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# **New York Fire Department Pension Funds**



**Comprehensive Annual Financial Report  
A Pension Trust Fund of The City of New York  
For The Fiscal Years Ended  
June 30, 2016 and June 30, 2015**

**Daniel A. Nigro  
Fire Commissioner  
and Chairperson of the Board of Trustees  
City of New York**

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# New York Fire Department Pension Funds

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## Comprehensive Annual Financial Report A Pension Trust Fund of The City of New York For Fiscal Years Ended June 30, 2016 and June 30, 2015

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**New York Fire Department Pension Funds**  
**Comprehensive Annual Financial Report**  
**A Pension Trust Fund of The City of New York**



**Introductory Section**

**Part I**

**Fiscal Year Ended June 30, 2016**

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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, 2015**

Executive Director/CEO

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# FDNY

[www.nyc.gov/fdny](http://www.nyc.gov/fdny)

**Daniel A. Nigro**  
Fire Commissioner

December 27, 2016

**TO: ALL MEMBERS OF THE NEW YORK FIRE DEPARTMENT PENSION FUNDS**

**RE: PENSION FUNDS COMPREHENSIVE ANNUAL FINANCIAL REPORT  
FOR FISCAL YEAR 2016**

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I am pleased to present the New York Fire Department Pension Funds Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2016. This report accurately discloses the results of operations and the financial position of the Funds. I believe you will find the financial, investment, actuarial and statistical information and disclosures within this report to be both interesting and useful.

The external auditors, Marks Paneth LLP, confirm in their Independent Auditors' Report on the financial condition of the Funds for Fiscal Year 2016 that we have adhered to and presented the financial statements in conformity with accounting principles generally accepted in the United States of America.

In our ever-changing environment, growing demand for member services has been a challenge for the Pension Bureau. However, management is continuously focused on its commitment to provide members with outstanding services. The self-service portal, introduced by management, offers a wide array of services and continues to grow more popular with members, as they discover the convenience of using the system. This development, coupled with the cooperative efforts of our administrators and staff has enhanced customer service delivery and allows the Bureau to satisfy the needs of our members.

As Fire Commissioner and Chairperson of the Board of Trustees, I wish to express our sincere appreciation to all active and retired uniformed members for their valuable contributions to the Fire Department and The City of New York.

Sincerely,

Daniel A. Nigro  
Chairperson of the Board of Trustees

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# FDNY

[www.nyc.gov/fdny](http://www.nyc.gov/fdny)

December 27, 2016

**TO: The Board of Trustees  
New York Fire Department Pension Funds**

I hereby submit the Comprehensive Annual Financial Report ("CAFR") of the New York Fire Department Pension Funds ("Fire" or the "Funds"), for the Fiscal Year ended June 30, 2016. Our CAFR, referred to as the New York Fire Department Pension Funds' CAFR, reports combined financial statements and disclosures for the New York Fire Department Pension Fund qualified pension plan ("QPP") and two additional funds administered by Fire: the New York City Fire Department Firefighters' Variable Supplements Fund ("FFVSF") and the New York City Fire Department 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's Discussion and Analysis (MD&A) presented in the financial section.

## **Profile of the Funds**

The New York Fire Department Pension Fund, also 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 fund the benefits, and the Pension Fund became actuarially unsound.

## **Introductory Section**

## **New York Fire Department Pension Funds**

Pursuant to an Increased-Take-Home-Pay (“ITHP”) provision established under Section 13-326 of the New York City Administrative Code, members’ contributions were reduced by 2½ % of their earnings. The ITHP rate has since been increased from 2½ % to 5%, under the provisions of Chapter 373 of the Laws of 2000. Additional City funding made up the reduction in the amount of member contributions.

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

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

### **Current Initiatives**

Management’s goal is to administer the Plan in a manner that will ensure accurate and timely payment of benefits and supplemental payments to retirees and beneficiaries and to deliver a level of service that keeps pace with the changing needs of members. The highlights of our accomplishments during the past year evidence our commitment.

#### **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 from the Fire Department intranet and may be accessed from computers at the firehouses. The portal allows members to download their Annual Pension Statements, manuals and forms, view updated account details and get current estimates of their retirement benefits.

#### **New Member Applications**

During Fiscal Year 2016, the pension managers and key personnel of our unit successfully completed the task of processing over 600 new membership applications. The Bureau conducted a total of two classes for probationary firefighters hired by the Fire Department during the period. These firefighters have since become members of the pension system under the new Tier 3 modified (Tier 6) legislation.

#### **Retirement Counseling**

The Retirement Counseling Unit advised many prospective retirees and processed retirement applications for over 400 members during Fiscal Year 2016. These applicants are now receiving 90% of their expected retirement benefit, pending finalization.

#### **Finalizations**

There was increased activity in the Calculations and Pension Payroll Units due to contract settlements by the Firefighters’ union. The union settled contracts for December 2010 through December 2017. The units were able to finalize approximately 700 retirees and beneficiaries who were receiving 90% of their benefits. These retirees and beneficiaries now receive the full amount of their benefits.



**Financial Information****Economic Conditions in Fiscal Year 2016 and Outlook for Fiscal Year 2017**

Economic conditions significantly impact investment markets and ultimately the earnings of our Funds' portfolio, thus the state of the economy is always of interest. Low rates of economic growth and political uncertainty across the globe resulted in increased market volatility and weak investment performances. The Bureau of Economic Analysis ("BEA") reported that the U.S. economy, as measured by the change in Real (inflation adjusted) Gross Domestic Product ("GDP"), grew at an average annual rate of 1.3% during the Fiscal Year ended June 30, 2016. The labor market continued to improve, showing solid job gains and declining unemployment levels. The current Bureau of Labor Statistics report revealed that the unemployment rate had fallen from a high of 5.3% in July 2015 to 4.9% in June 2016. Federal Reserve Bank ("FRB") press releases in September 2016 indicate that the FRB Open Market Committee will maintain its current accommodative stance on monetary policy, in order to promote further improvement in labor market conditions and a gradual return to 2% inflation levels. In support of this stance, the committee will continue to maintain holdings of longer-term Treasuries and Agency mortgage-backed securities at sizeable levels and also hold the Federal Funds short-term interest rate at the target range between .25% and 0.50%.

The Comptroller's Office reported that the economy of The City of New York grew at a higher rate than the national economy during Fiscal Year 2016. The city's economy, as measured by change in real gross city product (GCP), grew by 3.1% during Fiscal Year 2016; this rate was lower than the 3.5% rate achieved in Fiscal Year 2015. Additionally, although the city's job growth slowed, New York City's private-sector created 98,100 new jobs during the period. The City's unemployment rate also improved, falling from 5.7% in Fiscal Year 2015 to 5.3% in Fiscal Year 2016.

The Comptroller's Office, in assessing the effects of international conditions and domestic fiscal policies, concluded that a severe recession in the U.S. economy for Fiscal Year 2017 is unlikely, in spite of the probable negative effects of a slowdown in growth of China's economy, Britain's exit from the European Union and other economic and political upheavals. The Comptroller's Office also expects the city to maintain a weak to moderate level of growth in Fiscal Year 2017, due to some positive trends in the economy such as; low inflation rates, tight labor markets and increased wealth from housing and stock markets activity. It is also anticipated that both the National and the City's economy will continue to create jobs at a steady pace and the unemployment rate will continue to fall.

**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, which are diversified into a broad array of instruments to minimize overall risk, maintain liquidity and generate competitive returns.

The Funds' portfolio is comprised largely of holdings in domestic, international, private equities and fixed income securities. For Fiscal Year 2016, Fire's QPP investment portfolio of approximately \$ 11.0 billion under management posted gains of 1.4 %, while the corresponding Policy Index posted gains of 2.1%. The FFVSF's investment portfolio of approximately \$ 452.0 million gained 1.0 %, while the corresponding Policy Index gained 1.7%. The FOVSF's investment portfolio of approximately \$284.0 million gained .7%, while the corresponding Policy Index gained 1.7%. 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 assure the financial soundness of a pension plan. If 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, along with member contributions and investment income, will be ultimately sufficient to pay benefits when due. A well-funded plan gives members the assurance that the pension benefits promised 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 56.9% for Fiscal Year 2016, a reduction from 60.1% 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 Officer's 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 the Fire Pension Funds is responsible for establishing and maintaining an internal control structure, designed to ensure that the assets of the system 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 also 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, the Internal Audit unit of the Fire Department and 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 provides investment services through independent advisors. The Chief Actuary of the City's pension systems provides actuarial services to the System, while the Corporation Counsel provides legal services to the System. The City of New York defrays the expenses associated with these services.

**Independent Audit**

The 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 Marks Paneth LLP was selected to perform the annual audits for the Fiscal Years ended June 30, 2016 through June 30, 2019. The Independent Auditor's Report for the Fiscal Years ended June 30, 2016 and 2015, 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's Discussion and Analysis (MD&A) with comparative data for Fiscal Years 2016, 2015 and 2014. 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 Fire Department Pension Funds, for its Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2015. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to conform to the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for Fiscal Year 2016.

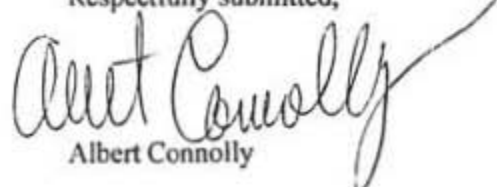
**Acknowledgements**

The compilation of this annual report reflects the combined efforts of the management and staff of the Pension Accounting Unit, whom we thank for their hard work and dedication. Our report is intended to provide complete and reliable information to provide a basis for making management decisions, to comply with legal provisions and to assure responsible stewardship of the assets of the Funds.

I take this opportunity to express my gratitude to the Boards of Trustees for their leadership and direction during this period. I am also grateful to the Office of the Actuary and the Office of the Comptroller for the wide range of valuable information and continuous support they provide for our unit, year after year.

Finally, I wish to extend my sincere appreciation to the managers and staff of the Pension Bureau, who have worked diligently to assure the continued successful operations of the Fire Department Pension Funds.

Respectfully submitted,



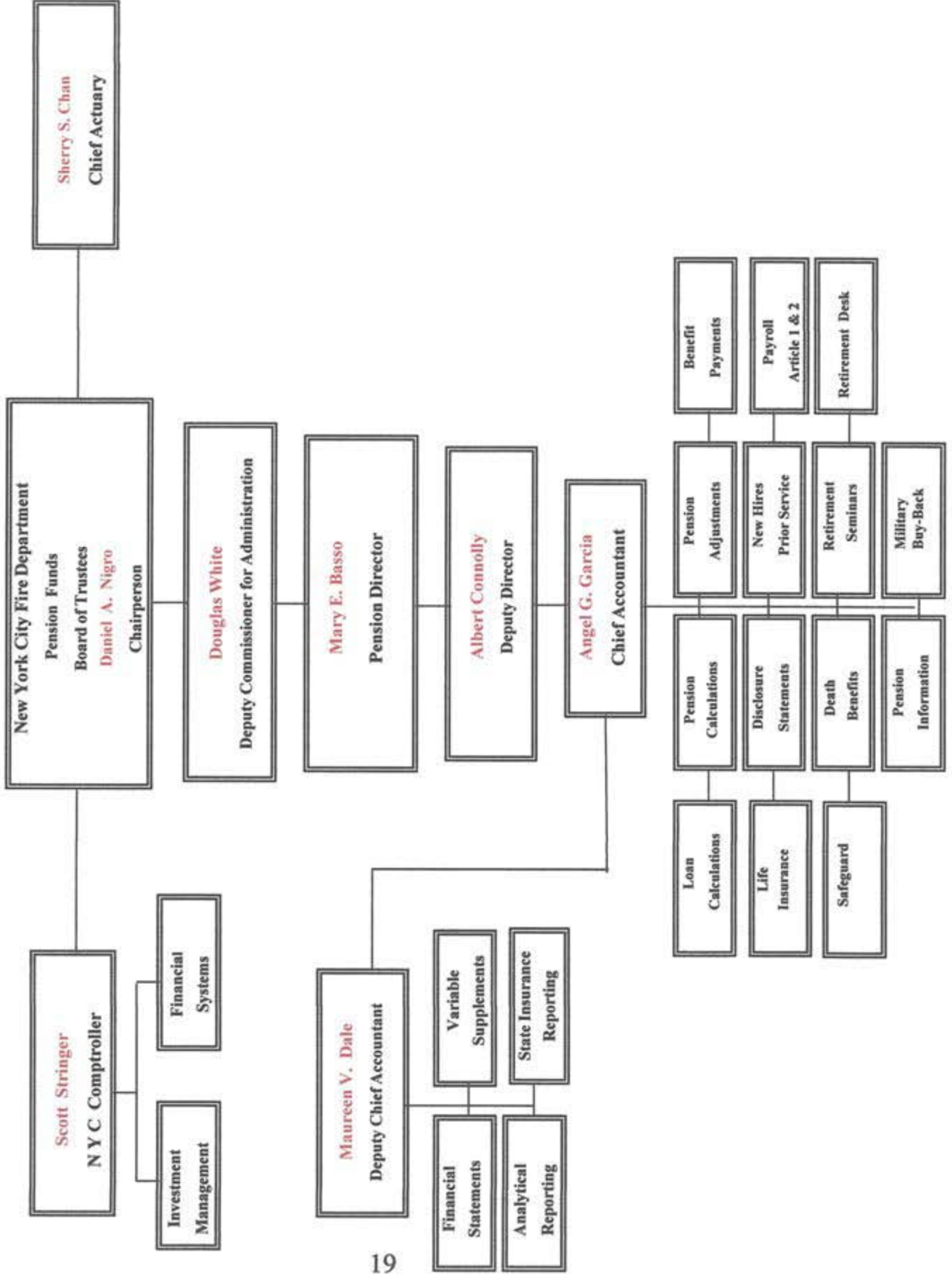
Albert Connolly

Acting Director of Pensions

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ADMINISTRATIVE ORGANIZATION



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**MEMBERS OF THE BOARD OF TRUSTEES**

**As of June 30, 2016**

<b>Bill de Blasio</b>	<b>Mayor, City of New York</b>
<b>Daniel A. Nigro</b>	<b>Fire Commissioner and Chairperson</b>
<b>Scott M. Stringer</b>	<b>Comptroller, City of New York</b>
<b>Jacques Jiha</b>	<b>Commissioner, Department of Finance</b>
<b>Paul Ferro</b>	<b>Chiefs' Representative of the Uniformed Fire Officers' Association of Greater New York</b>
<b>John Farina</b>	<b>Captains' Representative of the Uniformed Fire Officers' Association of Greater New York</b>
<b>James J. McGowan</b>	<b>Lieutenants' Representative of the Uniformed Fire Officers' Association of Greater New York</b>
<b>Stephen J. Cassidy</b>	<b>President of the Uniformed Firefighters' Association of Greater New York</b>
<b>James M. Slevin</b>	<b>Vice President of the Uniformed Firefighters' Association of Greater New York</b>
<b>Edward Brown</b>	<b>Treasurer of the Uniform Firefighters' Association of Greater New York</b>
<b>John Kelly</b>	<b>Vice Chairman of the Uniformed Firefighters' Association of Greater New York</b>
<b>Thomas Phelan</b>	<b>Representative of the Uniformed Pilots' and Marine Engineers' Association of Greater New York</b>

**PENSION SYSTEM ADMINISTRATION AND REPORTING**

**Douglas White**  
Deputy Commissioner for Administration

**Mary E. Basso**  
Pension Director

**Albert Connolly**  
Deputy Director

**Angel G. Garcia**  
Chief Accountant

**Maureen V. Dale**  
Deputy Chief Accountant

## 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 I 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**

<b>Date of Membership</b>	<b>Tier</b>	<b>Applicable Plan</b>
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 20<sup>th</sup> 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) or 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 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 exception 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 20<sup>th</sup> 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  
 $1/60^{\text{th}}$  x total earnings after the member's 20<sup>th</sup> 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 1/60<sup>th</sup> 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 I 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 main difference is that "Modified Tier 3" members have 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." This summary and any applicable laws, 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.

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

### 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

Members are required to contribute 3% 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.

### 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 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 apart 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 withdraw 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 or 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 (718) 999-2300.

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**New York Fire Department Pension Funds**  
**Comprehensive Annual Financial Report**  
**A Pension Trust Fund of The City of New York**



**Financial Section**

**Part II**

**Fiscal Years Ended June 30, 2016 and June 30, 2015**



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## INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the  
New York Fire Department Pension Funds:

### **Report on the Combining Financial Statements**

We have audited the accompanying combining statements of fiduciary net position of the New York Fire Department Pension Fund, New York City Fire Department Firefighters' Variable Supplements Fund, and New York City Fire Department Fire Officers' Variable Supplements Fund, which collectively comprise the New York Fire Department Pension Funds (the "Funds"), a fiduciary component unit of the City of New York, as of June 30, 2016, and the related combining statements of changes in fiduciary net position for the year then ended, and the related notes to the combining financial statements, which collectively comprise the Funds' basic combining financial statements as listed in the table of contents.

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

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

### ***Auditors' Responsibility***

Our responsibility is to express opinions on these combining financial statements based on our 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 Funds' preparation and fair presentation of the combining financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Funds' internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combining financial statements.

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

### ***Opinions***

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the combining fiduciary net position of the Funds as of June 30, 2016, and the changes in combining fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Prior Period Financial Statements***

The combining financial statements of the New York Fire Department Pension Funds as of June 30, 2015 and for the year then ended, were audited by other auditors whose report, dated October 29, 2015, expressed unmodified opinions on those financial statements.

### ***Other Matters***

#### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule 1, Schedule 2, and Schedule 3, as listed in the table of contents, be presented to supplement the basic combining financial statements. Such information, although not a part of the basic combining financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic combining financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic combining financial statements, and other knowledge we obtained during our 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 Supplementary 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) is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic combining financial statements. Such information has been subjected to the auditing procedures, applied in the audit of the basic combining financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic combining financial statements or to the basic combining financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion the Additional Supplementary Information is fairly stated, in all material respects, in relation to the 2016 basic combining financial statements taken as a whole.

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

*Marks Paneth UP*

October 31, 2016  
(except for the Other Supplementary Information,  
as to which the date is December 22, 2016)

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2016 AND 2015**

This narrative discussion and analysis of the New York Fire Department Pension Funds' ("FIRE" or the "Funds") financial performance provides an overview of the Funds' combining financial activities for the Fiscal Years ended June 30, 2016 and 2015. 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 Fire Department, Subchapter Two 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 Fire Department Firefighters' Variable Supplements Fund ("FFVSF") and the New York City Fire Department Fire Officers' Variable Supplements Fund ("FOVSF").

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

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

- **The Combining Statements of Fiduciary Net Position** — presents the financial position of the Funds at each 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** — as required by the GASB includes the management discussion and analysis and information presented after the Notes to the Combining Financial Statements.



**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2016 AND 2015**

**FINANCIAL HIGHLIGHTS**

For Fiscal Year ended June 30, 2016, the Funds' net position restricted for benefits was \$11.7 billion. This amount represents an increase of \$59.4 million (.5%) over the Funds' net position restricted for benefits in Fiscal Year 2015. The growth for Fiscal Year 2016 can be attributed to the fact that total contributions, net investment income and other receipts slightly exceeded pension benefits paid. Additionally, a net depreciation in the fair value of the Funds' investment portfolio contributed to the overall lower net investment income reported for the period.

For Fiscal Year ended June 30, 2015, the Funds' net position restricted for benefits was \$11.6 billion. This amount reflects an increase of \$221.2 million (1.9%) over the Funds' net position restricted for benefits in Fiscal Year 2014. The growth for Fiscal Year 2015 can be attributed to the fact that total contributions and net investment income exceeded total pension benefits paid. In addition, modest performance returns on the Funds' investment portfolio contributed to the overall positive net investment income reported for the period.

**Changes in Fiduciary Net Position  
Years Ended June 30, 2016, 2015 and 2014  
(In thousands)**

	2016	2015	2014
Additions:			
Member contributions	\$ 116,619	\$ 108,582	\$ 108,859
Employer contributions	1,054,478	988,784	969,956
Net investment income	203,104	302,567	1,689,485
Other	<u>43,673</u>	<u>41,201</u>	<u>39,980</u>
Total	<u>1,417,874</u>	<u>1,441,134</u>	<u>2,808,280</u>
Deductions:			
Benefit payments and withdrawals	<u>1,358,431</u>	<u>1,219,890</u>	<u>1,171,329</u>
Net increase in net position	59,443	221,244	1,636,951
Net position restricted for benefits			
Beginning of year	<u>11,648,179</u>	<u>11,426,935</u>	<u>9,789,984</u>
End of year	<u>\$ 11,707,622</u>	<u>\$ 11,648,179</u>	<u>\$ 11,426,935</u>

For Fiscal Year ended June 30, 2016, member contributions were approximately \$116.6 million or an increase of \$8.0 million (7.4%) compared to member contributions for Fiscal Year 2015. The change was due largely to increases received by members under contract settlement by the firefighters union, during the period.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2016 AND 2015**

For Fiscal Year ended June 30, 2015, member contributions were approximately \$108.6 million or a slight decrease of \$0.3 million (0.3%) compared to member contributions for Fiscal Year 2014. Increases or decreases in member contributions are primarily due to changes in the number of active Plan members making voluntary contributions in addition to their required contributions and also changes in the average annual pay of Plan members.

Employer contributions are made on a statutory basis determined by the actuarial valuations performed as of June 30, 2014 and 2013 under One-Year Lag Methodology ("OYLM"). Employer contributions for Fiscal Year 2016 totaled approximately \$1,054.5 million, an increase of \$65.7 million (6.6%) compared to employer contributions for Fiscal Year 2015, primarily due to a change in the post-retirement mortality rates, an increase in the amortization payment of the 2010 initial unfunded liability and a net actuarial loss. Employer contributions for Fiscal Year 2015 totaled approximately \$988.8 million, an increase of \$18.8 million (1.9%) compared to employer contributions for Fiscal Year 2014, primarily due to the net result of an actuarial loss.

For Fiscal Year ended June 30, 2016, the Funds had a net investment gain of \$203.1 million; this amount although positive was a decrease of 32.9% compared to the net investment gain of \$302.6 million recorded for Fiscal Year 2015. The reduction in net investment gain for Fiscal year 2016 can be attributed to the decline in dividend income and a net depreciation in fair value of the combined investment portfolio of the Funds.

For Fiscal Year ended June 30, 2015, the Funds had a net investment gain of \$302.6 million; this amount although positive was a decrease of 82.1% compared to the net investment gain of \$1,689.5 million recorded for Fiscal Year 2014. The net investment gain for Fiscal year 2015 was achieved despite of a net depreciation in fair value of the QPP's investment portfolio and can be attributed to the overall positive performance return on the combined portfolio of the Funds.

Benefit payments and withdrawals recorded were \$1,358.4 million for the Fiscal Year ended June 30, 2016; this was an increase of 11.4% over benefit payments and withdrawals recorded for Fiscal Year 2015. Benefit payments and withdrawals recorded were \$1,219.9 million for the Fiscal Year ended June 30, 2015; this was an increase of 4.1% over benefit payments and withdrawals recorded for Fiscal Year 2014. 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 their excess or voluntary contributions made to the fund. In addition, legislatively enacted cost of living increases for certain retirees and beneficiaries also serves to increase benefit payments each year.

For Fiscal Year 2016 there were no transfers due from Fire QPP, to the VSF's in accordance with regulations of ACNY, related to excess earnings on equity investments, limited to the unfunded Accumulated Benefit Obligation ("ABO") of the Fund. However, during fiscal year 2016, the excess earnings estimate for fiscal year 2014 were finalized and revised upwards to \$128.7 million for FFVSF and \$28.1 million for FOVSF. The additional amounts totaling \$36.9 million were recognized by Fire QPP and the VSF's, during the period.

For Fiscal Years 2015 and 2014, the FIRE QPP, in accordance with regulations of the ACNY transferred amounts to the VSF's equal to certain excess earnings on equity investments limited to the unfunded Accumulated Benefit Obligation ("ABO") of the Fund. The amounts paid were \$30 million and \$110 million to the FFVSF Fund for Fiscal Years 2015 and 2014, respectively, and \$10 million in each year to the FOVSF Fund. Such amounts have been eliminated in the system-wide presentation above.

#### FIDUCIARY NET POSITION

For Fiscal Year 2016, the Funds' net position restricted for benefits increased by 0.5% to \$11.7 billion, compared to the net position restricted for benefits of \$11.6 billion in Fiscal Year 2015. The overall growth for Fiscal Year 2016 can be attributed to the fact that total contributions, net investment income and other receipts slightly exceeded pension benefits paid. Additionally, a net depreciation in the fair value of the Funds' investment

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2016 AND 2015**

portfolio contributed to the overall lower net investment income reported for the period.

For Fiscal Year 2015, the Funds' net position restricted for benefits increased by 1.9% to \$11.6 billion, compared to the net position restricted for benefits of \$11.4 billion in Fiscal Year 2014. The growth for Fiscal Year 2015 can be attributed to the fact that total contributions and net investment income exceeded total pension benefits paid. In addition, modest performance returns on the Funds' investment portfolio contributed to the overall positive net investment income reported for the period.

Outstanding member loans for Fiscal Year 2016 totaled \$26.9 million; this amount was a decrease from member loans reported in Fiscal Year 2015. Outstanding member loans for Fiscal Year 2015 totaled \$29.1 million; this amount was an increase from member loans reported in Fiscal Year 2014. 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.

**Fiduciary Net Position  
June 30, 2016, 2015 and 2014  
(In thousands)**

	2016	2015	2014
Cash	\$ 48,755	\$ 20,768	\$ 21,918
Receivables	226,755	237,528	285,111
Investments — at fair value	11,802,778	12,101,222	11,710,528
Collateral from securities lending	922,481	836,325	1,049,736
Other assets	6,176	5,596	5,246
Total assets	<u>13,006,945</u>	<u>13,201,439</u>	<u>13,072,539</u>
Accounts payable	92,147	74,829	45,805
Payables for investments purchased	235,314	592,027	502,688
Accrued benefits payable	49,381	50,079	46,669
Payables for securities lending transactions	922,481	836,325	1,050,442
Total liabilities	<u>1,299,323</u>	<u>1,553,260</u>	<u>1,645,604</u>
Net position restricted for benefits	<u>\$ 11,707,622</u>	<u>\$ 11,648,179</u>	<u>\$ 11,426,935</u>

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

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2016 AND 2015**

**INVESTMENT SUMMARY**

**Investment Summary  
June 30, 2016  
(In thousands)**

Investments - At fair value:	QPP	FFVSF	FOVSF	Combined
<b>Short term investments:</b>				
U.S. treasury bills and agency	\$ 25,998	\$ -	\$ -	\$ 25,998
Commercial paper	52,525	6,953	3,603	63,081
Short-term investment fund	118,935	4,397	1,726	125,058
Discount notes	-	1,369	585	1,954
<b>Debt securities:</b>				
U.S. government and agency	999,671	93,304	33,721	1,126,696
Corporate and other	1,212,254	-	22,916	1,235,170
Equity securities	1,802,947	-	-	1,802,947
Alternative investments	2,117,856	-	-	2,117,856
<b>Collective trust funds:</b>				
International equity	1,966,228	85,780	52,725	2,104,733
Domestic equity	1,736,914	221,610	144,583	2,103,107
Mortgage debt security	86,107	-	-	86,107
Treasury inflation protected securities	547,146	10,394	6,593	564,133
Fixed income	401,512	26,885	17,541	445,938
Collateral from securities lending	854,211	37,719	30,551	922,481
	<u>\$ 11,922,304</u>	<u>\$ 488,411</u>	<u>\$ 314,544</u>	<u>\$ 12,725,259</u>

**Investment Summary  
June 30, 2015  
(In thousands)**

Investments - At fair value:	QPP	FFVSF	FOVSF	Combined
<b>Short term investments:</b>				
U.S. treasury bills and agency	\$ 182,521	\$ -	\$ -	\$ 182,521
Commercial paper	300,618	3,602	3,151	307,371
Short-term investment fund	211,956	6,259	1,572	219,787
Discount notes	-	10,989	3,184	14,173
<b>Debt securities:</b>				
U.S. government and agencies	-	88,272	53,983	142,255
Corporate and other	2,463,809	-	-	2,463,809
Equity securities	1,943,618	-	-	1,943,618
Alternative investments	1,887,226	-	-	1,887,226
<b>Collective trust funds:</b>				
International equity	2,022,335	77,890	61,322	2,161,547
Domestic equity	1,516,030	273,828	161,871	1,951,729
Mortgage debt security	72,185	-	-	72,185
Treasury inflation protected securities	300,374	9,946	6,309	316,629
Fixed income	394,772	26,385	17,215	438,372
Collateral from securities lending	795,944	22,251	18,130	836,325
	<u>\$ 12,091,388</u>	<u>\$ 519,422</u>	<u>\$ 326,737</u>	<u>\$ 12,937,547</u>



**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)  
JUNE 30, 2016 AND 2015**

The tables above summarize the Funds' investment portfolio including collateralized securities lending. Due to the long-term nature of the Funds' benefit obligations, the Funds' assets are invested with a long-term investment horizon. Assets are invested in a diversified portfolio of capital market securities. Investments in these assets are expected to produce higher returns, but are also subject to greater volatility and may produce negative returns. For example, the Russell 3000 index, a broad measure of the United States stock market posted gains of 2.1% in Fiscal Year 2016, compared to gains posted of 7.3% in Fiscal Year 2015. The investment results for Fiscal Year 2016 were generally consistent with related benchmarks, within asset classes. Overall, the most significant gains were posted within the fixed asset classes during the fiscal year. FIRE QPP's investment portfolio posted gains of 1.4% for Fiscal Year 2016 compared to the gain of 3.5% for Fiscal Year 2015. For the three-year period ended June 30, 2016, the overall rate of return on the QPP's investment portfolio was 7.3%.

The FFVSF's investment portfolio posted gains of 1.0% for Fiscal Year 2016 compared to the gain of 4.1% for Fiscal Year 2015. For the three-year period ended June 30, 2016, the overall rate of return on the Plan's investment portfolio was 7.4%.

Similarly, the FOVSF's investment portfolio posted gains of 0.7% for Fiscal Year 2016 compared to the gain of 4.1% for Fiscal Year 2015. For the three-year period ended June 30, 2015, the overall rate of return on the Plan's investment portfolio was 7.9%.

**CONTACT INFORMATION**

This financial report is designed to provide a general overview of the New York Fire Department Pension Funds' finances. Questions concerning any data provided in this report or requests for additional information should be directed to Chief Accountant, New York Fire Department Pension Funds, 9 Metrotech Center, 6W-03-K, Brooklyn, NY 11201-3751.

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**NEW YORK FIRE DEPARTMENT PENSION FUNDS**  
**COMBINING STATEMENTS OF FIDUCIARY NET POSITION**  
**JUNE 30, 2016**  
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
<b>ASSETS:</b>					
Cash	\$ 37,457	\$ 10,740	\$ 558	\$ -	\$ 48,755
Receivables:					
Investment securities sold	153,595	12,433	11,636	-	177,664
Member loans (Note 6)	26,917	-	-	-	26,917
Accrued interest and dividends	20,518	985	671	-	22,174
Transferrable earnings due from QPP to Variable Supplements Funds	-	59,739	29,134	(88,873)	-
Total receivables	201,030	73,157	41,441	(88,873)	226,755
<b>INVESTMENTS — At fair value (Notes 2 and 3):</b>					
Short-term investments:					
Commercial paper	52,525	6,953	3,603	-	63,081
Short-term investment fund	118,935	4,397	1,726	-	125,058
U.S. treasury bills and agencies	25,998	-	-	-	25,998
Discount notes	-	1,369	585	-	1,954
Debt securities:					
U.S. government and agencies	999,671	93,304	33,721	-	1,126,696
Corporate and other	1,212,254	-	22,916	-	1,235,170
Equity securities	1,802,947	-	-	-	1,802,947
Alternative investments	2,117,856	-	-	-	2,117,856
Collective trust funds:					
International equity	1,966,228	85,780	52,725	-	2,104,733
Fixed income	401,512	26,885	17,541	-	445,938
Domestic equity	1,736,914	221,610	144,583	-	2,103,107
Mortgage debt security	86,107	-	-	-	86,107
Treasury inflation protected securities	547,146	10,394	6,593	-	564,133
Collateral from securities lending (Note 2)	854,211	37,719	30,551	-	922,481
Total investments	11,922,304	488,411	314,544	-	12,725,259
<b>OTHER ASSETS</b>					
	6,176	-	-	-	6,176
Total assets	12,166,967	572,308	356,543	(88,873)	13,006,945
<b>LIABILITIES:</b>					
Accounts payable	89,435	-	2,712	-	92,147
Payable for investment securities purchased	215,792	10,514	9,008	-	235,314
Accrued benefits payable (Note 1)	18,893	21,225	9,263	-	49,381
Transferrable earnings due from QPP to Variable Supplements Funds	88,873	-	-	(88,873)	-
Securities lending (Note 2)	854,211	37,719	30,551	-	922,481
Total liabilities	1,267,204	69,458	51,534	(88,873)	1,299,323
<b>NET POSITION RESTRICTED FOR BENEFITS:</b>					
Benefits to be provided by QPP	10,899,763	-	-	-	10,899,763
Benefits to be provided by VSF	-	502,850	305,009	-	807,859
Total net position restricted for benefits	\$ 10,899,763	\$ 502,850	\$ 305,009	\$ -	\$ 11,707,622

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

**NEW YORK FIRE DEPARTMENT PENSION FUNDS**  
**COMBINING STATEMENTS OF FIDUCIARY NET POSITION**  
**JUNE 30, 2015**  
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
<b>ASSETS</b>					
Cash	\$ 8,375	\$ 11,750	\$ 643	\$ -	\$ 20,768
Receivables					
Investment securities sold	178,385	6,383	3,867	-	188,635
Member loans (Note 6)	29,124	-	-	-	29,124
Accrued interest and dividends	18,568	743	458	-	19,769
Transferrable earnings due from QPP to Variable Supplements Funds	-	41,000	11,000	(52,000)	-
Due from QPP	-	-	15	(15)	-
Due from Variable Supplements Fund	-	-	32	(32)	-
Total receivables	<u>226,077</u>	<u>48,126</u>	<u>15,372</u>	<u>(52,047)</u>	<u>237,528</u>
<b>INVESTMENTS — At fair value (Notes 2 and 3):</b>					
Short-term investments					
Commercial paper	300,618	3,602	3,151	-	307,371
Short-term investment fund	211,956	6,259	1,572	-	219,787
U.S. treasury bills and agencies	182,521	-	-	-	182,521
Discount notes	-	10,989	3,184	-	14,173
Debt securities					
U.S. government and agencies		88,272	53,983	-	142,255
Corporate and other	2,463,809	-	-	-	2,463,809
Equity securities	1,943,618	-	-	-	1,943,618
Alternative investments	1,887,226	-	-	-	1,887,226
Collective trust funds					
International equity	2,022,335	77,890	61,322	-	2,161,547
Fixed income	394,772	26,385	17,215	-	438,372
Domestic equity	1,516,030	273,828	161,871	-	1,951,729
Mortgage debt security	72,185	-	-	-	72,185
Treasury inflation protected securities	300,374	9,946	6,309	-	316,629
Collateral from securities lending (Note 2)	795,944	22,251	18,130	-	836,325
Total	<u>12,091,388</u>	<u>519,422</u>	<u>326,737</u>	<u>-</u>	<u>12,937,547</u>
Investments	<u>5,596</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,596</u>
<b>OTHER ASSETS</b>					
	<u>12,331,436</u>	<u>579,298</u>	<u>342,752</u>	<u>(52,047)</u>	<u>13,201,439</u>
<b>LIABILITIES</b>					
Accounts payable	74,773	-	56	-	74,829
Payable for investment securities purchased	574,447	9,941	7,639	-	592,027
Accrued benefits payable (Note 1)	18,927	21,630	9,522	-	50,079
Payments Due to Variable Supplements' Funds	15	32	-	(47)	-
Transferrable earnings due from QPP to Variable Supplements Funds	52,000	-	-	(52,000)	-
Securities lending (Note 2)	795,944	22,251	18,130	-	836,325
Total liabilities	<u>1,516,106</u>	<u>53,854</u>	<u>35,347</u>	<u>(52,047)</u>	<u>1,553,260</u>
<b>NET POSITION RESTRICTED FOR BENEFITS</b>					
Benefits to be provided by QPP	10,815,330	-	-	-	10,815,330
Benefits to be provided by VSF	-	525,444	307,405	-	832,849
Total net position restricted for benefits	<u>\$ 10,815,330</u>	<u>\$ 525,444</u>	<u>\$ 307,405</u>	<u>\$ -</u>	<u>\$ 11,648,179</u>

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

**NEW YORK FIRE DEPARTMENT PENSION FUNDS**  
**COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION**  
**YEAR ENDED JUNE 30, 2016**  
(In thousands)

	QPP	FFVSF	FOVSF	ELIMINATIONS	Combined Funds
<b>ADDITIONS:</b>					
<b>Contributions:</b>					
Member contributions	\$ 116,619	\$ -	\$ -	\$ -	\$ 116,619
Employer contributions	<u>1,054,478</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,054,478</u>
Total contributions	<u>1,171,097</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,171,097</u>
<b>Investment income (Note 3):</b>					
Interest income	137,160	4,798	3,250	-	145,206
Dividend income	145,276	7,957	4,442	-	157,675
Net appreciation/depreciation in fair value of investments	<u>(44,510)</u>	<u>(8,428)</u>	<u>(6,934)</u>	<u>-</u>	<u>(59,872)</u>
Total investment income	237,926	4,325	758	-	243,009
Less investment expenses	<u>46,321</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>46,321</u>
Net income	<u>191,605</u>	<u>4,325</u>	<u>758</u>	<u>-</u>	<u>196,688</u>
<b>Securities lending transactions:</b>					
Securities lending income	6,196	368	298	-	6,862
Securities lending fees	<u>(403)</u>	<u>(24)</u>	<u>(19)</u>	<u>-</u>	<u>(446)</u>
Net securities lending income	<u>5,793</u>	<u>344</u>	<u>279</u>	<u>-</u>	<u>6,416</u>
Net investment income	197,398	4,669	1,037	-	203,104
Net receipts from other retirement systems	42,786	-	-	-	42,786
Transferrable earnings from QPP to Variable Supplemental Funds	-	18,739	18,134	(36,873)	-
Litigation income	<u>887</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>887</u>
Total additions	<u>1,412,168</u>	<u>23,408</u>	<u>19,171</u>	<u>(36,873)</u>	<u>1,417,874</u>
<b>DEDUCTIONS:</b>					
Benefit payments and withdrawals (Note 1)	1,290,862	46,002	21,567	-	1,358,431
Transferable earnings from QPP to Variable Supplemental Funds	<u>36,873</u>	<u>-</u>	<u>-</u>	<u>(36,873)</u>	<u>-</u>
Total deductions	<u>1,327,735</u>	<u>46,002</u>	<u>21,567</u>	<u>(36,873)</u>	<u>1,358,431</u>
<b>NET INCREASE (DECREASE) IN NET POSITION</b>	<b>84,433</b>	<b>(22,594)</b>	<b>(2,396)</b>	<b>-</b>	<b>59,443</b>
<b>NET POSITION RESTRICTED FOR BENEFITS</b>					
Beginning of year	<u>10,815,330</u>	<u>525,444</u>	<u>307,405</u>	<u>-</u>	<u>11,648,179</u>
End of year	<u>\$ 10,899,763</u>	<u>\$ 502,850</u>	<u>\$ 305,009</u>	<u>\$ -</u>	<u>\$ 11,707,622</u>

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



**NEW YORK FIRE DEPARTMENT PENSION FUNDS**  
**COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION**  
**YEAR ENDED JUNE 30, 2015**  
**(In thousands)**

	QPP	FFVSF	FOVSF	ELIMINATIONS	Combined Funds
<b>ADDITIONS:</b>					
<b>Contributions:</b>					
Member contributions	\$ 108,582	\$ -	\$ -	\$ -	\$ 108,582
Employer contributions	988,784	-	-	-	988,784
Total contributions	<u>1,097,366</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,097,366</u>
<b>Investment income (Note 3):</b>					
Interest income	115,571	4,297	2,906	-	122,774
Dividend income	227,390	7,138	4,500	-	239,028
Net appreciation/depreciation in fair value of investments	(8,490)	7,226	4,650	-	3,386
Total investment income	334,471	18,661	12,056	-	365,188
Less investment expenses	<u>68,027</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>68,027</u>
Net income	<u>266,444</u>	<u>18,661</u>	<u>12,056</u>	<u>-</u>	<u>297,161</u>
<b>Securities lending transactions:</b>					
Securities lending income	5,332	243	206	-	5,781
Securities lending fees	(346)	(16)	(13)	-	(375)
Net securities lending income	<u>4,986</u>	<u>227</u>	<u>193</u>	<u>-</u>	<u>5,406</u>
Net investment income	271,430	18,888	12,249	-	302,567
Net receipts from other retirement systems	40,737	-	-	-	40,737
Transferrable earnings from QPP to Variable Supplemental Funds	-	30,000	10,000	(40,000)	-
Litigation income	464	-	-	-	464
Total additions	<u>1,409,997</u>	<u>48,888</u>	<u>22,249</u>	<u>(40,000)</u>	<u>1,441,134</u>
<b>DEDUCTIONS:</b>					
Benefit payments and withdrawals (Note 1)	1,150,505	47,415	21,970	-	1,219,890
Transferrable earnings from QPP to Variable Supplemental Funds	40,000	-	-	(40,000)	-
Total deductions	<u>1,190,505</u>	<u>47,415</u>	<u>21,970</u>	<u>(40,000)</u>	<u>1,219,890</u>
NET INCREASE (DECREASE) IN NET POSITION	219,492	1,473	279	-	221,244
<b>NET POSITION RESTRICTED FOR BENEFITS</b>					
Beginning of year	<u>10,595,838</u>	<u>523,971</u>	<u>307,126</u>	<u>-</u>	<u>11,426,935</u>
End of year	<u>\$ 10,815,330</u>	<u>\$ 525,444</u>	<u>\$ 307,405</u>	<u>\$ -</u>	<u>\$ 11,648,179</u>

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

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2016 AND 2015**

**1. PLAN DESCRIPTION**

The City of New York ("The City") maintains a number of pension systems providing benefits for employees of its various agencies (as defined within New York State ("State") statutes and City laws). The City's five major actuarially-funded pension systems are the New York Fire Department Pension Funds ("FIRE"), 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 Fire Department, Subchapter Two Pension Fund, which is generally referred to as the New York Fire Department 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 Fire Department Firefighters' Variable Supplements Fund ("FFVSF") and the New York City Fire Department 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 Department (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 services 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 Comprehensive Annual Financial Report ("CAFR").

***Boards of Trustees***

The QPP's Board of Trustees consists of twelve members. The Trustees and their voting rights are as follows: the City Fire Commissioner, Mayor, 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).

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.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
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JUNE 30, 2016 AND 2015**

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

***Membership Data***

At June 30, 2014 and June 30, 2013, the dates of the QPP's most recent completed actuarial valuations, the QPP's membership consisted of:

	<b>2014</b>	<b>2013</b>
Retirees and beneficiaries receiving benefits	16,763	16,807
Terminated vested members not yet receiving benefits	40	33
Other inactives *	16	17
Active members receiving salary	10,319	10,182
<b>Total</b>	<b>27,138</b>	<b>27,039</b>

\* Represents members who are no longer on payroll but otherwise classified.

At June 30, 2015 and 2014, the dates of the VSF's most recent actuarial valuations, the FFVSF and FOVSF membership consist of:

	<b>FFVSF</b>		<b>FOVSF</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Retirees currently receiving payments	3,621	3,691	1,593	1,629
Active members	8,081	7,623	2,699	2,696
<b>Total</b>	<b>11,702</b>	<b>11,314</b>	<b>4,292</b>	<b>4,325</b>

\*\* Represents the number of actively employed firefighters and fire officers, respectively, as of the June 30 valuation dates.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2016 AND 2015**

***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 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, and Tier 6 (Tier 3 Modified).

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 plan.



**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2016 AND 2015**

- 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, (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% APR). At the time of retirement or refund of contributions, a member's aggregate balance of actual Required Contributions and Voluntary Contributions, including statutory interest ("Actual Balance"), less the outstanding balance of any member loans ("Net Actual Contributions"), may exceed ("Excess of Contributions") or fall short of ("Deficiency of Contributions") the member's Required Amount. The Required Amount is the sum of the Required Contributions which a member should have made during his or her first 20 years of credited service, plus statutory interest earnings thereon. The amount of the member's retirement annuity or the refund of contributions that he or she is entitled to is increased by the actuarial value of any Excess of Contributions or reduced by any Deficiency of Contributions. The collective value of Required Amount, Actual Balance, and outstanding member loans, as of June 30, 2016, is as follows:

	Tier 1	Tier 2	Total
Required amount	\$ 192,458	\$ 476,612,679	\$ 476,805,137
Actual balance	726,370	1,570,084,538	1,570,810,908
Outstanding loans	-	26,916,546	26,916,546

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 5 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 5 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 CPI-U based on the year ending March 31, rounded to the next higher .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 New York State Retirement and Social Security Law ("RSSL"). As a result of Chapter 18 of the Laws of 2012, there are certain limitations on Tier 3 benefits available to participants hired on and after April 1, 2012. In most New York State PERS, including the QPP, these changes are sometimes referred to as Tier 6 or Tier 3 Modified.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
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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 benefit is payable upon completion of 20 years of uniformed service 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 allowance is payable to a member who has at least 5 years of service and is in receipt of Social Security Disability Benefits. An ODR benefit is 1/3 of final average salary or 2% of final average salary for each year of credited service, whichever is greater and does not exceed 50% of final average salary.
- An ADR 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.

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

Tier 3/Tier 3 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 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 less than 3%. 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 twentieth 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.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
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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.

- For those who become members of the QPP on or after July 1, 1988, the annual supplemental benefit is \$2,500 for the first twelve months of retirement, which increases by \$500 each year until a maximum of \$12,000 is payable in the twentieth and later years of retirement. This was later modified by Chapter 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 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 2016 were \$58.3 million for FFVSF and \$103.4 million for FOVSF. Similarly, for Fiscal Year 2015 the balances were \$61.8 million for FFVSF and \$106.5 million for FOVSF.

Any increase in the amount of ad hoc cost-of-living increases ("Supplementation") or automatic Cost-of-Living Adjustments ("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 19<sup>th</sup> anniversary of such retiree's date of retirement and (2) January 1, 2008.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2016 AND 2015**

**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. Benefits and refunds are recognized when due and payable in accordance with the terms of the Funds.

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

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

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

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 on a daily basis. Overdrawn balances result primarily from outstanding benefit checks that are presented to the banks for payment on a daily basis, and these balances are routinely settled each day.

**Accrued Benefits Payable** — Accrued benefits payable 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 end of 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.



**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
NOTES TO THE COMBINING FINANCIAL STATEMENTS  
JUNE 30, 2016 AND 2015**

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, 2016 and 2015, management believes that the Funds had no credit risk exposure to borrowers because the amounts the Funds owed the borrowers equaled or exceeded the amounts the borrowers owed the Funds. The contracts with the Fund's Custodian require the Securities Lending 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 51.75 days. The securities lending program in which the Funds participate only allows pledging or selling securities in the case of borrower default.

During Fiscal Year 2003, the value of certain underlying securities became impaired because of the credit failure of the issuer. Accordingly, the carrying amount of the collateral reported in the QPP's statements of fiduciary net position for Fiscal Year 2003 was reduced by \$10 million to reflect this impairment and reflect the net realizable value of the securities purchased with collateral from securities lending transactions. In Fiscal Years 2004 through 2007, the QPP received \$2.6 million from distribution in bankruptcy proceedings from the defaulted issuers. During the same period, the QPP also received \$3.9 million from litigation settlements. For Fiscal Years 2008 and 2009, the QPP received securities totaling \$102.4 thousand from distributions in bankruptcy proceedings. There were no recoveries for the defaulted security in Fiscal Years 2013 and 2012. In Fiscal Year 2014 the QPP received \$2.7 million from litigation settlements. For Fiscal year 2015, the QPP received a distribution in bankruptcy proceedings of \$1.6 thousand dollars, the remaining loss of \$703.9 thousand dollars was written off during the period

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.

Securities on loan are carried at fair value and the value as of June 30, 2016 and 2015 was \$831.9 million and \$776.3 million, respectively for the QPP, \$36.7 million and \$21.8 million, respectively for the FFVSF, and \$29.7 million and \$17.7 million, respectively for the FOVSF. Cash collateral received related to securities lending as of June 30, 2016 and 2015 was \$854.2 million and \$795.9 million, respectively for the QPP, \$37.7 million and \$22.2 million, respectively for the FFVSF, and \$30.5 million and \$18.1 million, respectively for the FOVSF. As of the date of the 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 30 days.

**New Accounting Standards Adopted** — In Fiscal Year 2015, FIRE adopted Government Accounting Standards Board ("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. There was no material impact on the Funds' financial statements as a result of the implementation of GASB 72.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
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**3. INVESTMENTS AND DEPOSITS**

The City Comptroller (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, with regard to 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 New York State Retirement and Social Security Laws ("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.

The Funds do not possess an investment risk policy statement nor does it actively manage assets to specific risk targets. Rather, investment risk management is an inherent function of our asset allocation process. Assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk. The asset allocation targeted for the Funds in fiscal year 2016 and 2015. Includes securities in the following categories:

	2016	2015
U.S. Equity	29.9 %	30.3 %
Core U.S. Fixed	21.5	21.9
EAFE Markets	10.0	10.0
Private Equities	7.0	6.0
Emerging Markets	6.5	6.5
Enhanced Yield Bonds	3.4	3.7
Private Real Estate	4.5	4.1
Hedge Funds	3.3	3.6
REITS	2.8	3.0
TIPS	5.0	5.0
Opportunistic Fixed	2.7	2.5
Cash	0.0	0.0
Bank Loans	1.7	1.7
ETI	0.7	0.7
Convertible Bonds	<u>1.0</u>	<u>1.0</u>
 Total	 <u>100.0 %</u>	 <u>100.0 %</u>

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

Concentrations — None of the Funds have any investments in any one entity that represent 5% or more of their fiduciary net position.

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**Credit Risk** — Portfolios other than U.S. Government and related portfolios have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of BBB and above except that they are also permitted a 10% maximum exposure to BB & B rated securities. While non-investment grade managers are primarily invested in BB & B rated securities, they can also invest up to 7% of their portfolio in securities rated CCC. Non-rated securities are considered to be non-investment grade. The quality ratings of Funds' investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2016 and 2015 are as follows:

**Investment Type\***

Moody's Quality Ratings

June 30, 2016

	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
U.S. Government	-%	- %	- %	- %	-%	- %	-%	- %	- %	- %
Corporate bonds	2.36	3.41	15.76	39.35	12.01	6.52	2.61	-	5.53	87.55
Short-term:										
Commercial Paper	-	-	-	-	-	-	-	4.35	-	4.35
Pooled fund	-	-	-	-	-	-	-	6.18	-	6.18
U.S. Treasuries & Agencies	-	-	-	-	-	-	-	1.92	-	1.92
Discount Notes	-	-	-	-	-	-	-	-	-	-
Percent of rated portfolio	<u>2.36%</u>	<u>3.41%</u>	<u>15.76%</u>	<u>39.35%</u>	<u>12.01%</u>	<u>6.52%</u>	<u>2.61%</u>	<u>12.45%</u>	<u>5.53%</u>	<u>100.00%</u>

**Investment Type\***

Moody's Quality Ratings

June 30, 2015

	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
U.S. Government	-%	- %	- %	- %	-%	- %	-%	- %	- %	- %
Corporate bonds	1.29	2.17	12.44	27.38	7.70	6.46	1.83	-	4.58	63.85
Short-term:										
Commercial Paper	-	-	-	-	-	-	-	16.52	-	16.52
Pooled fund	-	-	-	-	-	-	-	9.06	-	9.06
U.S. Treasuries & Agencies	-	-	-	-	-	-	-	10.57	-	10.57
Discount Notes	-	-	-	-	-	-	-	-	-	-
Percent of rated portfolio	<u>1.29%</u>	<u>2.17%</u>	<u>12.44%</u>	<u>27.38%</u>	<u>7.70%</u>	<u>6.46%</u>	<u>1.83%</u>	<u>36.15%</u>	<u>4.58%</u>	<u>100.00%</u>

\* U.S. Treasury Bonds, Notes and Treasury-inflation protected securities are obligations of the U.S. government or explicitly guaranteed by the U.S. government and therefore not considered to have credit risk and are not included above.

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

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
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Consistent with the Funds' investment policy, the investments are held by the Funds' custodian and registered in the name of the Funds.

All of the Funds' deposits are insured by the Federal Deposit Insurance Corporation and collateralized by securities held by a financial institution separate from the Funds' depository financial institution.

**Interest Rate Risk** — Interest rate risk is the risk that the fair value of investments could be adversely affected by the change in interest rates. Duration limits are used to control the portfolios exposure to interest rate changes. In the investment grade core Fixed Income portfolios duration is limited to a range of one year shorter than the benchmark duration to 0.75 years longer than the duration of the benchmark indices. Duration range is a measure of the overall portfolio, while statements of the stated maturity reflect the specific maturities of the individual securities held. The Funds have no formal risk policy. The lengths of investment maturities (in years) of the Funds' investments, as shown by the percent of the rated portfolio, at June 30, 2016 and 2015 are as follows:

<u>Investment Maturities</u>					
Years to Maturity June 30, 2016	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
U.S. Government	42.93%	1.87%	4.73%	6.83%	29.50%
Corporate bonds	49.96	1.44	16.67	16.53	15.32
Yankee bonds	-	-	-	-	-
Short-term:					
Commercial Paper	2.48	2.48	-	-	-
Pooled fund	3.53	3.53	-	-	-
U.S. Treasuries & Agencies	-	-	-	-	-
Discount Notes	<u>1.10</u>	<u>1.10</u>	<u>-</u>	<u>-</u>	<u>-</u>
Percent of rated portfolio	<u>100.00%</u>	<u>10.42%</u>	<u>21.40%</u>	<u>23.36%</u>	<u>44.82%</u>

<u>Investment Maturities</u>					
Years to Maturity June 30, 2015	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
U.S. Government	43.25%	0.15%	6.74%	5.22%	31.14%
Corporate bonds	36.24	1.34	10.08	13.71	11.11
Yankee bonds	-	-	-	-	-
Short-term:					
Commercial Paper	9.37	9.37	-	-	-
Pooled fund	5.14	5.14	-	-	-
U.S. Treasuries & Agencies	-	-	-	-	-
Discount Notes	<u>6.00</u>	<u>6.00</u>	<u>-</u>	<u>-</u>	<u>-</u>
Percent of rated portfolio	<u>100.00%</u>	<u>22.00%</u>	<u>16.82%</u>	<u>18.93%</u>	<u>42.25%</u>

**Foreign Currency Risk** — Foreign currency risk is the risk that changes in the exchange rates will adversely impact the fair value of an investment. Currency risk is present in underlying portfolios that invest in foreign stocks and/or bonds. The currency markets have proven to be good diversifiers in a total portfolio context; therefore, 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 have no formal risk policy. In addition, the Funds have investments in foreign stocks and/or bonds and the Funds invest in foreign currencies. The Funds' combined foreign currency holdings as of June 30, 2016 and 2015 are as follows:



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Trade Currency (in thousands)	June 30, 2016 Fair Value	June 30, 2015 Fair Value
Australian Dollar	\$ 40,508	\$ 31,782
Botswana Pula	438	425
Brazilian Real	43,458	43,599
British Pound Sterling	214,870	232,258
Canadian Dollar	20,062	22,024
Chilean Peso	6,961	6,253
Colombian Peso	3,305	3,017
Croatian Kuna	881	928
Czech Koruna	1,755	2,000
Danish Krone	22,694	18,371
Egyptian Pound	2,234	4,963
Euro Currency	373,164	386,398
Ghana Cedi	190	192
Hong Kong Dollar	223,574	227,865
Hungarian Forint	2,185	2,943
Indian Rupee	81,819	72,592
Indonesian Rupiah	18,093	14,335
Israeli Shekel	1,783	1,542
Japanese Yen	239,710	220,024
Jordanian Dinar	718	992
Kenyan Shilling	722	931
Kuwait Dinar	1,812	2,058
Malaysian Ringgit	21,161	19,736
Mauritius Rupee	761	922
Mexican Peso	24,118	24,369
Moroccan Dirham	881	907
New Zealand Dollar	1,965	1,474
Nigerian Naira	494	856
Norwegian Krone	9,272	9,760
Omani Rial	803	940
Pakistan Rupee	1,590	904
Peruvian Nuevo Sol	544	512
Philippines Peso	11,148	8,312
Polish Zloty	11,344	12,650
Qatar Riyal	4,928	5,483
Renminbi Yuan	247	(1)
Romanian Leu	866	930
Russian Ruble	567	292
Singapore Dollar	15,400	19,366
South African Rand	48,671	50,371
South Korean Won	127,187	117,230
Swedish Krona	29,978	31,452
Swiss Franc	111,388	118,799
Taiwan New Dollar	88,869	97,237
Thai Baht	20,145	18,141
Tunisian Dinar	307	329
Turkish Lira	12,812	9,420
UAE Dirham	4,268	3,181
Total	<u>\$ 1,850,650</u>	<u>\$ 1,849,064</u>

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**Securities Lending Transactions**

*Credit Risk* — The quality ratings of investments held as collateral for securities lending by the Funds' at June 30, 2016 and 2015 are as follows:

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

June 30, 2016	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
U.S. Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate bonds	-	-	-	-	-	-	-	-	-	-
Yankee bonds	-	-	-	-	-	-	-	-	-	-
Short-term:										
Reverse repurchase agreement	-	-	-	-	-	-	-	-	757,098	757,098
Money market	69,860	-	-	-	-	-	-	-	-	69,860
Bank notes	-	-	-	-	-	-	-	-	2,841	2,841
Cash	-	-	-	-	-	-	-	-	91,248	91,248
Uninvested	-	-	-	-	-	-	-	-	1,434	1,434
<b>Total</b>	<b>\$ 69,860</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 852,621</b>	<b>\$ 922,481</b>
Percent of securities lending port	7.57%	%	%	%	%	%	%	%	92.43%	100.00%

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

June 30, 2015	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
U.S. Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate bonds	-	-	-	-	-	-	-	-	-	-
Yankee bonds	-	-	-	-	-	-	-	-	-	-
Short-term:										
Reverse repurchase agreement	-	-	-	-	-	-	-	-	636,155	636,155
Money market	58,537	-	-	-	-	-	-	-	-	58,537
Bank notes	-	-	-	-	-	-	-	-	58,563	58,563
Cash	-	-	82,365	-	-	-	-	-	-	82,365
Uninvested	-	-	-	-	-	-	-	-	705	705
<b>Total</b>	<b>\$ 58,537</b>	<b>\$ -</b>	<b>\$ 82,365</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 695,423</b>	<b>\$ 836,325</b>
Percent of securities lending port	7.00%	%	9.85%	%	%	%	%	%	83.15%	100.00%

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
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*Interest Rate Risk* — The lengths of investment maturities (in years) of the collateral for securities lending held by the Funds' are as follows:

Years to Maturity  
Investment Type  
(In Thousands)

	<u>Investment Maturities (In years)</u>				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
<b>June 30, 2016</b>					
U.S. Government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate bonds	-	-	-	-	-
Short-term:					
Reverse repurchase agreements	757,098	757,098	-	-	-
Money market	69,860	69,860	-	-	-
Bank notes	2,841	2,841	-	-	-
Cash	91,248	91,248	-	-	-
Uninvested	<u>1,434</u>	<u>1,434</u>	-	-	-
Total	<u>\$ 922,481</u>	<u>\$ 922,481</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Percent of securities lending portfolio	<u>100.00%</u>	<u>100.00%</u>	<u>- %</u>	<u>- %</u>	<u>- %</u>

Years to Maturity  
Investment Type  
(In Thousands)

	<u>Investment Maturities (In years)</u>				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
<b>June 30, 2015</b>					
U.S. Government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate bonds	-	-	-	-	-
Short-term:					
Reverse repurchase agreements	636,155	636,155	-	-	-
Money market	58,537	58,537	-	-	-
Bank notes	58,563	58,563	-	-	-
Cash	82,365	82,365	-	-	-
Uninvested	<u>705</u>	<u>705</u>	-	-	-
Total	<u>\$ 836,325</u>	<u>\$ 836,325</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Percent of securities lending portfolio	<u>100.00%</u>	<u>100.00%</u>	<u>- %</u>	<u>- %</u>	<u>- %</u>

*Rate of return* — For the years ended June 30, 2016 and 2015, the annual money weighted rate of return on investments, net of investment expense, for the Funds was as follows:

	<u>2016</u>	<u>2015</u>
QPP	1.37%	3.28%
FFVSF	0.88%	4.13%
FOVSF	0.24%	4.02%

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

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

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The Funds categorize its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The Funds have the following recurring fair value measurements as of June 30, 2016 and June 30, 2015:

	2016			Total
	Level One	Level Two	Level Three	
GASB 72 Disclosure (in thousands)				
INVESTMENTS – At fair value				
Short-term investments:				
Commercial Paper	\$ -	\$ 63,081	\$ -	\$ 63,081
Short-term investment fund	-	125,058	-	125,058
U.S. treasury bills and agencies	-	25,998	-	25,998
Discount notes	-	1,954	-	1,954
Debt securities:				
U.S. government and agency	-	1,126,696	-	1,126,696
Corporate and other	-	1,235,170	-	1,235,170
Equity securities	1,802,947	-	-	1,802,947
Alternative investments	-	-	1,650,354	1,650,354
Collective trusts funds:				
International equity	2,048,729	56,004	-	2,104,733
Fixed income	2,822	265,327	177,789	445,938
Domestic equity	2,102,738	369	-	2,103,107
Mortgage debt security	-	17,748	68,359	86,107
Treasury inflation protected securities	-	564,133	-	564,133
Collateral from securities lending	-	922,481	-	922,481
Total investments	<u>\$ 5,957,236</u>	<u>\$ 4,404,019</u>	<u>\$ 1,896,502</u>	<u>\$ 12,257,757</u>
Alternative Investments valued at net asset value				<u>467,502</u>
Total				<u>\$ 12,725,259</u>



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	2015			Total
	Level One	Level Two	Level Three	
GASB 72 Disclosure (in thousands) INVESTMENTS – At fair value				
Short-term investments:				
Commercial Paper	\$ -	\$ 307,371	\$ -	\$ 307,371
Short-term investment fund	-	219,787	-	219,787
U.S. treasury bills and agencies	-	182,521	-	182,521
Discount notes	-	14,173	-	14,173
Debt securities:				
U.S. government and agency	-	141,083	1,172	142,255
Corporate and other	-	2,463,809	-	2,463,809
Equity securities	\$ 1,942,802	816	-	1,943,618
Alternative investments	-	-	1,887,226	1,887,226
Collective trusts funds:				
International equity	2,158,075	358	3,114	2,161,547
Fixed income	-	243,154	195,218	438,372
Domestic equity	1,951,729	-	-	1,951,729
Mortgage debt security	-	72,185	-	72,185
Treasury inflation protected securities	-	316,629	-	316,629
Collateral from securities lending	-	836,325	-	836,325
Total investments	<u>\$ 6,052,606</u>	<u>\$ 4,798,211</u>	<u>\$ 2,086,730</u>	<u>\$ 12,937,547</u>

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**Equity and Fixed Income Securities**

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

**Alternative Investments**

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

Investments in non-public equity securities are valued by the GP using one or more valuation methodologies outlined in ASC 820, depending upon the availability of data required by each methodology. In some cases, the GP may use multiple approaches to estimate a valuation range. For the immediate time period following a transaction, the determination of fair value for equity securities, in which no liquid trading market exists, can generally be approximated based on the transaction price (absent any significant developments). Thereafter, or in the interim, if significant developments relating to such portfolio company or industry occur which may suggest a material change in value, the GP should value each investment by applying generally accepted valuation methods including: (1) the market approach (such as market transaction and comparable public company multiples, which are based on a measurement of the company's historical and projected financial performance with typical metrics including enterprise value/latest 12 months EBITDA or projected fiscal year EBITDA) or (2) the income or discounted cash flow approach.

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

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

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**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 Accumulated Benefit Obligation ("ABO") of the VSF. Excess earnings are defined as the amount by which earnings on equity investments of the QPP exceed what the earnings would have been had such funds been invested at a yield comparable to that available from fixed-income securities ("Hypothetical Fixed Income Security Earnings"), less any cumulative deficiencies. The VSFs also receives credit for investment earnings on their respective 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 2016, the excess earnings of the QPP, inclusive of prior year's cumulative deficiencies, are estimated to be equal to \$0 and therefore, no transfer of assets is required from the QPP to the VSF's.

For Fiscal Year 2015, the excess earnings of the QPP, inclusive of prior year's cumulative deficiencies, are estimated to be equal to \$40 million and, therefore, a liability and transfer of \$30 million to FFVSF and a liability and transfer of \$10 million to FOVSF has been reported by the QPP as of and for the year ended June 30, 2015, respectively. However, during fiscal year 2016, the excess earnings estimate for fiscal year 2014 were finalized and revised upwards to \$128.7 million for FFVSF and \$28.1 million for FOVSF. Additional liability and transfer totaling \$36.9 million were recognized by Fire QPP that resulted in transferring \$18.7 million to FFVSF and \$18.1 million to 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 scheduled annual supplemental benefit payments, then The City is required by law to fund the difference.

The amount shown below as the ABO is 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. The ABO is calculated as the actuarial present value of credited projected benefits, prorated on service and is intended to help users assess the funded status of the VSFs on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due and make comparisons among Variable Supplements Funds.

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

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A comparison of the ABO as calculated by the Funds' Chief Actuary of the Office of the Actuary (the "Actuary") with the net position restricted for benefits for the FFVSF and the FOVSF as of June 30, 2015 and June 30, 2014, follows:

	FFVSF		FOVSF	
	2015	2014	2015	2014
	(in millions)		(in millions)	
Accumulated benefit obligation <sup>1</sup>				
for:				
Retirees currently receiving benefits	\$ 361.5	\$ 372.5	\$ 153.6	\$ 158.3
Active employees	<u>173.9</u>	<u>170.2</u>	<u>175.6</u>	<u>167.0</u>
Total accumulated benefit obligation <sup>2,3</sup>	535.4	542.7	329.2	325.3
Plan net position held in trust for benefits <sup>4</sup>	<u>525.4</u>	<u>524.0</u>	<u>307.4</u>	<u>307.1</u>
Unfunded accumulated benefit obligation	<u>\$ 10.0</u>	<u>\$ 18.7</u>	<u>\$ 21.8</u>	<u>\$ 18.2</u>

<sup>1</sup> Based on actuarial assumptions adopted by the Board of Trustees of the QPP during Fiscal Year 2016.

<sup>2</sup> The June 30, 2015 and the June 30, 2014 ABOs for FFVSF decreased by approximately \$2.1 million and decreased by approximately \$2.3 million, respectively, and the June 30, 2015 and the June 30, 2014 ABOs for FOVSF increased by approximately \$0.7 million and \$0.8 million, respectively, compared to those projected prior to the enactment of Chapters 119/95, 390/98 and 125/00.

<sup>3</sup> These total ABOs have been reduced by accrued benefits payable. This basis of reporting the total ABO is consistent with that used to report net position restricted for benefits in these financial statements, but may differ from the bases used for other purposes.

<sup>4</sup> See Note 2 for valuation of investments in the calculation of net position restricted for benefits.

For purposes of the June 30, 2015 and the June 30, 2014 actuarial valuations of the VSFs, Chapter 125/00 has been taken into account in the determination of the unfunded ABO relative to the Supplementation benefit increases that began Fiscal Year 2001 and to the automatic COLA benefits provided for Fiscal Year 2002 and each future year.

Sections 13-384 and 13-394 of the ACNY provide that the Boards of Trustees of the FFVSF and the FOVSF 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.



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The following actuarial assumptions represent the recommendations of the Actuary and were used in the actuarial calculations to determine the preceding ABOs as of June 30, 2015 and June 30, 2014, respectively:

	<u>June 30, 2015</u>	<u>June 30, 2014</u>
Investment rate of return	7.0% per annum, <sup>1, 2</sup>	7.0% per annum. <sup>1, 2</sup>
Post-retirement mortality	Tables adopted by the Board of Trustees during Fiscal Year 2016.	Tables adopted by the Board of Trustees during Fiscal Year 2016.
Active service: withdrawal, death, disability	Tables adopted by the Board of Trustees during Fiscal Year 2012.	Tables adopted by the Board of Trustees during Fiscal Year 2012.
Service retirement	Tables adopted by the Board of Trustees during Fiscal Year 2012.	Tables adopted by the Board of Trustees during Fiscal Year 2012.
Percentage of all active FIRE members estimated to retire for service with 20 or more years of service as Firefighters	68%	68%
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 <sup>1</sup> Tier	1.5% per annum for Tier I and Tier II, 2.5% per annum for Tier III.	1.5% per annum for Tier I and Tier II, annum for Tier III.

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

<sup>2</sup> Net of Investment Expenses.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
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**5. QPP CONTRIBUTIONS**

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

**Member Contributions** — 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.

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, 2016, based on an actuarial valuation as of June 30, 2014 was \$1,054.5 million and the Statutory Contribution for the year ended June 30, 2015, based on an actuarial valuation as of June 30, 2013 was \$988.8 million. The Statutory Contributions for Fiscal Years 2016 and 2015 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.

**6. NET PENSION LIABILITY**

The components of net pension liability of the Employer at June 30, 2016 and 2015 for the Funds were as follows:

	(in thousands)			
<b>June 30, 2016</b>	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total Pension liability*	\$19,711,495	\$ 568,213	\$ 364,099	\$ 20,643,807
Fiduciary net position**	<u>10,899,763</u>	<u>524,075</u>	<u>314,272</u>	<u>11,738,110</u>
Employers' net pension liability	<u>\$ 8,811,732</u>	<u>\$ 44,138</u>	<u>\$ 49,827</u>	<u>\$ 8,905,697</u>
Fiduciary net position as a percentage of the total	<u>55.30%</u>	<u>92.23%</u>	<u>86.31%</u>	<u>56.86%</u>

	(in thousands)			
<b>June 30, 2015</b>	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>TOTAL</u>
Total Pension liability*	\$18,544,307	\$ 548,104	\$ 354,381	\$ 19,446,792
Fiduciary net position**	<u>10,815,330</u>	<u>547,074</u>	<u>316,927</u>	<u>11,679,331</u>
Employers' net pension liability	<u>\$ 7,728,977</u>	<u>\$ 1,030</u>	<u>\$ 37,454</u>	<u>\$ 7,767,461</u>
Fiduciary net position as a percentage of the total	<u>58.32%</u>	<u>99.81%</u>	<u>89.43%</u>	<u>60.06%</u>

\*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.

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Fiscal 2015 disclosures pertaining to the Fund's total and net pension obligations and pension expenses have been restated to reflect the full actuarially determined obligation for Special Accidental Death Benefits ("SADB") in the opening balances. Previously reported amounts excluded that obligation, based on the New York State ("State") law General Municipal Law Section 208-f (e) requiring the State to reimburse the City for those benefits. Beginning with Fiscal 2009 and for every year since, the State has adopted budgets that override this law, and reimbursed the City for less than the cost of SADB. Moreover, in accordance with new GASB standards adopted by the City in 2014, the liability should have been reported regardless of the State's reimbursement obligation. The net effects of changes to the 2015 disclosures is an additional \$845.0 million for total pension liability (approximately 6.8) and net pension liabilities (approximately 1.8%) and \$62.0 million additional pension expense. Management believes the effects of the adjustment are not material in relation to the financial statements.

***Actuarial Methods and Assumptions***

The total pension liability as of June 30, 2016 and 2015 was determined by actuarial valuations as of June 30, 2014 and June 30, 2013 respectively, that were rolled forwarded 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
COLA's	1.5% per annum for Auto COLA,

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

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

Pursuant to Section 96 of the New York City Charter, a study of the actuarial assumptions used to value liabilities of the Funds is conducted every two years.

The most recently completed study was published by Gabriel Roeder Smith & Company ("GRS") dated October 2015 and analyzed experience for Fiscal Years 2010 through 2013. GRS made recommendations with respect to the actuarial assumptions and methods based on their analysis.

In October 2015 the independent actuarial auditor, Gabriel, Roeder, Smith & Company (GRS), issued a report on their NYC Charter-mandated actuarial experience studies for the four-year and ten-year periods ended June 30, 2013 (the GRS Report).

Based, in part, on the GRS Report, on published studies of mortality improvement, and on input from the City's outside consultants and auditors, the Actuary proposed, and the Boards of Trustees of the NYCRS adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement mortality are based primarily on the experience of the NYCRS (the Base Tables) and the application of Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015 (the Valuation Tables). Scale MP-2015 replaced Mortality Improvement Scale AA.

In addition, beginning in Fiscal Year 2016, the Actuary revised the Actuarial Asset Valuation Method

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to constrain the Actuarial Asset Value to be within a 20% corridor of the Market Value of Assets

The previously completed studies were published by The Hay Group ("Hay") dated December 2011 and The Segal Company ("Segal"), dated November 2006. Hay analyzed experience for Fiscal Years 2006 through 2009 and made recommendations with respect to the actuarial assumptions and methods based on their analysis. Segal analyzed experience for Fiscal Years 2002 through 2005 and made recommendations with respect to the actuarial assumptions and methods based on their analysis.

The obligations of the QPP to the FFVSF and the FOVSF are recognized through the Liability Valuation Method. Under this method the actuarial present value ("APV") of Future SKIM from the QPP to the FFVSF and FOVSF 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 FFVSF and FOVSF. The APV of Future SKIM is computed as the excess, if any, of the APV of benefits of the FFVSF and FOVSF offset by the AAV of the FFVSF and FOVSF, 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 (expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

<b>Asset Class</b>	<b>Target Asset Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
U.S Public Market Equities	32.00%	6.60%
International Public Market Equities	10.00	7.00
Emerging Public Market Equities	6.50	7.90
Private Market Equities	7.00	9.90
Fixed Income	34.50	2.70
Alternative Investments	10.00	4.00
<b>Total</b>	<b>100.00%</b>	

***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.



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The following presents the net pension liability of the Employer for the Funds as of June 30, 2016, 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:

(in thousands)

	1% Decrease (6.0%)	Current Discount rate (7.0%)	1% Increase (8.0%)
QPP	\$ 11,025,669	\$ 8,811,732	\$ 6,959,119
FFVSF	95,190	44,138	(270)
FOVSF	82,100	49,827	22,445
<b>Total</b>	<u>\$ 11,202,959</u>	<u>\$ 8,905,697</u>	<u>\$ 6,981,294</u>

**7. MEMBER LOANS**

Tier 1 and Tier 2 members are permitted to borrow up to 90% of their own accumulated contributions including accumulated interest. The balance of QPP member loans receivable at June 30, 2016 and 2015 was \$26.9 million and \$29.1 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.

**8. RELATED PARTIES**

The Comptroller of The City of New York has been appointed by law as custodian for Fixed Annuity Program assets with revocable discretionary authority. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller also provides cash receipt and cash disbursement services to the Funds. Actuarial services are provided to the Funds by the Office of the Actuary employed by the Boards of Trustees of The City's main pension systems. The City's Corporation Counsel provides legal services to the Funds. Other administrative services are also provided by The City. The cost of providing such services amounted to \$1.5 million and \$2.6 million in Fiscal Years 2016 and 2015, respectively.

**9. ADMINISTRATIVE AND INVESTMENT EXPENSES**

There are no administrative expenses paid out of the Funds. Services, as set out in the note on "Related Parties" are provided by various City Agencies. The City of New York defrays the cost associated with these services. Investment expenses charged to the investment earnings of the QPP, exclusive of expenses relating to securities-lending transactions amounted to approximately \$46.3 million and \$68.0 million in 2016 and 2015, respectively.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
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**10. CONTINGENT LIABILITIES AND OTHER MATTERS**

**Contingent Liabilities** — The Funds have a number of claims pending against them and have been named as a defendant in a number of lawsuits. The Funds also have certain other contingent liabilities. Management of FIRE, on the advice of legal counsel, believes that such proceedings will not have a material effect on the Funds' net position or changes in 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 2016 and 2015, 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. 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' net position restricted for benefits or cause changes in 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.

Based, in part, upon a review of the Segal and Hay studies, the Actuary issued a February 10, 2012 Report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2011 for the New York City Fire Department Pension Fund" ("February 2012 Report").

In October 2015 the independent actuarial auditor, Gabriel, Roeder, Smith & Company (GRS), issued a report on their NYC Charter-mandated actuarial experience studies for the four-year and ten-year periods ended June 30, 2013 (the GRS Report).

Based, in part, on the GRS Report, on published studies of mortality improvement, and on input from the City's outside consultants and auditors, the Actuary proposed, and the Boards of Trustees of the NYCRS adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement mortality are based primarily on the experience of the NYCRS (the Base Tables) and the application of Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015 (the Valuation Tables). Scale MP-2015 replaced Mortality Improvement Scale AA.

In addition, beginning in Fiscal Year 2016, the Actuary revised the Actuarial Asset Valuation Method to constrain the Actuarial Asset Value to be within a 20% corridor of the Market Value of Assets

The Board of Trustees of the Funds adopted those changes to actuarial assumptions that require Board approval. The State Legislature and the Governor enacted Chapter 3/13 to provide for those changes to the actuarial assumptions and methods that require legislation, including the AIR assumption of 7.0% per annum, net of investment expenses.

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Additionally, based, in part, on the GRS Report, on published studies of mortality improvement, and on input from the City's outside consultants and auditors, the Actuary proposed and the Board of Trustees adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement mortality are based primarily on the experience of FIRE (the Base Tables) and the application of Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015 (the Valuation Tables). Scale MP-2015 replaced Mortality Improvement Scale AA.

**New York State Legislation** (only significant laws included) — Chapter 104 of the Laws of 2005, as amended by Chapter 93 of the Laws of 2005, created a presumptive eligibility for accidental disability in connection with the World Trade Center attack on September 11, 2001.

Chapter 105 of the Laws of 2005 states that a member killed in the US Armed Forces on and after June 14, 2005 is deemed a Line-of-Duty death while on active payroll.

Chapter 152/06 provided for the changes in actuarial assumptions and methods that require legislation, including the continuation of the AIR assumption of 8.0% per annum and continuation of the current Frozen Initial Liability ("FIL") Actuarial Cost Method and the existing Unfunded Actuarial ("Accrued") Liability ("UAL"). In addition, Chapter 152/06 provides for elimination of the use of the ten-year phase-in of Chapter 278/02 for funding the additional actuarial liabilities created by the benefits provided by Chapter 125/00.

Chapter 445 of the Laws of 2006 ("Chapter 445/06") created a presumptive eligibility for accidental death benefits in connection with the World Trade Center attack on September 11, 2001.

Chapter 654 of the Laws of 2006 expanded presumptive eligibility for Line-of-Duty accidental disability and accidental death benefits to include strokes effective from January 1, 2002.

Chapter 713 of the Laws of 2006 provides that FIRE members retired from the Fire Marshall title who are appointed to the Office of NYC Marshall will have no reduction or suspension of retirement allowance.

Chapter 5 of the Laws of 2007 amended Chapter 445/06 to clarify the World Trade Center accidental disability benefits payable to retirees who die in the first 25 years of retirement. It also amended Chapter 445/06 to include World Trade Center deaths as presumptive accidental death benefits in the Line-of-Duty.

Chapter 637 of the Laws of 2007 deems prior EMT service and service in certain other job titles as qualifying time for all pension purposes.

Chapter 489 of the Laws of 2008 expanded and redefined the eligibility provisions of the accidental disability and accidental death benefits that arise in connection with the World Trade Center attack on September 11, 2001.

Chapter 211 of the Laws of 2009 continued the valuation and other interest rates for one year to June 30, 2010 from June 30, 2009.

Chapter 265 of the Laws of 2010 continued the valuation and other interest rates for one year to June 30, 2011 from June 30, 2010.

Chapter 180 of the Laws of 2011 continued the valuation and other interest rates for one year to June 30, 2012 from June 30, 2011.

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Tier 3 – During June 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, FIRE members hired on and after July 1, 2009 are covered under Tier 3.

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. In particular, Chapter 3/13 continued the 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 extended the WTC Disability Laws to vested members.

\* \* \* \* \*



SCHEDULE 1

NEW YORK FIRE DEPARTMENT PENSION FUNDS  
 REQUIRED SUPPLEMENT INFORMATION (UNAUDITED)  
 SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS  
 (In thousands)

June 30, 2016	QPP*	FOVSF	FFVSF	TOTAL
Total pension liability:				
Service cost	\$ 414,614	\$ 11,652	\$ 5,002	\$ 431,268
Interest	1,332,473	38,716	24,546	1,395,735
Changes of benefit terms				
Differences between expected and actual experience	324,429	3,728	(4,548)	323,609
Changes of assumptions	386,534	12,419	6,545	405,498
Benefit payments and withdrawals	(1,290,862)	(46,407)	(21,826)	(1,359,095)
Net change in total pension liability	1,167,188	20,108	9,719	1,197,015
Total pension liability – beginning	18,544,307	548,104	354,381	19,446,792
Total pension liability – ending (a)	19,711,495	568,212	364,100	20,643,807
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)
Administrative expenses	-	-	-	-
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)	\$ 8,811,732	\$ 44,137	\$ 49,828	\$ 8,905,697
Plan fiduciary net position as a percentage of the total pension liability	55.30%	92.23%	86.31%	56.86%
Covered-employee payroll	\$ 1,129,470	n/a	n/a	\$ 1,129,470
Employer's net pension liability as a percentage of covered-employee payroll	780.2%	n/a	n/a	788.5%

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2013.

\* Such amounts represents the preliminary Fund's fiduciary net position and may differ from the final Fund's fiduciary net position.

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

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
REQUIRED SUPPLEMENT INFORMATION (UNAUDITED)  
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS  
(In thousands)**

June 30, 2015	QPP*	FOVSF	FFVSF	TOTAL
Total pension liability:				
Service cost	\$ 396,765	\$ 11,500	\$ 4,561	\$ 412,826
Interest	1,196,164	37,448	23,919	1,257,531
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	180,533	(4,324)	(4,862)	171,347
Changes of assumptions	-	-	-	-
Benefit payments and withdrawals	<u>(1,150,505)</u>	<u>(47,819)</u>	<u>(22,117)</u>	<u>(1,220,441)</u>
Net change in total pension liability	622,957	(3,195)	1,501	621,263
Total pension liability – beginning	<u>17,076,314</u>	<u>551,300</u>	<u>352,879</u>	<u>17,980,493</u>
Total pension liability – ending (a)	<u>17,699,271</u>	<u>548,105</u>	<u>354,380</u>	<u>18,601,756</u>
Plan fiduciary net position:				
Employer contributions	988,784	-	-	988,784
Member contributions	108,582	-	-	108,582
Net investment income	271,430	18,888	12,249	302,567
Benefit payments and withdrawals	(1,150,505)	(47,819)	(22,117)	(1,220,441)
Administrative expenses	-	-	-	-
Other	<u>41,201</u>	<u>-</u>	<u>-</u>	<u>41,201</u>
Net change in plan fiduciary net position	<u>259,492</u>	<u>(28,931)</u>	<u>(9,868)</u>	<u>220,693</u>
Accrued Transfers To/From VSF's	(40,000)	30,000	10,000	-
Plan fiduciary net position – beginning	<u>10,595,838</u>	<u>546,005</u>	<u>316,795</u>	<u>11,458,638</u>
Plan fiduciary net position – ending (b) **	<u>10,815,330</u>	<u>547,074</u>	<u>316,927</u>	<u>11,679,331</u>
Employer's net pension liability – ending (a)-(b)	<u>\$ 6,883,941</u>	<u>\$ 1,031</u>	<u>\$ 37,453</u>	<u>\$ 6,922,425</u>
Plan fiduciary net position as a percentage of the total pension liability	<u>61.11 %</u>	<u>99.81 %</u>	<u>89.43 %</u>	<u>62.79 %</u>
Covered-employee payroll	\$ 1,111,744	n/a	n/a	\$ 1,111,744
Employer's net pension liability as a percentage of covered-employee payroll	<u>619.20 %</u>	<u>n/a</u>	<u>n/a</u>	<u>622.66 %</u>

Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2013.

\*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.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
REQUIRED SUPPLEMENT INFORMATION (UNAUDITED)  
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS  
(In thousands)**

June 30, 2014	QPP*	FOVSF	FFVSF	TOTAL
Total pension liability:				
Service cost	\$ 397,037	\$ 11,403	\$ 4,471	\$ 412,911
Interest	1,153,702	37,757	23,818	1,215,277
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	-	-	-	-
Changes of assumptions	-	-	-	-
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	(1,099,152)	(50,822)	(22,014)	(1,171,998)
Administrative expenses	-	-	-	-
Other	<u>39,980</u>	<u>-</u>	<u>-</u>	<u>39,980</u>
Net change in plan fiduciary net position	1,588,646	18,205	29,431	1,636,282
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>11,458,639</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	62.05 %	99.04 %	89.77 %	63.73 %
Covered-employee payroll	\$ 1,102,396	n/a	n/a	\$ 1,102,396
Employer's net pension liability as a percentage of covered-employee payroll	587.85 %	n/a	n/a	591.61 %

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2013.

\* Such amounts represents the preliminary Fund's fiduciary net position and may differ from the final Fund's fiduciary net position.

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
SCHEDULE OF EMPLOYER CONTRIBUTIONS  
(In thousands)**

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially determined contribution	\$ 1,054,478	\$ 988,784	\$ 969,956	\$ 962,173	\$ 976,895	\$ 890,706	\$ 874,331	\$ 843,75	\$ 780,202	\$ 683,193
Contributions in relation to the actuarially determined contribution	<u>1,054,478</u>	<u>989,784</u>	<u>969,956</u>	<u>962,173</u>	<u>976,895</u>	<u>890,706</u>	<u>874,331</u>	<u>843,751</u>	<u>780,202</u>	<u>683,193</u>
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered-employee payroll	\$ 1,129,470	\$ 1,111,744	\$ 1,102,396	\$ 1,129,921	\$ 1,149,423	\$ 1,057,243	\$ 1,059,911	\$ 1,013,661	\$ 944,463	\$ 918,562
Contributions as a percentage of covered-employee payroll	93.360 %	88.940 %	87.968 %	85.154 %	84.960 %	84.248 %	82.491 %	83.238 %	82.608 %	74.537 %

**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
NOTES TO SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Note to Schedule:

With the exception of fiscal year 2005, 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 2014 contributions were determined using an actuarial valuation as of June 30, 2012). The Fiscal Year 2005 employer contribution was determined using an actuarial valuation as of the immediate prior fiscal year (June 30, 2004). This change in methodology caused two actuarial valuations to be performed as of June 30, 2004. 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	June 30, 2009- June 30, 2004 (lag)
Actuarial cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Frozen Initial Liability <sup>1</sup>
Amortization method for Unfunded Actuarial Accrued Liabilities:						
Initial Unfunded Post 2010 Unfunded	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing Dollar Level Dollar	Increasing dollar <sup>2</sup> NA
Remaining amortization period:						All Outstanding components of reestablished UAAL are being amortized over an 11-year closed period beginning in Fiscal Year 2000 <sup>2</sup>
Initial Unfunded	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	NA
2011 Actuarial Gain/Loss	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2012 Actuarial Gain/Loss	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA
2013 Actuarial Gain/Loss	14 years (closed)	15 years (closed)	NA	NA	NA	NA
2014 Actuarial Gain/Loss	15 years (closed)	NA	NA	NA	NA	NA
Actuarial Asset Valuation (AAV) Method	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV is defined to recognize 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 AAV 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 AAV 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 AAV 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 AAV is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with "Market Value Restart" as of June 30, 1999.
Actuarial assumptions:						
Assumed rate of return	7.0% per annum, net of investment expenses <sup>3</sup>	7.0% per annum, net of investment expenses <sup>3</sup>	7.0% per annum, net of investment expenses <sup>3</sup>	7.0% per annum, net of investment expenses <sup>3</sup>	7.0% per annum, net of investment expenses <sup>3</sup>	6.0% per annum
Post-retirement mortality	Tables adopted by Board of Trustees during Fiscal Year	Tables adopted by Board of Trustees during Fiscal Year	Tables adopted by Board of Trustees during Fiscal Year	Tables adopted by Board of Trustees during Fiscal Year	Tables adopted by Board of Trustees during Fiscal Year	Tables adopted by Board of Trustees during Fiscal Year
Active service: withdrawal, death, disability, service retirement	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2006
Salary increases	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year. <sup>3</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year. <sup>3</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year. <sup>3</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year. <sup>3</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year. <sup>3</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year. <sup>3</sup>
Cost of Living Adjustments <sup>1</sup>	1.5% per annum for Auto COLA 2.5% per annum for Escalation.	1.5% per annum for Auto COLA 2.5% per annum for Escalation.	1.5% per annum for Auto COLA 2.5% per annum for Escalation.	1.5% per annum for Auto COLA 2.5% per annum for Escalation.	1.5% per annum for Auto COLA 2.5% per annum for Escalation.	6.33% per annum <sup>1</sup>

<sup>1</sup> Under this actuarial cost method, the Initial Liability was reestablished as of June 30, 1999, by the Entry Age Actuarial Cost Method but with the unfunded actuarial accrued liability (UAAL) not less than \$0. The financial results using this Frozen Initial Liability Actuarial Cost Method are the same as those that would be produced using the Frozen Entry Age Cost Method.

<sup>2</sup> In conjunction with Chapter 85 of the Laws of 2000, there is an amortization method. It reestablished UAAL and eliminated BSL as of June 30, 1999. The schedule of payments toward the reestablished UAAL (referred to in the ACNY as the Fire Pension Fund ("FPF") 1999 UAAL and elsewhere as the UAAL) provided that the UAAL be amortized over a period of 11 years beginning Fiscal Year 2000, where each annual payment after the first equals 103% of its

<sup>3</sup> Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.



**NEW YORK FIRE DEPARTMENT PENSION FUNDS  
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)  
SCHEDULE OF INVESTMENT RETURNS**

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

<b>Fiscal year ended</b>	<b>QPP</b>	<b>FFVSF</b>	<b>FOVSF</b>
June 30, 2016	1.37 %	0.88%	0.24%
June 30, 2015	3.28	4.13	4.02
June 30, 2014	17.511	18.027	19.565

Note: In accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2013.

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Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
<b>US Equities</b>		
Brown AM - SCG	41.17	324,854
Ceredex	68.76	286,774
Dalton Greiner Sm Cap-Value	50.49	258,950
Blackrock R2000 Growth	13.03	683
Blackrock R2000 Value	3.02	147
Iridian Asset Mgmt. MCV	98.07	396,471
Wellington Mgmt. MCC	109.49	535,878
State St GA S&P 400	0.00	1,492
Blackrock R1000 Growth	851.09	32,520
Blackrock R1000 Value	869.78	32,382
State Street Global Advisors R3000	998.65	65,586
Attucks	24.29	203,189
Capital Prospects	36.84	288,907
PIM	96.93	671,178
Domestic Equity Transition	123.52	-
<b>Total US Equities</b>	<b>3,385.12</b>	<b>3,099,012</b>
<b>NON-US Equities</b>		
Baillie Gifford	177.17	464,562
Walter Scott	252.99	503,997
Causeway	199.19	520,952
Sprucegrove	178.94	379,068
Acadian	73.74	239,729
Pyramis	69.14	429,193
REBAL-Transition	0.11	-
SSGA MSCI EAFE Small Cap Index	26.41	13,213
SSGA	50.78	9,262
ACADIAN	100.91	348,302
Baillie Gifford	149.62	561,421
DFA	91.48	387,995
Parametric EM	103.16	487,399
CONY GT FIRE Blackrock-MSCI EM MK	253.97	-
NYC-FIRE-PERMAN ASSET Mgmt	47.63	-
<b>Total NON-US Equities</b>	<b>1,775.24</b>	<b>4,345,094</b>
<b>Hedge Funds</b>		
Altimeter Partners	10.88	
BLUE TREND FD	34.66	420,755
BREMAN HOWARD LP	19.85	406,162
BREMAN HOWARD OPP	20.80	105,540
CASPIAN SELECT CF	20.22	208,582
CCP QUANT FD	22.52	221,818
D.E. SHAW COMPOSITE FD	46.86	785,562
FIR TREE VAL FD	17.45	400,318
Gotham Asset Management	11.49	105,318
LUXOR CAPITAL	36.73	329,486
PERMAN		272,427

Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
PERRY CAPITAL LP	14.18	228,873
Pharo Gaia Fund Ltd	13.71	-
PHARO MACRO FD	20.61	-
SRS Investment Management	26.03	243,357
Standard General	6.46	75,946
Turiya Capital Management	24.28	211,975
<b>TOTAL Hedge Funds</b>	<b>346.74</b>	<b>4,016,119</b>
<b>REITS</b>		
Morgan Stanley - Reits	215.99	760,275
Adelante (Lend Lease Rosen) (REIT)	168.25	437,320
<b>Total REITS</b>	<b>384.24</b>	<b>1,197,595</b>
<b>Private Equity</b>		
ACON Equity Partners III LP	0.86	16,828
Aisling Capital II, LP	0.32	5,287
Aisling Capital III, L.P.	2.44	63,787
Altaris Health Partners III, L.P.	0.55	31,082
American Securities Partners VI, L.P.	23.23	281,408
Ampersand 2011 L.P.	6.52	55,163
Apollo Investment Fund V, L.P.	0.53	-
Apollo Investment Fund VI, L.P.	6.65	-
Apollo Investment Fund VII, L.P.	7.16	17,007
Apollo Investment Fund VIII	17.50	452,104
Ardian Secondary VI	22.96	147,632
Ares Corp. Opportunities Fund I, L.P.	0.50	(2,686)
Ares Corp. Opportunities Fund II, L.P.	0.92	4,274
Ares Corp. Opportunities Fund III, L.P.	9.47	254,936
Ares Corp. Opportunities Fund IV, L.P.	16.05	321,947
ARLINGTON CAPITAL II	0.73	182,934
ARSENAL CAPITAL II	3.29	35,344
ASF VII	1.31	2,763
ASF VII Side Car	0.00	-
ATLANTIC EQUITY IV	2.20	6,759
Aurora Equity Partners III, L.P.	0.59	326
Avista Capital Partners, L.P.	2.40	(1,225)
Avista Capital Partners II, L.P.	8.01	148,502
AXA Secondary Fund V B L.P.	26.27	(111,884)
BC European Capital IX	15.56	319,803
BDCM Opportunity Fund III, L.P.	10.26	94,608
Blackstone Capital Partners IV, L.P.	3.44	71,918
Blackstone Capital Partners V, L.P.	3.29	251,026
Blackstone Capital Partners VI, L.P.	9.42	118,568
Blackstone Mezzanine Partners II L.P.	0.07	1,660
BLUE WOLF CAPITAL II	2.69	-
Bridgepoint Europe III	2.52	-
Bridgepoint Europe IV	4.01	-
Bridgepoint EUR V	2.17	257,153

Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
CAPITAL PARTNERS I	0.59	3,092
Capital Partners PE Income Fund II, L.P.	0.68	16,228
Capital Point Partner, L.P.	1.91	158,368
Carlyle Partners IV, L.P.	0.42	18,013
Carlyle Partners V, L.P.	4.64	241,079
Carlyle Partners VI, L.P.	10.68	361,474
Carpenter Community BancFund-A, L.P.	2.77	249,108
Catterton Partners VI, L.P.	3.70	43,913
CCMP Capital Investors II, L.P.	2.52	101,890
Celtic Pharmaceutical Holdings, L.P.	1.52	-
Centerbridge Cap III	1.15	87,747
Coller International Partners V, L.P.	1.39	36,995
ComVest Investment Partners IV, L.P.	9.60	94,993
Constellation Venture Capital III, L.P.	3.11	59,753
CS NYCERS Emerging Manager Co-Inv, L	-	57,076
CS NYCERS Emerging Manager Fund, L.F	6.78	122,280
Crestview Partners II, L.P.	5.64	90,571
Crestview Prtnr III	7.90	179,207
CVC Capital Partners VI	11.24	946,437
CVC European Equity Partners III, L.P.	0.26	-
CVC European Equity Partners V, L.P.	5.92	747,944
Cypress Merchant Banking Ptnrs II, L.P.	0.04	50,000
EQT VI, L.P.	16.49	378,901
EQT VII	4.83	568,324
ERASMUS	0.39	-
Euro Choice II (Delaware) L.P.	0.66	-
Euro Choice III L.P.	1.95	32,067
Euro Choice IV L.P.	4.95	41,916
Falconhead Capital II	1.37	13,553
FdG Capital Partners, L.P.	6.37	-
FdG Capital Partners II LP	0.33	32,206
Fenway Partners Capital Fund III, L.P.	1.95	22,041
FirstMark IV, L.P.	6.37	(30,793)
First Reserve Fund XI, L.P.	0.42	-
First Reserve Fund XII, L.P.	1.66	31,482
The Fourth Cinven Fund	0.25	22,461
FS Equity Partners V, L.P.	0.98	5,857
FS Equity Partners VI, L.P.	12.16	51,723
FTV IV, LP	2.51	-
FTVentures III, L.P.	2.40	-
GF CAPITAL	1.93	194,314
GI Partners Fund II	0.81	5,393
GI Partners Fund III	3.49	56,040
GLEACHER MEZZANINE II	0.11	134,241
Green Equity Investors VI	20.47	171,556
Grey Mountain Partners Fund III, LP	0.45	18,910



Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
GSO Capital Opportunities Fund, L.P.	0.98	86,501
Highland Consumer Fund I	0.91	-
ICV Partners III, L.P.	1.40	22,754
Incline Equity Partners III, L.P.	0.84	10,447
Intermedia Partners VII, L.P.	2.48	29,840
JP Morgan Fleming, L.P.	1.82	32,593
Landmark Equity Partners XI, L.P.	0.38	-
Landmark Equity Partners XIV, L.P.	6.57	-
Landmark Equity Partners XV	10.70	-
Lee Equity Partners, L.P.	0.67	36,955
Levine Leichtman Capital Deep Value	0.79	-
Levine Leichtman Capital Partners IV LP	2.44	32,001
Lexington Capital Partners VII, L.P.	5.24	100,573
LEXINGTON CAP VIII	9.97	-
Lincolnshire Equity Fund II, L.P.	0.39	-
Lincolnshire Equity Fund III, L.P.	2.42	38,419
Lincolnshire Equity Fund IV, L.P.	2.25	16,637
Markstone Capital Partners, L.P.	0.24	-
Medica III Investments (Intl) L.P.	1.23	-
MidOcean Partners III, L.P.	8.20	115,328
Milestone Partners III, LP	1.45	(18,750)
Mill City Capital II	0.34	19,213
Montreux Equity Partners IV L.P.	4.26	-
NorthBound Emerging Manager Custom Fc	3.61	17,066
New Mainstream Capital II	0.43	33,058
New Mountain Partners I, L.P.	0.22	-
New Mountain Partners II, L.P.	0.04	37,459
New Mountain Partners III, L.P.	10.52	602,164
New York Fairview Emerging Mgrs Fund (F	5.28	12,293
NGN BioMed Opportunity II, L.P.	2.50	60,174
Olympus Capital Asia III	4.41	93,484
Olympus Growth Fund VI, L.P.	7.43	229,560
Onex Partners III LP	4.19	47,498
Paladin Homeland Security Fund L.P.	1.15	55,556
Paladin III, L.P.	7.69	165,463
Palladium Equity Partners III, L.P.	5.36	92,460
Palladium Equity Partners IV	4.44	66,792
Patriot Partners II	0.80	34,400
PCG Clean Energy Tech Fund East, L.P.	4.47	-
Pegasus Partners IV, L.P.	4.26	178,524
Pegasus Partners V, L.P.	5.72	93,493
Permira IV	1.71	-
Perseus Partners VII, L.P.	0.08	17,370
Pine Brook Capital Partners	4.13	34,729
Platinum Equity Capital Partners III, LP	14.67	388,488
POST CAPITAL II	1.83	15,707

**Additional Supplementary Information**  
**Schedule of Investment Expenses**  
**For Fiscal Year Ended June 30, 2016**

**Schedule 4**

<b>Investment Manager</b>	<b>Average Assets Under Management (\$MMS)</b>	<b>Total Fees</b>
Prism Venture Partners V, L.P.	1.56	-
Psilos Group Partners III, L.P.	2.05	-
Raine Partners II	1.08	159,236
Relativity Fund, L.P.	0.54	-
RiverstoneCarlyle Gbl Engy-Pwr Fd IV LP	3.68	33,016
RRE Ventures IV, L.P.	3.33	34,846
Scale Venture Partners III, LP	4.96	-
SCP Private Equity Partners II, L.P.	3.14	-
SCP Vitalife Partners II, L.P.	3.11	41,025
Siris Partners III	0.75	72,490
Snow Phipps Group, L.P.	2.96	40,809
Snow Phipps II, L.P.	7.30	172,189
Stellex Capital Management LP	0.69	78,349
Summit Partners Growth Equity VIII-A	27.01	547,722
Terra Firma Capital Partners III, L.P.	2.22	176,916
TM&P II	1.57	4,000
Trident V, L.P.	15.37	193,821
Trilantic Capital Partners V L.P.	4.75	198,174
Trilantic Capital Partners III, L.P.	0.11	6,548
Trilantic Capital Partners IV L.P.	2.31	235,818
US Power Fund II	4.56	-
United States Power Fund III, L.P.	4.71	-
Valor Equity III	0.95	60,474
Vista Equity Partners Fund III, L.P.	3.39	6,657
Vista Equity Partners Fund IV, L.P.	37.31	452,914
VISTA EQUITY V	30.94	1,190,709
Vista VI	3.32	35,346
Vista Foundation Fund II, L.P.	2.11	55,511
VSS Communications Partners IV, L.P.	0.32	22,340
Warburg Pincus Private Equity XI, LP	34.01	177,345
Warburg Pincus XII	2.19	398,942
WCAS XII	3.37	-
Webster Capital III	1.25	25,503
Wellspring Capital Partners V, L.P.	8.09	94,930
Welsh, Carson, Anderson & Stowe XI, L.P.	4.84	-
Yucaipa American Alliance Fund I, L.P.	1.83	-
Yucaipa American Alliance Fund II, LP	16.14	62,693
Yucaipa Corporate Initiatives Fund II LP	2.66	20,396
<b>TOTAL Private Equity</b>	<b>801.06</b>	<b>15,840,352</b>
<b>Private Real Estate</b>		
AG Realty Fund VII (Global)	2.73	201,829
Amer Value Ptnrs I LP	1.34	-
ARA Asia Dragon Fd (Global)	0.01	-
Ares European RE Fund III	2.81	-
Artemis Co-Investment	1.65	-
Avanath Aff Housing II	1.83	76,362

Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
Blackstone Europe IV	20.34	363,506
Blackstone REP EUR III	3.65	43,888
Blackstone REP IV	1.44	-
Blackstone REP VI	5.80	51,433
Blackstone REP VII	30.59	342,373
Blackstone Real Estate VIII	12.33	325,406
Brookfield Strat RE Partners	16.78	149,706
Canyon-Jonhson Urban Fund II	0.50	(13,347)
Canyon-Jonhson Urban Fund III	0.04	403,636
Carlyle Realty V	1.69	23,935
Carlyle Realty VI	11.89	582,159
Carlyle Realty Fund VII	5.72	203,396
City Investment Fund	0.10	-
Colony Investors VIII	3.99	-
Colony Realty Partners II	1.38	-
Divco West FD III	8.09	-
Divco West FD IV	30.89	420,543
EMMES	6.65	56,459
Exeter Fund II LP	1.23	-
Heitman America RE Trust	16.28	-
Hudson SEP AC	2.09	22,966
H/2 Special Opp Fund III	8.71	-
H/2 Special Opportunities Fund II	7.58	-
Jamestown Premier Fund	2.16	3,274
JPMC Strategic Property Fund	42.06	199,018
JPMC Special Situations Fund	6.28	47,616
KTR Industrial Fd III	0.02	-
LaSalle US Property Fund	40.25	(18,336)
Lone Star RE FD III	21.38	-
Metlife Core Property	17.08	-
Metro Wkforce Housing FD	2.62	-
PRISA	9.11	44,182
PRISA II	26.82	143,860
Prologis Inc	6.13	-
Related Sep Acct	8.54	34,732
RREEF America II Inc	9.08	-
RREEF America III Inc	0.23	-
Silverpeak Legacy Partners III (Global)	0.72	16,213
Stockbridge Real Estate Fund III	17.79	-
Taconic NYC Investmt Fd	9.06	-
Thor Urban Property Fd II	3.56	-
Tristan Euro Property	1.34	-
UBS Trumbull Property Fd	43.56	188,800
USAA Eagle RE Fund	7.76	-
Walton ST REF VI (Global)	2.70	-
Westbrook Fund VIII	0.98	18,878

**Additional Supplementary Information**  
**Schedule of Investment Expenses**  
**For Fiscal Year Ended June 30, 2016**

**Schedule 4**

<b>Investment Manager</b>	<b>Average Assets Under Management (\$MMS)</b>	<b>Total Fees</b>
<b>TOTAL Private Real Estate</b>	<b>487.36</b>	<b>3,932,486</b>
<b>Infrastructure</b>		
Brookfield Infr Fd II	9.92	156,813
FIRST RESERVE EIF II	1.77	103,069
IFM GL INFRASTRUCTURE	10.68	561
Infrastructure-BIF III	1.45	48,944
KKR Global Infrastructure II	2.68	126,041
<b>TOTAL Infrastructure</b>	<b>26.51</b>	<b>435,427</b>
<b>Fixed Income</b>		
Fischer Francis - Govt	127.34	140,132
State Street - Gov't	127.79	52,903
Blackrock - Mortgage	272.25	144,206
Goldman Sachs - Mortgage	112.50	170,146
Neuberger Berman - Mortgage	233.21	119,168
Blackrock - Credit	200.39	81,284
Prudential - Credit	201.54	137,754
Prudential-Privest - Credit	46.03	-
Taplin Canida Habacht - Credit	290.98	217,850
T Rowe Price - Credit	299.02	320,932
GIA	21.03	54,129
LM Capital	22.42	21,191
PIM - Hillswick	2.96	12,246
PIM - Integrity	2.62	-
PIM - NEW CENTURY	7.80	39,409
PIM - PUGH CAP	9.04	29,915
PIM - Ramirez Asset	7.39	24,340
Blackrock TIPS	138.84	70,973
State Street TIPS Passive	408.29	11,968
Loomis Sayles - High Yield	110.07	341,264
Penn Capital Mgt	114.11	383,416
T ROWE EH	187.00	552,769
Babson BL	90.82	304,398
Guggenheim BL	93.88	369,767
Advent Conv Bonds	53.48	270,478
ACCESS RBC	17.79	44,401
AFL-CIO HOUSING INV TRUST	55.11	216,983
CPC CONST FACILITY	2.65	-
CFSB-PPAR (GNMA)	0.44	-
CCD-PPAR (GNMA)	1.10	-
CPC-PPAR (FNMA)	1.92	-
JPMC-PPAR (FNMA)	2.63	-
LIIF-PPAR (GNMA)	0.52	-
NCBCI-PPAR (GNMA)	0.29	-
BOA-PPAR (FNMA)	3.43	-
CCD-PPAR (FNMA)	1.46	-



Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
LIIF-PPAR (FNMA)	1.38	-
NCBCI-PPAR (FNMA)	0.02	-
Security Lending	3.82	156,563
C/D - Fail Float Earnings	0.72	-
<b>TOTAL Fixed Income</b>	<b>3,274.09</b>	<b>4,288,584</b>
<b>Opportunistic Fixed Income</b>		
Avenue Europe Special Sit. Fund, L.P.	0.08	-
Avenue Special Situations Fund V, L.P.	0.06	-
Avenue Special Situations Fund VI L.P.	7.43	(28,067)
Brightwood Capital Advisors III, LP	5.53	67,500
Fortress Ctr St Ptnrs	26.85	-
Oaktree Opp Fd IX	28.69	357,243
Torchlight Debt Oppy Fund III, LLC	1.99	21,112
Torchlight Debt Opp V	2.98	185,525
Angelo Gordon Ct St Ptnrs	27.50	-
Apollo Centre Street Partnership, L.P	31.88	-
Ares Centre Street	28.54	133,426
Contrarian Partnership, L.P	10.38	(47,206)
Golden Tree OD	40.40	-
Marathon Centre Street Partnership, L.P.	54.92	249,118
Oak Hill Ctr St Ptnrs	35.26	183,456
<b>TOTAL Opportunistic Fixed Income</b>	<b>302.48</b>	<b>1,122,106</b>
<b>Total Management Expenses</b>	<b>10,782.84</b>	<b>38,276,775</b>
<b>Consultant Expenses</b>		
AKSIA LLC Total		111,340
COURTLAND PARTNERS LTD Total		51,530
NEPC LLC Total		355,000
STEPSTONE GROUP LP Total		564,250
THE TOWNSEND GROUP Total		67,658
<b>Total Consultants</b>		<b>1,149,778</b>
<b>Legal Expenses</b>		
Blackstone Real Estate Partners V111 legal Fees		2,625
Bryan Cave LLP		1,538
Cox Castle and Nicholson LLP Legal Fees		5,833
Day Pitney LLP		5,294
Foster Pepper PLLC Legal Fees		11,477
Morgan Lewis and Brockius Legal FEEs		20,077
Nixon Peabody Legal Fees		8,149
Orrick Herrington & Sutcliffe LLP		299
Pillsbury Winthrop Shaw Pittman llp		15,550
Reinhart Boerner Van euren Eqty V11 Legal fees		9,856
Sadis & Goldberg LLP		12,500
Seward & Kissel LLP		46
<b>Total Legal Expenses</b>		<b>93,245</b>



Additional Supplementary Information

Schedule of Investment Expenses

For Fiscal Year Ended June 30, 2016

Schedule 4

Investment Manager	Average Assets Under Management (\$MMS)	Total Fees
<b>Total Management Fees</b>		<b>39,519,798</b>
<b>Other Miscellaneous expenses</b>		
Fx Service Fees - Alt Equity		6,554
Fx Service Fees - Alt Fixed Income		24
Fx Service Fees - International		104,517
Operating Expenses - Equity		417
Operating Expenses - Alt Equity		2,351,569
Operating Expenses - Fixed Income		3,131
Org Expenses - Alt Fixed Income		1,023,514
Misc Expenses - Equity		30
Misc Expenses - Alt Equity		220,372
Misc Expenses - International		30,118
Misc Expenses - Fixed Income		15,208
Misc Expenses - Mutual Fund Mortgages		10
Misc Expenses - Mutual Fund Equity		63
Misc Expenses - Mutual Fund Fixed Income		147
Misc Expenses - Alt Fixed Income		274,567
Shareholder Research Services		4,532
Evaluation Services		321
Audit Fees		2,979
Administrative Fees		34,984
Tax Expense - International		2,291,939
Tax Expense - Mutual Fund Fixed Income		114
Tax Expense - Mutual Fund Equity		1,170
Sec Lending Fee (3rd party)		418,831
Subscription Fee		15,590
<b>Total Other Miscellaneous expenses</b>		<b>6,800,701</b>
<b>Total Investment Expenses</b>	<b>\$ 10,783</b>	<b>\$ 46,320,499</b>

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**New York Fire Department Pension Funds**

**Comprehensive Annual Financial Report**

**A Pension Trust Fund of The City of New York**



**Investment Section**

**Part III**

**Fiscal Year Ended June 30, 2016**

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**INVESTMENT REPORT**

This report is prepared by management on the basis of information provided by the investment managers of the New York Fire Department Pension Funds and the Comptroller of the City of New York. The Comptroller administers the Funds' investment portfolio subject to the direction and control of the Boards of Trustees of the respective fund. The Boards of Trustees 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 New York State Retirement and Social Security Laws ("RSSL"), for the benefit of the Funds' membership.

**Investment Policy**

The Qualified Pension Fund's primary purpose is to provide retirement benefits for members and their beneficiaries, while the Variable Supplements' Funds provide supplemental payments other than pension benefits for eligible members. These benefits and payments are financed through the accumulation of employer and 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 the 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; thus assuring timely payment of benefits.

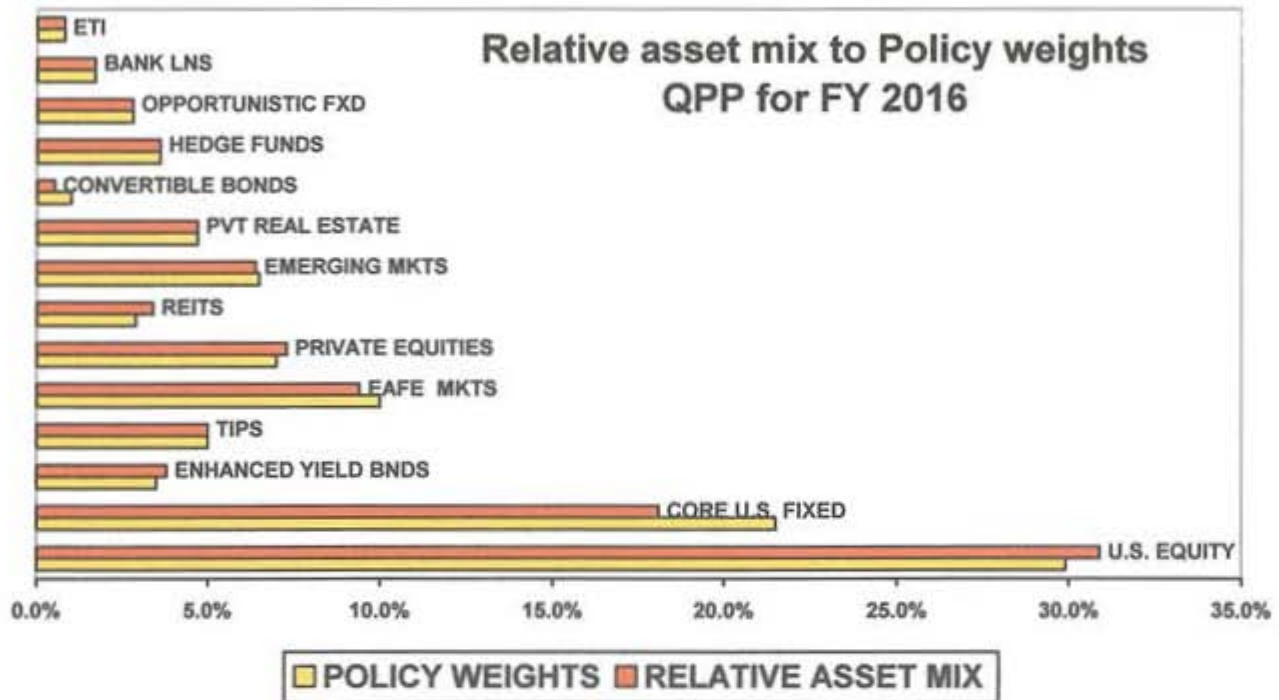
The Funds utilize several investment managers to manage the long term debt and equity portfolio. In addition, the Funds employ independent investment consultants as investment advisors. The Funds' managers are periodically reviewed for ongoing performance and adherence to investment guidelines.

**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 as 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. Investments are therefore made in a broad array of financial instruments including domestic stocks, bonds and international securities through a collective fund investment vehicle. The percentages assigned each category of assets held in the Funds are determined based in part on the results of an analytical study, which indicates the expected rates of return and levels of risk for various asset allocations. These allocations are reviewed periodically to address fluctuating market events and new investment opportunities.



The current policy mix implemented is comprised of items in the following major categories: U.S equity, Core U.S. fixed income, Enhanced yield bonds, Treasury inflation protected securities (“TIPS”), International equity(“EAFE Markets”), Private equities, Real estate investments trusts (“REITS”), Emerging markets, Private Real Estate investments, Convertible Bonds, Hedge Funds, Opportunistic Fixed, Bank loans and Economically Targeted Investments(“ETI”). The chart above shows a comparison of relative asset mix to policy weights for the QPP as at June 30, 2016.

Although the Funds’ assets are periodically re-balanced to keep in line with long term asset allocation objectives, 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, Enhanced Yield bonds, Private Equities and REITS by 1.0, .3, .3 and .5 percentage points respectively. Core U.S Fixed, EAFE, Emerging Markets and Convertible bonds fell below the current targeted allocations by approximately 3.4, .6, .1 and .5 percentage points respectively. All remaining asset classes in the portfolio closely matched targeted allocations.

Actual asset allocation in effect on 6/30/2016 for QPP and the VSF’s is presented in the chart titled "Asset Allocation" (Exhibit 1a -1b). Changes in actual asset allocation for QPP over a period of ten years covering June 2007 through June 2016 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 2016**

The Qualified Pension Fund's portfolio of approximately \$11.0 billion returned 1.4 %<sup>1</sup> on a net basis, for the fiscal year ended June 2016. This performance reflects the challenging return environment for world equity markets, during the period. The portfolio's return fell short of the 2.6% gain posted by the Fund's policy benchmark and also well below the actuarial assumed rate of return at 7.0%, for the period. The QPP closed fiscal year 2016 with a net position restricted for pension benefits totaling \$10.9 billion.

The portfolio's return for fiscal year ended June 30, 2016 included a modest overall gain of 4.1% in the Fixed income sectors during the period. However, U.S. Equities, the largest segment in the portfolio, were among the weaker performers, netting overall gains of 1.2%, well below the 2.1% gain posted by its benchmark the Russell 3000 index. For the quarter ended June 30, 2016, the Equities group overall posted gains averaging 2.5%, slightly less than the return of 2.6% posted by the Russell 3000 index.

International Equities as a group were among the worst performers, most categories posted losses for the fiscal period. The group lost 9.5% overall, although ahead of its benchmark, the MSCI AC world ex Index, which lost 10.2%. The Emerging markets sector, among the lower performers in the group, lost 12.4%; underperforming its benchmark, the MSCI emerging markets index, which lost 12.1% over the same period. For the quarter ended June 30, 2016, the overall group lost approximately .2%.

The Fixed income composite portfolio was among the best performers of the asset classes, closing fiscal year 2016 with gains averaging 4.1%. The largest segment within this category, the structured or core investment grade Fixed income group, although posting gains of 6.5%, underperformed its benchmark the New York City core plus 5 index, which posted gains of 7.2%. Treasury Inflation Protected securities, also among the better performers in this category gained 4.3%, slightly below its benchmark the Barclays Capital Global inflation linked TIPS index which gained 4.4% for the period. The Opportunistic Fixed Income group was among the worst performers in this category, posting losses of 2.4%, underperforming its benchmark the New York City 10% Annual return index, which gained 10%. For the five-year period ended June 30, 2016, the QPP's annualized returns stood at 6.9 %, compared to the portfolio policy benchmark return at 7.5%.

Investment returns for the Variable supplements funds' were generally in line with results posted by the QPP. The Fire Fighters' Variable Supplements Fund, with assets under management of \$452.0 million posted overall gains of 1.0% for the period; this gain was well below the policy benchmark at 1.7%. The Fire Officers Variable Supplements Fund with assets under management of \$285.0 million also posted overall returns of .7% for the period, also below the policy benchmark with gains of 1.7%.

For the five year period ended June 30, 2016, the FFVSF's and the FOVSF 's annualized returns stood at 7.4% and 7.6% respectively, while the corresponding policy benchmarks returned 7.8%.

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<sup>1</sup> 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).

**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 through June 30, 2016.

The Funds' total investments including Collateral from securities lending fell from \$12,937.5 million to \$12,725.3 million, by the end of fiscal year 2016. This change is depicted in **Exhibit 2**, a chart showing changes in total investment at market value over the ten fiscal periods between 2007 and 2016.

The Funds' Portfolio assets invested during fiscal year 2016 returned net gains of \$203.1 million. The overall gains were due mainly to modest performances by U.S. fixed income in the Funds' investment portfolio. Exhibit 3 shows a summary of the changes in investment income over the ten-year period 2007 through 2016.

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 2016.

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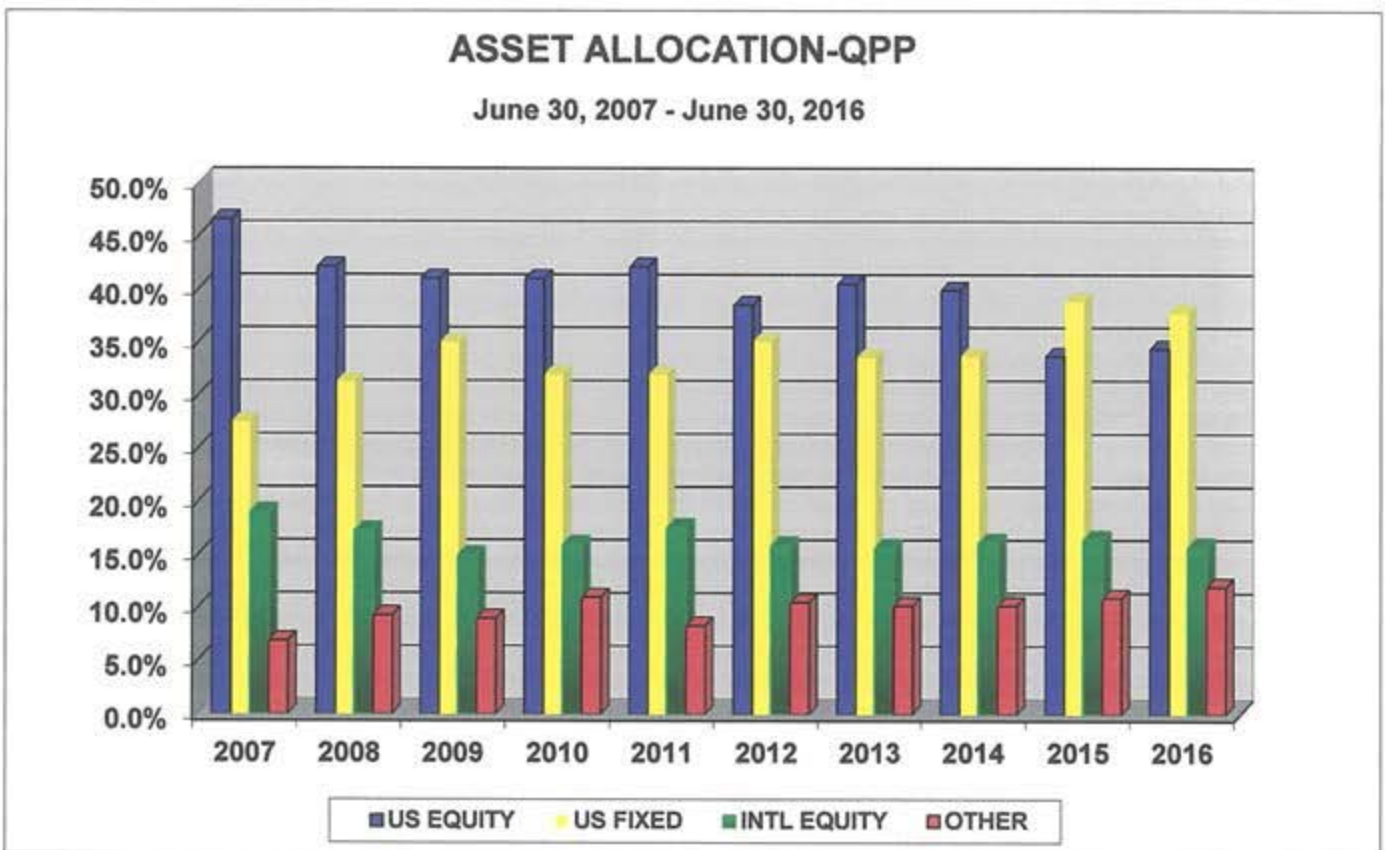
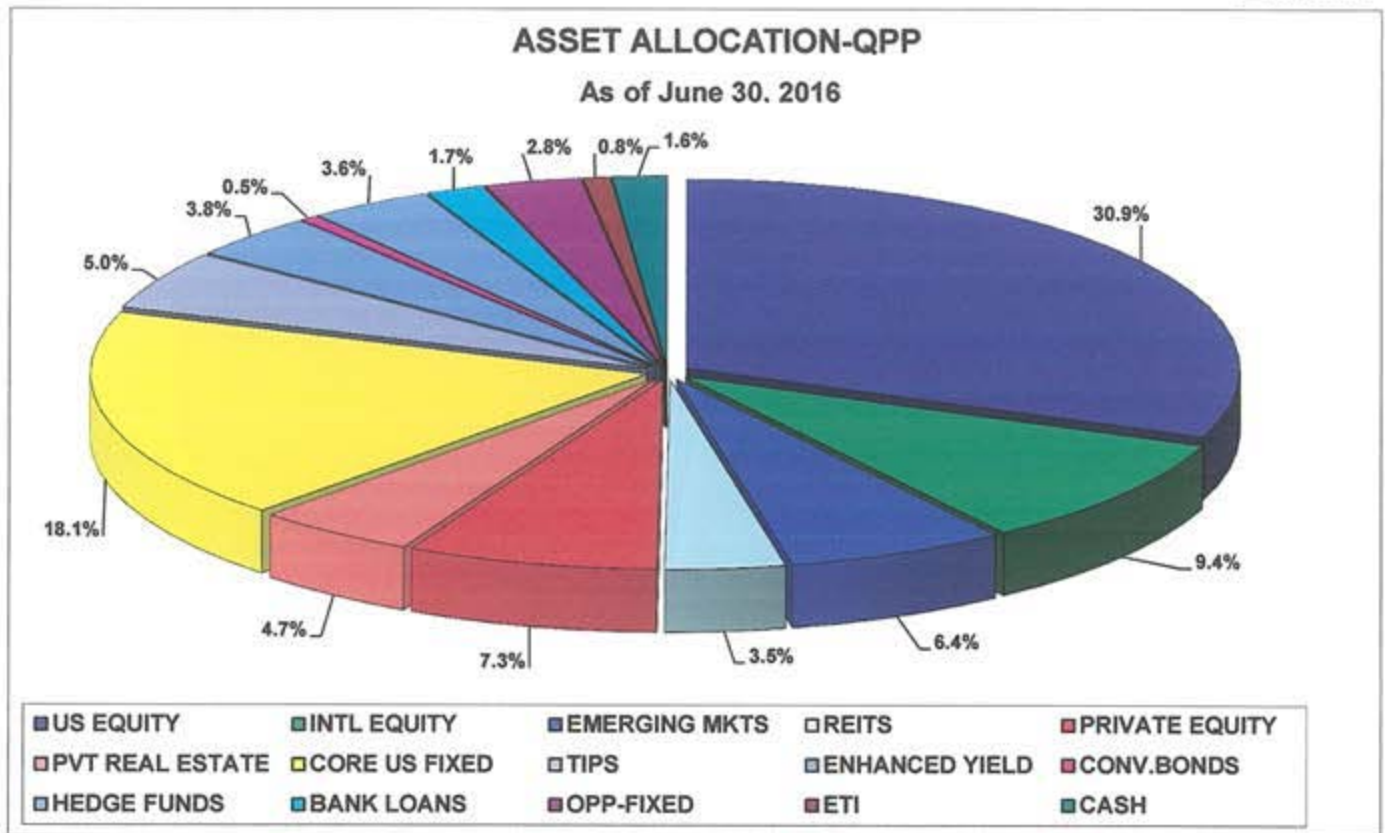


Exhibit 1B

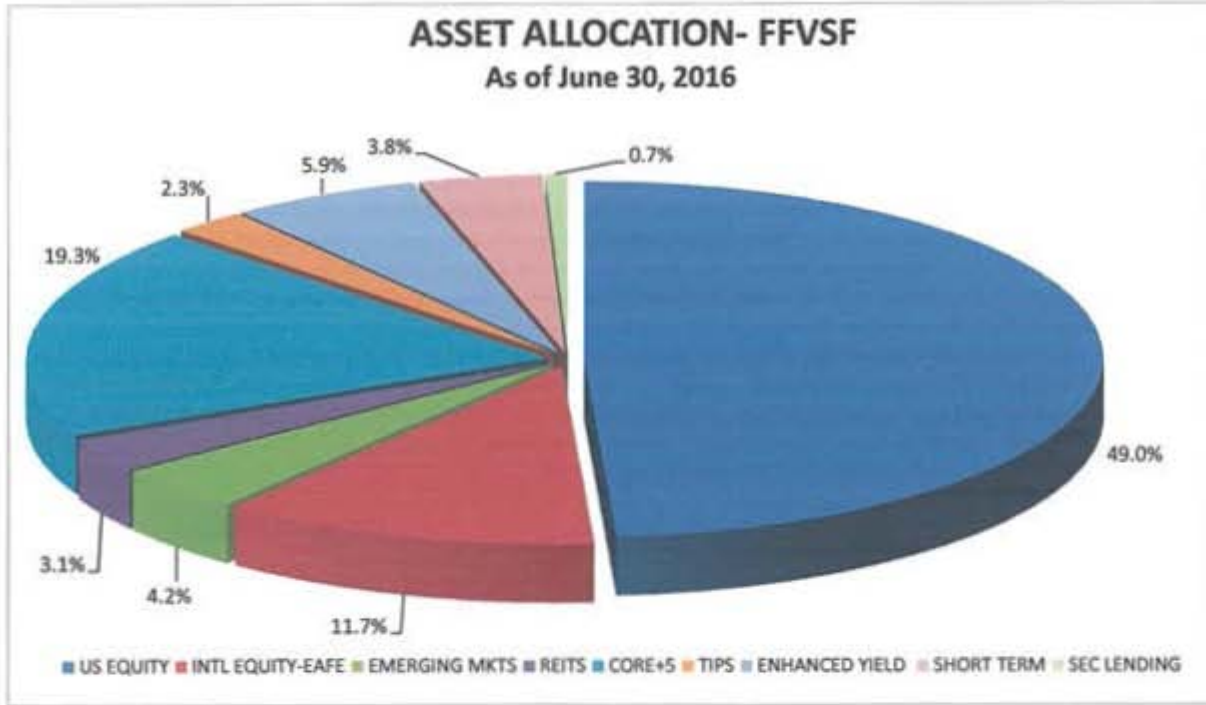
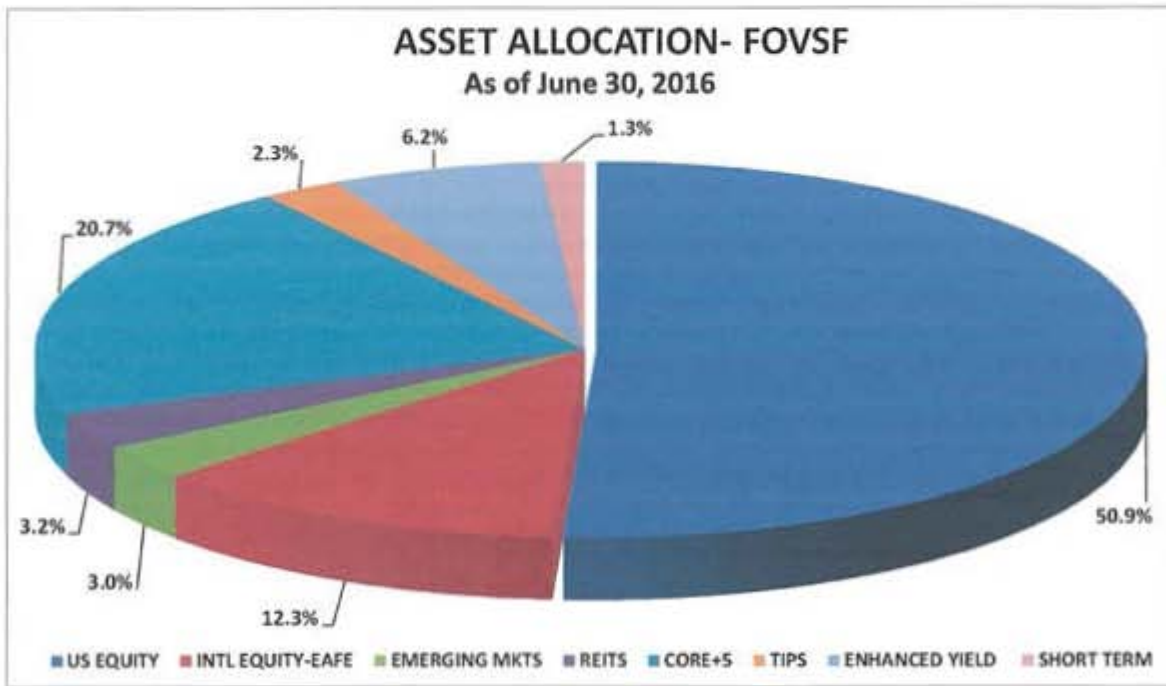


Exhibit 1C



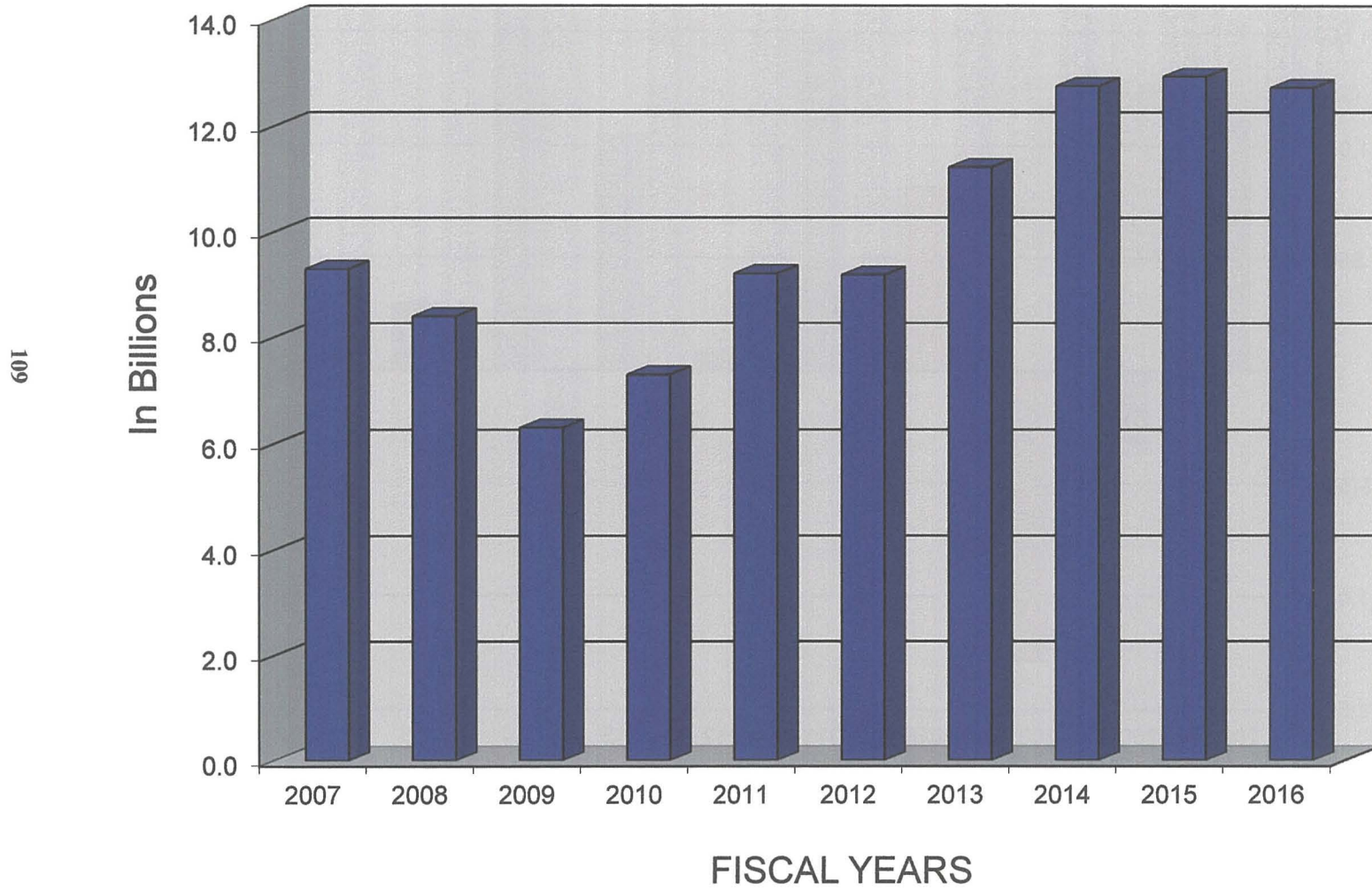


# TOTAL INVESTMENTS

Fire Funds Combined

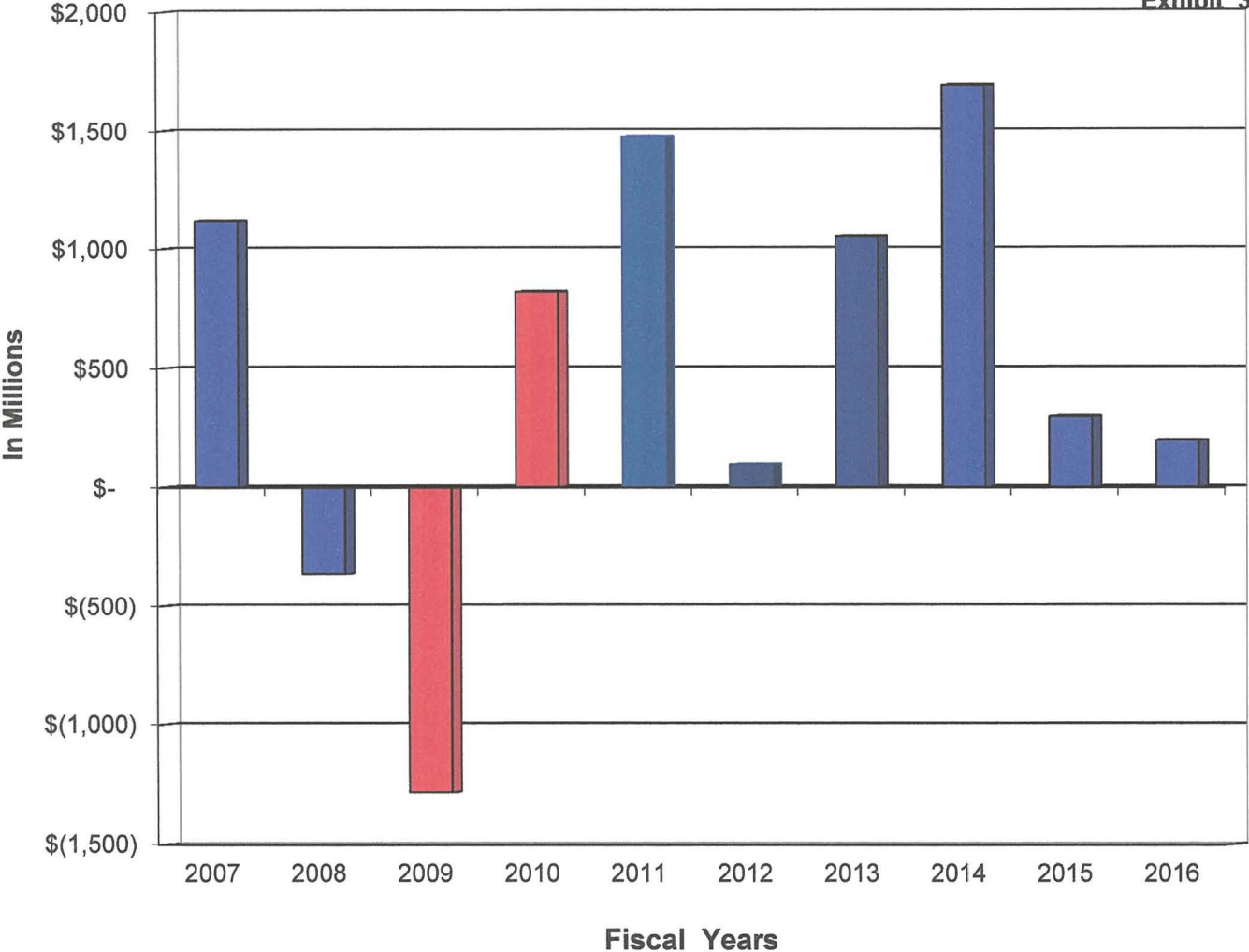
(At Market - Value)

Exhibit 2



**INVESTMENT INCOME**  
**Fire Funds Combined**

Exhibit 3



Schedule of Portfolio Returns\* Fire QPP  
June 30, 2016

Schedule 1A

Assets (\$MM)	% Total	Asset Class	3 Mos Apr-16 Jun-16	YTD Jan-16 Jun-16	1 YR Jul-15 Jun-16	3 YRS Jul-13 Jun-16	5 YRS Jul-11 Jun-16	10 YRS Jul-06 Jun-16
3,385.00	30.86	U.S. Equities Russell 3000	2.50 2.63	3.50 3.62	1.17 2.14	10.86 11.13	11.20 11.60	7.21 7.40
1,728.00	15.78	Total International Equity MSCI AC WORLD EX US (Net) Benchmark	-0.15 -0.64	0.63 -1.02	-9.51 -10.24	1.64 1.16	0.01 0.10	2.27 1.87
1,029.00	9.42	International Developed Environ activist MSCI EAFE	-0.33 -1.46	-1.82 -4.26	-7.88 -10.16	3.15 2.06	2.00 1.68	2.26 1.58
699.00	6.40	International Emerging mkts MSCI Emerging mkts index	0.13 0.66	4.46 6.41	-12.40 -12.05	-0.84 -1.56	-3.03 -3.78	3.83 3.54
394.00	3.60	Total Hedge Funds HFRI Funds of funds composite index 1 <sup>1</sup>	0.65 0.81	-0.60 -2.09	-3.83 -4.45	2.06 2.93	2.38 2.65	n/a n/a
384.00	3.51	Total Real Estate Equity Sec.(REITS) DJ US Select Real Estate Securities Inde.	2.56 5.42	6.79 10.79	13.04 22.72	11.37 13.52	10.92 12.18	6.46 6.76
801.00	7.31	Private Equity NYC R3000+3% Lagged	1.00 1.72	3.33 8.88	7.11 2.65	12.72 24.53	10.95 14.57	10.92 11.33
487.00	4.45	Private Real Estate NCREIF NFI-ODCE NET+100BP	2.76 2.16	5.82 4.41	12.92 11.90	12.58 14.02	13.72 12.77	4.18 -
27.00	0.25	Infrastructure Real Estate CPI+ 4%	2.74 1.84	4.79 2.79	10.67 5.10	- -	- -	- -
		Total Fixed Income Segment	2.83	5.2	4.10	-	-	-
1,911.00	17.45	Total Structured Program NYC Core Plus Five Index	2.89 2.71	6.17 6.33	6.45 7.16	4.96 4.91	4.86 4.57	6.07 5.87
411.00	3.75	Enhanced Yield Citigroup BB & B	4.46 4.97	6.78 8.15	0.35 0.83	4.09 3.90	5.46 5.63	7.14 6.18
43.00	0.39	Total Core Fixed income Barclays Capital Aggregate index	2.10 2.21	5.29 5.31	5.85 6.00	4.57 4.06	4.36 3.76	n/a n/a
30.00	0.27	Total Fixed income Funds of Funds Barclays Capital Aggregate index	2.35 2.21	5.02 5.31	5.86 6.00	4.41 4.06	n/a n/a	n/a n/a
547.00	4.99	Total Tips Managers Barclays Global Inflation linked US Tips	1.70 1.71	6.23 6.24	4.29 4.35	2.40 2.31	2.80 2.63	4.88 4.75
185.00	1.69	Total Bank Loans Credit Suisse FB Leveraged Loan index	2.39 2.86	3.38 4.23	1.25 0.93	4.02 3.04	n/a n/a	n/a n/a
54.00	0.49	Total Convertible Bonds BofA ML All Conv. Ex mandatory index	2.82 4.03	2.85 1.36	-0.82 -5.10	4.77 7.01	4.87 7.19	n/a n/a
302.00	2.76	Total Opportunistic Fixed NYC 10% Annual return	4.86 2.41	1.77 4.88	-2.35 10.00	4.26 10.00	4.94 10.00	n/a n/a
89.00	0.81	Total TeachersTargeted- ETI (w/o cash) Fire custom Benchmark	1.90 1.83	5.12 4.54	7.72 5.45	5.15 3.91	4.39 3.54	5.50 4.96
170.00	1.55	State Street Short Term	0.29	0.64	0.70	0.24	0.40	1.59
5.00	0.05	Cd fail fit /Sec						
10,953.00	100.00	Total Portfolio Policy Benchmark	1.97 2.16	3.65 4.65	1.41 2.57	7.32 7.45	6.93 7.46	6.06 6.73

\*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 of Portfolio Returns  
FFVSF\*  
June 30, 2016**

Schedule 1B

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-16 Jun-16	Jan-16 Jun-16	Jul-15 Jun-16	Jul-13 Jun-16	Jul-11 Jun-16	Jul-06 Jun-16
222.00	49.12	U.S. Equities	2.68	3.70	2.37	11.18	11.62	7.42
		Russell 3000 Daily	2.63	3.62	2.14	11.13	11.60	7.40
53.00	11.73	Total International Developed Markets	-1.91	-6.33	-12.97	-0.34	-0.50	1.31
		MSCI EAFE Benchmark	-1.46	-4.42	-10.16	2.06	1.68	1.58
19.00	4.20	Total Emerging Markets	0.71	6.63	-12.06	-3.67	-5.25	2.00
		MSCI Emerging Markets	0.66	6.41	-12.05	-1.56	-3.78	3.54
14.00	3.10	Total Real Estate Equity Sec.(REITS)	1.60	6.26	9.95	10.36	10.08	6.90
		DJ US Select Real Estate Securities Index	5.42	10.79	22.72	13.52	12.18	6.76
87.00	19.25	Total structured Fixed Income	3.00	6.58	6.22	4.90	4.64	5.93
		NYC Core Plus Five Index	2.71	6.33	7.16	4.91	4.57	5.87
27.00	5.97	Total Enhanced yield	3.39	6.24	1.62	4.81	5.66	6.87
		Citigroup BB&B	4.97	8.15	0.83	3.90	5.63	6.18
10.00	2.21	Total Tips Managers	1.90	6.46	4.50	2.50	2.98	4.95
		Barclays Global Inflation linked US Tips inde	1.71	6.24	4.35	2.31	2.63	4.75
17.00	3.76	Fire Fighters short term	0.22	0.53	0.54	n/a	n/a	n/a
3.00	0.66	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
452.00	100.00	Total Portfolio	1.97	3.20	1.01	7.37	7.43	6.47
		Policy Benchmark	2.26	3.90	1.69	7.65	7.79	6.40

\*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).

**Schedule of Portfolio Returns  
FOVSF\*  
June 30, 2016**

Schedule 1C

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-16 Jun-16	Jan-16 Jun-16	Jul-15 Jun-16	Jul-13 Jun-16	Jul-11 Jun-16	Jul-06 Jun-16
145.00	50.88	U.S. Equities	2.70	3.70	2.34	11.27	11.69	7.51
		Russell 3000/S&P500	2.63	3.62	2.14	11.13	11.60	7.43
35.00	12.28	Total International Developed Markets	-0.42	-4.14	-13.34	2.80	-0.29	0.34
		MSCI EAFE Benchmark	-1.46	-4.42	-10.16	2.06	1.68	1.58
9.00	3.16	Total Emerging Markets	0.71	6.63	-12.06	-3.67	-5.25	2.08
		MSCI Emerging Markets	0.66	6.41	-12.05	-1.56	-3.78	3.54
9.00	3.16	Total Real Estate Equity Sec.(REITS)	1.60	6.10	9.78	10.31	10.01	6.81
		Morgan Stanley custom RESI index	5.42	10.79	22.72	13.52	12.18	6.76
59.00	20.70	Total structured Fixed Income	2.72	6.05	6.93	5.40	5.23	6.54
		NYC Core Plus Five Index	2.71	6.33	7.16	4.91	4.57	5.87
17.00	5.96	Total Enhanced yield	3.39	6.24	1.62	4.81	5.70	6.90
		Citigroup BB&B	4.97	8.15	0.83	3.90	5.63	6.18
7.00	2.46	Total Tips Managers	1.90	6.46	4.50	2.50	2.97	4.97
		Barclays Global Inflation linked US Tips inde	1.71	6.24	4.35	2.31	2.63	4.75
4.00	1.40	Fire Officers' short term	0.11	0.22	0.31	n/a	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
285.00	100.00	Total Portfolio	2.19	3.30	0.70	7.86	7.58	6.51
		Policy Benchmark	2.26	3.90	1.69	7.65	7.79	6.41

\*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).

## List of 50 Largest Bond Holdings as of June 30, 2016

Schedule 2A

Cusip Number	Security Description	Maturity Date	Interest Rate	Par Value	Fair Value
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	31,166,855	31,166,855
'21H032688	GNMA II TBA 30 YR 3.5	8/23/2046	3.50%	23,817,000	25,245,067
'01F040685	FNMA TBA 30 YR 4	8/16/2046	4%	22,900,000	24,530,938
'21H040681	GNMA II TBA 30 YR 4	8/23/2046	4%	20,046,000	21,420,955
'912828TY6	US TREASURY N/B	11/15/2022	1.63%	17,150,000	17,554,569
'3138WHBP6	FNMA POOL AS7245	5/1/2046	3.50%	13,700,000	14,468,296
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	14,131,715	14,131,715
'01F040677	FNMA TBA 30 YR 4	7/14/2046	4%	13,000,000	13,938,080
'912810RD2	US TREASURY N/B	11/15/2043	3.75%	9,770,000	12,890,343
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	12,871,121	12,871,121
'912828K74	US TREASURY N/B	8/15/2025	2%	10,880,000	11,374,278
'21H030674	GNMA II TBA 30 YR 3	7/20/2046	3%	10,873,000	11,368,483
'3138EQLB6	FNMA POOL AL7521	6/1/2039	5%	9,089,066	10,118,039
'912810RG5	US TREASURY N/B	5/15/2044	3%	7,575,000	9,335,885
'313384ZY8	FED HOME LN DISCOUNT NT	7/28/2016	0.01%	9,000,000	8,998,830
'313384M48	FED HOME LN DISCOUNT NT	10/28/2016	0.01%	9,000,000	8,989,290
'36179NQ50	GNMA II POOL MA1376	10/20/2043	4%	8,030,685	8,579,823
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	7,576,443	7,576,443
'3138WGUE2	FNMA POOL AS6880	3/1/2046	3.50%	7,054,401	7,448,459
'912828N30	US TREASURY N/B	12/31/2022	2.10%	6,620,000	6,979,731
'912810QZ4	US TREASURY N/B	2/15/2043	3.10%	5,770,000	6,801,618
'912828M49	US TREASURY N/B	10/31/2022	1.90%	6,400,000	6,650,240
'912810RN0	US TREASURY N/B	8/15/2045	2.90%	5,830,000	6,546,449
'912810RQ3	US TREASURY N/B	2/15/2046	2.50%	6,285,000	6,544,508
'912828XD7	US TREASURY N/B	5/31/2022	1.90%	6,150,000	6,396,492
'912828G87	US TREASURY N/B	12/31/2021	2.10%	5,925,000	6,246,491
'21H032670	GNMA II TBA 30 YR 3.5	7/20/2046	3.50%	5,855,000	6,214,321
'912828V56	US TREASURY N/B	8/15/2023	2.50%	5,708,300	6,183,916
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	6,134,961	6,134,961
'912828P79	US TREASURY N/B	2/28/2023	1.50%	6,000,000	6,087,180
'313384G29	FED HOME LN DISCOUNT NT	9/16/2016	-	6,000,000	5,996,400
'912810QN1	US TREASURY N/B	2/15/2041	4.80%	3,950,000	5,926,699
'01F042673	FNMA TBA 30 YR 4.5	7/14/2046	4.50%	5,159,000	5,631,358
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	5,428,721	5,428,721
'01F030678	FNMA TBA 30 YR 3	7/14/2046	3%	5,070,000	5,261,494
'92343VBS2	VERIZON COMMUNICATIONS	9/15/2033	6.40%	4,110,000	5,246,004
'01F032674	FNMA TBA 30 YR 3.5	7/14/2046	3.50%	4,945,000	5,217,766
'01F030686	FNMA TBA 30 YR 3	8/16/2046	3%	5,000,000	5,179,500
'912810RH3	US TREASURY N/B	8/15/2044	3.10%	4,380,000	5,155,742
'922URLI6	NYC CUSTOM STIF	12/31/2030	0.40%	5,153,319	5,153,319
'01F040677	FNMA TBA 30 YR 4	7/14/2046	4%	4,775,000	5,119,564
'01F050676	FNMA TBA 30 YR 5	7/14/2046	5%	4,400,000	4,888,664
'912810RG5	US TREASURY N/B	5/15/2044	3.80%	3,960,000	4,880,542
'02R040680	FHLMC TBA 30 YR 4	8/16/2046	4%	4,500,000	4,812,210
'02R030673	FHLMC TBA 30 YR 3	7/14/2046	3%	4,480,000	4,644,192
'3138ENS91	FNMA POOL AL5943	6/1/2042	4.50%	4,149,447	4,546,632
'01F062671	FNMA TBA 30 YR 6.5	7/14/2046	6.50%	3,900,000	4,495,296
'912828SV3	US TREASURY N/B	5/15/2022	1.80%	4,213,000	4,353,377
'3138ENGV5	FNMA POOL AL5611	8/1/2044	1%	3,936,901	4,323,229
'21H040673	GNMA 11 TBA 30 YR 4	7/20/2046	4%	4,000,000	4,275,640

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



## List of 50 Largest Stock Holdings as of June 30, 2016

Schedule 3A

Cusip Number	Security Description	Number of Shares	Fair Value
'037833100	APPLE INC	249,149	23,818,644
'30231G102	EXXON MOBIL CORP	188,537	17,673,458
'594918104	MICROSOFT CORP	344,445	17,625,251
'478160104	JOHNSON + JOHNSON	124,934	15,154,494
'369604103	GENERAL ELECTRIC CO W/D	418,154	13,163,488
'023135106	AMAZON.COM INC	17,634	12,619,243
'084670702	BERKSHIRE HATHAWAY INC CL B	85,911	12,439,054
'00206R102	AT+T INC	280,330	12,113,059
'30303M102	FACEBOOK INC A	102,125	11,670,845
'92343V104	VERIZON COMMUNICATIONS INC	185,656	10,367,031
'46625H100	JPMORGAN CHASE + CO	165,327	10,273,420
'742718109	PROCTER + GAMBLE CO/THE	120,940	10,239,990
'949746101	WELLS FARGO + CO	207,614	9,826,371
'717081103	PFIZER INC	272,325	9,588,563
'02079K305	ALPHABET INC CL A	13,389	9,419,563
'02079K107	ALPHABET INC CL C	13,522	9,358,576
'166764100	CHEVRON CORP	85,510	8,964,013
'191216100	COCA COLA CO/THE	177,294	8,036,737
'58933Y105	MERCK + CO. INC.	126,217	7,271,361
'437076102	HOME DEPOT INC	56,584	7,225,211
'254687106	WALT DISNEY CO/THE	73,833	7,222,344
'718172109	PHILIP MORRIS INTERNATIONAL	70,489	7,170,141
'20030N101	COMCAST CORP CLASS A	109,605	7,145,150
'458140100	INTEL CORP	215,043	7,053,410
'713448108	PEPSICO INC	65,447	6,933,455
'17275R102	CISCO SYSTEMS INC	229,013	6,570,383
'92826C839	VISA INC CLASS A SHARES	86,720	6,432,022
'06050S104	BANK OF AMERICA CORP	469,337	6,228,102
'02209S103	ALTRIA GROUP INC	88,991	6,136,819
'459200101	INTL BUSINESS MACHINES CORP	40,029	6,075,602
'91324P102	UNITEDHEALTH GROUP INC	42,509	6,002,271
'172967424	CITIGROUP INC	133,573	5,662,159
'110122108	BRISTOL MYERS SQUIBB CO	75,986	5,588,770
'G5960L103	MEDTRONIC PLC	63,716	5,528,637
'68389X105	ORACLE CORP	134,569	5,507,909
'031162100	AMGEN INC	34,182	5,200,791
'375558103	GILEAD SCIENCES INC	60,262	5,027,056
'931142103	WAL MART STORES INC	68,839	5,026,624
'806857108	SCHLUMBERGER LTD	63,277	5,003,945
'580135101	MCDONALD S CORP	39,930	4,805,176
'88579Y101	3M CO	26,715	4,678,331
'126650100	CVS HEALTH CORP	48,800	4,672,112
'00287Y109	ABBVIE INC	73,890	4,574,530
'81211K100	SEALED AIR CORP	94,240	4,332,213
'902494103	TYSON FOODS INC CL A	63,640	4,250,516
'G0177J108	ALLERGAN PLC	17,982	4,155,460
'42824C109	HEWLETT PACKARD ENTERPRIS	223,830	4,089,374
'438516106	HONEYWELL INTERNATIONAL INC	34,434	4,005,363
'30231G102	EXXON MOBIL CORP	41,920	3,929,581
'98310W108	WYNDHAM WORLDWIDE CORP	54,545	3,885,240

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

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

Brokerage Firm	Number of Shares Traded	Commissions Paid	Average Cost Per Share
ABG SECURITIES AS (STOCKHOLM)	16,917	394	0.02
ABG SECURITIES LIMITED	45,554	278	0.01
ABLE NOSER	114,193	5,099	0.04
ABN AMRO CLEARING BANK N.V.	48,871	1,590	0.03
AGORA CORDE TITUL E VAL MOB	121,510	846	0.01
ALBERT FRIED & COMPANY LLC	37,400	1,122	0.03
ALLEN & COMPANY LLC	2,567	103	0.04
AMERICAN PORTFOLIOS FINANIAL	314	16	0.05
ANCORA SECIRITIES INC	25,160	1,258	0.05
ANTIQUE STOCK BROKING LTD	12,948	60	0.00
AQEEL KARIM DHEDHI	4,049	56	0.01
AS LHV PANK	114,139	364	0.00
ASSET TRANSFER NON CASH	-	-	-
ATTUARIWABA BANK	2,493	252	0.10
AUERBACH GRAYSON AND CO. INC.	-	-	-
AUTONOMOUS	5,368	161	0.03
AUTREPAT-DIV RE	3,475	314	0.09
AVONDALE PARTNERS LLC	19,267	628	0.03
B.RILEY & CO., LLC	23,496	693	0.03
BAADER BANK AG	421	121	0.29
BANCO ITAU SA	54,459	504	0.01
BANCO PACTUAL S.A.	26,398	174	0.01
BANCO SANTANDER CENTRAL HISPANO	55,665	805	0.01
BANK AM BELLEVUE	-	-	-
BANK J.VONTOBEL UND CO. AG	4,375	1,533	0.35
BANQUE COMMERCIALE DU MAROC	-	-	-
BARCLAYS BANK OF BOTSWANA LTD	52,608	198	0.00
BARCLAYS BANK PLC	2,547	17	0.01
BARCLAYS CAPITAL	976,956	18,972	0.02
BARCLAYS CAPITAL INC./LE	3,106,630	11,194	0.00
BARCLAYS CAPITAL LE	591,465	21,828	0.04
BARRINGTON RESEARCH ASSOCIATES	270	9	0.04
BARRINGTON RESEARCH ASSOCIATES INC.	4,823	235	0.05
BB&T SECURITIES, LLC	189,447	5,497	0.03
BEAR STEARNS SECURITIES CORP	-	-	-
BLAYLOCK ROBERT VAN LLC	12,389	248	0.02
BLUEFIN RESEARCH PARTNER INC.	13,880	694	0.05
BMO CAPITAL MARKETS	68,340	2,820	0.04
BNP PARIBAS PEREGRINE SECURITIES	770	888	1.15
BNP PARIBAS SECURITIES (ASIA) LTD.	566,018	2,834	0.01
BNP PARIBAS SECURITIES INDIA PRIVATE LIM	70,961	635	0.01

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

Brokerage Firm	Number of Shares Traded	Commissions Paid	Average Cost Per Share
BNP PARIBAS SECURITIES SERVICE	1,004,625	1,671	0.00
BNP PARIBAS SECURITIES SERVICES	266,017	1,383	0.01
BNP PARIBAS SECURITIES SERVICES AUSTR BR	16,586	30	0.00
BNP PARIBAS SECURITIES SERVICES SA	1,187,761	1,367	0.00
BNP PARIBAS SECURITIES SERVICES, FR	79	35	0.45
BNY BROKERAGE	3,589	126	0.03
BNY CONVERGEX EXECUTION SOLUTIONS LLC	20,448,943	22,848	0.00
BNY CONVERGEX LJR	109,083	1,899	0.02
BREAN CAPITAL LLC	67,187	808	0.01
BROADCORT CAPITAL (THRU ML)	30,710	1,005	0.03
BROWN BROTHERS HARRIMAN + CO	-	-	-
BTIG, LLC	436,836	18,637	0.04
BUCKINGHAM RESEARCH GROUP INC	52,865	2,643	0.05
BURKE ANDQUICK PARTNERS LLC	142	5	0.04
CABRERA CAPITAL MARKETS	111,782	3,080	0.03
CACEIS BANK DEUTSCHLAND GMBH	3,456	1,117	0.32
CANACCORD GENUITY INC.	38,077	1,584	0.04
CANACCORD GENUITY LIMITED	-	-	-
CANADIAN IMPERIAL BANK OF COMMERCE	34,486	658	0.02
CANTOR CLEARING SERVICES	12,650	253	0.02
CANTOR FITZGERALD + CO.	121,355	3,272	0.03
CANTOR FITZGERALD EUROPE	61,963	672	0.01
CANTOR FITZGERALD/CANTOR CLEARING SERV	531,079	1,649	0.00
CAPITAL INSTITUTIONAL SVCS INC EQUITIES	195,431	8,747	0.04
CARNEGIE SECURITIES FINLAND	7,559	32	0.00
CELFIN CAPITAL SA CORREDORES DE BOLSA	3,564,208	409	0.00
CHEEVERS & CO. INC.	313,809	9,329	0.03
CHINA FORTUNE SECURITIES.,LTD	112,492	344	0.00
CHINA INTERNATIONAL CAPITAL CO	6,171,152	6,001	0.00
CHINA INTERNATIONAL CAPITAL CORPORA	12,546	14	0.00
CIBC WORLD MKTS INC	4,752	147	0.03
CIMB SECURITIES (HK) LTD.	9,854	21	0.00
CIMB SECURITIES USA INC.	-	-	-
CIMB-GK SECURITIES PTE.LTD.	5,896	47	0.01
CITATION GROUP	25,927	1,295	0.05
CITIBANK N.A.	13,353	517	0.04
CITIBANK OF COLOMBIA	221,014	530	0.00
CITICORP SECURITIES THAILAND LTD	8,375	21	0.00
CITIGROUP GLBL MARKET KOERA SECS LTD	2,020	357	0.18
CITIGROUP GLOBAL MARKETS ASIA LTD	15,222	51	0.00
CITIGROUP GLOBAL MARKETS AUSTRALIA PTY	9,538	19	0.00
CITIGROUP GLOBAL MARKETS INC.	11,406,900	32,752	0.00

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

<u>Brokerage Firm</u>	<u>Number of Shares Traded</u>	<u>Commissions Paid</u>	<u>Average Cost Per Share</u>
CITIGROUP GLOBAL MARKETS INDIA	240,746	328	0.00
CITIGROUP GLOBAL MARKETS LIMITED	2,923,668	24,359	0.01
CJS SECURITIES INC	3,690	185	0.05
CLSA AUSTRALIA PTY LTD	401,789	1,808	0.00
CLSA SECURITIES KOREA LTD.	14,432	1,963	0.14
CLSA SINGAPORE PTE LTD.	2,539,465	7,694	0.00
COMPASS POINT RESEARCH + TRADING, LLC	36,858	1,309	0.04
CONCEPT CAPITAL MARKETS,LLC	5,028	151	0.03
CONVERGEX EXECUTION SOLUTIONS LLC	220,244	7,695	0.03
CONVERGEX LLC	522,038	15,448	0.03
CORNERSTONE MACRO LLC	4,220	211	0.05
CORREVAL S.A.	21,433	183	0.01
COWEN AND COMPANY, LLC	253,761	11,136	0.04
CRAIG - HALLUM	109,834	3,949	0.04
CREDIBOLSA SOCIEDAD AGENTE	24,677	329	0.01
CREDIT LYONNAIS SECURITIES (ASIA)	2,853,319	1,540	0.00
CREDIT LYONNAIS SECURITIES (USA) INC	13,147	594	0.05
CREDIT LYONNAIS SECURITIES INDIA	922,444	10,968	0.01
CREDIT LYONNAIS SECURITIES(ASIA)	10,550,788	7,807	0.00
CREDIT RESEARCH + TRADING LLC	58,698	2,147	0.04
CREDIT SUISSE FIRST BOSTON	3,716,843	2,127	0.00
CREDIT SUISSE FIRST BOSTON (EUROPE)	9,653	1,722	0.18
CREDIT SUISSE SECURITIES (EUROPE) LTD	1,688,948	12,262	0.01
CREDIT SUISSE SECURITIES (USA) LLC	176,266,661	44,973	0.00
CS FIRST BOSTON (HONG KONG) LIMITED	3,241,052	12,121	0.00
CSFB AUSTRALIA EQUITIES LTD	1,474,261	2,093	0.00
CSI US INSTITUTIONAL DESK	8,371	264	0.03
CUTTONE &CO.	10,171	269	0.03
D CARNEGIE AG	10,148	175	0.02
DAEWOO SECURITIES CO LTD	1,144	56	0.05
DAIWA SBCM EUROPE	23,337	827	0.04
DAIWA SECURITIES (HK) LTD.	181,115	290	0.00
DAIWA SECURITIES COMPANY LTD	240,908	4,930	0.02
DANSKE BANK A.S.	240,310	2,587	0.01
DAVIDSON D.A. + COMPANY INC.	61,927	2,513	0.04
DAVY STOCKBROKERS	285,021	1,249	0.00
DBS VICKERS SECURITIES (SINGAPORE)	11,923	196	0.02
DEN NORSKE BANK	27,350	185	0.01
DEUTSCHE BANK ALEX BROWN	939,109	7,418	0.01
DEUTSCHE BANK SECURITIES INC	8,250,486	40,475	0.00
DEUTSCHE EQ IN PRVT LIM DB	1,048,782	7,882	0.01
DEUTSCHE MORGAN GRENFELL SECS	136,619	893	0.01

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

<u>Brokerage Firm</u>	<u>Number of Shares Traded</u>	<u>Commissions Paid</u>	<u>Average Cost Per Share</u>
DEUTSCHE SECURITIES ASIA LIMITED	1,016,878	4,044	0.00
DNB NOR MARKETS CUSTODY DNB NORBANK ASA	1,420	35	0.02
DOUGHERTY & COMPANY LLC	5,867	219	0.04
DOUGHERTY COMPANY	5,167	177	0.03
DOWLING & PARTNERS	3,300	165	0.05
DREXEL HAMILTON LLC	75,697	1,969	0.03
DSP MERRILL LYNCH LTD	478,141	6,849	0.01
DZ BANK AG DEUTSCHE ZENTRAL GENOSSE PLAT	-	-	-
ECOBANK GHANA	-	-	-
ERSTE BANK BEFEKTETESI RT.	77,446	2,068	0.03
EUROCLEAR BANK SA NV	59,183	243	0.00
EXANE S.A.	294,965	5,426	0.02
FBN SECURITIES INC	22,298	999	0.04
FBR CAPITAL MARKETS & CO.	137,631	5,144	0.04
FEDERATED MANAGED GROWTH + INCOME 17 A7	19,715	148	0.01
FERRETTI GROUP INC	3,800	114	0.03
FIDELITY CAPITAL MARKETS	389	5	0.01
FIDELITY CLEARING CANADA	10,819	268	0.02
FIDELITY CLEARING CANADA ULC	46,166	923	0.02
FIG PARTNERS LLC	23,109	462	0.02
FINANCIAL BROKERAGE GROUP (FBG)	776,040	2,697	0.00
FIRST ANALYSIS SECURITIES CORP	3,457	94	0.03
FIRST NATIONAL BANK OF BOTSWANA	101,041	905	0.01
FLOW CORRETORA DE MERCADORIAS LTDA.	56,584	570	0.01
FOKUS BANK ASA	3,104	40	0.01
GOLDMAN SACHS (ASIA) LLC	-	-	-
GOLDMAN SACHS (INDIA)	354,526	2,150	0.01
GOLDMAN SACHS + CO	19,324,002	52,139	0.00
GOLDMAN SACHS + CO INTL.	95	7	0.07
GOLDMAN SACHS DO BRASIL CORRETORA	2,647	13	0.01
GOLDMAN SACHS INTERNATIONAL	939,686	8,620	0.01
GOODBODY STOCKBROKERS	412,312	1,054	0.00
GREEN STREET ADVISORS	195,586	7,781	0.04
GREEN STREET ADVISORS (UK) LTD	42,008	581	0.01
GREEN STREET TRADING, LLC	293,668	11,005	0.04
GREENTREE BROKERAGE SERVICES INC	35,900	718	0.02
GUGGENHEIM CAPITAL MARKETS LLC	64,776	2,448	0.04
GUZMAN AND COMPANY	15,210	304	0.02
HEIGHT SECURITIES, LLC	8,122	284	0.03
HIBERNIA SOUTHCOAST CAPITAL INC	21,000	630	0.03
HONGKONG AND SHANGHAI BANKING CORP	1,969,778	7,084	0.00
HSBC BANK BRASIL SA BANCO MULTIPLO	10,127	3	0.00



## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

<u>Brokerage Firm</u>	<u>Number of Shares Traded</u>	<u>Commissions Paid</u>	<u>Average Cost Per Share</u>
JOHNSON RICE & COMPANY LLC	15,524	656	0.04
JOHNSON RICE + CO	2,452	72	0.03
JONESTRADING INSTITUTIONAL SERVICES LLC	368,479	8,185	0.02
JP MORGAN SECURITIES AUSTRALIA LTD	19,378	21	0.00
JP MORGAN SECURITIES PLC	2,418,590	13,815	0.01
JP MORGAN SECURITIES SINGAPORE	258,618	26	0.00
JPMORGAN CHASE BANK NA LONDON	14,784	71	0.00
JPMORGAN SECURITIES(ASIA PACIFIC)LTD	3,367,487	4,123	0.00
KAS-ASSOCIATIE N.V.	104,330	388	0.00
KB SECURITIES N V	51,299	713	0.01
KCG AMERICAS LLC	59,251	363	0.01
KEEFE BRUYETTE + WOODS INC	192,432	6,373	0.03
KEMPEN + CO N.V.	34,734	1,004	0.03
KEPLER EQUITIES PARIS	11,243	595	0.05
KEYBANC CAPITAL MARKETS INC	435,327	17,644	0.04
KING, CL,& ASSOCIATES, INC	612,937	22,611	0.04
KINGSWAY FINANCIAL SVCS GROUP LTD	120,866	248	0.00
KNIGHT EQUITY MARKETS L.P.	280,035	9,737	0.03
KNIGHT SECURITIES INTERNATIONAL	135,845	326	0.00
KOREA INVESTMENT AND SECURITIES CO., LTD	4,017	1,996	0.50
KOTAK SECURITIES LTD	344,321	3,783	0.01
LADENBURG THALMAN + CO	4,387	88	0.02
LARRAIN VIAL	844,464	259	0.00
LEERINK PARTNERS LLC	15,070	494	0.03
LEK SECURITIES CORP	4,800	240	0.05
LIBERUM CAPITAL LIMITED	11,718	237	0.02
LIQUIDNET EUROPE LIMITED	-	-	-
LIQUIDNET INC	1,049,607	35,986	0.03
LONGBOW SECURITIES LLC	651	23	0.04
LOOP CAPITAL MARKETS	3,578,480	58,093	0.02
LOOP CAPITAL MARKETS LLC	41,770	418	0.01
LUMINEX TRADING AND ANALYTICS LLC	3,300	9	0.00
M RAMSEY KING SECURITIES INC	24,480	731	0.03
M RAMSEY KING SECURITIES, INC.	403,432	5,713	0.01
MACQUARIE BANK LIMITED	4,540,752	8,906	0.00
MACQUARIE CAPITAL (USA) INC.	17,538	519	0.03
MACQUARIE SEC NZ LTD	14,148	22	0.00
MACQUARIE SECURITIES (INDIA) PVT LTD	97,702	1,749	0.02
MACQUARIE SECURITIES (USA) INC	48,010	1,381	0.03
MACQUARIE SECURITIES LTD SEOUL	107,375	5,409	0.05
MAINFIRST BANK DE	39,227	1,084	0.03
MAXIM GROUP	16,567	675	0.04

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

Brokerage Firm	Number of Shares Traded	Commissions Paid	Average Cost Per Share
HSBC BANK PLC	1,117,949	8,823	0.01
HSBC MEXICO S A INSTITUCION DE BANCA MLT	-	-	-
HSBC SECURITIES	1,099,614	1,067	0.00
HSBC SECURITIES (USA) INC.	1,097,254	1,318	0.00
HSBC SECURITIES INDIA HOLDINGS	233,595	884	0.00
IC SECURITIES (GH) LIMITED	153,812	517	0.00
ICAP DO BRASIL DTVM LTDA	725,180	2,217	0.00
ICBC FINCL SVCS, EQUITY CLEARANCE	137,559	5,344	0.04
ICHIYOSHI SECURITIES CO.,LTD.	13,856	39	0.00
ICICI BROKERAGE SERVICES	125,789	251	0.00
IM TRUST S.A. CORREDORES DE BOLSA	26,602	116	0.00
INDUSTRIAL AND COMMERCIAL BANK	9,051	264	0.03
INSTINET	549,392	8,578	0.02
INSTINET AUSTRALIA CLEARING SRVC PTY LTD	275,775	486	0.00
INSTINET LLC	825,913	2,504	0.00
INSTINET PACIFIC LIMITED	12,784,846	7,495	0.00
INSTINET SINGAPORE SERVICES PT	1,668,563	2,613	0.00
INSTINET U.K. LTD	6,746,687	29,558	0.00
INTL FC STONE SECURITIES INC	10,563	576	0.05
INVESTEC BANK PLC	5,311,216	2,749	0.00
INVESTEC SECURITIES LTD	96,130	299	0.00
INVESTMENT TECHNOLOGY GROUP LTD	3,683,038	35,215	0.01
ISI GROUP INC	1,914,901	33,379	0.02
ITG AUSTRALIA LTD.	410,423	259	0.00
ITG CANADA	10,400	64	0.01
ITG INC.	152,705	1,177	0.01
ITG SECURITIES (HK) LTD	4,043,894	1,451	0.00
IVY SECURITIES, INC.	1,458,262	43,099	0.03
J P MORGAN INDIA PRIVATE LTD	44,159	33	0.00
J P MORGAN SECURITIES INC	450,879	1,038	0.00
J.P. MORGAN CLEARING CORP.	994,496	11,240	0.01
J.P. MORGAN SECURITIES (TAIWAN) LTD	1,156,367	463	0.00
J.P. MORGAN SECURITIES INC.	543,760	16,870	0.03
J.P. MORGAN SECURITIES LIMITED	3,638	47	0.01
J.P.MORGAN SECURITIES(FAR EAST)LTD SEOUL	21,887	1,621	0.07
JANNEY MONTGOMERY, SCOTT INC	61,988	1,648	0.03
JEFFERIES + COMPANY INC	1,729,075	43,465	0.03
JEFFERIES HONG KONG LIMITED	14,524	4	0.00
JEFFERIES INDIA PRIVATE LIMITED	269,113	874	0.00
JEFFERIES INTERNATIONAL LTD	8,596,335	6,016	0.00
JMP SECURITIES	121,521	4,457	0.04
JOH BERENBERG GOSSLER AND CO	81,206	2,345	0.03

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

Brokerage Firm	Number of Shares Traded	Commissions Paid	Average Cost Per Share
MERRILL LYNCH	55,369	2,768	0.05
MERRILL LYNCH AND CO INC	1,180,937	2,310	0.00
MERRILL LYNCH CORREDORES DE BOLSA S.A.	156,394	2	0.00
MERRILL LYNCH INTERNATIONAL	18,957,872	58,226	0.00
MERRILL LYNCH PIERCE FENNER + SMITH INC	4,876,663	72,940	0.01
MERRILL LYNCH PIERCE FENNER AND S	3,043,436	3,196	0.00
MERRILL LYNCH PROFESSIONAL CLEARING CORP	15,979	779	0.05
MERRILL LYNCH, PIERCE FENNER AND SMITH	-	-	-
MERRILL LYNCH, PIERCE FENNER SMITH	1,885	94	0.05
MISCHLER FINANCIAL GROUP, INC-EQUITIES	69,684	935	0.01
MITSUBISHI UFJ SECURITIES (USA)	2,521	93	0.04
MITSUBISHI UFJ SECURITIES INT PLC	4,811	710	0.15
MIZUHO CORPORATE BANK LTD HONG KONG BCH	1,590	14	0.01
MIZUHO INTERNATIONAL PLC	1,450	43	0.03
MIZUHO SECURITIES ASIA LIMITED	45,686	787	0.02
MIZUHO SECURITIES USA INC.	58,183	1,635	0.03
MKM PARTNERS LLC	40,395	1,529	0.04
MONNESS, CRESPI, HARDT & CO. INC	44,065	2,203	0.05
MONTROSE SECURITIES EQUITIES	168,200	6,531	0.04
MORGAN STANLEY AND CO INTERNATIONAL	43,844	4,387	0.10
MORGAN STANLEY AND CO INTL TAIPEI METRO	3,222,815	4,132	0.00
MORGAN STANLEY AND CO. INTERNATIONAL	1,729,615	8,609	0.00
MORGAN STANLEY ASIA LTD	181,343	569	0.00
MORGAN STANLEY H.K. SECURITIES LTD	9,327,445	60,634	0.01
MORGAN STANLEY INDIA COMPANY PVT LTD	513,858	2,051	0.00
NATIONAL FINANCIAL SERVICES CORP.	96,876	2,192	0.02
NATIXIS SECURITIES	46,290	1,195	0.03
NEEDHAM +COMPANY	20,830	737	0.04
NEEDHAM AND COMPANY LLC	75,621	2,759	0.04
NESBITT BURNS	61,037	1,485	0.02
NIGERIAN STOCK EXCHANGE,THE	27,324	136	0.00
NOBLE INTERNATIONAL INVESTMENTS INC.	8,903	250	0.03
NOMURA FINANCIAL ADVISORY + SEC INDIA	497,479	3,987	0.01
NOMURA FINANCIAL AND INVESTMENT	24,029	241	0.01
NOMURA INTERNATIONAL PLC	-	-	-
NOMURA SECURITIES CO LTD	222,803	109	0.00
NORDEA BANK FINLAND PLC	223,728	1,334	0.01
NORTHLAND SECURITIES INC.	43,182	1,655	0.04
NUMIS SECURITIES LIMITED	242,257	530	0.00
ODDO ET CIE	1,340	110	0.08
OLIVETREE USA LLC	2,080	104	0.05
OPPENHEIMER + CO. INC.	180,115	7,969	0.04

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

Brokerage Firm	Number of Shares Traded	Commissions Paid	Average Cost Per Share
ORD MINNETT LIMITED	4,819	10	0.00
PAREL	18,011	1,820	0.10
PAVILION GLOBAL MARKETS LTD	651,385	2,365	0.00
PEEL HUNTLLP	108,692	1,276	0.01
PENSERRA SECURITIES	1,925,461	33,454	0.02
PENSERRA SECURITIES LLC	90,679	468	0.01
PEP SERV NOMS	1,422	71	0.05
PERSHING LLC	2,964,341	15,649	0.01
PERSHING SECURITIES LIMITED	600,817	3,263	0.01
PICKERING ENERGY PARTNERS, INC	9,739	341	0.04
PIPER JAFFRAY LTD	181,497	6,952	0.04
PRIVREDNABANKA ZAGREB	-	-	-
RABOBANK NETHERLAND	773	95	0.12
RAYMOND JAMES AND ASSOCIATES INC	342,340	13,939	0.04
RBC CAPITAL MARKETS	567,945	18,146	0.03
RBC DOMINION SECURITIES	89,024	2,371	0.03
RBC DOMINION SECURITIES INC.	88,956	1,856	0.02
REDBURN PARTNERS LLP	927,164	5,588	0.01
ROTH CAPITAL PARTNERS LLC	483,133	18,742	0.04
ROYAL BANK OF CANADA EUROPE LTD	333,748	1,539	0.00
SAMSUNG SECURITIES CO LTD	124,267	4,134	0.03
SAMUEL A RAMIREZ & COMPANY INC	4,271	32	0.01
SANDLER ONEILL + PART LP	8,886	284	0.03
SANDLER ONEILL AND PARTNERS L.P.	11,884	493	0.04
SANFORD C. BERNSTEIN AND CO. LLC	1,905,798	4,179	0.00
SANFORD C. BERNSTEIN LTD	852,651	9,374	0.01
SANFORD CBERNSTEIN CO LLC	786,613	17,025	0.02
SANTANDER CENTRAL HISPANO BOLSA	319,925	1,031	0.00
SCOTIA CAPITAL (USA) INC	31,265	980	0.03
SEAPORT GROUP SECURITIES, LLC	69,053	1,094	0.02
SELECT NATURAL RESOURCES	-	-	-
SG AMERICAS SECURITIES LLC	384,901	1,599	0.00
SG ASIA SECURITIES (INOIA) PVT LTD	524,975	1,600	0.00
SG SECURITIES (LONDON) LTD.	1,203,417	432	0.00
SG SECURITIES HK	16,568,826	6,579	0.00
SHENYIN AND WANGUO SECURITIES CO. LTD	219,979	207	0.00
SIDOTI + COMPANY LLC	82,579	2,786	0.03
SKANDINAVISKA ENSKILDA BANKEN	816	20	0.02
SKANDINAVISKA ENSKILDA BANKEN LONDON	-	-	-
SMBC NIKKO CAPITAL MARKETS LIMITED	53,987	2,503	0.05
SMBC NIKKO SECURITIES (HONK KONG) LTD	55,238	231	0.00
SOCIETE GENERALE LONDON BRANCH	1,969,304	7,778	0.00

## Investment Section

## New York Fire Department Pension Funds

## Schedule of Broker's Commissions QPP

## Schedule 4A

For Fiscal Year ended June 30, 2016

<u>Brokerage Firm</u>	<u>Number of Shares Traded</u>	<u>Commissions Paid</u>	<u>Average Cost Per Share</u>
SPARK CAPITAL ADVISORS (INDIA) PRIV LTD	11,331	52	0.00
SPEAR, LEEDS AND KELLOGG	1,249	6	0.00
STATE STREET BANK AND TRUST CO	1,905	16	0.01
STATE STREET BANK AND TRUST COMPANY	305,670	2,986	0.01
STATE STREET GLOBAL MARKETS	1,480	15	0.01
STATE STREET GLOBAL MARKETS, LLC	124,160	2,527	0.02
STEPHENS, INC.	176,459	7,662	0.04
STERNE AGEE & LEACH INC.	39,261	1,963	0.05
STIFEL NICOLAUS + CO INC	417,742	16,149	0.04
STIFEL, NICOLAUS AND COMPANY, INCORPORAT	-	-	-
STRATEGAS SECURITIES LLC	10,790	401	0.04
STUART FRANKEL + CO INC	9,155	364	0.04
STURDIVANT AND CO., INC.	252,515	12,626	0.05
SUNTRUST CAPITAL MARKETS, INC.	176,677	6,613	0.04
SVENSKA HANDELSBANKEN	21,993	484	0.02
TAIWAN DEPOSITORY CLEARING CORPORATION	918,371	1,556	0.00
TD SECURITIES (USA) LLC	2,600	26	0.01
TD WATERHOUSE CDA	2,333	61	0.03
TELSEY ADVISORY GROUP LLC	164,075	6,688	0.04
TERA MENKUL DEGERLER A.S.	88,294	76	0.00
THE HONGKONG AND SHANGHAI BANK	22,686	497	0.02
TOPEKA CAPITAL MARKETS INC	2,369,915	23,855	0.01
TOPLINE SECURITIES PVT LTD.	1,240,168	2,657	0.00
TUNISIE VALEURS	9,133	191	0.02
UBS AG	10,450,067	14,716	0.00
UBS LIMITED	6,860,034	29,924	0.00
UBS SECURITIES ASIA LTD	9,815,552	24,524	0.00
UBS SECURITIES CANADA INC	84,092	401	0.00
UBS SECURITIES INDIA PRIVATE LTD	21,902	1,038	0.05
UBS SECURITIES LLC	1,532,463	17,303	0.01
UBS SECURITIES PTE.LTD	1,431,157	819	0.00
UBS SECURITIES PTE.LTD., SEOUL	20,512	5,201	0.25
UBS WARBURG AUSTRALIA EQUITIES	47,172	136	0.00
VANDHAM SECURITIES CORP	-	-	-
WARBURG DILLON READ SECURITIES CO	-	-	-
WEDBUSH MORGAN SECURITIES INC	127,768	3,435	0.03
WEEDEN + CO.	1,525,932	34,912	0.02
WELLS FARGO SECURITIES, LLC	501,219	15,396	0.03
WILLIAM BLAIR & COMPANY L.L.C	227,136	8,782	0.04
WILLIAMS CAPITAL GROUP LP (THE)	1,415,367	40,465	0.03
WOORI INVESTMENT SECURITIES	12,202	440	0.04
WUNDERLICH SECURITIES INC.	86,298	3,572	0.04



Investment Section

New York Fire Department Pension Funds

Schedule of Broker's Commissions QPP

Schedule 4A

For Fiscal Year ended June 30, 2016

<u>Brokerage Firm</u>	<u>Number of Shares Traded</u>	<u>Commissions Paid</u>	<u>Average Cost Per Share</u>
XP INVESTIMENTOS CCTVM SA	102,998	611	0.01
YAMNER & CO INC (CLS THRU 443)	46,459	465	0.01
Grand Totaal	<u>498,791,691</u>	<u>1,816,650</u>	<u>0.00</u>

# Investment Summary

## Fire Funds Combined

Year Ended June 30, 2016  
(Dollar amount in thousands)

	<u>Fair Value</u>	<u>Percent of Total Fair Value</u>
<b>Type of Investment:</b>		
<b>Short Term Investments:</b>		
Commercial paper	\$ 63,081	0.50%
Short Term Investments	125,058	0.98%
U.S. Treasury Bills	25,998	0.20%
Discount notes	1,954	0.02%
<b>Total Short-Term</b>	<b>216,091</b>	<b>1.70%</b>
<b>Debt securities:</b>		
U.S. Govt Securities and Agency	149,941	1.18%
Corporate and Other	2,211,925	17.38%
Promissory notes	-	0.00%
<b>Total debt securities</b>	<b>2,361,866</b>	<b>18.56%</b>
Equities Securities:	<b>1,802,947</b>	<b>14.17%</b>
Alternative investments	<b>2,117,856</b>	<b>16.64%</b>
Mutual funds-international equity	-	-
<b>Collective trust funds:</b>		
International Equity	2,104,733	16.54%
Fixed income	445,938	3.50%
Domestic equity	2,103,107	16.53%
Mortgage debt security	86,107	0.68%
Treasury Inflation -protected securities	564,133	4.43%
<b>Total collective trust funds:</b>	<b>5,304,018</b>	<b>41.68%</b>
Collateral from Securities Lending	<u>922,481</u>	<u>7.25%</u>
<b>Total Market Value</b>	<b><u>\$ 12,725,259</u></b>	<b><u>100.00%</u></b>

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# **New York Fire Department Pension Funds**

## **Comprehensive Annual Financial Report**

### **A Pension Trust Fund of The City of New York**



## **Actuarial Section**

### **Part IV**

**Fiscal Year Ended June 30, 2016**

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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 20, 2016

Board of Trustees  
New York Fire Department Pension Fund  
9 Metrotech Center  
Brooklyn, NY 11201-3857

Re: Actuarial Information for the Comprehensive Annual Financial Report (CAFR) for the  
Fiscal Year Ended June 30, 2016

Dear Members of the Board of Trustees:

The financial objective of the New York Fire Department 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., June 30, 2014 (Lag) actuarial valuation to determine Fiscal Year 2016 Employer Contributions) (the Actuarial Contributions).

The funding policy of the City of New York (the City) is to contribute statutorily-required contributions (Statutory Contributions) and these contributions are generally funded by the City within the appropriate fiscal year.

For Fiscal Year 2016, the Actuarial Contributions to FIRE, are equal to those recommended by the Actuary of the New York City Pension Funds and Retirement Systems (the Actuary) and represent the Statutory Contributions.

During June 2012 the Governmental Accounting Standards Board (GASB) released two accounting standards for public pension plans, Statement No. 67 (GASB67) and Statement No. 68 (GASB68), collectively “GASB67/68.”

GASB67, *Financial Reporting for Pension Plans*, amends GASB Statement No. 25 (GASB25) and is effective for financial statements for fiscal years beginning after June 15, 2013 (i.e., Fiscal Year 2014 for FIRE).

GASB68, *Accounting and Financial Reporting for Pensions*, amends GASB Statement No. 27 (GASB27) and is effective for financial statements for fiscal years beginning after June 15, 2014 (i.e., Fiscal Year 2015 for the City).

On October 11, 2016, the Actuary published the, “GASB 67/68 Report for the City of New York and the New York City Retirement Systems For Fiscal Year ended June 30, 2016” (the Fiscal Year 2016 GASB67/68 Report). Appendix E of the Fiscal Year 2016 GASB67/68 Report contains information developed in accordance with GASB67 for FIRE.

### **Actuarial Assumptions and Methods**

Provided in this Actuarial Section of the CAFR is a “Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2014 (Lag) Actuarial Valuation.” These actuarial assumptions and methods (the 2012 A&M) were first employed in the June 30, 2010 (Lag) actuarial valuation that was used to determine Fiscal Year 2012 Employer Contributions to the Plan.

Those 2012 A&M were developed after reviewing the results of independent actuarial studies dated December 2011 by The Hay Group (Hay) and November 2006 by The Segal Company (Segal) in accordance with Section 96 of the New York City Charter, after which the Actuary issued a February 10, 2012 Report entitled “Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2011 for the New York City Fire Department Pension Fund” (February 2012 Report).

The Board of Trustees of the Plan adopted those changes in actuarial assumptions that required Board approval. The State Legislature and the Governor enacted Chapter 3 of the Laws of 2013 (Chapter 3/13) to provide for those changes to the actuarial assumptions and methods that require legislation, including the Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of investment expenses.

In October 2015 the independent actuarial auditor, Gabriel, Roeder, Smith & Company (GRS), issued a report on their NYC Charter-mandated actuarial experience studies for the four-year and ten-year periods ended June 30, 2013 (the GRS Report).

Based, in part, on the GRS Report, on published studies of mortality improvement, and on input from the City's outside consultants and auditors, the Actuary proposed, and the Board of Trustees of FIRE adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement mortality are based primarily on the experience of FIRE (the Base Tables) and the application of Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015 (the Valuation Tables). Scale MP-2015 replaced Mortality Improvement Scale AA.

In addition, beginning in Fiscal Year 2016, the Actuary revised the Actuarial Asset Valuation Method to constrain the Actuarial Asset Value to be within a 20% corridor of the Market Value of Assets.

The 2012 A&M reflecting the above revisions is referred to as the "2016 A&M."

Tier III assumptions are applied to members hired on and after July 1, 2009 (i.e., Tier III and Tier III Modified (where Tier III Modified is also known as Tier 6 members)).

These actuarial assumptions and methods (2016 A&M) used for funding purposes meet the parameters set by the Actuarial Standards of Practice (ASOPs).

### **Benefits and Census Data**

A summary of the benefits applicable to Plan members included in the June 30, 2014 (Lag) actuarial valuation is shown earlier in the Introductory Section of the CAFR.

Census data is submitted by the Plan's administrative staff and by the employer's payroll facilities and is reviewed by the Office of the Actuary (OA) for consistency and reasonability.

A summary of the census data used in the June 30, 2014 (Lag) actuarial valuation is included in this CAFR. A summary of the census data used in the June 30, 2013 (Lag) actuarial valuation of the Plan is available in the June 30, 2015 CAFR.

## **Funded Status**

The Funded Status of the Plan is usually expressed by the relationship of Assets to Liabilities.

With respect to the Funded Status of the Plan, included in the Actuarial Section of the CAFR is a schedule of Funded Status based on the Entry Age Actuarial Cost Method (Table 11).

Also included in the Actuarial Section of the CAFR is a Solvency Test (i.e., Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets) (Table 12), as prescribed by the Government Finance Officers Association (GFOA). This Solvency Test represents an alternative approach to describing progress toward funding objectives.

## **Presentation Style and Sources of Information**

The actuarial information herein is being presented in a manner believed to be consistent with the requirement of the GFOA and, where applicable, with GASB67.

The following items in the Actuarial Section of the CAFR were prepared by the OA:

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2014 (Lag) Actuarial Valuation.
- Active Member Valuation Data.
- Summary of Plan Membership.
- Retirants and Beneficiaries Added to and Removed from Rolls.
- Statutory vs Annual Required Contributions.
- Funded Status Based on Entry Age Actuarial Cost Method.
- Comparative Summary of Aggregate Accrued Liabilities Funded by Actuarial Value of Assets – Solvency Test.

The following items in the Financial Section of the CAFR were also prepared by the OA:

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

If you have any questions about any of the information in this Actuarial Section or any of the actuarial information elsewhere presented in this CAFR, please do not hesitate to contact Mr. Michael Samet, Mr. Edward Hue or me.

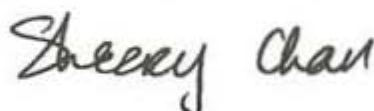


Board of Trustees  
New York Fire Department Pension Fund  
December 20, 2016  
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### Acknowledgement of Qualification

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

Respectfully submitted,



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

SSC:mm

Att:

cc: Mr. Steven Cassidy - New York Fire Department Pension Fund  
Mr. Albert Connelly - New York Fire Department Pension Fund  
Ms. Maureen Dale - New York Fire Department Pension Fund  
Mr. Edward Hue - New York City Office of the Actuary  
Mr. Sam Rumley - New York City Office of the Actuary  
Mr. Michael Samet - New York City Office of the Actuary  
Ms. Lei Tian - New York Fire Department Pension Fund

079L&R:mm

## NEW YORK FIRE DEPARTMENT PENSION FUND

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2014 (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 (ACNY), 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 Gabriel Roeder Smith & Company (GRS) dated October 2015 and analyzed experience for Fiscal Years 2010 through 2013. GRS made recommendations with respect to the actuarial assumptions and methods based on their analysis.

Based, in part, on the GRS Report, on published studies of mortality improvement, and on input from the City's outside consultants and auditors, the Actuary proposed, and the Board of Trustees of FIRE adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement mortality are based primarily on the experience of FIRE (the Base Tables) and the application of Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015 (the Valuation Tables). Scale MP-2015 replaced Mortality Improvement Scale AA.

In addition, beginning in Fiscal Year 2016, the Actuary revised the Actuarial Asset Valuation Method to constrain the Actuarial Asset Value to be within a 20% corridor of the Market Value of Assets.

The previously completed studies were published by The Hay Group (Hay) dated December 2011 and by The Segal Company (Segal), dated November 2006. Hay analyzed experience for Fiscal Years 2006 through 2009 and made recommendations with respect to the actuarial assumptions and methods based on their analysis. Segal analyzed experience for Fiscal Years 2002 through 2005 and made recommendations with respect to the actuarial assumptions and methods based on their analysis.

## NEW YORK FIRE DEPARTMENT PENSION FUND

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION (Cont'd)

Based, in part, upon a review of the Segal and Hay studies, the Actuary issued a February 10, 2012 Report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2011 for the New York City Fire Department Pension Fund" (February 2012 Report).

The Board of Trustees of the Plan adopted those changes to actuarial assumptions that required Board approval. The State Legislature and the Governor enacted Chapter 3 of the Laws of 2013 (Chapter 3/13) to provide for those changes to the actuarial assumptions and methods that require legislation, including the Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of investment expenses, the Entry Age Actuarial Cost Method and the amortization of Unfunded Actuarial Accrued Liabilities.

- (2) The investment rate of return assumption is 7.0% per annum, net of investment expenses.
- (3) The mortality tables for service and disability pensioners were developed from an experience study of the Plan's and the predecessor Plan's pensioners. Sample probabilities are shown in Table 1a. The mortality tables for beneficiaries were developed from experience review. Sample probabilities are shown in Table 1b.
- (4) Active Service tables are used to estimate various withdrawals from Active Service. Sample probabilities are shown in Tables 2a, 2b and 2c for members withdrawing from active service due to Death or Disability, in Table 3 for members withdrawing from Active Service without employer-provided benefits or with Vested Benefits and in Table 4 for members withdrawing from Active Service for Service Retirement.
- (5) A Salary Scale is used to estimate salaries at termination, retirement or death. Sample percentage increases are shown in Table 5. The Salary Scale includes a General Wage Increase (GWI) assumption of 3.0% per annum.
- (6) Overtime earnings are also used to estimate salaries at termination, retirement or death. Sample percentage increases in the Baseline Overtime assumptions and the Dual Overtime assumptions (i.e., the assumption for overtime for the years included in the calculations of Final Salary or Final Average Salary) effective beginning with the June 30, 2010 (Lag) actuarial valuation are shown in Table 6.

## NEW YORK FIRE DEPARTMENT PENSION FUND

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION (Cont'd)

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

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

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

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

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

## NEW YORK FIRE DEPARTMENT PENSION FUND

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION (Cont'd)

- (10) One-Year Lag Methodology (Lag or OYLM) uses a June 30, XX-2 valuation date to determine Fiscal Year XX Employer Contributions.

The June 30, 2014 (Lag) actuarial valuation uses a June 30, 2014 valuation date to determine Fiscal Year 2016 Employer Contributions.

This methodology requires technical adjustments to certain components used to determine Fiscal Year 2016 Employer Contributions as follows:

- Present Value of Future Salary (PVFS)

The PVFS at June 30, 2014 is reduced by the value of salary projected to be paid during Fiscal Year 2015.

- Salary for Determining Employer Contributions

Salary used to determine the employer normal contribution is the salary projected to be paid during Fiscal Year 2016 to members on payroll at June 30, 2014.

- UAAL Payments

For determining the UAAL payments for Fiscal Year 2016, and to be consistent with the OYLM, the UAAL as of June 30, 2014 is adjusted by the discounted value of employer normal contributions paid during Fiscal Year 2015.

- (11) The Actuary reset the AAV to the Market Value of Assets (MVA) as of June 30, 2011 (i.e., Market Value Restart).

Beginning with the June 30, 2012 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) recognizes investment returns greater or less than expected over a period of six years.

In accordance with this AAVM, actual Unexpected Investment Returns (UIR) are phased into the AAV at rates of 15%, 15%, 15%, 15%, 20%, and 20% per year, respectively, (i.e., cumulative rates of 15%, 30%, 45%, 60%, 80% and 100%).

Beginning with the June 30, 2014 (Lag) actuarial valuation, the AAV is constrained to be within a 20% corridor of the Market Value.



## NEW YORK FIRE DEPARTMENT PENSION FUND

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION (Cont'd)

- (12) The obligations of the Plan to the Firefighters' Variable Supplements Fund (FFVSF) and the Fire Officers' Variable Supplements Fund (FOVSF) are recognized through the Liability Valuation Method.

Under this method, the APV of Future SKIM from the Plan to the FFVSF and FOVSF is included directly as an actuarial liability to the Plan. SKIM is all or a portion of the excess earnings on equity securities of the Plan which are transferable to the FFVSF and FOVSF. The APV of Future SKIM is computed as the excess, if any, of the APV of benefits of the FFVSF and FOVSF offset by the AAV of the FFVSF and FOVSF, respectively. Under the EAACM, a portion of the APV of Future SKIM is reflected in the APV of Future Normal Costs and a portion is reflected in the AAL.

- (13) The APVB as of June 30, 2014, used to determine the Fiscal Year 2016 Employer Contributions, includes estimates of liabilities for World Trade Center (WTC) Post-Retirement Reclassifications.
- (14) As discussed herein, the actuarial assumptions and methods are unchanged from those of the June 30, 2013 (Lag) actuarial valuation except for the adoption of revised Post-Retirement Mortality Tables and a 20% corridor constraining the Actuarial Asset Value as described in sections (1) and (11) above, respectively.

**NEW YORK FIRE DEPARTMENT PENSION FUND**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

Table 1a Deaths among Service and Disability Pensioners Percentage of Pensioners Dying within Next Year				
Age	Service Pensioners		Disability Pensioners	
	Males	Females	Males	Females
40	0.1082%	0.0617%	0.1745%	0.0691%
45	0.1555	0.0887	0.2098	0.1305
50	0.2288	0.1513	0.2866	0.2646
55	0.4782	0.2073	0.5848	0.4865
60	0.6569	0.3902	0.8427	0.6255
65	0.9753	0.5915	1.2172	0.9356
70	1.3606	0.8721	1.8470	1.5714
75	2.3667	1.3893	2.7796	2.7691
80	4.1260	2.5502	4.6898	4.7161
85	7.9810	4.3661	8.6946	7.8681
90	12.7321	7.8055	12.8865	12.9631
95	23.2022	14.8002	23.9154	18.7612
100	31.4230	21.6851	31.4230	21.9277
105	37.5244	27.6686	37.5244	27.6686
110	100.0000	100.0000	100.0000	100.0000

Society of Actuaries Mortality Improvement Scale MP-2015 is applied to these rates.

**NEW YORK FIRE DEPARTMENT PENSION FUND**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

Table 1b Deaths among Beneficiaries Percentage of Beneficiaries Dying within Next Year		
Age	Males	Females
20	0.0229%	0.0131%
25	0.0305	0.0183
30	0.0410	0.0265
35	0.0721	0.0505
40	0.0947	0.0687
45	0.2684	0.1202
50	0.4203	0.2512
55	0.8245	0.4448
60	1.0827	0.7377
65	1.4619	1.0274
70	1.9843	1.4161
75	2.9181	2.2280
80	5.3467	3.7564
85	8.2155	6.2437
90	14.2568	10.7174
95	22.8721	18.1287
100	31.4230	21.7021
105	37.5244	27.6686
110	100.0000	100.0000

Society of Actuaries Mortality Improvement Scale MP-2015 is applied to these rates.

**NEW YORK FIRE DEPARTMENT PENSION FUND**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

Table 2a Withdrawals from Active Service (Due to Death or Disability) Tier I and Tier II Members Not Eligible for WTC Benefits Percentage of Active Members Separating within Next Year					
Age	Accidental Disability	Ordinary Disability	Ordinary Death		Accidental Death
			Males	Females	
20	0.03%	0.01%	0.04%	0.03%	0.02%
25	0.03	0.01	0.04	0.03	0.02
30	0.15	0.05	0.04	0.03	0.02
35	0.60	0.10	0.04	0.03	0.02
40	1.30	0.15	0.05	0.04	0.02
45	2.00	0.20	0.10	0.07	0.05
50	3.50	0.30	0.15	0.10	0.10
55	5.00	1.00	0.20	0.15	0.20
60	15.00	6.00	0.30	0.20	0.30
63	NA	NA	NA	NA	NA

**NEW YORK FIRE DEPARTMENT PENSION FUND**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

Table 2b Withdrawals from Active Service (Due to Death or Disability) Tier I and Tier II Members Eligible for WTC Benefits Percentage of Active Members Separating within Next Year					
Age	Accidental Disability	Ordinary Disability	Ordinary Death		Accidental Death
			Males	Females	
20	0.05%	0.01%	0.04%	0.03%	0.02%
25	0.05	0.01	0.04	0.03	0.02
30	0.25	0.05	0.04	0.03	0.02
35	1.00	0.10	0.04	0.03	0.02
40	2.00	0.15	0.05	0.04	0.02
45	3.00	0.20	0.10	0.07	0.05
50	5.00	0.30	0.15	0.10	0.10
55	8.00	1.00	0.20	0.15	0.20
60	21.00	6.00	0.30	0.20	0.30
63	NA	NA	NA	NA	NA



**NEW YORK FIRE DEPARTMENT PENSION FUND**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

Table 2c					
Withdrawals from Active Service (Due to Death or Disability)					
Tier III and Tier III Modified Members					
Percentage of Active Members Separating within Next Year					
Age	Accidental Disability	Ordinary Disability	Ordinary Death		Accidental Death
			Males	Females	
20	0.03%	0.01%	0.04%	0.03%	0.02%
25	0.03	0.01	0.04	0.03	0.02
30	0.15	0.05	0.04	0.03	0.02
35	0.60	0.10	0.04	0.03	0.02
40	1.20	0.15	0.05	0.04	0.02
45	1.80	0.20	0.10	0.07	0.05
50	2.40	0.30	0.15	0.10	0.10
55	3.00	1.00	0.20	0.15	0.20
60	8.00	6.00	0.30	0.20	0.30
63	NA	NA	NA	NA	NA

**NEW YORK FIRE DEPARTMENT PENSION FUND**

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)

Table 3 Withdrawals from Active Service Percentage of Active Members Withdrawing within Next Year			
		Tier III and Tier III Modified Early Service Retirement	
Years of Service	All Tiers Withdrawal	Reduced Retirement	Unreduced Before Full Escalation
0	2.00%	NA	NA
5	0.40	NA	NA
10	0.20	NA	NA
15	0.10	NA	NA
20	NA	5.00%	NA
21	NA	2.00	NA
22	NA	NA	5.00%
23	NA	NA	2.00
24	NA	NA	2.00

**NEW YORK FIRE DEPARTMENT PENSION FUND**

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
 IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
 (Cont'd)

Table 4			
Percentage of Eligible Active Members Retiring for Service with Unreduced Benefits within Next Year			
Age	Years of Service Since First Eligible		
	0-1	1-2	2+
40	10.00%	2.00%	2.00%
45	10.00	2.00	2.00
50	15.00	2.00	2.00
55	20.00	6.00	6.00
60	20.00	12.00	12.00
63	100.00	100.00	100.00

**NEW YORK FIRE DEPARTMENT PENSION FUND**

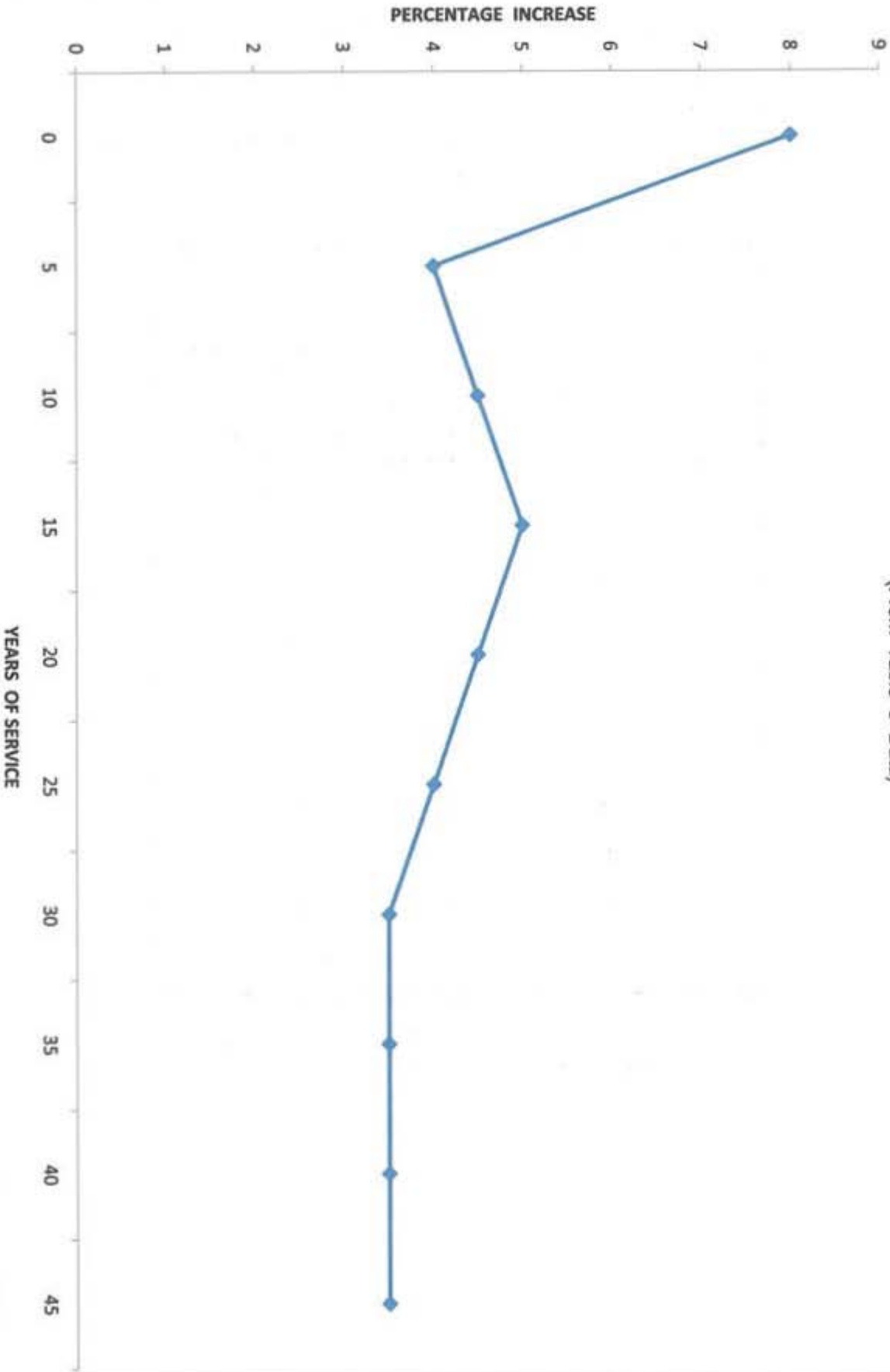
**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

<b>Table 5 Salary Scale</b>	
<b>Years of Service</b>	<b>Assumed Annual Percentage Increases Within Next Year*</b>
0	8.00%
5	4.00
10	4.50
15	5.00
20	4.50
25	4.00
30	3.50
35	3.50
40	3.50
45	3.50

\* Salary Scale includes a General Wage Increase assumption of 3.0% per annum.

# SALARY SCALE

(From Table 5 Data)





**NEW YORK FIRE DEPARTMENT PENSION FUND**

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
(Cont'd)

Table 6 Overtime					
Years of Service	All Tiers Baseline	Tier I/II Dual Service	Tier I/II Dual Disability	Tier III/Tier III Modified Dual Service	Tier III/Tier III Modified Dual Disability
0	15.00%	16.00%	15.00%	16.00%	15.00%
5	15.00	16.00	15.00	16.00	15.00
10	15.00	16.00	15.00	16.00	15.00
15	15.00	18.00	15.00	16.00	15.00
20	18.00	23.00	20.00	21.00	20.00
25	13.00	18.00	15.00	16.00	15.00
30	8.00	10.00	8.00	9.00	8.00
35	5.00	6.00	5.00	6.00	5.00
40	5.00	6.00	5.00	6.00	5.00
45	5.00	6.00	5.00	6.00	5.00

**NEW YORK FIRE DEPARTMENT PENSION FUND**

<b>Table 7</b>				
<b>ACTIVE MEMBER VALUATION DATA</b>				
Valuation Date	Number	Annual Payroll <sup>(1)</sup>	Annual Average Pay	Percentage Increase (Decrease) in Average Pay
6/30/05 (Lag)	11,470	\$ 908,261,197	\$ 79,186	2.9%
6/30/06 (Lag)	11,641	932,730,174	80,125	1.2
6/30/07 (Lag)	11,528	1,000,383,326	86,779	8.3
6/30/08 (Lag)	11,574	1,051,591,517	90,858	4.7
6/30/09 (Lag)	11,460	1,079,682,340	94,213	3.7
6/30/10 (Lag) <sup>(2)</sup>	11,080	1,138,187,795	102,725	9.0
6/30/11 (Lag)	10,650	1,125,459,668	105,677	2.9
6/30/12 (Lag)	10,267	1,106,113,386	107,735	1.9
6/30/13 (Lag)	10,182	1,129,706,314	110,951	3.0
6/30/14 (Lag)	10,319	1,150,389,645	111,483	0.5

<sup>(1)</sup> Annual Payroll was increased by a percentage to reflect overtime earnings, and, where applicable, adjusted to be consistent with collective bargaining agreements estimated to be achieved.

<sup>(2)</sup> Beginning with the June 30, 2010 (Lag) actuarial valuation, the annualized covered payroll is based on revised actuarial assumptions.

**NEW YORK FIRE DEPARTMENT PENSION FUND**

As of the June 30, 2014 (Lag) and June 30, 2013 (Lag) actuarial valuations, the Plan's Membership consisted of:

<b>Table 8</b>		
<b>SUMMARY OF PLAN MEMBERSHIP</b>		
<b>Group</b>	<b>June 30, 2014 (Lag)</b>	<b>June 30, 2013 (Lag)</b>
Retirees and beneficiaries currently receiving benefits	16,763	16,807
Terminated vested members not yet receiving benefits	40	33
Other Inactives*	16	17
Active members	10,319	10,182
<b>Total</b>	<b>27,138</b>	<b>27,039</b>

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

NEW YORK FIRE DEPARTMENT PENSION FUND

Table 9  
RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Year Ended	Added to Rolls		Removed from Rolls		Rolls end of Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances <sup>(1)(a)</sup>	Number	Annual Allowances <sup>(1)</sup>	Number	Annual Allowances <sup>(1)(a)</sup>		
6/30/05	725	\$51,588	741	\$23,571	17,443	\$ 715,456	4.1%	\$ 41,017
6/30/06	756	55,146	714	21,538	17,485	749,064	4.7	42,840
6/30/07	777	71,664	783	26,221	17,479	794,507	6.1	45,455
6/30/08	616	62,100	691	23,260	17,404	833,347	4.9	47,883
6/30/09	476	49,098	617	20,248	17,263	862,197	3.5	49,945
6/30/10	556	54,884	679	25,161	17,140	891,920	3.4	52,037
6/30/11	653	64,844	776	35,553	17,017	921,210	3.3	54,135
6/30/12	538	58,289	638	26,380	16,917	953,119	3.5	56,341
6/30/13	453	54,522	563	23,448	16,807	984,193	3.3	58,559
6/30/14	490	54,258	534	23,300	16,763	1,015,151	3.1	60,559

(1) Balancing Item - Amounts shown include changes due to benefit finalization change in benefit type (e.g., Service to Accidental Disability), COLA increases and other changes.

(a) Allowances shown in table are those used in the actuarial valuation as of the Year Ended date and are not adjusted for anticipated changes due to finalization of benefit calculation or contract settlements.

(2) In thousands.

**NEW YORK FIRE DEPARTMENT PENSION FUND**

Table 10			
STATUTORY VS ACTUARIAL CONTRIBUTIONS			
(Dollar Amounts in Thousands)			
Fiscal Year Ended	Statutory Contribution <sup>(1)</sup>	Actuarial Contribution	Employer Rate of Contribution <sup>(2)</sup>
6/30/07	\$ 683,193	\$ 683,193	74.537%
6/30/08	780,202	780,202	82.608
6/30/09	843,751	843,751	83.238
6/30/10	874,331	874,331	82.491
6/30/11	890,706	890,706	82.248
6/30/12	976,895	976,895	84.990
6/30/13	962,173	962,173	85.154
6/30/14	969,956	969,956	87.986
6/30/15	988,784	988,784	88.940
6/30/16	1,054,478	1,054,478	93.360

<sup>(1)</sup> Represents total employer contributions accrued for fiscal year.

Beginning Fiscal Year 2006, the Statutory Contributions were computed using a One-Year Lag Methodology in accordance with Chapter 152/06 which also eliminated the use of ten-year phase-in of Chapter 278/02 for funding the additional actuarial liabilities attributed to Chapter 125/00.

<sup>(2)</sup> The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 increased to reflect overtime earnings and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.



## NEW YORK FIRE DEPARTMENT PENSION FUND

### FUNDED STATUS BASED ON ENTRY AGE ACTUARIAL COST METHOD

This Schedule is being provided by the Actuary for the Plan to improve the transparency and decision usefulness of this financial report.

Prior to the June 30, 2010 (Lag) Actuarial Valuation, the Actuarial Cost Method (ACM) used to develop the funding requirements for the Plan was the Frozen Initial Liability (FIL) ACM. Under this ACM, following establishment of any Initial Unfunded Actuarial Accrued Liabilities (UAAL), actuarial gains and losses are financed over the working lifetimes of active participants and are not identified as separate UAAL.

The funding status and funding progress information provided in this Schedule has been prepared using the Entry Age ACM where the Actuarial Present Value (APV) of any obligations of the Plan not provided by the APV of Future Contributions (Employer and Employee), as determined under the Entry Age ACM, equals the Actuarial Accrued Liability (AAL). Under the Entry Age ACM, the UAAL equals the AAL minus the Actuarial Value of Assets.

Table 11						
FUNDED STATUS BASED ON ENTRY AGE ACTUARIAL COST METHOD						
(Dollar Amounts in Thousands)						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) <sup>(1)</sup> - Entry Age (b)	Unfunded AAL (UAAL) - Entry Age (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage Of Covered Payroll ((b-a)/c)
June 30, 2014 (Lag) <sup>(2)</sup>	\$ 9,808,854	\$ 18,028,695	\$ 8,219,841	54.4%	\$ 1,150,390	714.5%
June 30, 2013 (Lag) <sup>(2)</sup>	9,144,587	17,003,722	7,859,135	53.8	1,129,706	695.7
June 30, 2012 (Lag) <sup>(2)</sup>	8,520,769	16,358,108	7,837,339	52.1	1,106,113	708.5
June 30, 2011 (Lag) <sup>(2)</sup>	7,955,668	15,808,930	7,853,262	50.3	1,125,460	697.8
June 30, 2010 (Lag) <sup>(2)</sup>	7,392,656	15,349,598	7,956,942	48.2	1,138,188	699.1
June 30, 2009 (Lag)	7,304,758	12,864,974	5,560,216	56.8	1,079,682	515.0
June 30, 2008 (Lag)	6,942,992	12,313,206	5,370,214	56.4	1,051,592	510.7

Note: This schedule is based on actuarial assumptions used for determining Employer Contributions.

- (1) AAL includes the accrued liabilities attributable to the Variable Supplements Funds, net of their Actuarial Asset Values, if any.  
 (2) Reflects revised actuarial assumptions and methods based on experience review, including an AIR assumption of 7.0% per annum, net of investment expenses.

**NEW YORK FIRE DEPARTMENT PENSION FUND**

**COMPARATIVE SUMMARY OF AGGREGATE ACCRUED LIABILITIES  
FUNDED BY ACTUARIAL VALUE OF ASSETS**

**Table 12**

**SOLVENCY TEST**  
(Dollar Amounts in Thousands)

As of June 30	Aggregate Accrued Liabilities for			Actuarial Value of Assets (D)	Percentage of Aggregate Accrued Liabilities Funded by Actuarial Value of Assets		
	Accumulated Member Contribution (A)	Current Retirants and Beneficiaries (B)	Active Members' Employer Financed Portion (C)		(A)	(B)	(C)
2005 (Lag)	\$ 582,259	\$ 6,740,143	\$ 2,832,468	\$ 6,169,209	100%	83%	0%
2006 (Lag)	661,712	7,319,033	2,915,997	6,174,111	100	75	0
2007 (Lag)	724,622	7,672,323	3,145,238	6,459,130	100	75	0
2008 (Lag)	784,897	7,961,318	3,352,573	6,942,992	100	77	0
2009 (Lag)	864,004	8,188,720	3,525,921	7,304,758	100	79	0
2010 (Lag)	948,223	9,695,971	4,831,637	7,392,656	100	66	0
2011 (Lag)	1,037,070	9,949,809	4,872,536	7,955,668	100	70	0
2012 (Lag)	1,106,357	10,270,585	4,972,364	8,520,769	100	72	0
2013 (Lag)	1,182,541	10,535,634	5,180,594	9,144,587	100	76	0
2014 (Lag)	1,281,357	11,147,573	5,486,998	9,808,854	100	76	0

Also, see following "SOLVENCY TEST - NOTES."

## NEW YORK FIRE DEPARTMENT PENSION FUND

### COMPARATIVE SUMMARY OF AGGREGATE ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

#### 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 retirement system's progress in accumulating assets to pay all promised benefits can be measured by comparing the Actuarial Value of Assets of the retirement system with the Aggregate Accrued Liabilities for:

- (A) Accumulated Member Contributions;
- (B) Current Retirants and Beneficiaries; and
- (C) Active Members' Employer Financed Portion.

The Aggregate Accrued Liabilities are the APV of projected benefits produced by the projected benefit attribution approach prorated on service. The Aggregate Accrued Liabilities were calculated in accordance with Governmental Accounting Standards Board Statement No. 5 (GASB 5).

This comparative summary allocated assets as if they were priority groups, somewhat similar to (but not identical to) the priority categories of Section 4044 of the Employee Retirement Income Security Act of 1974 (ERISA).

The values in the table are dependent upon census data, benefit levels (which have changed on occasion over the past years), and the actuarial assumptions and methods employed at each valuation date. The two most recent changes in assumptions and methods occurred in the June 30, 2014 (Lag) valuation used to compute the Employer Contributions for Fiscal Year 2016 and in the June 30, 2010 (Lag) valuation used to compute the Employer Contributions for Fiscal Year 2012. These underlying bases can be found within the Comprehensive Annual Financial Report for each respective year.

To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. Beginning with the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate assumption equals 7.0% per annum, net of investment expenses and the General Wage Increase assumption equals 3.0% per annum. Prior to the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate assumption was 8% per annum, gross of expenses.

NEW YORK FIRE DEPARTMENT PENSION FUND

Table 13

AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS

Valuation Date	Service Retirement Benefits		Accidental (Duty) Disability Benefits		Ordinary (Non-Duty) Disability Benefits		Survivor Benefits	
	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance
6/30/05 (Lag)	6,965	\$ 36,426	7,103	\$ 51,968	1,448	\$ 43,933	1,927	\$ 15,054
6/30/06 (Lag)	6,839	37,254	7,420	54,223	1,398	44,780	1,828	16,054
6/30/07 (Lag)	6,606	38,435	7,816	57,564	1,339	45,853	1,718	17,049
6/30/08 (Lag)	6,353	39,078	8,149	60,825	1,284	46,484	1,618	18,380
6/30/09 (Lag)	6,194	39,908	8,331	63,286	1,217	47,398	1,521	19,782
6/30/10 (Lag)	5,957	40,347	8,593	65,741	1,167	48,219	1,423	21,354
6/30/11 (Lag)	5,830	41,390	8,740	68,105	1,110	48,767	1,337	22,844
6/30/12 (Lag)	5,646	42,116	8,943	70,653	1,057	49,511	1,271	24,505
6/30/13 (Lag)	5,487	43,289	9,094	73,041	1,012	49,840	1,214	26,354
6/30/14 (Lag)	5,427	44,659	9,223	75,043	959	50,722	1,154	27,752

DATE	DESCRIPTION	AMOUNT	DATE	DESCRIPTION	AMOUNT	DATE	DESCRIPTION	AMOUNT	DATE	DESCRIPTION	AMOUNT
1/15	...	...	1/15	...	...	1/15	...	...	1/15	...	...
1/20	...	...	1/20	...	...	1/20	...	...	1/20	...	...
1/25	...	...	1/25	...	...	1/25	...	...	1/25	...	...
1/30	...	...	1/30	...	...	1/30	...	...	1/30	...	...
2/5	...	...	2/5	...	...	2/5	...	...	2/5	...	...
2/10	...	...	2/10	...	...	2/10	...	...	2/10	...	...
2/15	...	...	2/15	...	...	2/15	...	...	2/15	...	...
2/20	...	...	2/20	...	...	2/20	...	...	2/20	...	...
2/25	...	...	2/25	...	...	2/25	...	...	2/25	...	...
2/28	...	...	2/28	...	...	2/28	...	...	2/28	...	...
3/5	...	...	3/5	...	...	3/5	...	...	3/5	...	...
3/10	...	...	3/10	...	...	3/10	...	...	3/10	...	...
3/15	...	...	3/15	...	...	3/15	...	...	3/15	...	...
3/20	...	...	3/20	...	...	3/20	...	...	3/20	...	...
3/25	...	...	3/25	...	...	3/25	...	...	3/25	...	...
3/30	...	...	3/30	...	...	3/30	...	...	3/30	...	...
4/5	...	...	4/5	...	...	4/5	...	...	4/5	...	...
4/10	...	...	4/10	...	...	4/10	...	...	4/10	...	...
4/15	...	...	4/15	...	...	4/15	...	...	4/15	...	...
4/20	...	...	4/20	...	...	4/20	...	...	4/20	...	...
4/25	...	...	4/25	...	...	4/25	...	...	4/25	...	...
4/30	...	...	4/30	...	...	4/30	...	...	4/30	...	...
5/5	...	...	5/5	...	...	5/5	...	...	5/5	...	...
5/10	...	...	5/10	...	...	5/10	...	...	5/10	...	...
5/15	...	...	5/15	...	...	5/15	...	...	5/15	...	...
5/20	...	...	5/20	...	...	5/20	...	...	5/20	...	...
5/25	...	...	5/25	...	...	5/25	...	...	5/25	...	...
5/30	...	...	5/30	...	...	5/30	...	...	5/30	...	...
6/5	...	...	6/5	...	...	6/5	...	...	6/5	...	...
6/10	...	...	6/10	...	...	6/10	...	...	6/10	...	...
6/15	...	...	6/15	...	...	6/15	...	...	6/15	...	...
6/20	...	...	6/20	...	...	6/20	...	...	6/20	...	...
6/25	...	...	6/25	...	...	6/25	...	...	6/25	...	...
6/30	...	...	6/30	...	...	6/30	...	...	6/30	...	...
7/5	...	...	7/5	...	...	7/5	...	...	7/5	...	...
7/10	...	...	7/10	...	...	7/10	...	...	7/10	...	...
7/15	...	...	7/15	...	...	7/15	...	...	7/15	...	...
7/20	...	...	7/20	...	...	7/20	...	...	7/20	...	...
7/25	...	...	7/25	...	...	7/25	...	...	7/25	...	...
7/30	...	...	7/30	...	...	7/30	...	...	7/30	...	...
8/5	...	...	8/5	...	...	8/5	...	...	8/5	...	...
8/10	...	...	8/10	...	...	8/10	...	...	8/10	...	...
8/15	...	...	8/15	...	...	8/15	...	...	8/15	...	...
8/20	...	...	8/20	...	...	8/20	...	...	8/20	...	...
8/25	...	...	8/25	...	...	8/25	...	...	8/25	...	...
8/30	...	...	8/30	...	...	8/30	...	...	8/30	...	...
9/5	...	...	9/5	...	...	9/5	...	...	9/5	...	...
9/10	...	...	9/10	...	...	9/10	...	...	9/10	...	...
9/15	...	...	9/15	...	...	9/15	...	...	9/15	...	...
9/20	...	...	9/20	...	...	9/20	...	...	9/20	...	...
9/25	...	...	9/25	...	...	9/25	...	...	9/25	...	...
9/30	...	...	9/30	...	...	9/30	...	...	9/30	...	...
10/5	...	...	10/5	...	...	10/5	...	...	10/5	...	...
10/10	...	...	10/10	...	...	10/10	...	...	10/10	...	...
10/15	...	...	10/15	...	...	10/15	...	...	10/15	...	...
10/20	...	...	10/20	...	...	10/20	...	...	10/20	...	...
10/25	...	...	10/25	...	...	10/25	...	...	10/25	...	...
10/30	...	...	10/30	...	...	10/30	...	...	10/30	...	...
11/5	...	...	11/5	...	...	11/5	...	...	11/5	...	...
11/10	...	...	11/10	...	...	11/10	...	...	11/10	...	...
11/15	...	...	11/15	...	...	11/15	...	...	11/15	...	...
11/20	...	...	11/20	...	...	11/20	...	...	11/20	...	...
11/25	...	...	11/25	...	...	11/25	...	...	11/25	...	...
11/30	...	...	11/30	...	...	11/30	...	...	11/30	...	...
12/5	...	...	12/5	...	...	12/5	...	...	12/5	...	...
12/10	...	...	12/10	...	...	12/10	...	...	12/10	...	...
12/15	...	...	12/15	...	...	12/15	...	...	12/15	...	...
12/20	...	...	12/20	...	...	12/20	...	...	12/20	...	...
12/25	...	...	12/25	...	...	12/25	...	...	12/25	...	...
12/30	...	...	12/30	...	...	12/30	...	...	12/30	...	...
TOTAL			TOTAL			TOTAL			TOTAL		

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MEMBER NAME AND PHONE NUMBER

DATE

MEMBER NAME AND PHONE NUMBER



**New York City Fire Pension Fund**  
**Comprehensive Annual Financial Report**  
**A Pension Trust Fund of the City of New York**



**Appendix A**

**Census Data for Active Members**

**As of June 30, 2016**

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NEW YORK FIRE DEPARTMENT PENSION FUND  
 DATA USED IN THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
 FOR DETERMINING FINAL FISCAL YEAR 2016 EMPLOYER CONTRIBUTIONS

MALES

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	81	0	0	0	0	0	0	0	0	81
25 TO 29	367	263	3	0	0	0	0	0	0	633
30 TO 34	123	1,382	412	1	0	0	0	0	0	1,918
35 TO 39	15	739	1,409	181	0	0	0	0	0	2,344
40 TO 44	3	135	962	736	202	2	0	0	0	2,040
45 TO 49	0	3	153	665	554	103	3	0	0	1,481
50 TO 54	0	0	23	187	417	363	90	0	0	1,080
55 TO 59	0	0	1	9	62	143	269	61	0	545
60 TO 64	0	1	0	2	3	12	54	52	15	139
65 TO 69	0	0	0	0	0	0	1	0	0	1
70 & UP	0	0	0	1	0	0	0	0	0	1
<b>TOTAL</b>	<b>589</b>	<b>2,523</b>	<b>2,963</b>	<b>1,782</b>	<b>1,238</b>	<b>623</b>	<b>417</b>	<b>113</b>	<b>15</b>	<b>10,263</b>

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,878	0	0	0	0	0	0	0	0	3,878
25 TO 29	18,014	23,948	318	0	0	0	0	0	0	42,280
30 TO 34	5,939	143,438	44,654	106	0	0	0	0	0	194,138
35 TO 39	765	77,558	154,459	20,682	0	0	0	0	0	253,464
40 TO 44	276	14,193	105,742	88,743	25,394	208	0	0	0	234,556
45 TO 49	0	359	17,204	79,104	72,676	13,784	317	0	0	183,444
50 TO 54	0	0	2,584	21,879	53,753	48,722	12,730	0	0	139,670
55 TO 59	0	0	150	1,105	7,615	17,634	37,354	9,254	0	73,113
60 TO 64	0	149	0	301	371	1,689	7,104	7,859	2,359	19,831
65 TO 69	0	0	0	0	0	0	126	0	0	126
70 & UP	0	0	0	151	0	0	0	0	0	151
<b>TOTAL *</b>	<b>28,872</b>	<b>259,645</b>	<b>325,112</b>	<b>212,072</b>	<b>159,810</b>	<b>82,037</b>	<b>57,632</b>	<b>17,113</b>	<b>2,359</b>	<b>1,144,651</b>

AVERAGE SALARIES: \*\*

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	47,881	0	0	0	0	0	0	0	0	47,881
25 TO 29	49,084	91,058	105,960	0	0	0	0	0	0	66,793
30 TO 34	48,282	103,790	108,384	106,476	0	0	0	0	0	101,219
35 TO 39	51,023	104,950	109,623	114,264	0	0	0	0	0	108,133
40 TO 44	92,150	105,133	109,919	120,575	125,714	103,766	0	0	0	114,979
45 TO 49	0	119,503	112,447	118,953	131,184	133,826	105,633	0	0	123,865
50 TO 54	0	0	112,368	117,002	128,905	134,221	141,449	0	0	129,324
55 TO 59	0	0	149,940	122,825	122,827	123,317	138,863	151,707	0	134,153
60 TO 64	0	148,862	0	150,479	123,572	140,739	131,557	151,140	157,245	142,672
65 TO 69	0	0	0	0	0	0	126,111	0	0	126,111
70 & UP	0	0	0	151,018	0	0	0	0	0	151,018
<b>TOTAL</b>	<b>49,019</b>	<b>102,911</b>	<b>109,724</b>	<b>119,008</b>	<b>129,087</b>	<b>131,680</b>	<b>138,206</b>	<b>151,446</b>	<b>157,245</b>	<b>111,532</b>

Note: Age is last birthday. Service is completed years.

\* Total may not add up due to rounding.

**NEW YORK FIRE DEPARTMENT PENSION FUND  
DATA USED IN THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
FOR DETERMINING FINAL FISCAL YEAR 2016 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	
<b>NUMBER:</b>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	1	0	0	0	0	0	0	0	0	1
25 TO 29	3	2	0	0	0	0	0	0	0	5
30 TO 34	4	7	1	0	0	0	0	0	0	12
35 TO 39	0	8	9	3	0	0	0	0	0	20
40 TO 44	2	2	5	3	0	0	0	0	0	12
45 TO 49	0	0	0	2	0	0	0	0	0	2
50 TO 54	1	0	0	0	0	0	0	0	0	1
55 TO 59	0	0	0	0	0	1	0	0	0	1
60 TO 64	0	0	0	0	0	0	0	1	0	1
65 TO 69	0	0	1	0	0	0	0	0	0	1
70 & UP	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>11</b>	<b>19</b>	<b>16</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>56</b>

<b>SALARIES (IN THOUSANDS):</b>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	46	0	0	0	0	0	0	0	0	46
25 TO 29	142	104	0	0	0	0	0	0	0	246
30 TO 34	198	683	118	0	0	0	0	0	0	999
35 TO 39	0	844	950	316	0	0	0	0	0	2,110
40 TO 44	242	206	606	348	0	0	0	0	0	1,402
45 TO 49	0	0	0	286	0	0	0	0	0	286
50 TO 54	125	0	0	0	0	0	0	0	0	125
55 TO 59	0	0	0	0	0	171	0	0	0	171
60 TO 64	0	0	0	0	0	0	0	203	0	203
65 TO 69	0	0	150	0	0	0	0	0	0	150
70 & UP	0	0	0	0	0	0	0	0	0	0
<b>TOTAL *</b>	<b>752</b>	<b>1,837</b>	<b>1,824</b>	<b>951</b>	<b>0</b>	<b>171</b>	<b>0</b>	<b>203</b>	<b>0</b>	<b>5,739</b>

<b>AVERAGE SALARIES: **</b>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	46,029	0	0	0	0	0	0	0	0	46,029
25 TO 29	47,276	52,119	0	0	0	0	0	0	0	49,213
30 TO 34	49,497	97,586	117,770	0	0	0	0	0	0	83,238
35 TO 39	0	105,457	105,570	105,345	0	0	0	0	0	105,491
40 TO 44	120,893	102,810	121,281	116,155	0	0	0	0	0	116,856
45 TO 49	0	0	0	143,197	0	0	0	0	0	143,197
50 TO 54	124,641	0	0	0	0	0	0	0	0	124,641
55 TO 59	0	0	0	0	0	171,356	0	0	0	171,356
60 TO 64	0	0	0	0	0	0	0	203,180	0	203,180
65 TO 69	0	0	149,940	0	0	0	0	0	0	149,940
70 & UP	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>68,388</b>	<b>96,664</b>	<b>114,016</b>	<b>118,862</b>	<b>0</b>	<b>171,356</b>	<b>0</b>	<b>203,180</b>	<b>0</b>	<b>102,474</b>

Note: Age is last birthday. Service is completed years.

\* Total may not add up due to rounding.

\*\* Average based on unrounded salary.

**NEW YORK FIRE DEPARTMENT PENSION FUND  
DATA USED IN THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
FOR DETERMINING FINAL FISCAL YEAR 2016 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
<b>NUMBER:</b>										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	82	0	0	0	0	0	0	0	0	82
25 TO 29	370	265	3	0	0	0	0	0	0	638
30 TO 34	127	1,389	413	1	0	0	0	0	0	1,930
35 TO 39	15	747	1,418	184	0	0	0	0	0	2,364
40 TO 44	5	137	967	739	202	2	0	0	0	2,052
45 TO 49	0	3	153	667	554	103	3	0	0	1,483
50 TO 54	1	0	23	187	417	363	90	0	0	1,081
55 TO 59	0	0	1	9	62	144	269	61	0	546
60 TO 64	0	1	0	2	3	12	54	53	15	140
65 TO 69	0	0	1	0	0	0	1	0	0	2
70 & UP	0	0	0	1	0	0	0	0	0	1
<b>TOTAL</b>	<b>600</b>	<b>2,542</b>	<b>2,979</b>	<b>1,790</b>	<b>1,238</b>	<b>624</b>	<b>417</b>	<b>114</b>	<b>15</b>	<b>10,319</b>

**SALARIES (IN THOUSANDS):**

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,924	0	0	0	0	0	0	0	0	3,924
25 TO 29	18,155	24,052	318	0	0	0	0	0	0	42,526
30 TO 34	6,137	144,122	44,772	106	0	0	0	0	0	195,137
35 TO 39	765	78,402	155,409	20,998	0	0	0	0	0	255,574
40 TO 44	518	14,399	106,348	89,092	25,394	208	0	0	0	235,958
45 TO 49	0	359	17,204	79,390	72,676	13,784	317	0	0	183,730
50 TO 54	125	0	2,584	21,879	53,753	48,722	12,730	0	0	139,794
55 TO 59	0	0	150	1,105	7,615	17,806	37,354	9,254	0	73,285
60 TO 64	0	149	0	301	371	1,689	7,104	8,062	2,359	20,035
65 TO 69	0	0	150	0	0	0	126	0	0	276
70 & UP	0	0	0	151	0	0	0	0	0	151
<b>TOTAL *</b>	<b>29,625</b>	<b>261,482</b>	<b>326,936</b>	<b>213,023</b>	<b>159,810</b>	<b>82,208</b>	<b>57,632</b>	<b>17,317</b>	<b>2,359</b>	<b>1,150,390</b>

**AVERAGE SALARIES: \*\***

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	47,858	0	0	0	0	0	0	0	0	47,858
25 TO 29	49,069	90,764	105,960	0	0	0	0	0	0	66,655
30 TO 34	48,320	103,759	108,407	106,476	0	0	0	0	0	101,107
35 TO 39	51,023	104,956	109,597	114,119	0	0	0	0	0	108,111
40 TO 44	103,647	105,099	109,978	120,557	125,714	103,766	0	0	0	114,990
45 TO 49	0	119,503	112,447	119,025	131,184	133,826	105,633	0	0	123,891
50 TO 54	124,641	0	112,368	117,002	128,905	134,221	141,449	0	0	129,320
55 TO 59	0	0	149,940	122,825	122,827	123,650	138,863	151,707	0	134,221
60 TO 64	0	148,862	0	150,479	123,572	140,739	131,557	152,122	157,245	143,105
65 TO 69	0	0	149,940	0	0	0	126,111	0	0	138,026
70 & UP	0	0	0	151,018	0	0	0	0	0	151,018
<b>TOTAL</b>	<b>49,375</b>	<b>102,865</b>	<b>109,747</b>	<b>119,007</b>	<b>129,087</b>	<b>131,744</b>	<b>138,206</b>	<b>151,900</b>	<b>157,245</b>	<b>111,483</b>

Note: Age is last birthday. Service is completed years.

\* Total may not add up due to rounding.



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**New York City Fire Pension Fund**  
**Comprehensive Annual Financial Report**  
**A Pension Trust Fund of the City of New York**



**Appendix B**

**Census Data for Pensioners**

**As of June 30, 2016**

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**NEW YORK FIRE DEPARTMENT PENSION FUND  
DATA USED IN THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
FOR DETERMINING FINAL FISCAL YEAR 2016 EMPLOYER CONTRIBUTIONS  
SUMMARY OF PENSIONERS BY CAUSE AND GENDER**

AGE	MALE			FEMALE			ALL FILES (ALL BENEFITS) BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<b>ACCIDENTAL DISABILITY:</b>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	18	1,388,520	77,140	1	70,266	70,266	19	1,458,786	76,778
35 TO 39	118	9,439,981	80,000	0	0	0	118	9,439,981	80,000
40 TO 44	380	31,030,626	81,660	2	164,775	82,388	382	31,195,401	81,663
45 TO 49	775	65,848,779	84,966	0	0	0	775	65,848,779	84,966
50 TO 54	1,312	115,711,083	88,194	2	176,869	88,435	1,314	115,887,952	88,195
55 TO 59	1,876	165,223,270	88,072	7	605,517	86,502	1,883	165,828,787	88,066
60 TO 64	1,119	93,579,729	83,628	6	453,514	75,586	1,125	94,033,243	83,585
65 TO 69	863	63,477,754	73,555	1	47,125	47,125	864	63,524,879	73,524
70 TO 74	904	55,559,857	61,460	0	0	0	904	55,559,857	61,460
75 TO 79	964	49,384,768	51,229	1	66,154	66,154	965	49,450,922	51,244
80 TO 84	540	25,111,152	46,502	0	0	0	540	25,111,152	46,502
85 TO 89	244	10,786,016	44,205	0	0	0	244	10,786,016	44,205
90 & UP	90	3,994,843	44,387	0	0	0	90	3,994,843	44,387
<b>TOTAL</b>	<b>9,203</b>	<b>690,536,378</b>	<b>75,034</b>	<b>20</b>	<b>1,584,220</b>	<b>79,211</b>	<b>9,223</b>	<b>692,120,598</b>	<b>75,043</b>
<b>ORDINARY DISABILITY:</b>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	2	51,201	25,601	0	0	0	2	51,201	25,601
40 TO 44	2	34,853	17,427	0	0	0	2	34,853	17,427
45 TO 49	12	407,275	33,940	0	0	0	12	407,275	33,940
50 TO 54	14	405,184	28,942	0	0	0	14	405,184	28,942
55 TO 59	49	1,252,537	25,562	1	28,608	28,608	50	1,281,145	25,623
60 TO 64	45	1,368,968	30,422	0	0	0	45	1,368,968	30,422
65 TO 69	63	3,873,668	61,487	0	0	0	63	3,873,668	61,487
70 TO 74	150	8,630,492	57,537	0	0	0	150	8,630,492	57,537
75 TO 79	233	13,933,431	59,800	0	0	0	233	13,933,431	59,800
80 TO 84	213	10,619,332	49,856	0	0	0	213	10,619,332	49,856
85 TO 89	116	5,652,123	48,725	0	0	0	116	5,652,123	48,725
90 & UP	59	2,384,741	40,419	0	0	0	59	2,384,741	40,419
<b>TOTAL</b>	<b>958</b>	<b>48,613,805</b>	<b>50,745</b>	<b>1</b>	<b>28,608</b>	<b>28,608</b>	<b>959</b>	<b>48,642,413</b>	<b>50,722</b>
<b>SERVICE RETIREMENT:</b>									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	0	0	0	0	0	0
40 TO 44	8	447,692	55,962	0	0	0	8	447,692	55,962
45 TO 49	61	3,712,514	60,861	0	0	0	61	3,712,514	60,861
50 TO 54	242	14,722,709	60,838	0	0	0	242	14,722,709	60,838
55 TO 59	697	39,919,070	57,273	4	197,109	49,277	701	40,116,179	57,227
60 TO 64	563	30,150,558	53,553	3	197,208	65,736	566	30,347,766	53,618
65 TO 69	699	34,290,710	49,057	1	32,831	32,831	700	34,323,541	49,034
70 TO 74	929	40,077,958	43,141	0	0	0	929	40,077,958	43,141
75 TO 79	993	37,293,732	37,557	1	34,400	34,400	994	37,328,132	37,553
80 TO 84	657	23,106,992	35,170	0	0	0	657	23,106,992	35,170
85 TO 89	372	12,095,546	32,515	0	0	0	372	12,095,546	32,515
90 & UP	197	6,082,723	30,877	0	0	0	197	6,082,723	30,877
<b>TOTAL</b>	<b>5,418</b>	<b>241,900,204</b>	<b>44,648</b>	<b>9</b>	<b>461,548</b>	<b>51,283</b>	<b>5,427</b>	<b>242,361,752</b>	<b>44,659</b>

**NEW YORK FIRE DEPARTMENT PENSION FUND  
DATA USED IN THE JUNE 30, 2014 (LAG) ACTUARIAL VALUATION  
FOR DETERMINING FINAL FISCAL YEAR 2016 EMPLOYER CONTRIBUTIONS  
SUMMARY OF PENSIONERS BY CAUSE AND GENDER**

AGE	MALE			FEMALE			ALL FILES (ALL BENEFITS) BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
<b>ACCIDENTAL DEATH:</b>									
UNDER 30	2	68,062	34,031	4	120,583	30,146	6	188,645	31,441
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	16	581,753	36,360	16	581,753	36,360
40 TO 44	0	0	0	56	2,083,971	37,214	56	2,083,971	37,214
45 TO 49	0	0	0	91	3,636,791	39,965	91	3,636,791	39,965
50 TO 54	0	0	0	105	4,218,113	40,173	105	4,218,113	40,173
55 TO 59	0	0	0	88	3,771,712	42,860	88	3,771,712	42,860
60 TO 64	3	111,514	37,171	57	2,379,542	41,746	60	2,491,056	41,518
65 TO 69	0	0	0	45	1,764,779	39,217	45	1,764,779	39,217
70 TO 74	0	0	0	50	1,654,857	33,097	50	1,654,857	33,097
75 TO 79	1	38,381	38,381	49	1,382,925	28,223	50	1,421,306	28,426
80 TO 84	0	0	0	28	725,495	25,911	28	725,495	25,911
85 TO 89	0	0	0	12	306,105	25,509	12	306,105	25,509
90 & UP	0	0	0	19	452,475	23,814	19	452,475	23,814
<b>TOTAL</b>	<b>6</b>	<b>217,957</b>	<b>36,326</b>	<b>620</b>	<b>23,079,101</b>	<b>37,224</b>	<b>626</b>	<b>23,297,058</b>	<b>37,216</b>
<b>OTHER BENEFICIARIES:</b>									
UNDER 30	0	0	0	4	255,032	63,758	4	255,032	63,758
30 TO 34	0	0	0	2	90,508	45,254	2	90,508	45,254
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	0	0	0	4	227,320	56,830	4	227,320	56,830
50 TO 54	2	86,051	43,026	12	613,021	51,085	14	699,072	49,934
55 TO 59	0	0	0	11	414,623	37,693	11	414,623	37,693
60 TO 64	0	0	0	20	741,630	37,082	20	741,630	37,082
65 TO 69	0	0	0	33	1,260,152	38,186	33	1,260,152	38,186
70 TO 74	0	0	0	36	986,842	27,412	36	986,842	27,412
75 TO 79	0	0	0	46	1,215,205	26,418	46	1,215,205	26,418
80 TO 84	0	0	0	45	696,375	15,475	45	696,375	15,475
85 TO 89	0	0	0	77	937,304	12,173	77	937,304	12,173
90 & UP	0	0	0	236	1,204,626	5,104	236	1,204,626	5,104
<b>TOTAL</b>	<b>2</b>	<b>86,051</b>	<b>43,026</b>	<b>526</b>	<b>8,642,638</b>	<b>16,431</b>	<b>528</b>	<b>8,728,689</b>	<b>16,532</b>
<b>ALL PENSIONERS AND BENEFICIARIES:</b>									
UNDER 30	2	68,062	34,031	8	375,615	46,952	10	443,677	44,368
30 TO 34	18	1,388,520	77,140	3	160,774	53,591	21	1,549,294	73,776
35 TO 39	120	9,491,182	79,093	16	581,753	36,360	136	10,072,935	74,066
40 TO 44	390	31,513,171	80,803	58	2,248,746	38,771	448	33,761,917	75,361
45 TO 49	848	69,968,568	82,510	95	3,864,111	40,675	943	73,832,679	78,296
50 TO 54	1,570	130,925,027	83,392	119	5,008,003	42,084	1,689	135,933,030	80,481
55 TO 59	2,622	206,394,877	78,717	111	5,017,569	45,203	2,733	211,412,446	77,355
60 TO 64	1,730	125,210,769	72,376	86	3,771,894	43,859	1,816	128,982,663	71,026
65 TO 69	1,625	101,642,132	62,549	80	3,104,887	38,811	1,705	104,747,019	61,435
70 TO 74	1,983	104,268,307	52,581	86	2,641,699	30,717	2,069	106,910,006	51,672
75 TO 79	2,191	100,650,312	45,938	97	2,698,684	27,821	2,288	103,348,996	45,170
80 TO 84	1,410	58,837,476	41,729	73	1,421,870	19,478	1,483	60,259,346	40,633
85 TO 89	732	28,533,685	38,980	89	1,243,409	13,971	821	29,777,094	36,269
90 & UP	346	12,462,307	36,018	255	1,657,101	6,498	601	14,119,408	23,493
<b>TOTAL</b>	<b>15,587</b>	<b>981,354,395</b>	<b>62,960</b>	<b>1,176</b>	<b>33,796,115</b>	<b>28,738</b>	<b>16,763</b>	<b>1,015,150,510</b>	<b>60,559</b>



**New York Fire Department Pension Funds**

**Comprehensive Annual Financial Report**

**A Pension Trust Fund of The City of New York**



**Statistical Section**

**Part V**

**Fiscal Year Ended June 30, 2016**

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### The Statistical Section Narrative

The Statistical section of the New York Fire Pension Funds' Comprehensive Annual Financial Report presents detailed information related to the financial statements, as well as highlights of the actuarial valuations. The data provided is a useful source in determining the fund's economic condition. The schedules are organized into four categories: Operating information, Demographic and Economic information, Financial trends and Revenue capacity.

#### Operating information

The operating information gives users an indication of how the information in the financial statements relate to the activities of the fund. The schedules show data on benefit ranges, years of credited service, types of retirement and options selected and the amount of monthly, annual or average benefit paid to each group of retirees and beneficiaries. The data is presented for the fiscal period or over a ten year period.

#### Demographic and economic information

The demographic and economic categories present data to give users an understanding of the environment in which the pension plan operates. This is done mainly through the breakdown of the population groups in the plan membership. The schedules present the number of members and beneficiaries grouped according to several indicators including average monthly or annual salaries or age participating in the pension the plan, for the fiscal period or over a ten-year period.

#### Financial Trends

The schedules of trend data provide financial and actuarial data for the most current ten-year period. This data shows the changes in benefit types and changes in the plan's performance over time, as relates to revenues received benefits and expenses paid and net assets.

#### Revenue Capacity

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

**TABLE OF BENEFIT EXPENSES BY TYPE**

(In thousands)

<u>FISCAL YEAR</u>	<u>Service Retirement Payments</u>	<u>Ordinary Disability Payments</u>	<u>Accidental Disability Payments</u>	<u>Payments for Death in Duty</u>	<u>Payments of Deceased Service and Disability</u>	<u>Death Benefits Lump Sum Payments</u>	<u>Other Benefits *</u>	<u>Total</u>
2007	253,902	61,397	449,918	20,727	8,563	3,539	73,431	871,477
2008	248,262	59,685	495,662	21,174	8,564	2,339	79,539	915,225
2009	249,084	58,392	524,425	51,974	14,353	4,219	26,006	928,453
2010	244,502	56,905	552,814	54,069	14,426	3,454	28,603	954,773
2011	240,312	55,019	587,885	55,488	13,723	1,279	29,768	983,474
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

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

**TABLE OF RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF BENEFIT**

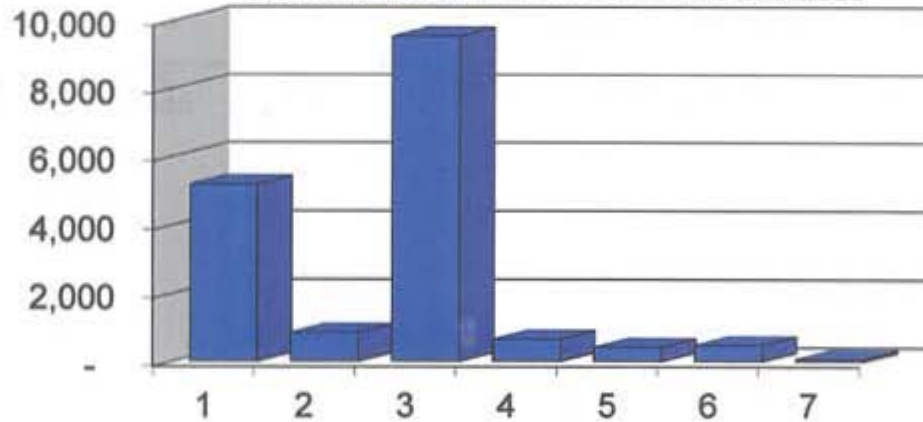
**FISCAL YEAR 2016**

TOTAL NUMBERS RETIREES AND BENEFICIARIES	SERVICE RETIREES (1)	ORDINARY DISABILITY RETIREES (1)	ACCIDENTAL DISABILITY RETIREES (1)	LINE OF DUTY BENEFITS	SERVICE BENEFICIARIES	ACCIDENTAL BENEFICIARIES	ORDINARY BENEFICIARIES	OTHER BENEFITS (2)
17,230	5,188	853	9,548	660	423	485	73	-

**ANNUAL PAYROLL AMOUNT**  
(in thousands)

1,358,431	\$ 244,561	\$ 44,938	\$ 764,129	\$ 66,417	\$ 5,384	\$ 12,507	\$ 1,794	\$ 218,701
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**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 2016

TOTAL NUMBER OF RETIRES 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)
17,230	14,467	10	263	322	752	14	573	829

ANNUAL PAYROLL AMOUNT

\$ 1,358,431	\$ 971,820	\$ 421	\$ 14,306	\$ 19,245	\$ 54,178	\$ 1,107	\$ 66,417	\$ 12,236	\$ 218,701
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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.



New York Fire Department Pension Funds  
Retired Members by Type of Benefit  
As of June 30, 2016

Amount of Monthly Benefits	Number of Retired Members	Type of Retirement <sup>a</sup>						Option Selected <sup>b</sup>				POP - UPS	
		1	2	3	4	5	6	Unmodified	1	2	3		4
\$ 36,973	10	-	-	-	-	4	10	-	-	-	-	-	-
129,108	21	-	19	-	-	2	21	-	-	-	-	-	-
839,411	136	2	118	16	-	-	106	-	-	-	-	30	-
2,813,493	448	2	382	56	-	-	93	-	3	76	112	159	5
6,152,723	943	61	775	91	4	-	898	-	-	3	37	3	2
11,327,753	2,048	14	1,039	139	14	-	1,996	-	7	2	30	11	2
17,617,704	2,733	50	1,883	88	11	-	2,665	-	-	41	17	9	1
10,748,555	1,816	566	1,125	60	20	-	1,587	-	-	32	25	168	4
8,728,918	1,705	700	854	45	33	-	1,617	-	-	4	68	16	-
8,909,167	1,830	690	904	50	36	-	1,783	-	-	12	32	3	-
8,612,416	2,182	994	965	50	46	-	1,765	-	-	63	1	353	-
5,021,612	1,483	657	540	28	45	-	1,458	-	-	25	-	-	-
2,481,425	821	372	244	12	77	-	817	-	-	4	-	-	-
1,176,617	1,054	197	90	19	689	-	1,053	-	-	1	-	-	-
Total	17,230	5,188	9,548	660	981	-	15,859	10	263	322	752	14	

<sup>a</sup> Type of retirement:  
1 - Service retirement  
2 - Ordinary Disability  
3 - Accidental Disability  
4 - Line of Duty (Accidental Death)  
5 - Beneficiaries (All)

<sup>b</sup>

Option selected:

The following options reduce the retired member's monthly benefits

- Option 1 - Provides a member with a retirement allowance payable for life which is less than the Maximum Allowance.
- Option 2 - Provides a member with a reduced retirement allowance with the provision that upon his or her death the same allowance will continue to be paid to his or her beneficiary for life.
- Option 3 - Provides a member with a retirement allowance reduce from the Maximum Allowance, with the provision that one half of the allowance will continue to be paid to the member's beneficiary for life.
- Option 4 - This option provides, upon the member's death, payment of a specified benefit or benefits actuarially sound and approved by the Actuary and the Board of Trustees.

POP - UP (refer to Option 4-2 and Option 4-3) These are called the "POP - UPS" because they are variations of Option 2 and 3 and provide that if the beneficiary predeceases the retiree, then the retirement allowance will "Pop - Up to the level of the Maximum Retirement Allowance."

Statistical Section

New York Fire Department 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
<b>Period 7/1/06 to 6/30/07</b>														
Average monthly benefit	3,375	3,611	4,284	4,716	4,862	4,895	4,715	4,424	3,679	3,341	3,117	2,689	1,971	1,210
Average final salary	40,499	43,327	51,409	56,588	58,345	58,735	56,579	53,083	46,553	40,093	37,402	32,267	23,651	14,524
Number of retired members	6	59	229	638	1,420	1,981	1,570	1,900	2,570	2,482	1,643	1,283	902	794
<b>Period 7/1/07 to 6/30/08</b>														
Average monthly benefit	3,643	3,606	4,527	5,144	5,257	5,232	4,987	4,633	4,005	3,500	3,179	2,786	2,166	1,276
Average final salary	46,116	43,273	54,323	61,725	63,079	62,786	59,844	55,591	48,061	42,002	38,143	33,432	25,993	15,308
Number of retired members	7	45	232	618	1,304	2,154	1,639	1,749	2,388	2,590	1,745	1,290	854	789
<b>Period 7/1/08 to 6/30/09</b>														
Average monthly benefit	3,881	3,642	4,572	5,195	5,309	5,284	5,037	4,679	4,045	3,535	3,210	2,814	2,188	1,288
Average final salary	46,577	43,708	54,866	62,342	63,710	63,414	60,442	56,147	48,542	42,422	38,524	33,766	26,253	15,461
Number of retired members	7	43	234	629	1,306	2,230	1,734	1,823	2,270	2,585	1,739	1,266	816	764
<b>Period 7/1/09 to 6/30/10</b>														
Average monthly benefit	3,843	3,606	4,527	5,144	5,257	5,231	4,985	4,633	4,005	3,500	3,179	2,786	2,166	1,272
Average final salary	46,116	43,273	54,323	61,725	63,079	62,774	59,823	55,591	48,061	42,002	38,143	33,432	25,993	15,262
Number of retired members	7	45	232	618	1,304	2,155	1,640	1,749	2,268	2,466	1,745	1,290	854	787
<b>Period 7/1/10 to 6/30/11</b>														
Average monthly benefit	3,570	4,613	4,923	5,415	5,764	5,663	5,576	4,956	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	32	197	517	1,162	2,254	1,916	1,674	2,014	2,602	1,994	1,220	799	748
<b>Period 7/1/11 to 6/30/12</b>														
Average monthly benefit	3,570	4,613	4,923	5,415	5,764	5,663	5,576	4,956	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
<b>Period 7/1/12 to 6/30/13</b>														
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	71,394	71,061	69,575	61,443	54,564	48,410	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	2,381	2,085	1,369	763	720
<b>Period 7/1/13 to 6/30/14</b>														
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	64,076	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	2,368	1,633	1,861	2,361	2,161	1,302	828	661
<b>Period 7/1/14 to 6/30/15</b>														
Average monthly benefit	3,784	6,265	5,642	6,154	6,412	6,463	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	67,582	59,212	49,922	43,789	39,829	34,909	21,546
Number of retired members	11	31	130	489	1,021	1,792	2,575	1,722	1,726	2,210	2,269	1,391	818	625
<b>Period 7/1/15 to 6/30/16</b>														
Average monthly benefit	3,697	6,146	6,172	6,280	6,525	6,707	6,446	5,919	5,120	4,306	3,764	3,366	3,022	1,958
Average final salary	44,368	73,776	74,066	75,361	78,296	80,461	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	1,869	2,733	1,816	1,705	2,069	2,266	1,483	821	601

Source: Office of the Actuary City of New York.  
Lag 2014 for determining Final Fiscal Year 2016 Employer Contributions

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

Exhibit 6

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
<b>Type of Benefit:</b>										
Age and service benefits:										
Retirees	253,902	248,262	249,084	244,502	240,312	239,786	308,667	239,234	241,393	244,561
Survivors	4,926	4,666	10,212	10,040	5,990	5,847	5,776	5,592	5,652	5,384
Death in service benefits	20,727	21,174	51,974	54,069	55,488	57,614	59,888	61,951	63,918	66,417
Disability benefits:										
Retirees - duty	449,918	495,662	524,425	552,814	587,885	621,698	659,243	681,196	709,488	764,129
Retirees - nonduty	61,397	59,685	58,392	56,905	55,019	53,002	51,273	49,456	47,378	44,938
Survivors	3,637	3,898	4,141	4,386	1,279	1,353	1,371	1,716	1,793	1,794
<b>Total benefits</b>	<b>\$ 794,507</b>	<b>\$ 833,347</b>	<b>\$ 898,228</b>	<b>\$ 922,716</b>	<b>\$ 945,973</b>	<b>\$ 979,300</b>	<b>\$ 1,086,218</b>	<b>\$ 1,039,145</b>	<b>\$ 1,069,622</b>	<b>\$ 1,127,223</b>
<b>Type of Refunds</b>										
Death	3,539	2,339	4,219	3,454	7,733	8,076	8,870	9,638	10,245	12,507
Other benefits	73,431	79,539	26,006	28,603	29,768	50,213	40,916	122,546	140,023	218,701
<b>Total refunds</b>	<b>\$ 76,970</b>	<b>\$ 81,878</b>	<b>\$ 30,225</b>	<b>\$ 32,057</b>	<b>\$ 37,501</b>	<b>\$ 58,289</b>	<b>\$ 49,786</b>	<b>\$ 132,184</b>	<b>\$ 150,268</b>	<b>\$ 231,208</b>
<b>Total Benefits and Refunds</b>	<b>\$ 871,477</b>	<b>\$ 915,225</b>	<b>\$ 928,453</b>	<b>\$ 954,773</b>	<b>\$ 983,474</b>	<b>\$ 1,037,589</b>	<b>\$ 1,136,004</b>	<b>\$ 1,171,329</b>	<b>\$ 1,219,890</b>	<b>\$ 1,358,431</b>

Source Fire Department New York.

**SCHEDULE OF AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS**

<u>Fiscal Year</u>	<u>Service Retirement Benefits</u>		<u>Accidental ( Duty) Disability Benefits</u>		<u>Ordinary (Non Duty) Disability Benefits</u>		<u>Survivor's Benefits *</u>	
	<u>Numbers</u>	<u>Average Annual Allowance</u>	<u>Number</u>	<u>Average Annual Allowance</u>	<u>Number</u>	<u>Average Annual Allowance</u>	<u>Number</u>	<u>Average Annual Allowance</u>
2006 (Lag)	6,839	\$ 37,254	7,420	\$ 54,223	\$ 1,398.0	\$ 44,780	1,828	\$ 19,767
2007 (Lag)	6,606	38,435	7,816	57,564	1,339	45,853	1,718	17,208
2008 (Lag)	6,353	39,078	8,149	60,825	1,284	46,484	1,618	20,942
2009 (Lag)	6,194	39,908	8,331	63,286	1,217	47,398	1,521	19,782
2010 (Lag)	5,957	40,447	8,593	65,741	1,167	48,219	1,423	21,354
2011	5,837	41,170	8,712	67,480	1,110	49,557	1,414	49,144
2012	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

\* Includes World Trade Center Benefits

NEW YORK CITY FIRE PENSION FUNDS

Schedule of Changes in Net Position

(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		
2007	71,614	683,193	1,117,227	36,770	1,908,804	870,841	444	172	20	871,477	1,037,327	
2008	75,974	780,202	(366,390)	40,103	529,889	914,569	418	200	38	915,225	(385,336)	
2009	84,357	843,751	(1,282,917)	42,729	(312,080)	927,819	325	248	61	928,453	(1,240,533)	
2010	89,223	874,331	818,201	34,990	1,816,745	953,990	510	237	36	954,773	861,972	
2011	94,893	890,706	1,472,892	41,887	2,500,378	982,962	276	236	-	983,474	1,516,904	
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	1,042,431	38,965	2,148,385	1,134,722	816	445	21	1,136,004	1,012,381	
2014	108,859	969,956	1,689,485	39,980	2,808,280	1,170,582	184	477	86	1,171,329	1,636,951	
2015	108,582	988,784	302,567	41,201	1,441,134	1,219,311	186	313	80	1,219,890	221,244	
2016	116,619	1,054,478	203,104	43,673	1,417,874	1,355,654	939	1,766	72	1,358,431	59,443	



**FIRE FIGHTER'S VARIABLE SUPPLEMENTS FUND**

**Schedule of Changes in Net Position**

(In thousands)

Year	Additions to Funds Net Position			Deductions from Funds Net Position		Change in Net Position	
	Net Investment Income/(Loss)	Other Income	Transfer Skim Earning	Total Additions	Benefit Payments		Total Deductions
2007	99,459	310		99,769	35,729	35,729	64,040
2008	(39,190)	844		(38,346)	59,691	59,691	(98,037)
2009	(94,098)	788		(93,310)	51,106	51,106	(144,416)
2010	65,678	261		65,939	50,507	50,507	15,432
2011	100,709	313		101,022	47,793	47,793	53,229
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)



FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND

Schedule of Changes in Net Position

(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	Total Additions	Benefit Payments	Total Deductions	
2007	58,107	162		58,269	15,350	15,350	42,919
2008	(26,584)	411		(26,173)	27,970	27,970	(54,143)
2009	(54,973)	367		(54,606)	22,525	22,525	(77,131)
2010	35,286	132		35,418	22,897	22,897	12,521
2011	58,800	180		58,980	21,014	21,014	37,966
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)

NEW YORK FIRE DEPARTMENT PENSION FUNDS

SCHEDULE OF REVENUES BY SOURCE

(in thousands)

Fiscal Year Ended June 30	Member Contributions	Employer Contributions	Other Income/(Loss)	Interest and Dividends	Appreciation (Depreciation) In fair value of Investments	Total	% of Annual Covered Payroll
2007	71,614	683,193	21,868	185,836	946,293	1,908,804	N/A
2008	75,974	780,202	28,393	210,151	(564,831)	529,889	N/A
2009	84,357	843,751	30,545	187,040	(1,457,773)	(312,080)	N/A
2010	89,223	874,331	10,319	176,097	666,775	1,816,745	N/A
2011	94,893	890,706	17,668	192,667	1,304,444	2,500,378	N/A
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

\* Other Income/(loss) Included.

Source: Combined Statement of Changes in Fiduciary Net Position

NEW YORK FIRE DEPARTMENT PENSION FUNDS

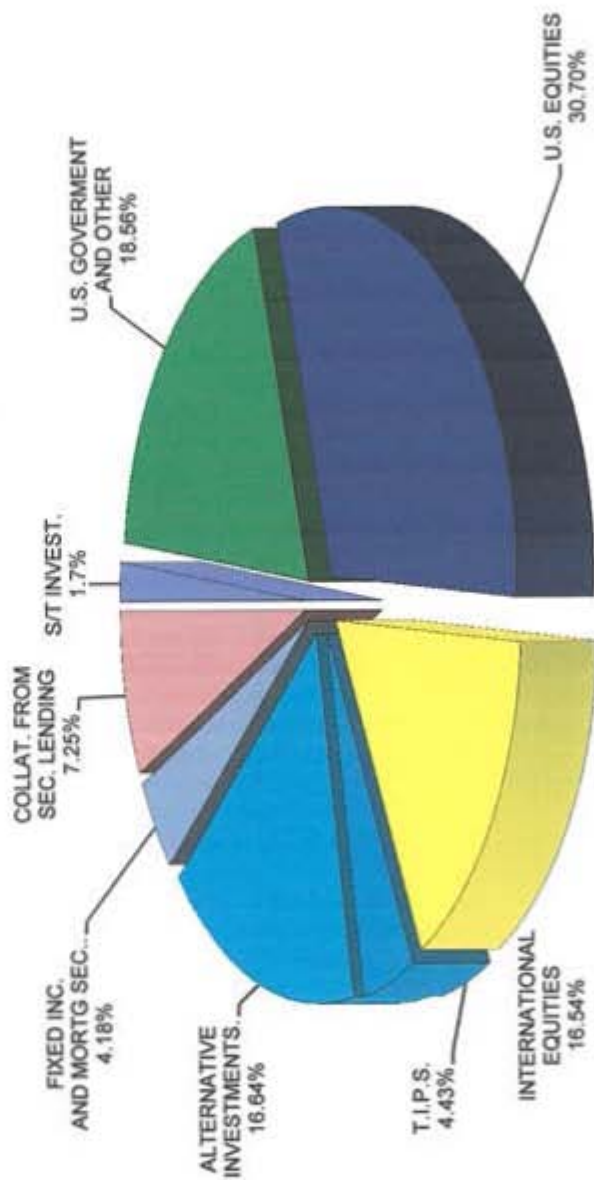
SCHEDULE OF EXPENSES BY TYPE

(in thousands)

Fiscal Year Ended June 30	Benefit Payments	Refunds	Administrative Expenses	Other Payments	Total
2007	870,841	444	172	20	871,477
2008	914,569	418	200	38	915,225
2009	927,819	325	248	61	928,453
2010	953,990	510	237	36	954,773
2011	982,962	276	236	-	983,474
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	1,355,654	939	1,766	72	1,358,431

### TOTAL INVESTMENTS FISCAL YEAR 2016 Fire Funds Combined

(At Market Value)



# INVESTMENT INCOME

Fire Funds Combined  
Fiscal Year 2016

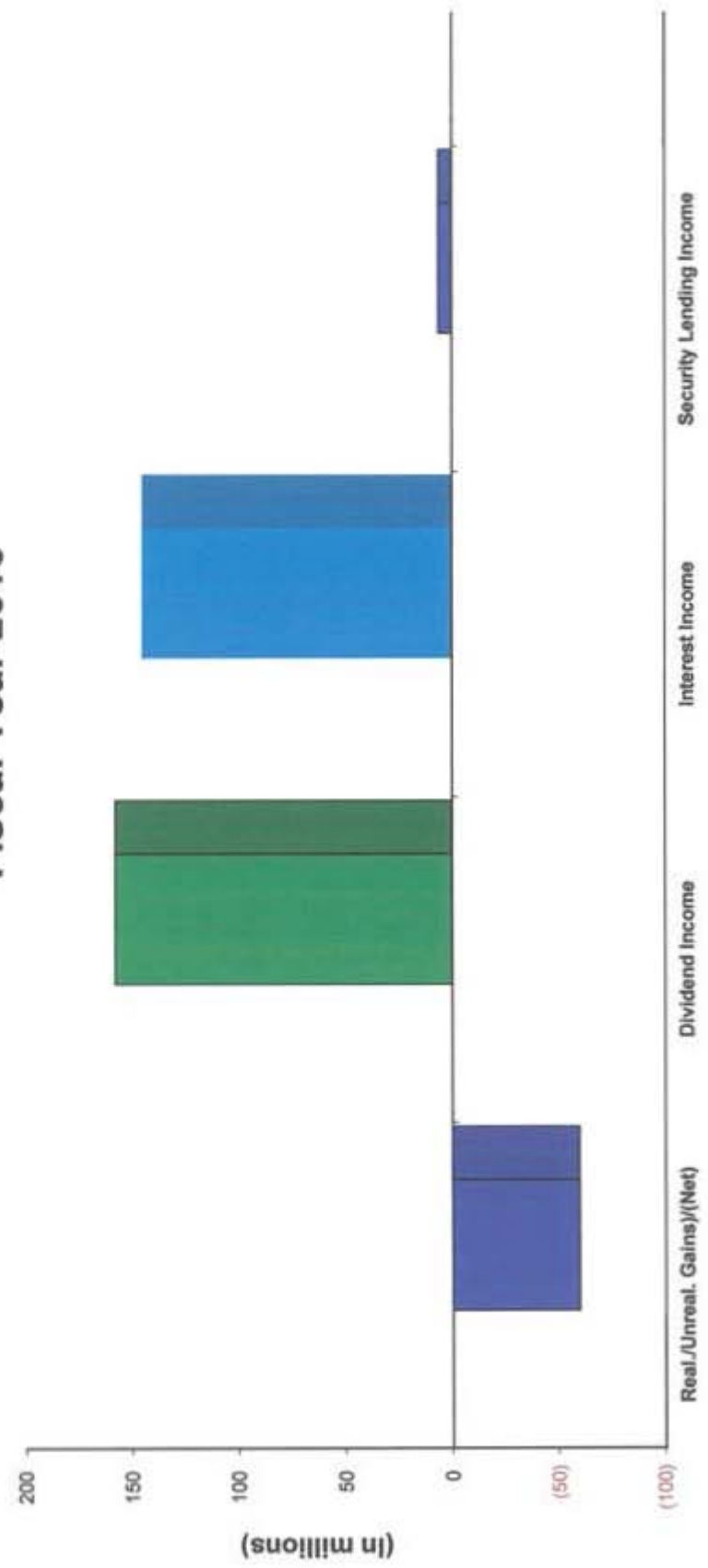


Table of Compensation to Administrative Officials & Commissions & Payments  
To Brokers and Consultants  
Fiscal Year ended June 30, 2016

<u>Official Plan Position</u>	<u>Salary or Allowance Paid</u>
Pension Fund Administrative Personnel	\$ 1,890,529
Comptroller's Office Executive Management Costs	18,426
First Deputy Personal Service Costs	96,837
Financial Information Service Agency (FISA)	406,860
Office of Payroll Administration (OPA)	137,815
Deputy Comptroller Asset Management (Personal Service Costs)	366,968
Deputy Comptroller Asset Management (Outside Service Costs)	356,754
Administrative Support Cost	2,899
Office of management and Budget	66,695
Legal Advisors	95,607
Investment Advisors	46,320,499 *
Securities Lending Fees	446,067 *
<b>Total</b>	<b>\$ 50,205,956</b>

\*Except for Investment advisor and Securities Lending fees these expenses were charged to other City Agencies on behalf of the New York Fire Department Pension Funds





