
New York City Fire Pension Funds



Annual Comprehensive Financial Report
A Fiduciary Fund of The City of New York
For The Fiscal Years Ended
June 30, 2021 and June 30, 2020

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, 2021 and June 30, 2020

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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, 2021

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Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

New York Fire Department Pension Funds

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2020

Christopher P. Morrill

Executive Director/CEO

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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 20, 2021

TO: The Board of Trustees
New York City Fire Pension Funds

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, 2021. 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 headquarters located at One Battery Park Plaza, 9th Floor, New York, NY 10004. The consolidation was completed on July 1, 2019 and has resulted in streamlined operations and improved member services.

The COVID 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 vaccinated levels and fall in hospitalization and deaths rates from COVID. However, new variants continue 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. In October, Fund staff returned to the office full-time, with necessary COVID safety precautions in place.

Management’s primary goal is to deliver the highest level of services to members and their beneficiaries. Our intent is to ensure accurate and timely payment of benefits to retirees and beneficiaries, and to 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 as well as by use of virtual technology, telephones, and the hosting of socially distanced meetings and seminars 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 2021, the pension managers and key personnel of the Fund successfully completed the processing of approximately 160 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 for over 530 members during Fiscal Year 2021. 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 retirement seminars two times monthly at the Fund's headquarters. 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 2021 and Outlook for Fiscal Year 2022**

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 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 2021, the Bureau of Economic Analysis (BEA) reported that the U.S. economy had grown at an average annual rate of 6.7%, 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 11.1% at the end of June 2020 to 5.9% by June 2021. The Federal Reserve Bank ("FRB") in press releases during September 2021, 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 5.4% 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 a 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' short-term interest rate at levels between 0.0% and 0.25%.

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 2021. The Comptroller's Office reported that by close of Fiscal Year 2021 employment in New York City stood at 3.6 million, an increase of almost 226,000 jobs compared to the previous period. However, some sources of revenue for the City, such as the small business and tourism sectors continue to be depressed.

During the early half of Fiscal Year 2022, new variants of the COVID-19 virus continue to drive the public health crisis and negatively impact the economy. BLS reported the unemployment rate at 4.8% by the end of September 2021. The BEA report in October 2021 indicated that GDP had increased at an annual rate of 2.0% for third quarter 2021 (advance estimates), as compared to the growth of 6.1% 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 Delta surge of the COVID -19 virus will continue to pose risk to the economy. The Comptroller's Office also anticipates that the effects of the Delta surge will pose the greatest threat to the City's economy. Generally, the outlook for fiscal year 2022 remains mixed even as economic activity and employment continue to improve.

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 2021, Fire's QPP investment portfolio of approximately \$19.0 billion under management, posted gains of 24.9 %, while the corresponding Policy Index posted gains of 24.8%. The FFVSF's investment portfolio of approximately \$567.5 million gained 25.1 %, while the corresponding Policy Index gained 24.9%. The FOVSF's investment portfolio of approximately \$413.1 million gained 25.3% and the Policy Index gained 24.9%. 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 Numbers 67 and 68. This ratio stands at 79.9 % for Fiscal Year 2021, an increase from 66.1% 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 Governmental Accounting Standards Board (“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 pages 121 through 136 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 137 through 143. 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, 2021, and 2020 on the general-purpose financial statements and schedules of historical information required by the Governmental Accounting Standard Board (“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 2021, 2020 and 2019. 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 Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2020. 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 annual comprehensive 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 2021.

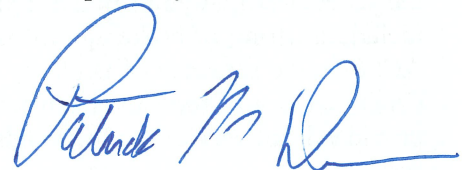
Acknowledgements

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.

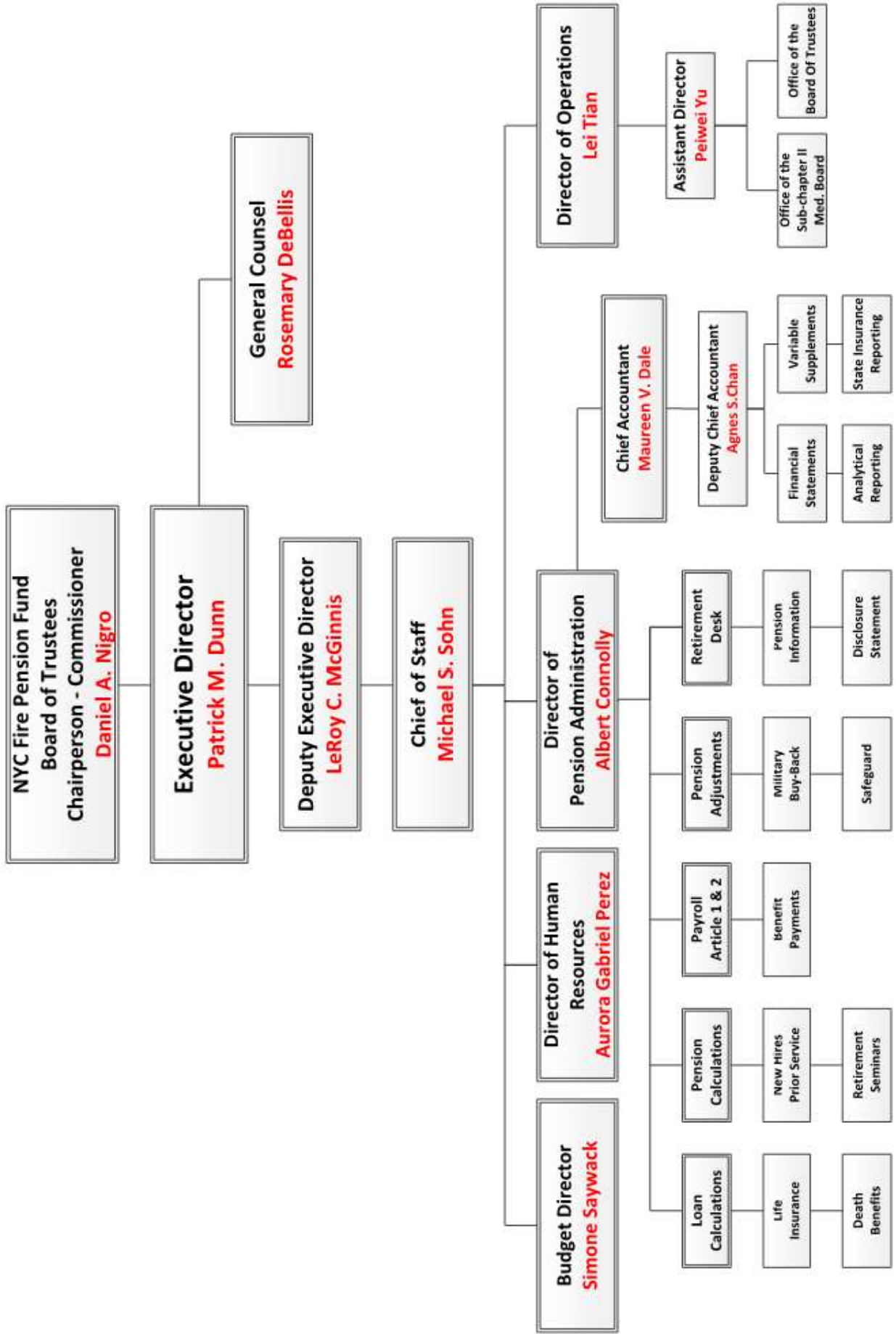
Finally, I wish to thank the staff of the Fund for their outstanding efforts, and our management team for their leadership and commitment. Together, we will continue to work diligently to enhance the delivery of member services and to assure the success of our operations.

Respectfully submitted,



Patrick M. Dunn
Executive Director

ADMINISTRATIVE ORGANIZATION



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MEMBERS OF THE BOARD OF TRUSTEES

As of June 30, 2021

Bill de Blasio	Mayor, City of New York
Daniel A. Nigro	Fire Commissioner and Chairperson
Scott M. Stringer	Comptroller, City of New York
Jacques Jiha	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
John Kelly	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

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New York City Fire Pension Funds

Summary

Of Funds Benefits



Tier I – Tier II & Tier III

Fiscal Year Ended June 30, 2021

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Summary Funds and Options Benefits

TIERS I & II

The Fire Department Pension Fund, Subchapter II, (the “Fund”) is a corporation, separate from the Fire Department of The City of New York, your employer. 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 on or after July 1, 1973 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 provides some increases in benefits, along with somewhat higher member and City contributions.

Although closed to new entrants, the “Original Plan” covered pre-7/1/81 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 Fire Department Pension Fund on or after July 1, 1981 are covered only by the “Improved Benefits Plan.” Unless specifically stated otherwise, all information in this Summary Plan Description refers to members of the IBP only.

SUMMARY

<u>Date of Membership</u>	<u>Tier</u>	<u>Applicable Plan</u>
Pre-7/1/73	1	Original of Improved Benefits Plan
7/1/73-6/30/81	2	Original of Improved Benefits Plan
Post-6/30/81	2	Improved Benefits Plan

If your membership date or equated date is between June 17, 1971 and June 30, 1973, you 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. 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 Bureau 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 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: From March 27, 1976 through September 30, 2000, the ITHP rate was 2.5%.

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 since his/her required contribution rate of 2.5% is less than the current Social Security rate of 6.2%. 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 considering requesting a refund of excess contributions are reminded that 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) of Fire Alarm Dispatcher.

It also includes 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 you were a member of a City retirement system at the time you entered military service and you 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 548 of the Laws of 2000 allows members to purchase pension credit for up to three (3) years of certain wartime military service rendered prior to the commencement of the public employment. A member must have at least five (5) years of credited service to be eligible to receive credit under this law.

Chapter 646 of the Laws of 1999 – Tier Reinstatement: This law amends §645 of the RSSL 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. If membership in the prior retirement system is based on certain designated law enforcement service, such service will be credited as “allowable” up-front service, towards the required 20-year period. For this purpose, such service shall include:

- a) Uniformed service in the police department, fire department or sanitation department of The City of New York or the State of New York or any agency or political subdivision thereof;
- b) Service as a peace officer as specified in §2.10 of the Criminal Procedure law (CPL); or
- c) Service in the title of sheriff, deputy sheriff, marshal district attorney investigator, or other State law enforcement positions. This benefit is available only where the member restores his or her refunded contribution balance with interest. In some cases, this may provide for a reinstatement of Tier status.

- * Chapter 552 of the Laws of 2000 – Prior Service Credit: This law allows members who were eligible for membership in any of the New York State or New York City retirement systems, but did not become members of such system, to buy pension credit for the time that was eligible for membership. If membership in the prior retirement system is based on certain designated law enforcement service, such service will be credited as “allowable” up-front service. For this purpose, such service shall include:
- a) Uniformed service in the police department, fire department or sanitation department of the City of New York or the State of New York or any agency or political subdivision thereof;
 - b) Service as a peace officer as specified in §2.10 of the Criminal Procedure Law (CPL); or
 - c) Service in the title of sheriff, deputy sheriff, marshal, district attorney investigator, or other State law enforcement positions. Except for the service indicated above, all other service will be “Other Credited Service,” which counts as additional service credit after the completion of twenty (20) years in the fire pension system.

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. Time not transferred can be purchased as a buyback under Chapter 646 or Chapter 552. All such Other Credited Service must be applied for within the time limits prescribed by law and transferred to the Fire Department Pension Fund.

RETIREMENT PROCESS

SERVICE RETIREMENT

Members may retire for service (non-disability) after completing 20 years of uniformed service. To initiate Service Retirement, Form BP-165 must be submitted through the chain of command. The Retirement Counseling Unit must receive the form at least (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 the application for retirement, the FDNY Medical Board must evaluate the member for a duty determination before he/she can return to full duty.

DISABILITY RETIREMENT

A member may apply either for 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 BP-409 (2 copies). 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 Form BP-409, whether or not there has been an examination by a Bureau of Health Services (BHS) physician or by the BHS Medical Board. However, the BHS Medical Board is required to make a determination of the member's fitness for duty status prior to or during the disability pension application process. When any officer submits an application for disability retirement, vacation leaves, 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 Board, which is comprised of three or more FDNY medical officers. The BHS Medical Board makes fitness for duty determinations. The BHS Medical Board examines the member and may make one of the following determinations:

- 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 Directive 78-14, the member may remain on Light Duty for up to one year.
- c) Undetermined. This requires examination by the full BHS Medical Board at the monthly meeting of all medical officers.
- d) Full Duty.

Fire Commissioner's Application for Disability Retirement:

Pursuant to Mayoral Executive Order 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 Board. Within thirty days of the BHS Medical Board's determination that a member is permanently unfit for full firefighting duty (REC/LSS), the transcript or minutes from the BHS Medical Board are forwarded to the Pension Bureau Retirement Desk. The Pension Bureau Retirement Desk is then required to file a Fire Commissioner's Application for Disability Retirement with the 1-B Medical Board.

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

The 1-B Medical Board is composed of three physicians and is independent of both the Fire Department and the Pension Board of Trustees. The 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 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 1-B Medical Board's disability determination is binding upon the Pension 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 1-B Medical Board must evaluate all of the evidence and report its conclusions and recommendations to the Pension Board of Trustees.

The 1-B Medical Board's recommendation on the cause of a disability for retirement purposes is based on a review of the relevant medical records contained in the member's medical chart (from the Bureau of Health Services) and any additional documents submitted by the member, including relevant CD-72s.

Often, during its initial review of a case, the 1-B Medical Board may request that one of its impartial medical consultants evaluate the member.

The medical consultant will be a specialist that deals with the member's specific medical condition. After its initial review, the 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 1-B Medical Board has evaluated the consultant's report or other additional evidence.

The 1-B Medical Board's certification of each is forwarded to the 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 City and Union representatives, each with an equal number of votes. During its monthly meetings, the Board reviews the reports of the 1-B Medical Board, the relevant medical records and the relevant CD-72s. Although the Board of Trustees cannot change the 1-B Medical Board's decision on whether a member is permanently disabled from full duty, it can overrule the 1-B Medical Board's recommendation on causation. When the Board of Trustees cannot reach the vote necessary to pass a motion (7/12 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 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 1-B Medical Board will be afforded the opportunity to request a reasonable accommodation as outlined in PAID 1/2000.

A request to withdraw a disability retirement application by the member shall be made on a letter-head 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

Upon receipt of the request, the 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 the Fire Department BHS Medical Board 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, 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 the FDNY Medical Board 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 Pension Bureau before any pension checks are issued. In addition, a copy of the Property Release Form must also be forwarded to Uniformed Payroll for release of the final active paycheck.

TIERS I and II: SERVICE RETIREMENT ALLOWANCE

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

The Service retirement allowance is calculated as follows:

50% of final salary
plus
 $1/60^{\text{th}}$ x total earnings after your 20th anniversary

plus
 $1/80^{\text{th}}$ 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).

TIERS I and II: 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 1-B Medical Board and the Board of Trustees have found the member physically or mentally unable to perform his/her regular job duties.

An Ordinary Disability retirement allowance is calculated as follows:

years and days of all service, (uniformed and other credited service)
divided by 40 and multiplied by final salary
less
the annuity value of any shortages in the member's account (shortages result from prior
loans, unpaid loans, and/or nonpayment of contributions)
plus
a lump-sum return of any accumulated deductions in excess of the minimum required
contributions remaining in the account at retirement, including interest earned on these
contributions.

ACCIDENTAL DISABILITY RETIREMENT

There is no minimum service requirement for accidental disability retirement. The 1-B Medical Board must find a member physically (includes the presumptive Lung Law and the Heart/Cancer/Infectious Diseases/WTC Bills) or mentally unable to perform his/her regular job duties because of an accidental injury received in the line-of-duty. Such disability must not be the result of a member's own negligence.

An Accidental Disability retirement allowance is calculated as follows:

a pension equal to 75% of final salary
plus
1/60th 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 or 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 time of retirement.

Notes:

For members retiring on or after January 1, 2009, accidental disability pensions are federally taxed on the 1/60th portion, ITHP over 20 years, and the annuity based on contributions attributed to 414H 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 IBP 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 full pension check, the option selected cannot be changed. There are four options available to Tier I members.

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

If the 1-B Medical Board determines that death is the result of an accidental injury received in the line of duty, an accidental death benefit will be paid as follows:

a pension equal to 50% of final compensation will be paid to a surviving spouse, to continue for life;

or

if there is no surviving spouse or if a surviving spouse dies before any eligible child attains 18 years of age (or, if a student, 23 years of age), then to such child or children under such age, until every such child dies or attains such age;

or

if there is no surviving spouse or eligible child under the age of 18 years (or 23 years, if a student), then to the member's dependent parent(s) to continue for life;

plus

a lump sum equal to the balance of the member's ITHP reserve account

plus

a lump sum equal to the member's accumulated deductions/contributions will be paid to the designated beneficiary(ies)

plus

a Special Accidental Death benefit under Section 208-f of the General Municipal Law (State portion)

This Special Accidental Death benefit, when added to the 50% of final compensation pension paid by the City, and any Social Security Death benefits payable to a surviving spouse, equal to 100% of the member's final salary (final salary is defined as the last 12 months of earnings, and is never less than the full salary of a first-grade Firefighter). The Special Accidental Death benefit 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 (Cost of Living Adjustment) received on the 50% pension payable from the Fund shall be subtracted from the Special Accidental Death Benefit (State's portion).

BENEFICIARY DESIGNATION

Upon membership in the Fund, a beneficiary(ies) for the Life Insurance 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 Pension Bureau. Please note that the beneficiary(ies) designated on the Death Benefits beneficiary form will receive this benefit in the event of the member's non-line-of-duty death. In the event of Accidental Death (Line-of-Duty), benefits will be paid to the appropriate beneficiary(ies) in accordance with the Administrative Code of the City of New York and other applicable sections of the law.

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Summary Funds Benefits**TIER III**

This Summary Plan Description (SPD) summarizes the benefits provided by the New York City Fire Department Pension Fund, Subchapter II (the “Fire Pension Fund”), for Tier 3 members. Anyone who became a member of the Fire Pension Fund between July 1, 2009 and March 31, 2012 is a Tier 3 member. Those who become members of the Fire Pension Fund on or after April 1, 2012 are “modified Tier 3” members, also known as Tier 6. The primary difference is that “Modified Tier 3” members have a 5 year Final Average Salary (FAS) calculation upon retirement. Unless otherwise noted, the information presented in this SPD is applicable to both Tier 3 and Modified Tier 3 members, and will be collectively referred to as “Tier 3.” On September 8, 2016 Governor Andrew Cuomo signed into law Chapter 298 of the Laws of 2016, granting “Enhanced Plan” benefits to current Tier 3 members of the New York City Fire Department Pension Fund (FDNY Pension) who opt into the Enhanced Plan. All Tier 3 members with the exception of two joined the enhanced Benefit plan. All new employees appointed after 09/08/2016 will become enhanced benefit members. The new law grants these members of the Fire Pension Fund $\frac{3}{4}$ Disability Benefits, and Presumptive Benefits for certain illnesses covered under the Heart, Lung, Cancer and Infectious Diseases Bills. Enhanced members who join will be required to pay an additional 2% contribution, which could eventually rise to a maximum of 3%, after a three year look-back period, based on actuarial assumptions made by the City of New York.

This summary is as accurate 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 Retirement and Social Security Law (RSSL), and the rules of the Fire Pension Fund, the applicable Law or Rule will govern.

MEMBERSHIP

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 % of pensionable salary for the first 25 years of credited service (RSSL § 517). Member contributions are federally tax-deferred as per section 414(h) of the Internal Revenue Code, but are subject to state and local income taxation. In the future, the additional contributions may range from 2% to 3% depending on specified future cost calculations. For members appointed before 09/08/2016 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.” In order 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% contribution rate plus the statutory interest earned.

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.

REFUNDS

Upon separation from the Fire Pension Fund for reasons other than retirement, such as resignation or termination, a written request for a refund of accumulated contributions plus interest may be made. If contributions are not withdrawn, the money will continue to earn interest for a maximum of five years from the date of separation.

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 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, include the right to receive a vested retirement benefit in the future. 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. Participation in the Fire Pension Fund is mandatory for Uniformed employees hired on or after July 1, 2009. Members receive credit for all Uniformed service time while on active payroll, up to a maximum, of 22 years.

ALLOWABLE UNIFORMED SERVICE

Twenty-two (22) years of allowable Uniformed service are required for Normal Service Retirement, or twenty (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

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, by filing for transfer or buy-back. This prior credit service counts toward the requirements for vesting and retirement.

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 Right Act (USERRA), and RSSL 1000. Members who join the Fire Pension Fund on or after April 1, 2012, and 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. Members who joined the Fire Pension Fund prior to April 1, 2012 and 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 3% of the compensation earned by the member during the 12 months of credited service immediately preceding the member's application to purchase such credit.

TRANSFER TO THE FIRE PENSION FUND

A member may transfer to the Fire Pension Fund from another public retirement system within the State of New York. In Tier 3, transferring prior City or State service, other than Uniformed Police of Fire service, does not provide any additional monetary benefit, nor does it change your 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 Fire Pension Fund upon completion of a proper transfer. Before deciding whether to transfer service from another pension system, eligible members should contact the Fire Pension Fund Administration Office at (929) 436-0099.

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, 2021 and June 30, 2020

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REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

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

We have audited the accompanying 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, (collectively, the "System"), which comprise the combining statements of fiduciary net position as of June 30, 2021 and 2020 and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to combining financial statements.

Management's responsibility for the combining financial statements

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

Auditor's responsibility

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

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

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

Opinion

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the combining fiduciary net position of the System as of June 30, 2021 and 2020, 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.

Other matters*Required supplementary information*

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule 1 - Schedules of Changes in the Employer's Net Pension Liability and Related Ratios, Schedule 2 - Schedules of Employer Contributions, and Schedule 3 - Schedule of Investment Returns, as listed in the table of contents, be presented to supplement the basic combining financial statements. Such information, 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 the financial reporting for placing the basic combining financial statements in an appropriate operational, economic, or historical context. This required supplementary information is the responsibility of management. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America. 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.

Other information

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

The Additional Supplementary Information (Schedule 4 - Schedule of Investment Expenses, Schedule 5 - Schedule of Administrative Expenses and Schedule 6 - Schedule of Payments to Consultants) for the year ended June 30, 2021, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic combining financial statements. Such information has been subjected to the auditing procedures, applied in the audit of the basic combining financial statements and certain additional procedures, applied in the audit of the basic combining financial statements or to the basic combining financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Additional Supplementary Information is fairly stated, in all material respects, in relation to the basic combining financial statements taken as a whole.

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

Grant Thornton LLP

New York, New York
October 28, 2021
(except for the Additional Supplementary Information,
as to which the date is December 17, 2021)

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

June 30, 2021 and 2020

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, 2021 and 2020. 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, 2021 and 2020

Financial Highlights

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.

For Fiscal Year ended June 30, 2020, the Funds' fiduciary net position restricted for benefits was approximately \$15.9 billion. This amount reflects an increase of \$721.4 million (4.8%) over the Funds' fiduciary net position restricted for benefits in the prior Fiscal Year. The growth for Fiscal Year 2020 can be attributed to the excess of total contributions, net investment income and other receipts over pension benefits and administrative expenses paid. Additionally, net appreciation in fair value of the Funds' investment portfolio served to increase the amount of net investment income reported for the period.

Changes in Fiduciary Net Position

Years ended June 30, 2021, 2020 and 2019

(In thousands)

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Additions:			
Member contributions	\$ 112,566	\$ 106,821	\$ 108,015
Employer contributions	1,436,977	1,419,270	1,398,565
Net investment income	3,963,257	718,739	982,348
Other	758	2,842	2,057
Total additions	<u>5,513,558</u>	<u>2,247,672</u>	<u>2,490,985</u>
Deductions:			
Benefit payments, withdrawals and administrative expenses	<u>1,550,256</u>	<u>1,526,276</u>	<u>1,455,430</u>
Net increase in net position	<u>3,963,302</u>	<u>721,396</u>	<u>1,035,555</u>
Net position restricted for benefits			
Beginning of year	<u>15,900,707</u>	<u>15,179,311</u>	<u>14,143,756</u>
End of year	<u>\$ 19,864,009</u>	<u>\$ 15,900,707</u>	<u>\$ 15,179,311</u>

Fiscal Year 2021 member contributions of approximately \$112.6 million was 5.4% higher compared to member contributions for Fiscal Year 2020. For Fiscal Year 2020, member contributions of approximately \$106.8 million was 1.1% lower compared to member contributions for Fiscal Year 2019. 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, 2019 and 2018, under the One-Year Lag Methodology ("OYLM"). 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. Employer contributions for Fiscal Year 2020 totaled \$1.42 billion, an increase of \$20.7 million (1.5%) compared to employer contributions for Fiscal Year 2019.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2021 and 2020

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.

For Fiscal Year 2020, the Funds had a net investment gain of \$718.7 million; which was 26.8% lower compared to the net investment gain of \$982.3 million reported for Fiscal Year 2019. The net investment gain for Fiscal Year 2020 can be attributed to the 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 2021; an increase of 1.6% compared to benefit payments, withdrawals and administrative expenses paid in the previous Fiscal Year. During Fiscal Year 2020, the Funds recorded benefit payments, withdrawals and administrative expenses of \$1.5 billion, this was an increase of 4.9% compared to Fiscal Year 2019. 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 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.

For Fiscal Year 2020, the Funds' combined net position restricted for benefits increased by 4.8% to \$15.9 billion, compared to the net position restricted for benefits of \$15.2 billion in Fiscal Year 2019. 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. Additionally, net appreciation in fair value of the Funds' investment portfolio served to increase the amount of net investment income reported for the period.

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. Outstanding member loans for Fiscal Year 2020 totaled \$20.6 million; this amount is 10.4% 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, 2021 and 2020

Fiduciary Net Position

June 30, 2021, 2020 and 2019

(In thousands)

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Cash	\$ 25,162	\$ 5,952	\$ 9,405
Receivables	488,580	431,483	331,567
Investments - at fair value	20,292,439	16,150,586	15,335,153
Collateral from securities lending	2,141,504	941,705	792,150
Other assets	3,431	2,970	2,573
Total assets	<u>22,951,116</u>	<u>17,532,696</u>	<u>16,470,848</u>
Accounts payable	100,913	65,993	167,532
Payables for investments purchased	796,171	580,490	294,342
Accrued benefits payable	48,519	43,801	37,513
Payables for securities lending transactions	2,141,504	941,705	792,150
Total liabilities	<u>3,087,107</u>	<u>1,631,989</u>	<u>1,291,537</u>
Net position restricted for benefits	<u>\$ 19,864,009</u>	<u>\$ 15,900,707</u>	<u>\$ 15,179,311</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, 2021 and 2020

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>

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2021 and 2020

Investment Summary

June 30, 2020

(In thousands)

Investments - at fair value:	QPP	FFVSF	FOVSF	Combined
Short-term investments:				
U.S. Treasury Bills and Agencies	\$ 470,090	\$ 2,350	\$ 1,299	\$ 473,739
Commercial paper	115,094	-	-	115,094
Short-term investment fund	156,248	222	160	156,630
Debt (fixed income) securities:				
U.S. government and agency	1,383,806	-	-	1,383,806
Corporate and other	1,341,212	-	-	1,341,212
Mortgage debt securities	696,105	-	-	696,105
Bank loans	61,355	-	-	61,355
Treasury inflation-protected securities	667,049	-	-	667,049
Equity securities				
Domestic equity	4,895,777	160,922	112,697	5,169,396
International equity	1,186,338	-	-	1,186,338
Collective trust funds:				
Bank loans	101,784	-	-	101,784
Corporate and other	624	56,289	40,014	96,927
International equity	877,623	127,362	90,792	1,095,777
Domestic equity	80,603	18,543	13,039	112,185
Mortgage debt securities	52,601	52,968	37,653	143,222
Opportunistic-fixed income	50,189	-	-	50,189
U.S. government and agency	-	73,107	51,969	125,076
Alternative investments:				
Infrastructure	152,853	-	-	152,853
Opportunistic-fixed income	448,031	-	-	448,031
Private equity	919,869	-	-	919,869
Private real estate	699,376	-	-	699,376
Hedge funds	954,573	-	-	954,573
Collateral from securities lending	914,986	15,856	10,863	941,705
	<u>\$ 16,226,186</u>	<u>\$ 507,619</u>	<u>\$ 358,486</u>	<u>\$ 17,092,291</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 gains of 44.2% in Fiscal Year 2021, compared to gains posted of 6.5% in Fiscal Year 2020. The QPP's investment portfolio posted gains of 24.9% for Fiscal Year 2021 compared to the gain of 4.8% for Fiscal Year 2020. For the three-year period ended June 30, 2021, the overall rate of return on the QPP's investment portfolio was 11.9%.

New York City Fire Pension Funds

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2021 and 2020

The FFVSF's investment portfolio posted gains of 25.1% for Fiscal Year 2021 compared to the gain of 4.1% for Fiscal Year 2020. For the three-year period ended June 30, 2021, the overall rate of return on the Funds' investment portfolio was 11.4%.

Similarly, the FOVSF's investment portfolio posted gains of 25.3% for Fiscal Year 2021 compared to the gain of 4.3% for Fiscal Year 2020. For the three-year period ended June 30, 2021, the overall rate of return on the Funds' investment portfolio was 11.6%.

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.

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New York City Fire Pension Funds

COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2021
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
ASSETS					
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 FIDUCIARY NET POSITION

June 30, 2020
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
ASSETS					
Cash	\$ 3,118	\$ 1,887	\$ 947	\$ -	\$ 5,952
Receivables:					
Investments securities sold	372,313	16	5	-	372,334
Member loans (Note 7)	20,559	-	-	-	20,559
Accrued interest and dividends	37,900	108	308	-	38,316
Accounts receivable	91	147	36	-	274
Total receivables	<u>430,863</u>	<u>271</u>	<u>349</u>	<u>-</u>	<u>431,483</u>
Investments - at fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	115,094	-	-	-	115,094
Short-term investment fund	156,248	222	160	-	156,630
U.S. treasury bills and agencies	470,090	2,350	1,299	-	473,739
Debt (fixed income) securities:					
U.S. government and agencies	1,383,806	-	-	-	1,383,806
Mortgage debt security	696,105	-	-	-	696,105
Corporate and other	1,341,212	-	-	-	1,341,212
Treasury inflation-protected securities	667,049	-	-	-	667,049
Bank loans	61,355	-	-	-	61,355
Equity securities:					
Domestic equity	4,895,777	160,922	112,697	-	5,169,396
International equity	1,186,338	-	-	-	1,186,338
Collective trust funds:					
Bank loans	101,784	-	-	-	101,784
Corporate and other	624	56,289	40,014	-	96,927
International equity	877,623	127,362	90,792	-	1,095,777
Domestic equity	80,603	18,543	13,039	-	112,185
Mortgage debt security	52,601	52,968	37,653	-	143,222
Opportunistic-fixed income	50,189	-	-	-	50,189
U.S. government and agency	-	73,107	51,969	-	125,076
Alternative investments:					
Infrastructure	152,853	-	-	-	152,853
Opportunistic-fixed income	448,031	-	-	-	448,031
Private equity	919,869	-	-	-	919,869
Private real estate	699,376	-	-	-	699,376
Hedge funds	954,573	-	-	-	954,573
Collateral from securities lending (Note 2)	914,986	15,856	10,863	-	941,705
Total investments	<u>16,226,186</u>	<u>507,619</u>	<u>358,486</u>	<u>-</u>	<u>17,092,291</u>
Other assets	2,970	-	-	-	2,970
Total assets	<u>16,663,137</u>	<u>509,777</u>	<u>359,782</u>	<u>-</u>	<u>17,532,696</u>
LIABILITIES					
Accounts payable	65,828	100	65	-	65,993
Payable for investment securities purchased	580,330	94	66	-	580,490
Accrued benefits payable (Note 2)	15,418	19,451	8,932	-	43,801
Securities lending (Note 2)	914,986	15,856	10,863	-	941,705
Total liabilities	<u>1,576,562</u>	<u>35,501</u>	<u>19,926</u>	<u>-</u>	<u>1,631,989</u>
Net position restricted for benefits:					
Benefits to be provided by QPP	15,086,575	-	-	-	15,086,575
Benefits to be provided by VSF	-	474,276	339,856	-	814,132
Total net position restricted for benefits	<u>\$ 15,086,575</u>	<u>\$ 474,276</u>	<u>\$ 339,856</u>	<u>\$ -</u>	<u>\$ 15,900,707</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)

	QPP	FFVSF	FOVSF	Eliminations	Total
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	103,577	257	187	-	104,021
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	15,086,575	474,276	339,856	-	15,900,707
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

COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year ended June 30, 2020

(in thousands)

	QPP	FFVSF	FOVSF	Eliminations	Total
Additions					
Contributions:					
Member contributions	\$ 106,821	\$ -	\$ -	\$ -	\$ 106,821
Employer contributions	1,419,270	-	-	-	1,419,270
Total contributions	<u>1,526,091</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,526,091</u>
Investment income (Note 3):					
Interest income	172,679	5,115	3,476	-	181,270
Dividend income	174,436	7,480	5,339	-	187,255
Net appreciation in fair value of investments	411,582	9,012	7,087	-	427,681
Total investment income	<u>758,697</u>	<u>21,607</u>	<u>15,902</u>	<u>-</u>	<u>796,206</u>
Less: investment expenses	80,078	220	154	-	80,452
Net investment income before securities lending transactions	<u>678,619</u>	<u>21,387</u>	<u>15,748</u>	<u>-</u>	<u>715,754</u>
Securities lending transactions:					
Securities lending income	3,047	142	99	-	3,288
Securities lending fees	(283)	(12)	(8)	-	(303)
Net securities lending income	<u>2,764</u>	<u>130</u>	<u>91</u>	<u>-</u>	<u>2,985</u>
Net investment income	<u>681,383</u>	<u>21,517</u>	<u>15,839</u>	<u>-</u>	<u>718,739</u>
Net receipts from other retirement systems	1,337	-	-	-	1,337
Transferrable earnings refunded to QPP from Variable Supplements Funds	15,000	(15,000)	-	-	-
Payments from QPP interest on Skim	-	12,792	7,365	(20,157)	-
Litigation income	1,505	-	-	-	1,505
Total additions	<u>2,225,316</u>	<u>19,309</u>	<u>23,204</u>	<u>(20,157)</u>	<u>2,247,672</u>
Deductions					
Benefit payments and withdrawals (Note 1)	1,447,071	44,348	25,726	-	1,517,145
Administrative expenses	9,131	-	-	-	9,131
Payments - Interest on Skim to Variable Supplements Funds	20,157	-	-	(20,157)	-
Total deductions	<u>1,476,359</u>	<u>44,348</u>	<u>25,726</u>	<u>(20,157)</u>	<u>1,526,276</u>
Net increase (decrease) in net position	748,957	(25,039)	(2,522)	-	721,396
Net position restricted for benefits					
Beginning of year	<u>14,337,618</u>	<u>499,315</u>	<u>342,378</u>	<u>-</u>	<u>15,179,311</u>
End of year	<u>\$ 15,086,575</u>	<u>\$ 474,276</u>	<u>\$ 339,856</u>	<u>\$ -</u>	<u>\$ 15,900,707</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, 2021 and 2020

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. The System 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, 2021 and 2020

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, 2021, June 30, 2020 and June 30, 2019, the QPP's membership consisted of:

	2021 ¹	2020	2019
Retirees and beneficiaries receiving benefits	17,288	16,624	16,628
Terminated vested members not yet receiving benefits	58	64	67
Terminated non-vested members/Inactives ²	-	-	28
Active members receiving salary	10,778	11,079	11,244
Total	28,124	27,767	27,967

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. Prior to June 30, 2020, represents inactive members who were no longer on payroll but not otherwise classified.

At June 30, 2021, June 30, 2020 and June 30, 2019, the FFVSF and FOVSF membership consisted of:

	FFVSF			FOVSF		
	2021 ³	2020	2019	2021 ³	2020	2019
Retirees currently receiving payments	3,168	3,215	3,305	1,448	1,490	1,522
Active members ⁴	8,195	8,360	8,621	2,583	2,689	2,623
Total	11,363	11,575	11,926	4,031	4,179	4,145

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, 2021 and 2020

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, 2021 and 2020

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, 2021, is as follows:

(In Thousands)	Tier 1	Tier 2	Total
Required amount	\$ -	\$ 551,955	\$ 551,955
Actual balance	-	2,200,612	2,200,612
Outstanding loans	-	15,173	15,173

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, 2021 and 2020

- 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, 2021 and 2020

- 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 2021 were \$71.7 million for FFVSF and \$128.1 million for FOVSF. Similarly, for Fiscal Year 2020, the balances were \$55.7 million for FFVSF and \$109.6 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, 2021 and 2020

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 as determined in good faith by the General Partner ("GP"). These investments are initially valued at cost with subsequent adjustments that reflect third-party transactions, financial operating results and other factors deemed relevant by the GP. Fair value is determined by Funds' management based on information provided by the various GPs after review by an independent consultant and the custodian bank for the funds. 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.

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, 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, 2021 and 2020, 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 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.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

Securities on loan at fair value as of June 30, 2021 and 2020, was \$2.1 billion and \$903.1 million, respectively, for the QPP, \$42.9 million and \$16.3 million, respectively, for the FFVSF, and \$31.4 million and \$11.2 million, respectively, for the FOVSF. Cash collateral received related to securities lending as of June 30, 2021 and 2020 was \$2.1 billion and \$915.0 million, respectively, for the QPP, \$42.5 million and \$15.8 million, respectively, for the FFVSF, and \$31.0 million and \$10.9 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.

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, 2021 and 2020

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 2021 and 2020 includes securities in the following categories:

	2021	2020
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, 2021 and 2020

Credit Risk - the possibility of a loss or default resulting from a borrower's inability to repay a loan or fulfill its contractual debt obligations. Portfolios other than U.S. Government and related portfolios, have credit rating limitations. Investment Grade portfolios are limited to mostly ratings, of BBB/Baa2 and above, except that they are also permitted a 10% maximum exposure to BB & B/Ba2 & B2 rated securities. While high yield non-investment grade managers primarily invest in BB & B/Ba2 & B2 rated securities, they can also invest up to 10% of their portfolio in securities rated CCC/Caa2. The quality ratings of the Funds' investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2021 and 2020, are as follows:

Investment Type June 30, 2021 (In percent)	Moody's Quality Ratings													Caa & Below Caa1	No Rated	Total											
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3				B1	B2	B3								
	59.05%	0.02%	0.01%	0.01%	0.02%	1.74%	1.38%	0.03%	0.07%	0.01%	1.63%	2.54%	0.01%				2.62%	2.59%	2.20%	2.21%							
U.S. government Corporate bonds	0.88%	0.13%	0.19%	0.15%	0.67%	1.74%	1.38%	1.94%	2.54%	2.35%	1.63%	2.54%	0.01%	2.62%	2.59%	2.20%	2.21%	-%	-%	-%	3.67%	2.58%	62.89%	30.81%			
Short term: Commercial paper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.25%	3.05%
STIF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent of rated portfolio	59.99%	0.15%	0.20%	0.16%	0.69%	1.74%	1.38%	1.97%	2.61%	2.36%	1.63%	2.19%	2.62%	2.59%	2.20%	2.21%	2.82%	-	-	-	12.55%	-	100.00%	-			

Investment Type June 30, 2020 (In percent)	Moody's Quality Ratings													Caa & Below Caa1	No Rated	Total											
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3				B1	B2	B3								
	52.38%	0.03%	0.04%	0.01%	0.03%	0.01%	0.01%	0.08%	0.14%	0.01%	0.01%	0.14%	0.01%				0.62%	2.73% <td>2.25%</td>	2.25%								
U.S. government Corporate bonds	0.49%	0.16%	0.22%	0.27%	0.55%	1.37%	1.72%	1.73%	2.59%	2.53%	1.81%	2.30%	3.10%	2.62%	2.73%	2.25%	-%	-%	-%	9.58%	2.55%	62.32%	31.67%				
Short term: Commercial paper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.20%	3.81%
STIF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent of rated portfolio	52.87%	0.19%	0.26%	0.28%	0.58%	1.38%	1.73%	1.81%	2.73%	2.53%	1.82%	2.30%	3.10%	2.62%	2.73%	2.25%	2.68%	-	-	18.14%	-	100.00%	-				

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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, 2021 and 2020, are as follows:

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>

Years to Maturity June 30, 2020	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
U.S. government	62.32%	8.73%	14.42%	8.72%	30.45%
Corporate bonds	31.66	0.36	10.30	14.52	6.48
Short term:					
Commercial paper	2.21	2.21	-	-	-
STIF	3.81	3.81	-	-	-
Percent of rated portfolio	<u>100.00%</u>	<u>15.11%</u>	<u>24.72%</u>	<u>23.24%</u>	<u>36.93%</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, 2021 and 2020

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, 2021 and 2020, are as follows (in thousands, in U.S. Dollars):

Trade Currency	6/30/2021 Market Value	6/30/2020 Market Value
EURO CURRENCY	\$ 926,512	\$ 642,472
HONG KONG DOLLAR	416,406	320,644
JAPANESE YEN	338,526	296,378
POUND STERLING	277,782	210,670
SOUTH KOREAN WON	213,908	138,675
SWISS FRANC	184,313	134,651
NEW TAIWAN DOLLAR	171,029	115,975
INDIAN RUPEE	176,712	98,750
CANADIAN DOLLAR	101,769	61,087
DANISH KRONE	79,236	57,906
AUSTRALIAN DOLLAR	83,502	53,312
BRAZILIAN REAL	69,978	36,310
SWEDISH KRONA	46,559	30,555
SOUTH AFRICAN RAND	34,405	28,543
CHINESE YUAN RENMINBI	41,936	23,633
SINGAPORE DOLLAR	31,693	22,507
THAILAND BAHT	18,340	20,821
CHINESE YUAN (OFFSHORE)	17,426	20,503
INDONESIAN RUPIAH	18,133	19,643
TURKISH LIRA	7,113	13,801
MEXICAN PESO (NEW)	14,310	12,808
NORWEGIAN KRONE	19,850	12,780
MALAYSIAN RINGGIT	6,644	11,403
POLISH ZLOTY	15,984	10,257
HUNGARIAN FORINT	13,010	8,221
UAE DIRHAM	8,667	6,719
CZECH KORUNA	6,201	4,569
PHILIPPINE PESO	2,023	4,175
NEW ISRAELI SHEQEL	5,161	4,085
QATARI RIAL	2,260	3,550
CHILEAN PESO	3,238	3,538
NEW ZEALAND DOLLAR	2,365	2,219
ROMANIAN LEU	2,672	2,032
COLOMBIAN PESO	537	1,313
EGYPTIAN POUND	273	589
KUWAITI DINAR	1,818	444
RUSSIAN RUBLE	1,291	367
PAKISTAN RUPEE	123	350
NIGERIAN NAIRA	255	218
KENYAN SHILLING	-	164
JORDANIAN DINAR	-	160
MOROCCAN DIRHAM	-	158
CROATIAN KUNA	-	156
MAURITIUS RUPEE	-	147
PERUVIAN NOUVEAU SOL	-	147
OMANI RIAL	-	138
BOTSWANA PULA	-	79
TUNISIAN DINAR	6	58
GHANA CEDI	-	34
Total	<u>\$ 3,361,966</u>	<u>\$ 2,437,714</u>

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

June 30, 2021 and 2020

Securities Lending Transactions

Credit Risk - The quality ratings of investments held as collateral for securities lending by the Funds at June 30, 2021 and 2020, are as follows:

Investment Type and Fair Value of Securities Lending Transactions June 30, 2021 (in thousands)	Moody's Quality Ratings											
	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below	Caa & Below	Ca & Below	Not Rated	Total
Short term:												
Reverse repurchase agreements	\$ -	\$ -	\$ -	\$ 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%
Investment Type and Fair Value of Securities Lending Transactions June 30, 2020 (in thousands)												
Short term:												
Reverse repurchase agreements	\$ -	\$ -	\$ 25,000	\$ 16,951	\$ 165,766	\$ 11,883	\$ -	\$ -	\$ -	\$ -	\$ 445,619	\$ 665,219
Money market	114,534	-	-	-	-	-	-	-	-	-	61,809	176,343
U.S. agency	-	-	-	-	-	-	-	-	-	-	5,273	5,273
Cash or cash equivalent	-	-	94,165	-	-	-	-	-	-	-	-	94,165
Uninvested	-	-	-	-	-	-	-	-	-	-	705	705
Total	\$ 114,534	\$ -	\$ 119,165	\$ 16,951	\$ 165,766	\$ 11,883	\$ -	\$ -	\$ -	\$ -	\$ 513,406	\$ 941,705
Percent of securities lending portfolio	12.16%	0.00%	12.65%	1.80%	17.61%	1.26%	0.00%	0.00%	0.00%	0.00%	54.52%	100.00%

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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, 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%
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Years to Maturity Investment Type June 30, 2020 (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	\$ 665,219	\$ 665,219	\$ -	\$ -	\$ -
Money market	176,343	176,343	-	-	-
U.S. agency	5,273	5,273	-	-	-
Cash or cash equivalents	94,165	94,165	-	-	-
Uninvested	705	705	-	-	-
Total	\$ 941,705	\$ 941,705	\$ -	\$ -	\$ -

Percent of securities lending portfolio	100.00%	100.00%	0.00%	0.00%	0.00%
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Rate of return - For the years ended June 30, 2021 and 2020, the annual money-weighted rate of return on investments, net of investment expense, for the Funds was, as follows:

	2021	2020
QPP	24.86%	4.80%
FFVSF	25.39%	4.35%
FOVSF	25.43%	4.54%

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, 2021 and 2020

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, 2021 and June 30, 2020:

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	\$ 9,627,502	\$ 6,868,117	\$ 2,865,226	19,360,845
Alternative investments (Hedge Funds*) valued at NAV				<u>931,594</u>
Total				<u>\$ 20,292,439</u>

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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

	2020			
	Level 1	Level 2	Level 3	Total
Short-term investments:				
Commercial paper	\$ -	\$ 115,094	\$ -	\$ 115,094
Short-term investment fund	-	156,630	-	156,630
U.S. treasury bills and agencies	-	473,739	-	473,739
Debt (fixed income) securities:				
Bank loans	-	60,004	1,351	61,355
Corporate and other	-	1,337,615	3,597	1,341,212
Mortgage debt security	-	696,105	-	696,105
Treasury inflation-protected securities	-	667,049	-	667,049
U.S. government and agency	-	1,383,806	-	1,383,806
Equity securities:				
Domestic equity	5,165,942	-	3,454	5,169,396
International equity	1,186,064	-	274	1,186,338
Collective trust funds:				
Bank loans	-	98,960	2,824	101,784
Corporate and other	-	96,927	-	96,927
Domestic equity	111,779	-	406	112,185
International equity	1,094,843	-	934	1,095,777
Mortgage debt security	-	119,121	24,101	143,222
Opportunistic-fixed income	1,495	46,555	2,139	50,189
U.S. government and agency	-	125,076	-	125,076
Alternative investments:				
Infrastructure	-	-	152,853	152,853
Opportunistic-fixed income	-	-	448,031	448,031
Private equity	915	-	918,954	919,869
Private real estate	-	-	699,376	699,376
Total investments	<u>\$ 7,561,038</u>	<u>\$ 5,376,681</u>	<u>\$ 2,258,294</u>	15,196,013
Alternative investments (Hedge Funds*) valued at NAV				<u>954,573</u>
Total				<u>\$ 16,150,586</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, 2021 and 2020

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. The assets in the Funds' alternative investment program are classified as mainly Level 3 assets. A more detailed explanation of the Level 3 valuation methodologies follows:

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. For the immediate time period following a transaction, the determination of fair value for equity securities in which no liquid trading market exists can generally be approximated based on the transaction price (absent any significant developments). Thereafter, or in the interim, if significant developments relating to such portfolio company or industry occur which may suggest a material change in value, the GP should value each investment by applying generally accepted valuation methods including (1) the market approach (such as market transaction and comparable public company multiples, which are based on a measurement of the company's historical and projected financial performance with typical metrics including enterprise value/latest 12 months Earnings Before Interest, Taxes, Depreciation, and Amortization ("EBITDA") or projected fiscal year EBITDA) or (2) the income or discounted cash flow approach to measure fair value.

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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

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.

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

June 30, 2021 and 2020

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

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

June 30, 2021 and 2020

June 30, 2020 Fair Value	Redemption Terms	Redemption Notice Period	Gate	Redemption Holdback
	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%
\$ 60,503		60 Calendar days notice	No	10%
25,327	Semester Calendar redeeming on Last Business Day Of Month	153 Calendar days notice	10% master fund level and 25% investor level	N/A
118,724	Quarterly redeeming on First Business Day Of Month		Yes	
	Quarterly redeeming on Last Business Day Of Month	90 Calendar days	This fund imposes a 25% investor level gate with slower liquidation schedule.	10%
65,740			This fund may impose a 8.3% fund level gate with slower liquidation schedule	10%
90,456	Quarterly Calendar redeeming on Last Business Day Of Month	75 Calendar days notice	Fund level Gate 25% at manager's discretion	10%
39,428	Quarterly Calendar redeeming on Last Business Day Of Month	44 Calendar days notice	No	0-10%
834	Illiquid - periodic distributions and Other	Illiquid - periodic distributions	No	5%
38,348	Monthly redeeming on First Business Day	30 Calendar days notice	No	3%
11,043	Monthly redeeming on Last Business Day Of Month	15 Calendar days notice	No	5%
20,483	Monthly redeeming on Last Business Day	30 Calendar days notice	20% Firm level gate	N/A
57,366	Daily redeeming	2 Calendar days notice	No	3%
23,937	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	5%
54,507	Quarterly Calendar redeeming on Last Business Day Of Month	65 Calendar days notice	25% investor level	10%
26,815	Monthly redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
64,112	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
61,743	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	25% Fund level gate	5%
42,915	Quarterly Calendar redeeming on Last Business Day Of Month	30 Calendar days notice	No	5%
	Quarterly Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	Yes This fund imposes a 33.3% investor level gate with slower liquidation schedule.	5%
44,238			Yes	
	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%
12,426			This fund imposes a 12.5% investor level gate with slower liquidation schedule. This fund may impose a 25% fund level gate with slower liquidation schedule.	5%
	Quarterly Calendar redeeming on Last Business Day Of Month	45 Calendar days notice	No	5%
45,190	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
14,303	Monthly redeeming on First Business Day Of Month	90 Calendar days notice	No	5%
36,135				
\$ 954,573	Total Hedge Funds (dollars in thousands)			

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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 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.

For Fiscal Year 2020, the preliminary excess earnings of the QPP are reported on the combined financial statements for the year ended June 30, 2020 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, 2021 and 2020

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, 2020 and June 30, 2019, is as follows:

	FFVSF		FOVSF	
	2020 ²	2019	2020 ²	2019
	(In millions)			
APV of accumulated plan benefits for:				
Retirees currently receiving benefits	\$ 328.2	\$ 342.7	\$ 149.4	\$ 156.2
Active members	126.2	113.4	123.3	119.6
Total APV of accumulated plan benefits	454.4	456.1	272.7	275.8
Net position held in trust for benefits ¹	493.7	519.3	348.8	351.4
Unfunded APV of accumulated plan benefits	\$ (39.3)	\$ (63.2)	\$ (76.1)	\$ (75.6)

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, 2020 and the June 30, 2019 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, 2021 and 2020

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, 2020 and June 30, 2019:

	June 30, 2020 ¹	June 30, 2019
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 Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 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, 2021 and 2020

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, 2021, based on an actuarial valuation as of June 30, 2019 was \$1.4 billion and the Statutory Contribution for the year ended June 30, 2020, based on an actuarial valuation as of June 30, 2018 was \$1.4 billion. The Statutory Contributions for Fiscal Years 2021 and 2020 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, 2021 and 2020 for the Funds were as follows:

	(In thousands)			
	QPP	FFVSF	FOVSF	TOTAL
June 30, 2021				
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%
	(In thousands)			
	QPP	FFVSF	FOVSF	TOTAL
June 30, 2020				
Total pension liability*	\$ 23,302,435	\$ 484,604	\$ 294,939	\$ 24,081,978
Fiduciary net position**	15,086,575	493,727	348,788	15,929,090
Employers' net pension liability	<u>\$ 8,215,860</u>	<u>\$ (9,123)</u>	<u>\$ (53,849)</u>	<u>\$ 8,152,888</u>
Fiduciary net position as a percentage of the total pension liability	64.74%	101.88%	118.26%	66.15%

* 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, 2021 and 2020

Actuarial Methods and Assumptions

The total pension liability as of June 30, 2021 and 2020 was calculated from the actuarial valuations as of June 30, 2020 (Updated Preliminary) and June 30, 2019 (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 increases 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 Auto COLA. 2.5% per annum for Escalation.

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

The Fiscal Year 2021 results reflect changes in the actuarial assumptions and methods since 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 NYCRCs are conducted every two years. The most recent of these studies was performed by Bolton, Inc. and included experience through June 30, 2017.

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."

The June 30, 2020 total pension liability was calculated from the Preliminary June 30, 2019 actuarial valuation, which was based on 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 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, 2021 and 2020

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 the QPP to the VSFs are recognized through the Liability Valuation Method. Under this method the APV of Future SKIM from the QPP to the VSFs is included directly as an actuarial liability to the QPP. SKIM is all or a portion of the excess earnings on equity securities of the QPP which are transferable to the VSFs. The APV of Future SKIM is computed as the excess, if any, of the APV of benefits of each individual VSF offset by the AVA of that individual VSF, respectively.

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:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. public market equities	27%	4.8%
Developed public market equities	9%	5.2%
Emerging public market equities	6%	9.0%
Debt/Fixed income	31%	1.1%
Private equity	8%	9.7%
Private real estate	7%	5.3%
Infrastructure	3%	4.6%
Hedge funds	5%	3.2%
Opportunistic-fixed income	4%	5.8%
Total	<u>100.0%</u>	

Discount Rate

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

The following presents the net pension liability of the Employer for the Funds as of June 30, 2021, 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:

Net Pension Liability - June 30, 2021 (In thousands)	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
QPP	\$ 7,950,799	\$ 5,193,613	\$ 2,879,323
FFVSF	(54,614)	(97,292)	(134,095)
FOVSF	(93,161)	(117,488)	(138,579)
 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, 2021 and 2020 was \$15.2 million and \$20.6 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 \$3.4 million in Fiscal Years 2021 and 2020, respectively.

NOTE 9 - ADMINISTRATIVE AND INVESTMENT EXPENSES

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. In Fiscal Year 2020, there were \$9.1 million in administrative expenses paid out of the corpus of the fund. Investment expenses charged to the investment earnings of the QPP, exclusive of expenses relating to securities-lending transactions amounted to approximately \$103.6 million and \$80.0 million in 2021 and 2020, respectively.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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 five years and thereafter is approximately:

Fiscal years ending June 30,	Amount
2022	\$ 1,075,000
2023	1,096,000
2024	1,179,000
2025	1,179,000
Thereafter	10,138,000
Total	\$ 14,667,000

Rent expense for the years ended June 30, 2021 and 2020 was \$1,053,022 and \$1,050,006, 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 2021 and 2020, 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.

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

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

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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 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.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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 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)

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.

New York City Fire Pension Funds

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2021 and 2020

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, 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	(1,475,836)	(44,143)	(20,726)	(1,540,705)
Net change in total pension liability	799,739	(13,156)	1,870	788,453
Total pension liability - beginning	23,302,435	484,604	294,939	24,081,978
Total pension liability - ending (a)	24,102,174	471,448	296,809	24,870,431
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	758	-	-	758
Net change in plan fiduciary net position	3,821,986	75,013	65,509	3,962,508
Accrued transfers to/from VSFs	-	-	-	-
Plan fiduciary net position - beginning	15,086,575	493,727	348,788	15,929,090
Plan fiduciary net position - ending (b) **	18,908,561	568,740	414,297	19,891,598
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	(1,447,071)	(44,850)	(25,802)	(1,517,723)
Net change in total pension liability	825,404	(6,205)	(4,005)	815,194
Total pension liability - beginning	22,477,031	490,809	298,944	23,266,784
Total pension liability - ending (a)	23,302,435	484,604	294,939	24,081,978
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	(17,315)	12,792	7,365	2,842
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	14,337,618	519,268	351,386	15,208,272
Plan fiduciary net position - ending (b) **	15,086,575	493,727	348,788	15,929,090
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.

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**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)

	QPP*	FFVSF	FOVSF	TOTAL
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	(1,376,090)	(45,218)	(24,806)	(1,446,114)
Net change in total pension liability	1,403,261	(54,254)	(74,135)	1,274,872
Total pension liability - beginning	21,073,770	545,063	373,079	21,991,912
Total pension liability - ending (a)	22,477,031	490,809	298,944	23,266,784
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	2,057	-	-	2,057
Net change in plan fiduciary net position	1,056,575	(17,239)	(4,326)	1,035,010
Accrued transfers to/from VSF's	14,000	(14,000)	-	-
Plan fiduciary net position - beginning	13,267,043	550,507	355,712	14,173,262
Plan fiduciary net position - ending (b) **	14,337,618	519,268	351,386	15,208,272
Employer's net pension liability - ending (a)-(b)	\$ 8,139,413	\$ (28,459)	\$ (52,442)	\$ 8,058,512
Plan fiduciary net position as a percentage of the total pension liability	63.79%	105.80%	117.54%	65.36%
Covered payroll	\$ 1,302,872	N/A	N/A	\$ 1,302,872
Employer's net pension liability as a percentage of covered payroll	624.73%	N/A	N/A	618.52%

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

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**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	(1,308,467)	(46,976)	(24,090)	(1,379,533)
Net change in total pension liability	689,149	(12,010)	544	677,683
Total pension liability - beginning	20,384,622	557,073	372,535	21,314,230
Total pension liability - ending (a)	21,073,771	545,063	373,079	21,991,913
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	9,411	-	-	9,411
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	12,089,896	547,077	354,337	12,991,310
Plan fiduciary net position - ending (b) **	13,267,043	550,507	355,712	14,173,262
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.

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**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	(1,265,817)	(47,667)	(21,859)	(1,335,343)
Net change in total pension liability	673,127	(11,141)	8,436	670,422
Total pension liability - beginning	19,711,495	568,214	364,099	20,643,808
Total pension liability - ending (a)	20,384,622	557,073	372,535	21,314,230
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	47,284	-	-	47,284
Net change in plan fiduciary net position	1,235,876	(912)	18,236	1,253,200
Accrued transfers to/from VSF's	(45,743)	23,914	21,829	-
Plan fiduciary net position - beginning	10,899,763	524,075	314,272	11,738,110
Plan fiduciary net position - ending (b) **	12,089,896	547,077	354,337	12,991,310
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.

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**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	(1,290,862)	(46,407)	(21,826)	(1,359,095)
Net change in total pension liability	1,167,188	20,110	9,718	1,197,016
Total pension liability - beginning	18,544,307	548,104	354,381	19,446,792
Total pension liability - ending (a)	19,711,495	568,214	364,099	20,643,808
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	(1,290,862)	(46,407)	(21,826)	(1,359,095)
Other changes	43,673	-	-	43,673
Net change in plan fiduciary net position	121,306	(41,738)	(20,789)	58,779
Accrued transfers to/from VSF's	(36,873)	18,739	18,134	-
Plan fiduciary net position - beginning	10,815,330	547,074	316,927	11,679,331
Plan fiduciary net position - ending (b) **	10,899,763	524,075	314,272	11,738,110
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	55.30%	92.23%	86.31%	56.86%
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.

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**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	(1,150,505)	(47,819)	(22,117)	(1,220,441)
Net change in total pension liability	684,990	(3,196)	1,502	683,296
Total pension liability - beginning ***	17,859,317	551,300	352,879	18,763,496
Total pension liability - ending (a)	18,544,307	548,104	354,381	19,446,792
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	41,201	-	-	41,201
Net change in plan fiduciary net position	259,492	(28,931)	(9,868)	220,693
Accrued transfers to/from VSF's	(40,000)	30,000	10,000	-
Plan fiduciary net position - beginning	10,595,838	546,005	316,795	11,458,638
Plan fiduciary net position - ending (b) **	10,815,330	547,074	316,927	11,679,331
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	71.46%	0.19%	11.82%	66.51%
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.

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**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.

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**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)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Actuarially determined contribution	\$ 1,436,977	\$ 1,419,270	\$ 1,398,565	\$ 1,200,417	\$ 1,061,170	\$ 1,054,478	\$ 988,784	\$ 969,956	\$ 962,173	\$ 976,895
Contributions in relation to the actuarially determined contribution	1,436,977	1,419,270	1,398,565	1,200,417	1,061,170	1,054,478	988,784	969,956	962,173	976,895
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered payroll*	\$ 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	\$ 1,149,423
Contributions as a percentage of covered payroll*	106.60%	106.17%	107.34%	103.08%	92.60%	93.36%	88.94%	87.99%	85.15%	84.99%

* Projected employee payroll at time 1.0 under previous roll-forward methodology through 2018. Actual employee 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 2021 contributions were determined using an actuarial valuation as of June 30, 2019). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2019		June 30, 2018		June 30, 2017		June 30, 2016		June 30, 2015	
	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	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)
2012 Actuarial gain/loss	7 years (closed)	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)
2013 Actuarial gain/loss	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)
2014 Actuarial gain/loss	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)
2015 Assumption Change	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)
2016 Actuarial gain/loss	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)	24 years (closed)
2017 Actuarial gain/loss	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)
2018 SADB	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)
2016 Enhanced ADR	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)
2017 Actuarial gain/loss	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)	24 years (closed)	25 years (closed)	26 years (closed)	27 years (closed)	28 years (closed)
2017 VSF Escalation Offset	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)
2017 Non-Uniformed Service	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)	24 years (closed)	25 years (closed)	26 years (closed)	27 years (closed)	28 years (closed)
2017 Assumptions/methods	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)	24 years (closed)	25 years (closed)	26 years (closed)	27 years (closed)
2018 Actuarial gain/loss	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)
2019 Actuarial gain/loss	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)	24 years (closed)
2019 Assumptions/methods	20 years (closed)	21 years (closed)	22 years (closed)	23 years (closed)	24 years (closed)	25 years (closed)	26 years (closed)	27 years (closed)	28 years (closed)	29 years (closed)

Actuarial asset valuation method

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.

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 2021 contributions were determined using an actuarial valuation as of June 30, 2019). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2014		June 30, 2013		June 30, 2012		June 30, 2011		June 30, 2010	
	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	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	NA	NA	NA	NA	NA
2012 Actuarial gain/loss	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	15 years (closed)	NA	NA	NA	NA	NA
2013 Actuarial gain/loss	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA	NA	NA
2014 Actuarial gain/loss	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA	NA	NA	NA
2015 Assumption change	15 years (closed)	20 years (closed)	NA	NA	NA	NA	NA	NA	NA	NA
2016 Actuarial gain/loss	20 years (closed)	NA	NA	NA	NA	NA	NA	NA	NA	NA
2016 Actuarial gain/loss	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2016 SADB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2016 Enhanced ADR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2017 Actuarial gain/loss	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2017 VSF escalation offset	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2017 Non-uniformed service	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2017 Assumptions/methods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2018 Actuarial gain/loss	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2019 Actuarial gain/loss	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2019 Assumptions/methods	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Actuarial asset valuation method¹

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.

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

See Report of Independent Certified Public Accountants.

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, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
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 2016.	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 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.

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 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)
 QUALIFIED PENSION PLAN
 SCHEDULES OF EMPLOYER CONTRIBUTIONS

Fiscal years ended June 30,
 (In thousands)

Valuation Dates	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010
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 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.

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, 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, 2021 and 2020

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

<u>Fiscal years ended</u>	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>
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, 2021

Schedule 4

	TOTAL FEES
US EQUITIES	\$ 5,725,411
NON-US EQUITIES	10,907,533
FIXED INCOME	4,940,411
OPPORTUNISTIC FIXED INCOME	7,127,790
HEDGE FUNDS	14,956,391
PRIVATE EQUITIES	36,247,916
PRIVATE REAL ESTATE	13,270,143
REAL ESTATE EQUITY SECURITIES	146,261
INFRASTRUCTURE	3,507,253
TOTAL MANAGEMENT EXPENSES	96,829,109
CONSULTANT EXPENSES:	
AKSIA LLC	68,829
MSCI - ESG RESEARCH LLC	5,279
MSCI - RISKMETRICS GROUP	1,991
NEW ENGLAND PENSION CONSULTANT	386,250
STEPSTONE GROUP, LP - CONSULTING FEES	133,250
THE BURGESS GROUP	2,887
TOWNSEND HOLDINGS LLC	69,930
OTHER CONSULTING FEES	855,176
TOTAL CONSULTANT EXPENSES	1,523,592
LEGAL EXPENSES:	
COX CASTLE NICHOLSON LLP	3,370
DAY PITNEY LLP	1,989
FOLEY AND LARDNER LLC	10,827
FOSTER GARVEY PC	1,025
FOSTER PEPPER PLLC	1,562
MORGAN LEWIS BOCKIUS LLP	20,572
PILLSBURY WINTHROP SHAW PITTMAN LLP	22,146
REINHART BOERNER VAN DUEREN	5,143
SEWARD KISSEL LLP	(293)
OTHER LEGAL FEES	72,343
TOTAL LEGAL EXPENSES	138,684
TOTAL CONSULTANT & LEGAL EXPENSES QPP	1,662,276
OTHER MISCELLANEOUS EXPENSES QPP	5,086,041
TOTAL INVESTMENT EXPENSES FIRE QPP	\$ 103,577,426
TOTAL INVESTMENT EXPENSES FFVSF	\$ 256,868
TOTAL INVESTMENT EXPENSES FOVSF	\$ 186,925
GRAND TOTAL	\$ 104,021,219

**New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Administrative Expenses
For Fiscal Year Ended June 30, 2021**

Schedule 5

EXPENSE TYPE:

PERSONNEL SERVICES

Salaries and Fringe Benefits paid to Personnel	\$ 4,980,073
TOTAL PERSONNEL SERVICES	4,980,073

PROFESSIONAL SERVICES

Consultants	1,133,066*
Medical Board and Medical Consultants	987,059
Trading & Investment Services	1,354,717
TOTAL PROFESSIONAL SERVICES	3,474,842

RENTALS

Office Space & Equipment	1,053,022
TOTAL RENTALS	1,053,022

COMMUNICATION & GENERAL SERVICES

Communication & Utilities	221,467
Office Supplies and Materials	73,856
Relocation Expenses	-
Postage & General	541,578
TOTAL COMMUNICATION	836,901

FIRE DIRECT EXPENSES FY 2021	\$ 10,344,838
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**EXPENSES INCURRED BY OTHER CITY AGENCIES:
ON BEHALF OF FIRE PENSION FUND:**

Financial Information Services	519,506
Office of the Actuary	1,443,215
Law Department	158,187
Office of the Comptroller	1,341,999
Office of Payroll Administration	74,338
Office of Management and Budget	82,156
TOTAL OTHER EXPENSES	\$ 3,619,401

TOTAL ADMINISTRATIVE EXPENSES :	\$ 13,964,239
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* 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
Fiscal Year Ended June 30, 2021**

Schedule 6

Nature of Services	Firm Name	Total Fees
Consultant Services		
	Blue Diamond Solutions Inc.	\$ 241,257
	KNM Locations LLC	7,468
	GRM Document Management Services	34,772
	FDNY Support Services	697,500
	Net '@ work Inc	5,057
	PBI, LLC	7,088
	NYSID	22,076
	Rutter Associates LLC	38,821
	PKF O'CONNOR	9,500
	Knowledge Builders, Inc	31,400
	TSCTI	13,650
	Ice Miller	19,955
	All Other	4,522
	Total Payments to Consultants	\$ 1,133,066

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, 2021

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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:

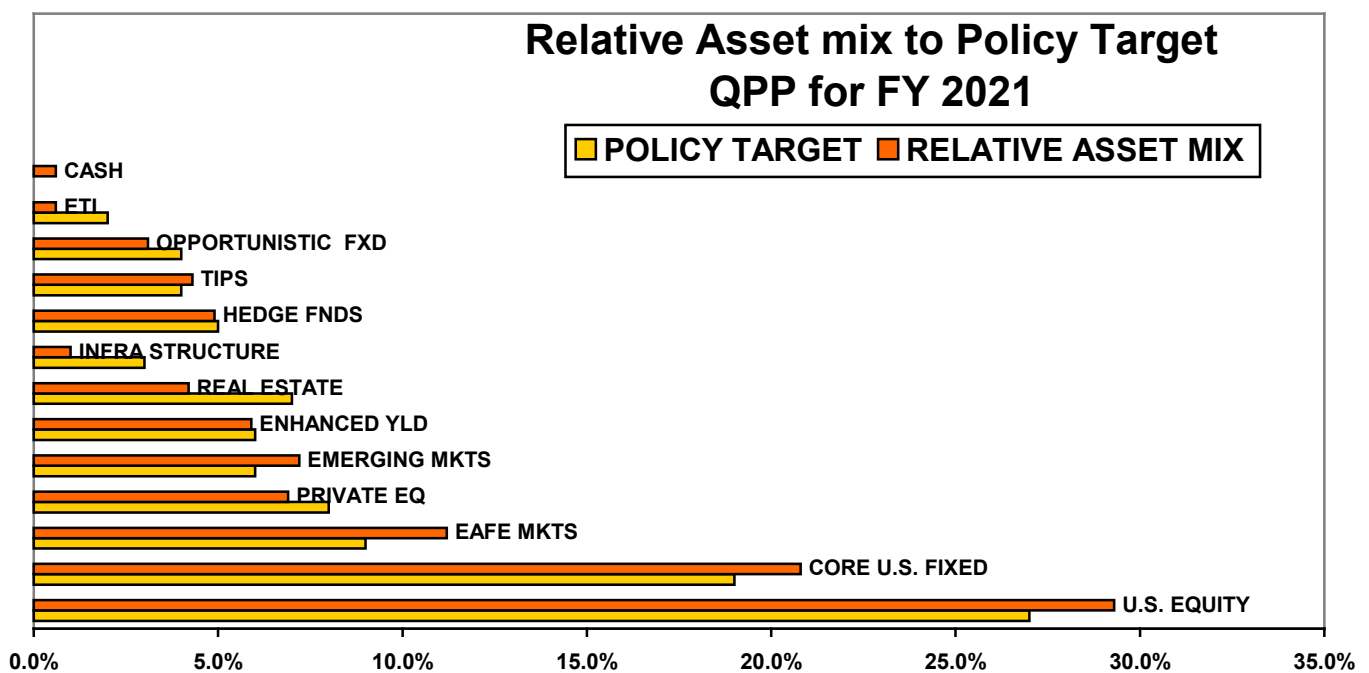
- To assure that members and beneficiaries receive benefits now and, in the future, the level of investment risk in the portfolio will be prudent and not exceed levels that may jeopardize objectives.
- To enhance portfolio returns moderate risk levels are assumed, since over the long term there is a 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, 2021. 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 6/30/2021 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 2012 through June 2021 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 2021

The Qualified Pension Fund's investment portfolio of approximately \$19.0 billion returned 24.9 %¹ on a net basis, for the fiscal year ended June 2021. This return was slightly above the gain of 24.8% posted by the Fund's policy benchmark and well above the actuarial assumed rate of return at 7.0%, for the period. The QPP closed fiscal year 2021 with a net position restricted for pension benefits totaling \$18.9 billion.

The Funds' strong investment performance reflects the significant gains across most asset classes. For the fiscal period ended June 30, 2021, the fixed income composite as a group performed well, returning approximately 3.7% for the period. The largest segment within this category, the structured fixed income group were among the worst performers, posting losses of 2.6%, just ahead of benchmark the New York City Custom structured index, which lost 2.7%. The Treasury Inflation Protected securities group, among the better performers, gained 6.4%, compared to its benchmark the Barclays Global inflation linked TIPS index at 6.5% for the period. The High yield group, among the better performers in this category, gained 15.6%, compared to its custom benchmark at 15.3%. Overall, the fixed income sector returned approximately 3.0% for the quarter ended June 30, 2021.

The equities portfolio, the largest composite among the asset classes returned 37.7% as a group, for the period. US Equities, the largest segment within equity portfolio and among the best performers, gained overall 43.6%, compared to its benchmark, the Russell 3000 Index which gained 44.2%, for the fiscal period. Private equities were the best performers within the equity portfolio. The group returned approximately 49.1% for the period, although well below its benchmark the NYC R3000+3%, which gained 67.2%. The Emerging markets group, also among the best performers posted gains of 46.0%, while its benchmark, the MSCI emerging markets index, gained 40.9% over the same period. Total International -World ex USA also among the stronger performers gained 40.6%, ahead of its benchmark World ex USA custom BM, which gained 34.8%. The Hedge Funds group, among the lower performers returned 13.7%, trailing its benchmark the HFRI Fund of Funds composite+1% at 19.5%. For the quarter ended June 30, 2021, U S Equities, posted gains averaging 7.4%.

For the five-year period ended June 30, 2021, the QPP's portfolio annualized returns remained positive at 11.6% and ahead of the portfolio policy benchmark return at 11.4%.

Investment returns for the Variable Supplements funds were similar to the returns posted by the QPP. The Fire Fighters' Variable Supplements Fund, with assets under management of \$567.3 million posted overall gains of 25.1% for the period; slightly ahead the gain of 24.9% posted by the policy benchmark. The Fire Officers Variable Supplements Fund with assets under management of \$413.0 million posted returns of approximately 25.3% for the period, just ahead of the policy benchmark with gains of 24.9%.

For the five- year period ended June 30, 2021, the FFVSF's and the FOVSF 's annualized returns approximately 11.0 % and 11.3% respectively, while the corresponding policy benchmarks returned 11.0%.

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, 2021.

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).

The Funds' combined investments including Collateral from securities lending rose from \$17,092.3 million to \$22,433.9 million, by the close of fiscal year 2021. This change is depicted in **Exhibit 2**, a chart showing changes in total investment at market value over the ten fiscal periods between 2012 and 2021.

The Funds' Portfolio assets invested during fiscal year 2021 returned net gains of \$ 3,963.3 million. The gains 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 2012 through 2021.

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 2021.

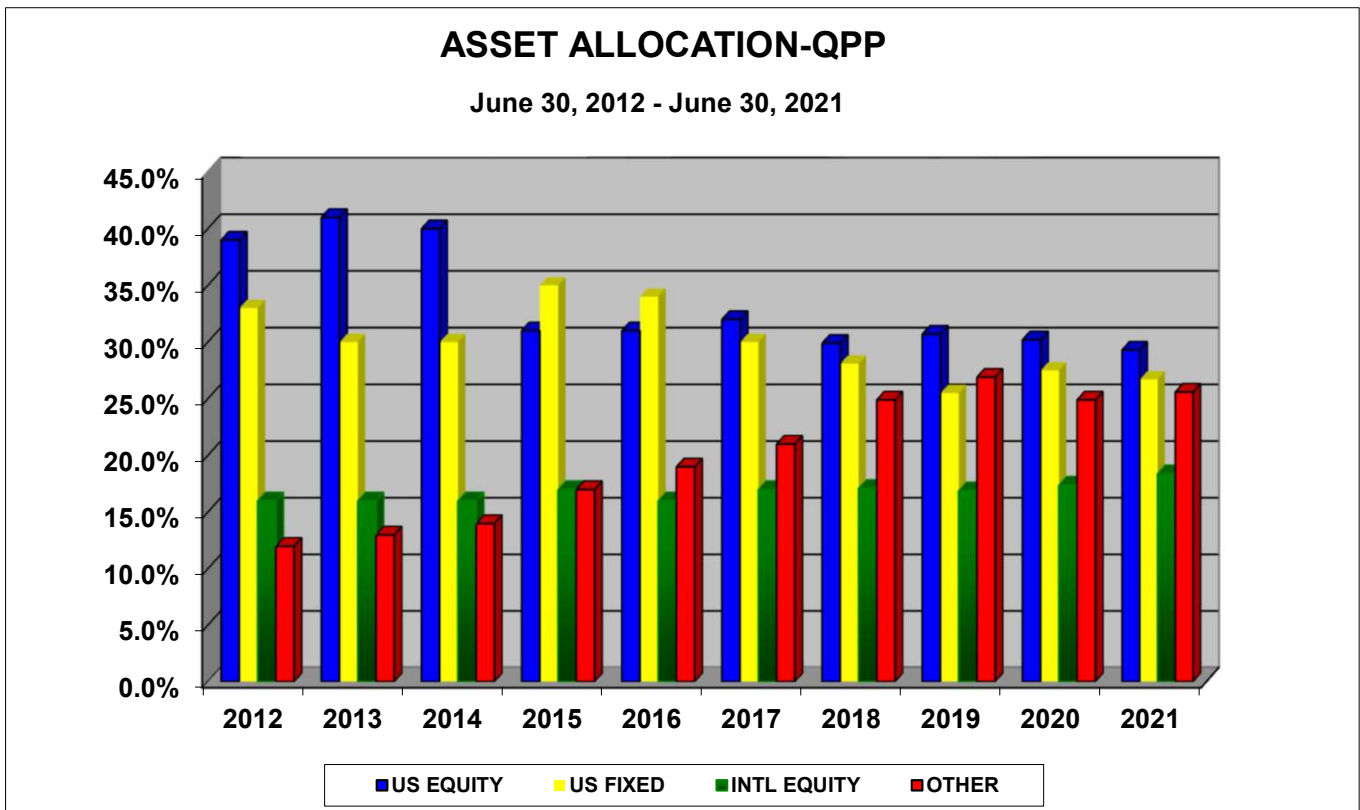
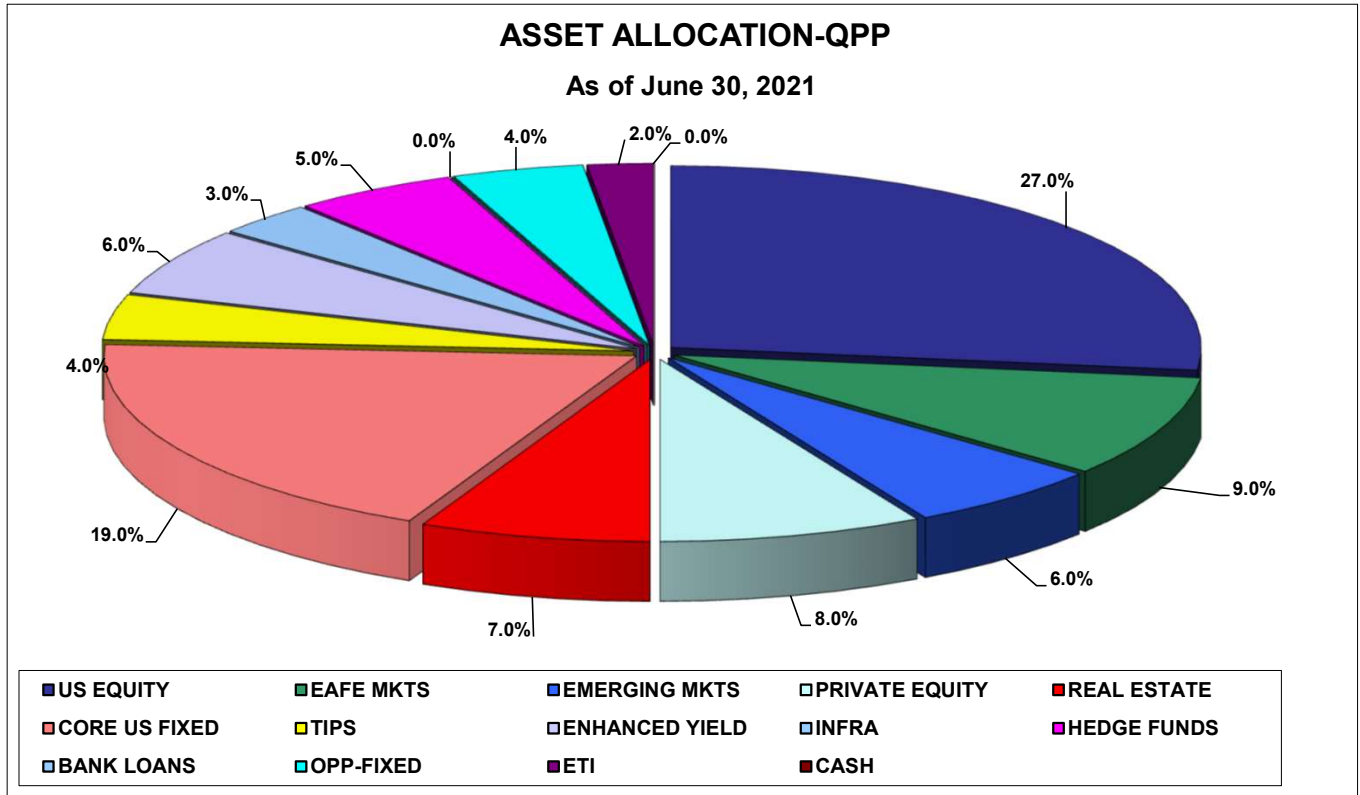


Exhibit 1B

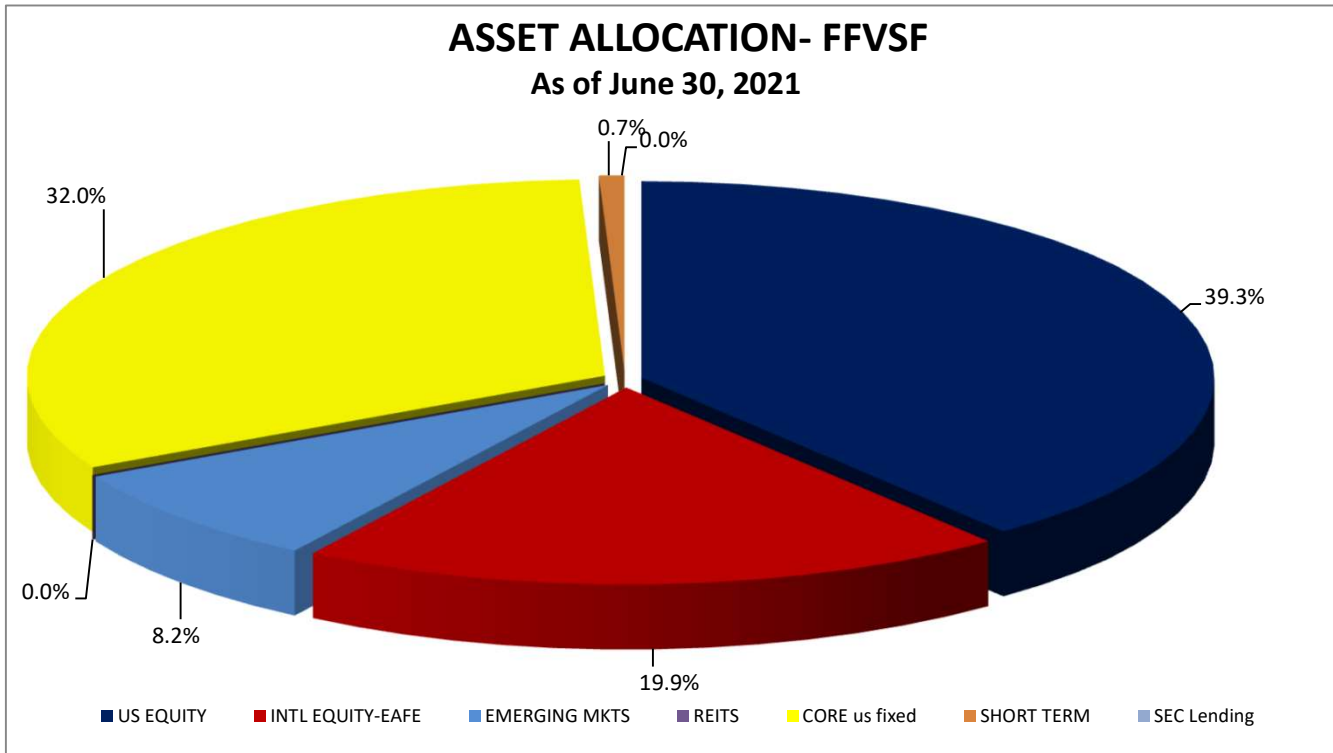
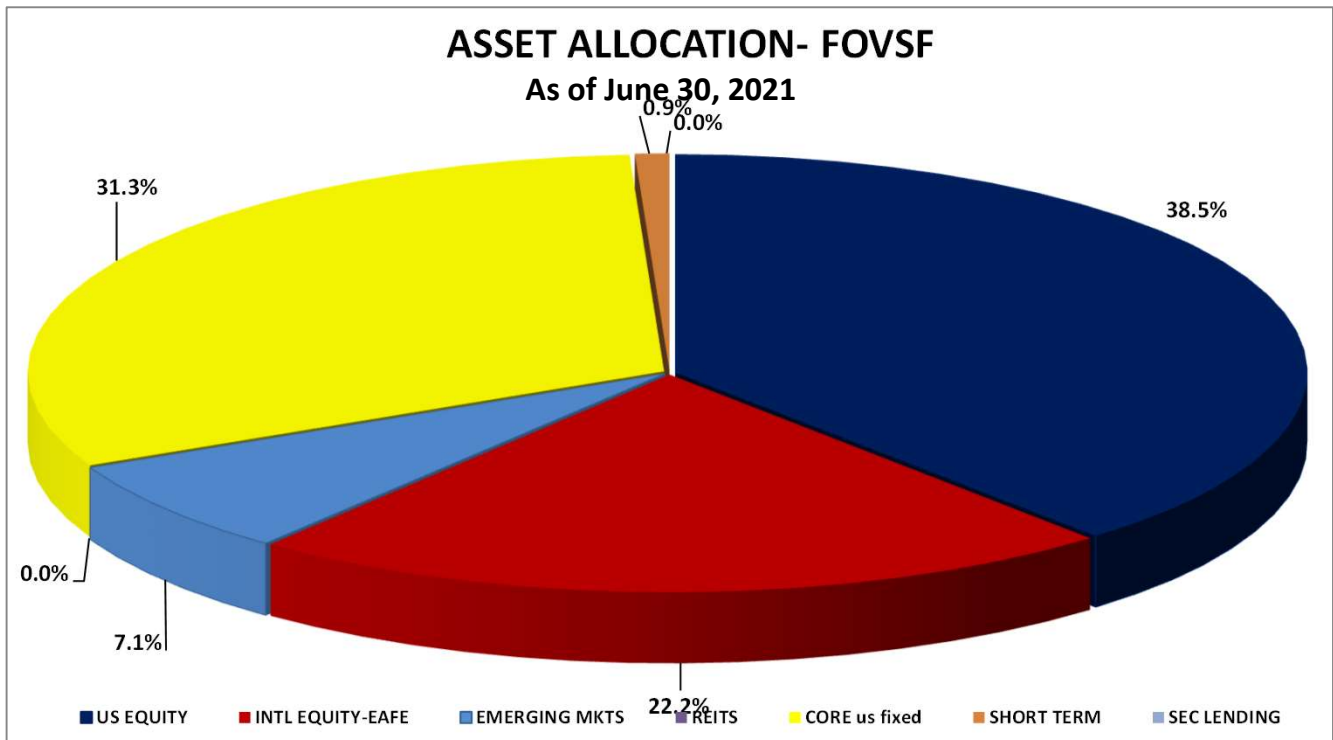


Exhibit 1C

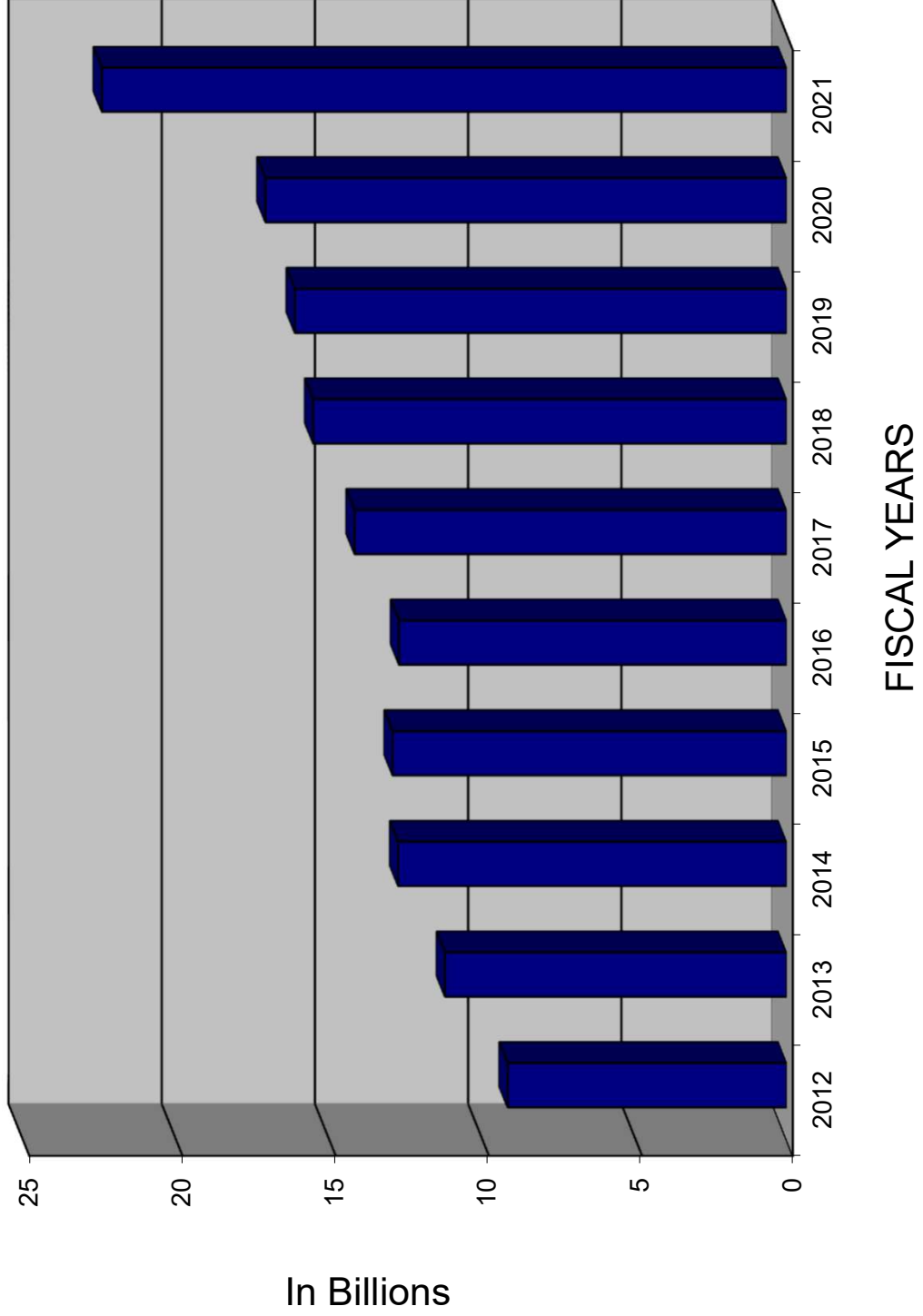


TOTAL INVESTMENTS

Fire Funds Combined

(At Market - Value)

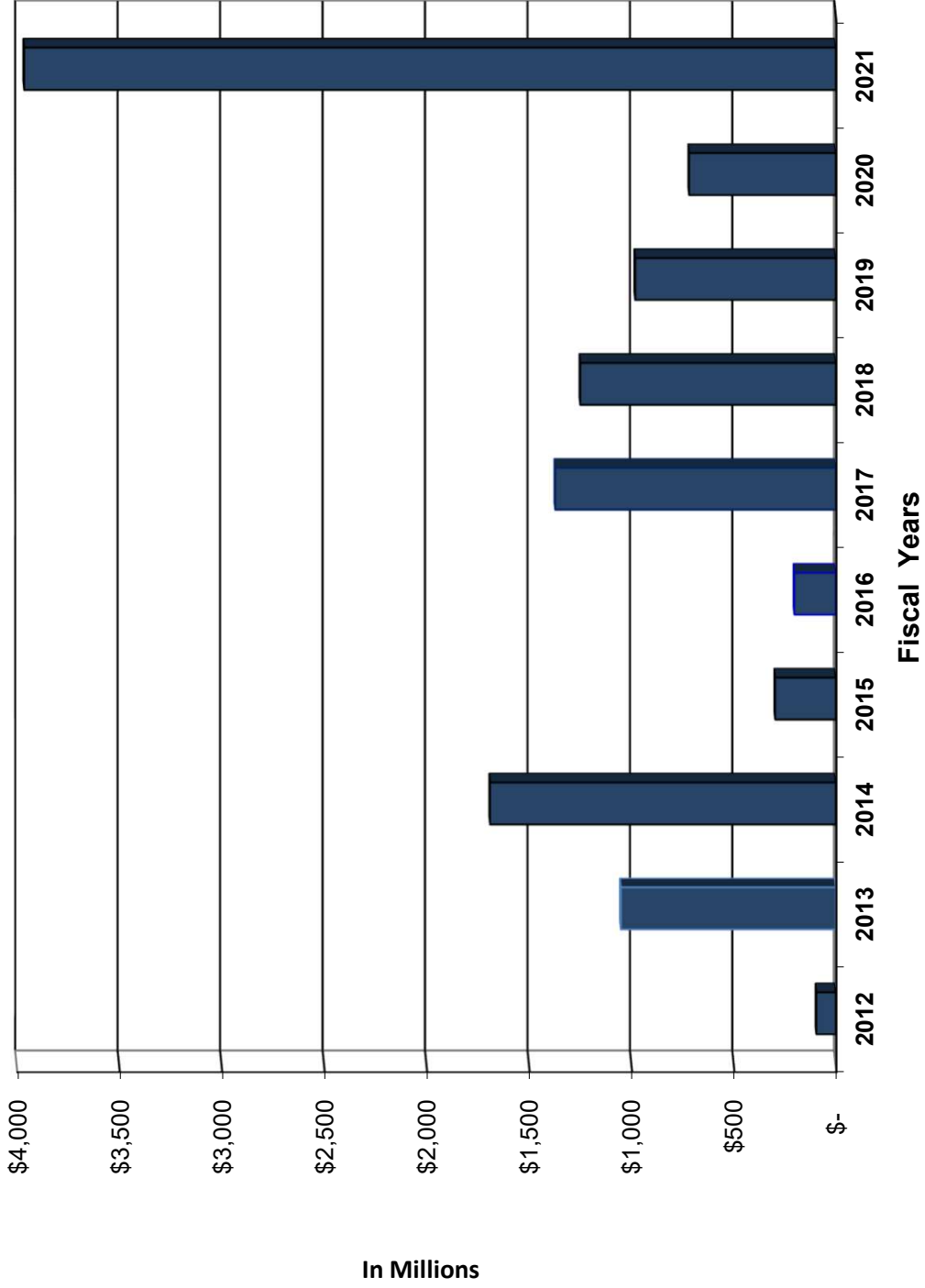
Exhibit 2



INVESTMENT INCOME

Fire Funds Combined

Exhibit 3



**Schedule of Portfolio Returns* Fire QPP
June 30, 2021**

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-21 Jun-21	Jan-21 Jun-21	Jul-20 Jun-21	Jul-18 Jun-21	Jul-16 Jun-21	Jul-11 Jun-21
5,556.59	29.28	U.S. Equities Russell 3000	7.41 8.24	14.96 15.11	43.62 44.16	17.58 18.73	17.23 17.89	n/a 14.70
1,756.29	9.25	Total International - World ex-USA World ex-USA Custom BM	5.87 5.52	8.60 9.92	40.58 34.82	12.45 8.62	14.32 10.77	n/a 6.33
1,272.81	6.71	Total Emerging mkts MSCI Emerging mkts index	4.64 5.05	8.59 7.45	46.05 40.90	11.22 11.27	13.47 13.03	n/a 4.28
100.41	0.53	Total International Fund of Funds MSCI ACWI EX USA IMI Net	8.21 5.60	9.83 9.58	40.05 37.18	11.10 9.42	n/a n/a	n/a n/a
361.42	1.90	Total Gobal Equity MSC AC World (Daily Const)	8.85 7.39	9.25 12.30	42.43 39.26	21.73 14.57	n/a n/a	n/a n/a
935.92	4.93	Total Hedge Funds HFRI Fund of Funds Composite Index + 1%	3.03 3.12	3.74 5.47	13.70 19.46	8.39 7.38	8.43 7.18	5.36 4.89
0.01	0.00	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
1,312.00	6.91	Total Private Equity NYC R3000+3% Lagged	10.34 7.12	21.82 23.72	49.13 67.21	19.66 20.59	19.44 20.09	n/a 17.30
800.98	4.22	Total Private Real Estate NCREIF NFI-ODCE NET+100BP	3.78 3.94	7.49 6.16	9.28 8.15	6.49 5.64	8.27 6.68	n/a 9.68
193.94	1.02	Total Infrastructure CPI+ 4%	3.38 3.35	8.32 5.65	18.40 9.57	11.93 6.66	13.12 6.54	n/a n/a
		Total Equity Segment	6.58	12.29	37.70	14.73	15.02	n/a
3,828.77	20.17	Total Structured Program NYC Custom Structured Index-Fire	2.97 2.88	-2.93 -2.80	-2.64 -2.72	7.28 8.53	4.41 5.28	n/a 4.92
86.80	0.46	Total Core FI-Developing MGRS BBG BARC AGG (DLY)	2.09 1.83	-1.06 -1.60	1.70 -0.33	5.82 5.34	3.52 3.03	n/a 3.39
-	-	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
819.30	4.32	Total Tips Managers BBG BARC GBL INF-LK: US TIPS (DLY)	3.41 3.25	1.69 1.73	6.43 6.51	6.51 6.53	4.17 4.17	n/a 3.40
-	-	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
120.47	0.63	Total Targeted Investments (No Cash) Fire Custom Benchmark (No Cash)	1.89 1.19	-0.94 -1.13	0.48 -0.18	5.60 4.85	3.17 2.87	3.60 3.21
1,121.16	5.91	Total High Yield High Yield Custom Benchmark	2.81 2.74	4.07 3.61	15.63 15.34	7.55 7.42	7.25 7.19	n/a 6.41
4.56	0.02	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
594.39	3.13	Total Opportunistic Fixed JPM GHY/CSFB 50/50 BLEND PLUS 300	4.87 2.83	10.78 5.27	21.86 17.35	8.07 8.96	8.85 9.44	n/a 8.78
		Total Fixed Income Segment	3.01	0.12	3.73	6.54	4.86	n/a
114.30	0.60	State Street Short Term	0.03	0.05	0.12	1.28	1.22	0.81
0.04	0.00	Cash Account	n/a	n/a	n/a	n/a	n/a	n/a
18,980.16	100.00	Total Portfolio Policy Benchmark	5.35 5.26	7.95 7.78	24.86 24.80	11.92 12.08	11.57 11.41	n/a 9.42

*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, 2021

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-21 Jun-21	Jan-21 Jun-21	Jul-20 Jun-21	Jul-18 Jun-21	Jul-16 Jun-21	Jul-11 Jun-21
222.61	39.24	U.S. Equities Russell 3000 Daily	8.26 8.24	15.12 15.11	44.27 44.16	18.62 18.73	17.85 17.89	n/a 14.70
112.62	19.85	Total WORLD ex-USA World EX-USA Custom Benchmark	5.65 5.52	10.06 9.92	35.29 34.82	9.04 8.62	11.19 10.77	n/a 6.33
46.52	8.20	Total Emerging Markets MSCI Emerging Markets	4.90 5.05	7.76 7.45	40.66 40.90	11.16 11.27	12.94 13.03	n/a 4.28
181.57	32.00	Total structured Fixed Income BBG BARC AGG (DLY)	1.92 1.83	-1.72 -1.60	-0.44 -0.33	5.38 5.34	3.17 3.03	n/a 3.39
4.00	0.71	Fire Fighters short term	0.15	0.18	0.14	1.25	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
567.32	100.00	Total Portfolio Policy Benchmark	5.32 5.12	7.59 7.32	25.08 24.94	11.41 11.47	10.98 10.96	n/a 9.36

*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, 2021

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-21 Jun-21	Jan-21 Jun-21	Jul-20 Jun-21	Jul-18 Jun-21	Jul-16 Jun-21	Jul-11 Jun-21
159.15	38.54	U.S. Equities Russell 3000/S&P500	8.19 8.24	15.24 15.11	44.48 44.16	18.75 18.73	17.96 17.89	n/a 14.70
91.81	22.23	Total WORLD ex-USA World EX-USA Custom Benchmark	5.64 5.52	10.07 9.92	35.36 34.82	8.86 8.62	12.67 10.77	n/a 6.33
29.37	7.11	Total Emerging Markets MSCI Emerging Markets	4.90 5.05	7.76 7.45	40.66 40.90	11.14 11.27	12.94 13.03	n/a 4.28
129.06	31.25	Total Structured Fixed Income BBG BARC AGG (DLY)	1.92 1.83	-1.72 -1.60	-0.44 -0.33	5.38 5.34	2.96 3.03	n/a 3.39
3.59	0.87	Fire Officers' short term	0.12	0.15	-0.11	1.10	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
412.98	100.00	Total Portfolio Policy Benchmark	5.30 5.12	7.87 7.32	25.31 24.94	11.55 11.47	11.36 10.96	n/a 9.36

*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, 2021

Schedule 2A

<u>Cusip Number</u>	<u>Security Description</u>	<u>Maturity Date</u>	<u>Interest Rate</u>	<u>Par Value</u>	<u>Fair Value</u>
912810SJ8	US TREASURY N/B	8/15/2049	2.3%	48,400,000	50,139,496
912810ST6	US TREASURY N/B	11/15/2040	1.4%	47,000,000	42,219,160
912810SU3	US TREASURY N/B	2/15/2051	1.9%	43,500,000	41,515,530
912810SX7	US TREASURY N/B	5/15/2051	2.4%	38,000,000	40,571,080
912810SS8	US TREASURY N/B	11/15/2050	1.6%	44,600,000	40,056,598
912810SW9	US TREASURY N/B	2/15/2041	1.9%	39,700,000	38,862,727
912810RM2	US TREASURY N/B	5/15/2045	3.0%	32,300,000	38,091,390
912810SF6	US TREASURY N/B	2/15/2049	3.0%	30,700,000	36,754,961
912810SP4	US TREASURY N/B	8/15/2050	1.4%	41,700,000	35,153,517
912810RH3	US TREASURY N/B	8/15/2044	3.1%	29,000,000	34,803,480
912810SE9	US TREASURY N/B	11/15/2048	3.4%	26,000,000	33,196,800
912810SQ2	US TREASURY N/B	8/15/2040	1.1%	36,400,000	31,315,284
91282CCG4	US TREASURY N/B	6/15/2024	0.3%	31,500,000	31,308,165
912810RT7	US TREASURY N/B	8/15/2046	2.3%	30,250,000	31,277,895
912810SY5	US TREASURY N/B	5/15/2041	2.3%	30,000,000	31,214,100
912810SL3	US TREASURY N/B	2/15/2050	2.0%	30,700,000	30,160,294
91282CCD1	US TREASURY N/B	5/31/2023	0.1%	30,000,000	29,935,500
91282CCK5	US TREASURY N/B	6/30/2023	0.1%	30,000,000	29,928,600
912810SD1	US TREASURY N/B	8/15/2048	3.0%	24,800,000	29,610,704
912810QT8	US TREASURY N/B	11/15/2041	3.1%	24,700,000	29,443,141
912810SH2	US TREASURY N/B	5/15/2049	2.9%	24,500,000	28,689,010
91282CBX8	US TREASURY N/B	4/30/2023	0.1%	28,500,000	28,446,705
912828XT2	US TREASURY N/B	5/31/2024	2.0%	26,000,000	27,171,040
912810SK5	US TREASURY N/B	11/15/2049	2.4%	25,300,000	26,940,452
912810SA7	US TREASURY N/B	2/15/2048	3.0%	21,750,000	25,926,653
912810QY7	US TREASURY N/B	11/15/2042	2.8%	22,950,000	25,843,077
912810QL5	US TREASURY N/B	11/15/2040	4.3%	18,190,000	25,092,196
912810SN9	US TREASURY N/B	5/15/2050	1.3%	30,600,000	24,985,512
912810SR0	US TREASURY N/B	5/15/2040	1.1%	28,700,000	24,776,136
912810RZ3	US TREASURY N/B	11/15/2047	2.8%	17,875,000	20,348,185
91282CAR2	US TREASURY N/B	10/31/2022	0.1%	20,000,000	19,991,400
912828WJ5	US TREASURY N/B	5/15/2024	2.5%	18,500,000	19,596,310
912828TY6	US TREASURY N/B	11/15/2022	1.6%	19,000,000	19,383,040
91282CAX9	US TREASURY N/B	11/30/2022	0.1%	19,000,000	18,987,460
912828M80	US TREASURY N/B	11/30/2022	2.0%	18,500,000	18,978,410
91282CBA8	US TREASURY N/B	12/15/2023	0.1%	19,000,000	18,899,870
91282CBD2	US TREASURY N/B	12/31/2022	0.1%	18,500,000	18,484,090
91282CCC3	US TREASURY N/B	5/15/2024	0.3%	18,250,000	18,150,173
91282CBU4	US TREASURY N/B	3/31/2023	0.1%	18,000,000	17,972,640
912810SC3	US TREASURY N/B	5/15/2048	3.1%	14,400,000	17,561,808
912828ZX1	US TREASURY N/B	6/30/2022	0.1%	17,000,000	17,003,910
91282CBR1	US TREASURY N/B	3/15/2024	0.3%	17,000,000	16,932,340
91282CBE0	US TREASURY N/B	1/15/2024	0.1%	17,000,000	16,896,980

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, 2021

Schedule 3A

Cusip Number	Security Name	Share/Par Value	Fair Value
037833100	APPLE INC COMMON STOCK USD.00001	1,089,554	149,225,316
594918104	MICROSOFT CORP COMMON STOCK USD.00000625	523,004	141,681,784
023135106	AMAZON.COM INC COMMON STOCK USD.01	30,121	103,621,059
037833100	APPLE INC COMMON STOCK USD.00001	474,806	65,029,430
594918104	MICROSOFT CORP COMMON STOCK USD.00000625	227,913	61,741,632
30303M102	FACEBOOK INC CLASS A COMMON STOCK USD.000006	166,088	57,750,458
02079K305	ALPHABET INC CL A COMMON STOCK USD.001	20,874	50,969,924
02079K107	ALPHABET INC CL C COMMON STOCK USD.001	19,681	49,326,884
023135106	AMAZON.COM INC COMMON STOCK USD.01	13,146	45,224,343
88160R101	TESLA INC COMMON STOCK USD.001	53,835	36,591,650
084670702	BERKSHIRE HATHAWAY INC CL B COMMON STOCK USD.0033	130,148	36,170,732
67066G104	NVIDIA CORP COMMON STOCK USD.001	41,500	33,204,150
46625H100	JPMORGAN CHASE + CO COMMON STOCK USD1.0	208,719	32,464,153
478160104	JOHNSON + JOHNSON COMMON STOCK USD1.0	182,845	30,121,885
92826C839	VISA INC CLASS A SHARES COMMON STOCK USD.0001	117,469	27,466,602
91324P102	UNITEDHEALTH GROUP INC COMMON STOCK USD.01	65,285	26,142,725
30303M102	FACEBOOK INC CLASS A COMMON STOCK USD.000006	72,391	25,171,075
437076102	HOME DEPOT INC COMMON STOCK USD.05	74,626	23,797,485
70450Y103	PAYPAL HOLDINGS INC COMMON STOCK USD.0001	81,545	23,768,737
742718109	PROCTER + GAMBLE CO/THE COMMON STOCK	168,963	22,798,178
717081103	PFIZER INC COMMON STOCK USD.05	573,519	22,459,004
037833100	APPLE INC COMMON STOCK USD.00001	162,930	22,314,893
02079K305	ALPHABET INC CL A COMMON STOCK USD.001	9,097	22,212,964
57636Q104	MASTERCARD INC A COMMON STOCK USD.0001	60,722	22,168,995
254687106	WALT DISNEY CO/THE COMMON STOCK USD.01	126,001	22,147,196
02079K107	ALPHABET INC CL C COMMON STOCK USD.001	8,620	21,604,478
060505104	BANK OF AMERICA CORP COMMON STOCK USD.01	523,320	21,576,484
00724F101	ADOBE INC COMMON STOCK USD.0001	33,133	19,404,010
30231G102	EXXON MOBIL CORP COMMON STOCK	293,884	18,538,203
20030N101	COMCAST CORP CLASS A COMMON STOCK USD.01	316,491	18,046,317
375558103	GILEAD SCIENCES INC COMMON STOCK USD.001	235,090	16,188,297
92343V104	VERIZON COMMUNICATIONS INC COMMON STOCK USD.1	287,571	16,112,603
464287622	ISHARES RUSSELL 1000 ETF ISHARES RUSSELL 1000 ETF	65,989	15,974,617
88160R101	TESLA INC COMMON STOCK USD.001	23,445	15,935,567
64110L106	NETFLIX INC COMMON STOCK USD.001	29,950	15,819,890
084670702	BERKSHIRE HATHAWAY INC CL B COMMON STOCK USD.0033	56,698	15,757,508
458140100	INTEL CORP COMMON STOCK USD.001	280,497	15,747,102
17275R102	CISCO SYSTEMS INC COMMON STOCK USD.001	293,263	15,542,939
717081103	PFIZER INC COMMON STOCK USD.05	387,407	15,170,858
79466L302	SALESFORCE.COM INC COMMON STOCK USD.001	61,466	15,014,300
191216100	COCA COLA CO/THE COMMON STOCK USD.25	269,433	14,579,020
67066G104	NVIDIA CORP COMMON STOCK USD.001	18,120	14,497,812
00206R102	AT+T INC COMMON STOCK USD1.0	495,699	14,266,217
713448108	PEPSICO INC COMMON STOCK USD.017	95,879	14,206,391
46625H100	JPMORGAN CHASE + CO COMMON STOCK USD1.0	90,956	14,147,296
166764100	CHEVRON CORP COMMON STOCK USD.75	134,253	14,061,659
931142103	WALMART INC COMMON STOCK USD.1	99,548	14,038,259
002824100	ABBOTT LABORATORIES COMMON STOCK	120,535	13,973,623

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

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
US Equities		
Altravue-US SCV - Legato	\$ 5.88	\$ 26,178
Ballast-US SCV - Legato	3.02	2,471
Blackrock R2000 Growth	0.03	1
Blackrock R2000 Value	0.02	1
BlackRock US LMC R1000 Core	2,877.72	55,272
Bowling-US SCV - Legato	-	3,635
Bridge City-US SCG - Legato	3.86	21,812
Brown Asset Mgmt US SCG	95.39	981,818
Ceredex US SCV	-	-
Cooke & Bieler US SCV	67.72	578,687
Dalton US SCV	-	-
Dean-US SCV - Legato	7.13	38,345
Essex-US SCG - Legato	5.03	26,155
Iridian	-	-
Legal General US LMCE	544.59	347,730
LEG-TRANSITION	0.00	2,058
Lisanti-US SCG - Legato	5.52	28,779
Nicholas Investment-US SCG - Legato	1.86	1,456
Panagora - US SCC	68.75	316,271
PIMCO RAFI-US LMCE	558.49	526,181
Pzena US SCV	80.54	491,616
RAFI Enhanced Large Co.	-	-
SSGA-US LMC RTOP200 Core	910.45	47,643
Wasatch US SCG	71.44	659,903
Wellington Mgmt MCC	249.15	1,569,399
Total US Equities	5,556.59	5,725,411
NON-US Equities		
Acadian-EM	180.96	400,547
Acadian-EM	0.04	111,199
Acadian-WorldxUS SCC	137.17	287,266
Acadian-WorldxUS SCC	0.18	78,380
Algert-EAFE SCC	25.52	79,177
ARGA-WorldxUS LMCV - Xponance	15.52	49,561
Ativo-EAFE ACG - Xponance	0.03	1,618
Aubrey-EM ACG - Xponance	15.57	78,782
Baillie Gifford-EM	245.72	1,146,307
Baillie Gifford-EM	-	-
Baillie Gifford-WorldxUS LMCC	396.50	880,090
Baillie Gifford-WorldxUS LMCC	0.24	-

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
BlackRock MSCI-EM Core	\$ 223.67	\$ 66,215
Causeway-WorldxUS LMCC	251.35	788,749
Causeway-WorldxUS LMCC	0.72	-
Change Global-EM ACV - Xponance	0.01	18,751
Denali-EAFE ACV - Xponance	0.03	900
DFA-EM	-	55,410
Dundas-EAFE ACG - Xponance	11.08	63,069
Fidelity-WorldxUS SCC	0.00	-
Fiera-Global	168.01	826,936
Foresight-EAFE LMCV - Xponance	12.76	52,699
Martin-EAFE ACG - Xponance	11.59	50,707
Metis-EAFE ACV - Xponance	0.01	475
Morgan Stanley-Global	193.41	884,968
North of South-EM ACV - Xponance	12.01	10,183
Osmosis-EAFE ACV - Xponance	11.84	54,205
Parametric-EM	0.32	25,222
Pzena-EM ACV	286.57	1,705,508
Redwood-EAFE ACG - Xponance	9.95	44,183
Sands-EM LCG	162.91	741,567
Sprucegrove-WorldxUS LMCC	296.58	297,190
Sprucegrove-WorldxUS LMCC	0.72	245,437
SSGA-WorldxUS LMC MSCI Core	187.14	21,774
SSGA-WorldxUS SC MSCI	100.68	27,339
UBS-EM ACC	172.61	808,451
Walter Scott-WorldxUS LMCC	358.94	974,821
Walter Scott-WorldxUS LMCC	0.56	-
Xponance Transition-WorldxUS	0.00	29,847
Total NON-US Equities	3,490.92	10,907,533
Fixed Income		
Advent-Convertible Bonds	-	(8,320)
AFL0CIO Housing Investment Trust	63.10	199,938
Bain-Bank Loans	4.12	106,516
Barings-Bank Loans	0.44	106,951
Blackrock TIPS	182.30	96,775
BlackRock-Credit	172.27	72,595
BlackRock-Mortgages	572.92	226,782
Brigade High Yield	147.82	390,460
Cash Account	0.04	-
Eaton Vance-High Yield	167.77	439,371
GIA-Core Plus	37.50	83,685

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Guggenheim-Bank Loans	\$ -	\$ -
Integrity-Core - Progress	-	(31)
LM Capital-Core Plus	33.22	47,821
Mackay Shields-High Yield	166.27	396,348
Neuberger Berman-Credit	173.20	59,798
Neuberger Berman-Mortgages	0.00	10,339
New Century-Core Plus - Progress	-	(89)
Nomura-High Yield	144.33	326,093
Optimum Quantvest-Core - Progress	-	(25)
Prudential-Credit	86.10	63,378
Pugh-Core Plus - Progress	-	(4,988)
Pugh-CorePlus	16.08	32,612
Ramirez-Core - Progress	-	2,217
RBC Access MBS	29.08	52,169
Securities Lending	0.00	-
Shenkman-High Yield	179.30	599,303
SSGA-IT Treasury 1-10Y	6.77	681
SSGA-LI Treasury	84.76	54,126
SSGA-LT Treasury 10Y Plus	1,190.46	88,447
SSGA-ST Treasury 1-3Y	1,023.75	63,057
SSGA-TIPS	637.00	28,185
T Rowe Price-Credit	289.13	301,035
T Rowe Price-High Yield	315.66	1,001,067
Taplin-Credit	-	32,278
Wellington-Mortgages	229.41	71,837
Total Fixed Income	5,952.80	4,940,411
Opportunistic Fixed Income		
400 Capital Centre Street	4.50	62
Angelo Gordon Ct St Ptnrs	45.44	395,518
Apollo Centre Street Partnership	48.20	506,323
Ares Centre Street	48.32	958,781
Ave Special Situation Fund VI	1.88	-
Avenue Europe Special Situations Fund	-	-
Brightwood Capital Advisors III	2.62	124,360
Brightwood Capital Advisors IV	17.14	516,979
Contrarian C A	17.74	128,820
FCO MA Centre Street II ER	16.31	455,144
Fortress Ctr St Ptnrs	32.08	472,750
Golden Tree	58.84	395,556
Intermediate Capital Group	23.43	318,304

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
KKR NYC Credit B	\$ 40.14	\$ 476,180
KKR NYC Credit C	2.48	36,624
Maranon Capital	21.53	136,582
Marathon Centre Street Partnership	83.53	596,663
Oak Hill Centre Street Partnership	80.80	655,732
Oaktree Opp Fd IX	19.81	377,832
Torchlight Debt Opp Fd III	0.02	-
Torchlight Debt Opportunity Fund VI	19.70	250,519
Torchlight Debt Opportunity Fund VII	5.14	225,575
Torchlight Investors	4.74	99,486
Total Opportunistic Fixed Income	594.39	7,127,790
Hedge Funds		
Altimeter Partners Fund	36.79	289,171
Breven Howard Series L2	4.32	391,195
Caspian Select Credit Fund	79.43	617,102
D.E. Shaw Composite Fund	107.74	2,888,484
DL Partners Opp	46.72	1,857,282
Fir Tree Value Fund	0.00	-
Florin Court Capital	43.00	549,627
Gotham Asset Management	-	100,408
Gresham Quant ACAR Fund	36.29	987,242
GSA Capital Partners	61.79	374,105
Key Square Group	53.57	937,668
Lansdowne Euro Absolute Opp Fd	27.31	321,896
Luxor Capital	82.97	770,970
Permal Asset Management	0.01	-
Perry Partners	0.03	-
Pharo Macro Fund	44.40	-
Pharo Management	63.37	-
Quest Partners	62.50	741,810
SRS Investment Management	55.54	723,124
Standard General	20.30	652,710
Turiya Capital Management	63.60	1,973,431
Voloridge Aggressive	10.07	221,583
Voloridge Fund	36.17	558,583
Total Hedge Funds	935.92	14,956,391
Private Equity		
ACON Equity Partners III	0.02	134
Aisling Capital II	0.03	529

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Aisling Capital III	\$ 0.03	\$ 13,312
Altaris Health Partners III	2.16	208,996
American Securities Partners VI	15.03	377,936
American Securities Partners VII	14.83	152,190
Ampersand 2011	0.14	22,237
Apax IX USD	35.13	339,700
Apax X USD	4.91	468,164
Apollo Investment Fund IX	26.57	851,462
Apollo Investment Fund V	0.13	1,897
Apollo Investment Fund VI	0.38	5,153
Apollo Investment Fund VII	1.92	24,551
Apollo Investment Fund VIII	34.89	357,679
Ares Corp. Opportunities Fund I	0.05	6,364
Ares Corporate Opportunities Fund II	0.01	(1,176)
Ares Corporate Opportunities Fund III	0.69	216,426
Ares Corporate Opportunities Fund IV	11.51	1,343,190
Ares Corporate Opportunities Fund V	15.67	164,217
Arlington Capital Partners II	0.01	188
Arsenal Capital Partners II	0.04	2,467
ASF VI B	4.14	176,036
ASF VI B NYC Co-Invest	3.40	20,823
ASF VII B	8.59	97,749
ASF VII B NYC Co-Invest	4.95	7,473
ASF VIII B	11.18	437,716
ASF VIII B Co-Invest	3.07	14,704
Atlantic Equity Partners IV	4.01	9,963
Avista Capital Partners	0.00	1,286
Avista Capital Partners II	0.78	2,897
AXA Secondary Fund V B	0.26	46,476
BC European Capital IX	26.60	263,882
BC European Capital X	20.41	202,650
BC European Capital X SideCar	11.93	4,233
BC Partners XI	-	155,239
BC Partners XI Co-Invest	0.94	29,549
BDCM Opportunity Fund III	12.02	135,853
Blackstone Capital Partners IV	0.23	57,219
Blackstone Capital Partners V	0.26	8,853
Blackstone Capital Partners VI	6.28	429,483
Blackstone Capital Partners VIII	2.74	531,157
Blue Wolf Capital Fund II	0.07	9,607
Bridgepoint Europe IV	1.20	344,674

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Bridgepoint Europe V	\$ 13.23	\$ 90,034
Bridgepoint Europe V Co-Invest	4.02	830
Bridgepoint Europe VI	12.77	435,801
Bridgepoint Europe VI Co-Invest	4.06	38,097
Capital Partners PE Income Fund	0.09	763
Capital Point Partners	0.78	46,487
Carlyle Partners V	1.20	14,364
Carlyle Partners VI	23.94	672,566
Carlyle Partners VI SideCar	2.55	(197)
Catterton Partners VI	1.61	19,707
Centerbridge Capital Partners III	4.57	322,805
Clearlake Capital Partners VI	5.95	139,501
Coller International Partners V	0.18	3,037
ComVest Investment Partners IV	4.51	105,971
Constellation Venture Capital III	2.10	6,891
Crestview Partners II	4.17	303,919
Crestview Partners III	18.32	223,271
Crestview Partners III SideCar	8.98	14,181
Crestview Partners IV	3.29	225,280
Crestview Partners IV SideCar	1.22	35,699
CVC Capital Partners VI	42.96	301,066
CVC Capital Partners VII	24.97	558,075
CVC European Equity Partners V	0.60	170,314
CVC European Equity Partnership III USD	0.64	2,849
Cypress Merchant Banking Partners II	0.01	-
EQT IX Co-Invest	3.67	59,477
EQT IX USD	7.36	248,159
EQT VI	5.35	(113,010)
EQT VII (No.2)	33.38	1,697,736
EQT VIII	24.48	379,638
EQT VIII Co-Invest	6.29	30,115
Euro Choice III	0.03	-
Euro Choice IV	1.40	198,564
Fairview Emerging Managers Tranche 1	0.15	4,047
Fairview Emerging Managers Tranche 2	4.99	50,466
Falconhead Capital Partners II	0.87	57,760
FdG Capital Partners	0.00	-
FdG Capital Partners II	0.10	(2,730)
First Reserve Fund XI	-	1,038
First Reserve Fund XII	0.28	1,745
FirstMark Capital I (fka FirstMark IV)	6.16	-

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees
FS Equity Partners V	\$	0.91	\$ 2,983
FS Equity Partners VI		4.93	1,175,980
FTV IV		3.36	728,108
FTV V		7.63	66,767
FTV VI		2.54	104,793
FTVentures III		0.76	20,808
GCM Emerging Manager Fund		5.44	72,197
GF Capital Private Equity Fund		1.36	5,657
GI Partners Fund III		0.02	-
Gleacher Mezzanine Fund II		0.04	225
Grain Communications Opportunity FD III		0.38	61,299
Grain Fund II		3.02	62,578
Green Equity Investors VI		30.02	483,268
Green Equity Investors VII		22.41	474,236
Green Equity Investors VIII		8.65	333,106
Green Equity Investors VIII Co-Invest		3.14	13,741
Grey Mountain Partners Fund III		0.31	5,206
GSO Capital Opportunities Fund		0.11	3,117
Heartwood Partners II		0.85	21,259
Heartwood Partners III		1.93	42,528
Hg Genesis 9 A		0.93	108,932
Highland Consumer Fund I		0.33	1,227
ICV Partners III		2.38	21,512
ICV Partners IV		1.42	64,892
Incline Equity Partners III		0.36	123,933
Intermedia Partners VII		1.07	-
JP Morgan Fleming Tranche A		0.77	338
KKR Americas Fund XII		38.36	346,896
KKR Asian Fund IV		2.10	74,514
KKR Europe V		10.37	253,750
Landmark - NYC Fund I		6.28	13,038
Landmark Equity Partners XIV		2.11	282,619
Landmark Equity Partners XV		12.27	355,360
Levine Leichtman Capital Partners IV		0.70	224
Lexington Capital Partners IX		9.72	386,267
Lexington Capital Partners IX SideCar		2.96	16,098
Lexington Capital Partners VII		1.97	57,600
Lexington Capital Partners VIII		28.91	450,990
Lincolnshire Equity Fund II		0.13	-
Lincolnshire Equity Fund III		1.65	28,379
Lincolnshire Equity Fund IV		0.72	9,989

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Lindsay Goldberg V	\$ 3.64	\$ 183,119
Markstone Capital Partners	0.02	-
Medica III Investments (International)	0.46	-
MidOcean Partners III	1.27	89,155
Milestone Partners III	0.21	730
Mill City Fund II	1.40	20,253
Montreux Equity Partners IV	4.08	69,380
New Mainstream Capital II	0.82	28,831
New Mountain Partners II	0.03	178
New Mountain Partners III	7.45	747,234
NGN BioMed Opportunity II	2.35	21,837
NMS Fund III	1.89	38,323
NorthBound Emerging Manager Custom Fund	0.88	24,180
NYC-NorthBound Emerging Managers Program	1.72	-
Olympus Capital Asia III	0.84	22,397
Olympus Growth Fund VI	12.22	47,452
One Rock Capital Partners III	1.85	110,527
Onex Partners III	1.11	10,870
Paladin III	9.66	(333,796)
Palladium Equity Partners III	0.07	170,044
Palladium Equity Partners IV	8.98	104,422
Palladium V	3.79	116,839
Patriot Financial Partners II	0.84	21,434
Patriot Partners III	2.64	55,702
PCG Clean Energy Tech Fund East	0.82	10,743
Pegasus Partners IV	1.45	75,606
Pegasus Partners V	5.09	89,404
Permira IV	0.91	33,621
Pine Brook Capital Partners	0.46	1,966
Platinum Equity Capital Partners V	10.99	369,331
Platinum Equity Partners III	7.04	1,720,694
Platinum Equity Partners IV	20.88	405,973
Platinum Equity Partners IV SideCar	2.62	1,297
Platinum Equity Small Cap Fund I	3.86	9,137
Post Capital Equity Partners II	0.48	3,546
Psilos Group Partners III	-	14,223
Raine Partners II	8.10	357,791
Raine Partners III	2.79	125,294
Reverence Capital II	1.70	61,098
Reverence Capital II SideCar	0.92	826

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Riverstone/Carlyle Global Energy&PowerIV	\$ 0.17	\$ 11,353
RRE Ventures IV	4.50	2,075
Scale Venture Partners III	1.17	(1,184)
SCP Private Equity Partners II	0.97	6,151
SCP Vitalife Partners II	1.30	39,139
Siris Partners III	3.97	88,483
Siris Partners IV	10.36	198,709
Snow Phipps Group	2.33	3,248
Snow Phipps Group II	4.17	114,417
Stellex Capital Partners	2.30	41,212
Stellex Capital Partners II	1.33	-
Summit Partners Growth Equity VIII-A	19.78	1,384,940
Terra Firma Capital Partners III	0.02	3,653
The Fourth Cinven Fund	0.00	-
The Resolute Fund V	-	96,792
Thomas, McNerney & Partners II	0.21	12,027
Trident V	9.83	80,172
Trilantic Capital Partners IV	0.39	(121,981)
Trilantic Capital Partners V	6.05	59,219
Trilantic Capital Partners VI N. America	6.94	425,827
United States Power Fund III	1.32	14,742
USPF II Institutional Fund	0.59	10,401
Valor Equity Partners III	2.67	13,030
Valor Equity Partners IV	8.14	79,180
Valor Equity Partners V	3.29	227,848
Vista Equity Partners III	0.62	11,124
Vista Equity Partners IV	19.76	145,296
Vista Equity Partners V	51.44	411,304
Vista Equity Partners VI	40.49	2,965,112
Vista Equity Partners VII	23.70	576,696
Vista Foundation Fund II	2.52	181,488
Vistria Fund III	2.14	46,855
Warburg Pincus Financial Sector Fund	21.78	279,675
Warburg Pincus Global Growth	18.44	500,116
Warburg Pincus XI	19.79	468,656
Warburg Pincus XII	46.52	1,133,607
Webster Capital III	2.11	184,814
Wellspring Capital Partners V	2.42	19,038
Welsh Carson Anderson & Stowe XI	2.07	4,597

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Welsh Carson Anderson & Stowe XII	\$ 18.72	\$ 1,008,018
Welsh Carson Anderson & Stowe XIII	4.67	474,034
Yucaipa American Alliance I	0.05	30,731
Yucaipa American Alliance II	12.79	25,166
Yucaipa Corporate Initiatives II	1.26	607
Total Private Equity	1,311.18	36,247,916
Private Real Estate		
Aermont Capital Real Estate Fund IV	2.58	133,567
AG Realty Fund VII	0.17	3,475
Almanac Realty Securities IX	-	-
Almanac Realty Securities VIII	3.14	130,560
Almanac Realty Securities VIII SideCar	2.43	10,284
American Value Partners Fund I	0.21	7,802
ARA Asia Dragon Limited	-	-
Ares European Real Estate Fund III	0.13	14,218
ARS IX SC II	-	-
Artemis Co-Investment	11.35	118,695
Artemis Income & Growth	4.07	22,683
Avanath Affordable Housing II	2.92	36,342
BIG Real Estate Fund I	3.72	57,460
Big Real Estate Fund II	-	-
Black Creek Industrial Fund	-	-
Blackstone RE Partners EUR VI	7.22	372,602
Blackstone RE Partners Europe III	0.58	7,985
Blackstone RE Partners Europe IV	7.60	99,618
Blackstone RE PTNRS IX	17.10	534,693
Blackstone Real Estate Partners IV	0.12	1,395
Blackstone Real Estate Partners VI	0.35	18,953
Blackstone Real Estate Partners VII	11.52	171,511
Blackstone Real Estate Partners VIII	24.27	1,699,866
Brookfield Premier Real Estate Partners	27.03	560,182
Brookfield Strategic RE Partners I	7.46	145,062
Brookfield Strategic RE Partners III	18.75	319,527
Canyon Johnson Urban Fund II	4.38	506
Canyon Johnson Urban Fund III	-	157
Carlyle Property Investors	25.50	366,775

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Carlyle Realty Partners V	\$ 0.98	\$ 159,200
Carlyle Realty Partners VI	1.50	25,240
Carlyle Realty Partners VII	5.65	244,597
Colony Investors VIII	0.38	3,552
Colony Realty Partners II	3.89	-
Cortland Growth and Income	26.61	129,891
DivcoWest Fund III	0.04	23,237
DivcoWest Fund IV	4.13	266,732
DivcoWest Fund V	8.44	318,922
Divcowest Fund VI-A	1.90	562,976
DRA Growth and Income Fund IX	6.85	131,886
DRA Growth and Income Fund X	3.32	78,895
Elmtree U.S. Net Lease Fund IV	2.42	59,363
EPISO IV	9.52	197,277
Exeter Core Industrial Club Fund II	7.58	52,903
Exeter Industrial Core Fund III	12.05	37,085
Exeter Industrial Value Fund IV	14.18	112,148
Exeter Industrial Value Fund V	3.83	61,897
GreenOak Asia USD III	4.73	271,108
H/2 Special Opportunities II	0.18	14,245
H/2 Special Opportunities III	4.29	114,622
H/2 Special Opportunities IV	21.60	240,921
Harrison St Core Prop SideCar	2.26	9,353
Harrison Street Core Prop Fd	7.35	58,755
Heitman America Real Estate Trust	19.78	(18,079)
Heitman Capital Management LLC	9.06	51,839
Jamestown Premier Property Fund	8.34	135,336
JP Morgan Special Situation Property	7.70	117,517
JP Morgan Strategic Property Fund	21.07	265,807
Kayne Anderson Core Real Estate	10.42	90,397
KKR RE Security Dislocation Opp CoInvest	8.38	7,655
KKR Real Estate Credit Opp Prtnrs Agg I	20.66	278,465
KKR Real Estate Partners Americas II	15.07	279,363
KKR Real Estate Partners Americas III	-	-
KKR Real Estate Partners Europe II USD	0.56	155,247
KTR Industrial Fund III	-	-
LaSalle Centre Street RE Co-Inv Core	-	-
LaSalle Centre Street RE Co-Inv Non Core	-	-
LaSalle Property Fund	61.94	448,831
Lion Industrial Trust	71.55	423,807
Lone Star Real Estate Fund III	0.89	(169,218)

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Lone Star Real Estate Fund V	\$ 3.36	\$ 12,781
MetLife Core Property Fund	45.26	284,221
Metropolitan Workforce Housing Fund, LLC	0.06	1,028
NYC Asset #1 - Vanbarton (fka Emmes)	3.52	174,349
NYC Asset #2 - Related (fka Sandy)	6.33	94,021
NYC Asset #3 - Hudson	4.50	49,034
PGIM Real Estate Capital VII	1.31	21,565
Pramerica Real Estate VI	5.77	101,525
Prologis Targeted U.S. Logistic Fund	11.52	299,238
Prudential PRISA	10.12	86,742
Prudential PRISA II	30.93	320,820
PW Real Estate Fund III	11.14	79,314
Rialto Real Estate Fund IV - Debt	4.26	641,276
RREEF America III	-	-
RREEF America REIT II	10.30	96,943
Silverpeak Legacy Partners III	0.26	5,217
Stockbridge Real Estate Fund III A	8.30	28,646
Taconic New York City Investment Fund	0.97	114,657
The City Investment Fund	0.05	2,515
Thor Urban Operating Fund II	0.22	66,008
UBS Trumbull Property Fund	17.88	142,762
USAA Eagle Real Estate Feeder 1	33.63	230,850
Walton Street Real Estate Fund VI	1.64	16,496
Westbrook Fund XI	0.99	207,622
Westbrook Real Estate Fund VIII	0.71	12,760
Westbrook Real Estate Fund X	-	-
Westbrook Real Estate Fund X Co-Inv	3.99	104,063
Total Private Real Estate	808.71	13,270,143
Real Estate Equity Securities		
Adelante-REITS	-	102,647
Morgan Stanley-REITS	0.01	43,614
Total Real Estate Equity Securities	0.01	146,261
Infrastructure		
Actis Energy 4	10.31	220,200
Ardian Infra Fund V	2.01	157,325
ASF VII Infrastructure B	10.24	190,454
Axium Infrastructure Canada II Class E	10.31	3,940

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Axium Infrastructure US II Class A	\$ 6.13	\$ 33,141
BIF IV Co-Invest Snow	2.21	266
BIS NYC Infra Emerging Manager Opp Fund	0.81	9,779
Brookfield Infra Fund III Co-Invest	2.58	610
Brookfield Infra Fund IV-B	12.10	217,837
Brookfield Infrastructure Fund II	16.73	107,062
Brookfield Infrastructure Fund III	11.84	109,761
EIG Energy Partners Co-Invest	-	-
EIG Energy Ptnrs Glbl Private Debt FD A	4.64	60,392
EQT Infra Fund IV	13.63	476,510
EQT Infra IV Co-Inv F SCSP Connect	2.30	400
EQT Infra IV Co-Inv G SCSP Lightspeed	3.07	-
EQT Infra IV Co-Inv Saber	2.00	3,903
EQT Infrastructure III	15.43	160,220
EQT Infrastructure V NO.2 SCSP	-	-
Global Energy & Power Infra Fund II	5.83	218,272
Global Energy & Power Infra Fund III	6.64	7,178
Global Infra Partners IV-A/B	2.57	343,006
Global Infrastructure Partners III	19.70	284,001
IFM Global Infrastructure	17.14	176,132
KKR Global Infrastructure Investors II	8.75	128,466
KKR Global Infrastructure Investors III	6.98	204,538
KKR Global Infrastructure Investors IV	-	-
Stonepeak Infrastructure Fund IV	-	393,860
Stonepeak Tiger Co-Invest Holdings I-A	-	-
Total Infrastructure	193.95	3,507,253
Total Management Expenses	18,844.48	96,829,109
Consultant Expenses		
AKSIA LLC		68,829
MSCI - ESG RESEARCH LLC		5,279
MSCI - RISKMETRICS GROUP		1,991
NEW ENGLAND PENSION CONSULTANT		386,250
STEPSTONE GROUP, LP - CONSULTING FEES		133,250
THE BURGISS GROUP		2,887
TOWNSEND HOLDINGS LLC		69,930
OTHER CONSULTING FEES		855,176
Total Consultant Expenses		1,523,592

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Legal Expenses		
COX CASTLE NICHOLSON LLP		\$ 3,370
DAY PITNEY LLP		1,989
FOLEY AND LARDNER LLC		10,827
FOSTER GARVEY PC		1,025
FOSTER PEPPER PLLC		1,562
MORGAN LEWIS BOCKIUS LLP		20,572
PILLSBURY WINTHROP SHAW PITTMAN LLP		22,146
REINHART BOERNER VAN DUEREN		5,143
SEWARD KISSEL LLP		(293)
OTHER LEGAL FEES		72,343
Total Legal Expenses		138,684
Total Consultant & Legal Expenses		1,662,276
Other Miscellaneous Expenses		
Tax expense equity dom		2,472
Tax expense equity dom ctf		(531)
Tax expense Intl -eq ctf		1,459,729
Tax expense eq intl -		3,194,894
Tax expense fixed income other		9,375
Misc expense fixed income othr ctf		341
Misc exp fixed inc mortgage		7,313
Misc exp eq Intl ctf		43,929
Misc exp Intl-		(15,904)
Misc exp opportunistic fi ctf		(69)
Misc exp fixed inc other		1,488
other exp fi cash		23,689
custody fees fi cash		1,315
custody fees equity dom		17,699
custody fees fixed inc othr ctf		55
custody fees eq dom ctf		593
custody fees fi mortgage		15,182
custody fees fi tips		452
custody fees eq intl ctf		50,875
custody fees eq intl		80,362
custody fees opp fi ctf		7
custody fees fi other		30,004

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
custody fees pvt eq real est		\$ 202
custody fees hedge funds		16
FX Service Fees fi cash		386
FX Service Fees Intl		18,066
FX Service Fees equity Intl-		127,816
FX Service fees Alt Equity		9,044
FX Service fees Alt infrastructure		1,692
FX Service fees Alt Real Est		934
Hard Dollar Compensation Bank Chg s eq		310
Hard Dollar Compensation Chgs fx mtg -ctf		32
Hard Dollar Compensation Chgs eq dom ctf		0
Hard Dollar Compensation Chgs fi mtg		53
Hard Dollar Compensation Chgs eq intl-ctf		1,979
Hard Dollar Compensation chgs eq intl		810
Hard Dollar Compensation chgs oppor fi ctf		21
Hard Dollar Compensation Chgs pvt eq		9
Hard Dollar Compensation Chgs fxd inc othr		869
Hard Dollar Compensation Chgs pvt re		532
Total Other Miscellaneous Expenses		5,086,041
Total Investment Expenses	\$ 18,844.48	\$ 103,577,426
Firefighter Variable Supplement Fund		
INVESTMENT MANAGEMENT FEES DOM EQUITY		\$ 3,737
INVESTMENT MANAGEMENT FEES FIXED OTHER CTF		27,373
INVESTMENT MANAGEMENT FEES DOM EQUITY CTF		429
INVESTMENT MANAGEMENT FEES EQ INTL CTF		25,199
TAX EXPENSE DOM EQUITY		77
TAX EXPENSE FX OTHER CTF		115
TAX EXPENSE EQ DOM CTF		100
ITAX EXPENSE EQ INTL CTF		184,268
MISC EXPENSE EQ INTL CTF		3,096
CUSTODY FEES DOM EQUITY		5,899
CUSTODY FEES EQ DOM CTF		638
CUSTODY FEES EQ INTL CTF		5,656
HARD DOLLAR COMP FEES- FIXED OTHR CTF		1
HARD DOLLAR COMPENSATION EQ DOM CTF		8
HARD DOLLAR COMP FEES EQ INTL CTF		272
Total Firefighter VSF Expenses		\$ 256,868

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2021**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Fire Officer Variable Supplement Fund		
MANAGEMENT FEES EQUITY DOM		\$ 2,650
MANAGEMENT FEES FI OTHER CTF		19,458
MANAGEMENT FEES EQ DOM CTF		350
MANAGEMENT FEES EQ INTL CTF		18,554
TAX EXPENSE EQUITY DOM		56
TAX EXPENSE FI OTHER CTF		82
TAX EXPENSE EQ DOM CTF		80
TAX EXPENSE EQ INTL CTF		131,985
TAX EXPENSE EQ INTL		1,087
MISC EXPENSE EQ INTL CTF		2,155
CUSTODY FEES EQUITY DOM		5,873
CUSTODY FEES EQ DOM CTF		526
CUSTODY FEES EQ INTL CTF		3,886
HARD DOLLAR COMP FEES- FI OTHR CTF		1
HARD DOLLAR COMPENSATION EQ DOM CTF		6
HARD DOLLAR COMP FEES EQ INTL CTF		176
TOTAL FIRE OFFICER VSF Expenses		186,925
GRAND TOTAL		\$ 104,021,219

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2021**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
ABEL NOSER	28,988.00	\$ 1,449.40	\$ 0.05
ABN AMRO CLEARING BANK N.V.	29,146.65	737.89	0.03
ACTINVER CASA DE BOLSA SA DE CV	38,801.00	175.16	0.00
ALLEN & COMPANY LLC	9,312.00	279.36	0.03
AMBIT CAPITAL PRIVATE LIMITED	11,405.00	736.92	0.06
APEX CLEARING CORPORATION	959.00	28.77	0.03
ARQAAM CAPITAL LIMITED	505,492.72	958.81	0.00
ARQAAM SECURITIES LLC	364,017.09	384.65	0.00
AS LHV PANK	107,264.62	282.80	0.00
AUTREPAT-DIV RE	2,560.00	57.39	0.02
BANCO DE INVESTIMENTOS CREDIT	120,400.00	535.94	0.00
BANCO ITAU SA	554,260.00	3,964.87	0.01
BANCO PACTUAL S.A.	23,969.87	116.89	0.01
BANCO SANTANDER (BRASIL) S.A.	49,300.00	157.39	0.00
BANCO SANTANDER CENTRAL HISPANO	539,671.75	936.06	0.02
BANCO SANTANDER CHILE	1,766,255.28	666.53	0.00
BANCO SANTANDER MEXICANO, S.A.	102,213.00	222.99	0.00
BANK OF AMERICA CORPORATION	311,224.49	3,922.16	0.04
BANQUE PICTET ET CIE SA	46,039.00	535.94	0.01
BARCLAYS CAPITAL	257,924.17	5,776.58	0.03
BARCLAYS CAPITAL INC	62,292.00	125.24	0.00
BARCLAYS CAPITAL INC./LE	1,261,589.71	29,076.74	0.03
BARCLAYS CAPITAL LE	419,349.00	6,643.06	0.02
BARRINGTON RESEARCH ASSOCIATES	1,049.00	36.47	0.03
BCS PRIME BROKERAGE LTD	1,422.00	17.26	0.01
BERENBERG CAPITAL MARKETS LLC	1,132.00	33.96	0.03
BERNSTEIN AUTONOMOUS LLP	5,942,489.11	26,054.34	0.01
BHF-BANK AKTIENGESSELLSCHAFT	761.00	22.83	0.03
BMO CAPITAL MARKETS	82,906.64	2,744.91	0.03
BNP PARIBAS PRIME BROKERAGE, INC.	14,930.12	119.42	0.01
BNP PARIBAS SECURITIES (ASIA) LTD.	130,621.00	47.81	0.00
BNP PARIBAS SECURITIES SERVICES	641,461.29	4,458.79	0.01
BNP PARIBAS SECURITIES SERVICES SA	2,657,438.58	3,669.60	0.03
BNP PARIBAS, NEW YORK BRANCH/CUSTODY/CLI	-	-	-
BOFA SECURITIES, INC	4,458,241.11	3,859.55	0.01
BOFA SECURITIES, INC.	7,538,759.54	58,394.72	0.02
BRADESCO S.A. CTVM	2,681,518.57	6,953.62	0.00
BROADCORT CAPITAL CORP	1,935.50	13.55	0.01
BTG PACTUAL CHILE S.A. CORREDORES DE BOL	3,806,705.94	2,229.22	0.00
BTIG, LLC	142,976.00	3,834.82	0.03
CABRERA CAPITAL MARKETS	68,403.11	551.43	0.01
CABRERA CAPITAL MARKETS LLC	5,644.00	345.76	0.06
CANACCORD GENUITY INC.	35,845.00	1,271.75	0.04
CANADIAN IMPERIAL BANK OF COMMERCE	74,859.76	1,219.09	0.02
CANTOR CLEARING SERVICES	33.00	0.66	0.02
CANTOR FITZGERALD + CO.	38,672.42	928.36	0.03
CAPITAL MARKETS BROKERS LIMITED	544,300.95	994.06	0.00
CARNEGIE A S	42,785.22	1,192.09	0.10
CARNEGIE INVESTMENT BANK AB	1,778.01	219.35	0.12

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2021**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
CASABLANCA FINANCE MARKETS	21465.69	\$ 846.85	\$ 0.04
CESKA SPORITELNA	9243.67	251.03	0.03
CF GLOBAL TRADING LLC	70494	2389.86	0.03
CGS-CIMB SECURITIES (HONG KONG) LTD	177410	240.06	0.00
CHINA INTERNATIONAL CAPITAL CO	3342742	5445.13	0.00
CHINA RENAISSANCE SECURITIES HK LTD	90560	305.73	0.00
CIBC WORLD MKTS INC	4713.97	36.12	0.03
CIMB SECURITIES LTD., KOREA BRANCH	1264	161.76	0.13
CIMB-GK SECURITIES PTE.LTD.	395307.92	1224.39	0.01
CITADEL SECURITIES INSTITUTIONAL LLC	157138	800.68	0.01
CITATION GROUP	2010	70.35	0.04
CITIBANK OF COLOMBIA	24243.81	281.87	0.01
CITIGROUP GLBL MARKTET KOERA SECS LTD	34578.23	1107.84	0.05
CITIGROUP GLOBAL MARKETS AUSTRALIA PTY	98613.63	48.52	0.00
CITIGROUP GLOBAL MARKETS EUROPE AG	340765.3	6094.73	0.05
CITIGROUP GLOBAL MARKETS INC	816259.69	7187.77	0.01
CITIGROUP GLOBAL MARKETS INC SALOMON BRO	0	0	-
CITIGROUP GLOBAL MARKETS INC.	11492466.2	7018.15	0.00
CITIGROUP GLOBAL MARKETS INDIA	2217118.69	5899.4	0.01
CITIGROUP GLOBAL MARKETS LIMITED	2723075.09	20663.24	0.01
CITIGROUP GLOBAL MARKETS TAIWAN	1322535.58	948.64	0.00
CL SECURITIES TAIWAN COMPANY LIMITED	4385896.27	9574.31	0.00
CLSA AMERICAS	23559	570.36	0.02
CLSA AUSTRALIA PTY LTD	293242.05	325.67	0.00
CLSA SECURITIES KOREA LTD.	509917.56	12207.43	0.07
CLSA SECURITIES MALAYSIA SDN BHD	190000	62.25	0.00
CLSA SINGAPORE PTE LTD.	10802294.44	11136.54	0.01
COMMERCIAL BANK OF QATAR, LTD.	0	0	-
CONCORDIA SA CVMCC	61600	261.15	0.00
CORNERSTONE MACRO LLC	9878	359.71	0.04
COWEN AND COMPANY, LLC	276844.26	5606.77	0.04
COWEN EXECUTION SERVICES LLC	3297455.47	19197.38	0.02
CRAIG-HALLUM	31313	1371.16	0.04
CREDICORP CAPITAL COLOMBIA S.A.	24607.67	17.53	0.00
CREDIT LYONNAIS SECURITIES INDIA	2054565.11	15894.65	0.01
CREDIT LYONNAIS SECURITIES(ASIA)	53058698.69	34899.41	0.00
CREDIT SUISSE FIRST BOSTON	479939.29	3309.96	0.03
CREDIT SUISSE FIRST BOSTON (EUROPE)	22507.6	2686.77	0.49
CREDIT SUISSE FIRST BOSTON SA CTVM	1201314.88	4633.63	0.00
CREDIT SUISSE INTERNATIONAL	37800	139.62	0.00
CREDIT SUISSE SECS INDIA PRIVATE LTD	1016399.8	18208.7	0.03
CREDIT SUISSE SECURITIES (EUROPE) LIMITE	4024539.85	8802.17	0.01
CREDIT SUISSE SECURITIES (USA) LLC	7598775.28	44693.05	0.01
CREDIT SUISSE SECURITIES CANADA INC	51411	422.95	0.01
CS FIRST BOSTON (HONG KONG) LIMITED	972300	2439.86	0.00
CSFB AUSTRALIA EQUITIES LTD	147328.61	119.64	0.00
CSL STOCKBROKERS LIMITED	3464314.32	804.01	0.00
CUTTONE & CO. INC.	1600	16	0.01
DAIWA CAPITAL MARKETS AMERICA INC.	232237.64	9188.14	0.08

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2021**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
DAIWA SBCM EUROPE	13,600.00	\$ 1,723.09	\$ 0.13
DAIWA SECURITIES (HK) LTD.	351,000.00	4,476.20	0.01
DAIWA SECURITIES COMPANY LTD	9,526.00	364.57	0.04
DAIWA SECURITIES SMBC INDIA PR	6,324.00	320.22	0.05
DANSKE BANK A.S.	66,147.00	444.10	0.01
DAVIDSON D.A. + COMPANY INC.	8,163.00	235.19	0.03
DAVY STOCKBROKERS	47,881.35	1,116.49	0.02
DBS VICKERS SECURITIES (SINGAPORE)	5,760,564.85	3,754.82	0.10
DEUTSCHE BANK AG	30,650.40	23.33	0.00
DEUTSCHE SECURITIES ASIA LIMITED	3,345.92	0.24	0.00
DOM INWESTYCYJNY BRE BANKU S.A.	21,930.29	100.71	0.00
DOUGHERTY & COMPANY LLC	8,492.00	339.68	0.04
DSP MERRILL LYNCH LTD	810,105.84	4,628.12	0.02
ERSTE AND STEIERMAERKISCHE BANK	8,780.51	620.97	0.07
ERSTE BANK BEFEKTETESI RT.	1,307.00	83.19	0.06
EUROCLEAR BANK S.A / N.V	23,044.20	57.65	0.00
EVERCORE ISI	61,588.00	1,333.33	0.02
EXANE S.A.	1,095,357.39	9,000.57	0.01
FIDELITY CAPITAL MARKETS	84,396.00	1,298.44	0.02
FIDELITY CLEARING CANADA ULC	648,518.64	5,294.60	0.03
FINANCIAL BROKERAGE GROUP (FBG)	343,295.57	203.70	0.00
FIRST NATIONAL BANK OF BOTSWANA	336,232.61	542.19	0.00
FLOW CORRETORA DE MERCADORIAS LTDA.	909,068.92	2,060.14	0.00
G TRADE SERVICES LLC, PAR FRANCE	170,913.00	1,207.62	0.01
GK GOH OMETRACO PT	70,012.94	4.50	0.00
GOLDMAN SACHS (ASIA) L.L.C.	2,555,672.05	1,771.63	0.00
GOLDMAN SACHS (ASIA) LLC	168,238.13	1,803.98	0.01
GOLDMAN SACHS (INDIA)	616,582.85	7,536.24	0.02
GOLDMAN SACHS (JAPAN) LTD.	0.00	0.00	0.00
GOLDMAN SACHS + CO INTL.	8,595.00	77.67	0.01
GOLDMAN SACHS + CO LLC	17,859,077.75	54,826.85	0.00
GOLDMAN SACHS AUSTRALIA PTY LTD	139,513.72	110.72	0.00
GOLDMAN SACHS DO BRASIL CORRETORA	325,802.54	416.80	0.01
GOLDMAN SACHS INTERNATIONAL	2,903,301.12	8,083.65	0.01
GOLDMAN SACHS(ASIA)L.L.C.	189,200.00	1,371.86	-
GUGGENHEIM CAPITAL MARKETS LLC	698.00	20.94	0.03
GUZMAN + CO	33,528.27	58.27	0.00
GUZMAN AND COMPANY	14,275.00	120.94	0.01
HAITONG INTERNATIONAL SECURITIES COMPANY	1,645,213.11	5,317.22	0.01
HANWHA SECURITIES SEOUL	114,674.00	2,446.42	0.02
HEIGHT SECURITIES, LLC	1,193.00	23.86	0.02
HILLTOP SECURITIES INC	271,161.00	9,454.93	0.03
HONGKONG + SHANGHAI BANKING	12,405.00	70.01	0.01
HONGKONG AND SHANGHAI BANKING CORPORATIO	1,245,020.63	12,854.70	0.02
HSBC BANK PLC	6,138,082.13	22,709.28	0.01
HSBC BANK USA	5,756.47	40.30	0.01
HSBC BROKERAGE (USA) INC.	637.00	3.19	0.01
HSBC MEXICO S A INSTITUCION DE BANCA MLT	712,608.24	627.27	0.00
HSBC SECURITIES	983,409.07	1,708.12	0.00

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2021**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
HSBC SECURITIES (USA) INC.	72,260,308.31	\$ 21,292.43	\$ 0.00
HSBC SECURITIES (USA), INC.	161,950.54	1,173.31	0.04
HSBC SECURITIES INDIA HOLDINGS	611,975.30	2,688.43	0.01
IC SECURITIES (GH) LIMITED	118,331.53	311.09	0.00
ICBCFS LLC	-	-	-
ICICI BROKERAGE SERVICES	1,613,100.32	7,096.42	0.01
IM TRUST S.A. CORREDORES DE BOLSA	809,257.57	1,756.55	0.00
INDIA INFOLINE LTD	12,506.00	616.31	0.05
INSTINET	4,239,921.55	25,053.72	0.01
INSTINET AUSTRALIA CLEARING SRVC PTY LTD	2,378,993.37	1,570.64	0.00
INSTINET CANADA LIMITED	-	-	-
INSTINET EUROPE LIMITED	1,099.00	47.32	0.04
INSTINET LLC	1,779,584.58	8,343.05	0.01
INSTINET PACIFIC LIMITED	24,438,301.78	17,164.45	0.00
INSTINET SINGAPORE SERVICES PT	426,430.31	1,803.82	0.01
INSTINET U.K. LTD	8,581,373.13	37,365.17	0.01
INTL FCSTONE FINANCIAL INC.	676.00	27.04	0.04
INTL TRADING INC.	6,517.00	37.59	0.01
INVESTEC BANK PLC	69,574.00	514.38	0.01
INVESTEC MARKETS(PROPRIETARY)LIMITED	271,490.00	3,781.71	-
INVESTMENT TECHNOLOGY GROUP INC.	166,909.00	4,062.06	0.02
IPOPEMA SECURITIES S.A.	1,716.00	92.06	0.05
IS YATIRIM MENKUL DEGERLER AS	9,711.00	102.90	0.01
ITG AUSTRALIA LTD.	545,837.86	1,812.41	0.01
ITG CANADA	4,734.97	26.06	0.01
ITG INC	35,614.85	179.91	0.01
ITG INC.	6,567.29	52.54	0.01
J P MORGAN INDIA PRIVATE LTD	689,877.53	5,892.37	0.02
J P MORGAN SECURITIES INC	2,270,048.18	3,934.45	0.00
J.P. MORGAN SECURITIES (TAIWAN) LTD	1,383,607.51	1,178.11	0.00
J.P. MORGAN SECURITIES LIMITED	99,540.82	3,620.84	0.06
J.P. MORGAN SECURITIES LLC	3,396,072.56	31,769.67	0.02
J.P. MORGAN SECURITIES PLC	8,182,916.67	30,734.72	0.01
J.P.MORGAN SECURITIES(FAR EAST)LTD SEOUL	47,163.36	2,004.43	0.06
JANNEY MONTGOMERY SCOTT INC.	11,793.00	275.46	0.02
JEFFERIES HONG KONG LIMITED	579,400.00	3,551.34	0.01
JEFFERIES INDIA PRIVATE LIMITED	586,617.75	8,609.50	0.02
JEFFERIES INTERNATIONAL LTD	2,476,778.17	4,729.10	0.00
JEFFERIES LLC	2,760,432.89	18,584.42	0.01
JM FINANCIAL INSTITUTIONAL SECURITIES LI	270,317.52	3,226.62	0.01
JMP SECURITIES	28,637.00	572.74	0.02
JOH. BERENBERG, GOSSLER & CO. KG	347,616.89	5,067.61	0.05
JONESTRADING INSTITUTIONAL SERVICES LLC	752,125.00	21,531.06	0.03
JP MORGAN BROKING HK LIMITED	575,168.00	1,103.37	0.00
JP MORGAN SECURITIES AUSTRALIA LTD	765,108.55	695.83	0.00
JP MORGAN SECURITIES SINGAPORE	480,842.72	442.20	0.00
JPMORGAN SECURITIES(ASIA PACIFIC)LTD	18,383,269.18	28,509.99	0.00
JUPITER SECURITIES SDN BHD	447,400.00	190.93	0.00
KBC SECURITIES ROMANIA SSIF SA	487,083.06	1,098.91	0.00

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2021**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
KEEFE BRUYETTE + WOODS INC	33,570.00	\$ 999.33	\$ 0.03
KEPLER CHEUVREUX	5,528.00	324.27	0.06
KESTREL CAPITAL EAST AFRICA LTD	770,335.46	1,953.69	0.00
KEYBANC CAPITAL MARKETS INC	99,389.00	3,248.95	0.03
KIM ENG SECURITIES (HK) LTD.	1,005,626.00	518.67	-
KOREA INVESTMENT AND SECURITIES CO., LTD	35,954.00	3,397.88	0.09
KOTAK SECURITIES LTD	73,085.00	3,047.85	0.04
LARRAIN VIAL	60,740.68	124.31	0.00
LEERINK PARTNERS LLC	33,613.00	804.24	0.02
LIBERUM CAPITAL INC	50,535.11	449.56	0.01
LIQUIDNET ASIA LIMITED	9,560,000.00	1,301.39	0.00
LIQUIDNET CANADA INC	73,835.75	91.19	0.00
LIQUIDNET EUROPE LIMITED	156,036.63	3,451.56	0.03
LIQUIDNET INC	338,974.17	6,779.10	0.02
LOOP CAPITAL MARKETS	1,839,759.64	54,293.37	0.04
LOOP CAPITAL MARKETS LLC	7,400.81	38.93	0.01
LUMINEX TRADING AND ANALYTICS	15,505.88	77.52	0.01
LUMINEX TRADING AND ANALYTICS LLC	11,474.00	101.74	0.01
MACQUARIE BANK LIMITED	4,213,097.34	5,331.33	0.00
MACQUARIE CAPITAL (EUROPE) LTD	416,011.76	435.50	0.00
MACQUARIE CAPITAL SECURITIES S	8,052,856.31	9,717.85	0.00
MACQUARIE SEC NZ LTD	38,164.64	18.07	0.00
MACQUARIE SECURITIES (INDIA) PVT LTD	25,431.81	182.42	0.02
MACQUARIE SECURITIES (USA) INC	1,430.00	61.48	0.04
MACQUARIE SECURITIES KOREA LIMITED	177,110.93	6,044.55	0.09
MACQUARIE SECURITIES LIMITED	298,000.00	705.61	0.00
MANDARIN SECURITIES CORP	102,484.82	72.93	0.00
MAXIM GROUP	6,018.00	180.54	0.03
MERRIL LYNCH CORREDORES DE BOL	152,717.00	7,635.85	0.05
MERRILL LYNCH CANADA INC	3,237.00	106.23	0.03
MERRILL LYNCH EQUITIES (AUSTRALIA)	1,889,620.00	1,660.76	0.00
MERRILL LYNCH INTERNATIONAL	8,659,330.94	43,014.61	0.01
MERRILL LYNCH PIERCE FENNER AND S	1,611,000.00	3,209.50	0.00
MERRILL LYNCH PROFESSIONAL CLEARING CORP	13,494.11	268.03	0.02
MERRILL LYNCH, PIERCE FENNER AND SMITH	2,379,000.00	1,921.38	0.00
MIRABAUD SECURITIES LLP	1,998.00	116.66	0.06
MIRAE ASSET DAEWOO CO., LTD.	36,517.25	2,066.76	0.21
MIRAE ASSET SEC USA	3,596.00	107.88	0.03
MISCHLER FINANCIAL GROUP, INC-EQUITIES	53,523.00	1,011.04	0.02
MIZUHO INTERNATIONAL PLC	671,540.00	481.69	0.00
MIZUHO SECURITIES USA INC	35,600.00	2,301.14	0.06
MIZUHO SECURITIES USA INC.	29,683.00	1,016.61	0.03
MKM PARTNERS LLC	22,252.00	882.19	0.04
MORGAN STANLEY AND CO INTERNATIONAL	113,467.02	6,581.95	0.11
MORGAN STANLEY AND CO. INTERNATIONAL PLC	4,159,169.61	22,390.44	0.01
MORGAN STANLEY CO INCORPORATED	18,091,519.01	73,516.67	0.01
MORGAN STANLEY DEAN WITTER AUSTRALIA	133,054.89	137.23	0.00
MORGAN STANLEY INDIA COMPANY PVT LTD	668,207.97	10,442.50	0.03
MORGAN STANLEY TAIWAN LIMITED	6,215,164.87	8,163.53	0.00

**Schedule of Broker's Commission
For Fiscal Year Ended June 30, 2021**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
NATIONAL FINANCIAL SERVICES CORP	110,463.00	\$ 3,866.21	\$ 0.04
NATIONAL FINANCIAL SERVICES CORPORATION	35,103.11	611.31	0.03
NEEDHAM AND COMPANY LLC	62,443.00	2,216.86	0.04
NESBITT BURNS	10,898.00	326.94	0.03
NOMURA FINANCIAL ADVISORY + SEC INDIA	116,590.60	615.27	0.01
NOMURA FINANCIAL INVESTMENT KOREA CO LTD	968.38	19.26	0.02
NORTH SOUTH CAPITAL LLC	109.00	4.36	0.04
NORTHLAND SECURITIES INC.	11,313.00	361.00	0.03
O NEIL, WILLIAM AND CO. INC/BCC CLRG	695.00	20.85	0.03
OPPENHEIMER + CO. INC.	11,472.00	505.79	0.04
PAREL	126,886.00	1,138.41	0.01
PAVILION GLOBAL MARKETS LTD	98,155.68	2,372.25	0.07
PEEL HUNT LLP	216,382.00	25.81	0.00
PENSERRA SECURITIES	711,303.00	12,437.18	0.02
PENSERRA SECURITIES LLC	115,174.92	367.07	0.01
PERSHING LIMITED	35,654.00	704.00	0.02
PERSHING LLC	7,106,417.35	59,785.10	0.01
PERSHING SECURITIES CANADA LIMITED	6,136.00	153.70	0.03
PERSHING SECURITIES LIMITED	2,037,117.76	9,734.08	0.01
PIPER JAFFRAY & CO.	5,273,862.00	63,838.27	0.01
PIPER, JAFFRAY AND HOPWOOD	111,491.36	463.71	0.01
R.B.C. DOMINION SECURITIES CORPORATION	10,355.00	310.65	0.03
RAYMOND JAMES AND ASSOCIATES INC	260,158.00	10,253.73	0.04
RAYMOND JAMES LTD	12,107.00	363.21	0.03
RBC CAPITAL MARKETS, LLC	235,146.13	4,170.38	0.06
RBC DOMINION SECURITIES INC.	94,469.19	512.45	0.01
RBC INVESTOR SERVICES TRUST, UK BRANCH	6,740.78	36.38	0.01
REDBURN (EUROPE) LIMITED	1,106,540.56	10,049.93	0.03
ROBERT W. BAIRD CO. INCORPORATED	445,056.00	10,065.67	0.02
ROSENBLATT SECURITIES	-	-	-
ROTH CAPITAL PARTNERS LLC	3,710.00	185.50	0.05
ROYAL BANK OF CANADA EUROPE LTD	891,065.68	10,018.89	0.02
SAMSUNG SECURITIES CO LTD	7,570.00	1,454.64	0.19
SANFORD C BERNSTEIN CO LLC	311,642.00	5,091.99	0.02
SANFORD C. BERNSTEIN (INDIA) PRIVATE LIM	118,594.00	2,749.14	0.02
SANFORD C. BERNSTEIN AND CO. LLC	11,648,598.64	12,340.33	0.00
SANTANDER INVESTMENT SECURITIES INC	5,681.00	370.70	0.07
SBI SECURITIES (HONG KONG) LIMITED	24,100.00	902.64	0.04
SBICAP SECURITIES LIMITED	4,418.00	330.53	0.07
SCOTIA CAPITAL (USA) INC	92,098.31	194.93	0.01
SCOTIA CAPITAL INC	24,258.36	133.00	0.01
SG AMERICAS SECURITIES LLC	64,979.99	108.02	0.00
SG ASIA SECURITIES (INOIA) PVT LTD	-	-	-
SG SECURITIES (HK) LIMITED	141,598.46	340.09	0.01
SG SECURITIES (LONDON) LTD.	-	-	-
SG SECURITIES HK	648,346.80	481.47	0.00
SHENYIN WANGUO SECURITIES (HK) LTD	994,547.67	3,527.57	0.01
SIDCO/VIRTU AMERICAS	3,091.00	123.64	0.04
SIDOTI + COMPANY LLC	12,103.00	441.80	0.04

**Schedule of Broker's Commission
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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost per Share
SINOPAC SECURITIES CORPORATION	72,000.00	520.88	\$ 0.01
SMBC NIKKO CAPITAL MARKETS LIMITED	123,651.00	11,351.49	0.09
SMBC SECURITIES INC	80,500.00	651.78	0.01
SOCIETE GENERALE	1,402,503.78	3,329.26	0.00
STATE STREET GLOBAL MARKETS, LLC	9,367.00	281.01	0.03
STEPHENS INC	38,439.00	1,316.37	0.03
STIFEL NICOLAUS + CO INC	117,413.00	4,091.66	0.03
STRATEGAS SECURITIES LLC	7,825.00	306.33	0.04
STUART FRANKEL + CO INC	315.00	3.15	0.01
STURDIVANT AND CO., INC.	67,990.00	2,719.60	0.04
SUNTRUST CAPITAL MARKETS, INC.	13,377.00	514.91	0.04
TELSEY ADVISORY GROUP	53,693.00	2,500.19	0.05
THE BANK OF NEW YORK MELLON	141,573.00	386.50	0.00
THE HONGKONG AND SHANGHAI BANK	28,877.31	1,782.94	0.06
THE HONGKONG AND SHANGHAI BANKING	4,912.00	2,492.69	0.51
TOPLINE SECURITIES PVT LTD.	389,634.02	769.15	0.00
TORONTO DOMINION SECURITIES INC	95,461.20	519.10	0.01
TOURMALINE PARTNERS	975,607.00	9,391.22	0.01
TUNISIE VALEURS	8,646.28	488.14	0.06
UBS AG	48,951,752.34	45,804.07	0.00
UBS AG LONDON BRANCH	222,733.46	6,232.41	0.04
UBS SECURITIES ASIA LTD	19,778,428.12	14,265.06	0.00
UBS SECURITIES CANADA INC	164,873.64	1,213.53	0.01
UBS SECURITIES INDIA PRIVATE LTD	423,452.22	2,980.01	0.01
UBS SECURITIES LLC	577,913.75	6,868.43	0.02
UBS SECURITIES PTE.LTD	229,140.34	504.27	0.00
UBS SECURITIES PTE.LTD., SEOUL	29,689.66	2,157.17	0.08
UBS SWITZERLAND AG	115,303.13	695.37	0.01
UBS WARBURG AUSTRALIA EQUITIES	73,153.56	78.71	0.00
UNITED FINANCIAL INVESTMENTS PLC	47,819.79	666.76	0.01
UNITED SECURITIES L.L.C.	33,850.71	89.56	0.00
UOB KAY HIAN PTE LIMITED	95,000.00	104.88	0.00
VIRTU AMERICAS	-	-	-
VIRTU AMERICAS LLC	219,363.22	5,873.75	0.03
VIRTU ITG EUROPE LIMITED	1,176,907.99	3,206.48	0.01
VTB BANK EUROPE PLC	51,863.00	1,264.11	0.02
WALL STREET ACCESS	12,403.00	99.01	0.01
WARBURG DILLON READ SECURITIES CO	409,714.93	582.25	0.00
WELLS FARGO SECURITIES LLC	8,125.36	58.69	0.01
WELLS FARGO SECURITIES, LLC	61,309.00	2,221.19	0.04
WILLIAM BLAIR & COMPANY L.L.C	134,936.00	5,700.16	0.04
WILLIAMS CAPITAL GROUP LP (THE)	120,288.00	4,292.83	0.04
WINTERFLOOD SECURITIES LTD	928,565.00	120.78	0.00
WOLFE TRAHAN SECURITIES	2,189.00	43.78	0.02
WOOD GUNDY INC.	3,866.00	28.98	0.01
XP INVESTIMENTOS CCTVM SA	2,880,800.00	7,506.08	0.00
GRAND TOTAL	549,747,132.56	\$ 1,610,925.33	\$ 0.00

Investment Summary

Fire Combined Funds

Year Ended June 30, 2021

(Dollar amount in thousands)

	<u>Market Value</u>	<u>Percent of Total Market Value</u>
Type of Investment:		
Short Term Investments:		
Commercial paper	\$ 234,613	1.05%
Short Term Investments	205,267	0.91%
U.S. Treasury Bills	185,564	0.83%
Total Short-Term	625,444	2.79%
Debt securities:		
U.S. Govt Securities and Agency	2,347,865	10.47%
Mortgage debt security	865,263	3.86%
Corporate and Other	1,757,335	7.83%
Treasury Inflation -protected securities	813,528	3.63%
Bank Loans	65,367	0.29%
Total debt securities	5,849,358	26.07%
Equities Securities:	6,477,476	28.87%
International equity	2,351,785	10.48%
Alternative investments:		
Infrastructure	193,915	0.86%
Opportunistic fixed income	535,545	2.39%
Private equity	1,288,105	5.74%
Private real estate	794,417	3.54%
Hedge Funds	931,594	4.15%
Total Alternative investments	3,743,576	16.69%
Collective trust funds:		
Bank Loans	436	0.00%
Corporate and other	93,058	0.41%
International equity	763,256	3.40%
Domestic equity	57,307	0.26%
Mortgage debt security	143,827	0.64%
Opportunistic Fixed income	58,843	0.26%
U.S. Government and agency	128,073	0.57%
Total collective trust funds:	1,244,800	5.55%
Collateral from Securities Lending	2,141,504	9.55%
Total Market Value	\$ 22,433,943	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, 2021

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OFFICE OF THE ACTUARY

255 GREENWICH STREET • 9TH FLOOR
NEW YORK, NY 10007
(212) 442-5775 • FAX: (212) 442-5777

SHERRY S. CHAN
CHIEF ACTUARY

December 1, 2021

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, 2021

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, 2019 (Lag) actuarial valuation is used to determine the Fiscal Year 2021 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 2021, 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 24, 2021, the Office of the Actuary published the "Fiscal Year 2021 GASB 67/68 Report for the City of New York and the New York City Retirement Systems" (the Fiscal Year 2021 GASB67/68 Report). Appendix E of the Fiscal Year 2021 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, 2019 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 meet the parameters set forth by the Actuarial Standards of Practice (ASOPs).

Benefits, Financial Information, and Census Data

The June 30, 2019 (Lag) and June 30, 2018 (Lag) 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, 2019 (Lag) actuarial valuation is included in this ACFR. A summary of the census data used in the June 30, 2018 (Lag) actuarial valuation of the Plan is available in the Fiscal Year 2020 Comprehensive Annual Financial Report.

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) (Table 14), 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, 2019 (Lag) 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.

GASB Statement No. 98 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.

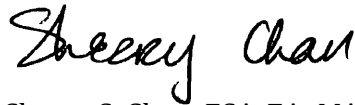
Board of Trustees
New York City Fire Pension Fund
December 1, 2021
Page 4

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 Mr. Michael J. Samet, Mr. Edward Hue, or me.

Acknowledgement of Qualification

I, Sherry S. Chan, am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am a Fellow of the Society of Actuaries, an Enrolled Actuary under the Employee Retirement Income and Security Act of 1974, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, the results contained herein have been prepared in accordance with generally accepted actuarial principles and procedures and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Respectfully submitted,



Sherry S. Chan, FSA, EA, MAAA, FCA
Chief Actuary

SSC/eh

Att.

cc: Ms. Melissa Chacko - New York City Office of the Actuary
Mr. Craig Chu - New York City Office of the Actuary
Mr. Albert Connolly - New York City Fire Pension Fund
Ms. Maureen Dale - New York City Fire Pension Fund
Mr. Patrick Dunn - New York City Fire Pension Fund
Mr. Edward Hue - New York City Office of the Actuary
Mr. Anderson Huynh - New York City Office of the Actuary
Mr. Michael Samet - New York City Office of the Actuary
Keith Snow, Esq. - New York City Office of the Actuary
Ms. Lei Tian - New York City Fire Pension Fund
Mr. Gregory Zelikovsky - New York City Office of the Actuary

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION

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

Also, in accordance with the Administrative Code of the City of New York (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 terminated 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, 2019 (LAG) 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 Auto COLA 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 (Lag) 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 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

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION (Cont'd)

decreases in obligations due to benefit changes, actuarial assumption changes, and actuarial method changes are also explicitly identified and amortized.

The explicit UALs that are developed under EAN each year are financed over fixed periods.

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, 2019 (LAG) 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, 2019 (LAG) 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, 2019 (LAG) 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, 2019 (LAG) 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, 2019 (LAG) 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, 2019 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 5			
PROBABILITIES OF ACTIVE MEMBER MORTALITY			
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, 2019 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 6a					
PROBABILITIES OF MORTALITY FOR SERVICE RETIREES					
BASE TABLE					
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, 2019 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 6b					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES					
BASE TABLE					
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, 2019 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 6c					
PROBABILITIES OF BENEFICIARY MORTALITY					
BASE TABLE					
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, 2019 (LAG) ACTUARIAL VALUATION (Cont'd)

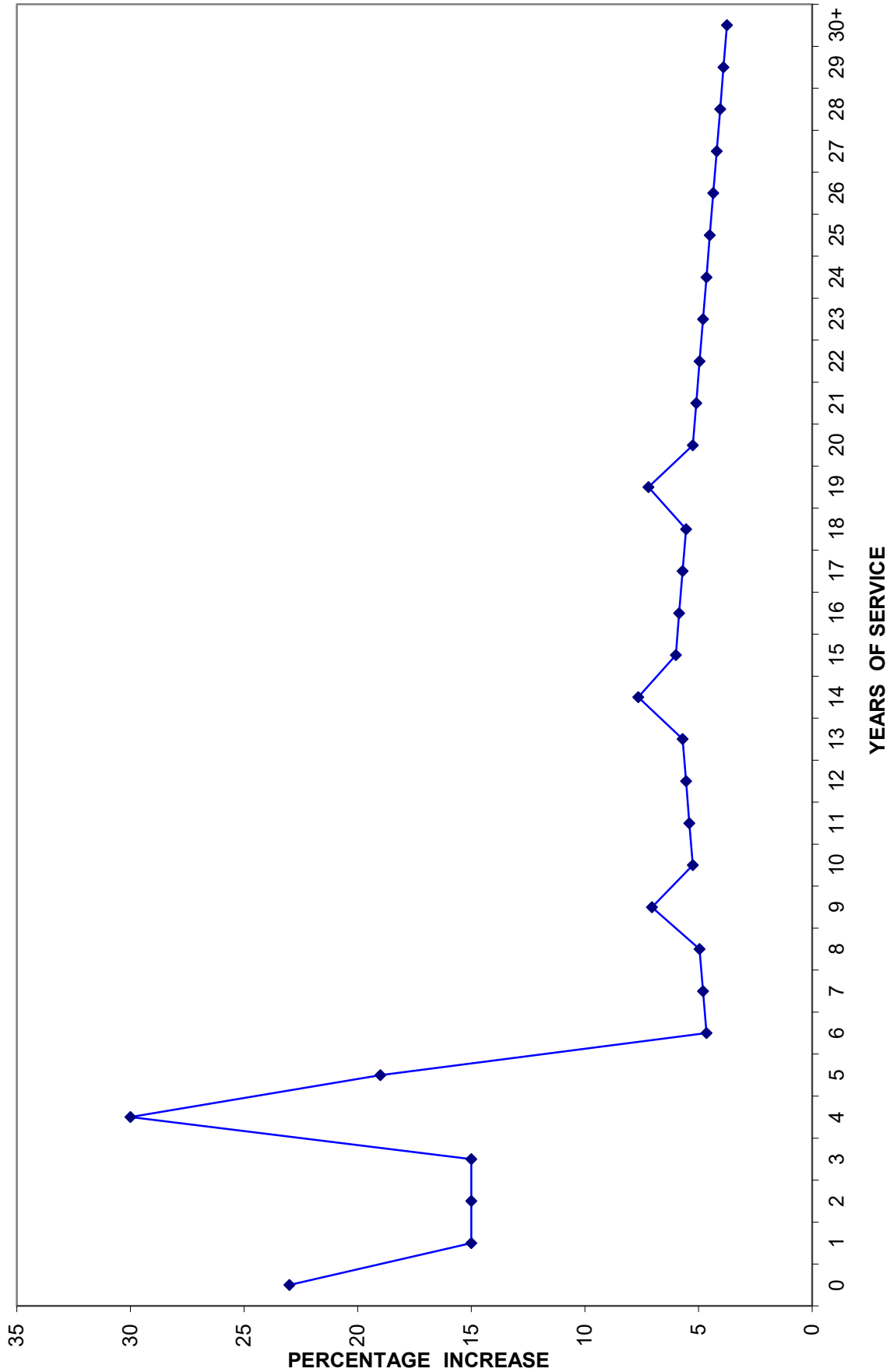
Table 7		
ANNUAL RATES OF MERIT AND SALARY INCREASE		
Years of Service	Merit Increase	Salary Increase ¹
0	20.00%	23.00%
1	12.00%	15.00%
2	12.00%	15.00%
3	12.00%	15.00%
4	27.00%	30.00%
5	16.00%	19.00%
6	1.65%	4.65%
7	1.80%	4.80%
8	1.95%	4.95%
9	4.05%	7.05%
10	2.25%	5.25%
11	2.40%	5.40%
12	2.55%	5.55%
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.

Actuarial Section

New York City Fire Pension Fund

SALARY SCALE
(From Table 7 Data)



NEW YORK CITY FIRE PENSION FUND

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS
IN EFFECT FOR THE JUNE 30, 2019 (LAG) 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 9				
ACTIVE MEMBER VALUATION DATA				
June 30 (Lag) Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2010	11,080	\$1,138,187,795	\$102,725	9.0%
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%

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, 2019 (Lag) and June 30, 2018 (Lag) actuarial valuations, the Plan's Membership consisted of:

Table 10		
SUMMARY OF PLAN MEMBERSHIP		
Group	June 30, 2019 (Lag)	June 30, 2018 (Lag)
Active members	11,244	11,237
Active off payroll ¹	28	35
Terminated vested members not yet receiving benefits	67	68
Retirees and beneficiaries currently receiving benefits	<u>16,628</u>	<u>16,593</u>
Total	27,967	27,933

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 11

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

June 30 (Lag) Actuarial Valuation	Added to Rolls		Removed from Rolls		End of Year Rolls		% Increase In Annual Allowances	Average Annual Allowances
	Number	Annual Allowances ¹	Number	Annual Allowances	Number	Annual Allowances ²		
2010	556	\$54,883,701	679	\$25,161,316	17,140	\$891,919,867	3.4%	\$52,037
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 ³	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

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

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

³ Beginning in 2016, Special Accidental Death Benefits (SADB) payments to beneficiaries are included.

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
2012	\$ 976,895,415	\$ 976,895,415	85.0%
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%

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 13						
FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD (\$ Thousands)						
June 30 (Lag) Valuation Date	(1) Actuarial Value of Assets (AVA)	(2) Accrued Liability (AL) ¹	(3) Unfunded AL (UAL) (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll	(6) UAL as a % of Covered Payroll (3) / (5)
2010	\$7,392,656	\$15,349,598	\$7,956,942	48.2%	\$1,138,188	699.1%
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%

¹ AL includes the accrued liabilities attributable to the Variable Supplements Funds, net of their Actuarial Asset Values, if any.

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

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

Table 14 COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS SOLVENCY TEST (\$ Thousands)							
June 30 (Lag) Valuation Date	Accrued Liabilities for			(D) Actuarial Value of Assets	Percentage of Accrued Liabilities Funded by Actuarial Value of Assets		
	(A) Accumulated Member Contribution	(B) Current Retirees and Beneficiaries	(C) Active Members' Employer-Financed Portion		(A)	(B)	(C)
2010	\$948,223	\$9,695,971	\$4,831,637	\$7,392,656	100	66	0
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

See following "SOLVENCY TEST - NOTES."

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 (Lag) valuation, the Accrued Liabilities were calculated under the Projected Unit Credit actuarial cost method. Beginning with the June 30, 2019 (Lag) 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 have been revised. The two most recent changes in actuarial assumptions occurred in the June 30, 2019 (Lag) valuation used to compute the Employer Contribution for Fiscal Year 2021 and in the June 30, 2017 (Lag) 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 (Lag) 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
2010	5,957	\$40,347	8,593	\$65,741	1,167	\$48,219	1,423	\$21,354
2011	5,830	41,390	8,740	68,105	1,110	48,767	1,337	22,844
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

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, 2021

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The Statistical Section Narrative

The Statistical section of the New York City Fire Pension Fund’s Annual Comprehensive Financial Report presents detailed information related to the financial statements, as well as highlights of the actuarial valuations. The data provided is a useful source in determining the fund’s economic condition. The schedules are organized into four categories: Operating information, Demographic and Economic information, Financial 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			
2012	239,786	53,002	621,698	57,614	13,923	1,353	50,213	1,037,589	
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	

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

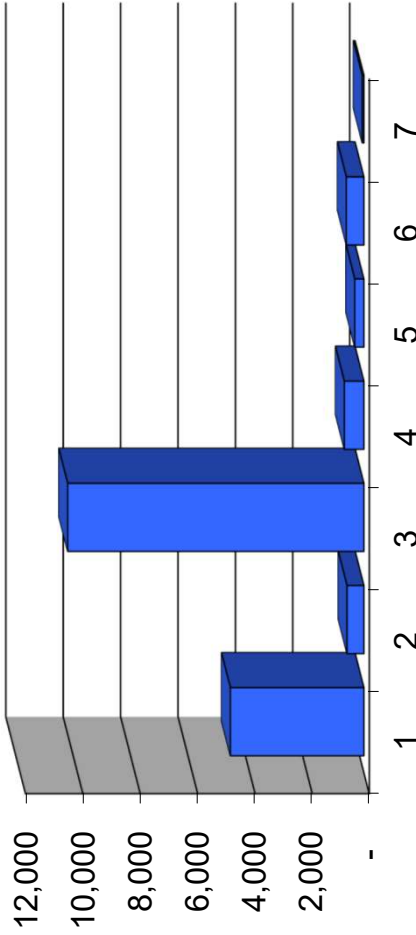
TABLE OF RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF BENEFIT

FISCAL YEAR 2021

TOTAL NUMBERS RETIRES AND BENEFICIARIES	SERVICE RETIRES (1)	ORDINARY DISABILITY RETIRES (1)	ACCIDENTAL DISABILITY RETIRES (1)	LINE OF DUTY BENEFITS	SERVICE BENEFICIARIES	ACCIDENTAL BENEFICIARIES	ORDINARY BENEFICIARIES	OTHER BENEFITS {2}
17,288	4,673	593	10,340	687	320	617	58	-
\$ 1,539,911	\$ 263,520	\$ 33,621	\$ 962,639	\$ 83,379	\$ 6,384	\$ 15,130	\$ 1,166	\$ 174,072

ANNUAL PAYROLL AMOUNT
(in thousands)

RETIRED MEMBERS BY TYPE OF BENEFIT



SEE RETIREMENT BENEFIT BELOW

Type of Retirement

- 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.

TABLE OF RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF OPTION SELECTED *
FISCAL YEAR 2021

TOTAL NUMBER OF RETIREES AND BENEFICIARIES	MAXIMUM ALLOWANCE (1)	OPTION ONE	OPTION TWO	OPTION THREE	OPTION FOUR	POP - UP OPTION	LINE OF DUTY BENEFICIARIES (1)	BENEFICIARIES	OTHER BENEFITS (2)
17,288	14,246	9	289	332	965	16	687	744	-

ANNUAL PAYROLL AMOUNT
 (in thousands)

\$ 1,539,911	\$ 1,139,044	\$ 390	\$ 18,789	\$ 24,470	\$ 84,513	\$ 1,290	\$ 83,379	\$ 13,964	\$ 174,072
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(1) Includes Subchapter I and II.

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

Note: Option figures include Retirees and Beneficiaries.

Statistical Section

New York City Fire Pension Funds

New York Fire Department Pension Funds
Retired Members by Type of Benefit
As of June 30, 2021

Amount of Monthly Benefits	Number of Retired Members	Type of Retirement					Option Selected			POP - UPS			
		1	2	3	4	5	Unmodified	1	2		3	4	
\$ 70,058	11	-	-	-	9	2	11	-	-	-	-	-	-
29,868	5	-	-	3	-	2	5	-	-	-	-	-	-
711,254	90	1	79	336	4	6	(301)	-	-	-	391	-	-
2,950,252	363	8	336	666	8	1	107	3	85	116	47	5	-
6,402,457	799	5	666	72	72	1	446	-	44	36	266	7	-
11,280,061	1,310	12	1,078	73	73	9	1,209	5	41	47	7	1	-
17,826,481	2,361	13	1,897	111	111	12	2,331	1	2	11	13	3	-
23,427,335	3,038	44	2,105	106	106	19	3,008	-	4	19	7	-	-
14,281,490	2,010	41	1,261	70	70	22	1,721	-	9	75	205	-	-
9,024,333	1,384	52	826	70	70	29	1,265	-	70	27	22	-	-
8,551,963	1,724	23	794	63	63	46	1,689	-	27	1	7	-	-
7,660,905	1,890	183	788	48	48	48	1,884	-	6	-	-	-	-
3,846,792	1,060	141	366	33	33	41	1,059	-	1	-	-	-	-
1,784,305	1,243	70	141	20	20	757	1,243	-	-	-	-	-	-
Total	17,288	593	10,340	687	995	15,677	289	9	332	965	16	-	-

Exhibit 4

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 **OPTION**s 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.

Statistical Section

New York City Fire Pension Funds

New York Fire Department Pension Funds
Average Benefit Payments
Last Ten Years

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 7/1/11 to 6/30/12														
Average monthly benefit	3,570	4,613	4,923	5,415	5,764	5,663	5,576	4,958	4,355	3,754	3,316	3,003	2,562	1,424
Average final salary	42,838	55,350	59,071	64,974	69,172	67,956	66,907	59,497	52,262	45,042	39,791	36,036	30,744	17,090
Number of retired members	11	52	206	527	1,180	2,002	2,315	1,694	2,033	2,448	2,001	1,364	854	717
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 7/1/15 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

Source: Office of the Actuary City of New York.
Lag 2019 for determining Final Fiscal Year 2021 Employer Contributions

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

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Type of Benefit:										
Age and service benefits:										
Retirees	239,786	308,667	239,234	241,393	244,561	251,909	254,855	260,359	263,018	263,520
Survivors	5,847	5,776	5,592	5,652	5,384	5,812	5,831	6,142	6,129	6,384
Death in service benefits	57,614	59,888	61,951	63,918	66,417	68,766	72,357	75,533	79,908	83,379
Disability benefits:										
Retirees - duty	621,698	659,243	681,196	709,488	764,129	825,388	848,665	880,075	923,597	962,639
Retirees - nonduty	53,002	51,273	49,456	47,378	44,938	43,145	40,537	38,378	36,059	33,621
Survivors	1,353	1,371	1,716	1,793	1,794	1,420	1,331	1,335	1,238	1,165
Total benefits	\$ 979,300	\$ 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
Type of Refunds										
Death	8,076	8,870	9,638	10,245	12,507	11,130	11,936	13,080	14,123	15,131
Other benefits	50,213	40,916	122,546	140,023	218,701	127,237	143,575	170,667	193,073	174,072
Total refunds	\$ 58,289	\$ 49,786	\$ 132,184	\$ 150,268	\$ 231,208	\$ 138,367	\$ 155,511	\$ 183,747	\$ 207,196	\$ 189,203
Total Benefits and Refunds	\$ 1,037,589	\$ 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

Source Fire Dept. Pension Fund

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
2012 (Lag)	5,667	41,080	8,912	69,760	1,058	50,096	1,767	41,251
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

* 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	
2012	98,494	976,895	93,548	37,661	1,206,598	1,036,806	443	340	-	1,037,589	169,009
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

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				
	Net Investment Income/(Loss)	Other Income	Transfer Skim Earning	Payment from QPP-Int. on skim	Total Additions	Benefit Payments	Total Deductions	Change in Net Position		
2012	6,965	309			7,274	48,613	48,613	(41,339)		
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		

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			
2012	4,723	193			4,916	21,986	21,986	(17,070)		
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		

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	% of Annual Covered Payroll	
						Total	Total
2012	98,494	976,895	9,756	220,373	(98,920)	1,206,598	N/A
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

* Other Income/(loss) Included.

Source: Combined Statement of Changes in Fiduciary Net Position

NEW YORK CITY FIRE PENSION FUNDS

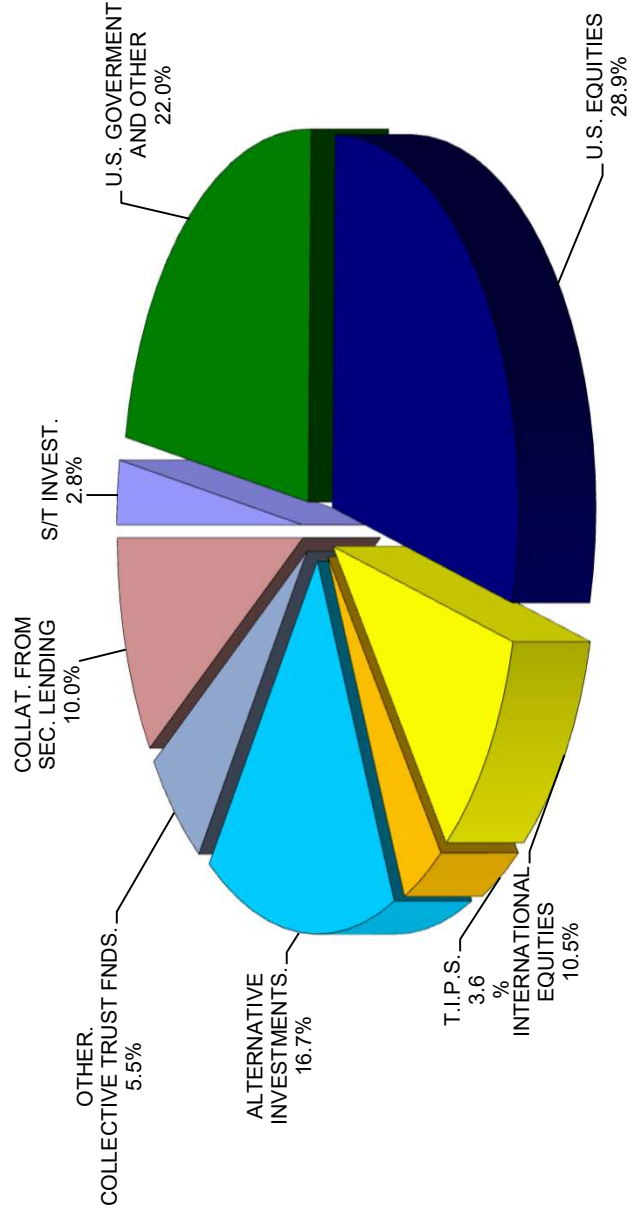
SCHEDULE OF EXPENSES BY TYPE

(in thousands)

Fiscal Year Ended June 30	Benefit Payments	Refunds	Administrative Expenses	Other Payments	Total
2012	1,036,806	443	340	-	1,037,589
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

** includes additional expenses related to Corpus funding effective September 2016

TOTAL INVESTMENTS FISCAL YEAR 2021 Fire Funds Combined (At Market Value)



INVESTMENT INCOME

Fire Funds Combined
Fiscal Year 2021

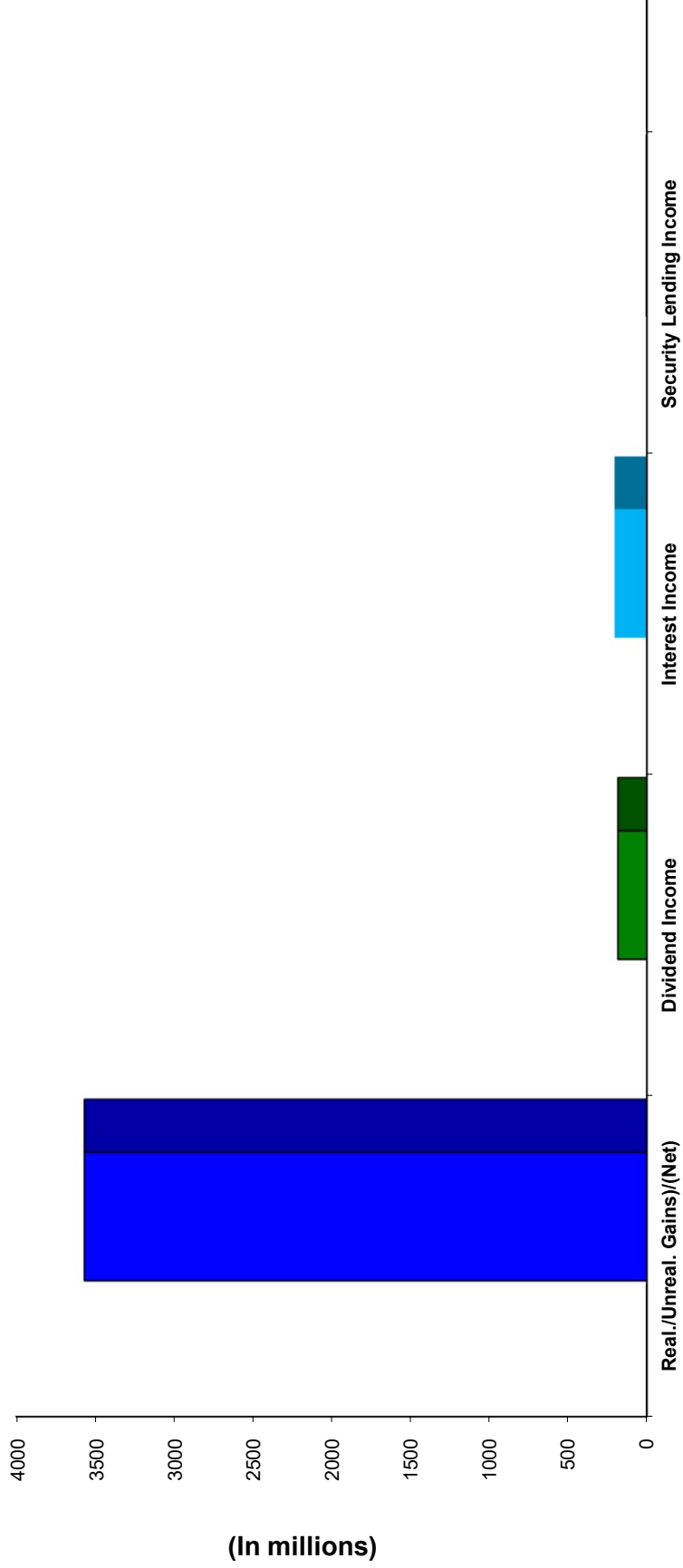


Table of Compensation to Administrative Officials & Commissions & Payments
To Brokers and Consultants
Fiscal Year ended June 30, 2021

<u>Official Plan Position</u>	<u>Salary or Allowance Paid</u>
Pension Fund Administrative Expenses	\$ 10,345,000 *
Comptroller's Office Executive Management Costs	17,984
First Deputy Personal Service Costs	71,580
Financial Information Service Agency (FISA)	519,506
Office of Payroll Administration (OPA)	74,338
Deputy Comptroller Asset Management (Personal Service Costs)	486,081
Deputy Comptroller Asset Management (Outside Service Costs)	733,292
Administrative Support Cost	33,062
Office of Management and Budget	82,156
Legal Advisors	158,187
Office of the Actuary	1,443,215
Investment Advisors	104,021,000 *
Securities Lending Fees	287,000 *
Total	\$ 118,272,401

*Except for Administrative Expenses, Investment advisors and Securities Lending fees these expenses were charged 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, 2021

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NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2021 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	72	0	0	0	0	0	0	0	0	72
25 TO 29	1,107	116	0	0	0	0	0	0	0	1,223
30 TO 34	1,134	538	192	0	0	0	0	0	0	1,864
35 TO 39	293	201	1,228	398	4	0	0	0	0	2,124
40 TO 44	28	20	601	1,314	184	2	0	0	0	2,149
45 TO 49	1	2	126	837	628	119	0	0	0	1,713
50 TO 54	2	1	2	102	525	376	64	2	0	1,074
55 TO 59	0	0	0	13	117	249	211	57	0	647
60 TO 64	0	0	0	1	2	30	53	112	38	236
65 TO 69	0	0	1	1	1	1	1	6	3	14
70 & UP	0	0	0	0	0	0	0	1	0	1
TOTAL	2,637	878	2,150	2,666	1,461	777	329	178	41	11,117

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,909	0	0	0	0	0	0	0	0	3,909
25 TO 29	69,672	11,331	0	0	0	0	0	0	0	81,002
30 TO 34	77,757	56,094	23,449	0	0	0	0	0	0	157,300
35 TO 39	21,289	20,871	157,026	53,998	561	0	0	0	0	253,746
40 TO 44	2,048	2,116	76,804	178,300	26,526	248	0	0	0	286,042
45 TO 49	59	304	16,265	114,434	94,386	17,579	0	0	0	243,027
50 TO 54	271	169	296	14,103	76,697	58,953	10,105	242	0	160,837
55 TO 59	0	0	0	1,743	16,641	37,128	33,766	9,751	0	99,029
60 TO 64	0	0	0	170	314	4,503	7,818	17,912	6,601	37,319
65 TO 69	0	0	169	170	172	172	196	891	462	2,232
70 & UP	0	0	0	0	0	0	0	143	0	143
TOTAL *	175,005	90,884	274,010	362,919	215,297	118,582	51,886	28,939	7,063	1,324,586

*AVERAGE SALARIES: ***

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	54,290	0	0	0	0	0	0	0	0	54,290
25 TO 29	62,937	97,677	0	0	0	0	0	0	0	66,232
30 TO 34	68,568	104,263	122,132	0	0	0	0	0	0	84,388
35 TO 39	72,660	103,836	127,871	135,674	140,328	0	0	0	0	119,466
40 TO 44	73,139	105,777	127,794	135,692	144,165	124,084	0	0	0	133,105
45 TO 49	59,329	151,915	129,091	136,720	150,296	147,720	0	0	0	141,872
50 TO 54	135,678	169,332	147,838	138,262	146,090	156,790	157,898	120,989	0	149,755
55 TO 59	0	0	0	134,098	142,229	149,107	160,029	171,072	0	153,059
60 TO 64	0	0	0	170,429	157,156	150,093	147,514	159,930	173,712	158,131
65 TO 69	0	0	169,332	170,429	171,526	171,526	195,897	148,456	154,113	159,413
70 & UP	0	0	0	0	0	0	0	143,328	0	143,328
TOTAL	66,365	103,513	127,447	136,129	147,363	152,615	157,708	162,580	172,278	119,150

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

* Total may not add up due to rounding.

** Average based on unrounded salary.

NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2021 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	28	2	2	0	0	0	0	0	0	32
35 TO 39	8	7	7	1	0	0	0	0	0	23
40 TO 44	1	0	8	10	3	0	0	0	0	22
45 TO 49	0	2	2	5	1	0	0	0	0	10
50 TO 54	1	1	0	1	3	0	0	0	0	6
55 TO 59	1	1	0	0	0	0	0	0	0	2
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	1	0	0	0	0	0	1
TOTAL	68	15	19	18	7	0	0	0	0	127

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	1,715	197	0	0	0	0	0	0	0	1,912
30 TO 34	1,748	206	241	0	0	0	0	0	0	2,195
35 TO 39	638	826	823	138	0	0	0	0	0	2,426
40 TO 44	66	0	1,028	1,336	393	0	0	0	0	2,823
45 TO 49	0	338	248	707	162	0	0	0	0	1,455
50 TO 54	136	188	0	183	471	0	0	0	0	978
55 TO 59	130	168	0	0	0	0	0	0	0	299
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	170	0	0	0	0	0	170
TOTAL *	4,434	1,923	2,340	2,534	1,026	0	0	0	0	12,257

*AVERAGE SALARIES: ***

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	59,139	98,338	0	0	0	0	0	0	0	61,668
30 TO 34	62,429	103,085	120,281	0	0	0	0	0	0	68,586
35 TO 39	79,769	117,978	117,617	138,253	0	0	0	0	0	105,459
40 TO 44	65,914	0	128,496	133,569	130,992	0	0	0	0	128,298
45 TO 49	0	169,044	124,158	141,379	161,835	0	0	0	0	145,513
50 TO 54	136,077	187,731	0	183,171	157,133	0	0	0	0	163,063
55 TO 59	130,486	168,236	0	0	0	0	0	0	0	149,361
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	170,429	0	0	0	0	0	170,429
TOTAL	65,201	128,183	123,166	140,802	146,602	0	0	0	0	96,514

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

* Total may not add up due to rounding.

** Average based on unrounded salary.

NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2021 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	72	0	0	0	0	0	0	0	0	72
25 TO 29	1,136	118	0	0	0	0	0	0	0	1,254
30 TO 34	1,162	540	194	0	0	0	0	0	0	1,896
35 TO 39	301	208	1,235	399	4	0	0	0	0	2,147
40 TO 44	29	20	609	1,324	187	2	0	0	0	2,171
45 TO 49	1	4	128	842	629	119	0	0	0	1,723
50 TO 54	3	2	2	103	528	376	64	2	0	1,080
55 TO 59	1	1	0	13	117	249	211	57	0	649
60 TO 64	0	0	0	1	2	30	53	112	38	236
65 TO 69	0	0	1	1	1	1	1	6	3	14
70 & UP	0	0	0	1	0	0	0	1	0	2
TOTAL	2,705	893	2,169	2,684	1,468	777	329	178	41	11,244

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,909	0	0	0	0	0	0	0	0	3,909
25 TO 29	71,387	11,527	0	0	0	0	0	0	0	82,914
30 TO 34	79,505	56,300	23,690	0	0	0	0	0	0	159,494
35 TO 39	21,927	21,697	157,849	54,136	561	0	0	0	0	256,171
40 TO 44	2,114	2,116	77,832	179,635	26,919	248	0	0	0	288,864
45 TO 49	59	642	16,514	115,141	94,547	17,579	0	0	0	244,482
50 TO 54	407	357	296	14,286	77,169	58,953	10,105	242	0	161,815
55 TO 59	130	168	0	1,743	16,641	37,128	33,766	9,751	0	99,328
60 TO 64	0	0	0	170	314	4,503	7,818	17,912	6,601	37,319
65 TO 69	0	0	169	170	172	172	196	891	462	2,232
70 & UP	0	0	0	170	0	0	0	143	0	314
TOTAL *	179,439	92,807	276,350	365,453	216,323	118,582	51,886	28,939	7,063	1,336,843

*AVERAGE SALARIES: ***

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	54,290	0	0	0	0	0	0	0	0	54,290
25 TO 29	62,840	97,688	0	0	0	0	0	0	0	66,120
30 TO 34	68,421	104,259	122,113	0	0	0	0	0	0	84,122
35 TO 39	72,849	104,312	127,813	135,680	140,328	0	0	0	0	119,316
40 TO 44	72,890	105,777	127,803	135,676	143,954	124,084	0	0	0	133,056
45 TO 49	59,329	160,479	129,014	136,747	150,314	147,720	0	0	0	141,893
50 TO 54	135,811	178,532	147,838	138,698	146,153	156,790	157,898	120,989	0	149,829
55 TO 59	130,486	168,236	0	134,098	142,229	149,107	160,029	171,072	0	153,047
60 TO 64	0	0	0	170,429	157,156	150,093	147,514	159,930	173,712	158,131
65 TO 69	0	0	169,332	170,429	171,526	171,526	195,897	148,456	154,113	159,413
70 & UP	0	0	0	170,429	0	0	0	143,328	0	156,879
TOTAL	66,336	103,927	127,409	136,160	147,359	152,615	157,708	162,580	172,278	118,894

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

* Total may not add up due to rounding.

** Average based on unrounded salary.

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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, 2021

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NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2021 EMPLOYER CONTRIBUTIONS
 SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ALL FILES (ALL BENEFITS)

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	10	679,712	67,971	0	0	0	10	679,712	67,971
45 TO 49	54	3,924,180	72,670	1	83,543	83,543	55	4,007,723	72,868
50 TO 54	138	11,077,187	80,269	0	0	0	138	11,077,187	80,269
55 TO 59	328	26,623,193	81,168	0	0	0	328	26,623,193	81,168
60 TO 64	760	52,931,827	69,647	4	262,940	65,735	764	53,194,767	69,627
65 TO 69	613	40,300,751	65,743	3	257,210	85,737	616	40,557,961	65,841
70 TO 74	636	32,531,888	51,151	1	33,803	33,803	637	32,565,691	51,124
75 TO 79	798	35,840,083	44,912	0	0	0	798	35,840,083	44,912
80 TO 84	822	32,734,395	39,823	1	35,372	35,372	823	32,769,767	39,817
85 TO 89	479	17,453,032	36,436	0	0	0	479	17,453,032	36,436
90 & UP	255	8,805,299	34,531	0	0	0	255	8,805,299	34,531
TOTAL	4,893	262,901,547	53,730	10	672,868	67,287	4,903	263,574,415	53,758
ORDINARY DISABILITY:									
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	1	61,466	61,466	0	0	0	1	61,466	61,466
40 TO 44	8	365,095	45,637	0	0	0	8	365,095	45,637
45 TO 49	5	179,111	35,822	0	0	0	5	179,111	35,822
50 TO 54	12	496,280	41,357	0	0	0	12	496,280	41,357
55 TO 59	13	414,052	31,850	0	0	0	13	414,052	31,850
60 TO 64	43	1,123,613	26,131	1	29,580	29,580	44	1,153,193	26,209
65 TO 69	41	1,207,230	29,445	0	0	0	41	1,207,230	29,445
70 TO 74	52	3,391,482	65,221	0	0	0	52	3,391,482	65,221
75 TO 79	116	7,278,972	62,750	0	0	0	116	7,278,972	62,750
80 TO 84	183	11,614,366	63,466	0	0	0	183	11,614,366	63,466
85 TO 89	141	7,614,560	54,004	0	0	0	141	7,614,560	54,004
90 & UP	70	3,694,956	52,785	0	0	0	70	3,694,956	52,785
TOTAL	685	37,441,183	54,659	1	29,580	29,580	686	37,470,763	54,622
ACCIDENTAL DISABILITY:									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	3	227,876	75,959	0	0	0	3	227,876	75,959
35 TO 39	78	7,534,246	96,593	1	68,992	68,992	79	7,603,238	96,244
40 TO 44	335	33,173,890	99,027	1	136,174	136,174	336	33,310,064	99,137
45 TO 49	665	67,650,244	101,730	1	79,861	79,861	666	67,730,105	101,697
50 TO 54	1,077	114,228,938	106,062	1	86,858	86,858	1,078	114,315,796	106,044
55 TO 59	1,612	171,952,747	106,670	1	104,364	104,364	1,613	172,057,111	106,669
60 TO 64	2,097	211,368,317	100,796	8	722,523	90,315	2,105	212,090,840	100,756
65 TO 69	1,256	119,550,091	95,183	5	553,559	110,712	1,261	120,103,650	95,245
70 TO 74	824	63,197,348	76,696	2	102,866	51,433	826	63,300,214	76,635
75 TO 79	794	51,542,173	64,915	0	0	0	794	51,542,173	64,915
80 TO 84	788	41,870,843	53,136	0	0	0	788	41,870,843	53,136
85 TO 89	366	17,654,656	48,237	0	0	0	366	17,654,656	48,237
90 & UP	141	6,906,481	48,982	0	0	0	141	6,906,481	48,982
TOTAL	10,036	906,857,850	90,360	20	1,855,197	92,760	10,056	908,713,047	90,365

NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2021 EMPLOYER CONTRIBUTIONS
 SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ALL FILES (ALL BENEFITS)

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
ACCIDENTAL DEATH:									
UNDER 30	0	0	0	9	695,106	77,234	9	695,106	77,234
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	4	569,088	142,272	4	569,088	142,272
40 TO 44	0	0	0	8	946,605	118,326	8	946,605	118,326
45 TO 49	0	0	0	41	4,789,670	116,821	41	4,789,670	116,821
50 TO 54	0	0	0	73	8,925,571	122,268	73	8,925,571	122,268
55 TO 59	0	0	0	111	14,203,508	127,960	111	14,203,508	127,960
60 TO 64	1	58,426	58,426	105	13,925,671	132,625	106	13,984,097	131,925
65 TO 69	3	194,970	64,990	67	8,416,710	125,623	70	8,611,680	123,024
70 TO 74	0	0	0	70	8,021,485	114,593	70	8,021,485	114,593
75 TO 79	0	0	0	63	6,468,785	102,679	63	6,468,785	102,679
80 TO 84	1	73,747	73,747	47	4,251,932	90,467	48	4,325,679	90,118
85 TO 89	0	0	0	33	2,693,791	81,630	33	2,693,791	81,630
90 & UP	0	0	0	20	1,200,972	60,049	20	1,200,972	60,049
TOTAL	5	327,143	65,429	651	75,108,894	115,375	656	75,436,037	114,994
OTHER BENEFICIARIES:									
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	6	301,252	50,209	6	301,252	50,209
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	9	545,902	60,656	9	545,902	60,656
55 TO 59	1	23,535	23,535	11	596,374	54,216	12	619,909	51,659
60 TO 64	0	0	0	19	705,122	37,112	19	705,122	37,112
65 TO 69	0	0	0	22	897,360	40,789	22	897,360	40,789
70 TO 74	0	0	0	29	1,013,122	34,935	29	1,013,122	34,935
75 TO 79	0	0	0	46	1,493,544	32,468	46	1,493,544	32,468
80 TO 84	0	0	0	48	1,350,200	28,129	48	1,350,200	28,129
85 TO 89	0	0	0	41	745,468	18,182	41	745,468	18,182
90 & UP	0	0	0	89	803,949	9,033	89	803,949	9,033
TOTAL	3	239,531	79,844	324	8,736,845	26,966	327	8,976,376	27,451
ALL PENSIONERS AND BENEFICIARIES:									
UNDER 30	1	93,127	93,127	10	747,570	74,757	11	840,697	76,427
30 TO 34	3	227,876	75,959	2	130,545	65,273	5	358,421	71,684
35 TO 39	79	7,595,712	96,148	11	939,332	85,394	90	8,535,044	94,834
40 TO 44	353	34,218,697	96,937	10	1,184,322	118,432	363	35,403,019	97,529
45 TO 49	725	71,876,404	99,140	43	4,953,074	115,188	768	76,829,478	100,038
50 TO 54	1,227	125,802,405	102,528	83	9,558,331	115,161	1,310	135,360,736	103,329
55 TO 59	1,954	199,013,527	101,849	123	14,904,246	121,173	2,077	213,917,773	102,994
60 TO 64	2,901	265,482,183	91,514	137	15,645,836	114,203	3,038	281,128,019	92,537
65 TO 69	1,913	161,253,042	84,293	97	10,124,839	104,380	2,010	171,377,881	85,263
70 TO 74	1,512	99,120,718	65,556	102	9,171,276	89,914	1,614	108,291,994	67,095
75 TO 79	1,708	94,661,228	55,422	109	7,962,329	73,049	1,817	102,623,557	56,480
80 TO 84	1,794	86,293,351	48,101	96	5,637,504	58,724	1,890	91,930,855	48,641
85 TO 89	986	42,722,248	43,329	74	3,439,259	46,476	1,060	46,161,507	43,549
90 & UP	466	19,406,736	41,645	109	2,004,921	18,394	575	21,411,657	37,238
TOTAL	15,622	1,207,767,254	77,312	1,006	86,403,384	85,888	16,628	1,294,170,638	77,831

NEW YORK CITY FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND
DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
FOR DETERMINING FINAL FISCAL YEAR 2021 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	9	108,000	12,000	0	0	0	9	108,000	12,000
45 TO 49	35	420,000	12,000	1	12,000	12,000	36	432,000	12,000
50 TO 54	91	1,092,000	12,000	0	0	0	91	1,092,000	12,000
55 TO 59	229	2,748,000	12,000	0	0	0	229	2,748,000	12,000
60 TO 64	525	6,300,000	12,000	2	24,000	12,000	527	6,324,000	12,000
65 TO 69	395	4,740,000	12,000	2	24,000	12,000	397	4,764,000	12,000
70 TO 74	416	4,992,000	12,000	1	12,000	0	417	5,004,000	12,000
75 TO 79	539	6,468,000	12,000	0	0	0	539	6,468,000	12,000
80 TO 84	582	6,984,000	12,000	1	12,000	12,000	583	6,996,000	12,000
85 TO 89	336	4,032,000	12,000	0	0	0	336	4,032,000	12,000
90 & UP	141	1,692,000	12,000	0	0	0	141	1,692,000	12,000
TOTAL	3,298	39,576,000	12,000	7	84,000	12,000	3,305	39,660,000	12,000

NEW YORK CITY FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND
 DATA USED IN THE JUNE 30, 2019 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2021 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	11	132,000	12,000	0	0	0	11	132,000	12,000
50 TO 54	36	432,000	12,000	0	0	0	36	432,000	12,000
55 TO 59	90	1,080,000	12,000	0	0	0	90	1,080,000	12,000
60 TO 64	230	2,760,000	12,000	2	24,000	12,000	232	2,784,000	12,000
65 TO 69	212	2,544,000	12,000	1	12,000	12,000	213	2,556,000	12,000
70 TO 74	214	2,568,000	12,000	0	0	0	214	2,568,000	12,000
75 TO 79	249	2,988,000	12,000	0	0	0	249	2,988,000	12,000
80 TO 84	237	2,844,000	12,000	0	0	0	237	2,844,000	12,000
85 TO 89	140	1,680,000	12,000	0	0	0	140	1,680,000	12,000
90 & UP	100	1,200,000	12,000	0	0	0	100	1,200,000	12,000
TOTAL	1,519	18,228,000	12,000	3	36,000	12,000	1,522	18,264,000	12,000