
New York City Fire Pension Funds New York State



**Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York
For The Fiscal Years Ended
June 30, 2022 and June 30, 2021**

New York City Fire Pension Funds

One Battery Park Plaza, 9th Floor, New York, N. Y. 10004
(929) 436 - 0099



Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York
For Fiscal Years Ended
June 30, 2022 and June 30, 2021

Prepared under the
Direction of:

Patrick M. Dunn
Executive Director

Prepared By:

Amar Dyal
Chief Accountant

Winnie Lin
Deputy Chief Accountant

Actuary:

Marek Tyszkiewicz
Chief Actuary
255 GREENWICH ST, 9th FLOOR
NEW YORK, NY 10007

Custodian of the Funds:

Brad Lander
Comptroller of The City of New York
1 CENTRE STREET
NEW YORK, NY 10007

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

TABLE OF CONTENTS

INTRODUCTORY SECTION - Part I

Page

Certificate of Achievement for Excellence in Financial Reporting.....	9
Letter of Transmittal.....	11
Administrative Organization.....	17
Members of the Board of Trustees.....	19
Summary Funds and Options Benefits Tiers I and II.....	23
Summary Funds Benefits Tier III.....	37

FINANCIAL SECTION - Part II

Independent Auditors' Report.....	45
Management's Discussion and Analysis (Unaudited)	48

Financial Statements

Combining Statements of Fiduciary Net Position 2022.....	55
Combining Statements of Fiduciary Net Position 2021.....	56
Combining Statements of Changes in Fiduciary Net Position 2022.....	57
Combining Statements of Changes in Fiduciary Net Position 2021.....	58
Notes to Combining Financial Statements Years Ended 2022 and 2021.....	59

Required Supplementary Information (Unaudited):

Schedule 1 - Schedules of Changes in the Employer's Net Pension Liability and Related Ratios.....	89
Schedule 2 - Schedules of Employer Contributions.....	98
Schedule 3 - Schedule of Investment Returns.....	103

Additional Supplementary Information:

Schedule 4 - Schedule of Investment Expenses.....	104
Schedule 5 - Schedule of Administrative Expenses.....	105
Schedule 6 - Schedule of Payments to Consultants.....	106

INVESTMENT SECTION - Part III**Page**

Investment Report.....	109
Graphic Representation of Asset Mix to Policy Target.....	110
Summary of Investment Results for Fiscal Year 2022	111
Exhibit 1A - Asset Allocation QPP for Fiscal Year 2022	113
Exhibit 1B - Asset Allocation FFVSF for Fiscal Year 2022.....	114
Exhibit 1C - Asset Allocation FOVSF for Fiscal Year 2022.....	114
Investment Results:	
Graphic Representation of Total Multi-Year Investments at Market Value.....	115
Graphic Representation of Total Multi-Year Investment Income.....	116
Schedule 1A - Portfolio Returns QPP	117
Schedule 1B - Portfolio Returns FFVSF	118
Schedule 1C - Portfolio Returns FOVSF.....;	118
Schedule 2A - Largest Bond Holdings.....	119
Schedule 3A - Largest Stock Holdings.....	120
Schedule 4A - Management Fees and Expenses.....	121
Schedule 4B - Broker's Commissions Schedule	139
Schedule 5A - Investment Summary.....	146

ACTUARIAL SECTION - Part IV

Actuary's Certification Letter.....	149
Summary of Actuarial Assumptions and Methods.....	153
Table 1 - Probabilities of Service Retirement.	157
Table 2 - Probabilities of Early Service Retirement.....	158
Table 3 - Probabilities of Termination.....	159
Table 4 - Probabilities of Disability Retirement.....	160
Table 5 - Probabilities of Active Member Mortality.....	161
Table 6a - Probabilities of Mortality for Service Retirees.....	162
Table 6b - Probabilities of Mortality for Disabled Retirees.....	163
Table 6c - Probabilities of Beneficiary Mortality.....	164
Table 7 - Annual Rates of Merit and Salary Increase.....	165
Salary Scale Graph.....	166
Table 8 - Overtime Assumption.....	167
Table 9a - Active Member Valuation Data QPP.....	168
Table 9b - Active Member Valuation Data FFVSF.....	169
Table 9c - Active Member Valuation Data FOVSF.....	170
Table 10 - Summary of Plan Membership.....	171
Table 11a - Retirees and Beneficiaries Added to and Removed from Rolls QPP.....	172
Table 11b - Retirees and Beneficiaries Added to and Removed from Rolls FFVSF....	173
Table 11c - Retirees and Beneficiaries Added to and Removed from Rolls FOVSF...	174
Table 12 - Actuarial And Statutory Contribution History.....	175
Table 13a - Funded Status Based on Entry Age Normal Cost Method QPP.....	176
Table 13b - Funded Status Based on Entry Age Normal Cost Method FFVSF.....	177
Table 13c - Funded Status Based on Entry Age Normal Cost Method FOVSF.....	178

	<u>Page</u>
Table 14a - Solvency Test QPP	179
Table 14b - Solvency Test FFVSF	180
Table 14c - Solvency Test FOVSF	181
Solvency Test Notes	182
Contributions	183
Table 15 - Average Annual Benefit Payment Amounts	184

STATISTICAL SECTION - Part V

Statistical Section Narrative	187
Table of Benefit Expenses by Type	188
Table of Retired Members and Beneficiaries by Type of Benefit	189
Table of Retired Members and Beneficiaries by Type of Option Selected	190
Exhibit 4 Retired Members by Type of Benefit	191
Exhibit 5 Average Benefit Payments	192
Exhibit 6 Benefit and Refund Deductions from Net Position by Type	193
Schedule of Average Annual Benefit Payment Amounts	194
Schedule of Changes in Net Position QPP	195
Schedule of Changes in Net Position FFVSF	196
Schedule of Changes in Net Position FOVSF	197
Schedule of Revenues by Source	198
Schedule of Expenses by Type	199
Exhibit 7 Graphic Representation of Total Current Investments at Market Value	200
Exhibit 8 Graphic Representation of Sources of Current Investment Income	201
Table of Compensation to Administrative Officials and Commissions and Payments to Brokers and Consultants	202
Appendix A Census Data for Active Members	205
Appendix B Census Data for Pensioners	209

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Introductory Section

Part I

Fiscal Year Ended June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

New York Fire Department Pension Funds

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2021

Christopher P. Morrill

Executive Director/CEO

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]



NEW YORK CITY FIRE PENSION FUND
ONE BATTERY PARK PLAZA, 9TH FLOOR
NEW YORK, NY 10004
(929) 436-0099

Patrick M. Dunn
Executive Director

December 19, 2022

Board of Trustees
New York City Fire Pension Fund
One Battery Park Plaza, 9th Floor
New York, NY 10004

Dear Members of the Board of Trustees:

I am pleased to present the Annual Comprehensive Financial Report (“ACFR”) of the New York City Fire Pension Funds (“Fire” or the “Funds”) for the Fiscal Year ended June 30, 2022. Our ACFR contains combined financial statements and disclosures for the New York City Fire Pension Fund qualified pension plan (“QPP”) and two additional funds administered by Fire: the New York City Firefighters’ Variable Supplements Fund (“FFVSF”) and the New York City Fire Officers’ Variable Supplements Fund (“FOVSF”). Management is responsible for the preparation, accuracy and completeness of this presentation. We believe that the data in this report is a fair representation of the financial position and results of operations of the Funds, and to the best of our knowledge the information is accurate and includes all required disclosures. Our report is organized into the Introductory, Financial, Investment, Actuarial and Statistical sections. Users of the financial statements are encouraged to review the Management Discussion and Analysis (MD&A) presented in the financial section.

Profile of the Funds

The New York City Fire Pension Fund, formerly known as the New York Fire Department Subchapter Two Pension Fund (formerly Article 1-B), was established pursuant to Local Law No. 53, enacted July 14, 1941. On that date, all participants covered under Article 1-A and subsequent appointees to the Fire Department were granted the option of membership in either Article 1-A or Subchapter Two, in accordance with the legislation. At that time, all members of the Article 1-A Fund became participants in the Fund established under Subchapter Two and, with one exception, all new appointees elected membership in the Subchapter Two Pension Fund.

Effective July 1, 1980, the Article 1-A Fund was terminated, and its assets transferred to the Subchapter Two Pension Fund. Prior to July 1, 1980, each member contributed by salary deduction an amount determined to provide approximately 25% of the cost of their benefits, while the city contributed the remaining 75%. The total contributions under this arrangement proved inadequate to finance benefits, and the Pension Fund became actuarially unsound.

Effective July 1, 1980, July 1, 1981, and July 1, 1982, new state laws amended the benefit provisions of the Fund by establishing a new Plan known as the Improved Benefits Plan (“IBP”). The IBP provides increased benefits supported by higher member and City contributions. The Original Plan (“OP”) was closed to new entrants on July 1, 1981, and membership in the IBP became mandatory for employees hired on or after that date. Members of the OP have the option, during specified periods each year, to transfer to the IBP.

The new laws were expected to correct previous under-funding of the Pension Fund. The provisions of these laws increased City contributions annually to provide an amount deemed sufficient to cover benefits, excluding annuities and refunds from member contribution accounts. These contributions cover the normal costs of operation each year.

The Firefighters’ Variable Supplements Fund (“FFVSF”) and the Fire Officers’ Variable Supplements Fund (“FOVSF”) (collectively the “VSFs”) operate pursuant to the provisions of Title 13, Chapter 3 of the New York City Administrative Code and provide supplemental benefits to retired Firefighters, Fire Marshals, Marine Titles, Fire Officers and Supervising Fire Marshals, respectively. To receive benefits from the VSFs, eligible participants must retire on or after October 1, 1968, and be receiving a service retirement benefit from the QPP. The VSFs are not considered pension plans; they provide defined supplemental payments other than pension or retirement system benefits.

Effective September 8, 2016, the New York City Fire Pension Fund, formerly known as the New York Fire Department Pension Fund, was granted corpus funding pursuant to Chapter 298 of the Laws of 2016. Under the new law, the Pension Fund ceased to be part of the Fire Department and became a separate agency. The law mandates budgetary approval by the offices of the Mayor and Comptroller, and a majority of the Board of Trustees. This authorizes the Fund to pay for operational expenses from Fund assets. The City later reimburses the Fund for expenses incurred.

Current Initiatives & Events

All activities of the New York City Fire Pension Fund and the Subchapter II (1B) Medical Board have been consolidated in a bifurcated setting at our new headquarters located at One Battery Park Plaza, 9th Floor, New York, NY 10004. The move effected on February 4, 2019; and completed on July 1, 2019, has resulted in streamlined operations and improved member services.

The COVID 19 pandemic continues to adversely impact communities and economies worldwide. The City of New York has seen reasonable improvement in this public health crisis, reporting a steady rise in vaccination levels and a fall in hospitalization and deaths rates from COVID. However, the virus continues to cause concern. Lockdowns and other measures to control the spread of the virus imposed by the City of New York in March of 2020 have been partially lifted and many business establishments have reopened, with restrictions.

Management’s primary goal is to deliver the highest level of services to members and their beneficiaries. Our plan is to ensure accurate and timely payment of benefits to retirees and beneficiaries and provide members with the best information available, so that they may plan for a secure retirement. During this period of challenges, we have continued to conduct business in person and by use of virtual technology, telephones, and hosting socially distanced meetings at our headquarters. We believe our commitment to constant improvement in our operations will assure success. Highlights of some of our activities over the past year are listed below.

Self Service Portal

Our pension information system's ("e-UPS") self-service portal has become an integral part of our customer service delivery. E-UPS is available through the Fire Department's intranet and may be accessed from computers at all firehouses. Each year, the number of members accessing the portal has increased. Also, members may download Annual Pension Statements, manuals and forms, view updated account details and obtain current estimates of retirement benefits.

New Member Applications

During Fiscal Year 2022, the pension managers and key personnel of the Fund successfully completed the processing of approximately 563 new membership applications. The Fund conducted one class for probationary firefighters hired by the Fire Department during that period. These firefighters have since become members of the Fund under the new Tier 3 Enhanced legislation.

Retirement Processing

The Retirement Counseling Unit consulted with thousands of prospective retirees and processed retirement applications of more than 530 members during Fiscal Year 2022. These applicants are now receiving 90% of their expected retirement benefit, pending finalization of calculations.

Communication & Information

In an effort to improve education and communication with members of the Fund, we now conduct rank specific virtual retirement seminars two times monthly. Additionally, the Fund is embarking on the beginning stages of developing an independent website to provide information and assistance to the membership.

Financial Information**Economic Conditions in Fiscal Year 2022 and Outlook for Fiscal Year 2023**

Our Funds' current obligations and future commitments to members and beneficiaries are financed by employer and employee contributions and earnings generated by the Funds' investment portfolio. Economic conditions at both the national and the local level significantly impact financial markets and ultimately portfolio earnings, thus the state of the economy is always of interest. The COVID -19 pandemic continues to negatively impact public health, employment, the supply of goods and services and generate general uncertainty in the global economy. The news on economic recovery is mixed, however due to strong policy support and progress on vaccinations, by close of the second quarter of Fiscal Year 2022, the Bureau of Economic Analysis (BEA) reported that the U.S. economy had declined at an average annual rate of 0.6%, as measured by real Gross Domestic Product (GDP). Unemployment levels also had declined, the Bureau of Labor Statistics (BLS) disclosed that the unemployment rate had fallen from a high of 5.9% at the end of June 2021 to 3.6% by June 2022. The Federal Reserve Bank ("FRB") in press releases during September 2022, committed to using its full range of tools to support the economy by promoting maximum employment and price stability during this period. The FRB also noted that the rate of inflation currently at 8.2% is elevated and expected to remain so for some time. The FRB Open Market Committee ("OMC") will maintain its accommodative stance on monetary policy to keep pace with current economic activity and conditions in the labor market and hold inflation near the stated 2% level over the long run. Additionally, due to the current state of economic activity the OMC will continue to hold the target range for the federal funds' interest rate at levels between 3% and 3.25%.

New York City's economy though adversely impacted by the pandemic and attendant financial crisis began to recover with the help of federal stimulus in a measured way during fiscal year 2022. The Comptroller's Office reported that by close of fiscal year 2022 employment in New York City stood at 4.5 million, an increase of almost 315,000 jobs compared to previous period. However, some sources of revenue for the City, such as the small business sector and tourism, continue to be depressed.

During the early half of Fiscal Year 2023 new variants of the COVID-19 virus continued to drive the public health crisis and negatively impact the economy. BLS reported the unemployment rate at 3.5%, by the end of September 2022. The BEA report in October 2022 indicated that GDP had increased at an annual rate of 2.6% for third quarter 2022 (advance estimates), as compared to the growth of 2.9% in the previous quarter. According to the FRB, the slowdown partly reflects the expiration of direct economic impact payments and grants to states, local governments and households, constraints in supply of goods imported due to back up at major ports, along with anxiety that the surge of the COVID -19 virus will continue to pose risk to the economy. The Comptroller's Office stated that due to the high rate of vaccination achieved in NYC, hospitalizations and deaths remained relatively limited. The City experienced more moderate waves of COVID-19 cases in the Spring of 2022 which did not affect economic activity appreciably. Over time, restrictions on business activity and mobility have been progressively lifted.

Investments

The Comptroller of the City of New York is the designated custodian of the Funds' investment portfolio, subject to the direction, control and approval of the Boards of Trustees. The investment policy adopted by the Funds' Boards of Trustees is one that promotes growth through increasing returns. The strategy used to implement this policy is the allocation of assets, diversified into a wide range of instruments to minimize overall risk, maintain liquidity and generate competitive returns.

The Funds' portfolio is comprised largely of holdings in domestic, international and private equities as well as fixed income securities. For Fiscal Year 2022, Fire's QPP investment portfolio of approximately \$17.5 billion under management posted a loss of 7.6%, while the corresponding Policy Index posted a loss of 8.4%. The FFVSF's investment portfolio of approximately \$450.1 million posted a loss of 14.0%, while the corresponding Policy Index posted a loss of 14.2%. The FOVSF's investment portfolio of approximately \$332.1 million posted a loss of 14.2% and the Policy Index lost 14.2%. A detailed discussion of our investment policy, activities and results is presented in the Investment Section of our report.

Funding

Adequate funding is essential to ensure the financial soundness of a pension plan. Therefore, when funding levels are adequate, the total amount of accumulated assets will be comparable to the total amount of benefit obligations of the Funds. The City's funding policy is to contribute statutorily required contributions which, combined with member contributions and investment returns, meet current and future obligations. A well-funded plan gives Fund participants the confidence that their pension benefits are secure.

Fire's Fiduciary Net Position as a Percentage of Total Pension Liability, formerly "funded ratio," is calculated in accordance with newly adopted Governmental Accounting Standards Board Statements ("GASB") Numbers 67 and 68. This ratio stands at 71.0 % for Fiscal Year 2022, a decrease of 11.3% in the previous period (Net Pension Liability - Note 6 of Notes to Financial Statements). Funding is further addressed in the actuarial section of our report.

Accounting and Reporting

This report was prepared to conform to principles of governmental accounting and reporting as promulgated by the GASB, and according to guidelines adopted and published by the Government Finance Officers Association of the United States and Canada (“GFOA”). The requirements of GASB Statement No. 67, “Financial Reporting for Pension Plans,” have been adhered to in determining the information in the financial statements.

The accrual basis of accounting is used to record all transactions executed by the Pension Funds. Under this method, revenues are recognized when earned and expenses are recognized when the Funds incur an unconditional obligation to pay. The accrual basis of accounting provides a realistic picture of the financial activity and performance of the Pension Funds for each period.

Internal Control

The management of New York City Fire Pension Funds is responsible for establishing and maintaining an internal control structure, designed to ensure that the assets of the Funds are adequately safeguarded. Additionally, the control structure should ensure that all transactions are properly recorded to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The objective of internal control is to provide reasonable rather than absolute assurance that the financial statements are free of material misstatements. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and that the evaluation of costs and benefits requires estimates and judgments to be made by management.

Procedures that reinforce established controls are periodically reviewed and evaluated by management as well as the New York City Comptroller’s Office through its assessment of the Funds’ Financial Integrity Compliance statement. In addition, independent certified public accountants audit the financial statements each year.

Professional Services

The Comptroller of the City of New York is the custodian of the Funds’ assets and provides investment services through independent advisors and consultants. These advisors and consultants are disclosed in the Financial section of the ACFR in the schedule of Investment Expenses on page 104 and the schedules of Administrative Expenses and Payments to Consultants on pages 105 and 106. We also include a listing of brokerage firms and the amounts paid to each firm in the Investment section of the ACFR in the schedule of Broker’s Commissions and Fees on pages 139 through 145. Additionally, the Chief Actuary of the City’s pension systems provides actuarial services, while the Corporation Counsel provides legal services to the Funds. The City of New York defrays the expenses associated with these services.

Independent Audit

The New York City Fire Pension Funds are required to undergo an annual audit by independent certified public accountants in accordance with generally accepted auditing standards. The accounting firm of Grant Thornton LLP was selected to perform the annual audits for the Fiscal Years ended June 30, 2020 through June 30, 2023. The Independent Auditor’s Report for the Fiscal Years ended June 30, 2022 and 2021 on the general-purpose financial statements and schedules of historical information required by the GASB is presented in the Financial section of this report. The Financial section also contains Management Discussion and Analysis (MD&A) with comparative data for Fiscal Years 2022, 2021 and 2020. The contents of this letter should be considered along with additional information contained in the MD&A.

Other Information

Awards

The Government Finance Officers' Association of the United States and Canada ("GFOA") awarded a Certificate of Achievement for Excellence in Financial Reporting to the New York City Fire Pension Funds for its Annual Comprehensive Financial Report for the Fiscal Year ended June 30, 2021. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to conform to the Certificate of Achievement program's requirements, and we are submitting it to the GFOA to determine its eligibility for Fiscal Year 2022.

Acknowledgements

The compilation of this annual report represents the combined efforts of the Pension Administration management and staff, whom I commend for their consistent hard work and dedication. Our report presents complete and reliable information to provide a basis for making management decisions, to comply with legal provisions, and to determine responsible stewardship of the assets of the Funds.

I take this opportunity to express my gratitude to the Board of Trustees for the guidance and support they have provided during this period. I also am very grateful to the Office of the Actuary, the Office of the Comptroller and the Office of the Mayor for providing the wide range of valuable actuarial and statistical data that is an integral part of this report.

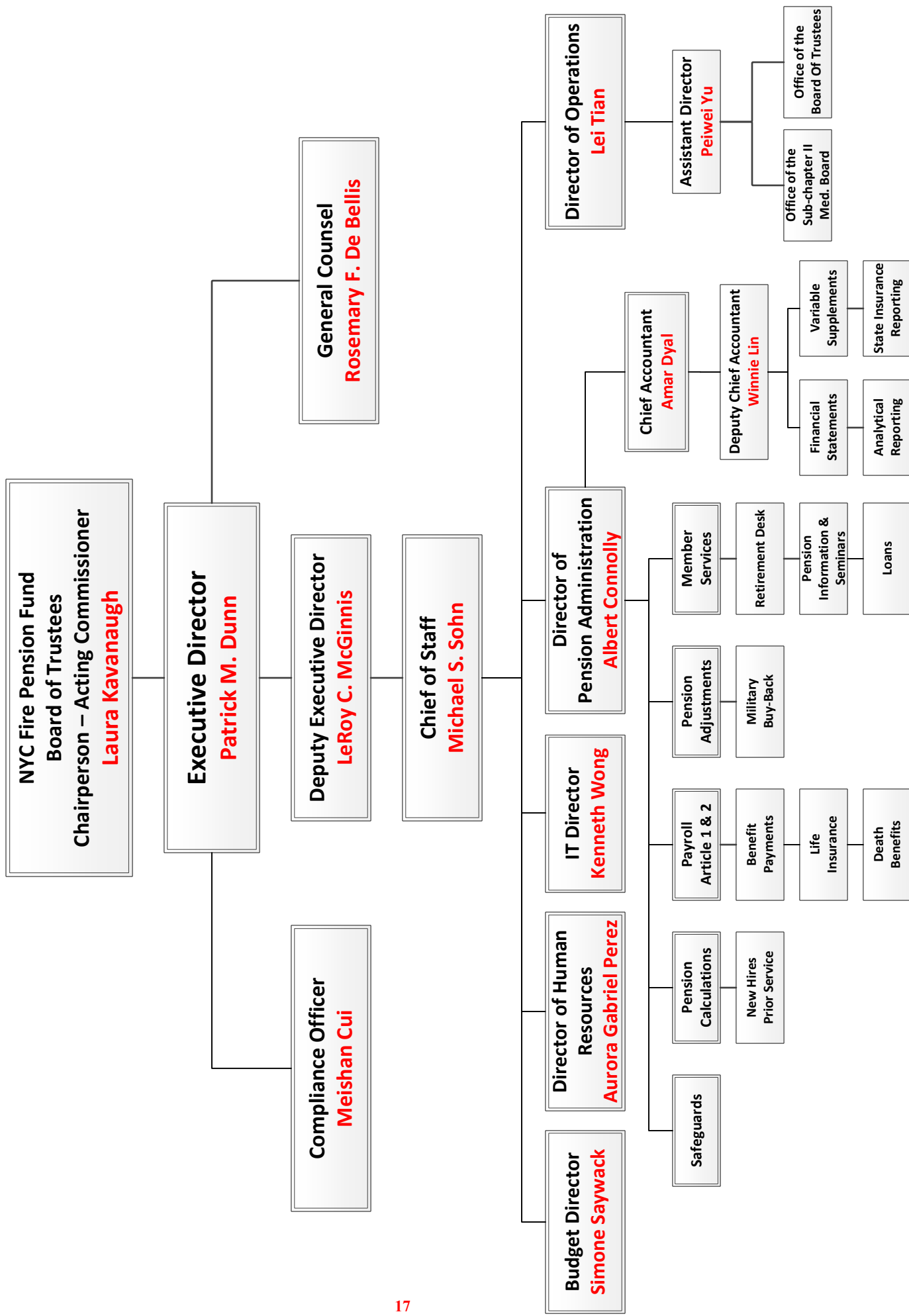
Finally, I wish to thank the staff for their outstanding efforts, and our management team for their leadership and commitment. Together, we will continue to work diligently to enhance the delivery of member services and to assure the success of our operations.

Respectfully submitted,



Patrick M. Dunn
Executive Director

ADMINISTRATIVE ORGANIZATION



[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

MEMBERS OF THE BOARD OF TRUSTEES

As of June 30, 2022

Eric L. Adams	Mayor, City of New York
Laura Kavanagh	Interim Fire Commissioner and Chairperson
Brad Lander	Comptroller, City of New York
Preston Niblack	Commissioner, Department of Finance
Paul Mannix	Chiefs' Representative of the Uniformed Fire Officers' Association of Greater New York
Liam Guilfoyle	Captains' Representative of the Uniformed Fire Officers' Association of Greater New York
Jack Kielty	Lieutenants' Representative of the Uniformed Fire Officers' Association of Greater New York
Andrew Ansbro	President of the Uniformed Firefighters' Association of Greater New York
Robert Eustace	Vice President of the Uniformed Firefighters' Association of Greater New York
Edward Brown	Treasurer of the Uniform Firefighters' Association of Greater New York
Eric Bischoff	Vice Chairman of the Uniformed Firefighters' Association of Greater New York
Peter De Vita	Representative of the Uniformed Pilots' and Marine Engineers' Association of Greater New York

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

New York City Fire Pension Funds

Summary

Of Funds Benefits



Tier I – Tier II & Tier III

Fiscal Year Ended June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

Summary Funds and Options Benefits

TIERS I & II

The New York City Fire Department Pension Fund, Subchapter II, (the “Fund”) is a corporation, separate from the Fire Department of The City of New York. All uniformed employees of the Department become members of the Fund, upon appointment.

MEMBERSHIP

TIERS

Firefighters who became members of the Fund before July 1, 1973 are Tier 1 members. Firefighters who became members of the Fund between July 1, 1973 and June 30, 2009 are Tier II members.

ORIGINAL PLAN – PRE-JULY 1, 1981 MEMBERS

Prior to July 1, 1981, all members of the Fund were enrolled in the “Original Plan.” After the Fund was financially restructured in 1981, the “Original Plan” was closed to new entrants and the “Improved Benefits Plan,” which covers all firefighters hired on or after July 1, 1981, was adopted. It provided some increases in benefits, along with somewhat higher member and City contributions.

Although closed to new entrants, the “Original Plan” covered pre- July 1, 1981 members who had not elected to transfer to the “Improved Benefits Plan.” Legislation enacted in 1986 permitted such transfers in June, July, and August of every year.

IMPROVED BENEFITS PLAN (IBP) – POST- JUNE 30, 1981 MEMBERS

All firefighters who become members of the NYC Fire Pension Fund on or after July 1, 1981 are covered only by the “Improved Benefits Plan” (IBP). Unless specifically stated otherwise, all information in this summary refers to members of the IBP only.

SUMMARY

<u>Date of Membership</u>	<u>Tier</u>	<u>Applicable Plan</u>
Pre- July 1, 1973	1	Original of Improved Benefits Plan
July 1, 1973 to June 30, 1981	2	Original of Improved Benefits Plan
July 1, 1981 to June 30, 2009	2	Improved Benefits Plan

Members with a membership date or equated date between June 17, 1971 and June 30, 1973 are subject to the limitations on final salary imposed by the Kingston Law.

KINGSTON LAW LIMITATIONS

For all members of the Fund appointed between June 17, 1971 and June 30, 1973, the pensionable compensation for the final year of service is limited to 120% of the pensionable compensation for the year immediately preceding the final year. For example, a member's final year of service is July 6, 2009 through July 5, 2010. If between July 6, 2008 and July 5, 2009 the member earned \$90,000.00 in pensionable salary, holiday pay, night-shift differential, and overtime, the final year pensionable compensation cannot exceed \$108,000 (\$90,000 X 120%).

CONTRIBUTIONS

REQUIRED EMPLOYEE CONTRIBUTIONS

Tier I and Tier II members contribute a percentage of all earnings through payroll deductions to a 20-year plan. The contribution rate is based on age at appointment. Member contributions earn interest, currently 8 ¼% per year. Contributions are required for the first twenty (20) years of allowable fire service. After 20 years, contributions will continue unless the member submits a written request to the Pension Fund to discontinue the contributions.

Contributions and any interest earned are referred to as "accumulated deductions." The amount of accumulated deductions required to be in the member's account at any given time is referred to as the "minimum required contribution." The total minimum required contribution is determined on the member's 20th anniversary. Contributions made above the minimum required are referred to as "excess" contributions.

TAXATION

Contributions made before December 1989 were federally taxed. Regular contributions made since December 1989 are federally tax-deferred as per section 414(h) of the Internal Revenue Code but are subject to state and local income taxation. Thus, upon retirement or termination, withdrawal of these contributions and interest earnings will be subject to federal taxation only. Members who are under the age of 50 may be subject to an additional 10% federal tax penalty and should consult a tax advisor before withdrawing excess contributions at retirement. Minimum required contributions may not be withdrawn except upon separation from service before retirement (*i.e.* resignation or termination).

VOLUNTARY EMPLOYEE CONTRIBUTIONS 50% INDICATOR

Members may make additional contributions equal to 50% of their required employee contributions on a voluntary basis. Since these contributions are not covered by section 414(h) of the Internal Revenue Code, they are subject to immediate federal, state and city income taxation. These additional contributions will also increase a member's excess contributions, which will provide an additional annuity, or may be withdrawn as a lump sum, at retirement.

ITHP WAIVER

The City of New York makes employer contributions to the Fund. The City of New York also pays a portion of employee contributions. These contributions are called "Increased-Take-Home-Pay" (ITHP) and currently equal 5% of gross salary. For example, assume an employee contribution rate of 7.3% of pay. With ITHP, the member contributes 2.3% (the "minimum required contribution") and the City contributes 5%.

Members may waive the ITHP and contribute at the full employee rate. These additional contributions are covered by section 414(h) of the Internal Revenue Code and are therefore federally tax deferred. Although this lowers take-home pay during employment, it results in either a greater annuity at retirement or a lump-sum return of any excess. For example, assume a contribution rate of 7.3% of pay, and the employee waives the ITHP. While the employee contributes 7.3% of pay, the City of New York continues to make ITHP contributions equal to 5%. Excess tax-deferred 414(h) contributions are taxable in the year withdrawn.

NOTE: Effective October 1, 2000, the 2.5% amount represents the required contributions.

HOW TO REDUCE PAYROLL DEDUCTIONS (138-b REGULATIONS)

To increase take-home pay, required employee contributions may be reduced up to the amount of Social Security (FICA) contributions. If required contributions are less than FICA contributions, the member will not be making any pension contributions, thereby creating a deficit in his/her retirement account. For example, assume a member has a pension contribution rate of 7.5%. The required contribution rate is 2.5%, and the ITHP is 5%. Under the 138-B election, the member will not be making any pension contributions as long as his/her required contribution rate of 2.5% is less than the current Social Security rate. If the percentages change and the required contribution rate becomes greater than the FICA rate, the member would contribute the difference into the retirement account.

If the 138-B option is elected, Social Security benefits will not be affected. However, the value of the retirement allowance will be reduced because it is based in part on required employee contributions and the interest earned thereon. After maximum Social Security contributions have been reached during any calendar year, pension contributions will resume.

EXCESS CONTRIBUTIONS

At retirement, Service and Accidental Disability retirees can choose to take any excess contributions as either a lump-sum payment or as an additional annuity. Members retiring for Ordinary Disability are required to take a lump-sum payment of any excess. Members are reminded that a withdrawal of 414(h) contributions and interest is subject to federal tax in the year withdrawn. In addition, members who are under age 50 at retirement may also be subject to an additional 10% federal tax penalty and should consult a tax advisor prior to withdrawal. Retiring members may request a direct rollover of any taxable excess into a qualified plan such as the NYC Deferred Compensation/401K plans or an IRA, in order to defer payment of federal tax.

CREDITED SERVICE

Credited service is classified as uniformed service or non-uniformed service.

ALLOWABLE FIRE SERVICE

Twenty (20) years of allowable fire service are required for Service Retirement. Such service includes:

All member service rendered as a uniformed member of the New York City Fire Department in the competitive class of the civil service.

Credit for service rendered in the uniformed force of the New York City Police Department immediately preceding service in the uniformed force of the New York City Fire Department, provided application for such credited service is made within prescribed time limits and such credited service is transferred to the Fund.

New York City Employees' Retirement System (NYCERS) uniformed force service rendered immediately before appointment as a uniformed member of the New York City Fire Department, provided application for such credited service is made within prescribed time limits and such credited service is transferred to the Fund. Uniformed service from NYCERS includes uniformed service in the Department of Correction, Sanitation, as well as service as an Emergency Medical Technician (EMT) or Fire Alarm Dispatcher.

All allowable Peace Officer service (as defined in Section 2.10 of the Criminal Procedure Law), service as Sheriff, Marshal, or D.A. Investigator, and any position specified in Appendix A of the agreement dated October 27, 2005 among the City of New York, the Uniformed Firefighters' Association and the Uniformed Fire Officers' Association.

Credit for any service rendered while a member of the New York State Policemen's and Firemen's Retirement System or the New York State & Local Retirement System, provided application for such credited service is made within prescribed time limits and such credited service is transferred to the Fund.

Credit for up to five (5) years of military service, provided the member was a member of a City retirement system at the time they entered military service and they immediately returned to City service upon discharge from the military.

Uniformed Services Employment & Reemployment Rights Act (USERRA) credit for members called off a Military Preferred List.

BUYBACK CREDIT

Chapter 646 of the Laws of 1999 - Tier Reinstatement: this law amends RSSL §645 and permits a member, who was previously a member of any New York public retirement system, to be deemed to have become a member of the current retirement system as of the original date of such previous ceased membership. Chapter 646 may allow for a tier change or tier reinstatement.

Military Service, RSSL §1000: this allows a member to purchase credited service for up to three years of military service rendered prior to the commencement of public employment. A member must have at least five years of pension credit to be eligible to receive credit under this law.

Chapter 552 of the Laws of 2000 - Prior Service Credit: this law allows a member who was eligible for membership in any of the New York State or New York City retirement systems, but did not become a member of such system, to purchase pension credit for the period of time that they were eligible for membership. It also permits a member to purchase pension credit for membership service in any New York City or State retirement system that may have been lost or withdrawn. 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.

OTHER CREDITED SERVICE

Other Credited Service is any New York City service (except Teachers' Retirement System service) which is not considered allowable credited service. It counts as additional service credit after completing the required twenty (20) years and includes service rendered while a member in a non-uniformed position with the New York City Employees' Retirement System and membership in the Board of Education Retirement System.

However, there is no credit for prior non-uniformed service for members who are granted an accidental disability pension. Uniformed service credit that does not immediately precede uniformed service in the New York City Fire Department is Other Credited Service.

RETIREMENT PROCESS

SERVICE RETIREMENT

Members may retire for service (non-disability) after completing 20 years of uniformed service. To initiate Service Retirement, Form FPF 175 (formerly BP-165) must be submitted through the chain of command. The Fund's Retirement Counseling Unit must receive the form at least thirty (30) days before the date on which the member wishes to retire and at least ten (10) days before the date on which usage of accrued and terminal leave begins.

WITHDRAWAL OF SERVICE RETIREMENT APPLICATION

If a member has begun to utilize terminal leave and decides to withdraw their application for retirement, the FDNY Bureau of Health Services must evaluate the member for a duty determination before he/she can return to full duty.

DISABILITY RETIREMENT

A member may apply for either ordinary disability (non-service connected) retirement or accidental disability (service connected) retirement, or both. Applications for service or non-service incurred disability retirement shall be submitted to the Fire Commissioner on Form FPF 180 (formerly BP-409). The following steps are necessary before disability retirement is considered.

STEP I: SUBMISSION OF APPLICATION

Member's Application for Disability Retirement:

A member may initiate the disability retirement process by submitting FPF 180 (formerly BP-409), whether or not there has been an examination by the Bureau of Health Services (BHS). However, BHS is required to make a determination of the member's fitness for duty status prior to or during the disability pension application process. When an officer submits an application for disability retirement, vacation, accrued and terminal leaves must begin immediately.

Depending upon the results of an initial examination by a medical officer at the Fire Department's Bureau of Health Services, the member will be referred to the BHS Medical Committee, which is comprised of three or more FDNY medical officers. The BHS Medical Committee makes fitness for duty determinations. Upon examining the member, one of the following determinations is made:

- a) Temporarily unfit for full duty. In this case, the member is placed on light duty or medical leave with an expectation of being returned to full duty.

- b) Permanently unfit for full duty. This category is also known as REC/LSS (Recommended Limited Service Squad or Long Term Light Duty). Pursuant to Mayoral Executive Order 78-14, the member may remain on Light Duty for up to one year.
- c) Undetermined.
- d) Full Duty.

Fire Commissioner's Application for Disability Retirement:

Pursuant to Mayoral Directive No. 78-14, the Fire Commissioner must apply for the disability retirement of any member found permanently unfit for full firefighting duty by the BHS Medical Committee. Upon the BHS Medical Committee's determination that a member is permanently unfit for full firefighting duty (REC/LSS), the Fire Commissioner endorses the transcript or minutes from the BHS Medical Committee and forwards it to the NYC Fire Pension Fund for processing as the Fire Commissioner's Application for Disability Retirement.

STEP II: REVIEW OF APPLICATION BY THE SUBCHAPTER II 1-B MEDICAL BOARD

The Subchapter II 1-B Medical Board is comprised of three physicians and is independent of both the Fire Department and the Fire Pension Fund Board of Trustees. The Subchapter II 1-B Medical Board meets weekly and is the sole authority in determining whether a member is disabled for retirement/pension purposes. In reviewing an application, the Subchapter II 1-B Medical Board addresses the following questions:

- a) Is the member disabled for retirement purposes?
- b) If the member is disabled for retirement purposes, is the disability due to a line-of-duty accident? (a.k.a. the *causation* question). Please note that while the Medical Board's disability determination is binding upon the Fire Pension Fund Board of Trustees, it may only make *recommendations* with respect to the causation component.

The applicant has the right to submit any and all evidence in support of a disability retirement and the Subchapter II 1-B Medical Board must evaluate all of the evidence and report its conclusions and recommendations to the Fire Pension Fund Board of Trustees.

Upon review, the Subchapter II 1-B Medical Board reaches one of the following conclusions:

- a) Disabled due to line-of-duty accident (Accidental Disability)
- b) Disabled due to non-line-of-duty condition (Ordinary Disability)
- c) Not Disabled for retirement purposes (Denied)
- d) Decision deferred until the Medical Board has evaluated additional evidence.

The Subchapter II 1-B Medical Board's determination and recommendation is then forwarded to the Fire Pension Fund's Board of Trustees for a final determination of the disability application.

STEP III: REVIEW BY THE BOARD OF TRUSTEES

The Board of Trustees consists of New York City and Union representatives, each group with an equal number of votes. During its monthly meetings, the Board of Trustees reviews the reports of the Medical Board, the relevant medical records and the relevant CD-72s. Although the Board of Trustees cannot change the Medical Board's decision regarding whether a member is permanently disabled from full duty, it can overrule the Medical Board's recommendation on causation. When the Board of Trustees does not reach the necessary number of votes to pass a motion (7/12 of the whole, or 14 votes) on the cause of the disability, the member will be retired for ordinary disability. This is based on a court case known as the "Schoeck Decision."

WITHDRAWAL OF DISABILITY RETIREMENT APPLICATION

If the Fire Commissioner applied for a member's disability retirement, only the Fire Commissioner can stop the process. If a member has applied for disability retirement, the member may stop the process by withdrawing the application. If the Subchapter II 1-B Medical Board's doctors have found the member disabled for retirement purposes, the member may not return to full duty. However, members found to be disabled by the Subchapter II 1-B Medical Board will be afforded the opportunity to request a Reasonable Accommodation.

A request to withdraw a disability retirement application by the member shall be made on a letterhead report to the Fire Commissioner and processed through the chain of command. The report shall include:

NAME, RANK, UNIT, SOCIAL SECURITY NUMBER, REASON MEMBER SUBMITTED RETIREMENT APPLICATION, REASON FOR REQUESTING WITHDRAWAL, DATE(S) OF PREVIOUS RETIREMENT APPLICATIONS AND WITHDRAWAL REQUEST(S)

Upon receipt of the request, the FDNY Bureau of Human Resources shall direct the member to the Bureau of Health Services for examination. The Fire Commissioner may elect to either withdraw or keep in effect the Fire Commissioner's application for retirement.

An application to withdraw shall be denied for either of the following reasons:

The member is found unfit for any duty by BHS or the member has had disability certified by the Board of Trustees prior to receipt of his/her withdrawal application.

If the application to withdraw is approved, the member will be notified to report to the Bureau of Human Resources for clarification of duty status and suitable assignment.

RETIREMENT PROCEDURES FOR ALL RETIREES

During the retirement process, retirees will be advised regarding health insurance, pension options, post-retirement employment restrictions, withholding tax, and related issues. At this time, the member's projected retirement date will be determined, and an estimate of the final pension allowable, as well as the amount of the partial allowance, will be determined. NOTE: health insurance is not provided for members with less than ten (10) years of service retiring on an ordinary disability.

Members are generally entitled to take all vacation leave, accrued and terminal leave (normally one (1) day per four (4) completed months of service) after their last day on duty, and remain on the active payroll during this time. Terminal leave is not granted for vested separations. Under limited circumstances, service retirees and vested separations may submit a request for withdrawal of their retirement application before going off the payroll. To do so, the Retirement Counseling Unit must be notified at least ten (10) business days before the date on which the member is requesting a return to active status. (NOTE: service retirees who have begun to utilize terminal leave must be evaluated by BHS prior to return to full duty.)

Upon retirement, a member must return all Department property and obtain a Property Release Form (BP-71) from the Bureau of Personnel. The retiree must forward a copy of the Property Release Form to the Fund before any pension payments are issued. In addition, a copy of the Property Release Form also must be forwarded to Uniformed Payroll for release of the final active paycheck.

SERVICE RETIREMENT ALLOWANCE

Members will be eligible to receive a retirement allowance after completing twenty (20) years of allowable fire service.

The Service retirement allowance is calculated as follows:

50% of final salary
-plus-
1/60th x total earnings after your 20th anniversary
-plus-
1/80th x average annual earnings of the last 5 years x the years and days of other credited
service, if applicable
-plus-
a pension based on the actuarial value of the ITHP contributions made after completion
of 20 years of allowable fire service, together with the interest earned on those
contributions
-plus-
an annuity based on any accumulations in excess of minimum required contributions
remaining in the member's account at retirement, including interest earned on those
contributions
-less-

the annuity value of any shortage in the member's account (shortages result from a contribution rate deficiency, prior loans, unpaid loans, and/or nonpayment of contributions).

DISABILITY RETIREMENT ALLOWANCE

ORDINARY DISABILITY RETIREMENT

A member is eligible to receive an ordinary disability retirement allowance, regardless of age or years of credited service, provided the Subchapter II 1-B Medical Board and the Fire Pension Fund Board of Trustees have found the member disabled.

An Ordinary Disability retirement allowance is calculated as follows:

Members with less than ten years of credited service:

Pension equal to 33 1/3% of final average salary
-plus-
An annuity based on ASF (Annuity Savings Fund) balance in excess of required amount
-less-
Annuity value of any shortage

Members with ten or more years of credited service:

Pension equal to 50% of final average salary
-plus-
An annuity based on ASF (Annuity Savings Fund) balance in excess of required amount
-less-
Annuity value of any shortage

Members with twenty or more years of credited service:

Pension equal to 1/40th of the member's final average salary multiplied by the number of
years of city-service
-plus-
An annuity based on ASF (Annuity Savings Fund) balance in excess of required amount
-less-
Annuity value of any shortage

ACCIDENTAL DISABILITY RETIREMENT

There is no minimum service requirement for accidental disability retirement. The Subchapter II 1-B Medical Board must find a member physically or mentally unable to perform his/her regular job duties because of an accidental injury received in the line-of-

duty. (May include the Lung/Heart/Cancer/Infectious Diseases/WTC Bills/Parkinson's Disease presumptions.) Such disability must not be the result of a member's own willful negligence.

An Accidental Disability retirement allowance is calculated as follows:

a pension equal to 75% of final salary
-plus-
 $1/60^{\text{th}}$ x total earnings after the member's 20th anniversary
-plus-
an additional pension based on the actuarial value of the ITHP reserve account as of the effective date of retirement
-plus-
an annuity based on the actuarial value of accumulated deductions as of the effective date of retirement
-less-
a deduction for the annuity value of any loan outstanding at the time of retirement.

Notes:

For members retiring on or after January 1, 2009, accidental disability pensions are federally taxed on the $1/60^{\text{th}}$ portion, ITHP over 20 years, and the annuity based on contributions attributed to 414(h) and interest. The balance of an accidental disability pension is federally tax-free. However, the entire accidental disability is exempt from New York State and New York City income tax.

There is no credit for prior non-uniformed City service for Improved Benefits Plan members granted an accidental disability pension.

TIERS I and II: OPTIONS

MAXIMUM RETIREMENT ALLOWANCE (NO OPTION)

At retirement, a member may elect to receive the maximum retirement allowance. The maximum retirement allowance is the largest benefit that can be received. Payments are made throughout the retiree's lifetime and cease upon death. There are no survivor benefits under the maximum retirement allowance.

OPTIONS

An option is an election that provides a continued pension benefit or lump-sum payment to a beneficiary. When electing an option, the member accepts a reduced retirement allowance during his/her lifetime. The reduction is based on the option selected, age, and sometimes the age of the beneficiary. After certification by the Office of the Actuary, the pension is finalized. Once the member receives his/her first full pension check, the option selected cannot be changed.

OPTION 1

Option 1 is available only to Tier 1 members appointed prior to July 1, 1973.

This option sets up an initial pension reserve. If the retiree dies before receiving payments equal to this total pension reserve (the reserve set aside to pay benefits over a retiree's lifetime), the difference between the total pension reserve and all payments received will be awarded to the beneficiary. This option may be selected for the annuity reserve, the pension reserve, or both. More than one beneficiary may be named, and the beneficiary(ies) may be changed at any time.

OPTION 2

Joint and 100% Survivor: the retiree receives a reduced monthly lifetime allowance. Upon the death of the retiree, this option allows the named beneficiary to receive 100% of the reduced pension allowance for life. Only one beneficiary may be named, and the designated beneficiary may not be changed once the option is in effect.

OPTION 3

Joint and 50% Survivor: the retiree receives a reduced monthly lifetime allowance. Upon the death of the retiree, this option allows the named beneficiary to receive 50% of the reduced pension allowance for life. Only one beneficiary may be named, and the designated beneficiary may not be changed once this option is in effect.

OPTION 4

Lump Sum: the retiree receives a reduced annual pension allowance for life with the provision that upon the death of the retiree, the beneficiary(ies) will receive a limited lump sum payment specified by the retiree at the time the option is chosen. More than one beneficiary may be named and the beneficiary(ies) may be changed at any time;

Annuity: the retiree receives a reduced annual pension allowance for life with the provision that upon the death of the retiree, the beneficiary will receive a specified annual annuity, as pre-determined by the retiree. Only one beneficiary may be named, and the designated beneficiary may not be changed once the option is in effect.

“POP-UP” OPTION MODIFICATION

Under this option modification, if the named beneficiary predeceases the retiree, the retirement allowance reverts back to the maximum retirement allowance. The “Pop-up” may ONLY be applied to Option 2, Option 3, and Option 4 annuities. There is an extra cost for this option.

FIVE-YEAR OR TEN-YEAR CERTAIN

The Five-Year or Ten-Year Certain Options are available only to Tier 2 members appointed after July 1, 1973.

FIVE-YEAR CERTAIN: the retiree receives a reduced monthly lifetime allowance. If the retiree dies within five years of his/her retirement, the benefit is paid to the retiree's beneficiary either in a lump sum or in monthly payments for the remainder of the five years.

TEN-YEAR CERTAIN: the retiree receives a reduced monthly lifetime allowance. If the retiree dies within ten years of his/her retirement, the benefit is paid to the retiree's beneficiary either in a lump sum or in monthly payments for the remainder of the ten years.

Should the beneficiary predecease the retiree, upon the death of the retiree, a lump sum will be paid to the estate of said retiree. The beneficiary may be changed at any time with this option.

Notes:

Fifty percent (50%) of any cost-of-living adjustments (COLAs) are paid to a spouse under Options 2 and 3, under Option 4 Annuity, and any "Pop-up" option whose deceased spouse, if alive, would be eligible for a COLA benefit increase.

Under current tax laws, for the beneficiary(ies) of line-of-duty (accidental) disability retirees, all options are federally taxed on a portion of the pension that was taxable to the retiree, however, the total pension received under an option is exempt from New York State and New York City taxation.

TIERS I and II: SURVIVOR BENEFITS

Tier I survivor benefits are paid if a member dies before retirement, whether death occurs on or off the job.

There are two types of death benefits:

- Death Gamble Benefit – for ordinary (non-line-of-duty) deaths
- Accidental Death Benefit (Line-of-Duty)

DEATH GAMBLE BENEFIT

For non-line-of-duty deaths, the benefit is computed as though the member had retired the day before his/her death. The designated beneficiary(ies) will be eligible to receive an amount equal to the reserve for the service retirement allowance that would have been payable had the member retired on the day before his/her death. If the beneficiary predeceases the member, this death benefit is paid to the member's estate.

ACCIDENTAL (LINE –OF-DUTY) DEATH BENEFIT

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 the Accidental Death Benefit must be filed within two (2) years of the death of the member.

In the event that the class of eligible beneficiaries consists of more than one person, the benefit will be divided equally. Eligible beneficiaries are dictated by statute and payable in the following hierarchy:

City Portion:

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. Dependent parents; or
4. Any other person qualified as a dependent on the final tax return of the member until such person reaches age 21.

State Portion:

1. A widow or widower; or
2. Deceased member's children under the age of 18 or, if a student, under the age of 23, if the widow or widower has died.

The SADB is increased from time to time by act of the New York State Legislature and is not payable to dependent parents. Effective September 1, 2000, any COLA received on the 50% pension payable from the NYC Fire Pension Fund, as well as any Social Security benefits received by the beneficiary, shall be subtracted from the SADB (State's portion).

BENEFICIARY DESIGNATION

Upon membership in the Fund, a beneficiary(ies) for the Life Insurance Fund benefit and for Death Benefits is (are) elected. A member may change beneficiary(ies) at any time by filing the appropriate form(s) with the Fire Pension Fund. Please note that the beneficiary(ies) designated on the Ordinary Death Benefits beneficiary form will receive this benefit in the event of the member's non-line-of-duty death while the member is in active service. In the event of Accidental Death (line-of-duty), benefits will be paid to the appropriate beneficiary(ies) in accordance with the applicable sections of the law.

Summary Funds Benefits

TIER 3 Enhanced Benefits Plan

This Summary Plan Description (SPD) summarizes the benefits provided by the New York City Fire Department Pension Fund, Subchapter II (the “NYC Fire Pension Fund”), for Tier 3 Enhanced members.

This summary is as accurate and complete as possible. However, in the event of conflict between this summary and any applicable law, including but not limited to the Administrative Code of the City of New York (ACNY), the New York State Retirement and Social Security Law (RSSL), and the rules of the NYC Fire Pension Fund, the applicable law or rule will govern.

HOW TO CONTACT THE FIRE PENSION FUND

For questions or issues regarding confidential membership issues, you may make an appointment to visit the NYC Fire Pension Fund office, located at One Battery Park Plaza, 9th Floor, New York, NY 10004. You may also contact NYC Fire Pension Fund Administration by phone at (929) 436-0099.

MEMBERSHIP

The NYC Fire Pension Fund is a separate entity from the Fire Department of the City of New York (FDNY), your employer. All Uniformed employees of the Fire Department become members of the NYC Fire Pension Fund upon appointment.

Uniformed members of the FDNY appointed on or after July 1, 2009 are subject to Article 14 of the RSSL, also known as Tier 3.

CONTRIBUTIONS

The Enhanced Plan members are required to contribute the basic 3% and an additional 2.1% of pensionable salary for the first 25 years of credited service (RSSL § 517). The rate of additional contributions may range from 2% to 3%, depending on specified future cost calculations, and are evaluated every three years. The maximum total contribution is currently limited to 6%. For Enhanced Plan members who were mandated into the plan, contributions are federally tax-deferred, as per section 414(h) of the Internal Revenue Code, but are subject to state and local income taxation. For members appointed before September 8, 2016 who *opted* to join the Enhanced Benefit Plan, the additional contributions are taxable under federal, state and local regulations, and will continue until the 25th year of credited service.

MINIMUM REQUIRED AND INTEREST

Member contributions and any interest earned are referred to as “accumulated contributions.” The Tier 3 rate of interest on member contributions is currently 5%. The amount of accumulated contributions required to be in a member’s account at any given time is referred to as the “minimum required.” To be eligible for a benefit at retirement, a member must have the “minimum required” of accumulated contributions, which is equal to the 3% contribution rate, the Enhanced Plan 2.1% contribution rate, plus the statutory interest earned.

ITHP (INCREASED-TAKE-HOME-PAY)

ITHP stands for "Increased-Take-Home-Pay" and relates to the increase in a member's take home pay due to the City paying a portion or the entire required rate by making the contribution on the member's behalf. ITHP does not apply to Tier 3.

DEFICITS

A deficit occurs when a member’s pension account balance falls below the minimum required. Deficits may occur because of delays in contract settlements. Pension contributions on retroactive pay from a contract settlement do not include the interest that would have been earned on those contributions. Since interest earned on contributions is part of a member’s minimum required, a deficit can occur.

Members are not permitted to retire with a deficit and are responsible for any account shortages. Members may opt to make a lump sum payment or bi-weekly payroll deductions to reduce and eliminate any deficit.

EXCESS FUNDS

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

WITHDRAWAL OF CONTRIBUTIONS

In the event of a resignation or termination, a member who is not vested or entitled to any other benefit under Tier 3 may withdraw accumulated contributions, and thereby terminate his or her NYC Fire Pension Fund membership. A member who separates from service as a vested member, but with less than 10 years of credited service, may also withdraw his or her accumulated contributions. A withdrawal of contributions by such a vested member, however, will terminate all membership rights, including the right to receive a Vested Retirement Benefit in the future. If contributions are not withdrawn, the money will continue to earn interest for a maximum of five years from the date of separation. After 10 years of service, contributions may not be withdrawn, and members will receive a Vested Retirement Benefit.

LOANS

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

CREDITED SERVICE

Unless otherwise stated, “credited service” is defined as allowable Uniformed service.

ALLOWABLE UNIFORMED SERVICE

Twenty-two years of allowable Uniformed service are required for Normal Service Retirement, or 20 years for Early Service Retirement. Such service includes:

All member service rendered as a Uniformed member of the New York City Fire Department in the competitive class of the civil service.

Credit for service rendered in the Uniformed force of the New York City Police Department acquired pursuant to applicable law.

Credit for any service rendered while a member of the New York State and Local Police and Fire Retirement System as a Police Officer or Firefighter.

Credit for military service acquired pursuant to applicable law.

PRIOR SERVICE CREDIT

OVERVIEW

Chapter 646 of the Laws of 1999 - Tier Reinstatement: This law amends RSSL § 645 and permits a member, who was previously a member of any New York public retirement system, to be deemed to have become a member of the current retirement system as of the original date of such previous ceased membership. Chapter 646 may allow for a tier change or tier reinstatement.

Chapter 548 of the Laws of 2000 and Chapter 41 of the Laws of 2016 - Military Buyback: This allows a member to purchase credited service for up to three years of military service rendered prior to the commencement of public employment. A member must have at least five years of pension credit to be eligible to receive credit under this law.

Chapter 552 of the Laws of 2000 - Prior Service Credit: This law allows a member who was eligible for membership in any of the New York State or New York City retirement systems, but did not become a member of such system, to purchase pension credit for the time that was eligible for membership. It also permits a member to purchase pension credit for membership service in any New York City or State retirement system that may have been lost or withdrawn. However, there may not be any benefit for purchasing such credit.

PRIOR UNIFORMED SERVICE

A member may obtain prior credited service for any New York State Police or Fire time, or for Uniformed service with the New York City Police Department. This prior credited service counts toward the requirements for vesting and retirement.

TRANSFER TO THE FIRE PENSION FUND

A member may transfer to the NYC Fire Pension Fund from another public retirement system within the State of New York. Under Tier 3, transferring prior City or State service, other than Uniformed Police or Fire service, does not provide any additional monetary benefit, nor does it change your Normal Service Retirement eligibility date. However, members with a membership in a New York public pension fund that began prior to July 1, 2009 will become Tier 2 members of the NYC Fire Pension Fund upon completion of a proper transfer.

TRANSFERS OF FORMER EMS EMPLOYEES FROM NYCERS

FORMER EMS EMPLOYEES WHO JOINED NYCERS PRIOR TO JULY 1, 2009:

- An individual who transfers membership from NYCERS to the NYC Fire Pension Fund will become a Tier 2 member, and any prior EMS service which immediately preceded service in the Fire Department will be treated as credited service.
- An individual whose pre- July 1, 2009 membership in NYCERS has terminated, and who is granted a retroactive membership date in the NYC Fire Pension Fund back to his or her original NYCERS membership date, pursuant to the tier reinstatement provisions of RSSL § 645, will become a Tier 2 member, and any prior EMS service will be treated as credited service.

FORMER EMS EMPLOYEES WHO JOINED NYCERS ON OR AFTER JULY 1, 2009 BUT BEFORE APRIL 1, 2012:

- An individual who either transfers his or her NYCERS membership to the NYC Fire Pension Fund or who is granted a retroactive membership date in the NYC Fire Pension Fund back to his or her original NYCERS membership date, pursuant to the tier reinstatement provisions of RSSL § 645, will be treated as a Tier 3 member with a three-year FAS. Time served as an EMS member that is acquired by transfer, tier reinstatement or purchase is **NOT** treated as credited service for the purposes of a Normal Service Retirement or Vested Retirement benefit, but it does count toward the service eligibility requirement of five years for Ordinary Disability Retirement and 90 days for Ordinary Death Benefits.

Introductory Section

New York City Fire Pension Fund

FORMER EMS EMPLOYEES WHO JOINED NYCERS ON OR AFTER APRIL 1, 2012:

- An individual will be a modified Tier 3 member (also referred to as a Tier 6 member) with a five-year FAS, even if he or she transfers his or her NYCERS membership to the NYC Fire Pension Fund or reinstates his or her terminated NYCERS membership pursuant to RSSL § 645. Time served as an EMS member that is acquired by transfer, tier reinstatement or purchase will **NOT** be treated as credited service for purposes of a Service Retirement or Vested Retirement benefit, but it will count toward the service eligibility requirement of five years for Ordinary Disability Retirement and 90 days for Ordinary Death Benefits.

MILITARY SERVICE CREDIT

Military service with the federal government may be credited pursuant to New York State Military Law § 243, the federal Uniformed Services Employment and Reemployment Rights Act (USERRA), and RSSL § 1000.

Active members who have five years of credited service, not including the military service being purchased, are eligible to purchase up to three years of military service for pension credit.

Members who wish to purchase credit for military service under RSSL § 1000, pay an amount for such credit equal to the number of years of military credit being purchased multiplied by 6% of the compensation earned by the member during the 12 months of credited service immediately preceding the member's application to purchase such credit.

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Financial Section

Part II

Fiscal Years Ended June 30, 2022 and June 30, 2021

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

GRANT THORNTON LLP

757 Third Ave., 9th Floor
New York, NY 10017-2013

D +1 212 599 0100

F +1 212 370 4520

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

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

Opinion

We have audited the combining financial statements of New York City Fire Pension Fund, New York City Firefighters' Variable Supplements Fund, and New York City Fire Officers' Variable Supplements Fund, which collectively comprise the New York City Fire 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 administrative expenses and Schedule of payments to consultants ("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.

Grant Thornton LLP

New York, New York
October 26, 2022

(except for the Additional Supplementary Information and the Other information section of our report, as to which the date is December 19, 2022)

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

June 30, 2022 and 2021

This narrative discussion and analysis of the New York City Fire Pension Funds' ("FIRE", "Funds" or the "Plan") financial performance 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 years' activity and results. This discussion and analysis is intended to be read in conjunction with the Funds' combining financial statements.

FIRE administers the New York City Fire Pension Fund, which is generally referred to as the New York Fire Department Pension Fund - Qualified Pension Plan ("QPP") - as set forth in the Administrative Code of the City of New York ("ACNY") Section 13-313.1. FIRE also administers the New York City Firefighters' Variable Supplements Fund ("FFVSF") and the New York City Fire Officers' Variable Supplements Fund ("FOVSF").

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.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

Financial Highlights

For Fiscal Year ended June 30, 2022, the Funds' fiduciary net position restricted for benefits was approximately \$18.2 billion. This amount reflects a decrease of \$1.7 billion (8.2%) over the Funds' fiduciary net position restricted for benefits in the prior Fiscal Year. The decrease for Fiscal Year 2022 can be attributed to the decrease in the fair value of invested assets in the combined investment portfolio of the funds. However, there was an excess of total contribution, other receipts over pension benefits and administrative expenses paid. In addition, the net decrease in fair value of the Funds' investment portfolio resulted in the decrease to the amount of net investment income reported for the period.

For Fiscal Year ended June 30, 2021, the Funds' fiduciary net position restricted for benefits was approximately \$19.9 billion. This amount reflects an increase of \$4.0 billion (24.9%) over the Funds' fiduciary net position restricted for benefits in the prior Fiscal Year. The growth for Fiscal Year 2021 can be attributed to the excess of total contributions, net investment income and other receipts over pension benefits and administrative expenses paid. In addition, a net appreciation in fair value of the Funds' investment portfolio resulted in the significant increase to the amount of net investment income reported for the period.

Changes in Fiduciary Net Position

Years ended June 30, 2022, 2021 and 2020

(In thousands)

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Additions:			
Member contributions	\$ 134,469	\$ 112,566	\$ 106,821
Employer contributions	1,446,992	1,436,977	1,419,270
Net investment income	(1,582,857)	3,963,257	718,739
Other	953	758	2,842
Total additions	<u>(443)</u>	<u>5,513,558</u>	<u>2,247,672</u>
Deductions:			
Benefit payments, withdrawals and administrative expenses	1,633,116	1,550,256	1,526,276
Net increase in net position	<u>(1,633,559)</u>	<u>3,963,302</u>	<u>721,396</u>
Net position restricted for benefits			
Beginning of year	<u>19,864,009</u>	<u>15,900,707</u>	<u>15,179,311</u>
End of year	<u>\$ 18,230,450</u>	<u>\$ 19,864,009</u>	<u>\$ 15,900,707</u>

Fiscal Year 2022 member contributions of approximately \$134.5 million was 19.5% higher compared to member contributions for Fiscal Year 2021. For Fiscal Year 2021, member contributions of approximately \$112.6 million was 5.4% higher compared to member contributions for Fiscal Year 2020. Generally, increases or decreases in member contributions are primarily due to changes in the number of active fund members making voluntary contributions in addition to their required contributions and changes in the average annual pay of Funds' members.

Employer contributions are made on a statutory basis determined by the actuarial valuations performed as of June 30, 2020 and 2019, under the One-Year Lag Methodology ("OYLM"). Employer contributions for Fiscal Year 2022 totaled \$1.45 billion, which increased \$10.0 million when compared to employer contributions for Fiscal Year 2021. Employer contributions for Fiscal Year 2021 totaled \$1.44 billion, an increase of \$17.7 million (1.2%) compared to employer contributions for Fiscal Year 2020.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

For Fiscal Year 2022, the Funds had a net investment loss of \$1.6 billion, which was 139.9% lower compared to the net investment gain of \$4.0 billion reported for Fiscal Year 2021. The net investment loss for Fiscal Year 2022 can be attributed to the significant overall net decline in fair values of invested assets in the combined investment portfolio of the Funds.

For Fiscal Year 2021, the Funds had a net investment gain of \$4.0 billion, which was 451.4% higher compared to the net investment gain of \$718.7 million reported for Fiscal Year 2020. The net investment gain for Fiscal Year 2021 can be attributed to the significant overall net appreciation in fair values of invested assets in the combined investment portfolio of the Funds.

Benefit payments, withdrawals and administrative expenses totaled \$1.6 billion for the Fiscal Year 2022; which equals to the benefit payments, withdrawals and administrative expenses paid in the previous Fiscal Year. During Fiscal Year 2021, the Funds recorded benefit payments, withdrawals and administrative expenses of \$1.6 billion, this was an increase of 1.6% compared to Fiscal Year 2020. Increases in benefit payments and withdrawals are primarily due to changes in the number of new retirees and the amount of payments made to beneficiaries. Members are also able to withdraw excess or voluntary contributions made to the pension fund. In addition, legislatively enacted cost of living increases for certain retirees and beneficiaries also serve to increase benefit payments each year.

Fiduciary Net Position

For Fiscal Year 2022, the Funds' combined net position restricted for benefits decreased by 8.2% to \$18.2 billion, compared to the net position restricted for benefits of \$19.9 billion in Fiscal Year 2021. The overall decline for the current fiscal year can be attributed to the overall net investment decline in the net investment income over pension benefits and withdrawals and administrative expenses.

For Fiscal Year 2021, the Funds' combined net position restricted for benefits increased by 24.9% to \$19.9 billion, compared to the net position restricted for benefits of \$15.9 billion in Fiscal Year 2020. The overall growth for the current fiscal year can be attributed to the excess of total contributions and net investment income over pension benefits and withdrawals and administrative expenses. In addition, a net appreciation in fair value of the Funds' investment portfolio resulted in the significant increase to the amount of net investment income reported for the period.

Outstanding member loans for Fiscal Year 2022 totaled \$11.7 million; this amount is 23.2% lower than member loans reported in the prior fiscal year. Outstanding member loans for Fiscal Year 2021 totaled \$15.2 million; this amount is 26.2% lower than member loans reported in the prior fiscal year. Changes in member loans can be attributed to changes in the number and amounts of new loans disbursed and the amount of repayments received. Members are permitted to borrow up to 75% (for certain members up to 90%) of their required contributions, including accumulated interest.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

Fiduciary Net Position

June 30, 2022, 2021 and 2020

(In thousands)

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Cash	\$ 13,168	\$ 25,162	\$ 5,952
Receivables	375,332	488,580	431,483
Investments - at fair value	18,397,688	20,292,439	16,150,586
Collateral from securities lending	2,004,521	2,141,504	941,705
Other assets	14,644	3,431	2,970
Total assets	<u>20,805,353</u>	<u>22,951,116</u>	<u>17,532,696</u>
Accounts payable	90,881	100,913	65,993
Payables for investments purchased	424,802	796,171	580,490
Accrued benefits payable	54,699	48,519	43,801
Payables for securities lending transactions	2,004,521	2,141,504	941,705
Total liabilities	<u>2,574,903</u>	<u>3,087,107</u>	<u>1,631,989</u>
Net position restricted for benefits	<u>\$ 18,230,450</u>	<u>\$ 19,864,009</u>	<u>\$ 15,900,707</u>

The Funds' receivables and payables are primarily generated through the timing differences between the trade and settlement dates for investment securities purchased or sold.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

Investment Summary

June 30, 2022

(In thousands)

Investments - at fair value:	QPP	FFVSF	FOVSF	Combined
Short-term investments:				
U.S. Treasury Bills and Agencies	\$ 179,990	\$ -	\$ -	\$ 179,990
Commercial paper	150,480	2,209	3,949	156,638
Short-term investment fund	178,943	17	69	179,029
Debt (fixed income) securities:				
U.S. government and agency	2,899,182	-	-	2,899,182
Corporate and other	1,546,553	-	-	1,546,553
Mortgage debt securities	796,717	-	-	796,717
Bank loans	46,620	-	-	46,620
Treasury inflation-protected securities	-	-	-	-
Equity securities:				
Domestic equity	4,973,935	162,047	122,535	5,258,517
International equity	1,805,750	-	-	1,805,750
Collective trust funds:				
Bank loans	172	-	-	172
Corporate and other	-	39,467	27,316	66,783
International equity	393,822	113,642	83,575	591,039
Domestic equity	11,101	12,528	10,917	34,546
Mortgage debt securities	48,946	42,762	29,596	121,304
Opportunistic-fixed income	53,999	-	-	53,999
U.S. government and agency	-	78,113	54,063	132,176
Alternative investments:				
Infrastructure	275,604	-	-	275,604
Opportunistic-fixed income	616,087	-	-	616,087
Private equity	1,657,719	-	-	1,657,719
Private real estate	1,117,567	-	-	1,117,567
Hedge funds	861,696	-	-	861,696
Collateral from securities lending	1,905,756	57,655	41,110	2,004,521
	<u>\$ 19,520,639</u>	<u>\$ 508,440</u>	<u>\$ 373,130</u>	<u>\$ 20,402,209</u>

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

Investment Summary

June 30, 2021

(In thousands)

Investments - at fair value:	QPP	FFVSF	FOVSF	Combined
Short-term investments:				
U.S. Treasury Bills and Agencies	\$ 185,564	\$ -	\$ -	\$ 185,564
Commercial paper	227,013	4,000	3,600	234,613
Short-term investment fund	205,068	118	81	205,267
Debt (fixed income) securities:				
U.S. government and agency	2,347,865	-	-	2,347,865
Corporate and other	1,757,335	-	-	1,757,335
Mortgage debt securities	865,263	-	-	865,263
Bank loans	65,367	-	-	65,367
Treasury inflation-protected securities	813,528	-	-	813,528
Equity securities:				
Domestic equity	6,121,847	208,941	146,688	6,477,476
International equity	2,351,785	-	-	2,351,785
Collective trust funds:				
Bank loans	436	-	-	436
Corporate and other	-	54,393	38,665	93,058
International equity	491,133	154,167	117,956	763,256
Domestic equity	23,202	18,521	15,584	57,307
Mortgage debt securities	54,320	52,317	37,190	143,827
Opportunistic-fixed income	58,843	-	-	58,843
U.S. government and agency	-	74,859	53,214	128,073
Alternative investments:				
Infrastructure	193,915	-	-	193,915
Opportunistic-fixed income	535,545	-	-	535,545
Private equity	1,288,105	-	-	1,288,105
Private real estate	794,417	-	-	794,417
Hedge funds	931,594	-	-	931,594
Collateral from securities lending	2,067,990	42,486	31,028	2,141,504
	<u>\$ 21,380,135</u>	<u>\$ 609,802</u>	<u>\$ 444,006</u>	<u>\$ 22,433,943</u>

The tables above summarize the Funds' investment portfolio including collateralized securities lending. To meet the Funds' long-term benefit obligations, 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. For example, the Russell 3000 index, a broad measure of the United States stock market posted losses of 13.9% in Fiscal Year 2022, compared to gains posted of 44.2% in Fiscal Year 2021. The QPP's investment portfolio posted losses of 7.6% for Fiscal Year 2022 compared to the gain of 24.9% for Fiscal Year 2021. For the three-year period ended June 30, 2022, the overall rate of return on the QPP's investment portfolio was 6.52%.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2022 and 2021

The FFVSF's investment portfolio posted losses of 13.3% for Fiscal Year 2022 compared to the gain of 25.1% for Fiscal Year 2021. For the three-year period ended June 30, 2022, the overall rate of return on the Funds' investment portfolio was 3.9%.

Similarly, the FOVSF's investment portfolio posted gains of 13.8% for Fiscal Year 2022 compared to the gain of 25.3% for Fiscal Year 2021. For the three-year period ended June 30, 2022, the overall rate of return on the Funds' investment portfolio was 3.9%.

Other Matters

Chapter 298 of the laws of 2016 provides corpus funding of administrative expense for the Funds commencing September 8, 2016. This means that the administrative expenses are paid for out of the assets of the Funds instead of being paid for by the City of New York. Chapter 298 also allows for the appointment of an executive director of the Funds.

Contact Information

This financial report is designed to provide a general overview of the New York City Fire Pension Funds' finances. Questions concerning any data provided in this report or requests for additional information should be directed to the Chief Accountant, New York City Fire Pension Funds, One Battery Park Plaza, 9th Floor, New York, New York 10004.

* * * * *

New York City Fire Pension Funds

COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2022
(In thousands)

ASSETS	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
Cash	\$ 10,873	\$ 1,219	\$ 1,076	\$ -	\$ 13,168
Receivables:					
Investments securities sold	303,803	-	-	-	303,803
Member loans (Note 7)	11,656	-	-	-	11,656
Accrued interest and dividends	59,230	139	339	-	59,708
Accounts receivable	-	138	27	-	165
Total receivables	<u>374,689</u>	<u>277</u>	<u>366</u>	<u>-</u>	<u>375,332</u>
Investments - at fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	150,480	2,209	3,949	-	156,638
Short-term investment fund	178,943	17	69	-	179,029
U.S. treasury bills and agencies	179,990	-	-	-	179,990
Debt (fixed income) securities:					
U.S. government and agencies	2,899,182	-	-	-	2,899,182
Mortgage debt security	796,717	-	-	-	796,717
Corporate and other	1,546,553	-	-	-	1,546,553
Bank loans	46,620	-	-	-	46,620
Equity securities:					
Domestic equity	4,973,935	162,047	122,535	-	5,258,517
International equity	1,805,750	-	-	-	1,805,750
Collective trust funds:					
Bank loans	172	-	-	-	172
Corporate and other	-	39,467	27,316	-	66,783
International equity	393,822	12,528	83,575	-	489,925
Domestic equity	11,101	113,642	10,917	-	135,660
Mortgage debt security	48,946	42,762	29,596	-	121,304
Opportunistic-fixed income	53,999	-	-	-	53,999
U.S. government and agency	-	78,113	54,063	-	132,176
Alternative investments:					
Infrastructure	275,604	-	-	-	275,604
Opportunistic-fixed income	616,087	-	-	-	616,087
Private equity	1,657,719	-	-	-	1,657,719
Private real estate	1,117,567	-	-	-	1,117,567
Hedge funds	861,696	-	-	-	861,696
Collateral from securities lending (Note 2)	1,905,756	57,655	41,110	-	2,004,521
Total investments	<u>19,520,639</u>	<u>508,440</u>	<u>373,130</u>	<u>-</u>	<u>20,402,209</u>
Other assets	14,644	-	-	-	14,644
Total assets	<u>19,920,845</u>	<u>509,936</u>	<u>374,572</u>	<u>-</u>	<u>20,805,353</u>
LIABILITIES					
Accounts payable	90,612	154	115	-	90,881
Payable for investment securities purchased	424,802	-	-	-	424,802
Accrued benefits payable (Note 2)	27,511	18,395	8,793	-	54,699
Securities lending (Note 2)	1,905,756	57,655	41,110	-	2,004,521
Total liabilities	<u>2,448,681</u>	<u>76,204</u>	<u>50,018</u>	<u>-</u>	<u>2,574,903</u>
Net position restricted for benefits:					
Benefits to be provided by QPP	17,472,164	-	-	-	17,472,164
Benefits to be provided by VSF	-	433,732	324,554	-	758,286
Total net position restricted for benefits	<u>\$ 17,472,164</u>	<u>\$ 433,732</u>	<u>\$ 324,554</u>	<u>\$ -</u>	<u>\$ 18,230,450</u>

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

New York City Fire Pension Funds

COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2021
(In thousands)

ASSETS	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
Cash	\$ 22,894	\$ 1,240	\$ 1,028	\$ -	\$ 25,162
Receivables:					
Investments securities sold	406,775	52	37	-	406,864
Member loans (Note 7)	15,173	-	-	-	15,173
Accrued interest and dividends	65,923	130	326	-	66,379
Accounts receivable	-	137	27	-	164
Total receivables	<u>487,871</u>	<u>319</u>	<u>390</u>	<u>-</u>	<u>488,580</u>
Investments - at fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	227,013	4,000	3,600	-	234,613
Short-term investment fund	205,068	118	81	-	205,267
U.S. treasury bills and agencies	185,564	-	-	-	185,564
Debt (fixed income) securities:					
U.S. government and agencies	2,347,865	-	-	-	2,347,865
Mortgage debt security	865,263	-	-	-	865,263
Corporate and other	1,757,335	-	-	-	1,757,335
Treasury inflation-protected securities	813,528	-	-	-	813,528
Bank loans	65,367	-	-	-	65,367
Equity securities:					
Domestic equity	6,121,847	208,941	146,688	-	6,477,476
International equity	2,351,785	-	-	-	2,351,785
Collective trust funds:					
Bank loans	436	-	-	-	436
Corporate and other	-	54,393	38,665	-	93,058
International equity	491,133	154,167	117,956	-	763,256
Domestic equity	23,202	18,521	15,584	-	57,307
Mortgage debt security	54,320	52,317	37,190	-	143,827
Opportunistic-fixed income	58,843	-	-	-	58,843
U.S. government and agency	-	74,859	53,214	-	128,073
Alternative investments:					
Infrastructure	193,915	-	-	-	193,915
Opportunistic-fixed income	535,545	-	-	-	535,545
Private equity	1,288,105	-	-	-	1,288,105
Private real estate	794,417	-	-	-	794,417
Hedge funds	931,594	-	-	-	931,594
Collateral from securities lending (Note 2)	2,067,990	42,486	31,028	-	2,141,504
Total investments	<u>21,380,135</u>	<u>609,802</u>	<u>444,006</u>	<u>-</u>	<u>22,433,943</u>
Other assets	3,431	-	-	-	3,431
Total assets	<u>21,894,331</u>	<u>611,361</u>	<u>445,424</u>	<u>-</u>	<u>22,951,116</u>
LIABILITIES					
Accounts payable	100,679	135	99	-	100,913
Payable for investment securities purchased	796,171	-	-	-	796,171
Accrued benefits payable (Note 2)	20,930	18,924	8,665	-	48,519
Securities lending (Note 2)	2,067,990	42,486	31,028	-	2,141,504
Total liabilities	<u>2,985,770</u>	<u>61,545</u>	<u>39,792</u>	<u>-</u>	<u>3,087,107</u>
Net position restricted for benefits:					
Benefits to be provided by QPP	18,908,561	-	-	-	18,908,561
Benefits to be provided by VSF	-	549,816	405,632	-	955,448
Total net position restricted for benefits	<u>\$ 18,908,561</u>	<u>\$ 549,816</u>	<u>\$ 405,632</u>	<u>\$ -</u>	<u>\$ 19,864,009</u>

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

New York City Fire Pension Funds

COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year ended June 30, 2022
(in thousands)

	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>Eliminations</u>	<u>Total</u>
Additions					
Contributions:					
Member contributions	\$ 134,469	\$ -	\$ -	\$ -	\$ 134,469
Employer contributions	1,446,992	-	-	-	1,446,992
Total contributions	<u>1,581,461</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,581,461</u>
Investment (loss) income (Note 3):					
Interest income	253,563	7,233	5,442	-	266,238
Dividend income	209,174	7,666	5,728	-	222,568
Net (depreciation) appreciation in fair value of investments	(1,781,277)	(87,273)	(66,479)	-	(1,935,029)
Total investment (loss) income	<u>(1,318,540)</u>	<u>(72,374)</u>	<u>(55,309)</u>	<u>-</u>	<u>(1,446,223)</u>
Less: investment expenses	<u>(140,427)</u>	<u>(292)</u>	<u>(210)</u>	<u>-</u>	<u>(140,929)</u>
Net investment (loss) income before securities lending transactions	<u>(1,458,967)</u>	<u>(72,666)</u>	<u>(55,519)</u>	<u>-</u>	<u>(1,587,152)</u>
Securities lending transactions:					
Securities lending income	4,494	154	115	-	4,763
Securities lending fees	(445)	(13)	(10)	-	(468)
Net securities lending income	<u>4,049</u>	<u>141</u>	<u>105</u>	<u>-</u>	<u>4,295</u>
Net investment (loss) income	<u>(1,454,918)</u>	<u>(72,525)</u>	<u>(55,414)</u>	<u>-</u>	<u>(1,582,857)</u>
Net receipts from other retirement systems					-
Litigation income	953	-	-	-	953
Total additions	<u>127,496</u>	<u>(72,525)</u>	<u>(55,414)</u>	<u>-</u>	<u>(443)</u>
Deductions					
Benefit payments and withdrawals (Note 1)	1,551,182	43,559	25,664	-	1,620,405
Administrative expenses	12,711	-	-	-	12,711
Total deductions	<u>1,563,893</u>	<u>43,559</u>	<u>25,664</u>	<u>-</u>	<u>1,633,116</u>
Net (decrease) increase in net position	(1,436,397)	(116,084)	(81,078)	-	(1,633,559)
Net position restricted for benefits					
Beginning of year	<u>18,908,561</u>	<u>549,816</u>	<u>405,632</u>	<u>-</u>	<u>19,864,009</u>
End of year	<u>\$ 17,472,164</u>	<u>\$ 433,732</u>	<u>\$ 324,554</u>	<u>\$ -</u>	<u>\$ 18,230,450</u>

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

New York City Fire Pension Funds

COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year ended June 30, 2021
(in thousands)

	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>Eliminations</u>	<u>Total</u>
Additions					
Contributions:					
Member contributions	\$ 112,566	\$ -	\$ -	\$ -	\$ 112,566
Employer contributions	1,436,977	-	-	-	1,436,977
Total contributions	<u>1,549,543</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,549,543</u>
Investment income (Note 3):					
Interest income	197,929	4,559	3,242	-	205,730
Dividend income	173,022	7,003	5,156	-	185,181
Net appreciation in fair value of investments	3,487,916	107,739	77,940	-	3,673,595
Total investment income	<u>3,858,867</u>	<u>119,301</u>	<u>86,338</u>	<u>-</u>	<u>4,064,506</u>
Less: investment expenses	<u>103,577</u>	<u>257</u>	<u>187</u>	<u>-</u>	<u>104,021</u>
Net investment income before securities lending transactions	<u>3,755,290</u>	<u>119,044</u>	<u>86,151</u>	<u>-</u>	<u>3,960,485</u>
Securities lending transactions:					
Securities lending income	2,843	124	92	-	3,059
Securities lending fees	(268)	(11)	(8)	-	(287)
Net securities lending income	<u>2,575</u>	<u>113</u>	<u>84</u>	<u>-</u>	<u>2,772</u>
Net investment income	<u>3,757,865</u>	<u>119,157</u>	<u>86,235</u>	<u>-</u>	<u>3,963,257</u>
Net receipts from other retirement systems	51	-	-	-	51
Litigation income	707	-	-	-	707
Total additions	<u>5,308,166</u>	<u>119,157</u>	<u>86,235</u>	<u>-</u>	<u>5,513,558</u>
Deductions					
Benefit payments and withdrawals (Note 1)	1,475,835	43,617	20,459	-	1,539,911
Administrative expenses	10,345	-	-	-	10,345
Total deductions	<u>1,486,180</u>	<u>43,617</u>	<u>20,459</u>	<u>-</u>	<u>1,550,256</u>
Net increase in net position	3,821,986	75,540	65,776	-	3,963,302
Net position restricted for benefits					
Beginning of year	<u>15,086,575</u>	<u>474,276</u>	<u>339,856</u>	<u>-</u>	<u>15,900,707</u>
End of year	<u>\$ 18,908,561</u>	<u>\$ 549,816</u>	<u>\$ 405,632</u>	<u>\$ -</u>	<u>\$ 19,864,009</u>

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

New York City Fire Pension Funds

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 Fire Pension Funds (“FIRE”, “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 Police Pension Funds (“POLICE”). Each pension system is a separate Public Employee Retirement System (“PERS”) with a separate oversight body and is financially independent of the others.

FIRE administers the New York City Fire Subchapter Two Pension Fund, which is generally referred to as the New York City Fire Pension Fund (“QPP”) as set forth in the Administrative Code of The City of New York (“ACNY”) Section 13-313.1. FIRE also administers the New York City Firefighters’ Variable Supplements Fund (“FFVSF”) and the New York City Fire Officers’ Variable Supplements Fund (“FOVSF”).

The QPP is a single-employer pension plan. The QPP provides pension benefits for full-time uniformed employees of the New York City Fire Pension Fund (the “Employer”). All full-time uniformed employees of the New York City Fire Department become members of the QPP upon appointment. 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 FFVSF and the FOVSF (collectively, the “VSFs”) operate pursuant to the provisions of Title 13, Chapter 3 of the ACNY and provide supplemental benefits to retired Firefighters and Wipers, and Fire Officers, respectively. To be eligible to receive benefits from the VSFs, Firefighters and Wipers, and Fire Officers must retire, on or after October 1, 1968, with 20 or more years of uniformed 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.

FIRE 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. FIRE has decided to early implement this pronouncement and has applied the change as of the issuance of this report.

Boards of Trustees

The QPP’s Board of Trustees consists of 12 members. The Trustees and their voting rights are as follows: The City Fire Commissioner, The City Mayor, The City Comptroller (the “Comptroller”), and Commissioner of Finance (three votes each); the President, the Vice President, Treasurer, and Chairperson of the Board of Trustees of the Uniformed Firefighters Association of Greater New York (“UFA”) (two votes each); the President of the Uniformed Fire Officers’ Association of Greater New York (“UFOA”) and three elected members of the Executive Board of the UFOA, one of whom shall be an officer with rank above that of captain (one vote), one of whom shall be a captain (one vote) and one of whom shall be a lieutenant (one and one-half votes); and a representative of the Uniformed Pilots’ and Marine Engineers’ Association of Greater New York (one-half vote).

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

The FFVSF's Board of Trustees consists of five members. The Trustees are as follows: The City Mayor, Comptroller, Commissioner of Finance, and two representatives of the UFA who are members of the QPP Board of Trustees with one vote each.

The FOVSF's Board of Trustees consists of five members. The Trustees are as follows: The Mayor, Comptroller, Commissioner of Finance, and two of the representatives of the UFOA who members of the QPP Board of Trustees with one vote each.

Membership Data

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

	2022 ¹	2021	2020
Retirees and beneficiaries receiving benefits	17,351	16,578	16,624
Terminated vested members not yet receiving benefits	60	62	64
Terminated non-vested members ²	2	2	-
Active members receiving salary	10,574	10,793	11,079
Total	27,987	27,435	27,767

¹ Estimated figures.

² As of June 30, 2020, 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.

At June 30, 2022, June 30, 2021 and June 30, 2020, the FFVSF and FOVSF membership consisted of:

	FFVSF			FOVSF		
	2022 ³	2021	2020	2022 ³	2021	2020
Retirees currently receiving payments	3,075	3,130	3,215	1,468	1,467	1,490
Active members ⁴	7,944	8,203	8,389	2,630	2,590	2,690
Total	11,019	11,333	11,604	4,098	4,057	4,180

³ Estimated figures.

⁴ Represents the number of actively employed Firefighters and Fire Officers, respectively, as of the June 30 valuation dates.

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 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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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 Modified, and Tier 3 Enhanced.

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

Tier 1 is applicable to members appointed to the FDNY 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 also be increased for any purchased non-uniformed service.
- A Service Retirement benefit, in both tiers, provides an allowance of one-half of “final salary” after 20 years or 25 years of uniformed service (as elected), with additional benefits equal to a specified percentage per year of service (currently approximately 1.67%) of “average salary” times the number of years of credited service in excess of the 20-year or 25-year minimum. Under the new program, these additional benefits are increased, where applicable, by an annuity attributable to employee contributions accumulated with interest with respect to service over the 20-year or 25-year minimum and an annuity attributable to the Increased-Take-Home-Pay (“ITHP”) contributions accumulated after required member qualifying service. ITHP represents amounts contributed by The City in lieu of members’ own contributions. These amounts reduce the contributions that the 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 and increase pension contributions made to the QPP.
- An Ordinary Disability Retirement (“ODR”) benefit generally provides a pension equal to 1/40 of “final salary” times the number of years of service but not less than one-half of “final salary” if 10 or more years of service were completed, or one-third of “final salary” if less than 10 years of service were completed. Members of the Improved Benefits Plan with years of service in excess of 20 years receive the actuarial equivalent of their Annuity Savings Fund balance.
- An Accident Disability Retirement (“ADR”) benefit provides a pension of three-fourths of “final salary” plus an increment, as described above based on years of credited service in excess of the 20-years or 25-years minimum plus: (i) under the Original Plan, accumulated employee contributions without interest as a lump sum or an actuarially equivalent annuity; and (ii) under the Improved Benefits Plan, an annuity based on the member’s contributions and ITHP contributions both of which are accumulated with interest.
- 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). At the time of retirement or refund of contributions, a member’s aggregate balance of actual Required Contributions and Voluntary Contributions,

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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. The collective value of required amount, actual balance, and outstanding member loans, as of June 30, 2022, is as follows:

(In Thousands)	Tier 1	Tier 2	Total
Required amount	\$ -	\$ 532,284	\$ 532,284
Actual balance	-	2,107,106	2,107,106
Outstanding loans	-	11,656	11,656

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 5 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. These changes are generally referred to as Tier 3 Modified.

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

- A Normal Service Retirement benefit is payable after completion of 22 years of uniformed service.
- An Early Service Retirement is payable upon completion of 20 years or age 62 for Tier 3 or upon completion of 20 years for Tier 3 Modified 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 is 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 a 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. The ODR retirement allowance for Enhanced Members is described on page 42.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

- 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 is 50% of a member's Final Average Salary. The ADR retirement allowance for Enhanced Members is described on page 42.

The Normal Service, Early Service, Vested, and non-Enhanced disability 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.

Tier 3/Tier 3 Modified members are also eligible for annual escalation on the retirement allowance: (1) in full, if they have retired for Service after completing 25 or more years of uniformed 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 Modified members, when eligible, receive the greater of the applicable increase from COLA or escalation.

VSFs

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

- For those Firefighters who retired from service as Firefighters before July 1, 1988, the annual supplemental 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. The 1988 benefits included any payments made under the prior program.

For those Firefighters hired before July 1, 1988 and who retire after Calendar Year 1988, the annual benefit payment is the scheduled amount as described above, prorated in the year of retirement and the full amount thereafter.

- For those who become members of 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 20th and later years of retirement. This was later modified by Chapter 500 of the Laws of 1995 ("Chapter 500/95") such that these members will receive the maximum \$12,000 benefit beginning Calendar Year 2008 and thereafter.

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

- A Fire Officer hired before July 1, 1988, who retired from service as a Fire Officer on or after October 1, 1988, and prior to Calendar Year 1993 receives a defined schedule of benefits starting at \$5,000 payable in January 1994 for the Calendar Year 1993 payment. For those who retired during Calendar Year 1993, the annual \$5,000 benefit payment was prorated. The annual benefit increases \$500 each year thereafter to a maximum of \$12,000 for Calendar Year 2007 (payable by January 31, 2008) and thereafter.

For those who were members of QPP prior to July 1, 1988, and who retire after Calendar Year 1993, the annual benefit payment is the scheduled amount as described above, prorated in the year of retirement and the full amount thereafter.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

- 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 20th and later years of retirement. This was later modified by Chapter 500 of the Laws of 1998 (“Chapter 500/98”) such that these members will receive the maximum \$12,000 benefit beginning Calendar Year 2008 and thereafter.

Chapter 500/95 permitted 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 FFVSF and the FOVSF. In addition, this law permitted 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 FFVSF and the FOVSF.

Additionally, Chapter 216 of the Laws of 2002 (“Chapter 216/02”) provides that participants of the VSFs who retire from the QPP on and after January 1, 2002 with more than 20 years of credited service are entitled to an additional one-time special lump-sum payment, the Deferred Retirement Option Plan (“DROP”). The DROP also known as “Banked Variable” represents the amount the member would have received had he/she retired for Service upon reaching eligibility. The DROP payment is an eligible distribution that may be rolled over pursuant to Internal Revenue Service (“IRS”) regulations. Members who retired for a disability or die in active service are not eligible for the VSF DROP. Accumulated VSF DROP balances for Fiscal Year 2022 were \$62.1 million for FFVSF and \$314.6 million for FOVSF. Similarly, for Fiscal Year 2021, the balances were \$71.7 million for FFVSF and \$128.1 million for FOVSF.

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 FFVSF under legislation enacted on or after July 1, 1988 or to a retiree of the FOVSF under legislation enacted on or after January 1, 1993, will reduce benefits payable from the FFVSF or FOVSF 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.

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.

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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

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 31.64 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 statements of fiduciary net position. Cash received as collateral on securities lending transactions and investments made with that cash are reported as assets. Securities received as collateral are also reported as assets if the government entity

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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 at fair value as of June 30, 2022 and 2021, was \$1.9 billion and \$2.1 billion, respectively, for the QPP, \$5.2 million and \$42.9 million, respectively, for the FFVSF, and \$3.8 million and \$31.4 million, respectively, for the FOVSF. Cash collateral received related to securities lending as of June 30, 2022 and 2021 was \$2.0 billion and \$2.1 billion, respectively, for the QPP, \$57.7 million and \$42.5 million, respectively, for the FFVSF, and \$41.1 million and \$31.0 million, respectively, for the FOVSF. As of the date of the combining statements of fiduciary net position, the maturities of the investments made with cash collateral on average exceed the maturities of the securities loans by approximately 25.2 days.

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

GASB Statement No. 87, *Accounting for Leases*, requires that accounting for leases meets the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. Management has evaluated all leases of the Funds and determined there was no material impact as a result of adoption of GASB Statement No. 87.

NOTE 3 – INVESTMENTS AND DEPOSITS

The Comptroller acts as an investment advisor to the Funds. In addition, the Funds employ an independent investment consultant as an investment advisor. The Funds utilize several investment managers to manage the long-term debt and equity portfolios. The managers are regularly reviewed, regarding both their investment performance and their adherence to investment guidelines.

The Boards of Trustees of the respective Funds set investment objectives to assure adequate accumulation of reserves and to protect the long-term value of the assets. The Boards' investment policy is implemented using a strategic allocation of assets that meet the objectives of the Funds, while working within the confines of the legislative guidelines. The guidelines dictate that fixed income, equity and other investments may be made permitted by the RSSL and State Banking Law, the ACNY, and the Legal Investments for New York Savings Banks list as published by The New York State Banking Department. The Funds' asset allocation policy is constructed to meet both short-term funding requirements and long-term pension obligations. Investments up to 25% of assets of the Funds may be made in instruments not expressly permitted by the State RSSL.

New York City Fire Pension Funds

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 specific risk targets. Rather, investment risk management is an inherent function of the Funds' asset allocation process. Assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk. The asset allocation targeted for the Funds in Fiscal Year 2022 and 2021 includes securities in the following categories:

	2022	2021
U.S. equity	27.0%	27.0%
Core U.S. fixed	19.0	19.0
EAFE markets	9.0	9.0
Private equities	8.0	8.0
Emerging markets	6.0	6.0
Enhanced yield bonds	6.0	6.0
Real estate	7.0	7.0
Infrastructure	3.0	3.0
Hedge funds	5.0	5.0
TIPS	4.0	4.0
Opportunistic fixed	4.0	4.0
ETI	2.0	2.0
Total	100.0%	100.0%

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

Concentrations - In accordance with RSSL § 177, no investment in any individual company may represent more than either 2% of the Funds' total net assets or 5% or more of their fiduciary net position.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

Custodial Credit Risk - Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. 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 the Funds' deposits are insured by the Federal Deposit Insurance Corporation ("FDIC") and collateralized by securities held by a financial institution separate from the Funds' depository financial institution. However, the Funds' 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.

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 June 30, 2022	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
U.S. government	65.39%	3.94%	27.41%	10.98%	23.05%
Corporate bonds	30.21	0.29	9.61	13.47	6.85
Short term:					
Commercial paper	1.35	1.35	-	-	-
STIF	3.05	3.05	-	-	-
Percent of rated portfolio	<u>100.00%</u>	<u>8.63%</u>	<u>37.02%</u>	<u>24.45%</u>	<u>29.90%</u>

Years to Maturity June 30, 2021	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
U.S. government	62.89%	3.27%	21.43%	5.74%	32.45%
Corporate bonds	30.81	0.25	8.94	14.25	7.37
Short term:					
Commercial paper	3.25	3.25	-	-	-
STIF	3.05	3.05	-	-	-
Percent of rated portfolio	<u>100.00%</u>	<u>9.82%</u>	<u>30.37%</u>	<u>19.99%</u>	<u>39.82%</u>

Foreign Currency Risk - Foreign currency risk is the risk that changes in the exchange rates will adversely impact the fair value of an investment. Currency risk is present in underlying portfolios that invest in foreign stocks and/or bonds.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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. The Funds' combined foreign currency holdings as of June 30, 2022 and 2021, are as follows (in thousands, in U.S. Dollars):

Trade Currency	6/30/2022 Market Value	6/30/2021 Market Value
EURO CURRENCY	\$ 772,016	\$ 926,512
HONG KONG DOLLAR	339,554	416,406
JAPANESE YEN	253,429	338,526
POUND STERLING	233,837	277,782
INDIAN RUPEE	147,105	176,712
SWISS FRANC	133,893	184,313
SOUTH KOREAN WON	130,993	213,908
NEW TAIWAN DOLLAR	128,545	171,029
CANADIAN DOLLAR	98,594	101,769
AUSTRALIAN DOLLAR	64,772	83,502
DANISH KRONE	61,618	79,236
BRAZILIAN REAL	51,665	69,978
SINGAPORE DOLLAR	33,450	31,693
SWEDISH KRONA	31,537	46,559
CHINESE YUAN RENMINBI	27,198	41,936
INDONESIAN RUPIAH	26,093	18,133
SOUTH AFRICAN RAND	25,690	34,405
CHINESE YUAN (OFFSHORE)	21,266	17,426
THAILAND BAHT	21,011	18,340
MEXICAN PESO (NEW)	12,449	14,310
NORWEGIAN KRONE	10,672	19,850
UAE DIRHAM	10,540	8,667
POLISH ZLOTY	7,206	15,984
QATARI RIAL	7,016	2,260
NEW ISRAELI SHEQEL	6,906	5,161
CZECH KORUNA	6,673	6,201
HUNGARIAN FORINT	6,637	13,010
TURKISH LIRA	5,682	7,113
MALAYSIAN RINGGIT	5,109	6,644
KUWAITI DINAR	3,231	1,818
ROMANIAN LEU	2,111	2,672
NEW ZEALAND DOLLAR	1,966	2,365
PHILIPPINE PESO	1,828	2,023
CHILEAN PESO	1,355	3,238
COLUMBIAN PESO	533	537
NIGERIAN NAIRA	239	255
EGYPTIAN POUND	193	273
RUSSIAN RUBLE	97	1,291
TUNISIAN DINAR	4	6
PAKISTAN RUPEE	1	123
Total	<u>\$ 2,692,714</u>	<u>\$ 3,361,966</u>

New York City Fire Pension Funds
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:

Investment Type and Fair Value of Securities Lending Transactions June 30, 2022 (in thousands)	Moody's Quality Ratings							Total				
	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below		B & Below	Caa & Below	Ca & Below	Not Rated
Short term:												
Reverse repurchase agreements	\$ -	\$ -	\$ -	\$ 58,355	\$ 593,248	\$ 13,441	\$ -	\$ -	\$ -	\$ -	\$ 695,667	\$ 1,366,711
Money market	195,825	-	-	-	-	-	-	-	-	-	241,806	437,631
Cash or cash equivalent	-	-	200,482	-	-	-	-	-	-	-	-	200,482
Uninvested	-	-	-	-	-	-	-	-	-	-	(305)	(305)
Total	\$ 195,825	\$ -	\$ 200,482	\$ 58,355	\$ 593,248	\$ 13,441	\$ -	\$ -	\$ -	\$ -	\$ 937,168	\$ 2,004,519
Percent of securities lending portfolio	9.77%	0.00%	10.00%	2.91%	29.89%	0.67%	0.00%	0.00%	0.00%	0.00%	46.75%	100%

Investment Type and Fair Value of Securities Lending Transactions June 30, 2021 (in thousands)	Moody's Quality Ratings							Total				
	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below		B & Below	Caa & Below	Ca & Below	Not Rated
Short term:												
Reverse repurchase agreements	\$ -	\$ -	\$ -	\$ 143,552	\$ 515,316	\$ 12,890	\$ -	\$ -	\$ -	\$ -	\$ 657,630	\$ 1,329,388
Money market	316,304	-	-	-	-	-	-	-	-	-	279,626	595,930
Cash or cash equivalent	-	-	214,003	-	-	-	-	-	-	-	-	214,003
Uninvested	-	-	-	-	-	-	-	-	-	-	2,183	2,183
Total	\$ 316,304	\$ -	\$ 214,003	\$ 143,552	\$ 515,316	\$ 12,890	\$ -	\$ -	\$ -	\$ -	\$ 939,439	\$ 2,141,504
Percent of securities lending portfolio	14.77%	0.00%	9.99%	6.70%	24.06%	0.60%	0.00%	0.00%	0.00%	0.00%	43.87%	100.00%

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

Interest Rate Risk – The lengths of investment maturities of the collateral for securities lending held by the Funds, are as follows:

Years to Maturity Investment Type June 30, 2022 (In thousands)	Investment Maturities (in years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Short term:					
Reverse repurchase agreement	\$ 1,366,711	\$ 1,366,711	\$ -	\$ -	\$ -
Money market	437,631	437,631	-	-	-
Cash or cash equivalents	200,482	200,482	-	-	-
Uninvested	(305)	(305)	-	-	-
Total	\$ 2,004,521	\$ 2,004,521	\$ -	\$ -	\$ -
Percent of securities lending portfolio	100.00%	100.00%	0.00%	0.00%	0.00%
Years to Maturity Investment Type June 30, 2021 (In thousands)	Investment Maturities (in years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Short term:					
Reverse repurchase agreement	\$ 1,329,388	\$ 1,329,388	\$ -	\$ -	\$ -
Money market	595,930	595,930	-	-	-
Cash or cash equivalents	214,003	214,003	-	-	-
Uninvested	2,183	2,183	-	-	-
Total	\$ 2,141,504	\$ 2,141,504	\$ -	\$ -	\$ -
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	(7.64)%	24.86%
FFVSF	(13.34)%	25.39%
FOVSF	(13.76)%	25.43%

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

GASB 72 – Level Inputs – The Funds categorize their 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

Investments – at fair value

(In thousands)

	2022			
	Level 1	Level 2	Level 3	Total
Short-term investments:				
Commercial paper	\$ -	\$ 156,638	\$ -	\$ 156,638
Short-term investment fund	-	179,029	-	179,029
U.S. treasury bills and agencies	-	179,990	-	179,990
Debt (fixed income) securities:				
Bank loans	-	46,620	-	46,620
Corporate and other	-	1,540,992	5,561	1,546,553
Mortgage debt security	-	796,717	-	796,717
Treasury inflation-protected securities	-	-	-	-
U.S. government and agency	-	2,899,182	-	2,899,182
Equity securities:				
Domestic equity	5,256,101	168	2,248	5,258,517
International equity	1,794,866	-	10,884	1,805,750
Collective trust funds:				
Bank loans	-	-	172	172
Corporate and other	-	66,783	-	66,783
Domestic equity	34,545	-	-	34,546
International equity	590,782	-	257	591,039
Mortgage debt security	-	99,520	21,784	121,304
Opportunistic-fixed income	105	52,400	1,494	53,999
U.S. government and agency	-	132,176	-	132,176
Alternative investments:				
Infrastructure	-	-	275,604	275,604
Opportunistic-fixed income	-	-	616,087	616,087
Private equity	-	-	1,657,719	1,657,719
Private real estate	-	-	1,117,567	1,117,567
Total investments	<u>\$ 7,676,399</u>	<u>\$ 6,150,215</u>	<u>\$ 3,709,377</u>	<u>17,535,992</u>
Alternative investments (Hedge Funds*) valued at NAV				<u>861,696</u>
Total				<u>\$ 18,397,688</u>

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

GASB 72 – Disclosure
Investments – at fair value
(In thousands)

	2021			
	Level 1	Level 2	Level 3	Total
Short-term investments:				
Commercial paper	\$ -	\$ 234,613	\$ -	\$ 234,613
Short-term investment fund	-	205,267	-	205,267
U.S. treasury bills and agencies	-	185,564	-	185,564
Debt (fixed income) securities:				
Bank loans	-	64,449	918	65,367
Corporate and other	-	1,753,859	3,476	1,757,335
Mortgage debt security	-	865,263	-	865,263
Treasury inflation-protected securities	-	813,528	-	813,528
U.S. government and agency	-	2,347,865	-	2,347,865
Equity securities:				
Domestic equity	6,470,987	2,999	3,490	6,477,476
International equity	2,332,827	-	18,958	2,351,785
Collective trust funds:				
Bank loans	-	433	3	436
Corporate and other	-	93,058	-	93,058
Domestic equity	57,131	-	176	57,307
International equity	762,774	-	482	763,256
Mortgage debt security	-	118,717	25,110	143,827
Opportunistic-fixed income	2,685	54,429	1,729	58,843
U.S. government and agency	-	128,073	-	128,073
Alternative investments:				
Infrastructure	-	-	193,915	193,915
Opportunistic-fixed income	-	-	535,545	535,545
Private equity	1,098	-	1,287,007	1,288,105
Private real estate	-	-	794,417	794,417
Total investments	<u>\$ 9,627,502</u>	<u>\$ 6,868,117</u>	<u>\$ 2,865,226</u>	<u>19,360,845</u>
Alternative investments (Hedge Funds*) valued at NAV				<u>931,594</u>
Total				<u>\$ 20,292,439</u>

* 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.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

Equity and Debt (Fixed Income) Securities

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors for these securities. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using prices determined using matrix pricing techniques maintained by the various pricing vendors for these securities. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Debt and equity securities classified in Level 3 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. Debt and equity securities held in collective trust funds are held in those funds on behalf of the pension system and there is no restriction on the use and or liquidation of those assets for the exclusive benefit of the Funds' participants.

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 \$2.2 billion and \$2 billion, respectively.

New York City Fire Pension Funds
NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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

June 30, 2022 Fair Value	Redemption Terms	Redemption Notice Period	Gate	Redemption Holdback
\$ 78,093	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%
20,731	Bi-quarterly redeeming on Last Business Day of Month	60 Calendar days notice	This fund imposes a 50% investor level gate with slower liquidation schedule.	10%
28,264	Quarterly redeeming on Last Business Day Of Month	90 Calendar days	Yes	10%
19,124	Quarterly redeeming on Last Business Day of the month, but are subject to 1.25% mgmt. fees and 20% performance fees	45 Calendar days notice	This fund imposes a 25% investor level gate with slower liquidation schedule.	3%
116,791	Quarterly Calendar redeeming on Last Business Day of the month but, subject to 3% mgmt. fees and 30% performance fees	75 Calendar days notice	No Yes	10%
43,467	Quarterly redeeming on Last Business Day of March, June, September or December, but subject to 1% mgmt. fees and 20% performance fees	44 Calendar days notice	This fund may impose a 8.3% fund level gate with slower liquidation schedule.	10%
60,503	Monthly redeeming on First Business Day, subject to 1% mgmt. fees and 15% performance fees	30 Calendar days notice	No Yes	5%
47,658	Quarterly redeeming on Last Business Day	90 Calendar days notice	Yes	5%
61,671	Quarterly Calendar redeeming on Last Business Day of Month lockup with 3% penalty	65 Calendar days notice	This fund imposes 20% Master Fund level gate.	5%
53,040	Monthly redeeming First Day of the month; subject to 1.5% mgmt. fees and 17.5% performance fees	180 Calendar days notice	This fund imposes 25% investor level gate with slower liquidation schedule.	5%
43,800	Quarterly Calendar redeeming on Last Business Day of Month	90 Calendar days notice	No	5%
51,665	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
40,994	Quarterly Calendar redeeming on Last Business Day Of Month	30 Calendar days notice	No Yes	5%
62,973	Quarterly Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	This fund imposes a 33.3% investor level gate with slower liquidation schedule.	5%
17,276	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	Yes	5%
61,512	Quarterly Calendar redeeming on Last Business Day Of Month	45 Calendar days notice	This fund imposes a 25% investor level gate with slower liquidation schedule.	5%
11,943	Monthly redeeming on First Business Day of Month	30 Calendar days notice	Yes	5%
42,191	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	This fund imposes a 12.5% investor level gate with slower liquidation schedule.	5%
\$ 861,696	Total Hedge Funds (dollars in thousands)		No No	1% 1%

New York City Fire Pension Funds
NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

June 30, 2021 Fair Value	Redemption Terms	Redemption Notice Period	Gate	Redemption Holdback
\$ 62,500	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%
36,792	Semester Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	No Yes	10%
79,430	Quarterly redeeming on Last Business Day Of Month	90 Calendar days	This fund imposes a 25% investor level gate with slower liquidation schedule.	10%
107,740	Quarterly Calendar redeeming on Last Business Day Of Month	75 Calendar days notice	This fund may impose a 8.3% fund level gate with slower liquidation schedule	10%
46,718	Last Business Day Of March, June, September or December	44 Calendar days notice	Fund Level Gate 25% at manager's discretion	10%
36	Illiquid – periodic distributions and Other	Illiquid – periodic distributions	No	0-10%
43,000	Monthly redeeming on First Business Day	30 Calendar days notice	Up to 10% of the NAV of their BMS Units Shares	5%
36,294	Monthly redeeming on Last Business Day	30 Calendar days notice	20% firm level gate	5%
61,789	Daily redeeming	2 Calendar days notice	No	N/A
53,565	Quarterly Calendar redeeming on Last Business Day Of Month	65 Calendar days notice	25% investor level	5%
27,310	Monthly redeeming on Last Business Day Of Month	90 Calendar days notice	No	10%
82,967	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
63,368	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	25% fund level gate	5%
44,400	Quarterly Calendar redeeming on Last Business Day Of Month	30 Calendar days notice	No	5%
55,540	Quarterly Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	This fund imposes a 33.3% investor level gate with slower liquidation schedule. Yes	5%
20,302	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	This fund imposes a 25% investor level gate with slower liquidation schedule.	5%
63,595	Quarterly Calendar redeeming on Last Business Day Of Month	45 Calendar days notice	This fund imposes a 25% fund level gate with slower liquidation schedule. This fund may impose a 25% fund level gate with slower liquidation schedule.	5%
10,075	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
36,173	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
\$ 931,594	Total Hedge Funds (dollars in thousands)			

New York City Fire Pension Funds

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”) less any cumulative deficiencies. The VSFs also receive credit for investment earnings on VSF assets.

The calculation of the Hypothetical Fixed Income Security Earnings 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 combined 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 FFVSF and \$0 was reported as a liability from the QPP to the FOVSF.

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

In addition, Chapter 583 of the Laws of 1989 states that if the assets of the FFVSF or FOVSF 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 comparisons among VSFs.

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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 FFVSF and the FOVSF as of June 30, 2021 and June 30, 2020, is as follows:

	FFVSF		FOVSF	
	2021 ²	2020	2021 ²	2020
	(In millions)			
APV of accumulated plan benefits for:				
Retirees currently receiving benefits	\$ 299.8	\$ 330.9	\$ 138.4	\$ 153.0
Active members	119.0	112.7	117.3	119.0
Total APV of accumulated plan benefits	418.8	443.6	255.7	272.0
Net position held in trust for benefits ¹	568.7	493.7	414.3	348.8
(Overfunded)Unfunded APV of accumulated plan benefits	\$ (149.9)	\$ (50.1)	\$ (158.6)	\$ (76.8)

¹ 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.

² Preliminary.

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 to the automatic COLA that began Fiscal Year 2002 (see Note 1).

Sections 13-384 and 13-394 of the ACNY provide that the Boards of Trustees of the VSFs 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 Firefighters and Fire Officers, for use in making annual valuations of liabilities.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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 ¹	June 30, 2020
Investment rate of return	7.0% per annum. ²	7.0% per annum. ²
Post-retirement mortality	Tables adopted by the Board of Trustees during Fiscal Year 2019.	Tables adopted by the Board of Trustees during Fiscal Year 2019.
Active service: withdrawal, death, and disability	Tables adopted by the Board of Trustees during Fiscal Year 2019.	Tables adopted by the Board of Trustees during Fiscal Year 2019.
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 FIRE members estimated to retire for service with 20 or more years of service as Firefighters	70%	70%
Percentage of all active FIRE Officers estimated to retire for service with 20 or more years of service as FIRE Officers	100%	100%
Cost-of-living adjustments ²	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 Preliminary.

² Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per year.

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 enough 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 which is assigned by the QPP at membership. A member's normal rate is dependent upon age and actuarial tables in effect at the time of membership. These member contributions are reduced by 5.0% under the ITHP program.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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 and Tier 3 Modified members contribute 3.0% of salary until they have 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 \$1.4 billion and the Statutory Contribution for the year ended June 30, 2021, based on an actuarial valuation as of June 30, 2019 was \$1.4 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	FFVSF	FOVSF	TOTAL
Total pension liability*	\$ 24,968,435	\$ 466,163	\$ 292,696	\$ 25,727,294
Fiduciary net position**	17,472,164	452,127	333,347	18,257,638
Employers' net pension liability	<u>\$ 7,496,271</u>	<u>\$ 14,036</u>	<u>\$ (40,651)</u>	<u>\$ 7,469,656</u>
Fiduciary net position as a percentage of the total pension liability	69.98%	96.99%	113.89%	70.97%

June 30, 2021	(In thousands)			
	QPP	FFVSF	FOVSF	TOTAL
Total pension liability*	\$ 24,102,174	\$ 471,448	\$ 296,809	\$ 24,870,431
Fiduciary net position**	18,908,561	568,740	414,297	19,891,598
Employers' net pension liability	<u>\$ 5,193,613</u>	<u>\$ (97,292)</u>	<u>\$ (117,488)</u>	<u>\$ 4,978,833</u>
Fiduciary net position as a percentage of the total pension liability	78.45%	120.64%	139.58%	79.98%

* Includes Liabilities from Special Accidental Death Benefits pursuant to Section 208-F of the General Municipal Law.

** Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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	1.5% per annum for AutoCOLA. 2.5% per annum for Escalation.

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 NYCERS 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 23, 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 Fire Pension Fund." The actuarial assumptions and methods described in that report are referred to as the "2019 A&M."

On July 19, 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."

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 earnings (or service) of the individual between entry age and assumed exit age(s). The employer portion of this PVFB allocated to a valuation year is the Normal Cost. The portion of this PVFB not provided for at a valuation date by the PV of Future Normal Costs or future member contributions is the Accrued Liability ("AL").

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

Under this method, actuarial gains and losses, as they occur, reduce and increase the UAL 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 FIRE to the FFVSF and the FOVSF are recognized through a methodology where the PV of future VSF transfers from FIRE to the FFVSF and FOVSF is included directly as an actuarial liability of FIRE. This amount is computed as the excess, if any, of the PV of benefits of the FFVSF and FOVSF over the AVA of the FFVSF and FOVSF, 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 future 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:

Asset Class	As of June 30, 2022		As of June 30, 2021	
	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	27.0%	5.1%	27.0%	4.8%
Developed public market equities	9.0	5.5%	9.0	5.2%
Emerging public market equities	6.0	9.3%	6.0	9.0%
Fixed income	31.0	1.4%	31.0	1.1%
Private Markets (Alternative Investments)				
Private equity	8.0	9.8%	8.0	9.7%
Private real estate	7.0	4.8%	7.0	5.3%
Infrastructure	3.0	4.5%	3.0	4.6%
Hedge Funds	5.0	3.5%	5.0	3.2%
Opportunistic-fixed income	4.0	6.2%	4.0	5.8%
Total	100.0%		100.0%	

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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 as 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:

<u>Net Pension Liability – June 30, 2022</u> (In thousands)	<u>1% Decrease</u> (6.0%)	<u>Discount Rate</u> (7.0%)	<u>1% Increase</u> (8.0%)
QPP	\$ 10,340,774	\$ 7,496,271	\$ 5,106,913
FFVSF	56,474	14,036	(22,545)
FOVSF	<u>(16,442)</u>	<u>(40,651)</u>	<u>(61,649)</u>
Total	<u>\$ 10,380,806</u>	<u>\$ 7,469,656</u>	<u>\$ 5,022,719</u>
<u>Net Pension Liability – June 30, 2021</u> (In thousands)	<u>1% Decrease</u> (6.0%)	<u>Discount Rate</u> (7.0%)	<u>1% Increase</u> (8.0%)
QPP	\$ 7,950,799	\$ 5,193,613	\$ 2,879,323
FFVSF	(54,614)	(97,292)	(134,095)
FOVSF	<u>(93,161)</u>	<u>(117,488)</u>	<u>(138,579)</u>
Total	<u>\$ 7,803,024</u>	<u>\$ 4,978,833</u>	<u>\$ 2,606,649</u>

NOTE 7 – MEMBER LOANS

Tier 1 and Tier 2 members are permitted to borrow up to 90% of their own contributions including accumulated interest. The balance of QPP member loans receivable at June 30, 2022 and 2021 was \$11.7 million and \$15.2 million, respectively. Members repay their loans at the statutory rate of 4% per annum. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions including, for new program members, accumulated interest less any loans outstanding. Certain prior year loans to retirees were removed from member loans receivables. Such balances should be reduced at the effective date of retirement as a result of payoff or future benefit reductions.

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 \$3.6 million and \$3.6 million in Fiscal Years 2022 and 2021, respectively.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

NOTE 9 – ADMINISTRATIVE AND INVESTMENT EXPENSES

In Fiscal Year 2022, there were \$12.7 million in administrative expenses paid out of the corpus of the fund. During Fiscal Year 2021, in accordance with Chapter 298 of the New York State Laws of 2016, the QPP Plan provided corpus funding for administrative expenses in the amount of \$10.3 million. Additionally, services, as set out in Note 8 on “Related Parties” are provided by various City Agencies. The City defrayed the cost associated with these services. Investment expenses charged to the investment earnings of the QPP, exclusive of expenses relating to securities-lending transactions amounted to approximately \$140.4 million and \$103.6 million in 2022 and 2021, respectively.

In March 2018, the Funds entered into a lease agreement for office space. The agreement is for a term of 15 years and 4 months. Future minimum rental payments for the next four years and thereafter is approximately:

Fiscal Year Ending June 30th,	Beginning Balance	Annual Year-End Interest Accrual	Total Annual Payment	Ending Balance
2023	\$ 12,087,673	\$ 250,917	\$ 1,089,094	\$ 11,249,496
2024	11,249,496	232,053	1,151,131	10,330,418
2025	10,330,418	211,477	1,178,703	9,363,192
2026	9,363,192	190,377	1,178,703	8,374,866
2027	8,374,866	168,817	1,178,703	7,364,980
Thereafter	7,364,980	513,719	7,878,699	-

Rent expense for the years ended June 30, 2022 and 2021 was \$1,053,381 and \$1,053,022, respectively.

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 FIRE, 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 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 FIRE 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 FIRE 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 FIRE.

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.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

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. Milliman is performing the current experience study that covers the period through June 30, 2021.

New York State Legislation (only significant laws since Fiscal Year 2012 included)

Chapter 18 of the Laws of 2012 placed certain limitations on the Tier 3 and Tier 4 benefits available to participants hired on and after April 1, 2012 in most New York State PERS, including FIRE.

Chapter 3 of the Laws of 2013 ("Chapter 3/13") implemented changes in the actuarial procedures for determining Employer Contributions beginning Fiscal Year 2012. Chapter 3/13 continued the One-Year Lag Methodology ("OYLM"), employed the Entry Age Actuarial Cost Method ("EAACM"), an Actuarial Interest Rate ("AIR") assumption of 7.0% per annum, net of investment expenses and defined the amortization of Unfunded Actuarial Accrued Liabilities ("UAAL").

Chapter 489 of the Laws of 2013 ("Chapter 489/13") extended the Notice of Participation filing deadline to September 11, 2014 for vested members to file a sworn statement indicating participation in the World Trade Center Rescue, Recovery, and Clean-up Operations.

Chapter 427 of the Laws of 2014 ("Chapter 427/14") provides non-contributory retirement service credit for members called to active military duty on or after September 11, 2001 and prior to January 1, 2006 who did not receive their full salary from the New York City Fire Department and are otherwise eligible to receive retirement service credit for such service. Such member would not be required to make member contributions to receive such credit.

Chapter 41 of the Laws of 2016 ("Chapter 427/14") removes the specified periods of time, medal requirements, and theaters of operation in which military service would had to have been rendered for a service purchase pursuant to RSSL § 1000. Accordingly, for a member to be eligible to purchase service credit pursuant to RSSL § 1000 for pre-membership military service, the member need only have been honorably discharged from the military; all other requirements of RSSL § 1000 remain the same. This law is not retroactive and does not permit retired members to purchase service credit.

Chapter 326 of the Laws of 2016 ("Chapter 326/16") extended the deadline to file a Notice of Participation in the World Trade Center Rescue, Recovery, and Clean-up Operations to September 11, 2018.

Chapter 298 of the Laws of 2016 ("Chapter 298/16") amended the Accidental Disability Retirement and Ordinary Disability Retirement benefits for Tier 3 and Tier 3 Modified members with dates of membership prior to June 15, 2016 who elect to participate in the Enhanced Disability Benefits. Tier 3 Modified members with dates of membership June 15, 2016 and later are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 2% of wages.

Chapter 89 of the Laws of 2020 ("Chapter 89/20") provides death benefits to statutory beneficiaries of members whose death was a result of or was contributed to by coronavirus disease ("COVID-19"). This law provides an Accidental Death Benefit to the eligible beneficiaries of a member or a retiree who retired after March 1, 2020, where such member reported for work outside their home and contracted COVID-19 within 45 days after reporting for work, and whose death was caused by COVID-19 or where COVID-19

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

contributed to such member's death. Amounts payable are reduced by payments of any ordinary death benefits or option benefit paid to another statutory beneficiary.

COVID-19

The outbreak of COVID-19, has been declared a pandemic by the World Health Organization. The Governor declared a state of emergency in the State on March 7, 2020 and the Mayor declared a state of emergency in The City on March 12, 2020, each of which is still in effect. The ultimate impact of the COVID-19 pandemic on the Funds cannot be determined at this time.

Chapter 78 of the Laws of 2021 establishes a coronavirus disease 2019 (COVID-19) public employee death benefit for individuals who reported to their usual place of employment or an alternate worksite at the direction of their employer on or after March 1, 2020 and such individual contracted COVID-19 within 45 days of reporting to such workplace as confirmed by a laboratory test or by a licensed physician and such individual died on or before December 31, 2022.

Title II, Subtitle B, Section 2202(a) of the CARES Act of March 2020 made loans and distributions with improved terms, including waived penalties and deferred repayment options, available for members adversely affected by COVID-19 through December 31, 2020.

The following outlines the changes to Tier 3 and Tier 3 Modified provisions with the Enhanced Disability legislation:

1. Member Contributions

- Tier 3 Enhanced Members contribute 3% of pensionable earnings plus an additional contribution rate to help fund the enhanced disability benefit. Currently, the additional contribution rate is 2% that can be raised to 3% based on a financial analysis by the Office of the Actuary every three years. At no time can the total contribution rate exceed 6%.
- Taxability
 - Base Member Contributions
 - Pre-tax
 - Increased Member Contributions for Enhanced Disability Provisions
 - Pre-tax for members appointed June 15, 2016 and later (i.e., the date new members are mandated into the Plan).
 - Post-tax for those who were eligible to elect the Enhanced Disability Plan provisions and elected such provisions.

2. Accidental Disability Retirement (“ADR”)

- The ADR benefit for Tier 3 Enhanced Members is 75% of their Five-Year Final Average Salary (“FAS5”).
- Tier 3 Enhanced Members have statutory presumptions (i.e., Heart/HHAT/Lung).

3. Ordinary Disability Retirement (“ODR”)

- The ODR benefit for Tier3 Enhanced Members is the greater of:
 - 33 1/3% of FAS5 or
 - FAS5 multiplied by years of credited service (not greater than 22 years)

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2022 and 2021

4. Escalation

- Tier 3 Enhanced Members who retire for ODR or ADR are not subject to escalation. Tier 3 Enhanced Members are subject to COLA, the same as Tier 1 and 2 members.

5. Social Security Offset

- Tier 3 Enhanced Members who retire for ODR or ADR are not subject to the Social Security offset.
- Tier 3 Enhanced Members who retire for a Service or Vested Retirement are subject to the Social Security offset.

6. Final Average Salary

- Tier 3 Enhanced Members have a FAS5 calculation.
- The Tier 3 Original members who opt into the Tier 3 Enhanced benefit have their FAS5 applied for ODR or ADR, but their Three-Year Final Average Salary ("FAS3") applied for Service or Vested Retirements.

Additionally, Chapter 298/16 allows the Board of Trustees of FIRE to establish a budget for the administration of FIRE and authorized payment from the assets of FIRE to cover such Administrative Expenses. The Administrative Expenses will be charged against FIRE in the first instance and then reimbursed with interest by The City of New York as an Employer Contribution in the following fiscal year. This structure is commonly referred to as a "corpus-funded entity." Accordingly, starting in Fiscal Year 2019, Administrative Expenses will be reflected in the Employer Contribution and the UAAL Payments.

Chapter 61 of the Laws of 2017 permits FIRE members subject to RSSL Article 14 ("Eligible Members"), who would be ineligible for disability retirement benefits solely on account of being eligible for a normal service retirement benefit, to be eligible for disability benefits. It also relaxed the safeguards provisions regarding restrictions on post-retirement employment for Eligible Members who are awarded ADR and modified the process for reducing or eliminating an ADR benefit based on post-retirement earnings.

The following changes apply to all Tier 3 members (Original, Revised and Enhanced):

1. Eligibility for ADR

- Members no longer cease to be eligible for ADR at 22 years and can apply at any time as long as they are active.

2. Safeguards

- RSSL § 507(d) no longer applies to Tier 3 ADR retirees; the Tier 2 safeguard provisions contained in New York City Administrative Code § 13-254 apply. Therefore, all Tier 3 ADR retirees will be treated identically to Tier 2 ADR retirees for Safeguards purposes. This includes earnings limitations and re-employment.
- Safeguards remain unchanged for ODR retirees. Thus, they must continue to be in receipt of Social Security Disability benefits to maintain their receipt of pension benefits.

* * * * *

New York City Fire Pension Funds

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

June 30, 2022
(In thousands)

	QPP*	FFVSF	FOVSF	TOTAL
Total pension liability:				
Service cost	\$ 572,460	\$ 8,824	\$ 5,035	\$ 586,319
Interest	1,673,848	32,102	20,250	1,726,200
Differences between expected and actual experience	171,135	(2,124)	(3,862)	165,149
Changes of assumptions	-	-	-	-
Benefit payments and withdrawals	<u>(1,551,182)</u>	<u>(44,087)</u>	<u>(25,536)</u>	<u>(1,620,805)</u>
Net change in total pension liability	866,261	(5,285)	(4,113)	856,863
Total pension liability - beginning	<u>24,102,174</u>	<u>471,448</u>	<u>296,809</u>	<u>24,870,431</u>
Total pension liability - ending (a)	<u>24,968,435</u>	<u>466,163</u>	<u>292,696</u>	<u>25,727,294</u>
Plan fiduciary net position:				
Employer contributions	1,446,992	-	-	1,446,992
Member contributions	134,469	-	-	134,469
Net investment income	(1,454,918)	(72,525)	(55,414)	(1,582,857)
Benefit payments and withdrawals	(1,551,182)	(44,088)	(25,536)	(1,620,806)
Administrative expenses	(12,711)	-	-	(12,711)
Other changes	<u>953</u>	<u>-</u>	<u>-</u>	<u>953</u>
Net change in plan fiduciary net position	<u>(1,436,397)</u>	<u>(116,613)</u>	<u>(80,950)</u>	<u>(1,633,960)</u>
Accrued transfers to/from VSFs	-	-	-	-
Plan fiduciary net position - beginning	<u>18,908,561</u>	<u>568,740</u>	<u>414,297</u>	<u>19,891,598</u>
Plan fiduciary net position - ending (b) **	<u>17,472,164</u>	<u>452,127</u>	<u>333,347</u>	<u>18,257,638</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 7,496,271</u>	<u>\$ 14,036</u>	<u>\$ (40,651)</u>	<u>\$ 7,469,656</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>69.98%</u>	<u>96.99%</u>	<u>113.89%</u>	<u>70.97%</u>
Covered payroll	<u>\$ 1,401,378</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,401,378</u>
Employer's net pension liability as a percentage of covered payroll	<u>534.92%</u>	<u>N/A</u>	<u>N/A</u>	<u>533.02%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2021
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 557,190	\$ 8,645	\$ 4,994	\$ 570,829
Interest	1,619,391	33,008	20,282	1,672,681
Differences between expected and actual experience	(18,712)	(7,733)	(1,068)	(27,513)
Changes of assumptions	117,706	(2,933)	(1,612)	113,161
Benefit payments and withdrawals	<u>(1,475,836)</u>	<u>(44,143)</u>	<u>(20,726)</u>	<u>(1,540,705)</u>
Net change in total pension liability	799,739	(13,156)	1,870	788,453
Total pension liability - beginning	<u>23,302,435</u>	<u>484,604</u>	<u>294,939</u>	<u>24,081,978</u>
Total pension liability - ending (a)	<u>24,102,174</u>	<u>471,448</u>	<u>296,809</u>	<u>24,870,431</u>
Plan fiduciary net position:				
Employer contributions	1,436,977	-	-	1,436,977
Member contributions	112,566	-	-	112,566
Net investment income	3,757,865	119,157	86,235	3,963,257
Benefit payments and withdrawals	(1,475,835)	(44,144)	(20,726)	(1,540,705)
Administrative expenses	(10,345)	-	-	(10,345)
Other changes	<u>758</u>	<u>-</u>	<u>-</u>	<u>758</u>
Net change in plan fiduciary net position	<u>3,821,986</u>	<u>75,013</u>	<u>65,509</u>	<u>3,962,508</u>
Accrued transfers to/from VSFs	-	-	-	-
Plan fiduciary net position - beginning	<u>15,086,575</u>	<u>493,727</u>	<u>348,788</u>	<u>15,929,090</u>
Plan fiduciary net position - ending (b) **	<u>18,908,561</u>	<u>568,740</u>	<u>414,297</u>	<u>19,891,598</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 5,193,613</u>	<u>\$ (97,292)</u>	<u>\$ (117,488)</u>	<u>\$ 4,978,833</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>78.45%</u>	<u>120.64%</u>	<u>139.58%</u>	<u>79.98%</u>
Covered payroll	<u>\$ 1,348,006</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,348,006</u>
Employer's net pension liability as a percentage of covered payroll	<u>385.28%</u>	<u>N/A</u>	<u>N/A</u>	<u>369.35%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2020
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 559,171	\$ 8,526	\$ 4,958	\$ 572,655
Interest	1,562,741	33,410	20,386	1,616,537
Differences between expected and actual experience	150,563	(3,291)	(3,547)	143,725
Benefit payments and withdrawals	<u>(1,447,071)</u>	<u>(44,850)</u>	<u>(25,802)</u>	<u>(1,517,723)</u>
Net change in total pension liability	825,404	(6,205)	(4,005)	815,194
Total pension liability - beginning	<u>22,477,031</u>	<u>490,809</u>	<u>298,944</u>	<u>23,266,784</u>
Total pension liability - ending (a)	<u>23,302,435</u>	<u>484,604</u>	<u>294,939</u>	<u>24,081,978</u>
Plan fiduciary net position:				
Employer contributions	1,419,270	-	-	1,419,270
Member contributions	106,821	-	-	106,821
Net investment income	681,383	21,517	15,839	718,739
Benefit payments and withdrawals	(1,447,071)	(44,850)	(25,802)	(1,517,723)
Administrative expenses	(9,131)	-	-	(9,131)
Other changes	<u>(17,315)</u>	<u>12,792</u>	<u>7,365</u>	<u>2,842</u>
Net change in plan fiduciary net position	733,957	(10,541)	(2,598)	720,818
Accrued transfers to/from VSFs	15,000	(15,000)	-	-
Plan fiduciary net position - beginning	<u>14,337,618</u>	<u>519,268</u>	<u>351,386</u>	<u>15,208,272</u>
Plan fiduciary net position - ending (b) **	<u>15,086,575</u>	<u>493,727</u>	<u>348,788</u>	<u>15,929,090</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 8,215,860</u>	<u>\$ (9,123)</u>	<u>\$ (53,849)</u>	<u>\$ 8,152,888</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>64.74%</u>	<u>101.88%</u>	<u>118.26%</u>	<u>66.15%</u>
Covered payroll	<u>\$ 1,336,843</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,336,843</u>
Employer's net pension liability as a percentage of covered payroll	<u>614.57%</u>	<u>N/A</u>	<u>N/A</u>	<u>609.86%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2019
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 467,493	\$ 10,961	\$ 6,373	\$ 484,827
Interest	1,460,537	37,366	25,708	1,523,611
Differences between expected and actual experience	154,208	6,872	(20,300)	140,780
Changes of assumptions	697,113	(64,235)	(61,110)	571,768
Benefit payments and withdrawals	<u>(1,376,090)</u>	<u>(45,218)</u>	<u>(24,806)</u>	<u>(1,446,114)</u>
Net change in total pension liability	1,403,261	(54,254)	(74,135)	1,274,872
Total pension liability - beginning	<u>21,073,770</u>	<u>545,063</u>	<u>373,079</u>	<u>21,991,912</u>
Total pension liability - ending (a)	<u>22,477,031</u>	<u>490,809</u>	<u>298,944</u>	<u>23,266,784</u>
Plan fiduciary net position:				
Employer contributions	1,398,565	-	-	1,398,565
Member contributions	108,015	-	-	108,015
Net investment income	933,889	27,979	20,480	982,348
Benefit payments and withdrawals	(1,376,090)	(45,218)	(24,806)	(1,446,114)
Administrative expenses	(9,861)	-	-	(9,861)
Other changes	<u>2,057</u>	<u>-</u>	<u>-</u>	<u>2,057</u>
Net change in plan fiduciary net position	<u>1,056,575</u>	<u>(17,239)</u>	<u>(4,326)</u>	<u>1,035,010</u>
Accrued transfers to/from VSF's	14,000	(14,000)	-	-
Plan fiduciary net position - beginning	<u>13,267,043</u>	<u>550,507</u>	<u>355,712</u>	<u>14,173,262</u>
Plan fiduciary net position - ending (b) **	<u>14,337,618</u>	<u>519,268</u>	<u>351,386</u>	<u>15,208,272</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 8,139,413</u>	<u>\$ (28,459)</u>	<u>\$ (52,442)</u>	<u>\$ 8,058,512</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>63.79%</u>	<u>105.80%</u>	<u>117.54%</u>	<u>65.36%</u>
Covered payroll	<u>\$ 1,302,872</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,302,872</u>
Employer's net pension liability as a percentage of covered payroll	<u>624.73%</u>	<u>N/A</u>	<u>N/A</u>	<u>618.52%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2018
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 419,209	\$ 12,234	\$ 4,926	\$ 436,369
Interest	1,422,180	37,221	25,208	1,484,609
Changes of benefit terms	14,335	(2,416)	(317)	11,602
Differences between expected and actual experience	141,892	(12,073)	(5,183)	124,636
Benefit payments and withdrawals	<u>(1,308,467)</u>	<u>(46,976)</u>	<u>(24,090)</u>	<u>(1,379,533)</u>
Net change in total pension liability	689,149	(12,010)	544	677,683
Total pension liability - beginning	<u>20,384,622</u>	<u>557,073</u>	<u>372,535</u>	<u>21,314,230</u>
Total pension liability - ending (a)	<u>21,073,771</u>	<u>545,063</u>	<u>373,079</u>	<u>21,991,913</u>
Plan fiduciary net position:				
Employer contributions	1,200,417	-	-	1,200,417
Member contributions	108,338	-	-	108,338
Net investment income	1,188,860	35,406	25,465	1,249,731
Benefit payments and withdrawals	(1,308,467)	(46,976)	(24,090)	(1,379,533)
Administrative expenses	(6,412)	-	-	(6,412)
Other changes	<u>9,411</u>	<u>-</u>	<u>-</u>	<u>9,411</u>
Net change in plan fiduciary net position	1,192,147	(11,570)	1,375	1,181,952
Accrued transfers to/from VSF's	(15,000)	15,000	-	-
Plan fiduciary net position - beginning	<u>12,089,896</u>	<u>547,077</u>	<u>354,337</u>	<u>12,991,310</u>
Plan fiduciary net position - ending (b) **	<u>13,267,043</u>	<u>550,507</u>	<u>355,712</u>	<u>14,173,262</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 7,806,728</u>	<u>\$ (5,444)</u>	<u>\$ 17,367</u>	<u>\$ 7,818,651</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>62.96%</u>	<u>101.00%</u>	<u>95.34%</u>	<u>64.45%</u>
Covered payroll	<u>\$ 1,164,528</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,164,528</u>
Employer's net pension liability as a percentage of covered payroll	<u>670.38%</u>	<u>N/A</u>	<u>N/A</u>	<u>671.40%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2017
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 415,221	\$ 12,180	\$ 5,081	\$ 432,482
Interest	1,375,677	38,029	25,099	1,438,805
Differences between expected and actual experience	148,046	(13,683)	115	134,478
Benefit payments and withdrawals	<u>(1,265,817)</u>	<u>(47,667)</u>	<u>(21,859)</u>	<u>(1,335,343)</u>
Net change in total pension liability	673,127	(11,141)	8,436	670,422
Total pension liability - beginning	<u>19,711,495</u>	<u>568,214</u>	<u>364,099</u>	<u>20,643,808</u>
Total pension liability - ending (a)	<u>20,384,622</u>	<u>557,073</u>	<u>372,535</u>	<u>21,314,230</u>
Plan fiduciary net position:				
Employer contributions	1,061,170	-	-	1,061,170
Member contributions	108,368	-	-	108,368
Net investment income	1,284,871	46,755	40,095	1,371,721
Benefit payments and withdrawals	(1,265,817)	(47,667)	(21,859)	(1,335,343)
Administrative expenses	-	-	-	-
Other changes	<u>47,284</u>	<u>-</u>	<u>-</u>	<u>47,284</u>
Net change in plan fiduciary net position	<u>1,235,876</u>	<u>(912)</u>	<u>18,236</u>	<u>1,253,200</u>
Accrued transfers to/from VSF's	(45,743)	23,914	21,829	-
Plan fiduciary net position - beginning	<u>10,899,763</u>	<u>524,075</u>	<u>314,272</u>	<u>11,738,110</u>
Plan fiduciary net position - ending (b) **	<u>12,089,896</u>	<u>547,077</u>	<u>354,337</u>	<u>12,991,310</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 8,294,726</u>	<u>\$ 9,996</u>	<u>\$ 18,198</u>	<u>\$ 8,322,920</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>59.31%</u>	<u>98.21%</u>	<u>95.12%</u>	<u>60.95%</u>
Covered payroll	<u>\$ 1,145,919</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,145,919</u>
Employer's net pension liability as a percentage of covered payroll	<u>723.85%</u>	<u>N/A</u>	<u>N/A</u>	<u>726.31%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2016
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 414,614	\$ 11,652	\$ 5,002	\$ 431,268
Interest	1,332,473	38,716	24,546	1,395,735
Differences between expected and actual experience	324,429	3,728	(4,548)	323,609
Changes of assumptions	386,534	12,421	6,544	405,499
Benefit payments and withdrawals	<u>(1,290,862)</u>	<u>(46,407)</u>	<u>(21,826)</u>	<u>(1,359,095)</u>
Net change in total pension liability	1,167,188	20,110	9,718	1,197,016
Total pension liability - beginning	<u>18,544,307</u>	<u>548,104</u>	<u>354,381</u>	<u>19,446,792</u>
Total pension liability - ending (a)	<u>19,711,495</u>	<u>568,214</u>	<u>364,099</u>	<u>20,643,808</u>
Plan fiduciary net position:				
Employer contributions	1,054,478	-	-	1,054,478
Member contributions	116,619	-	-	116,619
Net investment income	197,398	4,669	1,037	203,104
Benefit payments and withdrawals	<u>(1,290,862)</u>	<u>(46,407)</u>	<u>(21,826)</u>	<u>(1,359,095)</u>
Other changes	<u>43,673</u>	<u>-</u>	<u>-</u>	<u>43,673</u>
Net change in plan fiduciary net position	<u>121,306</u>	<u>(41,738)</u>	<u>(20,789)</u>	<u>58,779</u>
Accrued transfers to/from VSF's	(36,873)	18,739	18,134	-
Plan fiduciary net position - beginning	<u>10,815,330</u>	<u>547,074</u>	<u>316,927</u>	<u>11,679,331</u>
Plan fiduciary net position - ending (b) **	<u>10,899,763</u>	<u>524,075</u>	<u>314,272</u>	<u>11,738,110</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 8,811,732</u>	<u>\$ 44,139</u>	<u>\$ 49,827</u>	<u>\$ 8,905,698</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>55.30%</u>	<u>92.23%</u>	<u>86.31%</u>	<u>56.86%</u>
Covered payroll	<u>\$ 1,129,470</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,129,470</u>
Employer's net pension liability as a percentage of covered payroll	<u>780.17%</u>	<u>N/A</u>	<u>N/A</u>	<u>788.48%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2015
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 403,514	\$ 11,500	\$ 4,561	\$ 419,575
Interest	1,251,448	37,447	23,920	1,312,815
Differences between expected and actual experience	180,533	(4,324)	(4,862)	171,347
Benefit payments and withdrawals	<u>(1,150,505)</u>	<u>(47,819)</u>	<u>(22,117)</u>	<u>(1,220,441)</u>
Net change in total pension liability	684,990	(3,196)	1,502	683,296
Total pension liability - beginning ***	<u>17,859,317</u>	<u>551,300</u>	<u>352,879</u>	<u>18,763,496</u>
Total pension liability - ending (a)	<u>18,544,307</u>	<u>548,104</u>	<u>354,381</u>	<u>19,446,792</u>
Plan fiduciary net position:				
Employer contributions	988,784	-	-	988,784
Member contributions	108,582	-	-	108,582
Net investment income	271,430	18,888	12,249	302,567
Benefit payments and withdrawals	(1,150,505)	(47,819)	(22,117)	(1,220,441)
Other changes	<u>41,201</u>	<u>-</u>	<u>-</u>	<u>41,201</u>
Net change in plan fiduciary net position	<u>259,492</u>	<u>(28,931)</u>	<u>(9,868)</u>	<u>220,693</u>
Accrued transfers to/from VSF's	(40,000)	30,000	10,000	-
Plan fiduciary net position - beginning	<u>10,595,838</u>	<u>546,005</u>	<u>316,795</u>	<u>11,458,638</u>
Plan fiduciary net position - ending (b) **	<u>10,815,330</u>	<u>547,074</u>	<u>316,927</u>	<u>11,679,331</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 7,728,977</u>	<u>\$ 1,030</u>	<u>\$ 37,454</u>	<u>\$ 7,767,461</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>71.46%</u>	<u>0.19%</u>	<u>11.82%</u>	<u>66.51%</u>
Covered payroll	<u>\$ 1,111,744</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,111,744</u>
Employer's net pension liability as a percentage of covered payroll	<u>695.21%</u>	<u>N/A</u>	<u>N/A</u>	<u>698.67%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

***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.

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

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

June 30, 2014
(In thousands)

	<u>QPP*</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total pension liability:				
Service cost	\$ 397,037	\$ 11,403	\$ 4,471	\$ 412,911
Interest	1,153,702	37,757	23,818	1,215,277
Benefit payments and withdrawals	<u>(1,099,162)</u>	<u>(50,822)</u>	<u>(22,014)</u>	<u>(1,171,998)</u>
Net change in total pension liability	451,577	(1,662)	6,275	456,190
Total pension liability - beginning	<u>16,624,736</u>	<u>552,962</u>	<u>346,604</u>	<u>17,524,302</u>
Total pension liability - ending (a)	<u>17,076,313</u>	<u>551,300</u>	<u>352,879</u>	<u>17,980,492</u>
Plan fiduciary net position:				
Employer contributions	969,956	-	-	969,956
Member contributions	108,859	-	-	108,859
Net investment income	1,569,013	69,027	51,445	1,689,485
Benefit payments and withdrawals	<u>(1,099,162)</u>	<u>(50,822)</u>	<u>(22,014)</u>	<u>(1,171,998)</u>
Other changes	<u>39,980</u>	<u>-</u>	<u>-</u>	<u>39,980</u>
Net change in plan fiduciary net position	<u>1,588,646</u>	<u>18,205</u>	<u>29,431</u>	<u>1,636,282</u>
Accrued transfers to/from VSF's	(120,000)	110,000	10,000	-
Plan fiduciary net position - beginning	<u>9,127,192</u>	<u>417,800</u>	<u>277,364</u>	<u>9,822,356</u>
Plan fiduciary net position - ending (b) **	<u>10,595,838</u>	<u>546,005</u>	<u>316,795</u>	<u>11,458,638</u>
Employer's net pension liability - ending (a)-(b)	<u>\$ 6,480,475</u>	<u>\$ 5,295</u>	<u>\$ 36,084</u>	<u>\$ 6,521,854</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>62.05%</u>	<u>99.04%</u>	<u>89.77%</u>	<u>63.73%</u>
Covered payroll	<u>\$ 1,102,396</u>	<u>N/A</u>	<u>N/A</u>	<u>\$ 1,102,396</u>
Employer's net pension liability as a percentage of covered payroll	<u>587.85%</u>	<u>N/A</u>	<u>N/A</u>	<u>591.61%</u>

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

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

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
 QUALIFIED PENSION PLAN
 SCHEDULES OF EMPLOYER CONTRIBUTIONS

Fiscal years ended June 30,
 (In thousands)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 1,446,992	\$ 1,436,977	\$ 1,419,270	\$ 1,398,565	\$ 1,200,417	\$ 1,061,170	\$ 1,054,478	\$ 988,784	\$ 969,956	\$ 962,173
Contributions in relation to the actuarially determined contribution	1,446,992	1,436,977	1,419,270	1,398,565	1,200,417	1,061,170	1,054,478	988,784	969,956	962,173
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered payroll*	\$ 1,401,378	\$ 1,348,006	\$ 1,336,843	\$ 1,302,872	\$ 1,164,528	\$ 1,145,919	\$ 1,129,470	\$ 1,111,744	\$ 1,102,396	\$ 1,129,921
Contributions as a percentage of covered payroll*	103.25%	106.60%	106.17%	107.34%	103.08%	92.60%	93.36%	88.94%	87.99%	85.15%

* Projected payroll at time 1.0 under previous roll-forward methodology through 2018. Actual payroll at valuation date (time = 0) beginning in 2019.

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
 QUALIFIED PENSION PLAN
 SCHEDULES OF EMPLOYER CONTRIBUTIONS

Fiscal years ended June 30,
 (In thousands)

Notes to Schedule:

The above actuarially determined contributions were developed using a One-Year Lag Methodology, under which the actuarial valuation determines the Employer contribution for the second following fiscal year (e.g., fiscal year 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
	Entry age	Entry age	Entry age	Entry age	Entry age
Actuarial cost method	Increasing dollar Level dollar	Increasing dollar Level dollar	Increasing dollar Level dollar	Increasing dollar Level dollar	Increasing dollar Level dollar
Amortization method for unfunded actuarial accrued liabilities:					
Initial unfunded	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)
Post-2010 unfunded	6 years (closed)	7 years (closed)	8 years (closed)	9 years (closed)	10 years (closed)
Initial unfunded	7 years (closed)	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)
Post-2010 unfunded	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)
Initial unfunded	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)
Post-2010 unfunded	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)
Initial unfunded	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)
Post-2010 unfunded	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
Initial unfunded	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
Post-2010 unfunded	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)
Initial unfunded	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA
Post-2010 unfunded	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	NA
Initial unfunded	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	NA
Post-2010 unfunded	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	NA
Initial unfunded	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
Post-2010 unfunded	14 years (closed)	15 years (closed)	16 years (closed)	NA	NA
Initial unfunded	14 years (closed)	15 years (closed)	16 years (closed)	NA	NA
Post-2010 unfunded	19 years (closed)	20 years (closed)	21 years (closed)	NA	NA
Initial unfunded	19 years (closed)	20 years (closed)	21 years (closed)	NA	NA
Post-2010 unfunded	19 years (closed)	20 years (closed)	21 years (closed)	NA	NA
Initial unfunded	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)
Post-2010 unfunded	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)

Actuarial asset valuation method¹

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.

¹ As of June 30, 2014 (Lag) valuation, the AVA is constrained to be no more than 20% of Market Value.

New York City Fire Pension Funds
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYER CONTRIBUTIONS

Fiscal years ended June 30,
(In thousands)

Notes to Schedule:

The above actuarially determined contributions were developed using a One-Year Lag Methodology, under which the actuarial valuation determines the Employer contribution for the second following fiscal year (e.g., fiscal year 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	
	Entry age	Increasing dollar Level dollar	Entry age	Increasing dollar Level dollar	Entry age	Increasing dollar Level dollar	Entry age	Increasing dollar Level dollar	Entry age	Increasing dollar Level dollar
Actuarial cost method										
Amortization method for unfunded actuarial accrued liabilities:										
Initial unfunded										
Post-2010 unfunded										
Initial unfunded										
2011 Actuarial gain/loss	17 years (closed)		18 years (closed)		19 years (closed)		20 years (closed)		21 years (closed)	
2012 Actuarial gain/loss	11 years (closed)		12 years (closed)		13 years (closed)		14 years (closed)		15 years (closed)	
2013 Actuarial gain/loss	12 years (closed)		13 years (closed)		14 years (closed)		15 years (closed)		NA	
2014 Actuarial gain/loss	13 years (closed)		14 years (closed)		15 years (closed)		NA		NA	
2015 Assumption change	14 years (closed)		15 years (closed)		NA		NA		NA	
2016 Actuarial gain/loss	19 years (closed)		20 years (closed)		NA		NA		NA	
2017 Actuarial gain/loss	15 years (closed)		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	
Actuarial asset valuation method ¹	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.	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.

¹ As of June 30, 2014 (Lag) valuation, the AVA is constrained to be no more than 20% of Market Value.

New York City Fire Pension Funds

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
 QUALIFIED PENSION PLAN
 SCHEDULES OF EMPLOYER CONTRIBUTIONS

Fiscal years ended June 30,
 (In thousands)

Valuation Dates	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016
Actuarial assumptions: Assumed rate of return ²	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.
Post-retirement mortality ³	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 ³	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 ²	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 ²	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.

² Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

³ As of June 30, 2019, applied 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 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.

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYER CONTRIBUTIONS

Fiscal years ended June 30,
(In thousands)

Valuation Dates	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011
Actuarial assumptions: Assumed rate of return ²	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.
Post-retirement mortality ²	Tables adopted by Board of Trustees during Fiscal Year 2016.	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.
Active service: withdrawal, death, disability, service retirement ³	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.
Salary increases ²	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 ²	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.

² Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

³ 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.

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF INVESTMENT RETURNS

June 30, 2022 and 2021

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

<u>Fiscal Years Ended</u>	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>
June 30, 2022	(7.64%)	(13.34%)	(13.76%)
June 30, 2021	24.86%	25.39%	25.43%
June 30, 2020	4.80%	4.35%	4.54%
June 30, 2019	7.11%	5.70%	5.93%
June 30, 2018	9.34%	7.28%	7.75%
June 30, 2017	12.82%	13.48%	14.53%
June 30, 2016	1.37%	0.88%	0.24%
June 30, 2015	3.28%	4.13%	4.02%
June 30, 2014	17.51%	18.03%	19.57%

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.

See Report of Independent Certified Public Accountants.

New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Investment Expenses
For Fiscal Year Ended June 30, 2022

Schedule 4

		TOTAL FEES
US EQUITIES	\$	5,041,328
NON-US EQUITIES		10,988,126
FIXED INCOME		5,079,785
OPPORTUNISTIC FIXED INCOME		8,313,151
HEDGE FUNDS		22,786,205
PRIVATE EQUITIES		49,585,006
PRIVATE REAL ESTATE		24,394,684
INFRASTRUCTURE		6,199,158
TOTAL MANAGEMENT EXPENSES		132,387,443
CONSULTANT EXPENSES:		
CONTRO.RATING - EQ 12-31-21		1,403
HEDGE PF FUNDS FEE 09-30-21		1,014
NEW ENGLAND PENSION CONSULTANT		190,000
OTHER CONSULTING FEES		1,251,247
TOTAL CONSULTANT EXPENSES		1,443,664
LEGAL EXPENSES:		
TOTAL LEGAL EXPENSES		247,319
TOTAL CONSULTANT & LEGAL EXPENSES		1,690,983
OTHER MISCELLANEOUS EXPENSES		6,348,584
TOTAL INVESTMENT EXPENSES FIRE QPP	\$	140,427,010
TOTAL INVESTMENT EXPENSES FFVSF	\$	291,787
TOTAL INVESTMENT EXPENSES FOVSF	\$	210,096
GRAND TOTAL	\$	140,928,893

See Report of Independent Certified Public Accountants

**New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Administrative Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 5

EXPENSE TYPE:

PERSONNEL SERVICES

Salaries and fringe Benefits paid to Personnel	\$ 5,699,646
TOTAL PERSONNEL SERVICES	5,699,646

PROFESSIONAL SERVICES

Consultants ¹	1,226,708 *
Medical Board and Medical Consultants	1,044,779
Trading & Investment Services	1,088,671
TOTAL PROFESSIONAL SERVICES	3,360,158

RENTALS

Office Space & Equipment	2,246,197
TOTAL RENTALS	2,246,197

COMMUNICATION & GENERAL SERVICES

Communication & Utilities	260,900
Office Supplies and Materials	92,427
Postage & General	1,052,200
TOTAL COMMUNICATION	1,405,527

FIRE DIRECT EXPENSES FY 2022	\$ 12,711,528
-------------------------------------	----------------------

**EXPENSES INCURRED BY OTHER CITY AGENCIES:
ON BEHALF OF FIRE PENSION FUND:**

Financial Information Services	441,014
Office of the Actuary	1,309,448
Law Department	102,171
Office of the Comptroller	1,551,019
Office of Payroll Administration	69,712
Office of Management and Budget	87,184
TOTAL OTHER EXPENSES	\$ 3,560,548

TOTAL ADMINISTRATIVE EXPENSES :	\$ 16,272,076
--	----------------------

* For details see Schedule of Payments to Consultants Schedule 6

See Report of Independent Certified Public Accountants

New York City Fire Pension Funds
Additional Supplementary Information
SCHEDULE OF PAYMENTS TO CONSULTANTS
Fire Qualified Pension Fund
Fiscal Year Ended June 30, 2022

Schedule 6

Nature of Services	Firm Name	Total Fees
Consultant Services		
	Blue Diamond Solutions Inc.	\$ 328,990
	Butler Associates LLC	16,062
	GRM Document Management Services	37,198
	FDNY Support Services	697,500
	Net '@ work Inc	18,328
	PB I, LLC	7,070
	NYSID	10,736
	Rutter Associates LLC	10,846
	AI Smarter World	15,966
	Knowledge Builders, Inc	35,877
	Pitta Bishop & Del Giorno LLC	11,666
	Welsome Consulting Advisors	20,000
	Ice Miller	5,705
	All Other	10,764
	Total payments to Consultants	\$ 1,226,708

See Report of Independent Certified Public Accountants

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Investment Section

Part III

Fiscal Year Ended June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

INVESTMENT REPORT

This report is prepared by management based on data provided by the investment managers of the New York City Fire Pension Funds and the Comptroller of the City of New York through the Bureau of Asset Management. The Bureau of Asset Management in overseeing the Funds' investment portfolio provides investment advice, implements Board decisions and reports on investment performance. The Boards of Trustees of the respective funds are responsible for ensuring that assets of the Funds are managed efficiently and prudently, in full compliance with the Administrative code of the City of New York (ACNY) and the State Retirement and Social Security Laws, for the benefit of the Funds' membership.

Investment Policy

The Qualified Pension Fund's primary purpose is to provide retirement benefits for members and beneficiaries, while the Variable Supplements' Funds provide supplemental payments other than pension benefits for eligible members. These benefits and payments are financed through accumulated employer contributions, member contributions and investment earnings. The Boards of Trustees therefore set investment objectives to assure adequate accumulation of reserves and to protect the long-term value of assets. The Boards' overall philosophy on strategic factors, i.e., risk tolerance, returns, diversification and liquidity requirements determine the objectives of the investment policy adopted. Listed below are key objectives of the Boards' philosophy:

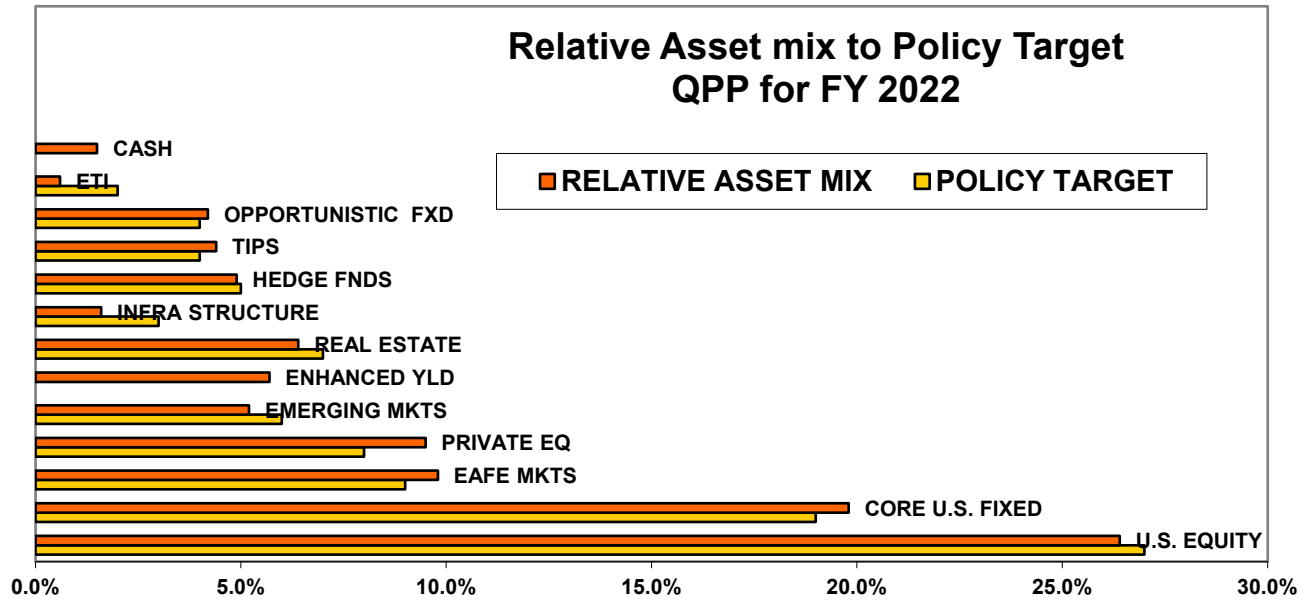
- To assure that members and beneficiaries receive benefits now and, in the future, the level of investment risk in the portfolio will be prudent and not exceed levels that may jeopardize objectives.
- To enhance portfolio returns moderate risk levels are assumed, since over the long term there is a relationship between the level of risk taken and the rate of return realized.
- To reduce portfolio risk by investing in a broad array of investments and by allocating funds among many asset categories, industries and geographic locations.
- To maintain liquidity requirements through the structuring of cash flows from contributions, investment income and short-term investments; thereby assuring timely payment of benefits.

The Funds utilize several investment managers to manage the long-term debt and equity portfolio. In addition, the Funds employ independent investment consultants as advisers. The Funds' managers are periodically reviewed for performance and adherence to investment guidelines.

Investment Criteria and Asset Allocation

The Boards' investment policies are implemented using a strategic allocation of assets that meet the objectives of the Funds, while working within the confines of the legislative guidelines. The guidelines dictate that fixed income, equity and other investments may be made as permitted by The New York State Retirement and Social Security Laws (RSSL) §§ 176-178(a) and State Banking Law § 235, the New York City Administrative Code, and the Legal Investments for New York Savings Banks list published by The New York State Banking Department, subject to Note 3, of Notes to the financial statements. Additionally, investments of up to 25% of the Funds' total assets may be invested in instruments not specifically covered by RSSL.

Each Fund’s asset allocation policy is constructed to meet both short-term funding requirements and long-term benefit obligations. The Funds’ portfolio is largely invested in publicly traded securities with additional allocations to private equity, real estate, infrastructure, hedge funds and opportunistic fixed income investments. The percentages assigned each category of assets held in the Funds are based in part on the results of an analytical study, which indicates the expected rates of return, levels of risk and correlations for various allocations. These allocations are reviewed periodically to address fluctuating market events and new investment opportunities.



The chart above shows a comparison of relative asset mix to policy targets for the QPP as of June 30, 2022. The current targeted policy allocations include investments in the following major categories: U.S equity, Core U.S. fixed income, international equity (EAFE Markets), Private equity, Emerging markets, Enhanced yield bonds, Real Estate investments, Infrastructure investments, Hedge Funds, Treasury inflation protected securities (TIPS), Opportunistic Fixed, Economically Targeted Investments (ETI). The Funds’ assets are periodically re-balanced to keep in line with long term asset allocation objectives, and actual allocation may vary from policy weights as market values shift and investments are added or terminated. As indicated in the chart, the Fund exceeded targeted allocations of U.S equity, U.S Fixed, EAFE Markets, Emerging Markets, and TIPS while Private Equities, Enhanced yield, Real estate, Infrastructure, Hedge Funds, Opportunistic fixed, and ETI fell below current targeted allocation levels.

Actual asset allocation in effect on 6/30/2022 for the QPP and the VSF’s are presented in the chart titled "Asset Allocation" (Exhibit 1A -1B). Changes in actual asset allocation for the QPP over the ten years from June 2013 through June 2022 are presented in bar charts showing the major categories and amount of assets held at the end of each fiscal period (Exhibit 1A).

Summary of Investment Results for fiscal year 2022

The Qualified Pension Fund's investment portfolio of approximately \$17.5 billion returned a loss 7.6 %¹ on a net basis, for the fiscal year ended June 2022. This loss was slightly above the 8.4% posted by the Fund's policy benchmark and below the actuarial assumed rate of return at 7.0%, for the period. The QPP closed fiscal year 2022 with a net position restricted for pension benefits totaling \$17.5 billion.

The Funds' investment performance reflects a significant loss across most asset classes. For the fiscal period ended June 30, 2022, the fixed income composite as a group returning approximately 8.9% loss for the period. The largest segment within this category, the Total High Yield of the fixed income group were among the worst performers, posting losses of 11.6, just ahead of benchmark the High Yield Custom Benchmark index, which lost 12.8%. The Treasury Inflation Protected Securities group, loss 5.1%, compared to its benchmark the Barclays Global inflation linked TIPS index at 5.1% for the period. The Total Opportunistic Fixed, among the better performers in this category, posted a gain of 7.5%, compared to its JPM GHY/CSFB 50/50 Blend Plus 300 benchmark at a loss of 5.0%. Overall, the fixed income sector returned a loss of approximately 5.5% for the quarter ended June 30, 2022.

The Private Real Estate were the best performers within the portfolio. The group returned approximately 33.6% for the period, well above its benchmark the NCRIEF NFI-ODCE NET + 100BP which gained 29.6%. The Emerging markets group posted a loss of 27.8%, while its benchmark, the MSCI emerging markets index, posted a loss 25.3% over the same period. Total International -World ex USA also posted a loss of 25.1%, its benchmark World ex USA custom BM, which posted a loss 17.7%. Total Emerging Markets were among the lowest performers returned a loss of 27.8%, below its benchmark the MSCI Emerging Markets Index at 25.3%. For the quarter ended June 30, 2022, U S Equities, posted a loss averaging 16.0%.

For the five-year period ended June 30, 2022, the QPP's portfolio annualized returns remained positive at 7.2% and ahead of the portfolio policy benchmark return at 6.9%.

Investment returns for the Variable Supplements funds loss were greater than the QPP. The Fire Fighters' Variable Supplements Fund, with assets under management of \$ 450.9 million posted losses of 14.0% for the period; slightly ahead of the loss of 14.2% posted by the policy benchmark. The Fire Officers Variable Supplements Fund with assets under management of \$332.1 million posted losses of approximately 14.2% for the period, equal to the policy benchmark with Losses of 14.2%.

For the five- year period ended June 30, 2022, the FFVSF's and the FOVSF's annualized returns approximately 5.0 % and 5.1% respectively, while the corresponding policy benchmarks returned 5.0%.

Schedule 1A-1B presents our Consolidated Performance Reports, displaying the percentage of portfolio market values and returns for the QPP and the Variable Supplements Funds'. The schedules include returns for each major investment asset class along with the returns for corresponding benchmarks as of June 30, 2022.

¹ Calculations on the rate of return for investments were prepared using a time -weighted rate of return, based on the market rate of return consistent with Global Investment Performance Standards (GIPS).

Investment Section

New York City Fire Pension Funds

The Funds' combined investments including Collateral from securities lending decreased from \$22,433.9 million to \$ 20,402.2 million, by the close of fiscal year 2022 This change is depicted in Exhibit 2, a chart showing changes in total investment at market value over the ten fiscal periods between 2013 and 2022.

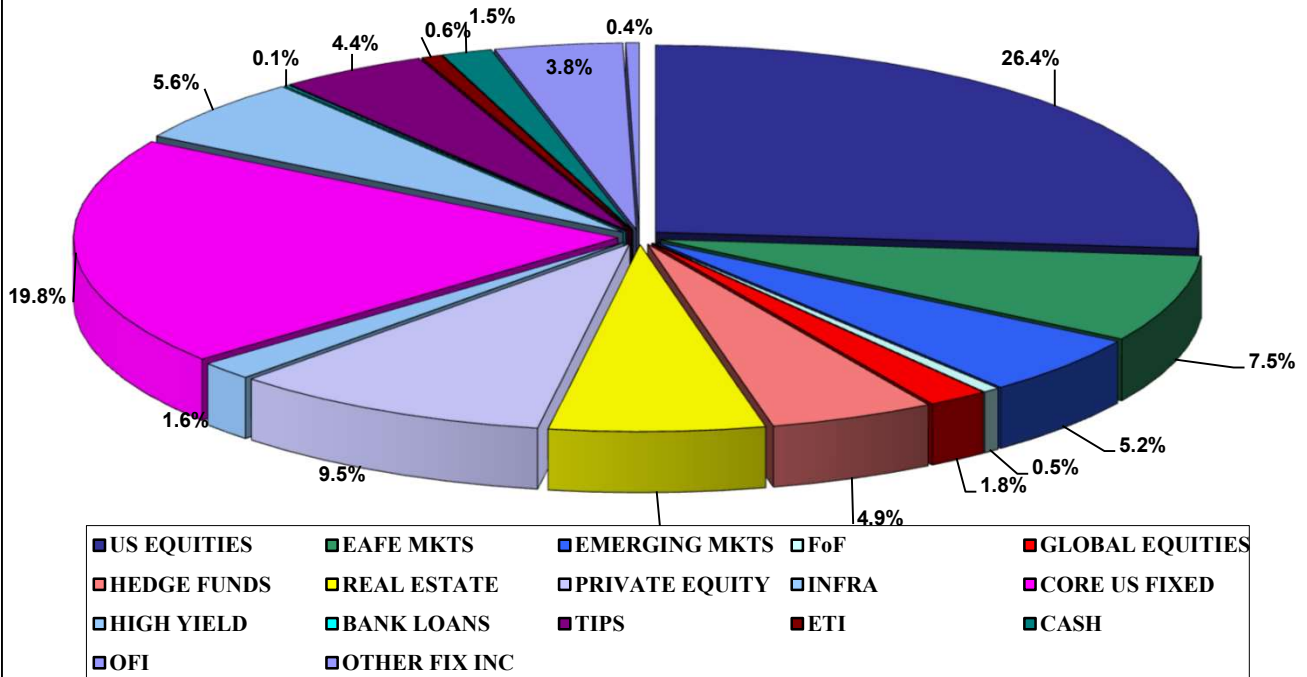
The Funds' Portfolio assets invested during fiscal year 2022 returned net loss of \$ 1,582.9 million. The losses were due mainly to the overall performances of the invested assets. Exhibit 3 shows a summary of the changes in investment income over the ten-year period 2013 through 2022.

Listings of the Fund's largest bonds and stocks holdings are presented in Schedule 2A & 3A respectively.

Fees and Brokers' commissions are calculated based on total assets under management for the period. Summaries of Brokers' commissions for investments traded are presented in Schedule 4A.

The Summary of investments presented in Schedule 5A shows the overall market values of each major investment asset class in the Funds' portfolio, including short-term holdings and collateral from securities lending. The schedule also shows the percentage value of each category in relation to total investments in the Funds for fiscal year 2022

ASSET ALLOCATION - QPP
As of June 30, 2022



TEN-YEAR ASSET ALLOCATION - QPP
June 30, 2013 – June 30, 2022

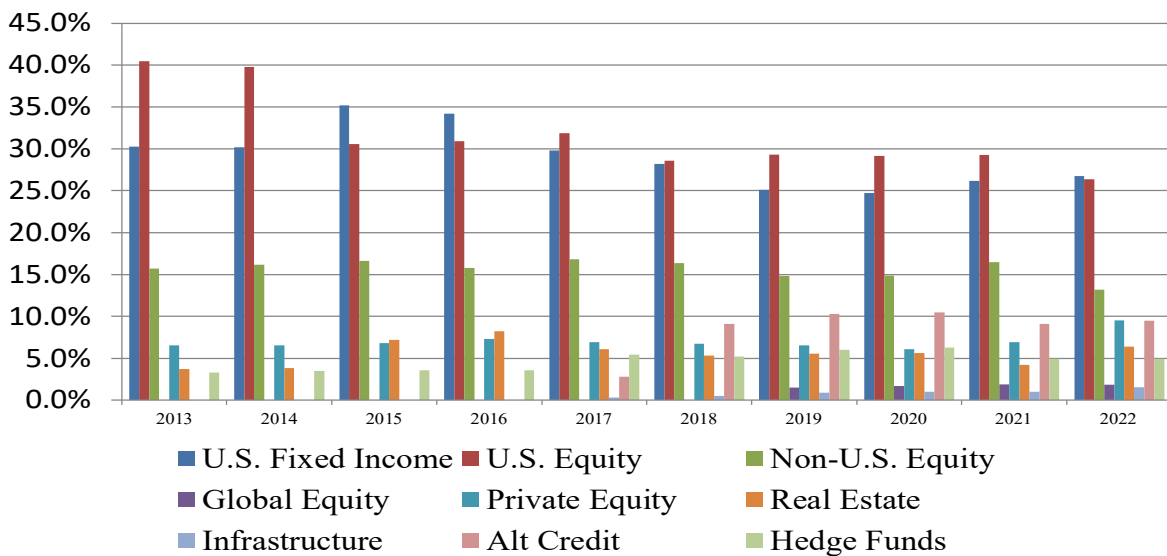


Exhibit 1B

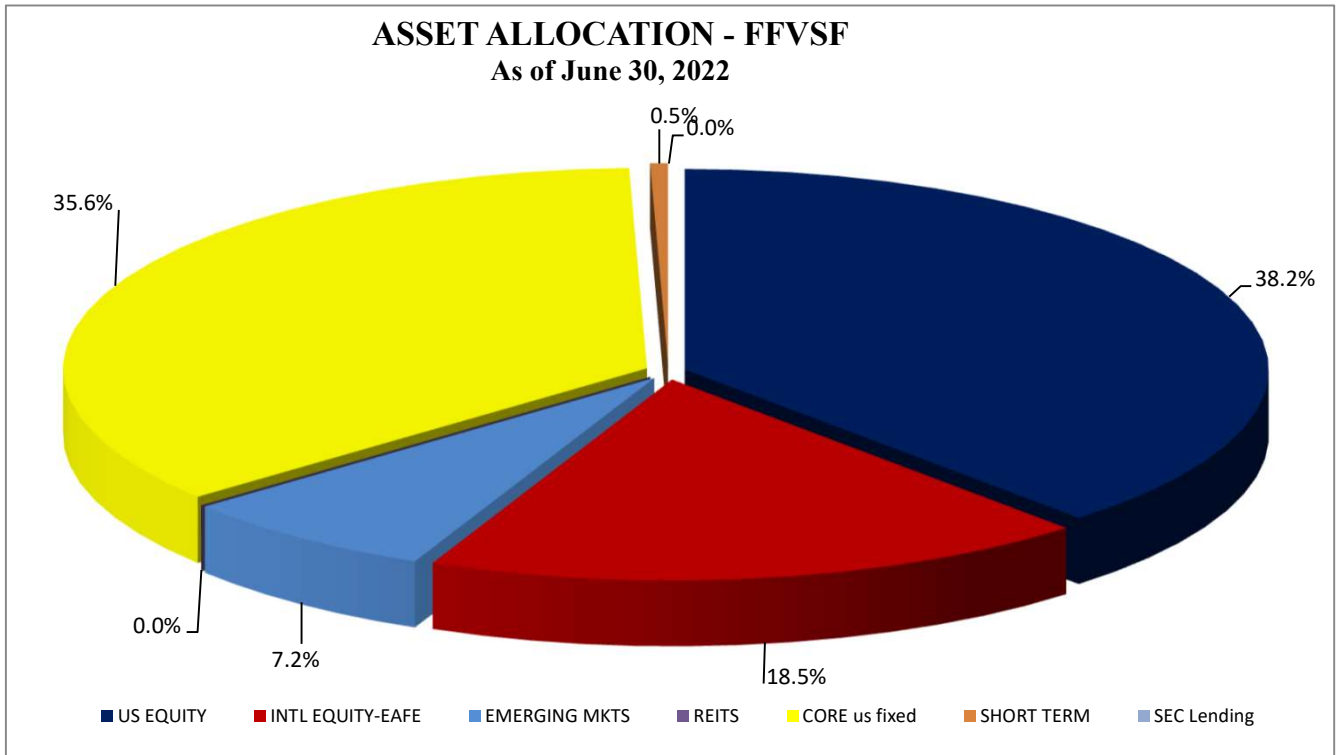
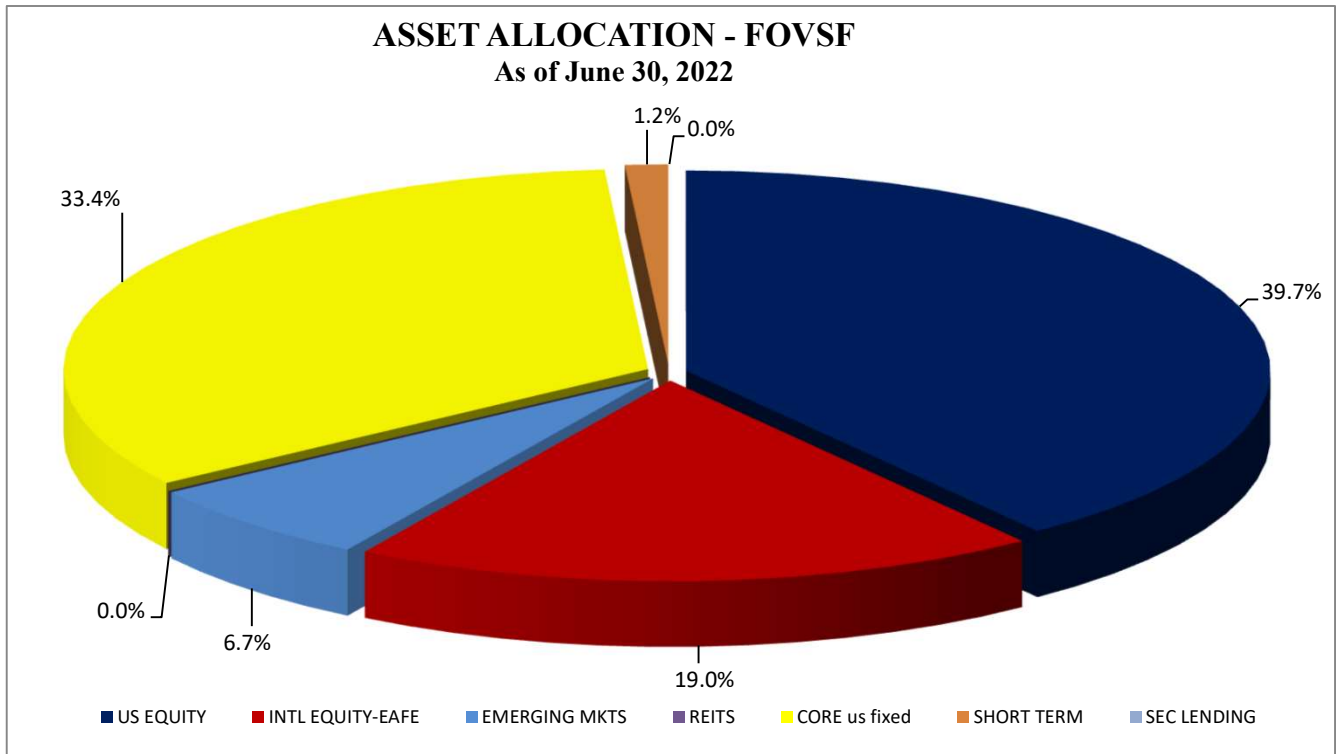


Exhibit 1C



Investment Section

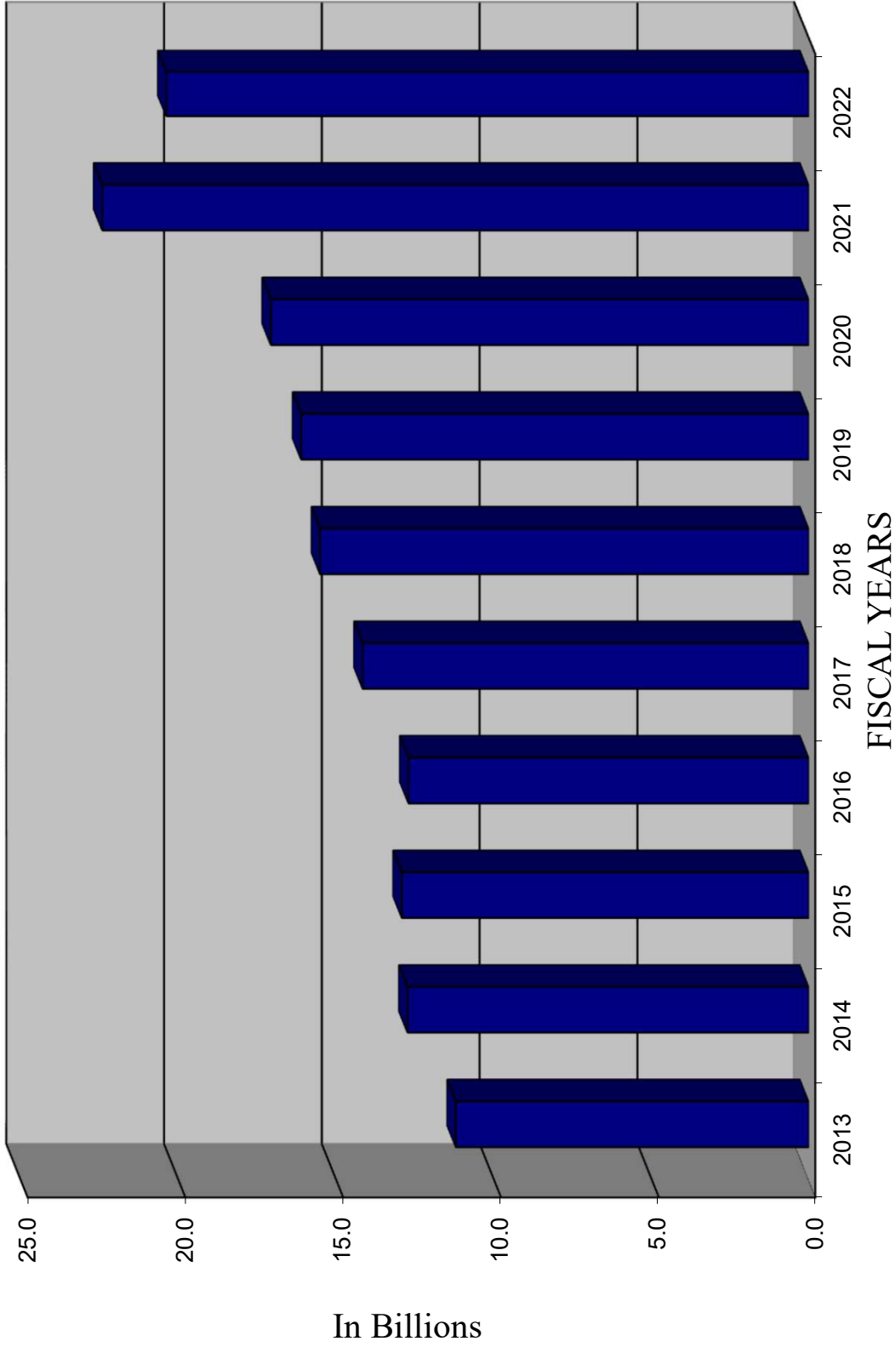
New York City Fire Pension

TOTAL INVESTMENTS

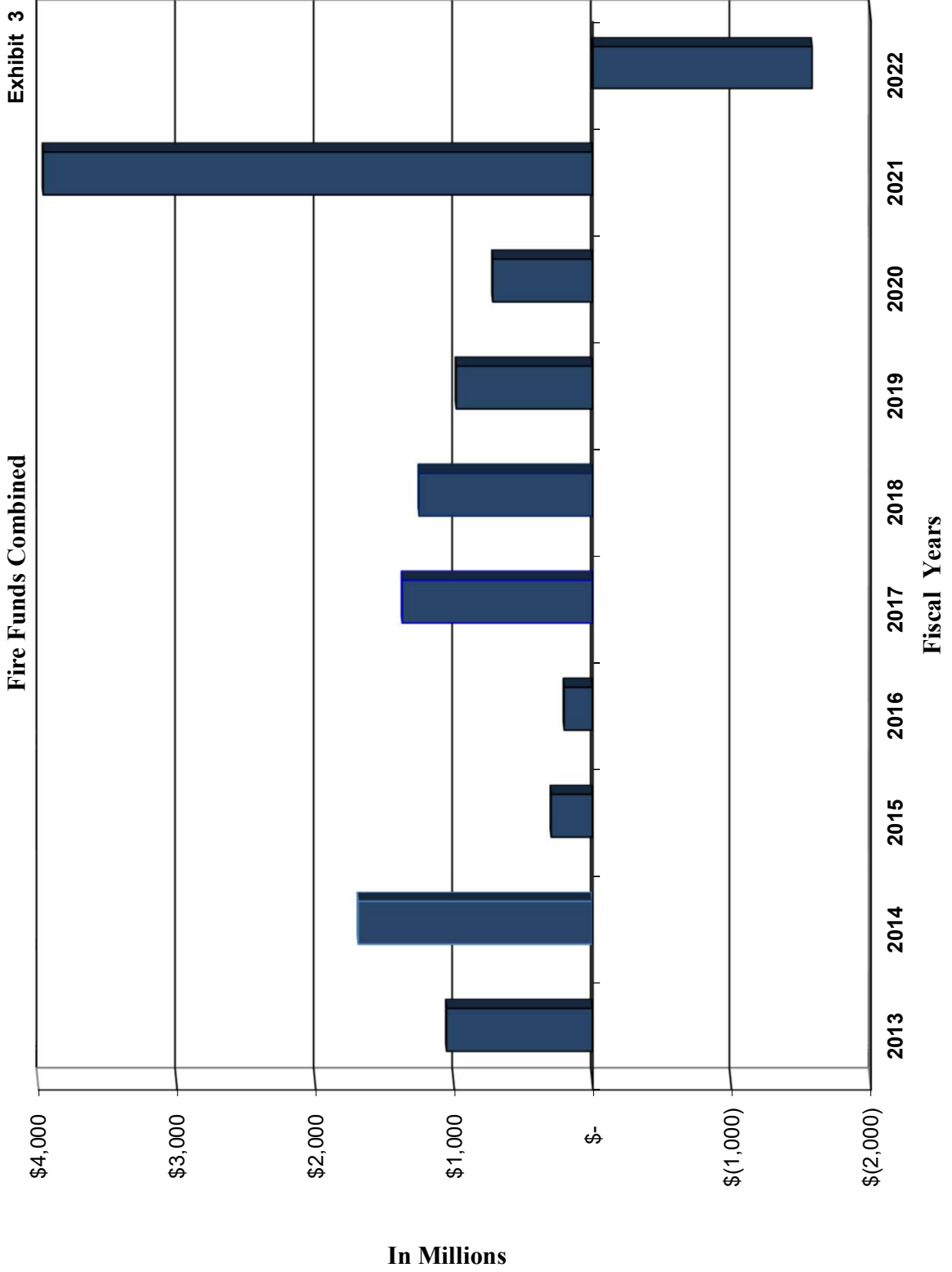
Fire Funds Combined

(At Market - Value)

Exhibit 2



INVESTMENT INCOME
Fire Funds Combined



Investment Section

Schedule 1A

Schedule of Portfolio Returns* Fire QPP

June 30, 2022

Assets (\$MM)	% Total	Asset Class	3 Mos	FYTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-22 Jun-22	Jan-22 Jun-22	Jul-21 Jun-22	Jul-19 Jun-22	Jul-17 Jun-22	Jul-12 Jun-22
4,624.44	26.36	U.S. Equities Russell 3000	-15.99 -16.70	-13.07 -13.87	-13.07 -13.87	9.29 9.77	10.18 10.60	n/a 12.57
1,316.36	7.50	Total International - World ex-USA World ex-USA Custom BM	-15.54 -15.15	-25.05 -17.73	-25.05 -17.73	2.13 1.72	3.68 2.60	n/a 5.86
918.83	5.24	Total Emerging mkts MSCI Emerging mkts index	-13.43 -11.45	-27.81 -25.28	-27.81 -25.28	-0.95 0.57	1.34 2.18	n/a 3.06
79.51	0.45	Total International Fund of Funds MSCI ACWI EX USA IMI Net	-13.68 -14.28	-20.80 -19.86	-20.80 -19.86	2.67 1.55	3.40 2.50	n/a n/a
320.22	1.83	Total Gobal Equity MSC AC World (Daily Const)	-20.33 -15.66	-30.29 -15.75	-30.29 -15.75	4.81 6.21	n/a n/a	n/a n/a
861.77	4.91	Total Hedge Funds HFRI Fund of Funds Composite Index + 1%	-2.75 -3.71	-0.19 -4.56	-0.19 -4.56	6.58 4.97	6.69 4.65	5.60 4.78
-	-	Total Real Estate Sec.(REITS) DJ US Select Real Estate Securities Index	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
1,670.64	9.52	Total Private Equity NYC R3000+3% Lagged	0.75 -4.56	26.63 15.25	26.63 15.25	24.16 21.74	21.30 18.82	n/a 17.62
1,122.32	6.40	Total Private Real Estate NCREIF NFI-ODCE NET+100BP	8.29 4.80	33.62 29.57	33.62 29.57	14.40 12.77	12.46 10.64	n/a 11.25
275.69	1.57	Total Infrastructure CPI+ 4%	5.53 3.66	15.47 13.36	15.47 13.36	13.05 9.16	13.41 8.03	n/a n/a
3,458.52	19.71	Total Structured Program NYC Custom Structured Index-Fire	-4.56 -4.60	-9.63 -9.73	-9.63 -9.73	0.59 1.37	2.14 2.88	n/a 2.93
77.29	0.44	Total Core FI-Developing MGRS BBG BARC AGG (DLY)	-5.40 -4.69	-10.96 -10.29	-10.96 -10.29	-0.73 -0.93	0.93 0.88	n/a 1.54
-	-	Total Core FI-Emerging MGRS BBG BARC AGG (DLY)	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
777.30	4.43	Total Tips Managers BBG BARC GBL INF-LK: US TIPS (DLY)	-6.23 -6.08	-5.13 -5.14	-5.13 -5.14	3.03 3.04	3.21 3.21	n/a 1.73
-	-	Total Convertible Bonds ICE BofA ALL US Conv Ex Mandatory	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
110.04	0.63	Total Targeted Investments (No Cash) Fire Custom Benchmark (No Cash)	-3.86 -3.96	-9.24 -8.98	-9.24 -8.98	-0.53 -0.74	1.23 0.96	1.94 1.58
990.92	5.65	Total High Yield High Yield Custom Benchmark	-9.64 -9.84	-11.62 -12.82	-11.62 -12.82	0.96 0.18	2.30 2.05	n/a 4.11
0.92	0.01	Total Bank Loans CSFB Leveraged Loan Index	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
670.98	3.82	Total Opportunistic Fixed JPM GHY/CSFB 50/50 BLEND PLUS 300	-0.02 -6.13	7.48 -4.95	7.48 -4.95	8.72 4.01	7.81 5.58	n/a 7.33
		Total Fixed Income Segment	-5.46	-8.88	-8.88	0.67	2.07	n/a
269.15	1.53	State Street Short Term	0.10	0.03	0.03	0.51	1.08	0.77
0.01	0.00	Cash Account	n/a	n/a	n/a	n/a	n/a	n/a
17,544.91	100.00	Total Portfolio Policy Benchmark	-8.24 -9.39	-7.64 -8.41	-7.64 -8.41	6.52 6.18	7.19 6.97	n/a 8.10

*Calculations on the rate of return for investments were prepared using a time weighted rate of return, based on the market rate of return consistent with Global Investment Performance Standards (GIPS).

Investment Section

New York City Fire Pension Funds

Schedule 1B

Schedule of Portfolio Returns FFVSF*
June 30, 2022

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-22 Jun-22	Jan-22 Jun-22	Jul-21 Jun-22	Jul-19 Jun-22	Jul-17 Jun-22	Jul-12 Jun-22
172.39	38.23	U.S. Equities Russell 3000 Daily	-16.68 -16.70	-13.69 -13.87	-13.69 -13.87	9.77 9.77	10.60 10.60	n/a 12.57
83.32	18.48	Total WORLD ex-USA World EX-USA Custom Benchmark	-14.95 -15.15	-17.35 -17.73	-17.35 -17.73	2.10 1.72	2.95 2.60	n/a 5.86
32.66	7.24	Total Emerging Markets MSCI Emerging Markets	-11.31 -11.45	-24.72 -25.28	-24.72 -25.28	0.65 0.57	2.25 2.18	n/a 3.06
160.34	35.56	Total structured Fixed Income BBG BARC AGG (DLY)	-4.65 -4.69	-10.27 -10.29	-10.27 -10.29	-0.93 -0.93	0.83 0.88	n/a 1.54
2.22	0.49	Fire Fighters short term	0.19	0.28	0.28	0.58	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
450.93	100.00	Total Portfolio Policy Benchmark	-11.92 -11.82	-13.96 -14.24	-13.96 -14.24	3.86 3.77	5.00 4.97	n/a 7.39

*Calculations on the rate of return for Investments were prepared using a time weighted rate of return, based on the market rate of return-
consistent with Global Investment Performance Standards (GIPS).

Investment Section

Schedule 1C

Schedule of Portfolio Returns FOVSF*
June 30, 2022

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-22 Jun-22	Jan-22 Jun-22	Jul-21 Jun-22	Jul-19 Jun-22	Jul-17 Jun-22	Jul-12 Jun-22
131.99	39.74	U.S. Equities Russell 3000/S&P500	-16.68 -16.70	-13.90 -13.87	-13.90 -13.87	9.78 9.77	10.64 10.60	n/a 12.57
63.09	19.00	Total WORLD ex-USA World EX-USA Custom Benchmark	-15.00 -15.15	-17.37 -17.73	-17.37 -17.73	2.06 1.72	2.95 2.60	n/a 5.86
22.10	6.65	Total Emerging Markets MSCI Emerging Markets	-11.31 -11.45	-24.79 -25.28	-24.79 -25.28	0.60 0.57	2.22 2.18	n/a 3.06
110.98	33.42	Total Structured Fixed Income BBG BARC AGG (DLY)	-4.65 -4.69	-10.29 -10.29	-10.29 -10.29	-0.93 -0.93	0.83 0.88	n/a 1.54
3.96	1.19	Fire Officers' short term	0.20	0.28	0.28	0.44	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
332.12	100.00	Total Portfolio Policy Benchmark	-12.10 -11.82	-14.23 -14.24	-14.23 -14.24	3.89 3.77	5.11 4.97	n/a 7.39

*Calculations on the rate of return for Investments were prepared using a time weighted rate of return, based on the market rate of return-
consistent with Global Investment Performance Standards (GIPS).

Investment Section

New York City Fire Pension Funds

List of Largest Bonds Holdings as of June 30, 2022

Schedule 2A

Cusip Number	Security Description	Maturity Date	Interest Rate	Par Value	Fair Value
912828Y87	US TREASURY N/B	7/31/2024	1.8%	76,000,000	74,093,920
912828YS3	US TREASURY N/B	11/15/2029	1.8%	77,000,000	70,656,740
91282CAH4	US TREASURY N/B	8/31/2027	1.8%	75,000,000	65,821,500
9128286G0	US TREASURY N/B	2/29/2024	0.5%	65,000,000	64,385,750
9128286L9	US TREASURY N/B	3/31/2026	2.4%	54,500,000	52,954,380
91282CDH1	US TREASURY N/B	11/15/2024	2.3%	54,750,000	51,913,950
912828YD6	US TREASURY N/B	8/31/2026	0.8%	55,085,000	51,480,788
9128286R6	US TREASURY N/B	4/30/2024	1.4%	50,000,000	49,347,500
91282CCJ8	US TREASURY N/B	6/30/2026	2.3%	50,075,000	45,969,351
9128286B1	US TREASURY N/B	2/15/2029	0.9%	46,035,000	44,821,057
91282CCK5	US TREASURY N/B	6/30/2023	2.6%	44,500,000	43,284,705
91282CDK4	US TREASURY N/B	11/30/2026	0.1%	34,500,000	31,946,310
91282CCG4	US TREASURY N/B	6/15/2024	1.3%	32,675,000	30,985,049
912810SX7	US TREASURY N/B	5/15/2051	0.3%	31,000,000	26,169,580
912810SH2	US TREASURY N/B	5/15/2049	2.4%	21,500,000	20,046,170
91282CCB5	US TREASURY N/B	5/15/2031	2.9%	20,540,000	18,352,901
91282CCT6	US TREASURY N/B	8/15/2024	1.6%	19,000,000	17,973,620
912810SK5	US TREASURY N/B	11/15/2049	0.4%	20,300,000	17,145,583
91282CDN8	US TREASURY N/B	12/15/2024	2.4%	18,000,000	17,141,580
912810SN9	US TREASURY N/B	5/15/2050	1.0%	25,600,000	16,288,000
912810SU3	US TREASURY N/B	2/15/2051	1.3%	20,800,000	15,602,496
91282CCX7	US TREASURY N/B	9/15/2024	1.9%	16,000,000	15,101,280
912810SW9	US TREASURY N/B	2/15/2041	0.4%	18,700,000	14,665,662
91282CCU3	US TREASURY N/B	8/31/2023	1.9%	15,000,000	14,511,900
912810TD0	US TREASURY N/B	2/15/2052	0.1%	17,500,000	14,401,975
912810RZ3	US TREASURY N/B	11/15/2047	2.3%	15,875,000	14,221,778
912810SC3	US TREASURY N/B	5/15/2048	2.8%	14,400,000	13,935,888
912810SY5	US TREASURY N/B	5/15/2041	3.1%	16,500,000	13,768,425
91282CDB4	US TREASURY N/B	10/15/2024	2.3%	14,500,000	13,738,170
912828B66	US TREASURY N/B	2/15/2024	0.6%	13,500,000	13,452,480
912828G38	US TREASURY N/B	11/15/2024	2.8%	13,500,000	13,271,175
91282CDJ7	US TREASURY N/B	11/15/2031	2.3%	15,150,000	13,140,201
912810SZ2	US TREASURY N/B	8/15/2051	1.4%	17,000,000	13,138,450
91282CCE9	US TREASURY N/B	5/31/2028	2.0%	14,500,000	13,061,310
912810TC2	US TREASURY N/B	11/15/2041	1.3%	16,325,000	12,965,642
91282CET4	US TREASURY N/B	5/31/2027	2.0%	13,000,000	12,754,170
912810RV2	US TREASURY N/B	2/15/2047	2.6%	12,885,000	12,031,884
912810TA6	US TREASURY N/B	8/15/2041	3.0%	15,650,000	11,904,329
912810TB4	US TREASURY N/B	11/15/2051	1.8%	15,775,000	11,836,140
91282CDA6	US TREASURY N/B	9/30/2023	1.9%	12,000,000	11,604,360
91282CCS8	US TREASURY N/B	8/15/2031	0.3%	13,250,000	11,406,395
912810RK6	US TREASURY N/B	2/15/2045	1.3%	13,200,000	11,195,316

A complete listing of our portfolio holdings is available from our office upon request

Investment Section

New York City Fire Pension Funds

List of Largest Stocks Holdings as of June 30, 2022

Schedule 3A

Cusip Number	Security Name	Share/Par Value	Fair Value
037833100	APPLE INC	1,618,093	221,225,675
594918104	MICROSOFT CORP	760,558	195,334,111
023135106	AMAZON.COM INC	912,221	96,886,992
02079K305	ALPHABET INC CL A	34,002	74,099,199
478160104	JOHNSON + JOHNSON	340,814	60,497,893
02079K107	ALPHABET INC CL C	26,218	57,350,564
717081103	PFIZER INC	1,091,915	57,249,103
88160R101	TESLA INC	80,987	54,538,266
966ACCI3	BLACK CREEK INDUSTRIAL FUND	40,437,018	53,237,478
91324P102	UNITEDHEALTH GROUP INC	100,353	51,544,311
30231G102	EXXON MOBIL CORP	587,727	50,332,940
084670702	BERKSHIRE HATHAWAY INC CL B	176,322	48,139,432
688910900	TAIWAN SEMICONDUCTOR MANUFAC	2,672,847	42,789,284
30303M102	META PLATFORMS INC CLASS A	258,185	41,632,331
17275R102	CISCO SYSTEMS INC	900,511	38,397,789
58933Y105	MERCK + CO. INC.	412,548	37,612,001
57636Q104	MASTERCARD INC A	116,618	36,790,647
742718109	PROCTER + GAMBLE CO/THE	245,595	35,314,105
67066G104	NVIDIA CORP	230,058	34,874,492
92826C839	VISA INC CLASS A SHARES	175,290	34,512,848
BMMV2K903	TENCENT HOLDINGS LTD	741,740	33,499,978
949746101	WELLS FARGO + CO	837,885	32,819,955
46625H100	JPMORGAN CHASE + CO	278,628	31,376,299
BK6YZP902	ALIBABA GROUP HOLDING LTD	2,133,076	30,418,341
677172009	SAMSUNG ELECTRONICS CO LTD	686,256	30,126,765
166764100	CHEVRON CORP	207,856	30,093,392
713448108	PEPSICO INC	176,812	29,467,488
532457108	ELI LILLY + CO	86,668	28,100,366
437076102	HOME DEPOT INC	102,175	28,023,537
031162100	AMGEN INC	115,095	28,002,614
ACI02GTQ9	ASML HOLDING NV	55,762	26,574,403
92343V104	VERIZON COMMUNICATIONS INC	520,324	26,406,443
458140100	INTEL CORP	702,364	26,275,437
00287Y109	ABBVIE INC	168,792	25,852,183
931142103	WALMART INC	212,379	25,821,039
747525103	QUALCOMM INC	197,948	25,285,878
91913Y100	VALERO ENERGY CORP	234,397	24,911,713
191216100	COCA COLA CO/THE	395,763	24,897,450
B4TX8S909	AIA GROUP LTD	2,196,578	23,807,844
375558103	GILEAD SCIENCES INC	378,785	23,412,701
00724F101	ADOBE INC	59,847	21,907,593
22160K105	COSTCO WHOLESALE CORP	44,139	21,154,940
060505104	BANK OF AMERICA CORP	670,918	20,885,677
254687106	WALT DISNEY CO/THE	219,134	20,686,250
883556102	THERMO FISHER SCIENTIFIC INC	37,342	20,287,162
ACI14YZ22	MEITUAN CLASS B	804,785	19,917,197
68389X105	ORACLE CORP	284,646	19,888,216
56585A102	MARATHON PETROLEUM CORP	241,829	19,880,762

A complete listing of our portfolio holdings is available from our office upon request

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
US Equities		
Altravue-US SCV - Legato	\$ 5.58	\$ 33,116
Ballast-US SCV - Legato	2.71	16,775
Blackrock R2000 Growth	0.02	1
Blackrock R2000 Value	0.01	1
BlackRock US LMC R1000 Core	2,009.94	52,143
Bridge City-US SCG - Legato	3.09	20,634
Brown Asset Mgmt US SCG	52.74	766,706
Cooke & Bieler US MCV	56.81	69,591
Cooke & Bieler US SCV	53.61	127,712
Dean-US SCV - Legato	7.26	41,477
Essex-US SCG - Legato	3.28	24,968
Legal General US LMCE	463.52	396,483
LEG-TRANSITION	0.00	2
Lisanti-US SCG - Legato	3.53	28,046
Nicholas Investment-US SCG - Legato	1.25	9,574
Panagora - US SCC	54.20	434,886
PIMCO RAFI-US LMCE	484.67	611,047
Pzena US SCV	58.90	532,727
SSGA-US LMC RTOP200 Core	1,025.80	53,631
Victory US MCV	59.14	114,622
Wasatch US SCG	44.88	909,680
Wellington Mgmt MCC	133.23	632,651
Westfield US MCG	100.27	164,855
Total US Equities	4,624.44	5,041,328
NON-US Equities		
Acadian-EM	140.82	530,700
Acadian-EM	0.04	-
Acadian-WorldxUS SCC	107.08	416,034
Acadian-WorldxUS SCC	0.16	-
Algert-EAFE SCC	18.90	84,304
ARGA-WorldxUS LMCV - Xponance	12.95	48,239
Aubrey-EM ACG - Xponance	11.28	45,164
Baillie Gifford-EM	156.12	1,064,100
Baillie Gifford-WorldxUS LMCC	214.67	805,912
Baillie Gifford-WorldxUS LMCC	0.20	-

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
BlackRock MSCI-EM Core	\$ 168.21	\$ 54,210
Causeway-WorldxUS LMCC	216.04	870,623
Causeway-WorldxUS LMCC	0.63	-
Dundas-EAFE ACG - Xponance	8.44	35,201
Fiera-Global	145.60	970,289
Foresight-EAFE LMCV - Xponance	10.89	40,490
Martin-EAFE ACG - Xponance	9.79	37,464
Morgan Stanley-Global	107.60	800,768
Nordea-Global NCG	67.02	29,204
North of South-EM ACV - Xponance	9.12	35,473
Osmosis-EAFE ACV - Xponance	10.18	38,674
Parametric-EM	0.32	-
Pzena-EM ACV	240.82	1,894,309
Redwood-EAFE ACG - Xponance	6.86	29,767
Sands-EM LCG	94.11	735,327
Sprucegrove-WorldxUS LMCC	241.18	587,057
Sprucegrove-WorldxUS LMCC	0.50	-
SSGA-WorldxUS LMC MSCI Core	156.41	22,439
SSGA-WorldxUS SC MSCI	77.80	29,083
UBS-EM ACC	118.39	742,674
Walter Scott-WorldxUS LMCC	282.32	1,040,430
Walter Scott-WorldxUS LMCC	0.47	-
Xponance Transition-WorldxUS	0.00	191
Total NON-US Equities	2,634.92	10,988,126
Fixed Income		
AFL0CIO Housing Investment Trust	56.70	194,162
Bain-Bank Loans	0.60	5,100
Barings-Bank Loans	0.32	1,105
Blackrock TIPS	172.83	100,269
BlackRock-Credit	-	8,523
BlackRock-Mortgages	522.66	240,776
BOA PPAR FNMA	1.81	-
Brigade High Yield	130.31	517,134
Cash Account	0.01	-
CFSB PPAR FNMA	0.05	-
CFSB PPAR GNMA	0.32	-
Citibank PPAR FNMA	2.90	-
Citibank PPAR GNMA	0.72	-
CPC Construction Facility	4.39	-
CPC PPAR FNMA	2.43	-

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees	
Eaton Vance-High Yield	\$	148.79	\$	484,426
ECLF PPAR FNMA		1.31		-
GIA-Core Plus		33.32		81,864
JPMC PPAR FNMA		5.55		-
LIIF PPAR FNMA		2.89		-
LIIF PPAR GNMA		0.31		-
LISC PPAR FNMA		3.23		-
LM Capital-Core Plus		29.64		46,714
Mackay Shields-High Yield		149.68		441,571
NCBCI PPAR FNMA		0.02		
NCBCI PPAR GNMA		0.21		
Neuberger Berman-Credit		249.55		254,872
Nomura-High Yield		126.11		442,183
Pinebridge-Credit		145.34		28,041
Prudential-Credit		-		7,435
Pugh-CorePlus		14.33		31,322
RBC Access MBS		26.20		50,843
Securities Lending		0.00		-
Shenkman-High Yield		160.19		617,685
Short Term		269.15		
SSGA-IT Treasury 1-10Y		987.80		93,778
SSGA-LI Treasury		22.01		14,188
SSGA-LT Treasury 10Y Plus		500.24		59,657
SSGA-ST Treasury 1-3Y		548.89		75,958
SSGA-TIPS		604.47		32,248
T Rowe Price-Credit		247.12		272,525
T Rowe Price-High Yield		275.83		732,275
Wellington-Mortgages		235.92		245,131
Wells Fargo PPAR FNMA		-		-
Total Fixed Income		5,684.15		5,079,785
Opportunistic Fixed Income				
400 Capital Centre Street		10.85		69,998
Angelo Gordon Ct St Pttrs		45.20		358,739
Apollo Centre Street Partnership		57.70		341,914
Ares Centre Street		53.00		1,640,440
Ave Special Situation Fund VI		1.56		-
Brightwood Capital Advisors III		2.31		118,373
Brightwood Capital Advisors IV		17.27		381,774
Contrarian C A		18.27		175,042
FCO MA Centre Street II ER		22.10		208,227

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees	
Fortress Ctr St Ptnrs	\$	23.54	\$	505,706
Golden Tree		54.00		312,502
Intermediate Capital Group		49.29		334,215
KKR NYC Credit B		42.67		500,394
KKR NYC Credit C		6.13		99,101
Maranon Capital		24.75		169,157
Marathon Centre Street Partnership		99.54		803,617
Oak Hill Centre Street Partnership		92.27		1,344,984
Oaktree Opp Fd IX		22.52		326,876
Torchlight Debt Opportunity Fund VI		18.01		239,860
Torchlight Debt Opportunity Fund VII		7.85		296,045
Torchlight Investors		2.15		86,187
Total Opportunistic Fixed Income		670.98		8,313,151
Hedge Funds				
Altimeter Partners Fund		20.73		394,774
Caledonia Fund US		19.13		
Caspian Select Credit Fund		28.26		523,393
D.E. Shaw Composite Fund		116.79		11,746,255
DL Partners Opp		43.47		711,277
Florin Court Capital		60.50		2,462,217
Gresham Quant ACAR Fund		47.66		58,392
GSA Capital Partners		0.08		281,634
Key Square Group		61.67		1,001,152
Kontiki Onshore Fund		53.04		
Lansdowne Euro Absolute Opp Fd		-		295,701
Luxor Capital		43.80		865,220
Pharo Macro Fund		40.99		-
Pharo Management		51.67		-
Quest Partners		78.09		1,965,338
SRS Investment Management		62.97		210,114
Standard General		17.28		189,729
Turiya Capital Management		61.51		1,326,610
Voloridge Aggressive		11.94		187,193
Voloridge Fund		42.19		567,206
Total Hedge Funds		861.77		22,786,205
Private Equity				
ACON Equity Partners III		0.02		120
Aisling Capital II		0.03		504
Aisling Capital III		0.02		1,789

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Altaris Health Partners III	\$ 1.60	\$ 153,703
American Securities Partners VI	12.03	754,568
American Securities Partners VII	18.98	(444,066)
Ampersand 2011	0.14	995
Apax IX USD	29.96	273,058
Apax X USD	12.49	524,983
Apollo Investment Fund IX	41.41	1,509,918
Apollo Investment Fund V	0.13	2,879
Apollo Investment Fund VI	0.37	12,798
Apollo Investment Fund VII	0.39	106,362
Apollo Investment Fund VIII	21.29	2,012,241
Ares Corp. Opportunities Fund I	0.03	587
Ares Corporate Opportunities Fund II	0.01	177
Ares Corporate Opportunities Fund III	0.29	3,975
Ares Corporate Opportunities Fund IV	9.58	273,625
Ares Corporate Opportunities Fund V	16.70	96,314
Arlington Capital Partners II	0.03	171
Arsenal Capital Partners II	-	2,214
ASF VI B	4.92	1,093,758
ASF VI B NYC Co-Invest	2.94	18,894
ASF VII B	10.86	128,861
ASF VII B NYC Co-Invest	5.65	13,907
ASF VIII B	24.22	440,579
ASF VIII B Co-Invest	9.46	17,491
Atlantic Equity Partners IV	1.77	24,589
Avista Capital Partners	0.00	41
Avista Capital Partners II	0.87	5,344
AXA Secondary Fund V B	0.06	18,645
BC European Capital IX	13.35	1,635,051
BC European Capital X	19.69	166,223
BC European Capital X SideCar	10.39	15,028
BC Partners XI	7.74	340,018
BC Partners XI Co-Invest	6.08	(13,771)
BDCM Opportunity Fund III	15.22	117,776
Blackstone Capital Partners IV	0.22	842
Blackstone Capital Partners V	0.06	88,386
Blackstone Capital Partners VI	4.45	459,464
Blackstone Capital Partners VIII	10.88	450,328
Blue Wolf Capital Fund II	0.02	3,070
Bridgepoint Europe IV	1.04	35,836
Bridgepoint Europe V	8.67	98,386

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Bridgepoint Europe V Co-Invest	\$ 4.40	\$ 1,202
Bridgepoint Europe VI	21.89	439,856
Bridgepoint Europe VI Co-Invest	5.97	10,274
Capital Point Partners	1.00	57,990
Carlyle Partners V	0.92	121,852
Carlyle Partners VI	14.89	2,497,301
Carlyle Partners VI SideCar	1.82	1,692
Catterton Partners VI	1.20	6,637
Centerbridge Capital Partners III	4.08	328,673
Clearlake Capital Partners VI	15.39	430,488
Clearlake Capital Partners VII	11.66	405,779
Coller International Partners V	0.11	-
ComVest Investment Partners IV	3.26	369,795
Constellation Venture Capital III	0.11	22,667
Crestview Partners II	3.97	258,864
Crestview Partners III	21.54	318,663
Crestview Partners III SideCar	10.09	12,190
Crestview Partners IV	8.13	472,169
Crestview Partners IV SideCar	3.06	21,031
CVC Capital Partners VI	42.25	3,983,207
CVC Capital Partners VII	38.29	451,512
CVC Capital Partners VII A	7.56	571,746
CVC European Equity Partners V	0.56	25,173
CVC European Equity Partnership III USD	0.72	2,009
Cypress Merchant Banking Partners II	0.01	-
EQT IX Co-Invest	6.39	(54,075)
EQT IX USD	20.82	392,950
EQT VI	0.04	(1,684,862)
EQT VII (No.2)	21.70	(457,128)
EQT VIII	29.59	156,767
EQT VIII Co-Invest	9.53	41,844
Euro Choice IV	0.50	172,284
Fairview Emerging Managers Tranche 1	0.03	3,236
Fairview Emerging Managers Tranche 2	3.46	22,005
Falconhead Capital Partners II	1.41	(29,640)
FdG Capital Partners II	0.11	-
First Reserve Fund XI	0.01	1,184
First Reserve Fund XII	0.18	2,864
FirstMark Capital I (fka FirstMark IV)	8.96	-
FS Equity Partners V	0.71	682.00
FS Equity Partners VI	4.61	20,236

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees
FTV IV	\$	2.56	\$ 398,118
FTV V		8.93	69,679
FTV VI		5.05	86,624
FTV VII		6.18	46,166
FTV VII Co-Investment		1.55	-
FTVentures III		0.84	8,444
GCM Emerging Manager Fund		5.14	111,646
GF Capital Private Equity Fund		1.78	4,014
Gleacher Mezzanine Fund II		-	1,992
Grain Communications Opportunity FD III		1.98	93,582
Grain Fund II		4.86	71,209
Green Equity Investors VI		31.23	1,272,116
Green Equity Investors VII		25.20	1,569,409
Green Equity Investors VIII		18.66	223,598
Green Equity Investors VIII Co-Invest		6.00	3,439
Grey Mountain Partners Fund III		0.12	107,049
GSO Capital Opportunities Fund		0.14	2,140
HarbourVest Centre Co-Inv		15.74	67,252
Heartwood Partners II		0.96	36,752
Heartwood Partners III		1.99	52,925
Hg Genesis 9 A		5.82	271,007
Hg N1 Co-Invest		0.87	15,304
Highland Consumer Fund I		0.16	794
ICV Partners III		1.84	23,825
ICV Partners IV		1.68	274,017
Incline Equity Partners III		0.02	42,598
Insight Partners XIII		15.54	361,095
Insight Partners XIII Buyout Annex		5.53	55,541
Intermedia Partners VII		-	45
JP Morgan Fleming Tranche A		0.46	40,150
KKR Americas Fund XII		43.29	342,943
KKR Asian Fund IV		5.39	292,628
KKR Europe V		14.73	157,325
KKR NA Fund XIII		6.47	73,125
Landmark - NYC Fund I		5.00	9,779
Landmark Equity Partners XIV		1.25	111,706
Landmark Equity Partners XV		10.00	248,267
Levine Leichtman Capital Partners IV		0.45	489
Lexington Capital Partners IX		19.39	248,857
Lexington Capital Partners IX Co-Invest		5.52	9,004
Lexington Capital Partners IX SideCar		-	-

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees
Lexington Capital Partners VII	\$	1.65	\$ 16,582
Lexington Capital Partners X Co-Invest		0.89	-
Lexington Capital Partners VIII		29.53	452,649
Lincolnshire Equity Fund II		0.13	-
Lincolnshire Equity Fund III		1.79	27,775
Lincolnshire Equity Fund IV		0.76	5,889
Lindsay Goldberg V		8.38	407,956
Markstone Capital Partners		0.02	-
Medica III Investments (International)		0.51	-
MidOcean Partners III		0.38	352,752
Milestone Partners III		0.13	(2,521)
Mill City Fund II		1.41	11,999
Montreux Equity Partners IV		4.11	77,859
New Mainstream Capital II		0.61	11,626
New Mountain Partners II		0.01	308
New Mountain Partners III		0.51	921,553
NGN BioMed Opportunity II		2.53	14,058
NMS Fund III		2.52	69,695
NorthBound Emerging Manager Custom Fund		1.06	24,893
NYC-NorthBound Emerging Managers Program		6.30	65,484
Olympus Capital Asia III		0.32	484
Olympus Growth Fund VI		10.71	470,544
One Rock Capital Partners III		4.35	151,638
Onex Partners III		0.85	61,556
Paladin III		3.81	85,992
Palladium Equity Partners III		0.03	18,679
Palladium Equity Partners IV		8.72	112,937
Palladium V		4.80	148,006
Patriot Financial Partners II		0.60	14,395
Patriot Partners III		3.02	50,540
PCG Clean Energy Tech Fund East		0.96	8,753
PECP V Co-Investment		10.83	7,866
Pegasus Partners IV		1.27	31,037
Pegasus Partners V		4.76	79,712
Permira IV		1.91	520
Pine Brook Capital Partners		0.50	1,120
Platinum Equity Capital Partners V		41.19	275,072
Platinum Equity Partners III		6.07	392,934
Platinum Equity Partners IV		23.35	1,839,810
Platinum Equity Small Cap Fund I		7.50	(65,560)
Platinum Equity Titan		4.48	1,492

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Post Capital Equity Partners II	\$ -	\$ 455,133
PSG V	9.43	1,699,412
Raine Partners II	4.69	725,451
Raine Partners III	5.16	80,384
Reverence Capital II	3.42	69,469
Reverence Capital II Co-Invest	1.95	2,131
Reverence Capital III	1.91	116,008
Reverence Capital III Co-Invest	0.78	15,894
Riverstone/Carlyle Global Energy&PowerIV	0.04	8,240
RRE Ventures IV	1.40	1,872
Scale Venture Partners III	1.80	863
SCP Private Equity Partners II	1.20	13,227
SCP Vitalife Partners II	1.18	33,613
Siris Partners III	4.55	45,850
Siris Partners IV	19.73	378,992
Snow Phipps Group	2.55	3,817
Snow Phipps Group II	4.54	119,604
Stellex Capital Partners	3.20	43,609
Stellex Capital Partners II	4.08	427,277
Summit Partners Growth Equity VIII-A	20.64	1,444,741
Terra Firma Capital Partners III	-	956
The Resolute Fund V	14.80	408,949
Thoma Bravo Fund XV	4.90	83,184
Thoma Bravo Fund XV Co-Invest	2.00	42,350
Thomas, McNerney & Partners II	0.01	25,755
Trident V	9.86	323,460
Trilantic Capital Partners IV	0.31	7,229
Trilantic Capital Partners V	5.07	302,574
Trilantic Capital Partners VI N. America	19.61	437,380
United States Power Fund III	0.13	11,565
USPF II Institutional Fund	0.05	11,221
Valor Equity Partners III	1.17	172,047
Valor Equity Partners IV	10.45	98,458
Valor Equity Partners V	5.98	71,382
Vista Equity Partners III	0.68	4,688
Vista Equity Partners IV	23.93	130,982
Vista Equity Partners V	56.20	1,112,549
Vista Equity Partners VI	47.44	1,839,765
Vista Equity Partners VII	37.71	624,636
Vista Foundation Fund II	2.71	200,801
Vistria Fund III	3.49	54,310

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Vistria Fund IV	\$ 5.06	\$ 55,419
Warburg Pincus Financial Sector Fund	30.85	242,866
Warburg Pincus Financial Sector II	8.76	217,090
Warburg Pincus Global Growth	29.91	87,144
Warburg Pincus XI	16.59	653,079
Warburg Pincus XII	48.77	2,286,133
Webster Capital III	1.32	16,802
Wellspring Capital Partners V	2.38	20,410
Welsh Carson Anderson & Stowe XI	0.54	212,443
Welsh Carson Anderson & Stowe XII	18.32	673,204
Welsh Carson Anderson & Stowe XIII	16.24	648,102
Yucaipa American Alliance I	0.04	10,075
Yucaipa American Alliance II	11.52	15,030
Yucaipa Corporate Initiatives II	1.02	1,866
Total Private Equity	1,670.64	49,585,006
Private Real Estate		
Aermont Capital Real Estate Fund IV	5.72	113,156
AG Realty Fund VII	0.08	25,443
Almanac Realty Securities IX	0.01	54,971
Almanac Realty Securities VIII	5.72	71,108
Almanac Realty Securities VIII SideCar	4.37	22,000
American Value Partners Fund I	0.19	3,724
Ares European Real Estate Fund III	0.15	3,960
Ares Industrial Real Estate Fund	53.24	670,956
Artemis Co-Investment	7.77	88,931
Artemis Income & Growth	5.63	128,983
Avanath Affordable Housing II	-	10,823
BIG Real Estate Fund I	3.32	68,580
Blackstone RE Partners EUR VI	7.68	1,100,004
Blackstone RE Partners Europe III	0.45	1,598
Blackstone RE Partners Europe IV	5.76	131,962
Blackstone RE PTNRS IX	31.62	1,512,810
Blackstone Real Estate Partners IV	0.05	19,037
Blackstone Real Estate Partners VI	0.28	22,124
Blackstone Real Estate Partners VII	7.57	1,875,655
Blackstone Real Estate Partners VIII	26.68	2,112,346
Brookfield Strategic RE Partners IV-B	0.27	-
Brookfield Premier Real Estate Partners	35.73	300,447
Brookfield Strategic RE Partners I	5.36	872,522
Brookfield Strategic RE Partners III	25.88	281,861

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees
Canyon Johnson Urban Fund III	\$	0.00	\$ 184
Carlyle Property Investors		34.99	247,345
Carlyle Realty Partners IX		-	257,705
Carlyle Realty Partners V		0.12	666,459
Carlyle Realty Partners VI		1.68	20,633
Carlyle Realty Partners VII		4.15	257,659
CIREP Centre Street		17.16	495,916
Colony Investors VIII		0.02	93
Cortland Growth and Income		38.69	244,135
DivcoWest Fund III		0.02	16,594
DivcoWest Fund IV		2.00	836,924
DivcoWest Fund V		9.11	231,933
Divcowest Fund VI-A		5.32	(230,867)
DRA Growth and Income Fund IX		6.11	105,666
DRA Growth and Income Fund X		7.83	147,029
Elmtree U.S. Net Lease Fund IV		8.05	320,986
EPISO IV		8.69	152,411
Exeter Core Industrial Club Fund II		12.90	26,472
Exeter Industrial Core Fund III		27.29	52,439
Exeter Industrial Value Fund IV		1.43	2,520,874
Exeter Industrial Value Fund V		11.65	64,140
GreenOak Asia USD III		4.63	70,344
H/2 Special Opportunities II		0.15	16,247
H/2 Special Opportunities III		3.81	73,419
H/2 Special Opportunities IV		21.26	248,899
Harrison St Core Prop SideCar		3.63	3,334
Harrison Street Core Prop Fd		8.22	62,861
Heitman America Real Estate Trust		14.19	65,092
Heitman Capital Management LLC		9.60	69,234
Jamestown Premier Property Fund		8.42	60,580
JP Morgan Special Situation Property		9.55	93,637
JP Morgan Strategic Property Fund		26.21	142,682
Kayne Anderson Core Real Estate		11.85	25,784
KKR RE Security Dislocation Opp CoInvest		2.45	(7,655)
KKR Real Estate Credit Opp Prtnrs Agg I		21.55	287,476
KKR Real Estate Partners Americas II		10.30	187,738
KKR Real Estate Partners Americas III		22.90	490,039
KKR Real Estate Partners Europe II USD		10.19	431,756
LaSalle Centre Street RE Co-Inv Core		8.42	25,271
LaSalle Centre Street RE Co-Inv Non Core		9.41	22,952
LaSalle Property Fund		78.44	456,012

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
LBA Logistics Value Fund IX	\$ 3.35	\$ -
Lion Industrial Trust	110.79	2,557,416
Lone Star Real Estate Fund III	0.11	107,910
Lone Star Real Estate Fund V	2.76	8,185
MetLife Core Property Fund	58.30	311,863
Metropolitan Workforce Housing Fund, LLC	0.06	813
NYC Asset #1 - Vanbarton (fka Emmes)	3.12	224,089
NYC Asset #2 - Related (fka Sandy)	6.92	42,020
NYC Asset #3 - Hudson	4.78	52,078
PGIM Real Estate Capital VII	4.13	104,331
Pramerica Real Estate VI	3.94	69,984
Prologis Targeted U.S. Logistic Fund	29.14	111,868
Prudential PRISA	12.34	68,458
Prudential PRISA II	38.62	293,769
PW Real Estate Fund III	16.45	81,166
Rialto Real Estate Fund IV - Debt	13.25	564,767
RREEF America REIT II	12.87	50,027
Silverpeak Legacy Partners III	0.21	4,151
Stockbridge Real Estate Fund III A	10.65	27,924
Taconic New York City Investment Fund	0.96	10,799
The City Investment Fund	0.01	240
Thor Urban Operating Fund II	0.07	1,880
TPG RE Thematic Advantage Core-Plus IV	17.07	61,933
UBS Trumbull Property Fund	16.17	132,099
USAA Eagle Real Estate Feeder 1	31.37	313,335
Walton Street Real Estate Fund VI	1.92	6,242
Westbrook Fund XI	3.51	351,007
Westbrook Real Estate Fund VIII	0.70	9,396
Westbrook Real Estate Fund X Co-Inv	2.83	73,501
Total Private Real Estate	1,122.32	24,394,684
Real Estate Equity Securities		
Adelante-REITS	-	-
Morgan Stanley-REITS	0.00	-
Total Real Estate Equity Securities	0.00	-
Infrastructure		
Actis Energy 4	7.74	98,515
Ardian Infra Fund V	7.27	193,931
Ardian Infra Fund V Co-Invest Eden	3.33	-
ASF VII Infrastructure B	10.92	144,628
ASF VIII Infrastructure B	1.57	223,495

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees	
Axium Infrastructure Canada II Class E	\$	10.11	\$	90,777
Axium Infrastructure Canada II Class H		-		21,375
Axium Infrastructure US II Class A		6.54		208,958
Axium Infrastructure US II Class G		7.74		7,851
BIF IV Co-Invest Snow		2.60		740
BIS NYC Infra Emerging Manager Opp Fund		1.77		53,737
Brookfield Infra Fund III Co-Invest		2.98		618
Brookfield Infra Fund IV-B		17.14		287,943
Brookfield Infrastructure Fund II		12.34		69,959
Brookfield Infrastructure Fund III		13.20		109,413
EIG Energy Ptnrs Glbl Private Debt FD A		5.76		100,797
EQT Infra IV Co-Inv F SCSP Connect		4.75		1,248
EQT Infra IV Co-Inv G SCSP Lightspeed		3.85		-
EQT Infra IV Co-Inv Saber		2.31		9,498
EQT Infrastructure III		5.41		1,536,059
EQT Infrastructure IV		19.17		104,204
EQT Infrastructure V NO.2 SCSP		17.40		834,862
Global Energy & Power Infra Fund II		4.00		173,627
Global Energy & Power Infra Fund III		9.37		187,191
Global Infra Partners IV-A/B		13.15		288,609
Global Infrastructure Partners III		25.26		337,187
IFM Global Infrastructure		17.92		275,627
InfraVia European Fund V		1.79		37,997
KKR Global Infrastructure Investors II		6.18		112,882
KKR Global Infrastructure Investors III		11.40		218,497
KKR Global Infrastructure Investors IV		6.44		-
Stonepeak Infrastructure Fund IV		12.16		468,440
Stonepeak Infra IV Co-Invest Patagonia		-		-
Stonepeak Infra IV Co-Invest Tiger		4.12		493
Total Infrastructure		275.69		6,199,158
Total Management Expenses		17,544.91		132,387,443
Consultant Expenses				
CONTRO.RATING - EQ 12-31-21				1,403
HEDGE PF FUNDS FEE 09-30-21				1,014
NEW ENGLAND PENSION CONSULTANT				190,000
OTHER CONSULTING FEES				1,251,247
Total Consultant Expenses				1,443,664

Legal Expenses

BLACKROCK INFRASTRUCTURE EM

67

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
CARLYLE REALTY IX - FIDUCIARY		\$ 674
CARLYLE REALTY PARTNERS IX		5492
CVC CAPITAL PARTNERS VIII		254
DEAL : KKR GLOBAL INFRASTRUCTURE INVESTOR IV		2021
DEAL : VISTRIA FUND IV, LP		1998
DEAL: 400 CAPITAL MANAGEMENT LLC		13118
DEAL: ALMANAC REALTY SECURITIES IX		2059
DEAL: ALTIMETER PARTNERS FUND, L.P.		2230
DEAL: ANGELO GORDON SEPARATE ACCOUNT		794
DEAL: APOLLO INVESTMENT FUND IX L.P.		154
DEAL: ARTEMIS INCOME AND GROWTH		449
DEAL: ARTEMIS INCOME AND GROWTH SIDECAR FUND		215
DEAL: ASF VIII INFRASTRUCTURE		2618
DEAL: AXINFRA US II LP		7398
DEAL: BLACK CREEK INDUSTRIAL FUND		17800
DEAL: BLACKROCK INFRASTRUCTURE EMERGING MANAGER		16030
DEAL: BLACKSTONE REAL ESTATE PARTNERS IX, L.P.		798
DEAL: BREVAN HOWARD SPECIAL OPPORTUNITIES SPC		12124
DEAL: BROOKFIELD INFRASTRUCTURE FUND IV		270
DEAL: BROOKFIELD PREMIER RE PARTNERS LP		189
DEAL: BROOKFIELD STRATEGIC RE PARTNER IV		4408
DEAL: BROOKFIELD STRATEGIC RE PARTNERS IV		544
DEAL: CALEDONIA FUND		6219
DEAL: CARLYLE PROPERTY INVESTORS, L.P.		113
DEAL: CLEARLAKE CAPITAL PARTNERS VI		200
DEAL: CLEARLAKE CAPITAL PARTNERS VII, L.P.		3629
DEAL: CPC		62
DEAL: CRESTVIEW PARTNERS IV		351
DEAL: CVC CAPITAL PARTNERS VII, L.P.		18
DEAL: CVC CAPITAL PARTNERS VIII		53
DEAL: CVC PARTNERS VI (A), L.P.		19
DEAL: ELMTREE U.S. NET LEASE FUND IV		214
DEAL: EQT EXETER IND CORE-PLUS FUND IV, L.P.		7607
DEAL: EQT INFRASTRUCTURE IV (NO.2) USD SCSP		235
DEAL: EQT IX (NO.2) USD SCSP		5389
DEAL: EXETER INDUSTRIAL CORE FUND III, LP		23
DEAL: FLORIN COURT MFN REVIEW		1250
DEAL: FTV VII, SIDE CAR FUND AND CO-INVESTMENT		5362
DEAL: GENERAL INVESTMENT ADVICE		278
DEAL: GENERAL MATTERS		175
DEAL: GLOBAL ENERGY AND POWER INFRA FUND III, L.P.		309

See Report of Independent Certified Public Accountants

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
DEAL: GREEN OACK ASIA III, LP		\$ 182
DEAL: GRESHAMQUANT - ACAR FUND LLC		1362
DEAL: H/2 SPECIAL OPP IV-B		1743
DEAL: HARBOURVEST PARTNERS PE CO-INVESTMENT		11973
DEAL: HEITMAN AMERICA RE TRUST		185
DEAL: ICG CENTRE STREET PARTNERSHIP GP LIMITED		857
DEAL: INFRAVIA EUROPEAN FUND V SCSP		5191
DEAL: IP XII LP.IP XII BUYOUT ANNEX FUND LP		8982
DEAL: KKR INFRA IV		80
DEAL: KKR NORTH AMERICA FUND XIII SCSP		2756
DEAL: KKR REPA III/KKR CREDIT B		188
DEAL: KKR STRATEGIC PARTNERSHIP		923
DEAL: LASALLE GPS CUSTOMIZED FUND		2078
DEAL: LASALLE PROPERTY FUND LLP		70
DEAL: LASALLE PROPERTY FUND, L.P.		6572
DEAL: LBA LOGISTICS VALUE IX		2448
DEAL: LEXINGTON CAP. PARTNERS		3379
DEAL: LEXINGTON CAP. PARTNERS IX,		720
DEAL: LEXINGTON CAP. PARTNERS IX, CO-INVEST		3387
DEAL: LEXINGTON CAP. PARTNERS IX, LP		2904
DEAL: LIGHTBAY II		2040
DEAL: LION INDUSTRIAL TRUST		261
DEAL: LODH EURO CHOICE IV		9
DEAL: METLIFE CORE PROPERTY FUND, L.P.		156
DEAL: NB EMP		164
DEAL: NB PROGRAM		45
DEAL: NEUBERGER BERMAN EMERGING		56
DEAL: NMP III CONSENT		520
DEAL: NORDIC CAPITAL X		35
DEAL: OAK HILL SEPARATE ACCOUNT		461
DEAL: ONE ROCK CAPITAL PARTNERS III, L.P.		156
DEAL: PROJECT BECKHAM		371
DEAL: PROJECT CATALYST		876
DEAL: PROLOGIS		565
DEAL: PSG V		1,471
DEAL: REVERENCE CPO FUND V (PE FUND III) L.P.		2
DEAL: RIALTO RE FUND IV-DEBT LP		265
DEAL: RIALTO REAL ESTATE FUND IV DEBT LP		159
DEAL: RIALTO REAL ESTATE FUND IV DEBT, LP		197
DEAL: RREEF AMERICA REIT II, INC. - ADD CON		1,076
DEAL: STOCKBRIDGE REAL ESTATE FUND III HOLDING		344

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
DEAL: TPG REAL ESTATE PARTNERS IV		\$ 3,950
DEAL: VISTA EQUITY PARTNERS VII, L.P.		3,923
DEAL: VISTRIA FUND IV, LP		117
DEAL: WARBURG PINCUS FIN. SECTOR II, LP (0118)		2,334
DEAL: WARBURG PINCUS PRIVATE EQUITY XII, L.P.		18
DEAL: WCAS XIV		4,385
DEAL: ANGELOGORDON SEPARATE ACCT.		3,304
DEAL: GLOBAL INFRA PARTNERS IV-A/B		313
ELMTREE U.S. NET LEASE FUND IV, L.P.		224
GRESHAMQUANT - ACAR FUND LLC		187
INCLUSIVE CAPITAL PARTNERS SPRING FUND II		6,499
LASALLE GPS CUSTOMIZED FUND		2,001
LASALLE PROPERTY FUND, L.P.		242
MARATHON SEPARATE ACCOUNT-OFI		39
REVERENCE CAPITAL PARTNERS		5,052
TPG REAL ESTATE THEMATIC ADVANTAGE		5,143
OTHER LEGAL FEES		21,169
Total Legal Expenses		247,319
Total Consultant & Legal Expenses		1,690,983
Other Miscellaneous Expenses		
Tax expense equity dom		5,286
Tax expense equity dom ctf		-
Tax expense Intl -eq ctf		963,805
Tax expense eq intl -		5,015,903
Tax expense fixed income other		-
Misc tax exp opport fi ctf		168
Misc expense fixed income othr ctf		9,479
Misc. expenses - equity domestic ctf		-
Misc exp fixed inc mortgage		5,049
Misc exp eq Intl ctf		1,330
Misc exp Intl-		23,747
Misc exp opportunistic fi ctf		1,865

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Misc exp fixed inc other		\$ 350
other exp fi cash		23,333
custody fees fi cash		1,357
custody fees equity dom		14,224
custody fees fixed inc othr ctf		-
custody fees eq dom ctf		511
custody fees fi mortgage		16,401
custody fees fi tips		392
custody fees eq intl ctf		21,347
custody fees eq intl		93,699
custody fees opp fi ctf		4
custody fees fi other		26,740
custody fees pvt eq real est		175
custody fees hedge funds		11
FX Service Fees fi cash		111
FX Service Fees Intl		-
FX Service Fees equity Intl-		95,606
FX Service fees Alt Equity		18,466
FX Service fees Alt infrastructure		3,333
FX Service fees Alt Real Est		1,208
Hard Dollar Compensation Bank Chgs fi-govt		27
Hard Dollar Compensation Bank Chg s eq		158
Hard Dollar Compensation Chgs fx mtg -ctf		-
Hard Dollar Compensation Bank - fi other ctf		2
Hard Dollar Compensation Chgs eq dom ctf		-
Hard Dollar Compensation Chgs fi mtg		-
Hard Dollar Compensation Chgs eq intl-ctf		617
Hard Dollar Compensation chgs eq intl		2,378
Hard Dollar Compensation chgs oppor fi ctf		14
Hard Dollar Compensation Chgs pvt eq		93
Hard Dollar Compensation Chgs fxd inc othr		1,395
Hard Dollar Compensation Chgs pvt re		-
Total Other Miscellaneous Expenses		6,348,584
Total Investment Expenses	\$ 17,544.91	\$ 140,427,010

Firefighter Variable Supplement Fund

INVESTMENT MANAGEMENT FEES DOM EQUITY	-
INVESTMENT MANAGEMENT FEES FIXED OTHER CTF	26,336
INVESTMENT MANAGEMENT FEES DOM EQUITY CTF	331
INVESTMENT MANAGEMENT FEES EQ INTL CTF	23,465

**Schedule of Management Fees and Expenses
For Fiscal Year Ended June 30, 2022**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
TAX EXPENSE DOM EQUITY		\$ 148
TAX EXPENSE FX OTHER CTF		-
TAX EXPENSE EQ DOM CTF		78
ITAX EXPENSE EQ INTL CTF		230,729
MISC EXPENSE EQ DOM CTF		5
MISC EXPENSE EQ INTL CTF		530
CUSTODY FEES DOM EQUITY		5,174
CUSTODY FEES EQ DOM CTF		690
CUSTODY FEES EQ INTL CTF		4,171
HARD DOLLAR COMP FEES- FIXED OTHR CTF		4
HARD DOLLAR COMPENSATION EQ DOM CTF		3
HARD DOLLAR COMP FEES EQ INTL CTF		123
TOTAL FIREFIGHTER VSF Expenses		\$ 291,787
Fire Officer Variable Supplement Fund		
MANAGEMENT FEES EQUITY DOM		-
MANAGEMENT FEES FI OTHER CTF		18,608
MANAGEMENT FEES EQ DOM CTF		303
MANAGEMENT FEES EQ INTL CTF		17,611
TAX EXPENSE EQUITY DOM		140
TAX EXPENSE FI OTHER CTF		-
TAX EXPENSE EQ DOM CTF		71
TAX EXPENSE EQ INTL CTF		164,032
TAX EXPENSE EQ INTL		-
MISC EXPENSE EQ DOM		174
MISC EXPENSE EQ DOM CTF		4
MISC EXPENSE EQ INTL CTF		408
CUSTODY FEES EQUITY DOM		5,138
CUSTODY FEES EQ DOM CTF		626
CUSTODY FEES EQ INTL CTF		2,890
HARD DOLLAR COMP FEES- FI OTHR CTF		3
HARD DOLLAR COMPENSATION EQ DOM CTF		3
HARD DOLLAR COMP FEES EQ INTL CTF		85
TOTAL FIRE OFFICER VSF Expenses		210,096
GRAND TOTAL		\$ 140,928,893

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
ABEL NOSER	19,845.00	\$ 992.25	\$ 0.05
ABN AMRO CLEARING BANK N.V.	47,839.12	1,054.69	0.49
ACADEMY SECURITIES INC	1,546.00	30.92	0.02
ALLEN & COMPANY LLC	19,984.00	599.52	0.03
APEX CLEARING CORPORATION	69,840.00	2,793.60	0.04
ARQAM CAPITAL LIMITED	289,210.00	1,545.71	0.00
AUTREPAT-DIV RE	8,884.00	167.80	0.02
B.RILEY & CO., LLC	30,496.00	664.12	0.03
BANCO ITAU SA	124,500.00	1,468.06	0.01
BANCO PACTUAL S.A.	458,408.92	2,103.23	0.00
BANCO SANTANDER (BRASIL) S.A.	241,400.00	435.28	0.00
BANCO SANTANDER CENTRAL HISPANO	118,114.43	666.56	0.01
BANCO SANTANDER CHILE	328,365.45	68.73	0.00
BANCO SANTANDER MEXICANO, S.A.	77,192.00	327.37	0.01
BANCROFT CAPITAL LLC	9,557.00	76.46	0.01
BANK OF AMERICA CORPORATION	330,143.00	3,681.84	0.02
BARCLAYS CAPITAL	447,030.24	6,665.40	0.07
BARCLAYS CAPITAL INC	239,741.00	918.73	0.00
BARCLAYS CAPITAL INC./LE	195,136.26	1,810.41	0.01
BARCLAYS CAPITAL LE	678,827.00	8,966.12	0.01
BARRINGTON RESEARCH ASSOCIATES	1,009.00	30.27	0.03
BERNSTEIN AUTONOMOUS LLP	2,766,500.86	23,878.17	0.03
BMO CAPITAL MARKETS	184,713.11	6,337.16	0.03
BMO NESBITT BURNS INC	61,169.00	1,440.09	0.02
BNP PARIBAS PRIME BROKERAGE, INC.	409,058.20	3,082.02	0.00
BNP PARIBAS SECURITIES (ASIA) LTD.	420,502.30	300.09	0.01
BNP PARIBAS SECURITIES SERVICES	2,669,102.52	10,364.76	0.01
BNP PARIBAS SECURITIES SERVICES SA	540,541.00	538.96	0.00
BOFA SECURITIES, INC	342,020.67	1,380.76	0.01
BOFA SECURITIES, INC.	13,710,922.01	99,601.20	0.01
BRADESCO S.A. CTVM	507,958.95	1,399.24	0.00
BTG PACTUAL CASA DE BOLSA	90,188.00	78.36	-
BTG PACTUAL CHILE S.A. CORREDORES DE BOL	16,164.00	90.97	0.00
BTIG, LLC	107,440.00	3,444.38	0.03
CABRERA CAPITAL MARKETS	234,885.75	4,264.92	0.01
CABRERA CAPITAL MARKETS LLC	45,059.00	2,728.20	0.06
CANACCORD GENUITY INC.	75,018.00	2,593.31	0.04
CANTOR FITZGERALD + CO.	260,747.11	3,529.20	0.01
CANTOR FITZGERALD EUROPE	59,563.00	834.39	0.01
CARNEGIE A S	253,220.00	7,476.41	0.03
CARNEGIE INVESTMENT BANK AB	9,080.00	531.10	0.06
CARNEGIE SECURITIES FINLAND	40,410.00	847.84	0.02
CASTLEOAK SECURITIES LP	952,520.94	2,483.10	0.00
CF GLOBAL TRADING LLC	13,016.00	641.77	0.06
CGS-CIMB SECURITIES (HONG KONG) LTD	1,194,990.00	638.10	0.00
CHINA INTERNATIONAL CAPITAL CO	634,038.00	1,326.79	0.01
CHINA RENAISSANCE SECURITIES HK LTD	275,500.00	2,004.70	0.01
CIBC WORLD MARKETS CORP	1,292.00	51.68	0.04
CIBC WORLD MKTS INC	143,609.09	787.98	0.00

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
CIMB SECURITIES LTD., KOREA BRANCH	1031	\$ 49.47	\$ 0.05
CIMB-GK SECURITIES PTE.LTD.	648500	549.59	0.00
CITATION GROUP	34053	1120.7	0.03
CITIBANK CANADA	1418	38.73	0.03
CITIBANK N.A.	117174.9	2199.09	0.02
CITIBANK OF COLOMBIA	9576.57	89.97	-
CITIBANK SOUTH AFRICA	13577	305.02	0.02
CITIGROUP GLBL MARKET KOERA SECS LTD	6622.19	62.5	0.02
CITIGROUP GLOBAL MARKETS AUSTRALIA PTY	27517.71	8.16	-
CITIGROUP GLOBAL MARKETS EUROPE AG	966826.26	11687.93	0.03
CITIGROUP GLOBAL MARKETS INC	10424497.17	9933.49	0.01
CITIGROUP GLOBAL MARKETS INC.	814517.05	941.58	0.00
CITIGROUP GLOBAL MARKETS INDIA	3059725.74	11656.16	0.02
CITIGROUP GLOBAL MARKETS LIMITED	3135861.5	16219.88	0.04
CITIGROUP GLOBAL MARKETS TAIWAN	1094497.41	2007.5	0.00
CL SECURITIES TAIWAN COMPANY LIMITED	773950.38	2635.73	0.01
CLSA AMERICAS	37392	285.86	0.01
CLSA AUSTRALIA PTY LTD	994420.62	516.92	0.01
CLSA SECURITIES KOREA LTD.	517696.75	11091.49	0.07
CLSA SECURITIES MALAYSIA SDN BHD	373300	248.03	0.00
CLSA SINGAPORE PTE LTD.	4191149.59	8524.9	0.03
COMPASS POINT	3754	150.16	0.04
CORNERSTONE MACRO LLC	7403	234.01	0.02
COWEN AND COMPANY, LLC	451833.59	7847.29	0.02
CRAIG-HALLUM	27180	1096.71	0.04
CREDIT AGRICOLE CIB	36673	209.88	0.01
CREDIT LYONNAIS SECURITIES INDIA	3132171.7	7185.3	0.02
CREDIT LYONNAIS SECURITIES(ASIA)	38827488.84	42005.86	0.01
CREDIT SUISSE FIRST BOSTON	434448.21	4051.73	0.01
CREDIT SUISSE FIRST BOSTON (EUROPE)	13815.34	906.49	0.11
CREDIT SUISSE FIRST BOSTON SA CTVM	750295	4583.06	0.01
CREDIT SUISSE INTERNATIONAL	2823947.95	5022.96	0.01
CREDIT SUISSE SECS INDIA PRIVATE LTD	131295.47	2460.85	0.03
CREDIT SUISSE SECURITIES (USA) LLC	5479092.65	30346.36	0.01
CREDIT SUISSE SECURITIES CANADA INC	1987	34.25	0.02
CS FIRST BOSTON (HONG KONG) LIMITED	859400	2121.35	0.02
CSFB AUSTRALIA EQUITIES LTD	212393.91	63.06	0.00
CUTTONE & CO. INC.	1334	53.36	0.04
DAIWA CAPITAL MARKETS AMERICA INC.	300185	13242.48	0.06
DAIWA SBCM EUROPE	46700	811.75	0.03
DAIWA SECURITIES (HK) LTD.	844200	835.64	0.00
DAIWA SECURITIES COMPANY LTD	7573	310.53	0.11
DAIWA SECURITIES SB CAPITAL MARKETS	78040	344.92	0.01
DAIWA SECURITIES SMBC INDIA PR	7561	293.93	0.04
DANSKE BANK A.S.	669	60.51	0.09
DAVIDSON D.A. + COMPANY INC.	5793	171.91	0.03
DBS VICKERS SECURITIES (SINGAPORE)	128700	2669.58	0.02
DSP MERRILL LYNCH LTD	225977.12	5583.97	0.03
EUROMOBILIARE SIM S.P.A.	3207	194.04	0.06

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
EVERCORE GROUP L.L.C.	30,730.00	\$ 718.85	\$ 0.02
EVERCORE ISI	54,776.00	1,408.67	0.03
EXANE S.A.	659,295.57	10,771.00	0.03
FIDELITY CAPITAL MARKETS	260,790.00	4,414.46	0.01
FIDELITY CLEARING CANADA ULC	160,100.00	1,205.84	0.09
FINANCIAL BROKERAGE GROUP (FBG)	468,252.00	939.19	0.00
FLOW CORRETORA DE MERCADORIAS LTDA.	16,300.00	86.17	0.01
GOLDMAN SACHS (ASIA) L.L.C.	1,353,388.00	730.17	0.00
GOLDMAN SACHS (ASIA) LLC	70,524.00	1,144.02	0.05
GOLDMAN SACHS (INDIA)	968,185.24	4,898.08	0.02
GOLDMAN SACHS + CO LLC	14,625,981.42	61,516.84	0.02
GOLDMAN SACHS AUSTRALIA PTY LTD	198,061.99	106.99	0.00
GOLDMAN SACHS INTERNATIONAL	2,707,325.23	10,083.60	0.03
GOODBODY STOCKBROKERS	4,041.98	9.89	0.00
GUZMAN + CO	6,675.00	13.33	0.00
GUZMAN AND COMPANY	145,836.00	3,296.05	0.02
HAITONG INTERNATIONAL SECURITIES COMPANY	926,175.71	3,042.86	0.02
HANWHA SECURITIES SEOUL	55,875.00	2,600.37	0.06
HILLTOP SECURITIES INC	257,068.00	6,515.75	0.04
HONGKONG + SHANGHAI BANKING	47,627.00	432.17	0.01
HONGKONG AND SHANGHAI BANKING CORPORATIO	539,217.05	2,637.56	0.01
HSBC BANK PLC	1,521,249.52	12,195.78	0.23
HSBC BROKERAGE (USA) INC.	2,891.00	14.46	0.01
HSBC SECURITIES (USA) INC.	15,354,358.00	10,694.45	0.00
HSBC SECURITIES INDIA HOLDINGS	1,037,918.00	1,361.11	0.00
HYUNDAI SECURITIES	20,900.00	506.02	0.02
ICBC FINANCIAL SERVICES LLC	-	-	-
ICBCFS LLC	6,253.00	107.23	0.02
ICICI BROKERAGE SERVICES	3,793,839.00	15,479.86	0.01
IMPERIAL CAPITAL LLC	259.00	3.96	0.02
INDIA INFOLINE LTD	14,658.00	389.50	0.03
INSTINET	174,954.37	2,229.07	0.02
INSTINET AUSTRALIA CLEARING SRVC PTY LTD	1,864,601.15	1,708.97	0.00
INSTINET EUROPE LIMITED	6,013.00	171.68	0.08
INSTINET LLC	1,637,351.90	2,300.47	0.00
INSTINET PACIFIC LIMITED	36,285,162.84	16,986.29	0.00
INSTINET SINGAPORE SERVICES PT	630,492.44	799.80	0.02
INSTINET U.K. LTD	10,816,463.37	52,673.39	0.05
INVESTEC BANK PLC	1,069.00	10.66	0.01
INVESTMENT TECHNOLOGY GROUP INC.	6,281.00	188.43	0.03
ITG AUSTRALIA LTD.	529,381.39	496.76	0.02
ITG CANADA	89,699.36	347.37	0.01
ITG INC	600,419.00	747.89	0.01
J P MORGAN INDIA PRIVATE LTD	350,648.90	1,609.65	0.01
J P MORGAN SECURITIES INC	1,809,142.19	6,526.65	0.00
J.P. MORGAN SECURITIES (TAIWAN) LTD	692,827.54	825.23	-
J.P. MORGAN SECURITIES LIMITED	51,246.75	652.35	0.02
J.P. MORGAN SECURITIES LLC	786,330.28	14,523.86	0.01
J.P. MORGAN SECURITIES PLC	6,037,234.76	41,000.63	0.03

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
J.P.MORGAN SECURITIES(FAR EAST)LTD SEOUL	51,107.26	\$ 3,826.33	\$ 0.06
JANNEY MONTGOMERY SCOTT INC.	5,880.00	207.40	0.04
JB CAPITAL MKTS SOCIEDAD DE VALORES SA	23,443.00	76.00	0.00
JEFFERIES HONG KONG LIMITED	209,293.00	2,368.89	0.03
JEFFERIES INDIA PRIVATE LIMITED	458,910.36	13,036.80	0.05
JEFFERIES INTERNATIONAL LTD	3,329,270.22	5,754.37	0.01
JEFFERIES LLC	4,090,902.68	21,540.42	0.02
JMP SECURITIES	16,504.00	346.08	0.02
JOH. BERENBERG, GOSSLER & CO. KG	112,062.00	4,208.43	0.09
JONESTRADING INSTITUTIONAL SERVICES LLC	309,143.00	4,279.82	0.02
JP MORGAN BROKING HK LIMITED	33,900.00	528.41	0.01
JP MORGAN SECURITIES AUSTRALIA LTD	807,081.15	740.13	0.00
JP MORGAN SECURITIES SINGAPORE	1,703,586.48	393.98	0.00
JPMORGAN SECURITIES(ASIA PACIFIC)LTD	7,118,133.73	10,142.21	0.01
JUPITER SECURITIES SDN BHD	210,000.00	99.32	-
KEEFE BRUYETTE + WOODS INC	30,291.00	1,124.97	0.04
KEPLER CHEUVREUX	33,802.00	1,873.80	0.06
KEYBANC CAPITAL MARKETS INC	104,401.00	3,893.53	0.04
KIM ENG SECURITIES (HK) LTD.	67,200.00	94.95	0.00
KOREA INVESTMENT AND SECURITIES CO., LTD	8,813.00	261.54	0.04
KOTAK SECURITIES LTD	88,910.00	3,610.40	0.04
LARRAIN VIAL	29,501.48	19.69	-
LEERINK PARTNERS LLC	20,588.00	592.43	0.04
LIQUIDNET ASIA LIMITED	11,400.00	9.84	-
LIQUIDNET CANADA INC	3,200.00	30.97	0.01
LIQUIDNET EUROPE LIMITED	609,166.67	7,433.59	0.15
LIQUIDNET INC	244,033.00	5,066.11	0.03
LOOP CAPITAL MARKETS	5,262,966.48	58,893.60	0.01
LUMINEX TRADING AND ANALYTICS	3,658.00	18.29	0.01
LUMINEX TRADING AND ANALYTICS LLC	18,753.00	245.90	0.01
MACQUARIE BANK LIMITED	1,207,586.12	1,385.33	0.00
MACQUARIE CAPITAL (EUROPE) LTD	83,238.72	295.68	0.00
MACQUARIE CAPITAL (USA) INC	55,943.00	195.91	0.01
MACQUARIE CAPITAL SECURITIES S	7,063,203.74	7,798.45	0.00
MACQUARIE SEC NZ LTD	81,220.51	31.68	-
MACQUARIE SECURITIES (INDIA) PVT LTD	16,185.40	526.37	0.02
MACQUARIE SECURITIES KOREA LIMITED	66,595.18	3,778.12	0.04
MACQUARIE SECURITIES LIMITED	92,953.12	106.57	0.00
MAXIM GROUP	1,315.00	26.30	0.02
MERRILL LYNCH CORREDORES DE BOL	39,350.00	1,967.50	0.03
MERRILL LYNCH CANADA INC	3,077.00	75.66	0.03
MERRILL LYNCH EQUITIES (AUSTRALIA)	284,059.00	2,111.22	0.02
MERRILL LYNCH INTERNATIONAL	6,965,027.67	40,039.18	0.04
MERRILL LYNCH PIERCE FENNER AND S	561,000.00	5,347.24	0.01
MERRILL LYNCH PROFESSIONAL CLEARING CORP	1,450.00	29.00	0.02
MERRILL LYNCH, PIERCE FENNER AND SMITH	816,000.00	781.86	0.00
MERRILL LYNCH, PIERCE FENNER SMITH	148,811.00	7,440.55	0.03
MIRABAUD SECURITIES LLP	882.00	240.63	0.23
MIRAE ASSET SEC USA	1,462.00	43.86	0.03

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
MISCHLER FINANCIAL GROUP	136,952.00	\$ 2,618.17	\$ 0.03
MISCHLER FINANCIAL GROUP, INC-EQUITIES	141,468.00	4,050.85	0.03
MIZUHO SECURITIES USA INC	30,474.00	1,453.82	0.15
MIZUHO SECURITIES USA INC.	43,520.00	1,218.75	0.03
MKM PARTNERS LLC	7,460.00	285.43	0.04
MORGAN STAN INTERNATIONAL LTD	728.00	5.70	0.01
MORGAN STANLEY AND CO INTERNATIONAL	69,557.35	5,980.53	0.22
MORGAN STANLEY AND CO. INTERNATIONAL PLC	2,041,832.68	5,501.80	0.02
MORGAN STANLEY AUSTRALIA SECURITIES LTD	236,418.39	168.66	0.01
MORGAN STANLEY BANK	60.34	25.05	0.42
MORGAN STANLEY BANK AG	8,003.18	3,313.90	0.41
MORGAN STANLEY CO INCORPORATED	17,249,326.99	63,513.73	0.02
MORGAN STANLEY INDIA COMPANY PVT LTD	414,230.37	6,445.06	0.03
MORGAN STANLEY TAIWAN LIMITED	2,196,184.25	3,399.02	0.00
MOTILAL OSWAL SECURITIES LIMITED	4,580.00	338.36	0.07
NATIONAL FINANCIAL SERVICES CORPORATION	36,612.84	843.48	0.02
NBC CLEARING SERVICES INCORPORATED	18,059.00	32.80	0.00
NEEDHAM AND COMPANY LLC	77,015.00	3,016.03	0.04
NESBITT BURNS	218.00	6.54	0.03
NOMURA FINANCIAL ADVISORY + SEC INDIA	471,504.00	1,450.51	0.01
NOMURA FINANCIAL INVESTMENT KOREA CO LTD	704.29	41.97	0.01
NORTH SOUTH CAPITAL LLC	84.00	3.36	0.04
NORTHERN TRUST BROKERAGE INSTITUTION	850.00	25.50	0.03
NORTHLAND SECURITIES INC.	10,458.00	209.16	0.02
O NEIL, WILLIAM AND CO. INC/BCC CLRG	2,520.00	100.80	0.04
OPPENHEIMER + CO. INC.	23,143.00	703.24	0.04
PAREL	12,663.00	446.71	0.54
PAVILION GLOBAL MARKETS LTD	87,300.00	2,421.48	0.03
PEEL HUNT LLP	3,197.00	209.06	0.07
PENSERRA SECURITIES	474,584.00	9,290.93	0.02
PENSERRA SECURITIES LLC	504,481.00	1,164.91	0.00
PERSHING LLC	5,558,702.70	48,497.58	0.01
PERSHING SECURITIES CANADA LIMITED	15,430.00	373.34	0.03
PERSHING SECURITIES LIMITED	1,806,822.97	20,990.01	0.04
PIPER JAFFRAY & CO.	155,350.00	4,971.72	0.04
PIPER, JAFFRAY AND HOPWOOD	80,903.00	184.76	0.00
R.B.C. DOMINION SECURITIES CORPORATION	8,055.00	196.25	0.02
RAYMOND JAMES AND ASSOCIATES INC	127,599.00	5,269.24	0.05
RAYMOND JAMES LTD	6,324.00	189.72	0.03
RBC CAPITAL MARKETS LLC	290,517.00	3,290.89	0.07
RBC CAPITAL MARKETS, LLC	233,197.99	3,893.77	0.02
RBC DOMINION SECURITIES INC.	132,697.22	727.53	0.00
REDBURN (EUROPE) LIMITED	291,840.00	3,850.41	0.02
RENAISSANCE SECURITIES (CYPRUS) LIMITED	90,490.00	950.15	0.01
ROBERT W. BAIRD CO.INCORPORATED	534,102.00	11,620.33	0.02
ROTH CAPITAL PARTNERS LLC	7,036.00	345.47	0.05
ROYAL BANK OF CANADA EUROPE LTD	406,334.00	9,717.12	0.05
SAMSUNG SECURITIES CO LTD	2,874.00	183.21	0.15
SANFORD C BERNSTEIN CO LLC	210,680.00	3,622.97	0.02

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
SANFORD C. BERNSTEIN (INDIA) PRIVATE LIM	119,185.00	\$ 2,010.03	\$ 0.03
SANFORD C. BERNSTEIN AND CO. LLC	11,602,870.89	24,463.30	0.01
SCOTIA CAPITAL (USA) INC	32,979.07	240.08	0.01
SCOTIA CAPITAL INC	42,559.26	236.01	0.01
SG SECURITIES (HK) LIMITED	1,137,262.37	1,104.94	0.01
SIDCO/VIRTU AMERICAS	369.00	14.76	0.04
SINOPAC SECURITIES CORPORATION	158,000.00	674.23	0.01
SKANDINAVISKA ENSKILDA BANKEN AB GLOBAL	10,820.00	599.06	0.05
SMBC NIKKO CAPITAL MARKETS LIMITED	26,215.00	438.03	0.02
SMBC SECURITIES INC	19,900.00	222.08	0.01
SOCIETE GENERALE	1,154,873.08	2,360.52	0.01
STATE STREET BANK AND TRUST CO.	-	-	0.05
STATE STREET GLOBAL MARKETS, LLC	48,866.00	1,353.60	0.02
STEPHENS INC	70,974.00	2,571.52	0.04
STIFEL NICOLAUS + CO INC	138,375.00	4,609.80	0.03
STONEX FINANCIAL INC.	228.00	9.12	0.04
STRATEGAS SECURITIES LLC	13,740.00	488.41	0.04
STUART FRANKEL + CO INC	601.00	6.01	0.01
SUNTRUST CAPITAL MARKETS, INC.	79,523.00	2,013.13	0.04
TELSEY ADVISORY GROUP	69,194.00	3,400.73	0.05
THE BANK OF NEW YORK MELLON	87,807.00	436.64	0.00
THE HONGKONG AND SHANGHAI BANKING	653.00	466.50	0.71
TIGRESS FINANCIAL PARTNERS LLC	538.00	21.52	0.04
TORONTO DOMINION SECURITIES INC	90,458.00	497.95	0.01
TOURMALINE PARTNERS	1,426,333.00	10,452.58	0.01
TULLETT PREBON FINANCIAL SERVICES LLC	1,151.00	23.02	0.02
TUNISIE VALEURS	148.52	4.03	0.03
UBS AG	12,240,948.06	41,866.46	0.02
UBS AG LONDON BRANCH	243,090.40	3,137.50	0.02
UBS SECURITIES ASIA LTD	7,542,627.91	5,813.68	0.03
UBS SECURITIES CANADA INC	174,921.91	1,226.50	0.01
UBS SECURITIES HONG KONG LIMITED	158,000.00	130.42	0.00
UBS SECURITIES INDIA PRIVATE LTD	160,934.00	421.40	0.01
UBS SECURITIES LLC	2,168,247.03	12,465.11	0.00
UBS SECURITIES PTE.LTD	60,000.00	55.13	0.00
UBS SECURITIES PTE.LTD., SEOUL	47,143.00	4,150.29	0.12
UBS SWITZERLAND AG	7,843.09	117.82	0.01
UBS WARBURG AUSTRALIA EQUITIES	81,293.52	107.58	0.00
UOB KAY HIAN PTE LIMITED	190,400.00	946.59	0.01
VIRTU AMERICAS LLC	304,517.00	7,522.71	0.02
VIRTU ITG EUROPE LIMITED	72,334.96	2,380.97	0.29
VTB BANK EUROPE PLC	291,873,699.00	1,056.05	0.01
WALL STREET ACCESS	16,094.00	160.94	0.01
WEDBUSH SEC INC	157.00	7.85	0.02
WEDBUSH SECURITIES INC	3,090.00	123.60	0.04
WELLS FARGO SECURITIES LLC	297,897.55	2,383.11	0.01
WELLS FARGO SECURITIES, LLC	79,550.00	2,986.90	0.04
WILLIAM BLAIR & COMPANY L.L.C	127,867.00	5,421.46	0.06
WILLIAMS CAPITAL GROUP LP (THE)	18,607.54	380.06	0.01

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2022**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
WOOD GUNDY INC.	8,951.00	\$ 76.14	\$ 0.01
XP INVESTIMENTOS CCTVM SA	32,480.00	946.52	0.02
YUANTA SECURITIES CO., LTD.	75,000.00	148.46	0.00
GRAND TOTAL	628,608,312.19	\$ 1,344,780.68	\$ 0.00

Investment Summary

Fire Combined Funds
Year Ended June 30, 2022
(Dollar amount in thousands)

	<u>Market Value</u>	<u>Percent of Total Market Value</u>
Type of Investment:		
Short Term Investments:		
Commercial paper	\$ 156,638	0.77%
Short Term Investments	179,029	0.88%
U.S. Treasury Bills	179,990	0.88%
Total Short-Term	515,657	2.53%
Debt securities:		
U.S. Govt Securities and Agency	2,899,182	14.21%
Mortgage debt security	796,717	3.91%
Corporate and Other	1,546,553	7.58%
Treasury Inflation -protected securities	-	0.00%
Bank Loans	46,620	0.23%
Total debt securities	5,289,072	25.92%
Equities Securities:		
International equity	5,258,517	25.77%
Alternative investments:	1,805,750	8.85%
Infrastructure	275,604	1.35%
Opportunistic fixed income	616,087	3.02%
Private equity	1,657,719	8.13%
Private real estate	1,117,567	5.48%
Hedge Funds	861,696	4.22%
Total Alternative investments	4,528,673	22.20%
Collective trust funds:		
Bank Loans	172	0.00%
Corporate and other	66,783	0.33%
International equity	489,925	2.40%
Domestic equity	135,660	0.66%
Mortgage debt security	121,304	0.59%
Opportunistic Fixed income	53,999	0.26%
U.S. Government and agency	132,176	0.65%
Total collective trust funds:	1,000,019	4.90%
Collateral from Securities Lending	2,004,521	9.83%
Total Market Value	\$ 20,402,209	100%

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Actuarial Section

Part IV

Fiscal Year Ended June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]



OFFICE OF THE ACTUARY

255 GREENWICH STREET • 9TH 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 Fire Pension Fund
1 Battery Park Plaza 9th Floor
New York, NY 10004

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 Fire Pension Fund (FIRE 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 the 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 FIRE, 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 E of the Fiscal Year 2022 GASB67/68 Report contains information developed in accordance with GASB67 for FIRE.

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 19, 2021 and were adopted by the Board of Trustees at the July 28, 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 is a Solvency Test (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). This Solvency Test represents an alternative approach to describing progress toward funding objectives.

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:

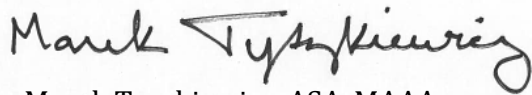
- Membership Data.
- Net Pension Liability.
- Actuarial Assumptions and Methods.
- Schedule of Changes in Employers' Net Pension Liability and Related Ratios.
- Schedule of Employer Contributions.

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.

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: Albert Connolly - New York City Fire Pension Fund
Patrick Dunn - New York City Fire Pension Fund
Amar Dyal - New York City Fire 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
Lei Tian - New York City Fire Pension Fund

NEW YORK CITY FIRE 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 19, 2021. The actuarial assumptions and methods described in that memorandum were adopted by the Board of Trustees at the July 28, 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 pre-commencement 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 lives-weighted 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.

NEW YORK CITY FIRE PENSION FUND

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.

NEW YORK CITY FIRE PENSION FUND

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 FIRE 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 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.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

14. The obligations of FIRE to the FFVSF and the FOVSF are recognized through a methodology where the PV of future VSF transfers from FIRE to the FFVSF and FOVSF is included directly as an actuarial liability of FIRE. This amount is computed as the excess, if any, of the PV of benefits of the FFVSF and FOVSF over the AVA of the FFVSF and FOVSF, 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.

NEW YORK CITY FIRE PENSION FUND

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		
Age	Years of Service Since First Eligible	
	Year 1	Ultimate
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	5.00%	0.00%
37	5.00%	0.00%
38	5.00%	1.50%
39	5.00%	1.50%
40	5.00%	1.50%
41	5.00%	1.50%
42	5.00%	1.50%
43	5.00%	1.50%
44	5.00%	1.50%
45	5.00%	1.50%
46	5.50%	1.50%
47	6.00%	1.50%
48	6.50%	1.50%
49	7.00%	1.50%
50	7.50%	1.50%
51	8.00%	1.50%
52	8.50%	2.25%
53	9.00%	3.00%
54	9.50%	3.75%
55	10.00%	4.50%
56	10.00%	5.25%
57	10.00%	6.00%
58	10.00%	6.75%
59	10.00%	7.50%
60	10.00%	9.00%
61	15.00%	11.25%
62	20.00% ¹	15.00% ¹
63	25.00% ¹	25.00% ¹
64	25.00% ¹	25.00% ¹
65	100.00%	100.00%

¹100% for Tier 3, Tier 3 Modified, and Tier 3 Enhanced members.

NEW YORK CITY FIRE PENSION FUND

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 MODIFIED, 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%

NEW YORK CITY FIRE PENSION FUND

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 Termination
0	2.00%
1	0.80%
2	0.40%
3	0.40%
4	0.40%
5	0.40%
6	0.36%
7	0.32%
8	0.28%
9	0.24%
10	0.20%
11	0.18%
12	0.16%
13	0.14%
14	0.12%
15	0.10%
16	0.10%
17	0.10%
18	0.10%
19	0.10%
20	N/A

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table 4 PROBABILITIES OF DISABILITY RETIREMENT				
		Accidental Disability		
Age	Ordinary Disability	Tier 1 & Tier 2 Eligible for WTC Benefits	Tier 1 & Tier 2 Not Eligible for WTC AND Tier 3 Enhanced Plan	Tier 3 & Tier 3 Modified Non- Enhanced Plan
15	0.0025%	0.050%	0.035%	0.030%
16	0.0025%	0.050%	0.035%	0.030%
17	0.0025%	0.050%	0.035%	0.030%
18	0.0025%	0.050%	0.035%	0.030%
19	0.0025%	0.050%	0.035%	0.030%
20	0.0025%	0.050%	0.035%	0.030%
21	0.0025%	0.050%	0.035%	0.030%
22	0.0025%	0.050%	0.035%	0.030%
23	0.0025%	0.050%	0.035%	0.030%
24	0.0025%	0.050%	0.035%	0.030%
25	0.0025%	0.050%	0.035%	0.030%
26	0.0025%	0.090%	0.045%	0.040%
27	0.0050%	0.130%	0.055%	0.050%
28	0.0075%	0.170%	0.075%	0.070%
29	0.0100%	0.210%	0.115%	0.100%
30	0.0125%	0.250%	0.175%	0.150%
31	0.0150%	0.400%	0.275%	0.240%
32	0.0175%	0.550%	0.375%	0.330%
33	0.0200%	0.700%	0.475%	0.420%
34	0.0225%	0.850%	0.575%	0.510%
35	0.0250%	1.000%	0.700%	0.600%
36	0.0275%	1.200%	0.850%	0.720%
37	0.0300%	1.400%	1.000%	0.840%
38	0.0325%	1.600%	1.150%	0.960%
39	0.0350%	1.800%	1.300%	1.080%
40	0.0375%	2.000%	1.500%	1.200%
41	0.0400%	2.200%	1.650%	1.320%
42	0.0425%	2.400%	1.800%	1.440%
43	0.0450%	2.600%	1.950%	1.560%
44	0.0475%	2.800%	2.100%	1.680%
45	0.0500%	3.000%	2.300%	1.800%
46	0.0550%	3.400%	2.650%	1.920%
47	0.0600%	3.800%	3.000%	2.040%
48	0.0650%	4.200%	3.350%	2.160%
49	0.0700%	4.600%	3.700%	2.280%
50	0.0750%	5.000%	4.050%	2.400%
51	0.1100%	5.600%	4.400%	2.520%
52	0.1450%	6.200%	4.750%	2.640%
53	0.1800%	6.800%	5.100%	2.760%
54	0.2150%	7.400%	5.450%	2.880%
55	0.2500%	8.000%	5.800%	3.000%
56	0.5000%	10.000%	8.000%	4.000%
57	0.7500%	12.000%	10.000%	5.000%
58	1.0000%	15.000%	12.500%	6.000%
59	1.2500%	18.000%	15.000%	7.000%
60	1.5000%	21.000%	17.500%	8.000%
61	2.0000%	25.000%	20.000%	9.000%
62	2.5000% ¹	30.000%	22.000% ¹	N/A
63	2.5000% ¹	30.000%	22.000% ¹	N/A
64	2.5000% ¹	30.000%	22.000% ¹	N/A
65	N/A	N/A	N/A	N/A

¹N/A for Tier 3, Tier 3 Modified, and Tier 3 Enhanced members.

NEW YORK CITY FIRE PENSION FUND

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			
Age	Ordinary Death		Accidental Death
	Males	Females	All
15	0.020%	0.015%	0.010%
16	0.020%	0.015%	0.010%
17	0.020%	0.015%	0.010%
18	0.020%	0.015%	0.010%
19	0.020%	0.015%	0.010%
20	0.020%	0.015%	0.010%
21	0.020%	0.015%	0.010%
22	0.020%	0.015%	0.010%
23	0.020%	0.015%	0.010%
24	0.020%	0.015%	0.010%
25	0.020%	0.015%	0.010%
26	0.020%	0.015%	0.010%
27	0.020%	0.015%	0.010%
28	0.020%	0.015%	0.010%
29	0.020%	0.015%	0.010%
30	0.020%	0.015%	0.010%
31	0.020%	0.015%	0.010%
32	0.020%	0.015%	0.010%
33	0.020%	0.015%	0.010%
34	0.020%	0.015%	0.010%
35	0.020%	0.015%	0.010%
36	0.021%	0.016%	0.010%
37	0.022%	0.017%	0.010%
38	0.023%	0.018%	0.010%
39	0.024%	0.019%	0.010%
40	0.025%	0.020%	0.010%
41	0.030%	0.023%	0.013%
42	0.035%	0.026%	0.016%
43	0.040%	0.029%	0.019%
44	0.045%	0.032%	0.022%
45	0.050%	0.035%	0.025%
46	0.055%	0.038%	0.030%
47	0.060%	0.041%	0.035%
48	0.065%	0.044%	0.040%
49	0.070%	0.047%	0.045%
50	0.075%	0.050%	0.050%
51	0.080%	0.055%	0.060%
52	0.085%	0.060%	0.070%
53	0.090%	0.065%	0.080%
54	0.095%	0.070%	0.090%
55	0.100%	0.075%	0.100%
56	0.110%	0.080%	0.110%
57	0.120%	0.085%	0.120%
58	0.130%	0.090%	0.130%
59	0.140%	0.095%	0.140%
60	0.150%	0.100%	0.150%
61	0.160%	0.110%	0.200%
62	0.170% ¹	0.120% ¹	0.250% ¹
63	0.180% ¹	0.130% ¹	0.300% ¹
64	0.190% ¹	0.140% ¹	0.350% ¹
65	N/A	N/A	N/A

¹Probabilities are N/A for Tier 3, Tier 3 Modified, and Tier 3 Enhanced members.

NEW YORK CITY FIRE PENSION FUND

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	1.2063%	0.7604%
16	0.0135%	0.0103%	69	1.2653%	0.8243%
17	0.0181%	0.0112%	70	1.4084%	0.9061%
18	0.0217%	0.0131%	71	1.5806%	0.9954%
19	0.0240%	0.0140%	72	1.7538%	1.0940%
20	0.0251%	0.0142%	73	1.9842%	1.2060%
21	0.0268%	0.0150%	74	2.2163%	1.3283%
22	0.0284%	0.0158%	75	2.4510%	1.4362%
23	0.0301%	0.0168%	76	2.6879%	1.6455%
24	0.0315%	0.0179%	77	2.9280%	1.8563%
25	0.0327%	0.0191%	78	3.3690%	2.0670%
26	0.0342%	0.0204%	79	3.8155%	2.3446%
27	0.0354%	0.0217%	80	4.2660%	2.6218%
28	0.0371%	0.0231%	81	4.7728%	2.8997%
29	0.0394%	0.0247%	82	5.2958%	3.1772%
30	0.0427%	0.0265%	83	6.2483%	3.4554%
31	0.0503%	0.0323%	84	7.2266%	3.9664%
32	0.0581%	0.0372%	85	8.2335%	4.4805%
33	0.0655%	0.0415%	86	9.2715%	4.9967%
34	0.0725%	0.0448%	87	10.3365%	5.5147%
35	0.0799%	0.0478%	88	11.2397%	6.0388%
36	0.0851%	0.0505%	89	12.1663%	7.0317%
37	0.0901%	0.0532%	90	13.1242%	8.0312%
38	0.0961%	0.0561%	91	14.6163%	9.4265%
39	0.1037%	0.0595%	92	16.2757%	10.8698%
40	0.1138%	0.0634%	93	18.9667%	12.3822%
41	0.1230%	0.0688%	94	21.5036%	13.7895%
42	0.1327%	0.0725%	95	23.9289%	15.2575%
43	0.1430%	0.0775%	96	25.8261%	16.7330%
44	0.1542%	0.0843%	97	27.5777%	18.2626%
45	0.1666%	0.0931%	98	29.2887%	19.6947%
46	0.1798%	0.1041%	99	30.8020%	21.1460%
47	0.1941%	0.1166%	100	32.1584%	22.1859%
48	0.2093%	0.1295%	101	33.7521%	23.0680%
49	0.2250%	0.1425%	102	35.1259%	24.0803%
50	0.2412%	0.1555%	103	36.3671%	25.2770%
51	0.2975%	0.1681%	104	37.3834%	26.6309%
52	0.3514%	0.1797%	105	38.1051%	28.0912%
53	0.4018%	0.1902%	106	38.4698%	29.6244%
54	0.4483%	0.1996%	107	38.6325%	31.1943%
55	0.4895%	0.2075%	108	38.8076%	32.7579%
56	0.5352%	0.2144%	109	38.9794%	34.2712%
57	0.5757%	0.2629%	110	50.0000%	50.0000%
58	0.6104%	0.3090%	111	50.0000%	50.0000%
59	0.6391%	0.3530%	112	50.0000%	50.0000%
60	0.6625%	0.3957%	113	50.0000%	50.0000%
61	0.7126%	0.4377%	114	50.0000%	50.0000%
62	0.7621%	0.4800%	115	50.0000%	50.0000%
63	0.8255%	0.5231%	116	50.0000%	50.0000%
64	0.9079%	0.5675%	117	50.0000%	50.0000%
65	0.9997%	0.6138%	118	50.0000%	50.0000%
66	1.0607%	0.6613%	119	50.0000%	50.0000%
67	1.1308%	0.7103%	120	100.0000%	100.0000%

NEW YORK CITY FIRE PENSION FUND

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					
Age	Males	Females	Age	Males	Females
15	0.0238%	0.0098%	68	1.5909%	1.2517%
16	0.0321%	0.0120%	69	1.7622%	1.4342%
17	0.0433%	0.0131%	70	1.9120%	1.6327%
18	0.0517%	0.0153%	71	2.1153%	1.8400%
19	0.0573%	0.0164%	72	2.3101%	2.0561%
20	0.0608%	0.0173%	73	2.4968%	2.2946%
21	0.0660%	0.0191%	74	2.6752%	2.5649%
22	0.0716%	0.0211%	75	2.8786%	2.8625%
23	0.0772%	0.0234%	76	3.2717%	3.1737%
24	0.0831%	0.0259%	77	3.6597%	3.4562%
25	0.0886%	0.0282%	78	4.0420%	3.7889%
26	0.0936%	0.0307%	79	4.4200%	4.3087%
27	0.1008%	0.0332%	80	4.8490%	4.8485%
28	0.1089%	0.0359%	81	5.6563%	5.4107%
29	0.1170%	0.0386%	82	6.4729%	5.8954%
30	0.1254%	0.0412%	83	7.2988%	6.3864%
31	0.1342%	0.0438%	84	8.1300%	7.2278%
32	0.1426%	0.0464%	85	8.9696%	8.0743%
33	0.1544%	0.0491%	86	9.7646%	8.8707%
34	0.1602%	0.0506%	87	10.5803%	9.6600%
35	0.1670%	0.0528%	88	11.4245%	10.5768%
36	0.1696%	0.0551%	89	12.3269%	11.9527%
37	0.1721%	0.0580%	90	13.2834%	13.2782%
38	0.1754%	0.0608%	91	15.7515%	14.7506%
39	0.1792%	0.0648%	92	18.1410%	15.8458%
40	0.1836%	0.0709%	93	20.4240%	16.9974%
41	0.1891%	0.0790%	94	22.5700%	18.2075%
42	0.1957%	0.0892%	95	24.6643%	19.3408%
43	0.2038%	0.1023%	96	26.5127%	20.3502%
44	0.2134%	0.1184%	97	28.2029%	21.2709%
45	0.2247%	0.1371%	98	29.5441%	21.9254%
46	0.2374%	0.1586%	99	30.9728%	22.3227%
47	0.2518%	0.1824%	100	32.1584%	22.4341%
48	0.2672%	0.2079%	101	33.7521%	23.0680%
49	0.2837%	0.2388%	102	35.1259%	24.0803%
50	0.3022%	0.2719%	103	36.3671%	25.2770%
51	0.3597%	0.2959%	104	37.3834%	26.6309%
52	0.4188%	0.3426%	105	38.1051%	28.0912%
53	0.4788%	0.3791%	106	38.4698%	29.6244%
54	0.5392%	0.4326%	107	38.6325%	31.1943%
55	0.5986%	0.4868%	108	38.8076%	32.7579%
56	0.6556%	0.5294%	109	38.9794%	34.2712%
57	0.7090%	0.5421%	110	50.0000%	50.0000%
58	0.7577%	0.5621%	111	50.0000%	50.0000%
59	0.8017%	0.6003%	112	50.0000%	50.0000%
60	0.8498%	0.6343%	113	50.0000%	50.0000%
61	0.9095%	0.6687%	114	50.0000%	50.0000%
62	0.9862%	0.7391%	115	50.0000%	50.0000%
63	1.0698%	0.8094%	116	50.0000%	50.0000%
64	1.1631%	0.8897%	117	50.0000%	50.0000%
65	1.2477%	0.9710%	118	50.0000%	50.0000%
66	1.3403%	1.0569%	119	50.0000%	50.0000%
67	1.4168%	1.1551%	120	100.0000%	100.0000%

NEW YORK CITY FIRE PENSION FUND

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

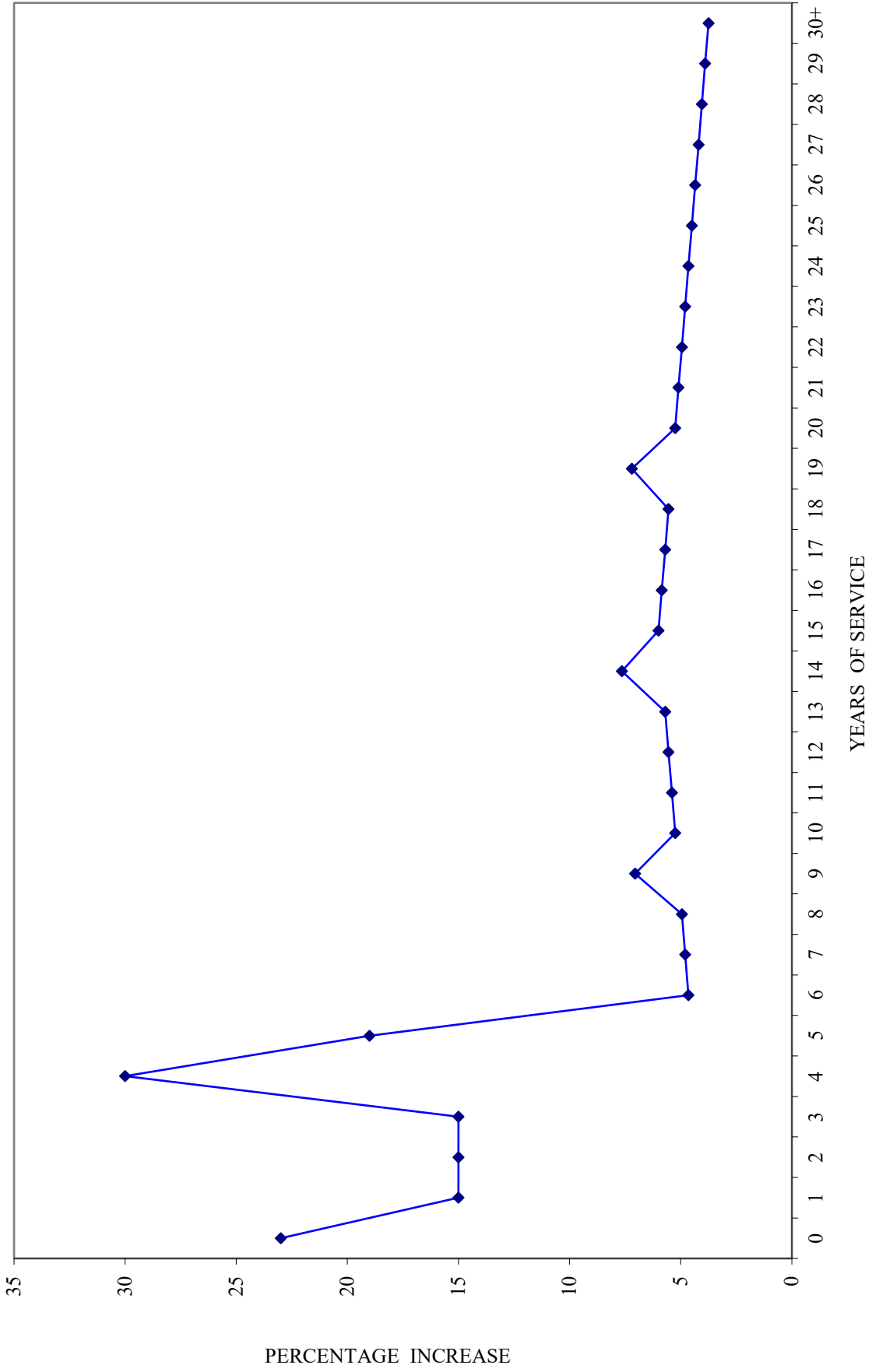
NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table 7		
ANNUAL RATES OF MERIT AND SALARY INCREASE		
Years of Service	Merit Increase	Salary Increase ¹
0	20.00%	23.00%
1	12.00%	15.00%
2	12.00%	15.00%
3	12.00%	15.00%
4	27.00%	30.00%
5	16.00%	19.00%
6	1.65%	4.65%
7	1.80%	4.80%
8	1.95%	4.95%
9	4.05%	7.05%
10	2.25%	5.25%
11	2.40%	5.40%
12	2.55%	5.55%
13	2.70%	5.70%
14	4.65%	7.65%
15	3.00%	6.00%
16	2.85%	5.85%
17	2.70%	5.70%
18	2.55%	5.55%
19	4.20%	7.20%
20	2.25%	5.25%
21	2.10%	5.10%
22	1.95%	4.95%
23	1.80%	4.80%
24	1.65%	4.65%
25	1.50%	4.50%
26	1.35%	4.35%
27	1.20%	4.20%
28	1.05%	4.05%
29	0.90%	3.90%
30+	0.75%	3.75%

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

SALARY SCALE
(From Table 7 Data)



NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2020 ACTUARIAL VALUATION (Cont'd)

Table 8				
OVERTIME ASSUMPTION				
Years of Service	All Tiers Baseline	Tier 1 & Tier 2 Dual Service	Tier 3, Tier 3 Modified, & Enhanced Dual Service	All Tiers Dual Disability
0-13	20.00%	21.00%	21.00%	20.00%
14	20.00%	22.00%	21.00%	20.00%
15	20.00%	24.00%	21.00%	20.00%
16	20.00%	25.00%	22.00%	21.00%
17	20.00%	26.00%	24.00%	22.00%
18	21.00%	28.00%	25.00%	24.00%
19	22.00%	29.00%	26.00%	25.00%
20	24.00%	30.00%	28.00%	26.00%
21	22.00%	29.00%	26.00%	25.00%
22	21.00%	28.00%	25.00%	24.00%
23	20.00%	26.00%	24.00%	22.00%
24	19.00%	25.00%	22.00%	21.00%
25	17.00%	24.00%	21.00%	20.00%
26	16.00%	21.00%	19.00%	17.00%
27	15.00%	19.00%	18.00%	15.00%
28	13.00%	16.00%	15.00%	13.00%
29	12.00%	15.00%	13.00%	12.00%
30	11.00%	13.00%	12.00%	11.00%
31	9.00%	12.00%	11.00%	10.00%
32	8.00%	11.00%	9.00%	8.00%
33	7.00%	9.00%	8.00%	7.00%
34+	7.00%	8.00%	8.00%	7.00%

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTIVE MEMBER VALUATION DATA

Table 9a NEW YORK CITY FIRE PENSION FUND ACTIVE MEMBER VALUATION DATA				
June 30 Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2011	10,650	1,125,459,668	105,677	2.9%
2012	10,267	1,106,113,386	107,735	1.9%
2013	10,182	1,129,706,314	110,951	3.0%
2014	10,319	1,150,389,645	111,483	0.5%
2015	10,780	1,164,994,036	108,070	(3.1%)
2016	10,951	1,180,226,281	107,773	(0.3%)
2017	11,091	1,256,001,332	113,245	5.1%
2018	11,237	1,305,960,137	116,220	2.6%
2019	11,244	1,336,843,002	118,894	2.3%
2020	11,079	1,348,006,398	121,672	2.3%

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.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTIVE MEMBER VALUATION DATA (Cont'd)

Table 9b				
FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND				
ACTIVE MEMBER VALUATION DATA				
June 30 Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2011	8,132	\$781,376,859	\$96,087	3.2%
2012	7,804	767,503,130	98,347	2.4%
2013	7,697	783,719,745	101,821	3.5%
2014	7,623	775,520,208	101,734	(0.1%)
2015	8,081	787,367,072	97,434	(4.2%)
2016	8,399	815,686,337	97,117	(0.3%)
2017	8,431	855,953,320	101,525	4.5%
2018	8,627	888,865,294	103,033	1.5%
2019	8,621	909,892,001	105,544	2.4%
2020	8,389	933,578,212	111,286	5.4%

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.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTIVE MEMBER VALUATION DATA (Cont'd)

Table 9c FIRE 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	2,518	\$344,082,809	\$136,649	1.3%
2012	2,463	338,610,256	137,479	0.6%
2013	2,485	345,986,569	139,230	1.3%
2014	2,696	374,869,437	139,047	(0.1%)
2015	2,699	377,626,964	139,914	0.6%
2016	2,552	364,539,944	142,845	2.1%
2017	2,660	400,048,012	150,394	5.3%
2018	2,610	417,094,843	159,806	6.3%
2019	2,623	426,951,001	162,772	1.9%
2020	2,690	414,428,186	154,063	(5.4%)

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.

NEW YORK CITY FIRE PENSION FUND

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		
SUMMARY OF PLAN MEMBERSHIP		
Group	June 30, 2020	June 30, 2019
Active members	11,079	11,244
Terminated Nonvested/Active off payroll ¹	0	28
Deferred vested members not yet receiving benefits	64	67
Retirees and beneficiaries currently receiving benefits	<u>16,624</u>	<u>16,628</u>
Total	27,767	27,967

¹Represents members who are no longer on payroll but not otherwise classified.

NEW YORK CITY FIRE PENSION FUND

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS

Table 11a

NEW YORK CITY FIRE PENSION FUND
SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS

June 30 Actuarial Valuation	Added to Rolls		Removed from Rolls		End of Year Rolls		% Increase In Annual Allowances	Average Annual Allowances
	Number	Annual Allowances ¹	Number	Annual Allowances ¹	Number	Annual Allowances ¹		
2011	653	\$64,843,804	776	\$35,553,289	17,017	\$921,210,382	3.3%	\$54,135
2012	538	58,288,645	638	26,379,782	16,917	953,119,245	3.5%	56,341
2013	453	54,522,199	563	23,448,369	16,807	984,193,075	3.3%	58,559
2014	490	54,256,974	534	23,299,539	16,763	1,015,150,510	3.1%	60,559
2015	500	59,578,951	553	22,526,507	16,710	1,052,202,954	3.6%	62,968
2016	498	110,481,515	561	22,667,718	16,647	1,140,016,751	8.3%	68,482
2017	497	77,245,492	508	21,127,518	16,636	1,196,134,725	4.9%	71,900
2018	456	65,902,484	499	21,226,999	16,593	1,240,810,210	3.7%	74,779
2019	559	78,160,361	524	24,799,933	16,628	1,294,170,638	4.3%	77,831
2020	560	157,961,990	564	28,481,496	16,624	1,423,651,132	10.0%	85,638

¹Allowances 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.

NEW YORK CITY FIRE PENSION FUND

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS (Cont'd)

Table 11b

FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND
SCHEDULE OF RETIREES ADDED TO AND REMOVED FROM THE ROLLS

June 30 Actuarial Valuation	Added to Rolls		Removed from Rolls		End of Year Rolls		% Increase In Annual Allowances	Average Annual Allowances
	Number	Annual Allowances ¹	Number	Annual Allowances ¹	Number	Annual Allowances ¹		
2011	86	\$1,032,000	168	\$2,016,000	3,938	\$47,256,000	(2.0%)	\$12,000
2012	34	408,000	156	1,872,000	3,816	45,792,000	(3.1%)	12,000
2013	61	732,000	157	1,884,000	3,720	44,640,000	(2.5%)	12,000
2014	94	1,128,000	123	1,476,000	3,691	44,292,000	(0.8%)	12,000
2015	67	804,000	137	1,644,000	3,621	43,452,000	(1.9%)	12,000
2016	55	660,000	141	1,692,000	3,535	42,420,000	(2.4%)	12,000
2017	77	924,000	138	1,656,000	3,474	41,688,000	(1.7%)	12,000
2018	50	600,000	138	1,656,000	3,386	40,632,000	(2.5%)	12,000
2019	71	852,000	152	1,824,000	3,305	39,660,000	(2.4%)	12,000
2020	68	816,000	158	1,896,000	3,215	38,580,000	(2.7%)	12,000

¹Before reduction due to increases in Supplementation/COLA from FIRE. Does not include one-time VSF DROP payments.

NEW YORK CITY FIRE PENSION FUND

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS (Cont'd)

Table 11c									
FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND									
SCHEDULE OF RETIREES ADDED TO AND REMOVED FROM THE ROLLS									
June 30 Actuarial Valuation	Added to Rolls		Removed from Rolls		End of Year Rolls		% Increase In Annual Allowances	Average Annual Allowances	
	Number	Annual Allowances ¹	Number	Annual Allowances ¹	Number	Annual Allowances ¹			
2011	39	\$468,000	58	\$696,000	1,734	\$20,808,000	(1.1%)	\$12,000	
2012	29	348,000	69	828,000	1,694	20,328,000	(2.3%)	12,000	
2013	29	348,000	70	840,000	1,653	19,836,000	(2.4%)	12,000	
2014	42	504,000	66	792,000	1,629	19,548,000	(1.5%)	12,000	
2015	37	444,000	73	876,000	1,593	19,116,000	(2.2%)	12,000	
2016	35	420,000	75	900,000	1,553	18,636,000	(2.5%)	12,000	
2017	43	516,000	60	720,000	1,536	18,432,000	(1.1%)	12,000	
2018	54	648,000	58	696,000	1,532	18,384,000	(0.3%)	12,000	
2019	63	756,000	73	876,000	1,522	18,264,000	(0.7%)	12,000	
2020	57	684,000	89	1,068,000	1,490	17,880,000	(2.1%)	12,000	

¹Before reduction due to increases in Supplementation/COLA from FIRE. Does not include one-time VSF DROP payments.

NEW YORK CITY FIRE PENSION FUND

ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY

Table 12			
ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY			
Fiscal Year Ended June 30	Actuarial Contribution Certified	Statutory Contribution Contributed ¹	Employer Rate of Contribution ²
2013	962,173,241	962,173,241	85.2%
2014	969,955,923	969,955,923	88.0%
2015	988,783,932	988,783,932	88.9%
2016	1,054,477,631	1,054,477,631	93.4%
2017	1,061,169,993	1,061,169,993	92.6%
2018	1,200,417,052	1,200,417,052	103.1%
2019	1,398,565,399	1,398,565,399	109.9%
2020	1,419,269,763	1,419,269,763	107.0%
2021	1,436,977,136	1,436,977,136	105.5%
2022	1,446,991,622	1,446,991,622	105.5%

¹ Represents total employer contributions accrued for fiscal year.

² 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.

NEW YORK CITY FIRE PENSION FUND

FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD

Table 13a						
FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD						
(\$ Thousands)						
June 30 Valuation Date	(1) Actuarial Value of Assets ¹ (AVA)	(2) Accrued Liability ² (AL)	(3) Unfunded AL (UAL) ¹ (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll ³	(6) UAL as a % of Covered Payroll (3) / (5)
2011	\$7,955,668	\$15,808,930	\$7,853,262	50.3%	\$1,125,460	697.8%
2012	8,520,769	16,358,108	7,837,339	52.1%	1,106,113	708.5%
2013	9,144,587	17,003,722	7,859,135	53.8%	1,129,706	695.7%
2014	9,808,854	18,028,695	8,219,841	54.4%	1,150,390	714.5%
2015	10,504,728	18,688,642	8,183,914	56.2%	1,164,994	702.5%
2016	11,082,451	20,125,429	9,042,978	55.1%	1,180,226	766.2%
2017	11,814,576	20,942,655	9,128,079	56.4%	1,256,001	726.8%
2018	12,876,671	21,787,888	8,911,217	59.1%	1,305,960	682.3%
2019	14,337,618	22,824,419	8,486,801	62.8%	1,336,843	634.8%
2020	15,346,377	23,491,617	8,145,240	65.3%	1,348,006	604.2%

¹ The Unfunded Accrued Liability excludes contributions receivable in the Actuarial Value of Assets.

² AL includes the accrued liabilities attributable to the Variable Supplements Funds, net of their Actuarial Asset Values, if any.

³ 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.

NEW YORK CITY FIRE PENSION FUND

FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD (Cont'd)

Table 13b FIREFIGHTERS' 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 ¹	(6) UAL as a % of Covered Payroll (3) / (5)
2011	\$461,901	\$566,192	\$104,291	81.6%	\$781,377	13.3%
2012	439,120	552,178	113,058	79.5%	767,503	14.7%
2013	419,243	549,159	129,916	76.3%	783,720	16.6%
2014	511,336	562,253	50,917	90.9%	775,520	6.6%
2015	530,699	564,447	33,748	94.0%	787,367	4.3%
2016	535,824	556,201	20,377	96.3%	815,686	2.5%
2017	547,690	500,484	(47,206)	109.4%	855,953	(5.5%)
2018	558,731	496,763	(61,968)	112.5%	888,865	(7.0%)
2019	519,268	484,742	(34,526)	107.1%	909,892	(3.8%)
2020	504,358	474,110	(30,248)	106.4%	933,578	(3.2%)

¹Salaries 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.

NEW YORK CITY FIRE PENSION FUND

FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD (Cont'd)

Table 13c FIRE 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 ¹	(6) UAL as a % of Covered Payroll (3) / (5)
2011	\$282,704	\$344,898	\$62,194	82.0%	\$344,083	18.1%
2012	277,442	341,607	64,165	81.2%	338,610	18.9%
2013	273,584	342,103	68,519	80.0%	345,987	19.8%
2014	285,203	349,589	64,386	81.6%	374,869	17.2%
2015	296,488	343,397	46,909	86.3%	377,627	12.4%
2016	313,451	344,236	30,785	91.1%	364,540	8.4%
2017	338,903	296,746	(42,157)	114.2%	400,048	(10.5%)
2018	346,860	295,492	(51,368)	117.4%	417,095	(12.3%)
2019	351,386	294,124	(57,262)	119.5%	426,951	(13.4%)
2020	355,084	292,280	(62,804)	121.5%	414,428	(15.2%)

¹Salaries 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.

NEW YORK CITY FIRE PENSION FUND

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

<p>Table 14a NEW YORK CITY FIRE PENSION FUND COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS SOLVENCY TEST (\$ Thousands)</p>							
<p>June 30 Valuation Date</p>	<p>Accrued Liabilities for</p>			<p>(D) Actuarial Value of Assets¹</p>	<p>Percentage of Accrued Liabilities Funded by Actuarial Value of Assets</p>		
	<p>(A) Accumulated Member Contribution</p>	<p>(B) Current Retirees and Beneficiaries</p>	<p>(C) Active Members' Employer-Financed Portion</p>		<p>(A)</p>	<p>(B)</p>	<p>(C)</p>
2011	\$1,037,070	\$9,949,809	\$4,872,536	\$7,955,668	100%	70%	0%
2012	1,106,357	10,270,585	4,972,364	8,520,769	100	72	0
2013	1,182,541	10,535,634	5,180,594	9,144,587	100	76	0
2014	1,281,357	11,147,573	5,486,998	9,808,854	100	76	0
2015	1,555,635	11,602,492	5,385,217	10,504,728	100	77	0
2016	1,609,720	12,822,895	5,560,855	11,082,451	100	74	0
2017	1,732,512	13,442,139	8,324,377	11,814,576	100	75	0
2018	1,850,370	13,951,781	8,612,880	12,876,671	100	79	0
2019	1,945,326	14,518,298	6,360,795	14,337,618	100	85	0
2020	2,031,800	15,124,851	6,334,966	15,346,377	100	88	0

¹ The Actuarial Value of Assets excludes contributions receivable.
See following "SOLVENCY TEST - NOTES."

NEW YORK CITY FIRE PENSION FUND

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS (Cont'd)

<p>Table 14b FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS SOLVENCY TEST (\$ Thousands)</p>							
<p>June 30 Valuation Date</p>	<p>Accrued Liabilities for</p>			<p>(D) Actuarial Value of Assets</p>	<p>Percentage of Accrued Liabilities Funded by Actuarial Value of Assets</p>		
	<p>(A) Accumulated Member Contribution</p>	<p>(B) Current Retirees</p>	<p>(C) Active Members' Employer-Financed Portion</p>		<p>(A)</p>	<p>(B)</p>	<p>(C)</p>
2011	\$0	\$429,472	\$136,720	\$461,901	100%	100%	24%
2012	0	405,847	146,331	439,120	100	100	23
2013	0	392,654	156,505	419,243	100	100	17
2014	0	394,522	167,731	511,336	100	100	70
2015	0	383,104	181,343	530,699	100	100	81
2016	0	370,075	186,126	535,824	100	100	89
2017	0	366,673	133,811	547,690	100	100	100
2018	0	354,715	142,048	558,731	100	100	100
2019	0	341,499	143,243	519,268	100	100	100
2020	0	330,941	143,169	504,358	100	100	100

NEW YORK CITY FIRE PENSION FUND

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS (Cont'd)

<p>Table 14c FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS SOLVENCY TEST (\$ Thousands)</p>							
<p>June 30 Valuation Date</p>	<p>Accrued Liabilities for</p>			<p>(D) Actuarial Value of Assets</p>	<p>Percentage of Accrued Liabilities Funded by Actuarial Value of Assets</p>		
	<p>(A) Accumulated Member Contribution</p>	<p>(B) Current Retirees</p>	<p>(C) Active Members' Employer-Financed Portion</p>		<p>(A)</p>	<p>(B)</p>	<p>(C)</p>
2011	\$0	\$180,176	\$164,722	\$282,704	100%	100%	62%
2012	0	173,590	168,017	277,442	100	100	62
2013	0	167,784	174,319	273,584	100	100	61
2014	0	167,931	181,658	285,203	100	100	65
2015	0	163,169	180,228	296,488	100	100	74
2016	0	158,211	186,025	313,451	100	100	83
2017	0	158,302	138,444	338,903	100	100	100
2018	0	157,411	138,081	346,860	100	100	100
2019	0	155,617	138,507	351,386	100	100	100
2020	0	152,948	139,332	355,084	100	100	100

NEW YORK CITY FIRE PENSION FUND

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.

NEW YORK CITY FIRE PENSION FUND

CONTRIBUTIONS

The benefits of the Fund are financed by the 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 Modified, and Tier 3 Enhanced: Basic Member Contributions - Members contribute 3.0% of salary for a maximum of 25 years.

Additional Member Contributions (AMC) – Effective September 8, 2019, Tier 3 Enhanced Plan members are required to contribute an additional 2.1% (previously 2.0%) of salary for a maximum of 25 years. Chapter 298/16 states that the AMC rate for Tier 3 Enhanced Plan members is required to be reviewed by the Actuary every 3 years.

Loans are not permitted for Tier 3, Tier 3 Modified, 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.

Table 15

AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS

June 30 Valuation Date	Service Retirement Benefits		Accidental (Line-of-Duty) Disability Benefits		Ordinary (Non-Line-of-Duty) Disability Benefits		Survivor Benefits	
	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance
	2011	5,830	41,390	8,740	68,105	1,110	48,767	1,337
2012	5,646	42,116	8,943	70,653	1,057	49,511	1,271	24,505
2013	5,487	43,289	9,094	73,041	1,012	49,840	1,214	26,354
2014	5,427	44,659	9,223	75,043	959	50,722	1,154	27,752
2015	5,305	45,932	9,390	77,701	904	51,059	1,111	29,485
2016	5,174	47,341	9,560	81,136	853	52,007	1,060	70,802
2017	5,086	49,543	9,738	84,713	787	52,899	1,025	75,701
2018	4,993	51,564	9,870	87,380	731	54,139	999	81,421
2019	4,903	53,758	10,056	90,365	686	54,622	983	85,872
2020	4,779	68,515	10,218	94,910	638	55,384	989	92,105

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Statistical Section

Part V

Fiscal Year Ended June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

The Statistical Section Narrative

The Statistical section of the New York City Fire Pension Fund's Comprehensive Annual 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 trends 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 benefit 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 the 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 assets.

Revenue Capacity

Revenue capacity information helps users evaluate the different sources of revenues for the plan. The schedules show the sources and the changes in the level of revenues over time. The main sources of revenues for the plan are investment income and employer contributions.

TABLE OF BENEFIT EXPENSES BY TYPE

(in thousands)

FISCAL YEAR	Service Retirement Payments	Ordinary Disability Payments	Accidental Disability Payments	Payments for Death in Duty	Payments of		Death Benefits Lump Sum Payments	Other Benefits*	Total
					Deceased Service and Disability	Disability			
2013	\$ 237,294	\$ 51,273	\$ 659,243	\$ 59,888	\$ 14,646	\$ 1,371	\$ 112,289	\$ 1,136,004	
2014	\$ 239,234	\$ 49,456	\$ 681,196	\$ 61,951	\$ 5,592	\$ 11,354	\$ 122,546	\$ 1,171,329	
2015	\$ 241,393	\$ 47,378	\$ 709,488	\$ 63,918	\$ 5,652	\$ 12,038	\$ 140,023	\$ 1,219,890	
2016	\$ 244,561	\$ 44,938	\$ 764,129	\$ 66,417	\$ 5,384	\$ 14,301	\$ 218,701	\$ 1,358,431	
2017	\$ 251,909	\$ 43,145	\$ 825,388	\$ 68,766	\$ 5,812	\$ 12,550	\$ 127,237	\$ 1,334,807	
2018	\$ 254,855	\$ 40,537	\$ 848,665	\$ 72,357	\$ 5,831	\$ 13,267	\$ 143,575	\$ 1,379,087	
2019	\$ 260,359	\$ 38,378	\$ 880,075	\$ 75,533	\$ 6,142	\$ 14,415	\$ 170,667	\$ 1,445,569	
2020	\$ 263,018	\$ 36,059	\$ 923,597	\$ 79,908	\$ 6,129	\$ 15,361	\$ 193,073	\$ 1,517,145	
2021	\$ 263,520	\$ 33,621	\$ 962,639	\$ 83,379	\$ 6,384	\$ 16,296	\$ 174,072	\$ 1,539,911	
2022	\$ 273,568	\$ 31,503	\$ 996,701	\$ 86,088	\$ 6,919	\$ 17,490	\$ 208,136	\$ 1,620,405	

* This represents VSF payments to firefighters, fire officers and other payments.

Statistical Section

New York City Fire Pension Funds

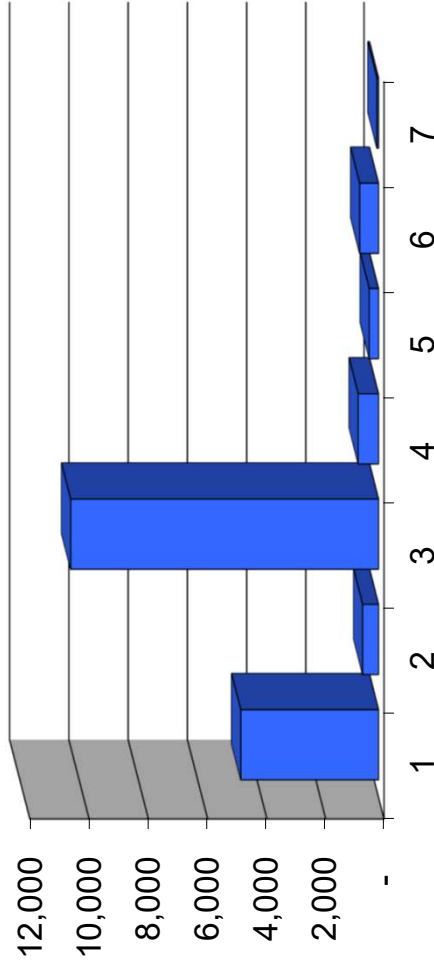
TABLE OF RETIRED MEMEBERS AND BENEFICIARIES BY TYPE OF BENEFIT

FISCAL YEAR 2022

	ORDINARY SERVICE RETIRES (1)	ACCIDENTAL DISABILITY RETIRES (1)	LINE OF DUTY BENEFITS	SERVICE BENEFICIARIES	ACCIDENTAL BENEFICIARIES	ORDINARY BENEFICIARIES	OTHER BENEFITS (2)	TOTAL NUMBERS RETIRES AND BENEFICIARIES
	4,696	546	10,436	697	319	648	55	17,397
\$	273,568	\$ 31,503	\$ 996,701	\$ 86,088	\$ 6,919	\$ 16,371	\$ 1,119	\$ 208,136
								\$ 1,620,405

ANNUAL PAYROLL AMOUNT

RETIRED MEMBERS BY TYPE OF BENEFIT



SEE TYPE OF RETIREMENT BENEFIT BELOW

- 1 - Service Retirement (20 yrs or over)
- 2 - Ordinary Disability (Non - Line of Duty)
- 3 - Accidental Disability (Line of Duty)
- 4 - Line of Duty benefits for surviving spouse
- 5 - Survivors of Service Retirees
- 6 - Survivors of Accidental Disability Retirees
- 7 - Survivors of Ordinary Disability Retirees

(1) Includes Maximum Allowance and Options.

(2) Includes City Supplements, Return of Contributions Vouchers and payments to FF, FO Variable Supplements Funds.

Statistical Section

New York City Fire Pension Funds

New York Fire Department Pension Funds
Retired Members by Type of Benefit
As of June 30, 2022

Amount of Monthly Benefits	Number of Retired Members	Type of Retirement ^a					Option Selected ^b				Exhibit 4 POP - UPS		
		1	2	3	4	5	Unmodified	1	2	3		4	
\$ 73,159	10	-	-	-	8	2	10	-	-	-	-	-	-
\$ 19,355	3	-	-	-	1	2	3	-	-	-	-	-	-
\$ 728,395	87	-	3	75	4	5	(296)	-	-	-	383	-	-
\$ 3,192,912	364	11	6	341	5	1	119	3	82	108	47	5	5
\$ 6,751,877	776	51	7	654	63	1	421	-	46	38	264	7	7
\$ 11,583,464	1,264	140	10	1,039	67	8	1,162	5	43	47	7	0	0
\$ 19,388,679	2,326	328	12	1,869	104	13	2,297	1	2	10	13	3	3
\$ 24,905,994	2,955	689	37	2,080	129	20	2,926	-	4	19	6	-	-
\$ 17,766,665	2,287	691	42	1,451	75	28	2,009	-	9	72	197	-	-
\$ 9,888,323	1,498	518	47	837	71	25	1,379	-	67	28	24	-	-
\$ 8,981,827	1,677	706	86	770	71	44	1,640	-	28	2	7	-	-
\$ 8,626,891	1,765	820	91	757	43	54	1,758	-	7	-	-	-	-
\$ 4,658,467	1,120	499	134	413	36	38	1,119	-	1	-	-	-	-
\$ 2,071,588	1,265	243	71	150	20	781	1,265	-	-	-	-	-	-
Total	17,397	4,696	546	10,436	697	1,022	15,812	9	289	324	948	15	

^a **Type of retirement:**
 1 - Service retirement
 2 - Ordinary Disability
 3 - Accidental Disability
 4 - Line of Duty (Accidental Death)
 5 - Beneficiaries (All)

^b **Option selected:**
The following options reduce the retired member's monthly benefits
Option 1 - Provides a member with a retirement allowance payable for life which is less than the Maximum Allowance.
Option 2 - Provides a member with a reduced retirement allowance with the provision that upon his or her death the same allowance will continue to be paid to his or her beneficiary for life.
Option 3 - Provides a member with a retirement allowance reduce from the Maximum Allowance, with the provision that one half of the allowance will continue to be paid to the member's beneficiary for life.
Option 4 - This option provides, upon the member's death, payment of a specified benefit or benefits actuarially sound and approved by the Actuary and the Board of Trustees.
POP - UP - (refer to Option 4-2 and Option 4-3) These are called the "POP - UPS" because they are variations of Option 2 and 3 and provide that if the beneficiary predeceases the retiree, then the retirement allowance will "Pop - Up" to the level of the Maximum Retirement Allowance.

New York Fire Department Pension Funds
Average Benefit Payments
Last Ten Years
(in thousands)

Exhibit 5

Retirement Effective Dates	Age Credited Service										90 & Up			
	Under 30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74		75-79	80-84	85-89
Period 7/1/12 to 6/30/13														
Average monthly benefit	\$ 3,880	\$ 5,217	\$ 5,070	\$ 5,597	\$ 5,949	\$ 5,922	\$ 5,798	\$ 5,120	\$ 4,547	\$ 3,868	\$ 3,393	\$ 3,136	\$ 2,677	\$ 1,554
Average final salary	\$ 46,557	\$ 62,607	\$ 60,835	\$ 67,165	\$ 71,384	\$ 71,061	\$ 69,575	\$ 61,443	\$ 54,564	\$ 46,410	\$ 40,720	\$ 37,635	\$ 32,129	\$ 18,647
Number of retired members	17	50	187	522	1,291	2,167	2,074	1,750	1,908	2,361	2,085	1,369	763	720
Period 7/1/13 to 6/30/14														
Average monthly benefit	\$ 4,339	\$ 5,345	\$ 5,390	\$ 5,891	\$ 6,164	\$ 6,247	\$ 5,985	\$ 5,389	\$ 4,707	\$ 4,047	\$ 3,477	\$ 2,504	\$ 2,848	\$ 1,665
Average final salary	\$ 52,071	\$ 64,141	\$ 64,676	\$ 70,690	\$ 73,963	\$ 74,966	\$ 71,820	\$ 64,663	\$ 56,485	\$ 48,563	\$ 41,721	\$ 30,051	\$ 34,179	\$ 19,983
Number of retired members	10	28	153	506	1,092	1,955	2,366	1,633	1,861	2,361	2,161	1,302	828	661
Period 7/1/14 to 6/30/15														
Average monthly benefit	\$ 3,784	\$ 6,265	\$ 5,642	\$ 6,154	\$ 6,412	\$ 6,483	\$ 6,250	\$ 5,630	\$ 4,934	\$ 4,160	\$ 3,647	\$ 3,319	\$ 2,909	\$ 1,796
Average final salary	\$ 45,403	\$ 75,176	\$ 67,703	\$ 73,851	\$ 76,940	\$ 77,791	\$ 75,001	\$ 67,562	\$ 59,212	\$ 49,922	\$ 43,759	\$ 39,829	\$ 34,909	\$ 21,546
Number of retired members	11	31	130	486	1,021	1,792	2,575	1,722	1,726	2,210	2,269	1,391	818	625
Period 7/1/16 to 6/30/16														
Average monthly benefit	\$ 3,697	\$ 6,148	\$ 6,172	\$ 6,280	\$ 6,525	\$ 6,707	\$ 6,446	\$ 5,919	\$ 5,120	\$ 4,306	\$ 3,764	\$ 3,386	\$ 3,022	\$ 1,958
Average final salary	\$ 44,368	\$ 73,776	\$ 74,066	\$ 75,361	\$ 78,296	\$ 80,481	\$ 77,355	\$ 71,026	\$ 61,435	\$ 51,672	\$ 45,170	\$ 40,633	\$ 36,269	\$ 23,493
Number of retired members	10	21	136	448	943	1,689	2,733	1,816	1,705	2,069	2,288	1,483	821	601
Period 7/1/16 to 6/30/17														
Average monthly benefit	\$ 3,426	\$ 6,515	\$ 6,518	\$ 6,366	\$ 6,716	\$ 6,959	\$ 6,677	\$ 6,295	\$ 5,302	\$ 4,491	\$ 3,873	\$ 3,440	\$ 3,099	\$ 2,206
Average final salary	\$ 41,117	\$ 78,179	\$ 78,217	\$ 76,386	\$ 80,588	\$ 83,508	\$ 80,121	\$ 75,542	\$ 63,626	\$ 53,892	\$ 46,477	\$ 41,275	\$ 37,193	\$ 26,466
Number of retired members	9	23	144	429	890	1,634	2,723	2,069	1,644	1,890	2,283	1,595	794	583
Period 7/1/17 to 6/30/18														
Average monthly benefit	\$ 5,538	\$ 6,546	\$ 7,086	\$ 7,219	\$ 7,396	\$ 7,724	\$ 7,319	\$ 6,782	\$ 5,745	\$ 4,849	\$ 4,101	\$ 3,613	\$ 3,323	\$ 2,407
Average final salary	\$ 66,458	\$ 78,548	\$ 85,031	\$ 86,630	\$ 88,757	\$ 92,688	\$ 87,832	\$ 81,378	\$ 68,943	\$ 58,190	\$ 49,206	\$ 43,355	\$ 39,876	\$ 28,879
Number of retired members	7	21	142	392	865	1,632	2,624	2,304	1,649	1,782	2,154	1,704	820	551
Period 7/1/18 to 6/30/19														
Average monthly benefit	\$ 5,487	\$ 7,444	\$ 7,787	\$ 7,680	\$ 7,877	\$ 8,054	\$ 7,785	\$ 7,073	\$ 6,176	\$ 5,021	\$ 4,305	\$ 3,713	\$ 3,443	\$ 2,655
Average final salary	\$ 65,844	\$ 89,327	\$ 93,445	\$ 92,165	\$ 94,520	\$ 96,645	\$ 93,420	\$ 84,877	\$ 74,114	\$ 60,254	\$ 51,658	\$ 44,551	\$ 41,319	\$ 31,864
Number of retired members	7	16	143	376	868	1,602	2,397	2,584	1,648	1,757	2,081	1,729	854	574
Period 7/1/19 to 6/30/20														
Average monthly benefit	\$ 7,620	\$ 7,053	\$ 7,923	\$ 8,035	\$ 8,165	\$ 8,303	\$ 8,233	\$ 7,419	\$ 6,626	\$ 5,415	\$ 4,535	\$ 3,928	\$ 3,579	\$ 2,868
Average final salary	\$ 91,440	\$ 84,639	\$ 95,079	\$ 96,416	\$ 97,974	\$ 99,631	\$ 98,794	\$ 89,024	\$ 79,513	\$ 64,979	\$ 54,424	\$ 47,139	\$ 42,952	\$ 34,411
Number of retired members	9	7	107	345	764	1,402	2,161	2,910	1,794	1,639	1,976	1,885	992	602
Period 7/1/20 to 6/30/21														
Average monthly benefit	\$ 6,369	\$ 5,974	\$ 7,903	\$ 8,127	\$ 8,337	\$ 8,611	\$ 8,583	\$ 7,711	\$ 7,105	\$ 5,591	\$ 4,707	\$ 4,053	\$ 3,629	\$ 3,107
Average final salary	\$ 76,427	\$ 71,684	\$ 94,834	\$ 97,529	\$ 100,038	\$ 103,329	\$ 102,994	\$ 92,537	\$ 85,263	\$ 67,095	\$ 56,480	\$ 48,641	\$ 43,549	\$ 37,288
Number of retired members	11	5	90	363	768	1,310	2,077	3,038	2,010	1,614	1,817	1,890	1,060	575
Period 7/1/21 to 6/30/22														
Average monthly benefit	\$ 7,316	\$ 6,452	\$ 8,372	\$ 8,772	\$ 9,015	\$ 9,164	\$ 9,198	\$ 8,428	\$ 7,769	\$ 6,254	\$ 5,356	\$ 4,646	\$ 4,159	\$ 3,686
Average final salary	\$ 87,791	\$ 77,420	\$ 100,468	\$ 105,261	\$ 108,174	\$ 109,970	\$ 110,372	\$ 101,141	\$ 93,223	\$ 75,054	\$ 64,271	\$ 55,747	\$ 49,912	\$ 44,233
Number of retired members	10	3	87	364	749	1,264	2,108	2,955	2,287	1,581	1,677	1,857	1,120	562

Source: Office of the Actuary City of New York
Lag 2020 for determining Final Fiscal Year 2022 Employer Contributions

New York Fire Department Pension Funds
Benefit and Refund Deductions from Net Position by Type
Last Ten Fiscal Years
(In thousands)

Exhibit 6

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Type of Benefit:										
Age and service benefits:										
Retirees	308,667	239,234	241,393	244,561	251,909	254,855	260,359	263,018	263,520	273,568
Survivors	5,776	5,592	5,652	5,384	5,812	5,831	6,142	6,129	6,384	6,919
Death in service benefits	59,888	61,951	63,918	66,417	68,766	72,357	75,533	79,908	83,379	86,088
Disability benefits:										
Retirees - duty	659,243	681,196	709,488	764,129	825,388	848,665	880,075	923,597	962,639	996,701
Retirees - nonduty	51,273	49,456	47,378	44,938	43,145	40,537	38,378	36,059	33,621	31,503
Survivors	1,371	1,716	1,793	1,794	1,420	1,331	1,335	1,238	1,165	1,119
Total benefits	\$ 1,086,218	\$ 1,039,145	\$ 1,069,622	\$ 1,127,223	\$ 1,196,440	\$ 1,223,576	\$ 1,261,822	\$ 1,309,949	\$ 1,350,708	\$ 1,395,898
Type of Refunds										
Death	8,870	9,638	10,245	12,507	11,130	11,936	13,080	14,123	15,131	16,371
Other benefits	40,916	122,546	140,023	218,701	127,237	143,575	170,667	193,073	174,072	208,136
Total refunds	\$ 49,786	\$ 132,184	\$ 150,268	\$ 231,208	\$ 138,367	\$ 155,511	\$ 183,747	\$ 207,196	\$ 189,203	\$ 224,507
Total Benefits and Refunds	\$ 1,136,004	\$ 1,171,329	\$ 1,219,890	\$ 1,358,431	\$ 1,334,807	\$ 1,379,087	\$ 1,445,569	\$ 1,517,145	\$ 1,539,911	\$ 1,620,405

Source: NYC Fire Pension Fund

Statistical Section

New York City Fire Pension Funds

SCHEDULE OF AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS

Fiscal Year	Service Retirement Benefits		Accidental (Duty) Disability Benefits		Ordinary (Non Duty) Disability Benefits		Survivor's Benefits *	
	Numbers	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance
2013	5,487	\$ 43,247	9,064	\$ 72,723	1,010	\$ 50,765	1,703	\$ 44,571
2014	5,433	\$ 44,033	9,194	\$ 63,215	958	\$ 51,624	1,695	\$ 46,370
2015	5,312	\$ 45,443	9,366	\$ 75,751	905	\$ 52,351	1,678	\$ 48,632
2016	5,188	\$ 44,659	9,548	\$ 75,043	853	\$ 50,722	1,641	\$ 53,748
2017	5,089	\$ 45,932	9,723	\$ 77,701	792	\$ 51,059	1,623	\$ 56,153
2018	5,001	\$ 47,341	9,860	\$ 81,136	735	\$ 52,007	1,630	\$ 125,148
2019	4,924	\$ 49,543	10,037	\$ 84,713	691	\$ 52,899	1,644	\$ 129,344
2020	4,793	\$ 51,564	10,217	\$ 87,380	639	\$ 54,139	1,668	\$ 137,687
2021	4,673	\$ 53,758	10,340	\$ 90,365	593	\$ 54,622	1,682	\$ 142,445
2022	4,696	\$ 68,515	10,436	\$ 94,910	546	\$ 55,384	1,719	\$ 151,249

* Includes World Trade Center Benefits

NEW YORK CITY FIRE PENSION FUNDS QPP

Schedule of Changes in Net Positions

(In thousands)

Year Ended	Additions to Funds Net Position					Deductions from Funds Net Position					Change in Net Position
	Member Contributions	Employer Contributions	Net Investment Income/(Loss)	Other Income	Total Additions	Benefit Payments	Refunds	Administrative Expenses	City Supplement and Parity	Total Deductions	
2013	\$ 104,816	\$ 962,173	\$ 961,192	\$ 38,965	\$ 2,067,146	\$ 1,063,349	\$ 816	\$ 445	\$ 21	\$ 1,064,631	\$ 1,002,515
2014	\$ 108,859	\$ 969,956	\$ 1,569,013	\$ 39,980	\$ 2,687,808	\$ 1,218,415	\$ 184	\$ 477	\$ 86	\$ 1,219,162	\$ 1,468,646
2015	\$ 108,582	\$ 988,784	\$ 271,430	\$ 41,201	\$ 1,409,997	\$ 1,189,926	\$ 186	\$ 313	\$ 80	\$ 1,190,505	\$ 219,492
2016	\$ 116,619	\$ 1,054,478	\$ 197,398	\$ 43,673	\$ 1,412,168	\$ 1,325,938	\$ 939	\$ 786	\$ 72	\$ 1,327,735	\$ 84,433
2017	\$ 108,368	\$ 1,061,170	\$ 1,284,871	\$ 47,284	\$ 2,501,693	\$ 1,309,624	\$ 1,190	\$ 685	\$ 61	\$ 1,311,560	\$ 1,190,133
2018	\$ 108,338	\$ 1,200,417	\$ 1,188,860	\$ 9,411	\$ 2,507,026	\$ 1,321,565	\$ 1,850	\$ 6,412	\$ 52	\$ 1,329,879	\$ 1,177,147
2019	\$ 108,015	\$ 1,398,565	\$ 933,889	\$ 16,057	\$ 2,456,526	\$ 1,374,365	\$ 1,680	\$ 9,861	\$ 45	\$ 1,385,951	\$ 1,070,575
2020	\$ 106,821	\$ 1,419,270	\$ 681,383	\$ 17,842	\$ 2,225,316	\$ 1,464,264	\$ 2,928	\$ 9,131	\$ 36	\$ 1,476,359	\$ 748,957
2021	\$ 112,566	\$ 1,436,977	\$ 3,757,865	\$ 758	\$ 5,308,166	\$ 1,474,885	\$ 919	\$ 10,345	\$ 31	\$ 1,486,180	\$ 3,821,986
2022	\$ 134,469	\$ 1,446,992	\$ (1,454,918)	\$ 953	\$ 127,496	\$ 1,550,587	\$ 570	\$ 12,711	\$ 25	\$ 1,563,893	\$ (1,436,397)

FIRE FIGHTER'S VARIABLE SUPPLEMENTS FUND

Schedule of Changes in Net Positions

(In thousands)

Year Ended	Additions to Funds Net Position					Deductions from Funds Net Position					Change in Net Position
	Net Investment Income/(Loss)	Other Income	Transfer Skim Earning	Payment from QPP-Int. on skim	Total Additions	Benefit Payments	Total Deductions				
2013	\$ 46,267	\$ 290	\$ -	\$ -	\$ 46,557	\$ 48,539	\$ 48,539	\$ -	\$ -	\$ (1,982)	
2014	\$ 68,971	\$ 56	\$ 110,000	\$ -	\$ 179,027	\$ 50,425	\$ 50,425	\$ -	\$ -	\$ 128,602	
2015	\$ 18,661	\$ 227	\$ 30,000	\$ -	\$ 48,888	\$ 47,415	\$ 47,415	\$ -	\$ -	\$ 1,473	
2016	\$ 4,325	\$ 344	\$ 18,739	\$ -	\$ 23,408	\$ 46,002	\$ 46,002	\$ -	\$ -	\$ (22,594)	
2017	\$ 46,467	\$ 288	\$ 23,914	\$ -	\$ 70,669	\$ 47,273	\$ 47,273	\$ -	\$ -	\$ 23,396	
2018	\$ 35,168	\$ 238	\$ 15,000	\$ -	\$ 50,406	\$ 46,572	\$ 46,572	\$ -	\$ -	\$ 3,834	
2019	\$ 27,838	\$ 141	\$ (14,000)	\$ -	\$ 13,979	\$ 44,744	\$ 44,744	\$ -	\$ -	\$ (30,765)	
2020	\$ 21,387	\$ 130	\$ (15,000)	\$ 12,792	\$ 19,309	\$ 44,348	\$ 44,348	\$ -	\$ -	\$ (25,039)	
2021	\$ 119,044	\$ 113	\$ -	\$ -	\$ 119,157	\$ 43,617	\$ 43,617	\$ -	\$ -	\$ 75,540	
2022	\$ (72,666)	\$ 141	\$ -	\$ -	\$ (72,525)	\$ 43,559	\$ 43,559	\$ -	\$ -	\$ (116,084)	

FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND

Schedule of Changes in Net Positions

(in thousands)

Year Ended	Additions to Funds Net Position						Deductions from Funds Net Position			Change in Net Position
	Net Investment Income/(Loss)	Other Income	Transfer Skim Earning	Payment from QPP-Int. on skim	Total Additions	Benefit Payments	Total Deductions			
2013	\$ 34,492	\$ 190	\$ -	\$ -	\$ 34,682	\$ 22,834	\$ 22,834	\$ 11,848		
2014	\$ 51,265	\$ 180	\$ 10,000	\$ -	\$ 61,445	\$ 21,742	\$ 21,742	\$ 39,703		
2015	\$ 12,056	\$ 193	\$ 10,000	\$ -	\$ 22,249	\$ 21,970	\$ 21,970	\$ 279		
2016	\$ 758	\$ 279	\$ 18,134	\$ -	\$ 19,171	\$ 21,567	\$ 21,567	\$ (2,396)		
2017	\$ 39,855	\$ 240	\$ 21,829	\$ -	\$ 61,924	\$ 21,717	\$ 21,717	\$ 40,207		
2018	\$ 25,303	\$ 162	\$ -	\$ -	\$ 25,465	\$ 24,048	\$ 24,048	\$ 1,417		
2019	\$ 20,381	\$ 99	\$ -	\$ -	\$ 20,480	\$ 24,735	\$ 24,735	\$ (4,255)		
2020	\$ 15,748	\$ 91	\$ -	\$ 7,365	\$ 23,204	\$ 25,726	\$ 25,726	\$ (2,522)		
2021	\$ 86,151	\$ 84	\$ -	\$ -	\$ 86,235	\$ 20,459	\$ 20,459	\$ 65,776		
2022	\$ (55,519)	\$ 105	\$ -	\$ -	\$ (55,414)	\$ 25,664	\$ 25,664	\$ (81,078)		

Statistical Section

New York City Fire Pension Funds

NEW YORK CITY FIRE PENSION FUNDS
SCHEDULE OF REVENUES BY SOURCE

(in thousands)

Fiscal Year Ended June 30	Member Contributions	Employer Contributions	Other Income/(Loss)	Interest and Dividends	Appreciation (Depreciation) In fair value of investments	Total	% of Annual Covered Payroll
2013	\$ 104,816	\$ 962,173	\$ 6,469	\$ 255,805	\$ 819,122	\$ 2,148,385	N/A
2014	\$ 108,859	\$ 969,956	\$ (3,557) *	\$ 277,940	\$ 1,455,082	\$ 2,808,280	N/A
2015	\$ 108,582	\$ 988,784	\$ (21,420)	\$ 361,802	\$ 3,386	\$ 1,441,134	N/A
2016	\$ 116,619	\$ 1,054,478	\$ 3,768	\$ 302,881	\$ (59,872)	\$ 1,417,874	N/A
2017	\$ 108,368	\$ 1,061,170	\$ (31,590)	\$ 314,960	\$ 1,135,635	\$ 2,588,543	N/A
2018	\$ 108,338	\$ 1,200,417	\$ (83,037)	\$ 349,627	\$ 992,552	\$ 2,567,897	N/A
2019	\$ 108,015	\$ 1,398,565	\$ (83,217)	\$ 374,555	\$ 693,067	\$ 2,490,985	N/A
2020	\$ 106,821	\$ 1,419,270	\$ (74,625)	\$ 368,525	\$ 427,681	\$ 2,247,672	N/A
2021	\$ 112,566	\$ 1,436,977	\$ (100,491)	\$ 390,911	\$ 3,673,595	\$ 5,513,558	N/A
2022	\$ 134,469	\$ 1,446,992	\$ (135,681)	\$ 488,806	\$ (1,935,029)	\$ (443)	N/A

* Other Income/(loss) Included.

Source: Combined Statement of Changes in Fiduciary Net Position

NEW YORK CITY FIRE PENSION FUNDS

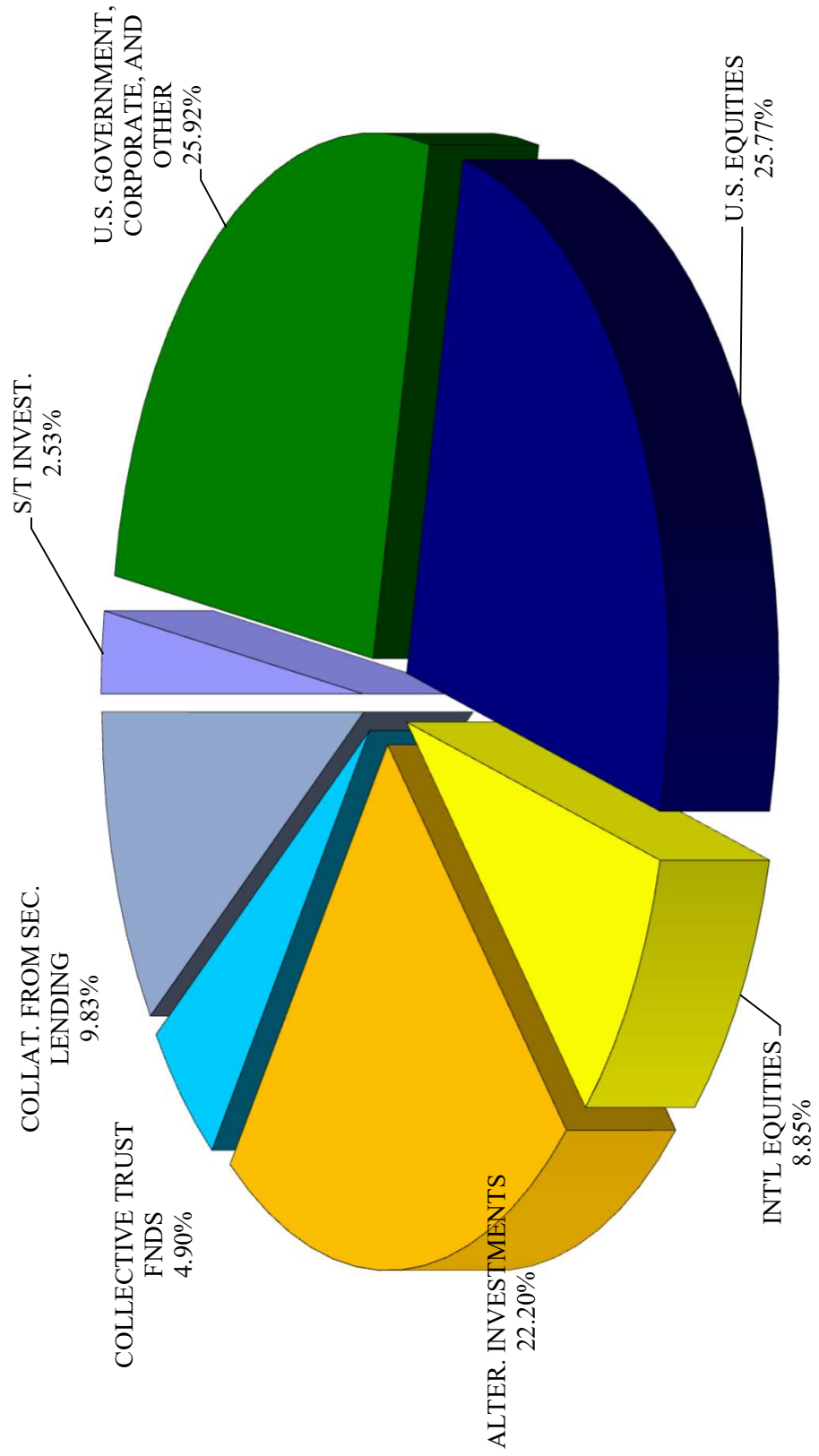
SCHEDULE OF EXPENSES BY TYPE

(in thousands)

Fiscal Year Ended June 30	Benefit Payments	Refunds	Administrative Expenses	Other Payments	Total
2013	\$ 1,134,722	\$ 816	\$ 445	\$ 21	\$ 1,136,004
2014	\$ 1,170,582	\$ 184	\$ 477	\$ 86	\$ 1,171,329
2015	\$ 1,219,311	\$ 186	\$ 313	\$ 80	\$ 1,219,890
2016	\$ 1,356,634	\$ 939	\$ 786	\$ 72	\$ 1,358,431
2017	\$ 1,332,871	\$ 1,190	\$ 685	\$ 61	\$ 1,334,807
2018	\$ 1,377,185	\$ 1,850	\$ 6,412	\$ 52	\$ 1,385,499
2019	\$ 1,443,844	\$ 1,680	\$ 9,861	\$ 45	\$ 1,455,430
2020	\$ 1,514,181	\$ 2,928	\$ 9,131	\$ 36	\$ 1,526,276
2021	\$ 1,538,953	\$ 919	\$ 10,345	\$ 39	\$ 1,550,256
2022	\$ 1,607,099	\$ 570	\$ 12,711	\$ 25	\$ 1,620,405

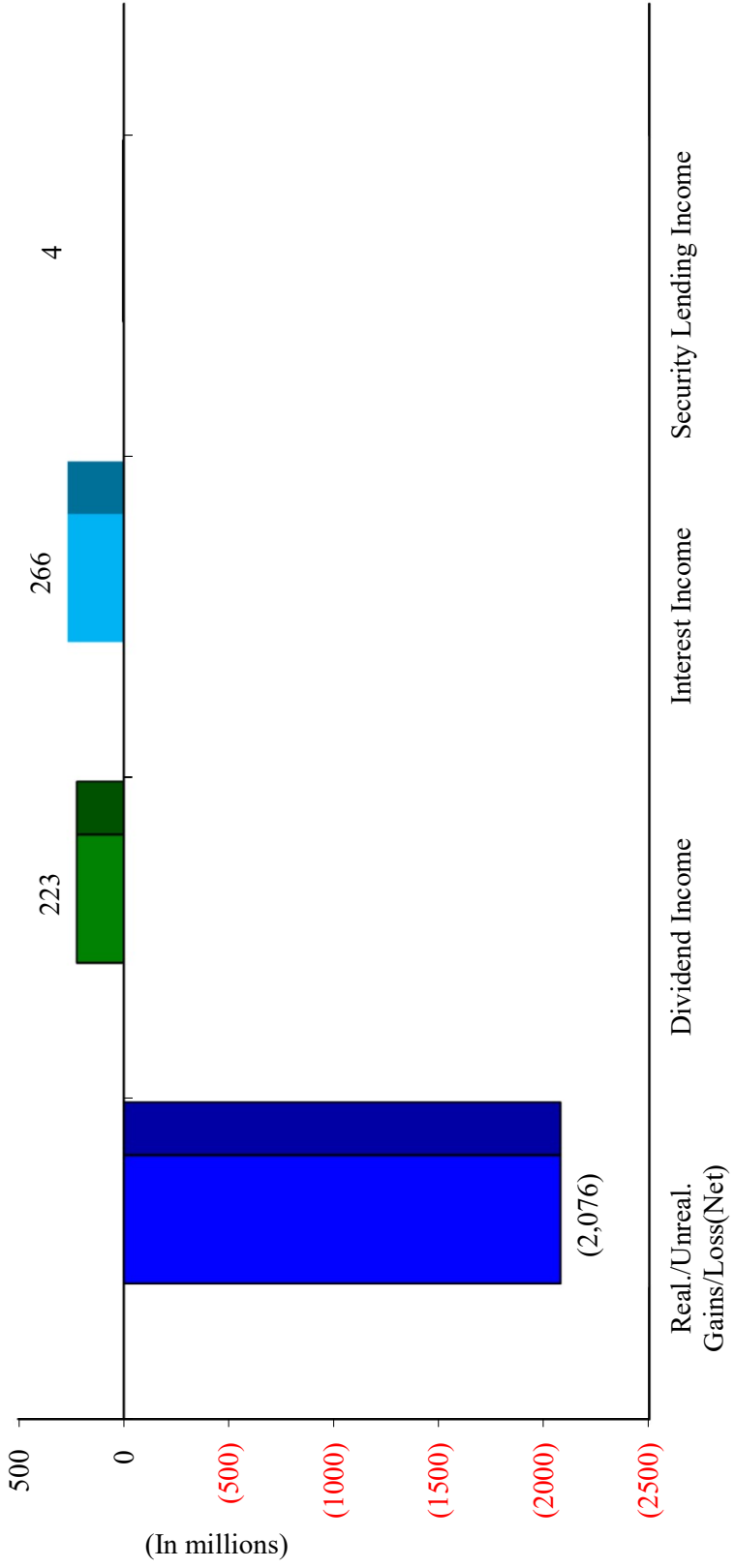
* includes additional expenses related to Corpus funding effective September 2016

TOTAL INVESTMENTS FISCAL YEAR 2022
Fire Funds Combined
(At Market Value)



INVESTMENT INCOME Fire Funds Combined

Fiscal Year 2022



**Table of Compensation to Administrative Officials & Commissions &
Payments to Brokers and Consultants
Fiscal Year ended June 30, 2022**

<u>Official Plan Position</u>		<u>Salary or Allowance Paid</u>
Comptroller's Office Executive Management Costs	\$	18,201
Deputy Comptroller Asset Management (Personal Service Costs)	\$	540,739
Deputy Comptroller Asset Management (Outside Service Costs)	\$	859,816
First Deputy Personal Service Costs	\$	78,701
Administrative Support Cost	\$	53,562
Office of Management and Budget	\$	87,184
Legal Advisors	\$	102,171
Financial Information Service Agency (FISA)	\$	441,014
Office of Payroll Administration (OPA)	\$	69,712
Office of the Actuary	\$	1,309,448
Pension Fund Administrative Expenses	\$	12,711,527 *
Investment Advisors	\$	140,928,892 *
Securities Lending Fees	\$	468,628 *
Total	\$	157,669,595

*Exempt for Administrative Expenses, Investment advisors and Securities Lending Fees. These expenses to other City Agencies on behalf of the New York City Fire Pension Funds

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Appendix A
Census Data for Active Members
As of June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

NEW YORK CITY FIRE 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
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	53	0	0	0	0	0	0	0	0	53
25 TO 29	902	221	0	0	0	0	0	0	0	1,123
30 TO 34	925	872	104	0	0	0	0	0	0	1,901
35 TO 39	208	513	858	464	2	0	0	0	0	2,045
40 TO 44	24	55	450	1,417	230	1	0	0	0	2,177
45 TO 49	1	2	136	857	545	131	1	0	0	1,673
50 TO 54	2	0	4	142	494	337	105	0	0	1,084
55 TO 59	0	0	0	2	132	214	207	96	0	651
60 TO 64	0	0	0	0	1	36	64	91	34	226
65 TO 69	0	0	0	1	1	0	1	4	4	11
70 & UP	0	0	0	0	0	1	0	0	0	1
TOTAL	2,115	1,663	1,552	2,883	1,405	720	378	191	38	10,945

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	2,949	0	0	0	0	0	0	0	0	2,949
25 TO 29	57,810	24,219	0	0	0	0	0	0	0	82,029
30 TO 34	63,650	99,071	13,064	0	0	0	0	0	0	175,785
35 TO 39	15,854	60,216	110,952	62,164	294	0	0	0	0	249,481
40 TO 44	1,928	6,413	58,477	193,400	33,082	123	0	0	0	293,422
45 TO 49	67	320	17,715	118,175	79,824	19,746	120	0	0	235,967
50 TO 54	260	0	582	19,409	71,696	51,350	16,362	0	0	159,659
55 TO 59	0	0	0	293	18,972	31,162	31,659	16,046	0	98,132
60 TO 64	0	0	0	0	163	5,363	9,425	14,380	5,976	35,307
65 TO 69	0	0	0	162	163	0	121	569	527	1,541
70 & UP	0	0	0	0	0	164	0	0	0	164
TOTAL¹	142,518	190,239	200,790	393,603	204,193	107,907	57,688	30,995	6,503	1,334,436

AVERAGE SALARIES:²

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	55,650	0	0	0	0	0	0	0	0	55,650
25 TO 29	64,091	109,589	0	0	0	0	0	0	0	73,045
30 TO 34	68,811	113,613	125,619	0	0	0	0	0	0	92,470
35 TO 39	76,222	117,380	129,315	133,975	147,091	0	0	0	0	121,996
40 TO 44	80,313	116,606	129,949	136,485	143,833	122,649	0	0	0	134,783
45 TO 49	66,526	159,859	130,258	137,894	146,466	150,734	120,333	0	0	141,044
50 TO 54	129,971	0	145,422	136,685	145,134	152,373	155,824	0	0	147,287
55 TO 59	0	0	0	146,526	143,725	145,617	152,944	167,148	0	150,741
60 TO 64	0	0	0	0	162,592	148,970	147,272	158,027	175,761	156,227
65 TO 69	0	0	0	161,545	162,592	0	121,074	142,161	131,731	140,070
70 & UP	0	0	0	0	0	163,638	0	0	0	163,638
TOTAL	67,384	114,395	129,375	136,526	145,333	149,871	152,613	162,279	171,126	121,922

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

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

NEW YORK CITY FIRE 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
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	29	2	0	0	0	0	0	0	0	31
30 TO 34	25	8	3	0	0	0	0	0	0	36
35 TO 39	7	7	2	4	0	0	0	0	0	20
40 TO 44	2	3	3	9	3	0	0	0	0	20
45 TO 49	0	0	5	8	4	0	0	0	0	17
50 TO 54	1	2	0	1	2	0	0	0	0	6
55 TO 59	1	1	0	0	1	0	0	0	0	3
60 TO 64	0	0	0	0	0	0	0	0	0	0
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	0	1	0	0	0	0	1
TOTAL	65	23	13	22	11	0	0	0	0	134

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	1,780	243	0	0	0	0	0	0	0	2,023
30 TO 34	1,688	911	331	0	0	0	0	0	0	2,930
35 TO 39	605	853	257	494	0	0	0	0	0	2,209
40 TO 44	157	380	384	1,224	401	0	0	0	0	2,546
45 TO 49	0	0	675	1,068	575	0	0	0	0	2,318
50 TO 54	134	354	0	145	304	0	0	0	0	936
55 TO 59	133	161	0	0	152	0	0	0	0	445
60 TO 64	0	0	0	0	0	0	0	0	0	0
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	0	163	0	0	0	0	163
TOTAL¹	4,496	2,902	1,647	2,931	1,594	0	0	0	0	13,570

AVERAGE SALARIES:²

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	0	0	0	0	0	0	0	0	0	0
25 TO 29	61,382	121,431	0	0	0	0	0	0	0	65,257
30 TO 34	67,508	113,873	110,463	0	0	0	0	0	0	81,391
35 TO 39	86,415	121,922	128,531	123,492	0	0	0	0	0	110,469
40 TO 44	78,438	126,694	128,049	136,001	133,550	0	0	0	0	127,288
45 TO 49	0	0	134,968	133,480	143,706	0	0	0	0	136,324
50 TO 54	133,815	176,932	0	145,122	151,812	0	0	0	0	156,071
55 TO 59	132,788	160,500	0	0	152,072	0	0	0	0	148,453
60 TO 64	0	0	0	0	0	0	0	0	0	0
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	0	162,895	0	0	0	0	162,895
TOTAL	69,172	126,163	126,726	133,225	144,915	0	0	0	0	101,271

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

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

NEW YORK CITY FIRE 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
<i>NUMBER:</i>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	53	0	0	0	0	0	0	0	0	53
25 TO 29	931	223	0	0	0	0	0	0	0	1,154
30 TO 34	950	880	107	0	0	0	0	0	0	1,937
35 TO 39	215	520	860	468	2	0	0	0	0	2,065
40 TO 44	26	58	453	1,426	233	1	0	0	0	2,197
45 TO 49	1	2	141	865	549	131	1	0	0	1,690
50 TO 54	3	2	4	143	496	337	105	0	0	1,090
55 TO 59	1	1	0	2	133	214	207	96	0	654
60 TO 64	0	0	0	0	1	36	64	91	34	226
65 TO 69	0	0	0	1	1	0	1	4	4	11
70 & UP	0	0	0	0	1	1	0	0	0	2
TOTAL	2,180	1,686	1,565	2,905	1,416	720	378	191	38	11,079

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	2,949	0	0	0	0	0	0	0	0	2,949
25 TO 29	59,590	24,462	0	0	0	0	0	0	0	84,052
30 TO 34	65,338	99,982	13,396	0	0	0	0	0	0	178,715
35 TO 39	16,459	61,069	111,209	62,658	294	0	0	0	0	251,690
40 TO 44	2,084	6,793	58,861	194,624	33,482	123	0	0	0	295,967
45 TO 49	67	320	18,390	119,243	80,399	19,746	120	0	0	238,285
50 TO 54	394	354	582	19,554	72,000	51,350	16,362	0	0	160,595
55 TO 59	133	161	0	293	19,124	31,162	31,659	16,046	0	98,578
60 TO 64	0	0	0	0	163	5,363	9,425	14,380	5,976	35,307
65 TO 69	0	0	0	162	163	0	121	569	527	1,541
70 & UP	0	0	0	0	163	164	0	0	0	327
TOTAL¹	147,014	193,140	202,438	396,534	205,787	107,907	57,688	30,995	6,503	1,348,006

AVERAGE SALARIES:²

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	55,650	0	0	0	0	0	0	0	0	55,650
25 TO 29	64,006	109,695	0	0	0	0	0	0	0	72,835
30 TO 34	68,777	113,615	125,194	0	0	0	0	0	0	92,264
35 TO 39	76,554	117,441	129,313	133,885	147,091	0	0	0	0	121,884
40 TO 44	80,169	117,127	129,936	136,482	143,701	122,649	0	0	0	134,714
45 TO 49	66,526	159,859	130,425	137,853	146,446	150,734	120,333	0	0	140,997
50 TO 54	131,252	176,932	145,422	136,744	145,161	152,373	155,824	0	0	147,335
55 TO 59	132,788	160,500	0	146,526	143,788	145,617	152,944	167,148	0	150,731
60 TO 64	0	0	0	0	162,592	148,970	147,272	158,027	175,761	156,227
65 TO 69	0	0	0	161,545	162,592	0	121,074	142,161	131,731	140,070
70 & UP	0	0	0	0	162,895	163,638	0	0	0	163,267
TOTAL	67,438	114,555	129,353	136,501	145,330	149,871	152,613	162,279	171,126	121,672

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

¹ Total may not add up due to rounding.

² Average based on unrounded salary.

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

New York City Fire Pension Funds
Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York



Appendix B
Census Data for Pensioners
As of June 30, 2022

[THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY]

NEW YORK CITY FIRE 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)

AGE	MALE			FEMALE			TOTAL		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<i>SERVICE RETIREMENT:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	0	0	0	0	0	0
40 TO 44	11	972,167	88,379	0	0	0	11	972,167	88,379
45 TO 49	50	4,290,658	85,813	1	95,543	95,543	51	4,386,201	86,004
50 TO 54	140	13,352,139	95,372	0	0	0	140	13,352,139	95,372
55 TO 59	328	32,599,314	99,388	0	0	0	328	32,599,314	99,388
60 TO 64	687	60,496,568	88,059	2	190,623	95,312	689	60,687,191	88,080
65 TO 69	686	55,725,380	81,232	5	440,034	88,007	691	56,165,414	81,281
70 TO 74	600	38,453,578	64,089	1	46,118	46,118	601	38,499,696	64,059
75 TO 79	706	41,359,228	58,582	0	0	0	706	41,359,228	58,582
80 TO 84	819	43,463,605	53,069	1	47,687	47,687	820	43,511,292	53,063
85 TO 89	499	24,430,431	48,959	0	0	0	499	24,430,431	48,959
90 & UP	243	11,470,815	47,205	0	0	0	243	11,470,815	47,205
TOTAL	4,769	326,613,883	68,487	10	820,005	82,001	4,779	327,433,888	68,515
<i>ORDINARY DISABILITY:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	3	189,747	63,249	0	0	0	3	189,747	63,249
40 TO 44	6	269,001	44,834	0	0	0	6	269,001	44,834
45 TO 49	7	300,760	42,966	0	0	0	7	300,760	42,966
50 TO 54	10	466,946	46,695	0	0	0	10	466,946	46,695
55 TO 59	12	363,443	30,287	0	0	0	12	363,443	30,287
60 TO 64	36	995,077	27,641	1	29,895	29,895	37	1,024,972	27,702
65 TO 69	42	1,196,012	28,476	0	0	0	42	1,196,012	28,476
70 TO 74	47	2,678,463	56,989	0	0	0	47	2,678,463	56,989
75 TO 79	86	5,963,745	69,346	0	0	0	86	5,963,745	69,346
80 TO 84	183	11,714,040	64,011	0	0	0	183	11,714,040	64,011
85 TO 89	134	7,352,849	54,872	0	0	0	134	7,352,849	54,872
90 & UP	71	3,815,214	53,735	0	0	0	71	3,815,214	53,735
TOTAL	637	35,305,297	55,424	1	29,895	29,895	638	35,335,192	55,384
<i>ACCIDENTAL DISABILITY:</i>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	74	7,641,444	103,263	1	69,307	69,307	75	7,710,751	102,810
40 TO 44	340	36,227,627	106,552	1	136,309	136,309	341	36,363,936	106,639
45 TO 49	653	71,663,998	109,746	1	80,176	80,176	654	71,744,174	109,701
50 TO 54	1,038	115,799,430	111,560	1	87,173	87,173	1,039	115,886,603	111,537
55 TO 59	1,650	185,156,700	112,216	1	104,679	104,679	1,651	185,261,379	112,212
60 TO 64	2,072	217,846,130	105,138	8	725,045	90,631	2,080	218,571,175	105,082
65 TO 69	1,449	144,657,040	99,832	2	213,954	106,977	1,451	144,870,994	99,842
70 TO 74	833	67,605,500	81,159	4	378,951	94,738	837	67,984,451	81,224
75 TO 79	770	51,482,408	66,860	0	0	0	770	51,482,408	66,860
80 TO 84	757	42,434,323	56,056	0	0	0	757	42,434,323	56,056
85 TO 89	413	20,171,294	48,841	0	0	0	413	20,171,294	48,841
90 & UP	150	7,308,550	48,724	0	0	0	150	7,308,550	48,724
TOTAL	10,199	967,994,444	94,911	19	1,795,594	94,505	10,218	969,790,038	94,910

NEW YORK CITY FIRE 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)

AGE	MALE			FEMALE			TOTAL		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<i>ACCIDENTAL DEATH:</i>									
UNDER 30	0	0	0	8	732,322	91,540	8	732,322	91,540
30 TO 34	0	0	0	1	101,716	101,716	1	101,716	101,716
35 TO 39	0	0	0	4	603,756	150,939	4	603,756	150,939
40 TO 44	0	0	0	5	608,293	121,659	5	608,293	121,659
45 TO 49	0	0	0	36	4,468,516	124,125	36	4,468,516	124,125
50 TO 54	0	0	0	67	8,784,367	131,110	67	8,784,367	131,110
55 TO 59	0	0	0	104	13,824,526	132,928	104	13,824,526	132,928
60 TO 64	1	64,829	64,829	128	17,713,773	138,389	129	17,778,602	137,819
65 TO 69	1	75,459	75,459	74	9,774,229	132,084	75	9,849,688	131,329
70 TO 74	2	122,145	61,073	69	8,519,857	123,476	71	8,642,002	121,718
75 TO 79	0	0	0	71	7,478,486	105,331	71	7,478,486	105,331
80 TO 84	1	73,962	73,962	42	4,130,733	98,351	43	4,204,695	97,784
85 TO 89	0	0	0	36	3,214,699	89,297	36	3,214,699	89,297
90 & UP	0	0	0	20	1,489,609	74,480	20	1,489,609	74,480
TOTAL	5	336,395	67,279	665	81,444,882	122,474	670	81,781,277	122,062
<i>OTHER BENEFICIARIES:</i>									
UNDER 30	1	93,127	93,127	1	52,464	52,464	2	145,591	72,796
30 TO 34	0	0	0	2	130,545	65,273	2	130,545	65,273
35 TO 39	0	0	0	5	236,482	47,296	5	236,482	47,296
40 TO 44	0	0	0	1	101,543	101,543	1	101,543	101,543
45 TO 49	1	122,869	122,869	0	0	0	1	122,869	122,869
50 TO 54	0	0	0	8	511,510	63,939	8	511,510	63,939
55 TO 59	1	23,535	23,535	12	591,956	49,330	13	615,491	47,345
60 TO 64	0	0	0	20	809,985	40,499	20	809,985	40,499
65 TO 69	0	0	0	28	1,117,874	39,924	28	1,117,874	39,924
70 TO 74	0	0	0	25	855,264	34,211	25	855,264	34,211
75 TO 79	0	0	0	44	1,498,054	34,047	44	1,498,054	34,047
80 TO 84	0	0	0	54	1,658,338	30,710	54	1,658,338	30,710
85 TO 89	0	0	0	38	732,329	19,272	38	732,329	19,272
90 & UP	0	0	0	78	774,862	9,934	78	774,862	9,934
TOTAL	3	239,531	79,844	316	9,071,206	28,706	319	9,310,737	29,187
<i>ALL PENSIONERS AND BENEFICIARIES:</i>									
UNDER 30	1	93,127	93,127	9	784,786	87,198	10	877,913	87,791
30 TO 34	0	0	0	3	232,261	77,420	3	232,261	77,420
35 TO 39	77	7,831,191	101,704	10	909,545	90,955	87	8,740,736	100,468
40 TO 44	357	37,468,795	104,955	7	846,145	120,878	364	38,314,940	105,261
45 TO 49	711	76,378,285	107,424	38	4,644,235	122,217	749	81,022,520	108,174
50 TO 54	1,188	129,618,515	109,106	76	9,383,050	123,461	1,264	139,001,565	109,970
55 TO 59	1,991	218,142,992	109,565	117	14,521,161	124,112	2,108	232,664,153	110,372
60 TO 64	2,796	279,402,604	99,929	159	19,469,321	122,449	2,955	298,871,925	101,141
65 TO 69	2,178	201,653,891	92,587	109	11,546,091	105,927	2,287	213,199,982	93,223
70 TO 74	1,482	108,859,686	73,455	99	9,800,190	98,992	1,581	118,659,876	75,054
75 TO 79	1,562	98,805,381	63,256	115	8,976,540	78,057	1,677	107,781,921	64,271
80 TO 84	1,760	97,685,930	55,503	97	5,836,758	60,173	1,857	103,522,688	55,747
85 TO 89	1,046	51,954,574	49,670	74	3,947,028	53,338	1,120	55,901,602	49,912
90 & UP	464	22,594,579	48,695	98	2,264,471	23,107	562	24,859,050	44,233
TOTAL	15,613	1,330,489,550	85,217	1,011	93,161,582	92,148	16,624	1,423,651,132	85,638

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 FIREFIGHTERS' 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

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	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	11	132,000	12,000	0	0	0	11	132,000	12,000
45 TO 49	29	348,000	12,000	1	12,000	12,000	30	360,000	12,000
50 TO 54	85	1,020,000	12,000	0	0	0	85	1,020,000	12,000
55 TO 59	233	2,796,000	12,000	0	0	0	233	2,796,000	12,000
60 TO 64	459	5,508,000	12,000	0	0	0	459	5,508,000	12,000
65 TO 69	456	5,472,000	12,000	4	48,000	12,000	460	5,520,000	12,000
70 TO 74	393	4,716,000	12,000	1	12,000	12,000	394	4,728,000	12,000
75 TO 79	469	5,628,000	12,000	0	0	0	469	5,628,000	12,000
80 TO 84	567	6,804,000	12,000	1	12,000	12,000	568	6,816,000	12,000
85 TO 89	369	4,428,000	12,000	0	0	0	369	4,428,000	12,000
90 & UP	137	1,644,000	12,000	0	0	0	137	1,644,000	12,000
TOTAL	3,208	38,496,000	12,000	7	84,000	12,000	3,215	38,580,000	12,000

NEW YORK CITY FIRE 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

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	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	0	0	0	0	0	0	0	0	0
45 TO 49	13	156,000	12,000	0	0	0	13	156,000	12,000
50 TO 54	41	492,000	12,000	0	0	0	41	492,000	12,000
55 TO 59	89	1,068,000	12,000	0	0	0	89	1,068,000	12,000
60 TO 64	219	2,628,000	12,000	2	24,000	12,000	221	2,652,000	12,000
65 TO 69	226	2,712,000	12,000	1	12,000	12,000	227	2,724,000	12,000
70 TO 74	200	2,400,000	12,000	0	0	0	200	2,400,000	12,000
75 TO 79	230	2,760,000	12,000	0	0	0	230	2,760,000	12,000
80 TO 84	246	2,952,000	12,000	0	0	0	246	2,952,000	12,000
85 TO 89	127	1,524,000	12,000	0	0	0	127	1,524,000	12,000
90 & UP	96	1,152,000	12,000	0	0	0	96	1,152,000	12,000
TOTAL	1,487	17,844,000	12,000	3	36,000	12,000	1,490	17,880,000	12,000