	89	15.7578%	11.5941%
37	0.1080%	0.0563%	90	17.3856%	12.9378%
38	0.1153%	0.0590%	91	19.0388% 20.6360%	14.3081%
39	0.1286%	0.0629%	92		15.3704%
40	0.1417%	0.0688%	93	22.5718%	16.4875%
41	0.1550%	0.0766%	94	24.4562%	17.6613%
42	0.1690%	0.0865%	95	26.1404%	18.7606%
43	0.1838%	0.0992%	96 97	28.0695%	19.7397%
44	0.1997%	0.1148%	97 98	29.6855%	20.6328%
45	0.2170%	0.1330%		30.9177%	21.2676%
46	0.2279%	0.1538%	99	32.6552%	21.8544%
47	0.2387%	0.1769%	100	33.9880%	22.1859%
48	0.2492%	0.2017%	101	34.9681%	23.0680%
49	0.3237%	0.2316%	102	35.9346%	24.0803%
50	0.3948%	0.2637%	103	36.6434%	25.2770%
51 52	0.4620%	0.2870%	104	37.3834%	26.6309%
52 53	0.5249% 0.5528%	0.3323% 0.3677%	105 106	38.1051% 38.4698%	28.0912% 29.6244%
53 54	0.5528%	0.3677%	106	38.4698% 38.6325%	29.6244% 31.1943%
54 55	0.5891%	0.4196%	107	38.6325%	31.1943% 32.7579%
55 56		0.4722%	108	38.8076% 38.9794%	34.2712%
56 57	0.6814%			50.0000%	50.0000%
57 58	0.7288% 0.7710%	0.5258%	110 111	50.0000%	50.0000%
58 59	0.7710%	0.5452%	111		
		0.5823%		50.0000%	50.0000%
60	0.9273%	0.6153%	113	50.0000%	50.0000% 50.0000%
61 62	1.0007% 1.0735%	0.6486% 0.7169%	114 115	50.0000%	-
62 63	1.0735%	0.7169%	116	50.0000% 50.0000%	50.0000% 50.0000%
63 64	1.2250%	0.7851%	117	50.0000%	50.0000%
65	1.3055%	0.9419%	117	50.0000%	50.0000%
66	1.4653%	1.0252%	119	50.0000%	50.0000%
67	1.6473%	1.1204%	120	100.0000%	100.0000%
	•	•			

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

## **Table 6c**PROBABILITIES OF BENEFICIARY MORTALITY BASE RATES

Age	Males	Females	Age	Males	Females
Age	Maies	remaies	Age	Males	remaies
15	0.0105%	0.0092%	68	1.8256%	1.3605%
16	0.0142%	0.0112%	69	1.9386%	1.4332%
17	0.0191%	0.0122%	70	2.0542%	1.5007%
18	0.0222%	0.0133%	71	2.2359%	1.6745%
19	0.0240%	0.0143%	72	2.4230%	1.8463%
20	0.0251%	0.0145%	73	2.6165%	2.0157%
21	0.0268%	0.0153%	74	2.8157%	2.1838%
22	0.0284%	0.0161%	75	3.0220%	2.3492%
23	0.0301%	0.0171%	76	3.4928%	2.6652%
24	0.0315%	0.0183%	77	3.9787%	2.9831%
25	0.0327%	0.0195%	78	4.4792%	3.3011%
26	0.0342%	0.0208%	79	4.9963%	3.6207%
27	0.0354%	0.0221%	80	5.5282%	3.9391%
28	0.0371%	0.0236%	81	6.1051%	4.4386%
29	0.0371%	0.0252%	82	6.6894%	4.9473%
30	0.037476	0.023270	83	7.2805%	5.4665%
31	0.0427%	0.0270%	84	7.8749%	5.9942%
32	0.0562%	0.0330%	85	8.4753%	
33	0.0562%	0.0384%	86	9.6136%	6.5354% 7.4659%
34	0.0682%	0.0471%	87	10.8005%	8.3995%
35	0.0743%	0.0511%	88	12.0443%	9.3428%
36	0.0780%	0.0542%	89	13.3397%	10.2918%
37	0.0818%	0.0579%	90	14.6958%	11.2477%
38	0.0861%	0.0618%	91	16.4185%	12.8868%
39	0.0917%	0.0666%	92	18.1416%	14.4887%
40	0.0997%	0.0719%	93	19.8574%	16.0801%
41	0.1394%	0.0775%	94	21.6187%	17.5854%
42	0.1774%	0.0859%	95	23.5884%	19.0626%
43	0.2143%	0.0968%	96	25.4266%	20.2474%
44	0.2507%	0.1111%	97	27.2119%	21.2937%
45	0.2875%	0.1287%	98	29.0202%	22.0663%
46	0.3207%	0.1501%	99	30.6654%	22.5443%
47	0.3534%	0.1748%	100	32.1584%	22.6473%
48	0.3849%	0.2022%	101	33.7521%	23.5294%
49	0.4150%	0.2319%	102	35.1259%	24.5619%
50	0.4431%	0.2633%	103	36.3671%	25.7825%
51	0.5156%	0.2999%	104	37.3834%	27.1635%
52	0.5928%	0.3376%	105	38.1051%	28.6530%
53	0.6740%	0.3762%	106	38.4698%	30.2169%
54	0.7583%	0.4151%	107	38.6325%	31.8182%
55	0.8440%	0.4540%	108	38.8076%	33.4131%
56	0.9048%	0.5132%	109	38.9794%	34.9566%
57	0.9604%	0.5735%	110	50.0000%	50.0000%
58	1.0101%	0.6353%	111	50.0000%	50.0000%
59	1.0536%	0.6981%	112	50.0000%	50.0000%
60	1.0919%	0.7631%	113	50.0000%	50.0000%
61	1.1835%	0.8329%	114	50.0000%	50.0000%
62	1.2676%	0.8908%	115	50.0000%	50.0000%
63	1.3473%	0.9493%	116	50.0000%	50.0000%
64	1.4238%	1.0146%	117	50.0000%	50.0000%
65	1.4985%	1.0876%	118	50.0000%	50.0000%
66	1.6059%	1.1681%	119	50.0000%	50.0000%
67	1.7146%	1.2609%	120	100.0000%	100.0000%

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table /					
ANNIIAI. RATES OF MERIT	CAND SALARY INCREASE				

ANNOAL RATES OF MERIT AND SALART INCREASE				
Years of Service	Merit Increase	Salary Increase <sup>1</sup>		
0	0.00%	3.00%		
1	5.00%	8.00%		
2	11.00%	14.00%		
3	14.00%	17.00%		
4	20.00%	23.00%		
5	38.00%	41.00%		
6	1.60%	4.60%		
7	1.80%	4.80%		
8	2.00%	5.00%		
9	3.60%	6.60%		
10	2.30%	5.30%		
11	2.20%	5.20%		
12	2.10%	5.10%		
13	2.00%	5.00%		
14	3.30%	6.30%		
15	1.70%	4.70%		
16	1.60%	4.60%		
17	1.50%	4.50%		
18	1.40%	4.40%		
19	2.70%	5.70%		
20	1.20%	4.20%		
21	1.00%	4.00%		
22	0.90%	3.90%		
23	0.80%	3.80%		
24	0.70%	3.70%		
25	0.60%	3.60%		
26	0.50%	3.50%		
27	0.50%	3.50%		
28	0.50%	3.50%		
29	0.50%	3.50%		
30+	0.50%	3.50%		

 $<sup>^{\</sup>rm 1}$  Salary Increase is the General Wage Increase of 3.00% plus the Merit Increase.

## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

### Table 8

### OVERTIME ASSUMPTION

	OVERTIME ASSUMFTION					
Years of Service	All Tiers Baseline	Tier 1 & Tier 2 Dual Service	Tier 1 & Tier 2 Dual Disability	Tier 3, Tier 3 Revised, & Tier 3 Enhanced Dual Service	Tier 3, Tier 3 Revised, & Tier 3 Enhanced Dual Disability	
0.15	17.000/	24 000/	0.000/	20.000/	12.000/	
0-15	17.00%	21.00%	8.00%	20.00%	12.00%	
16	17.00%	21.00%	9.00%	20.00%	12.00%	
17	17.00%	21.00%	10.00%	20.00%	13.00%	
18	17.00%	21.00%	11.00%	20.00%	13.00%	
19	17.00%	21.00%	12.00%	20.00%	14.00%	
20	17.00%	21.00%	12.00%	20.00%	14.00%	
21	17.00%	21.00%	12.00%	20.00%	14.00%	
22	17.00%	21.00%	12.00%	20.00%	14.00%	
23	16.00%	20.00%	11.00%	18.00%	13.00%	
24	15.00%	18.00%	10.00%	17.00%	12.00%	
25	14.00%	17.00%	9.00%	16.00%	11.00%	
26	13.00%	16.00%	8.00%	15.00%	10.00%	
27	12.00%	15.00%	7.00%	14.00%	9.00%	
28	10.00%	14.00%	6.00%	13.00%	8.00%	
29	9.00%	13.00%	6.00%	12.00%	7.00%	
30	8.00%	12.00%	6.00%	10.00%	6.00%	
31	7.00%	10.00%	6.00%	9.00%	6.00%	
32	7.00%	9.00%	6.00%	9.00%	6.00%	
33	7.00%	9.00%	6.00%	9.00%	6.00%	
34+	7.00%	9.00%	6.00%	9.00%	6.00%	

### SUMMARY OF ACTIVE MEMBER VALUATION DATA

## Table 9a NEW YORK CITY POLICE PENSION FUND ACTIVE MEMBER VALUATION DATA

June 30 Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2011	33,705	\$3,480,066,072	\$103,251	3.1%
2012	34,240	3,478,153,934	101,582	(1.6%)
2013	34,775	3,607,606,894	103,741	2.1%
2014	34,402	3,618,095,284	105,171	1.4%
2015	34,435	3,564,029,659	103,500	(1.6%)
2016	35,961	3,717,425,239	103,374	(0.1%)
2017	36,165	3,968,885,246	109,744	6.2%
2018	36,562	4,053,204,563	110,858	1.0%
2019	36,401	4,244,805,002	116,612	5.2%
2020	35,895	4,299,648,848	119,784	2.7%

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

### SUMMARY OF ACTIVE MEMBER VALUATION DATA (Cont'd)

## Table 9b POLICE OFFICER'S VARIABLE SUPPLEMENTS FUND ACTIVE MEMBER VALUATION DATA

June 30 Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2011	21,320	\$1,891,293,447	\$88,710	1.9%
2012	22,182	1,928,386,447	86,935	(2.0%)
2013	22,638	2,025,990,093	89,495	2.9%
2014	22,204	2,017,687,701	90,870	1.5%
2015	22,162	1,972,372,652	88,998	(2.1%)
2016	23,685	2,099,879,859	88,659	(0.4%)
2017	23,519	2,218,910,134	94,345	6.4%
2018	23,841	2,267,691,048	95,117	0.8%
2019	23,709	2,367,377,920	99,851	5.0%
2020	23,357	2,395,558,560	102,563	2.7%

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

### SUMMARY OF ACTIVE MEMBER VALUATION DATA (Cont'd)

## **Table 9c**POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND ACTIVE MEMBER VALUATION DATA

June 30 Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2011	12,385	\$1,588,772,625	\$128,282	4.6%
2012	12,058	1,549,767,487	128,526	0.2%
2013	12,137	1,581,616,801	130,314	1.4%
2014	12,198	1,600,407,583	131,202	0.7%
2015	12,273	1,591,657,007	129,688	(1.2%)
2016	12,276	1,617,545,380	131,765	1.6%
2017	12,646	1,749,975,112	138,382	5.0%
2018	12,721	1,785,513,515	140,360	1.4%
2019	12,692	1,877,427,082	147,922	5.4%
2020	12,538	1,904,090,288	151,866	2.7%

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

### **SUMMARY OF PLAN MEMBERSHIP DATA**

As of the June 30, 2020 and June 30, 2019 actuarial valuations, the Plan's Membership consisted of:

Table 10					
NEW YORK CITY POLICE PENSION FUND SUMMARY OF PLAN MEMBERSHIP					
Group June 30, 2020 June 30, 2019					
Active Members	35,895	36,401			
Terminated Nonvested Members/Actives Off Payroll <sup>1</sup>	1,544	1,640			
Deferred Vested Members not yet receiving benefits	753	497			
Retirees and Beneficiaries currently receiving benefits	51,465	50,727			
Total	89,657	89,265			

<sup>&</sup>lt;sup>1</sup> Actives Off Payroll as of June 30, 2019 represents members no longer on payroll, but not otherwise classified.

### SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Table 11a

## NEW YORK CITY POLICE PENSION FUND SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

	Ad	ded to Rolls	Remove	d from Rolls	End o	f Year Rolls		
June 30 Actuarial Valuation	Number	Annual Allowances <sup>1</sup>	Number	Annual Allowances	Number	Annual Allowances <sup>1</sup>	% Increase In Annual Allowances	Average Annual Allowances
2011	2,142	\$141,323,253	1,021	\$30,315,285	45,755	\$1,905,326,699	6.2%	\$41,642
2012	1,893	133,158,449	1,010	32,287,109	46,638	2,006,198,039	5.3%	43,016
2013	1,346	99,488,158	1,034	33,621,831	46,950	2,072,064,366	3.3%	44,133
2014	2,220	144,660,995	958	32,759,640	48,212	2,183,965,721	5.4%	45,299
2015	1,574	117,371,844	1,083	37,069,856	48,703	2,264,267,709	3.7%	46,491
2016	1,458	151,061,292	1,010	36,517,652	49,151	2,378,811,349	5.1%	48,398
2017	1,681	153,211,878	1,033	38,982,214	49,799	2,493,041,013	4.8%	50,062
2018	1,401	137,291,868	1,076	42,965,087	50,124	2,587,367,794	3.8%	51,619
2019	1,729	170,887,518	1,126	42,117,897	50,727	2,716,137,415	5.0%	53,544
2020	1,905	647,894,232	1,167	42,510,013	51,465	3,321,521,634	22.3%	64,539

<sup>&</sup>lt;sup>1</sup> Allowances shown through June 30, 2019 are those presented in census data. Beginning 2016, SADB payments to beneficiaries are included. Beginning June 30, 2020, disclosed pensioner benefits include VSF benefits, anticipated increases due to non-finalized pensioners, and other anticipated changes not otherwise reflected in the census data.

### SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS (Cont'd)

Table 11b

## POLICE OFFICER'S VARIABLE SUPPLEMENTS FUND SCHEDULE OF RETIREES ADDED TO AND REMOVED FROM ROLLS

	Ad	ded to Rolls	Remove	d from Rolls	End of Year Rolls			
June 30 Actuarial Valuation	Number	Annual Allowances <sup>1</sup>	Number	Annual Allowances <sup>1</sup>	Number	Annual Allowances <sup>1</sup>	% Increase In Annual Allowances	Average Annual Allowances <sup>1</sup>
2011	746	\$8,952,000	288	\$3,456,000	11,462	\$137,544,000	4.2%	\$12,000
2011	527	6,324,000	243	2,916,000	11,746	140,952,000	2.5%	12,000
2012	301	3,612,000	270	3,240,000	11,777	141,324,000	0.3%	12,000
2014	733	8,796,000	259	3,108,000	12,251	147,012,000	4.0%	12,000
2015	423	5,076,000	307	3,684,000	12,367	148,404,000	0.9%	12,000
2016	334	4,008,000	283	3,396,000	12,418	149,016,000	0.4%	12,000
2017	447	5,364,000	263	3,156,000	12,602	151,224,000	1.5%	12,000
2018	356	4,272,000	283	3,396,000	12,675	152,100,000	0.6%	12,000
2019	407	4,884,000	283	3,396,000	12,799	153,588,000	1.0%	12,000
2020	473	5,676,000	296	3,552,000	12,976	155,712,000	1.4%	12,000

 $<sup>^1</sup>$ Before reduction due to increases in Supplementation/COLA from POLICE. Does not include one-time VSF DROP payments.

### SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS (Cont'd)

Table 11c

## POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND SCHEDULE OF RETIREES ADDED TO AND REMOVED FROM ROLLS

	Ad	ded to Rolls	Remove	d from Rolls	End of Year Rolls			
June 30 Actuarial Valuation	Number	Annual Allowances <sup>1</sup>	Number	Annual Allowances <sup>1</sup>	Number	Annual Allowances <sup>1</sup>	% Increase In Annual Allowances	Average Annual Allowances <sup>1</sup>
2011	822	\$9,864,000	216	\$2,592,000	16,117	\$193,404,000	3.9%	\$12,000
2011	845	10,140,000	247	2,964,000	16,715	200,580,000	3.7%	12,000
2012	532	6,384,000	251	3,012,000	16,996	203,952,000	1.7%	12,000
2014	884	10,608,000	272	3,264,000	17,608	211,296,000	3.6%	12,000
2015	692	8,304,000	271	3,252,000	18,029	216,348,000	2.4%	12,000
2016	622	7,464,000	294	3,528,000	18,357	220,284,000	1.8%	12,000
2017	700	8,400,000	307	3,684,000	18,750	225,000,000	2.1%	12,000
2018	579	6,948,000	324	3,888,000	19,005	228,060,000	1.4%	12,000
2019	780	9,360,000	362	4,344,000	19,423	233,076,000	2.2%	12,000
2020	922	11,064,000	346	4,152,000	19,999	239,988,000	3.0%	12,000

<sup>&</sup>lt;sup>1</sup>Before reduction due to increases in Supplementation/COLA from POLICE. Does not include one-time VSF DROP payments.

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### **ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY**

Table 12
ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY

Fiscal Year Ended June 30	Actuarial Contribution Certified	Statutory Contribution Contributed <sup>1</sup>	Employer Rate of Contribution <sup>2</sup>
2013	\$2,424,690,421	\$2,424,690,421	70.1%
2014	2,320,909,885	2,320,909,885	67.9%
2015	2,309,618,694	2,309,618,694	65.7%
2016	2,393,939,871	2,393,939,871	67.6%
2017	2,293,839,525	2,293,839,525	65.4%
2018	2,415,153,337	2,415,153,337	65.8%
2019	2,558,256,001	2,558,256,001	64.0%
2020	2,458,907,408	2,458,907,408	60.2%
2021	2,437,727,728	2,437,727,728	56.8%
2022	2,490,134,303	2,490,134,303	57.3%

<sup>&</sup>lt;sup>1</sup> Represents total employer contributions accrued for fiscal year.

<sup>&</sup>lt;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

#### Table 13a

### NEW YORK CITY POLICE PENSION FUND FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD

(\$ Thousands)

June 30 Valuation Date	(1) Actuarial Value of Assets <sup>1</sup> (AVA)	(2) Accrued Liability <sup>2</sup> (AL)	(3) Unfunded AL (UAL) <sup>1</sup> (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll <sup>3</sup>	(6) UAL as % of Covered Payroll (3) / (5)
2011	\$24,748,860	\$40,524,580	\$15,775,720	61.1%	\$3,480,066	453.3%
2012	26,777,077	42,015,625	15,238,548	63.7%	3,478,154	438.1%
2013	29,087,154	43,900,094	14,812,940	66.3%	3,607,607	410.6%
2014	29,212,981	44,384,022	15,171,041	65.8%	3,618,095	419.3%
2015	31,092,977	45,297,561	14,204,584	68.6%	3,564,030	398.6%
2016	33,692,647	48,059,916	14,367,269	70.1%	3,717,425	386.5%
2017	34,162,505	47,696,250	13,533,745	71.6%	3,968,885	341.0%
2018	36,098,314	48,024,798	11,926,484	75.2%	4,053,205	294.2%
2019	40,119,424	50,614,796	10,495,372	79.3%	4,244,805	247.3%
2020	42,014,055	52,485,567	10,471,512	80.0%	4,299,649	243.5%

 $<sup>^1\, \</sup>text{The Unfunded Accrued Liability excludes contributions receivable in the Actuarial Value of Assets}.$ 

 $<sup>^2\,</sup>AL\ includes\ the\ accrued\ liabilities\ attributable\ to\ the\ Variable\ Supplements\ Funds,\ net\ of\ their\ Actuarial\ Asset\ Values,\ if\ any.$ 

<sup>&</sup>lt;sup>3</sup> Salaries shown are base salaries plus assumed overtime paid and reflect the impact of recent labor contract settlements and certain non-union salary increases with retroactive effective dates, if any.

### FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD (Cont'd)

### Table 13b

POLICE OFFICER'S VARIABLE SUPPLEMENTS FUND FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD

(\$ Thousands)

June 30 Valuation Date	(1) Actuarial Value of Assets (AVA)	(2) Accrued Liability (AL)	(3) Unfunded AL (UAL) (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll	(6) UAL as % of Covered Payroll (3) / (5)
2011	\$678,770	\$1,820,662	\$1,141,892	37.3%	\$1,891,293	60.4%
2012	575,048	1,838,843	1,263,795	31.3%	1,928,386	65.5%
2013	464,226	1,859,400	1,395,174	25.0%	2,025,990	68.9%
2014	1,640,981	1,939,317	298,336	84.6%	2,017,688	14.8%
2015	1,928,443	2,079,269	150,826	92.7%	1,972,373	7.6%
2016	1,609,663	2,083,503	473,840	77.3%	2,099,880	22.6%
2017	2,234,906	2,115,019	(119,887)	105.7%	2,218,910	(5.4%)
2018	2,309,025	2,023,965	(285,060)	114.1%	2,267,691	(12.6%)
2019	1,976,399	2,037,919	61,520	97.0%	2,367,378	2.6%
2020	2,061,624	2,063,299	1,675	99.9%	2,395,559	0.1%

### FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD (Cont'd)

#### Table 13c

POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD

(\$ Thousands)

June 30 Valuation Date	(1) Actuarial Value of Assets (AVA)	(2) Accrued Liability (AL)	(3) Unfunded AL (UAL) (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll	(6) UAL as % of Covered Payroll (3) / (5)
2011	\$418,608	\$3,286,424	\$2,867,816	12.7%	\$1,588,773	180.5%
2012	222,342	3,368,009	3,145,667	6.6%	1,549,767	203.0%
2013	13,183	3,429,241	3,416,058	0.4%	1,581,617	216.0%
2014	1,032,800	3,529,472	2,496,672	29.3%	1,600,408	156.0%
2015	1,112,516	3,466,692	2,354,176	32.1%	1,591,657	147.9%
2016	822,340	3,532,813	2,710,473	23.3%	1,617,545	167.6%
2017	1,996,403	3,636,347	1,639,944	54.9%	1,749,975	93.7%
2018	2,971,157	3,792,820	821,663	78.3%	1,785,514	46.0%
2019	3,097,356	3,827,951	730,595	80.9%	1,877,427	38.9%
2020	3,266,194	3,879,902	613,708	84.2%	1,904,090	32.2%

## COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

### Table 14a

## NEW YORK CITY POLICE PENSION FUND COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS SOLVENCY TEST (\$ Thousands)

	A	accrued Liabilities for					
	(A)	(B)	(C)	(D)			
June 30 Valuation Date	Accumulated Member Contributions	Current Retirees and Beneficiaries	Active Members' Employer-Financed	Actuarial Value of  Assets <sup>1</sup>	Funded by Actuariai value		
			Portion		(A)	(A) (B)	
2011	\$2,564,754	\$21,974,393	\$16,953,617	\$24,748,860	100%	100%	1%
2012	2,456,478	23,181,744	17,191,876	26,777,077	100	100	7
2013	2,741,297	23,991,098	17,907,612	29,087,154	100	100	13
2014	2,978,441	26,373,360	15,820,520	29,212,981	100	99	0
2015	3,053,313	27,543,329	15,438,728	31,092,977	100	100	3
2016	3,266,026	28,923,698	16,606,649	33,692,647	100	100	9
2017	3,438,701	29,780,499	17,293,602	34,162,505	100	100	5
2018	3,474,816	30,702,751	16,811,486	36,098,314	100	100	11
2019	3,690,996	32,456,221	14,467,579	40,119,424	100	100	27
2020	3,844,510	34,151,158	14,489,899	42,014,055	100	100	28

<sup>&</sup>lt;sup>1</sup>The Actuarial Value of Assets excludes contributions receivable.

See following "SOLVENCY TEST - NOTES."

## COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS (Cont'd)

### Table 14b

POLICE OFFICER'S VARIABLE SUPPLEMENTS FUND

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

SOLVENCY TEST

(\$ Thousands)

	A	Accrued Liabilities for					
	(A)	(B)	(C)	(D)			
June 30 Valuation Date	Accumulated Member Contributions	Current Retirees and Beneficiaries	Active Members' Employer-Financed	Actuarial Value of Assets		Percentage of Accrued Liabilite Funded by Actuarial Value of Ass	
			Portion		(A)	(B)	(C)
2011	\$0	\$1,409,592	\$411,070	\$678,770	100%	48%	0%
2012	0	1,445,315	393,528	575,048	100	40	0
2013	0	1,444,898	414,502	464,226	100	32	0
2014	0	1,534,749	404,568	1,640,981	100	100	26
2015	0	1,549,011	530,258	1,928,443	100	100	72
2016	0	1,552,515	530,988	1,609,663	100	100	11
2017	0	1,581,226	533,793	2,234,906	100	100	100
2018	0	1,586,911	437,054	2,309,025	100	100	100
2019	0	1,594,428	443,491	1,976,399	100	100	86
2020	0	1,617,090	446,209	2,061,624	100	100	100

See following "SOLVENCY TEST - NOTES."

## COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS (Cont'd)

### Table 14c

POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND
COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS
SOLVENCY TEST
(\$ Thousands)

	A	Accrued Liabilities for					
	(A)	(B)	(C)	(D)			
June 30 Valuation Date	Accumulated Member Contributions	Current Retirees and Beneficiaries	Active Members' Employer-Financed	Actuarial Value of Assets	Percentage of Accrued Liabilites Funded by Actuarial Value of Assets		
			Portion		(A)	(B)	(C)
2011	\$0	\$2,068,254	\$1,218,170	\$418,608	100%	20%	0%
2012	0	2,139,165	1,228,844	222,342	100	10	0
2013	0	2,162,433	1,266,808	13,183	100	1	0
2014	0	2,268,930	1,260,542	1,032,800	100	46	0
2015	0	2,314,463	1,152,229	1,112,516	100	48	0
2016	0	2,346,636	1,186,177	822,340	100	35	0
2017	0	2,396,749	1,239,598	1,996,403	100	83	0
2018	0	2,417,808	1,375,012	2,971,157	100	100	40
2019	0	2,452,387	1,375,564	3,097,356	100	100	47
2020	0	2,522,196	1,357,706	3,266,194	100	100	55

See following "SOLVENCY TEST - NOTES."

## COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS (Cont'd)

#### **SOLVENCY TEST - NOTES**

The ultimate test of financial soundness in a pension fund is its ability to pay all of its promised benefits when due. The pension fund's progress in accumulating assets to pay all promised benefits can be measured by comparing the Actuarial Value of Assets of the pension fund with the Accrued Liabilities for:

- a. Accumulated Member Contributions;
- b. Current Retirees and Beneficiaries; and
- c. Active Members' Employer-Financed Portion.

Prior to the June 30, 2019 valuation, the Accrued Liabilities were calculated under the Projected Unit Credit actuarial cost method. Beginning with the June 30, 2019 actuarial valuation, the Accrued Liabilities are calculated based on the Entry Age Normal (EAN) actuarial cost method.

The values in the table are dependent upon census data, benefit levels, and the actuarial assumptions and methods employed at each valuation date.

To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. The Actuarial Interest Rate assumption has been 7.0% per annum, net of investment expenses, throughout the period shown. However, other actuarial assumptions and methods have been revised. The two most recent changes in actuarial assumptions and methods occurred in the June 30, 2019 valuation used to compute the Employer Contribution for Fiscal Year 2021 and in the June 30, 2017 valuation used to compute the Employer Contribution for Fiscal Year 2019.

### **CONTRIBUTIONS**

The benefits of the Fund are financed by member and employer contributions and from investment earnings of the Fund.

### **A.** MEMBER CONTRIBUTIONS

**Tier 1 and Tier 2**: Required Member Contributions – Based upon age at entry and elected retirement age, credited with regular and special interest. Contributions are required for the first 20 years.

Voluntary Member Contributions – Additional contributions to the Annuity Savings Fund credited with regular and special interest.

Contributions from members are recorded when the employer makes payroll deductions from Plan members. Tier 1 and Tier 2 members are permitted to borrow up to 90% of their own contributions including accumulated interest. These loans are accounted for as reductions in such member's contribution accounts.

**Tier 3, Tier 3 Revised, and Tier 3 Enhanced**: Basic Member Contributions – Members contribute 3.0% of salary for a maximum of 25 years.

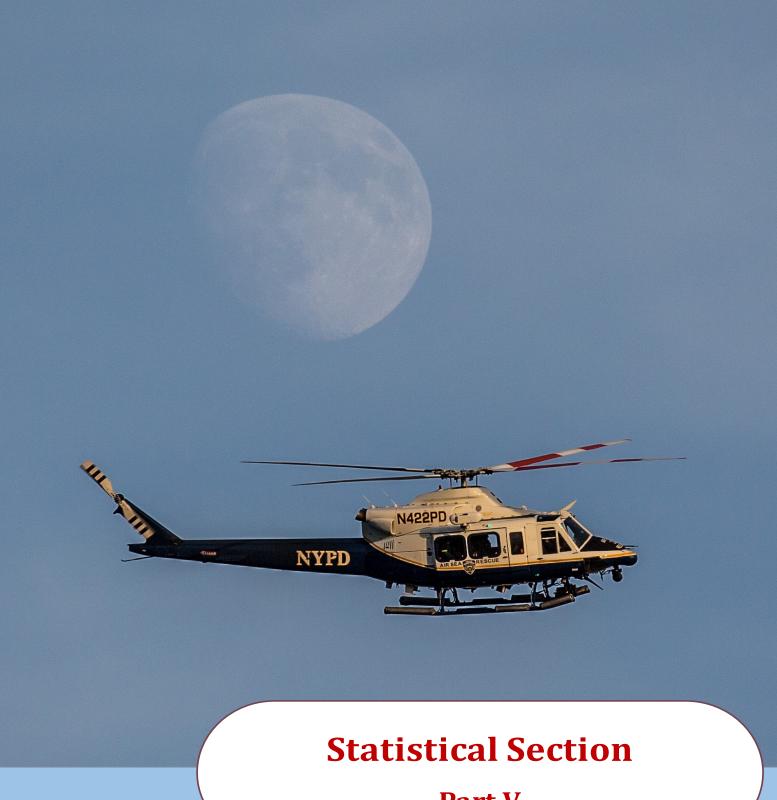
Additional Member Contributions (AMC) – Effective April 10, 2017, Tier 3 Enhanced Plan members are required to contribute an additional 1.0% of salary for a maximum of 25 years. Chapter 59/17 states that the AMC rate for Tier 3 Enhanced Plan members is required to be reviewed by the Actuary every 3 years. The AMC rate currently remains at 1.0% of salary.

Loans are not permitted for Tier 3, Tier 3 Revised, and Tier 3 Enhanced Plan members.

### **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 employer.

Employer contributions are accrued by the Plan and are funded by the employer on a current basis.



# Part V

### **New York City Police Pension Fund**

A Pension Trust Fund of the City of New York

### **Annual Comprehensive Financial Report**

For the fiscal years ended June 30, 2022 and June 30, 2021

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### **Statistical Section Overview**

### Introduction

The objective of the statistical section is to reflect data that is necessary to fund members' retirement benefits during their active service together with members' employer's contributions and investment income that would be required to accumulate assets to pay various retirement benefits.

The Statistical Section of the New York City Police Pension Fund's Annual Comprehensive Financial Report presents detailed information related to the financial statements, as well as highlights of the actuarial valuations. The data provided is a useful source in determining the fund's economic condition. The schedules are organized into four categories: Operating Information, Demographic and Economic Information, Financial Trend and Revenue Capacity.

### **Operating Information**

The operating information gives users an indication of how the information in the financial statements relate to the activities of the fund. The schedules show data on benefits ranges, years of credited service, types of retirement and options selected and the amount of monthly, annual or average benefit paid to each group of retirees and beneficiaries. The data is presented for the fiscal period or over a ten-year period.

### **Demographic and Economic Information**

The demographic and economic categories present data to give users an understanding of the environment in which the pension plan operates. This is done mainly through the breakdown of the population groups in the plan membership. The schedules present the number of members and beneficiaries grouped according to several indicators including average monthly or annual salaries or age participating in the pension plan, for the fiscal period or over a ten-year period.

### **Financial Trends**

The schedules of trend data provide financial and actuarial data for the most current ten-year period. This data shows the changes in benefit types and changes in the plan's performance over time, as relates to revenues, received benefits and expenses paid and net position.

### **Revenue Capacity**

Revenue capacity information help users evaluate the different sources of revenue for the plan. The schedules show the sources and change in the level of revenues over time. The main sources of revenues for the plan are investment income and employer contributions.

**Benefit Expenses by Type** 

Fiscal Year ended June 30, 2022 (in thousands)

Fiscal Year Ended 6/30	Other Benefits	Ordinary Death	Death Gamble	Line of Duty Deaths	Total				
2013	\$2,517,556	\$4,124	\$2,711	\$6,243	\$2,530,634				
2014	2,678,498	3,825	3,316	5,970	2,691,609				
2015	2,735,399	4,181	4,371	5,824	2,749,775				
2016	2,865,208	2,257	7,095	7,663	2,882,223				
2017	2,974,515	2,062	3,237	5,019	2,984,833				
2018	3,184,759	3,461	5,241	4,510	3,197,971				
2019	3,268,949	3,904	5,360	3,857	3,282,070				
2020	3,474,164	3,019	11,490	2,822	3,491,495				
2021	3,828,363	2,281	4,233	6,442	3,841,319				
2022	\$3,803,668	\$2,921	\$8,265	\$6,519	\$3,821,373				
The table offers a	The table offers a comparison for the Benefit Payments of the Plan for the past 10 Years.								

Table 15

AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS

		ervice ent Benefits	(Line	cidental -of-Duty) ity Benefits	(Non- Li	dinary ne-of-Duty) ity Benefits
June 30 Valuation Date	Number	Average Annual Allowance		Average Annual Allowance	Number	Average Annual Allowance
2011	29,247	\$39,766	11,815	\$51,341	3,454	\$31,231
2012	30,119	41,205	11,948	52,806	3,346	31,468
2013	30,405	42,230	12,072	54,231	3,262	31,692
2014	31,610	43,412	12,244	55,499	3,172	31,926
2015	32,148	44,626	12,298	56,788	3,068	32,217
2016	32,491	46,141	12,430	58,360	2,996	32,457
2017	33,093	47,867	12,512	59,977	2,935	32,808
2018	33,416	49,427	12,556	61,626	2,861	33,033
2019	33,966	51,365	12,665	63,639	2,752	33,422
2020	34,749	66,375	12,707	66,369	2,624	34,239

### Schedule of Changes in Net Position

Fiscal year Ended June 30, 2022 (In thousands)

QPP			Additio	ns to Plai	n Net	<u>Position</u>						De	ductions fro	om F	Plan Net Posit	ion	1	
Year Ended	Member Contribution	s		oloyer butions		Investment me (Loss)	ļ	Other Income		Total Additions	Benefit Payments	D	Other Deductions		ministrative Expenses	D	Total Deductions	Change in et Position
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022	\$ 229, 228, 241, 249, 276, 267, 278, 280, 255, \$ 281.	102 921 301 031 087 129 789	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	,424,691 ,320,910 ,309,619 ,393,940 ,293,840 ,415,153 ,558,256 ,458,907 ,437,728		3,101,563 5,147,483 1,098,220 403,534 4,286,894 3,925,283 2,581,702 1,896,012 10,747,961 (3,656,295)		6,118 6,911 4,616 6,756 10,507 3,408 143,944 6,488 4,389 5,380	\$	5,762,047 7,704,087 3,653,557 3,054,151 6,867,542 6,610,875 5,561,989 4,641,536 13,445,867 (879,596)	\$ 2,530,634 2,691,609 2,749,775 2,882,223 2,984,833 2,774,387 2,853,799 3,039,785 3,313,298 3,344,982		8,169 2,541,024 590,313 326,195 2,183,364 1,280,000 518,628 401,358 106,720 1,672		17,548 17,450 17,905 18,478 18,917 21,146 29,005 26,803 24,925 24,301	\$	2,548,182 2,709,059 2,767,680 2,900,701 3,003,750 4,075,533 3,401,432 3,467,946 3,444,943 3,370,955	\$ 3,213,865 4,995,028 885,877 153,450 3,863,792 2,535,342 2,160,557 1,173,590 10,000,924 (4,250,551)
The table	offers a 10 year	comp	parison	for the op	eratio	, , , ,		,	l	, , ,	. ,		,		,		, ,	( , , ,

### Schedule of Changes in Net Position

Fiscal year Ended June 30, 2021 (In thousands)

	Additions to Plan Net Position
PSOVSE	

### **Deductions from Plan Net Position**

POUVOR												
Year Ended	Member Contributions	Employer Contributions	nvestment me (Loss)	Other Income	Total Additions	Benefit Payments	D	Other Deductions	Administrative Expenses	De	Total eductions	Change in et Position
2018	N/A	N/A	\$ 38,433	\$ 1,150,026	\$ 1,188,459	\$ 260,268	\$	1,150,000	N/A	\$	260,268	\$ 928,191
2019	N/A	N/A	176,147	410,663	586,810	263,076		-	N/A		263,076	323,734
2020	N/A	N/A	146,514	256,574	403,088	285,963		-	N/A		285,963	117,125
2021	N/A	N/A	766,123	3,516	769,639	345,474		-	N/A		345,474	424,165
2022	N/A	N/A	\$ (460,681)	\$ 1,711	\$ (458,970)	\$ 299,966		-	N/A	\$	299,966	\$ (758,936)

Schedule of Changes in Net Position

Fiscal year Ended June 30, 2021

(In thousands)

**POVSE** 

### **Additions to Plan Net Position**

### **Deductions from Plan Net Position**

1 0 1 0 1												
Year Ended	Member Contributions	Employer Contributions	nvestment me (Loss)	Other Income	Total Additions	Benefit Payments	D	Other eductions	Administrative Expenses	De	Total eductions	nange in Position
2018	N/A	N/A	\$ 294	\$ 130,031	\$ 130,325	\$ 163,316	\$	130,000	N/A	\$	163,316	\$ (32,991)
2019	N/A	N/A	103,694	108,040	211,734	165,195		139,836	N/A		305,031	(93,297)
2020	N/A	N/A	(4,221)	144,837	140,616	165,747		-	N/A		165,747	(25,131)
2021	N/A	N/A	447,619	103,273	550,892	182,547		-	N/A		182,547	368,345
2022	N/A	N/A	\$ (288,928)	\$ 67	\$ (288,861)	\$ 176,425	\$	185	N/A	\$	176,610	\$ (465,471)

Starting FY 2018 a separate schedule of changes in net position for each pension plan is included.

**Expenses by Type** 

Fiscal year Ended June 30, 2022

(In thousands)

					Employer Contributions as %
	Benefit		Administrative		of annual covered
P	ayments		Expense	Total	Payroll
QPP	PSOVS	POVS			
\$2,530,634	-		\$17,548	\$2,548,182	70.1
2,691,609	-	-	17,450	2,709,059	67.9
2,749,775	-	-	17,905	2,767,680	65.7
2,882,223	-	-	18,478	2,900,701	67.6
2,984,833	-	-	18,917	3,003,750	65.4
2,774,387	260,268	163,316	21,146	3,219,117	65.8
2,853,799	263,076	165,195	29,005	3,311,075	63.2
3,039,785	285,963	165,747	26,803	3,518,298	57.9
3,313,298	345,474	182,547	24,925	3,866,244	56.7
\$3,344,982	\$299,966	\$176,425	\$24,301	\$3,845,674	58.4
	\$2,530,634 2,691,609 2,749,775 2,882,223 2,984,833 2,774,387 2,853,799 3,039,785 3,313,298	Payments           QPP         PSOVS           \$2,530,634         -           2,691,609         -           2,749,775         -           2,882,223         -           2,984,833         -           2,774,387         260,268           2,853,799         263,076           3,039,785         285,963           3,313,298         345,474	Payments           QPP         PSOVS         POVS           \$2,530,634         -         -           2,691,609         -         -           2,749,775         -         -           2,882,223         -         -           2,984,833         -         -           2,774,387         260,268         163,316           2,853,799         263,076         165,195           3,039,785         285,963         165,747           3,313,298         345,474         182,547	Payments         Expense           QPP         PSOVS         POVS           \$2,530,634         -         -         17,548           2,691,609         -         -         17,450           2,749,775         -         -         17,905           2,882,223         -         -         18,478           2,984,833         -         -         18,917           2,774,387         260,268         163,316         21,146           2,853,799         263,076         165,195         29,005           3,039,785         285,963         165,747         26,803           3,313,298         345,474         182,547         24,925	Payments         Expense         Total           QPP         PSOVS         POVS           \$2,530,634         -         -         \$17,548         \$2,548,182           2,691,609         -         -         17,450         2,709,059           2,749,775         -         -         17,905         2,767,680           2,882,223         -         -         18,478         2,900,701           2,984,833         -         -         18,917         3,003,750           2,774,387         260,268         163,316         21,146         3,219,117           2,853,799         263,076         165,195         29,005         3,311,075           3,039,785         285,963         165,747         26,803         3,518,298           3,313,298         345,474         182,547         24,925         3,866,244

The table offers a comparison for the expenses of the plan for the past 10 Years.

Starting FY2018 Benefit Payments is shown seperately for each fund.

### Revenue by Source

Fiscal Year ended June 30, 2022 (In thousands)

					ļ	Other Income		Total	Employer Contributions as % of annual covered Payroll
\$ 229,675	\$	2,424,691	\$	3,101,563	\$	6,118	\$	5,762,047	70.1
228,783		2,320,910		5,147,483	\$	6,911		7,704,087	67.9
241,102		2,309,619		1,098,220	\$	4,616		3,653,557	65.7
249,921		2,393,940		403,534	\$	6,756		3,054,151	67.6
276,301		2,293,840		4,286,894	\$	10,507		6,867,542	65.4
267,031		2,415,153		3,964,010	\$	3,465		6,649,659	65.8
278,087		2,558,256		2,861,543	\$	4,183		5,702,069	63.2
280,129		2,458,907		2,038,305	\$	6,541		4,783,882	57.9
255,789		2,437,728		11,961,703	\$	4,458		14,659,678	56.7
\$ 281,185	\$	2,490,134	\$	(4,405,904)	\$	5,301	\$	(1,629,284)	58.4
Cor \$	228,783 241,102 249,921 276,301 267,031 278,087 280,129 255,789	\$ 229,675 \$ 228,783 241,102 249,921 276,301 267,031 278,087 280,129 255,789	Contributions         Contributions           \$ 229,675         \$ 2,424,691           228,783         2,320,910           241,102         2,309,619           249,921         2,393,940           276,301         2,293,840           267,031         2,415,153           278,087         2,558,256           280,129         2,458,907           255,789         2,437,728	Contributions         Contributions         In           \$ 229,675         \$ 2,424,691         \$ 228,783           \$ 228,783         2,320,910         \$ 241,102           \$ 249,921         2,393,940         \$ 276,301           \$ 276,301         2,293,840         \$ 267,031           \$ 278,087         2,558,256         \$ 280,129           \$ 2,437,728         2,437,728	Member ContributionsEmployer ContributionsInvestment Income/Loss\$ 229,675 228,783\$ 2,424,691 2,320,910\$ 3,101,563 5,147,483 1,098,220241,102 249,9212,309,619 2,393,9401,098,220 403,534 4276,301 2,293,840276,301 267,031 278,087 278,087 280,1292,415,153 2,558,256 2,861,543 2,437,7283,964,010 2,038,305 1,961,703	Member Contributions         Employer Contributions         Investment Income/Loss           \$ 229,675         \$ 2,424,691         \$ 3,101,563         \$ 228,783           \$ 228,783         2,320,910         5,147,483         \$ 241,102           \$ 249,921         2,309,619         1,098,220         \$ 249,921           \$ 276,301         2,293,840         4,286,894         \$ 267,031           \$ 278,087         2,558,256         2,861,543         \$ 280,129           \$ 280,129         2,458,907         2,038,305         \$ 255,789           \$ 2,437,728         11,961,703         \$ 255,789	Member ContributionsEmployer ContributionsInvestment Income/LossOther Income\$ 229,675\$ 2,424,691\$ 3,101,563\$ 6,118228,7832,320,9105,147,483\$ 6,911241,1022,309,6191,098,220\$ 4,616249,9212,393,940403,534\$ 6,756276,3012,293,8404,286,894\$ 10,507267,0312,415,1533,964,010\$ 3,465278,0872,558,2562,861,543\$ 4,183280,1292,458,9072,038,305\$ 6,541255,7892,437,72811,961,703\$ 4,458	Member Contributions         Employer Contributions         Investment Income/Loss         Other Income           \$ 229,675         \$ 2,424,691         \$ 3,101,563         \$ 6,118         \$ 228,783         2,320,910         5,147,483         \$ 6,911           241,102         2,309,619         1,098,220         \$ 4,616           249,921         2,393,940         403,534         \$ 6,756           276,301         2,293,840         4,286,894         \$ 10,507           267,031         2,415,153         3,964,010         \$ 3,465           278,087         2,558,256         2,861,543         \$ 4,183           280,129         2,458,907         2,038,305         \$ 6,541           255,789         2,437,728         11,961,703         \$ 4,458	Member ContributionsEmployer ContributionsInvestment Income/LossOther IncomeTotal\$ 229,675 228,783 241,102 241,102 276,301 276,301\$ 3,101,563 5,147,483 2393,940\$ 6,911 403,534 403,534 4,286,894 5,167,562 3,054,151 3,465 3,465 3,465 3,465 6,649,659 278,087 2458,907 2458,907 2458,907 2,238,305 2,437,7281,098,220 4,616 403,534 4,286,894 3,10507 3,465 4,183 4,183 4,183 5,702,069 5,702,069 2,038,305 5,6541 4,458

Employer

The table offers a comparison for the revenue sources of the Plan for the past 10 Years.

### NEW YORK CITY POLICE PENSION FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS

### MALES

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	920	0	0	0	0	0	0	0	0	920
25 TO 29	3,206	987	0	0	0	0	0	0	0	4,193
30 TO 34	1,464	3,288	1,107	4	0	0	0	0	0	5,863
35 TO 39	507	1,482	2,870	1,598	3	0	0	0	0	6,460
40 TO 44	109	583	1,029	2,849	680	1	0	0	0	5,251
45 TO 49	2	85	367	1,199	1,432	436	2	0	0	3,523
50 TO 54	3	2	42	516	612	710	264	0	0	2,149
55 TO 59	1	1	0	33	149	223	221	122	0	750
60 TO 64	1	2	3	1	14	11	26	74	23	155
65 TO 69	0	0	2	2	0	3	0	1	0	8
70 & UP	0	0	0	4	1	1	0	0	1	7
TOTAL	6,213	6,430	5,420	6,206	2,891	1,385	513	197	24	29,279
SALARIES (IN T		0	0	0	0	0	0	0	0	0
UNDER 20	0	0	0	0	0	0	0	0	0	0 52.126
20 TO 24	52,136	0	0	0	0	0	0	0	0	52,136
25 TO 29	216,698	100,086	0	0	0	0	0	0	0	316,784
30 TO 34	103,748	389,935	147,815	515	0	0	0	0	0	642,013
35 TO 39	36,173	178,955	389,691	226,278	442	0	0	0	0	831,540
40 TO 44	8,042	70,251	137,148	404,691	102,605	137	0	0	0	722,875
45 TO 49	263	10,445	48,305	166,963	218,420	70,781	251	0	0	515,428
50 TO 54	411	301	5,505	71,452	90,640	111,693	44,914	20.700	0	324,916
55 TO 59	130	161	0	4,367	22,170	33,460	35,907	20,790	0	116,986
60 TO 64	135	319	487	177	2,120	1,621	3,868	13,287	4,567	26,581
65 TO 69	0	0	323	317	162	585	0	241 0	170	1,467
70 & UP TOTAL <sup>1</sup>			720.274	632	163	164			178	1,137
TOTAL	417,738	750,452	729,274	875,391	436,560	218,443	84,940	34,318	4,745	3,551,862
AVERAGE SALA										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	56,670	0	0	0	0	0	0	0	0	56,670
25 TO 29	67,592	101,404	0	0	0	0	0	0	0	75,551
30 TO 34	70,866	118,593	133,528	128,688	0	0	0	0	0	109,502
35 TO 39	71,348	120,752	135,781	141,601	147,287	0	0	0	0	128,721
40 TO 44	73,784	120,500	133,283	142,047	150,890	137,466	0	0	0	137,664
45 TO 49	131,476	122,877	131,621	139,252	152,528	162,341	125,352	0	0	146,304
50 TO 54	137,065	150,445	131,065	138,473	148,104	157,315	170,129	0	0	151,194
55 TO 59	130,238	161,196	0	132,324	148,794	150,046	162,477	170,407	0	155,981
60 TO 64	135,395	159,428	162,239	176,731	151,399	147,405	148,755	179,558	198,566	171,488
65 TO 69	0	0	161,718	158,643	0	195,026	0	241,116	0	183,364
70 & UP	0	0	124 552	157,911	163,281	164,323	0	174 202	178,163	162,487
TOTAL	67,236	116,711	134,552	141,056	151,007	157,720	165,575	174,203	197,716	121,311

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

Total may not add and the service is nearest year.

Total may not add up due to rounding.

### NEW YORK CITY POLICE PENSION FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS

### **FEMALES**

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	199	0	0	0	0	0	0	0	0	199
25 TO 29	811	161	0	0	0	0	0	0	0	972
30 TO 34	537	677	208	0	0	0	0	0	0	1,422
35 TO 39	206	343	604	293	0	0	0	0	0	1,446
40 TO 44	34	168	317	661	127	0	0	0	0	1,307
45 TO 49	1	18	115	339	231	36	1	0	0	741
50 TO 54	1	0	14	136	157	83	21	0	0	412
55 TO 59	1	0	0	5	30	30	27	9	0	102
60 TO 64	0	0	1	0	1	1	5	6	1	15
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	0	0	0	0	0	0	0
TOTAL	1,790	1,367	1,259	1,434	546	150	54	15	1	6,616
SALARIES (IN T	THOUSANDS):									
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	11,225	0	0	0	0	0	0	0	0	11,225
25 TO 29	52,999	16,557	0	0	0	0	0	0	0	69,556
30 TO 34	37,042	77,156	26,926	0	0	0	0	0	0	141,124
35 TO 39	14,150	39,406	79,126	40,136	0	0	0	0	0	172,817
40 TO 44	2,535	19,625	41,360	91,258	18,813	0	0	0	0	173,592
45 TO 49	58	2,234	14,906	45,958	34,437	5,494	172	0	0	103,260
50 TO 54	135	0	1,817	18,264	22,703	12,553	3,175	0	0	58,648
55 TO 59	143	0	0	654	4,291	4,630	4,067	1,502	0	15,286
60 TO 64	0	0	161	0	126	124	732	920	219	2,281
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	0	0	0	0	0	0	0
TOTAL 1	118,287	154,977	164,295	196,270	80,370	22,802	8,146	2,421	219	747,787
AVERAGE SALA	<u> </u>	101,577	101,270	170,270	00,570	22,002	0,110	2,121	<u> </u>	717,707
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	56,407	0	0	0	0	0	0	0	0	56,407
25 TO 29	65,350	102,836	0	0	0	0	0	0	0	71,559
30 TO 34	68,979	102,836	129,450	0	0	0	0	0	0	99,243
35 TO 39	68,687	113,968	131,003	136,983	0	0	0	0	0	99,243 119,514
40 TO 44	74,564	114,885	131,003	138,061	148,130	0	0	0	0	132,817
40 TO 44 45 TO 49	58,350	124,085	130,473	135,568	148,130	152,624	172,303	0	0	132,817
50 TO 54	135,315	124,065	129,017	134,294	144,603	152,024	151,209	0	0	142,348
50 TO 54 55 TO 59	135,315	0	129,763	134,294	144,603	151,246	151,209	166,835	0	142,346
60 TO 64	144,/04									-
00 10 04	Λ	Λ	161 104	<i>(</i> 1)						
65 TO 60	0	0	161,196	0	125,801	123,941	146,356	153,264	218,892	152,080
65 TO 69 70 & UP	0 0 0	0 0 0	161,196 0 0	0 0 0	125,801 0 0	123,941 0 0	146,336 0 0	153,264	0	152,080

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

Total may not add up due to round in a

Total may not add up due to rounding.

Average based on unrounded salary.

## NEW YORK CITY POLICE PENSION FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS

### MALES AND FEMALES

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	1,119	0	0	0	0	0	0	0	0	1,119
25 TO 29	4,017	1,148	0	0	0	0	0	0	0	5,165
30 TO 34	2,001	3,965	1,315	4	0	0	0	0	0	7,285
35 TO 39	713	1,825	3,474	1,891	3	0	0	0	0	7,906
40 TO 44	143	751	1,346	3,510	807	1	0	0	0	6,558
45 TO 49	3	103	482	1,538	1,663	472	3	0	0	4,264
50 TO 54	4	2	56	652	769	793	285	0	0	2,561
55 TO 59	2	1	0	38	179	253	248	131	0	852
60 TO 64	1	2	4	1	15	12	31	80	24	170
65 TO 69	0	0	2	2	0	3	0	1	0	8
70 & UP	0	0	0	4	1	1	0	0	1	7
TOTAL	8,003	7,797	6,679	7,640	3,437	1,535	567	212	25	35,895
SALARIES (IN TI	-									_
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	63,361	0	0	0	0	0	0	0	0	63,361
25 TO 29	269,697	116,642	0	0	0	0	0	0	0	386,340
30 TO 34	140,790	467,091	174,741	515	0	0	0	0	0	783,137
35 TO 39	50,323	218,361	468,817	266,414	442	0	0	0	0	1,004,357
40 TO 44	10,578	89,877	178,508	495,949	121,418	137	0	0	0	896,466
45 TO 49	321	12,678	63,211	212,921	252,858	76,275	423	0	0	618,687
50 TO 54	547	301	7,321	89,716	113,342	124,247	48,089	0	0	383,563
55 TO 59	273	161	0	5,020	26,462	38,090	39,974	22,291	0	132,272
60 TO 64	135	319	648	177	2,245	1,745	4,599	14,207	4,786	28,862
65 TO 69	0	0	323	317	0	585	0	241	0	1,467
70 & UP	0	0	0	632	163	164	0	0	178	1,137
TOTAL 1	536,025	905,430	893,569	1,071,661	516,930	241,245	93,086	36,739	4,964	4,299,649
AVERAGE SALAI	RIES: <sup>2</sup>									
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	56,623	0	0	0	0	0	0	0	0	56,623
25 TO 29	67,139	101,605	0	0	0	0	0	0	0	74,800
30 TO 34	70,360	117,804	132,883	128,688	0	0	0	0	0	107,500
35 TO 39	70,579	119,650	134,950	140,885	147,287	0	0	0	0	127,037
40 TO 44	73,969	119,676	132,621	141,296	150,456	137,466	0	0	0	136,698
45 TO 49	107,101	123,088	131,143	138,440	152,049	161,600	141,002	0	0	145,096
50 TO 54	136,628	150,445	130,739	137,602	147,389	156,679	168,734	0	0	149,771
55 TO 59	136,501	161,196	0	132,115	147,830	150,555	161,186	170,162	0	155,249
60 TO 64	135,395	159,428	161,978	176,731	149,692	145,449	148,368	177,586	199,413	169,776
65 TO 69	0	0	161,718	158,643	0	195,026	0	241,116	0	183,364
70 & UP	0	0	0	157,911	163,281	164,323	0	0	178,163	162,487
TOTAL	66,978	116,125	133,788	140,270	150,401	157,163	164,173	173,298	198,563	119,784

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

Total may not add up due to rounding.

<sup>&</sup>lt;sup>2</sup> Average based on unrounded salary.

## NEW YORK CITY POLICE PENSION FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ALL FILES (ALL BENEFITS)

-		MALE			FEMALE			TOTAL	
AGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
anning nemine									
SERVICE RETIRE	MENT: 0	0	0	0	0	0	0	0	0
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34 35 TO 39	2	200,921	0 100,461	0	0	0	0 2	200.021	100.461
35 TO 39 40 TO 44	199	17,038,682	85,622	58	4,827,713	83,236	257	200,921 21,866,395	100,461 85,083
45 TO 49	1,957	170,151,295	86,945	490	37,565,477	76,664	2,447	207,716,772	84,886
50 TO 54	5,149	434,363,070	84,359	1,033	76,383,368	73,943	6,182	510,746,438	82,618
55 TO 59	6,641	481,258,728	72,468	1,510	98,385,013	65,156	8,151	579,643,741	71,113
60 TO 64	4,862	318,289,751	65,465	974	58,099,079	59,650	5,836	376,388,830	64,494
65 TO 69	2,376	145,812,654	61,369	380	21,233,113	55,877	2,756	167,045,767	60,612
70 TO 74	2,465	136,098,952	55,213	96	4,847,149	50,491	2,561	140,946,101	55,036
75 TO 79	3,131	155,114,084	49,541	81	3,896,768	48,108	3,212	159,010,852	49,505
80 TO 84	1,890	83,655,366	44,262	32	1,554,840	48,589	1,922	85,210,206	44,334
85 TO 89	861	35,664,214	41,422	16	755,050	47,191	877	36,419,264	41,527
90 & UP	528	20,626,894	39,066	18	631,972	35,110	546	21,258,866	38,936
TOTAL	30,061	1,998,274,611	66,474	4,688	308,179,542	65,738	34,749	2,306,454,153	66,375
<del></del>									
ORDINARY DISAE				2	0		_	_	
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	3	217,917	72,639	2	84,592	42,296	5	302,509	60,502
35 TO 39	41	1,986,536	48,452	15	703,116	46,874	56	2,689,652	48,030
40 TO 44	74	3,316,954	44,824	43	1,854,858	43,136	117	5,171,812	44,204
45 TO 49	131	5,520,284	42,140	62	2,438,151	39,325	193	7,958,435	41,235
50 TO 54	228	8,202,078	35,974	125	4,232,569	33,861	353	12,434,647	35,226
55 TO 59	187	5,937,864	31,753	123	3,450,514	28,053	310	9,388,378	30,285
60 TO 64	130 75	3,508,114 2,426,108	26,985	80 30	2,116,347 773,537	26,454	210	5,624,461	26,783
65 TO 69	265	7,567,209	32,348	17	390,333	25,785	105	3,199,645	30,473
70 TO 74	399	10,564,581	28,556	15	337,975	22,961	282	7,957,542	28,218
75 TO 79 80 TO 84	230	8,317,262	26,478 36,162	7	158,068	22,532 22,581	414 237	10,902,556	26,335 35,761
85 TO 89	152	7,191,240	47,311	4	125,606	31,402	156	8,475,330 7,316,846	46,903
90 & UP	181	8,196,692	45,286	5	225,701	45,140	186	8,422,393	45,282
TOTAL	2,096	72,952,839	34,806	528	16,891,367	31,991	2,624	89,844,206	34,239
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ACCIDENTAL DIS	ABILITY:								
UNDER 30	1	44,090	44,090	1	56,857	56,857	2	100,947	50,474
30 TO 34	28	2,003,556	71,556	7	474,060	67,723	35	2,477,616	70,789
35 TO 39	241	20,138,707	83,563	46	3,500,798	76,104	287	23,639,505	82,368
40 TO 44	404	34,780,432	86,090	92	7,228,953	78,576	496	42,009,385	84,696
45 TO 49	866	75,869,241	87,609	146	11,469,061	78,555	1,012	87,338,302	86,303
50 TO 54	1,873	158,993,323	84,887	281	20,432,033	72,712	2,154	179,425,356	83,299
55 TO 59	2,043	152,039,413	74,420	387	26,830,345	69,329	2,430	178,869,758	73,609
60 TO 64	1,393	91,984,680	66,034	213	13,141,639	61,698	1,606	105,126,319	65,458
65 TO 69	700	42,009,978	60,014	75	4,005,628	53,408	775	46,015,606	59,375
70 TO 74	1,291	61,187,067	47,395	41	1,694,752	41,335	1,332	62,881,819	47,209
75 TO 79	1,492	66,368,298	44,483	37	1,548,125	41,841	1,529	67,916,423	44,419
80 TO 84	656	28,739,466	43,810	8	317,267	39,658	664	29,056,733	43,760
85 TO 89	253	12,750,502	50,397	2	61,675	30,838	255	12,812,177	50,244
90 & UP TOTAL	126	5,531,924 <b>752,440,677</b>	43,904	1,340	152,747 <b>90,913,940</b>	38,187 <b>67,846</b>	130 <b>12,707</b>	5,684,671 <b>843,354,617</b>	43,728
IUIAL	11,367	/34,440,6//	66,195	1,340	90,913,940	07,846	14,/0/	043,354,017	66,369

## NEW YORK CITY POLICE PENSION FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ALL FILES (ALL BENEFITS)

		MALE			FEMALE	1		TOTAL	
AGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
ACCIDENTAL DI		547,669	126.017	17	2,356,544	120 (20	24	2.004.242	120.207
UNDER 30	4	,	136,917	17		138,620	21	2,904,213	138,296
30 TO 34	0	120.704	120.704	1	154,504	154,504	1	154,504	154,504
35 TO 39	1	130,794 0	130,794	3	418,512	139,504	4	549,306	137,327
40 TO 44	0		0	16	2,133,484	133,343	16	2,133,484	133,343
45 TO 49	2	213,785	106,893	20	2,721,279	136,064	22	2,935,064	133,412
50 TO 54	3	400,769	133,590	57	7,237,331	126,971	60	7,638,100	127,302
55 TO 59	8	871,931	108,991	84	11,047,812	131,522	92	11,919,743	129,562
60 TO 64	7	784,953	112,136	60	7,182,223	119,704	67	7,967,176	118,913
65 TO 69	4	320,932	80,233	45	4,633,916	102,976	49	4,954,848	101,119
70 TO 74	3	348,761	116,254	55	5,761,570	104,756	58	6,110,331	105,351
75 TO 79	1	109,186	109,186	65	5,780,731	88,934	66	5,889,917	89,241
80 TO 84	3	135,062	45,021	24	1,650,186	68,758	27	1,785,248	66,120
85 TO 89	2	89,337	44,669	16	1,067,170	66,698	18	1,156,507	64,250
90 & UP	3	109,032	36,344	10	593,712	59,371	13	702,744	54,057
TOTAL	41	4,062,211	99,078	473	52,738,974	111,499	514	56,801,185	110,508
OTHER BENEFIC	CIARIFS.								
UNDER 30	8	326,932	40,867	8	432,386	54,048	16	759,318	47,457
30 TO 34	5	173,558	34,712	6	145,843	24,307	11	319,401	29,036
35 TO 39	2	44,033	22,017	3	86,438	28,813	5	130,471	26,094
40 TO 44	1	13,585	13,585	14	541,436	38,674	15	555,021	37,001
45 TO 49	5	208,921	41,784	15	734,753	48,984	20	943,674	47,184
50 TO 54	5	228,917	45,783	35	1,390,406	39,726	40	1,619,323	40,483
55 TO 59	4	141,494	35,374	65	2,559,469	39,376	69	2,700,963	39,144
60 TO 64	2	59,840	29,920	62	2,121,892	34,224	64	2,181,732	34,090
65 TO 69	2	52,991	26,496	68	1,887,932	27,764	70	1,940,923	27,727
70 TO 74	1	34,573	34,573	110	3,067,738	27,764	111	3,102,311	27,727
75 TO 79	1	19,546	19,546	128	3,442,962	26,898	129	3,462,508	26,841
80 TO 84	0	0	19,340	116	3,181,134	27,424	116		27,424
85 TO 89	0	0	0	88	2,158,398	24,527	88	3,181,134	24,527
90 & UP	0	0	0	117	2,012,296	17,199	117	2,158,398 2,012,296	17,199
TOTAL	36	1,304,390	36,233	835	23,763,083	28,459	871	25,067,473	28,780
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ALL PENSIONER	S AND BENEFICIAF								
UNDER 30	13	918,691	70,669	26	2,845,787	109,453	39	3,764,478	96,525
30 TO 34	36	2,395,031	66,529	16	858,999	53,687	52	3,254,030	62,578
35 TO 39	287	22,500,991	78,401	67	4,708,864	70,282	354	27,209,855	76,864
40 TO 44	678	55,149,653	81,342	223	16,586,444	74,379	901	71,736,097	79,618
45 TO 49	2,961	251,963,526	85,094	733	54,928,721	74,937	3,694	306,892,247	83,079
50 TO 54	7,258	602,188,157	82,969	1,531	109,675,707	71,637	8,789	711,863,864	80,995
55 TO 59	8,883	640,249,430	72,076	2,169	142,273,153	65,594	11,052	782,522,583	70,804
60 TO 64	6,394	414,627,338	64,846	1,389	82,661,180	59,511	7,783	497,288,518	63,894
65 TO 69	3,157	190,622,663	60,381	598	32,534,126	54,405	3,755	223,156,789	59,429
70 TO 74	4,025	205,236,562	50,990	319	15,761,542	49,409	4,344	220,998,104	50,874
75 TO 79	5,024	232,175,695	46,213	326	15,006,561	46,032	5,350	247,182,256	46,202
80 TO 84	2,779	120,847,156	43,486	187	6,861,495	36,692	2,966	127,708,651	43,058
85 TO 89	1,268	55,695,293	43,924	126	4,167,899	33,079	1,394	59,863,192	42,943
90 & UP	838	34,464,542	41,127	154	3,616,428	23,483	992	38,080,970	38,388
TOTAL	43,601	2,829,034,728	64,885	7,864	492,486,906	62,625	51,465	3,321,521,634	64,539

Beginning June 30, 2020, disclosed pensioner benefits include VSF benefits, anticipated increases due to non-finalized pensioners, and other anticipated changes not otherwise reflected in the census data.

# NEW YORK CITY POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS SUMMARY OF PENSIONERS BY GENDER

	MALE			FEMALE			BOTH MALE & FEMALE		
AGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
SERVICE RETIREMENT:									
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	2	24,000	12,000	0	0	0	2	24,000	12,000
40 TO 44	97	1,164,000	12,000	32	384,000	12,000	129	1,548,000	12,000
45 TO 49	1,080	12,960,000	12,000	235	2,820,000	12,000	1,315	15,780,000	12,000
50 TO 54	2,956	35,472,000	12,000	454	5,448,000	12,000	3,410	40,920,000	12,000
55 TO 59	4,039	48,468,000	12,000	705	8,460,000	12,000	4,744	56,928,000	12,000
60 TO 64	3,102	37,224,000	12,000	546	6,552,000	12,000	3,648	43,776,000	12,000
65 TO 69	1,531	18,372,000	12,000	224	2,688,000	12,000	1,755	21,060,000	12,000
70 TO 74	1,580	18,960,000	12,000	69	828,000	12,000	1,649	19,788,000	12,000
75 TO 79	1,726	20,712,000	12,000	54	648,000	12,000	1,780	21,360,000	12,000
80 TO 84	905	10,860,000	12,000	21	252,000	12,000	926	11,112,000	12,000
85 TO 89	402	4,824,000	12,000	8	96,000	12,000	410	4,920,000	12,000
90 & UP	223	2,676,000	12,000	8	96,000	12,000	231	2,772,000	12,000
TOTAL	17,643	211,716,000	12,000	2,356	28,272,000	12,000	19,999	239,988,000	12,000

# NEW YORK CITY POLICE OFFICER'S VARIABLE SUPPLEMENTS FUND DATA USED IN THE JUNE 30, 2020 ACTUARIAL VALUATION FOR DETERMINING FINAL FISCAL YEAR 2022 EMPLOYER CONTRIBUTIONS SUMMARY OF PENSIONERS BY GENDER

	MALE			FEMALE			BOTH MALE & FEMALE		
AGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
SERVICE RETIREMENT:									
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	79	948,000	12,000	18	216,000	12,000	97	1,164,000	12,000
45 TO 49	689	8,268,000	12,000	193	2,316,000	12,000	882	10,584,000	12,000
50 TO 54	1,891	22,692,000	12,000	482	5,784,000	12,000	2,373	28,476,000	12,000
55 TO 59	2,417	29,004,000	12,000	717	8,604,000	12,000	3,134	37,608,000	12,000
60 TO 64	1,689	20,268,000	12,000	400	4,800,000	12,000	2,089	25,068,000	12,000
65 TO 69	813	9,756,000	12,000	150	1,800,000	12,000	963	11,556,000	12,000
70 TO 74	761	9,132,000	12,000	23	276,000	12,000	784	9,408,000	12,000
75 TO 79	1,124	13,488,000	12,000	23	276,000	12,000	1,147	13,764,000	12,000
80 TO 84	819	9,828,000	12,000	8	96,000	12,000	827	9,924,000	12,000
85 TO 89	398	4,776,000	12,000	8	96,000	12,000	406	4,872,000	12,000
90 & UP	267	3,204,000	12,000	7	84,000	12,000	274	3,288,000	12,000
TOTAL	10,947	131,364,000	12,000	2,029	24,348,000	12,000	12,976	155,712,000	12,000



New York City Police Pension Fund 233 Broadway, 25th Floor New York, NY 10279