

# Teachers' Retirement System of the City of New York

A Fiduciary Fund of the City of New York

## Comprehensive Annual Financial Report

Fiscal Years Ended  
June 30, 2014 and June 30, 2013





**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**  
**A FIDUCIARY FUND OF THE CITY OF NEW YORK**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
**FOR FISCAL YEARS ENDED JUNE 30, 2014 AND JUNE 30, 2013**

Prepared by Accounting Units for the  
**QUALIFIED PENSION PLAN**  
and  
**TAX-DEFERRED ANNUITY PROGRAM**

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Chief Accountant  
Teachers' Retirement System

**MR. ROBERT C. NORTH, JR.**  
Chief Actuary

**TEACHERS' RETIREMENT SYSTEM**  
**OF THE CITY OF NEW YORK**  
55 Water Street  
New York, NY 10041

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# 1. Introduction





December 20, 2014

Dear Members of the Board of Trustees:

We are pleased to present the Comprehensive Annual Financial Report of the Teachers' Retirement System of the City of New York (TRS) for the fiscal year ended June 30, 2014.

TRS was established as of August 1, 1917 under Chapter 303 of the Laws of 1917 and is governed by the Administrative Code of the City of New York and the New York State Retirement and Social Security Law.

TRS' pension plan became a tax-qualified retirement plan under Section 401(a) of the Internal Revenue Code (IRC) and is now known as our Qualified Pension Plan (QPP). The QPP is a cost-sharing, multiple employer defined-benefit pension plan. The QPP provides pension benefits to all the teachers and administrative personnel employed by the New York City Department of Education and certain employees of participating New York City Charter Schools and the City University of New York.

TRS' Tax-Deferred Annuity (TDA) Program was established and is administered pursuant to IRC Section 403(b) and NYC Administrative Code section 13-582, and became effective February 1, 1970. The TDA Program is a voluntary supplemental savings option to TRS members.

### **Combined Report**

This is our first system-wide Comprehensive Annual Financial Report, covering both the QPP and the TDA Program. In the past, TRS' Comprehensive Annual Financial Reports covered only the QPP; the TDA Program was covered in a separate section of TRS' Annual Reports (published separately).

Issuing a system-wide report allows us to portray all the activities of our retirement system. Additionally, the report's system-wide financial statements also allow us to better describe how assets of the QPP and TDA Program are co-invested.

### **Member Profile**

Our programs impact almost 200,000 in-service members, retirees, and beneficiaries. Our membership includes individuals of varying ages, membership tiers, and employment status. And although many TRS members are currently in active service, over 40% of them have retired. As of June 30, 2014, there were approximately 112,000 in-service members and 80,000 retired members and beneficiaries receiving monthly benefits.

### **Participating Employers**

The New York City Department of Education (DOE), City University of New York (CUNY), and certain New York City Charter Schools are participating employers sharing the cost of the defined-benefit QPP plan, and their employees may participate in the TDA Program.

## **Financial Statements**

The financial statements and notes along with Management's Discussion and Analysis in this report present and analyze the changes in TRS fiduciary net assets for the fiscal year ended June 30, 2014. Since markets are dynamic and fluid, any judgment of the financial statements should also consider current market conditions.

### **GASB 67**

The Governmental Accounting Standards Board (GASB) recently established new standards intended to improve the transparency, consistency, and comparability of the pension information reported by state and local governments and pension plans. Statement No. 67, *Financial Reporting for Pension Plans*, changes financial statements by requiring additional note disclosures, additional actuarial calculations and new schedules. TRS' Financial Section in this report follows the standard.

### **Funding**

The Qualified Pension Plan's funding objective is to meet long-term benefit promises through employer and member contributions. Annual funding by employer contributions is determined through an actuarial valuation of all liabilities of the QPP with adjustments to allow for an incremental phase-in of newly assumed actuarial liabilities. As such, employer contributions have been increasing steadily in line with current membership liabilities.

The QPP's funding ratios are also developed as part of the QPP's actuarial valuation. The funding ratios are determined at specific points in time, are usually expressed in various relationships of assets to obligations, and, over time, can provide insight into the long-term financial trend of the QPP.

One measure of the QPP's funded status, the ratio of Actuarial Asset Value to Entry Age Actuarial Accrued Liability, determined as of June 30, 2013, is 58%. Please refer to the report's Actuarial Section for a detailed discussion of the Plan's measures of funded status.

Under the new Accounting Standard, Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plans*, a defined-benefit pension plan is also required to report fiduciary net position as a percentage of the plan's total pension liability. This method reports assets at current fair value and as such is more sensitive to market volatility. As of June 30, 2014 the Qualified Pension Plan's fiduciary net position represents 71.4% of the QPP's total pension liability.

Funds needed to finance the QPP's long-term benefit objectives are accumulated through the collection of employer and member contributions and through income from investments. Primary expenses include benefit and survivor payments as well as investment and administrative expenses, and refunds of contributions to terminated employees. An overview of revenue and expenses, as well as asset and liability information, is provided in the Management's Discussion and Analysis portion of the Financial Section.

### **Management Responsibility for Financial Reporting and Internal Controls**

The financial statements were prepared in accordance with accounting principles generally accepted in the United States of America. Management is responsible for the integrity and fairness of the information presented in the financial statements, including data that, out of necessity, is based on estimates and judgments. Management is also responsible for establishing and maintaining an effective internal control structure. A system of internal controls provides reasonable, but not absolute, assurance that assets are properly safeguarded and that financial statements are reliable. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and second, the valuation of the cost and benefits requires estimates and judgments by management. We believe that the internal controls currently in place support this purpose, and that the financial statements, accompanying schedules, and statistical tables are fairly presented in all material respects.

## Investments

Assets of the QPP and the TDA Program are invested together in the following investment funds: the Pension Fund, the Diversified Equity Fund, the Bond Fund, the International Equity Fund, the Inflation Protection Fund, and the Socially Responsive Equity Fund. The performance summary for Fiscal Year 2014 follows:

Rate of Return by Fund—Fiscal Year 2014		
Fund	ROR	Gross vs. Net Returns
Pension	17.62%	Gross
Diversified Equity Fund	23.56%	Net of Fees
Bond Fund	1.60%	Net of Fees
International Equity Fund	21.78%	Net of Fees
Inflation Protection Fund	11.29%	Net of Fees
Socially Responsive Equity Fund	23.11%	Net of Fees

For Funds other than the Pension Fund, members' accounts are valued on a monthly basis using unit values. The unit values are based on each Fund's closing market value as of the end of the preceding month and are comparable to shares in mutual funds. TRS members who invest in these variable-return funds purchase units with their contributions.

The following table showing July unit values for 2014 and 2013 was based on the performance of the variable-return funds as of June 30. In addition to the changes in unit values, members' accounts are credited with an annual 4% increment factor increasing the number of units they hold, and their accounts are similarly discounted to offset this increase.

Unit Values for Fiscal Years 2014 and 2013		
Variable Fund	July 2014 Unit Value	July 2013 Unit Value
Diversified Equity Fund	\$81.078	\$68.243
Bond Fund	\$18.122	\$18.552
International Equity Fund	\$11.011	\$ 9.404
Inflation Protection Fund	\$11.806	\$11.031
Socially Responsive Equity Fund	\$14.469	\$12.224

The Administrative Code of the City of New York authorizes the investments of plan assets subject to the terms, conditions, limitations, and restrictions imposed by law for investments by savings banks and domestic life insurance companies. The New York State Retirement and Social Security Law and the Administrative Code establish the criteria for permissible equity investments. Plan assets are diversified over a range of investments, and multiple investment strategies are used to limit risk. Details concerning the criteria for TRS' investments may be found in the Notes to the Financial Statements. A detailed discussion of TRS' investment strategies, asset classes and yield information is provided in the report's Investment Section.

## Actuarial Reports

The Actuarial Section contains the Actuary's certification letter, the actuary's statements, a summary of actuarial assumptions, and the actuarial tables. The actuarial valuation provides a picture of the overall funding health of the QPP.

## Statistical Reports

Past and current data is contained in this section. The section includes tables that reflect the net assets and demographic characteristics of the QPP and the TDA Program. Also captured in the tables, when applicable, is information comparing ten years of data. This look back shows overall trends in our programs and membership demographics that help to accurately forecast our future ability to meet our members' retirement needs.

## Independent Audit & Professional Services

State statutes require an annual audit by independent certified public accountants. TRS' auditor, Deloitte & Touche LLP, provides an Independent Auditor's Report on the financial statements and schedules in the Financial Section of this Report.

Consultants are appointed by the Teachers' Retirement Board to perform professional services that are essential to the effective and efficient operation of TRS. The Office of the Comptroller also provides investment services for the pension portfolio through independent advisors.

Legal services to TRS are provided by the City's Corporation Counsel and Groom Law Group.

Actuarial services are provided by the Office of the Actuary of the City of New York, which is employed by the City's five major pension systems.

## Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to TRS for its Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2013. This was the 26th consecutive year that TRS was accorded this prestigious award. 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 the generally accepted accounting principles and the 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 meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA for its consideration.

## Acknowledgements

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

Finally, we would like to take this opportunity to express our gratitude to the staff, the advisors, and the many people who have worked diligently to ensure the successful operation of TRS.

Sincerely,



Patricia M. Reilly  
Executive Director



Paul J. Raucci  
Chief Accountant





Government Finance Officers Association

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

Presented to

**Teachers' Retirement System  
of the City of New York**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

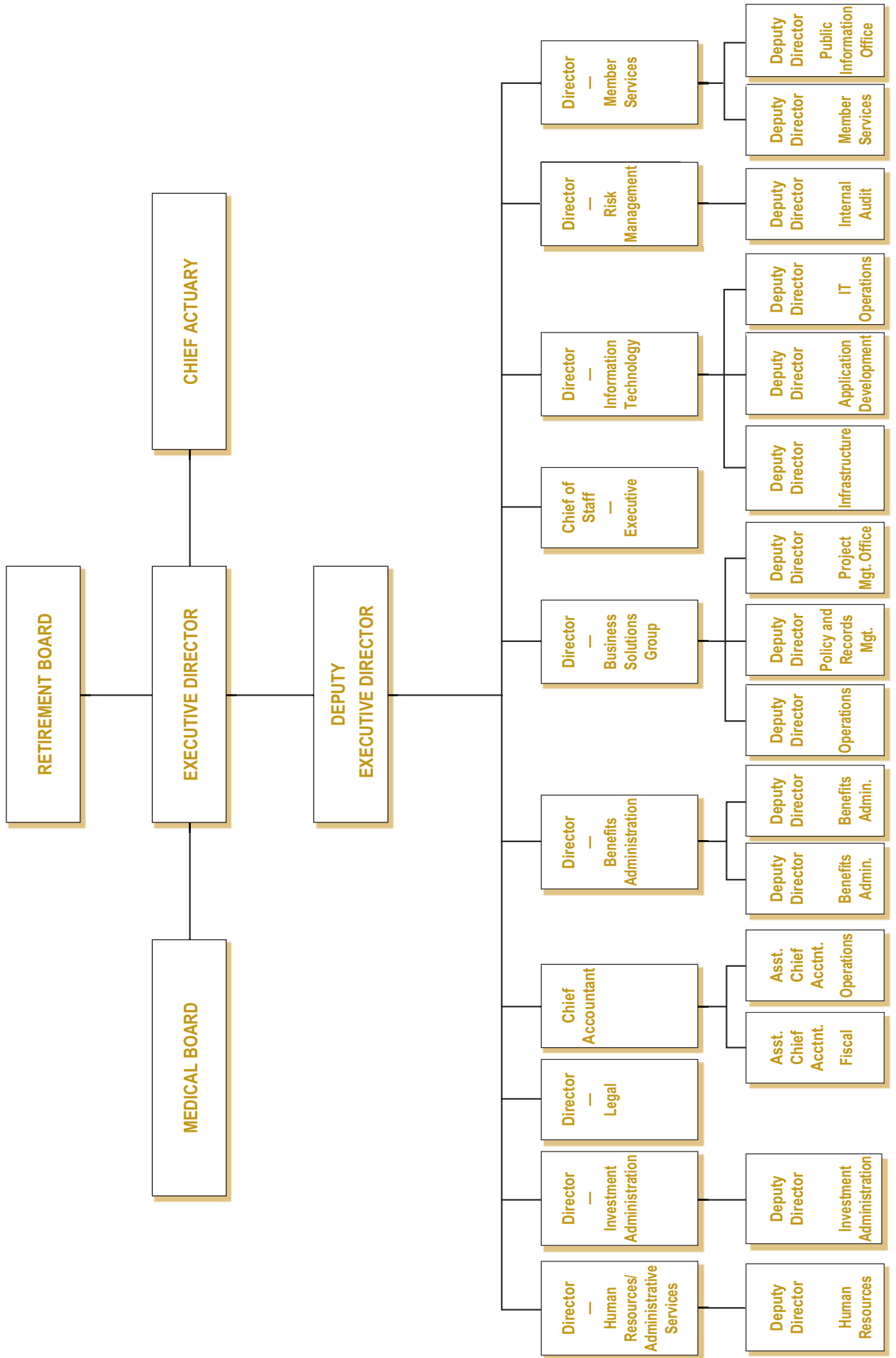
**June 30, 2013**

A handwritten signature in black ink, reading 'Jeffrey R. Enos'. The signature is written in a cursive, flowing style.

Executive Director/CEO

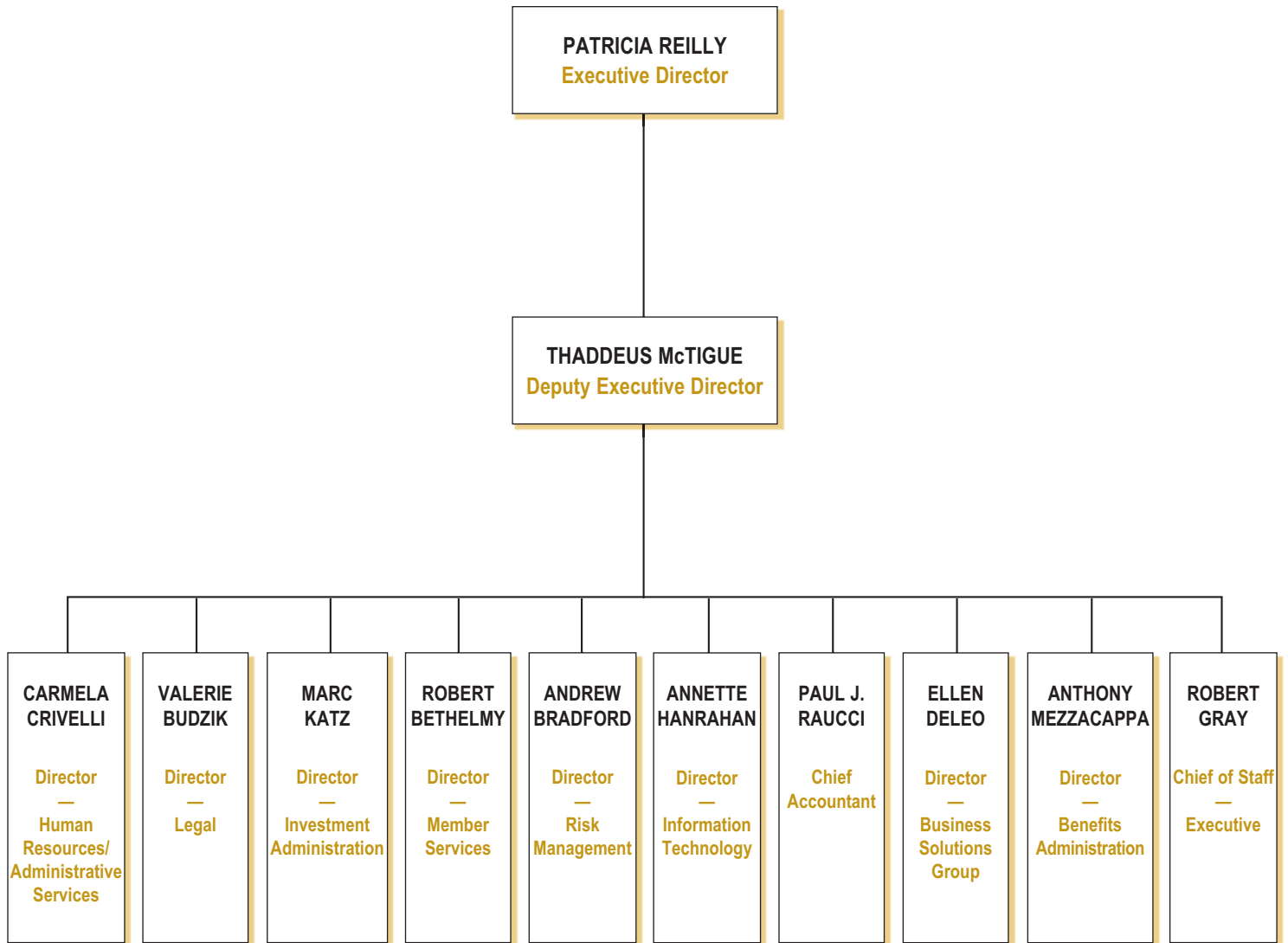
# ORGANIZATION CHART

as of June 30, 2014



## PRINCIPAL OFFICIALS

as of June 30, 2014







## 2. Financial



## INDEPENDENT AUDITORS' REPORT

To the Retirement Board of the  
Teachers' Retirement System of The City of New York:

### Report on the Financial Statements

We have audited the accompanying combined statements of fiduciary net position of the Teachers' Retirement System of The City of New York, which are comprised of the Teachers' Retirement System of The City of New York Qualified Pension Plan ("QPP") and the Teachers' Retirement System of The City of New York Tax-Deferred Annuity ("TDA") Program (collectively, the "System") as of June 30, 2014 and 2013, and the related combined statements of changes in fiduciary net position for the years then ended, and the related notes to the combined financial statements, which collectively comprise the Systems' basic combined financial statements as listed in the table of contents.

### Management's Responsibility for the Combined Financial Statements

Management is responsible for the preparation and fair presentation of these combined 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 combined financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these combined financial statements based on our audits. 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 audits to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the combined financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Systems' preparation and fair presentation of the combined 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 Systems' 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 combined financial statements.

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

### Opinion

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the combined fiduciary net position as of June 30, 2014 and 2013, and the combined changes in fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.



### **Emphasis of Matters**

As discussed in Note 2 to the combined financial statements, in 2014, the Systems adopted Governmental Accounting Standards Board ("GASB") Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*. Our opinion is not modified with respect to this matter.

In 2014, the City determined that it was preferable to present the Systems' financial statements on a combined basis for presentation purposes for inclusion in The City of New York's Comprehensive Annual Financial Report. Therefore, the System will no longer report on an individual basis the QPP and TDA Programs and will report the two on a combined basis. As a result, the Systems' 2013 financial statements were restated to conform to this change. (See Note 2 to the combined financial statements). Our opinion is not modified with respect to this matter.

### **Other Matters**

#### *Required Supplementary Information*

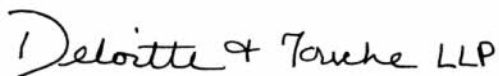
Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule 1, Schedule 2 and Schedule 3, as listed in the table of contents, be presented to supplement the basic combined financial statements. Such information, although not a part of the basic combined financial statements, is required by the GASB who considers it to be an essential part of the financial reporting for placing the basic combined 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 combined financial statements, and other knowledge we obtained during our audit of the basic combined financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Other Supplementary Information*

Our audits were conducted for the purpose of forming an opinion on the basic combined 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 combined financial statements.

The Additional Supplementary Information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic combined financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic combined 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 combined financial statements or to the basic combined financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America by us and the other auditors. In our opinion the Additional Supplementary Information is fairly stated, in all material respects, in relation to the basic combined 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 combined financial statements and, accordingly, we do not express an opinion or provide any assurance on them.



October 29, 2014



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) JUNE 30, 2014 AND 2013

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This narrative discussion and analysis of the Teachers' Retirement System of The City of New York's ("TRS" or the "System") financial performance provides an overview of the System's financial activities for the Fiscal Years ended June 30, 2014 and 2013. It is meant to assist the reader in understanding TRS' financial statements by providing an overall review of the financial activities during the two years and the effects of significant changes, as well as a comparison with prior years' activity and results. This discussion and analysis is intended to be read in conjunction with the System's financial statements. TRS administers the TRS Qualified Pension Plan ("QPP") and the TRS Tax-Deferred Annuity ("TDA") Programs. The QPP is a cost-sharing, multiple-employer defined-benefit pension plan. The QPP provides pension benefits to City public school teachers and certain personnel, participating Charter Schools and participating CUNY teachers and personnel. The TDA Program is a tax-deferred annuity program described in Internal Revenue Code section 403(b) and is available as a supplemental savings option to QPP members.

#### OVERVIEW OF BASIC COMBINED FINANCIAL STATEMENTS

The following discussion and analysis is intended to serve as an introduction to the System's basic combined financial statements. The basic combined financial statements, which are prepared in accordance with Governmental Accounting Standards Board ("GASB") pronouncements and include the financial statements of the QPP and the TDA Programs, are as follows:

- **The Combined Statements of Fiduciary Net Position** — presents the financial position of the System at fiscal year end. It provides information about the nature and amounts of resources with present service capacity that the System presently controls (assets), consumption of net assets by the System that is applicable to a future reporting period (deferred outflow of resources), present obligations to sacrifice resources that the System has little or no discretion to avoid (liabilities), and acquisition of net assets by the System 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 Combined 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 System 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 Combined Financial Statements** — provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes present information about the System's accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- **Required Supplementary Information** — as required by GASB is presented after the notes to the combined financial statements.

In 2014, the System adopted GASB Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*. Implementation of GASB Statement No. 67 did not impact the combined fiduciary net position of the System; however, certain changes to note disclosures and required supplementary information have been incorporated to comply with the new standard.

### RECENT DEVELOPMENTS

#### New UFT Contract

On June 30, 2014 the United Federation of Teachers' ("UFT"), the primary union for Department of Education's employees, ratified its new collective bargaining agreement. The contract is retroactive to November 2009 and runs through October 2018. The contract provides for retroactive and future wage increases. The wage increases will impact employer and member contributions, as well as annual retirement payments to retirees.

#### Combined QPP and TDA Financial Statements

In 2014, the City determined that it was preferable to present the Systems' financial statements on a combined basis for presentation purposes for inclusion in The City of New York's Comprehensive Annual Financial Report. Therefore, the System will no longer report on an individual basis the QPP and TDA Programs and will report the two on a combined basis. As a result, the Systems' 2013 financial statements were restated to conform to this change. (See Note 2 to the combined financial statements).

#### Employer Information

Employers that participate in TRS include the Department of Education ("DOE"), City University of New York ("CUNY"), both Junior and Senior Colleges, and Charter Schools that elect to participate. All employers may participate in the QPP and TDA Programs.

The following schedule provides the 2014 QPP summary information of the employer groups.

	<b>Members Active</b>	<b>Contribution Employer</b>	<b>Contribution Member</b>	<b>Members Retired</b>	<b>Payments Pension</b>
DOE	106,000	\$ 2.9 billion	\$ 147 million	77,500	\$ 3.5 billion
CUNY	6,000	\$ 103 million	\$ 7 million	2,500	\$ 120 million
Charter Schools	600	\$ 6.5 million	\$ 1 million	less than 50	\$ 730,000

### FINANCIAL HIGHLIGHTS

#### QPP Fiduciary Net Position

The QPP's net position restricted for benefits is held in trust for the payment of future benefits to members and pensioners. The QPP's net position restricted for benefits was \$44.5 billion, \$36.9 billion, and \$32.8 billion, as of June 30, 2014, 2013, and 2012, respectively. The Plan's employer contributions amounted to \$3.0 billion, \$2.9 billion, and \$2.7 billion, for Fiscal Years 2014, 2013, and 2012, respectively. The QPP's benefit payments totaled \$3.8 billion, \$3.6 billion, and \$3.5 billion, for Fiscal Years 2014, 2013, and 2012, respectively.



# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## QPP Fiduciary Net Position June 30, 2014, 2013 and 2012 (In thousands)

	2014	2013 *	2012 *
Cash	\$ 74,829	\$ 12,752	\$ 7,236
Receivables for investments sold	2,907,019	1,909,897	792,459
Receivables for accrued interest and dividends	134,559	128,162	133,275
Member loan receivables	240,266	218,813	198,699
Investments, at fair value	63,327,076	54,043,878	48,531,345
Collateral from securities lending	5,401,513	5,194,111	4,390,553
Other assets	32,391	444,981	34,666
Total assets	<u>72,117,653</u>	<u>61,952,594</u>	<u>54,088,233</u>
Accounts payable	353,908	589,437	561,248
Payable for investments purchased	4,623,463	3,533,790	2,052,665
Accrued benefits payable	11,226	16,684	12,505
Investments due to TDA Program	17,236,032	15,753,693	14,288,078
Payable for securities lending	<u>5,403,085</u>	<u>5,202,534</u>	<u>4,398,976</u>
Total liabilities	<u>27,627,714</u>	<u>25,096,138</u>	<u>21,313,472</u>
Net position restricted for benefits	<u>\$ 44,489,939</u>	<u>\$ 36,856,456</u>	<u>\$ 32,774,761</u>

\*Certain amounts have been reclassified to conform to the 2014 financial statement presentation.

Cash balances amounted to \$74.8 million at June 30, 2014, an increase of \$62.1 million (486.8%) from June 30, 2013. Cash balances at June 30, 2013 amounted to \$12.8 million, an increase of \$5.5 million (76.2%) from June 30, 2012. Cash balances are typically small and consist of accounts used for advance funding of the QPP's and investment managers' accounts used to process reimbursement transfers between the System's investment programs, and bank accounts associated with the collections of loan insurance premiums and loan service charges. The \$62.1 million increase at Fiscal Year end 2014 was primarily due to a \$60.0 million increase in the amount of cash, which is to be invested by various pooled NYC Pension Fund investment managers. The large increase, though atypical, can result due to the timing of fiscal year end. The \$5.5 million increase at Fiscal Year end 2013 was also primarily due to a \$5.3 million increase in cash, which is to be invested by various pooled NYC Pension Fund investment managers. Certain reclasses were made to the 2013 and 2012 financial statements to conform to the 2014 financial statement presentation. (See notes to Financial Statements No. 2, Summary of Significant Accounting Policies, Cash and Accounts Payable reclassification.)

Receivables for investment securities sold amounted to \$2.9 billion at June 30, 2014, an increase of \$997.1 million (52.2 %) from June 30, 2013. At June 30, 2013, receivables for investment securities sold amounted to \$1.9 billion, an increase of \$1.1 billion (141.0%) from June 30, 2012. These balances are principally composed of receivables for securities that have been sold but have not yet settled (*i.e.*, the cash has not been collected). The increase resulted primarily from timing differences in settlement dates. Trades typically do not settle until a few days after the trade date.

Receivables for accrued interest and dividends amounted to \$134.6 million as of June 30, 2014, an increase of \$6.4 million (5.0%) from June 30, 2013. At June 30, 2013, receivables for accrued interest and

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dividends amounted to \$128.2 million, a decrease of \$5.1 million (-3.8%) from June 30, 2012. Changes in accrued earnings are impacted primarily by the cumulative value of the interest or dividend bearing securities, as well as by changes in discount rates, and interest-payable dates.

At June 30, 2014, member loan receivables amounted to \$240.3 million, an increase of \$21.5 million (9.8%) from the previous year. The increase primarily reflects additional new loans issued to Tiers III, IV, and VI members. There were 17,610 new loans issued to Tiers III, IV, and VI members in Fiscal Year 2014, an increase of 918 (5.5%) from Fiscal Year 2013. Also, the average loan amount in Fiscal Year 2014 was \$7,420 or \$245 (3.4%) more than in Fiscal Year 2013. At June 30, 2013, member loan receivables amounted to \$218.8 million, an increase of \$20.1 million (10.1%) from the previous year. There were 16,692 new loans issued to Tier III, IV, and VI members in Fiscal Year 2013, with an average loan amount of \$7,175, \$418 (6.2%) more than in Fiscal Year 2012.

Investments at June 30, 2014 were \$63.3 billion compared to \$54.0 billion at June 30, 2013, an increase of \$9.3 billion (17.2%) from June 30, 2013. The \$9.3 billion increase primarily reflects the QPP's \$7.6 billion increase in fair value of investments for Fiscal Year 2014. Additionally, the remaining \$1.7 billion is a result of an increase in the year over year amounts for receivables for investments sold and other assets less payables of investment purchases, as well as an increase in the TDA Program's Fixed Return Fund's assets and other payables. Investment assets as of June 30, 2014 also reflect large gains in equity markets, with equity investments being approximately 70% of the QPP's total investment portfolio and the balance primarily being fixed income investments. For the twelve month period ended June 30, 2014, the Russell 3000 Index, a broad measure of U.S. equity markets, returned 25.2 %. The Morgan Stanley Capital International Index for Europe, Australasia, and Far East ("MSCI EAFE") Small Cap Index returned 24.1 %. Conversely, for the twelve month period ended June 30, 2014, the NYC Core + 5, a composite index maintained by New York City's Office of the Comptroller and a broad measure of the U.S. fixed income markets, returned 5.5%. Investments at June 30, 2013 were \$54.0 billion compared to \$48.5 billion at June 30, 2012, an increase of \$5.5 billion (11.4%) from June 30, 2012. The \$5.5 billion increase reflects the QPP's \$4.1 billion net income for Fiscal Year 2013. Additionally, the remaining \$1.5 billion is a result of an increase in the year over year amount of receivables for investments sold and other assets less payables of investment purchases and other payables. Investment assets as of June 30, 2013 also reflect higher equity-securities values and lower fixed-income-securities values, with equity investments being approximately 70% of the Plan's total investment portfolio and the balance primarily being fixed income investments. For the twelve month period ended June 30, 2014, the Russell 3000 Index, a broad measure of U.S. equity markets, returned 21.5%. The MSCI EAFE Small Cap Index returned 18.6%. Conversely, for the twelve month period ended June 30, 2014, the NYC Core + 5, a composite index maintained by New York City's Office of the Comptroller and a broad measure of the U.S. fixed income markets, returned -1.0%. It should be noted that, as a result of the new combined presentation of QPP and TDA Program assets, the fair value of QPP investments includes TDA Program Fixed Return Fund participant contributions, which contributions are invested alongside QPP assets. Accordingly, the value of investments for June 30, 2013 and June 30, 2012, as reflected in the above table, are \$15.8 billion and \$14.3 billion more than the value reflected in prior fiscal year financial statements due to the addition of the TDA Program's Fixed Return Fund assets.

Other assets at June 30, 2014 totaled \$32.4 million, a \$412.6 million (-92.7 %) decrease from June 30, 2013. Other assets at June 30, 2013 totaled \$445.0 million, a \$410.3 million (1,183.6 %) increase from June 30, 2012. The year over year changes in other assets was primarily due to \$410.4 million June 30, 2013 employer contributions receivable. Balances due from the NYC Department of Education and the City University of New York at June 30, 2013 of \$394.4 million and \$34.8 million, respectively, were received during July 2013 and August 2013, respectively.



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Accounts payable at June 30, 2014 amounted to \$353.9 million, a \$235.5 million (-40.0 %) decrease from June 30, 2013. The QPP's practice is to fully invest its day-end cash balances in a pooled short term fund. A typical benefit payment account would show an overdrawn balance due to depositories, since funds are deposited as outstanding benefit checks that are presented to the bank for payment each day. These balances due to depositories are a main component (33.1%) of accounts payable. Other main components of accounts payable include accrued investment expenses (25.5%), reserve for expenses (28.7%), unclaimed funds (8.9%), and other payables (3.8%). The decrease in accounts payable was due to a \$220.9 million net decrease in balances due to depositories (related to the timing of funding EFT payments to retirees), a \$6.3 million decrease in accrued investment expenses, and a \$7.0 million decrease in other payables. Accounts payable at June 30, 2013 amounted to \$589.4 million, a \$28.2 million (5.0%) increase from June 30, 2012. The increase in accounts payable was due to a \$15.2 million net increase in balances due to depositories, a \$15.3 million increase in accrued investment expenses, and a \$24 million decrease in other payables.

Payables for investments purchased at June 30, 2014 amounted to \$4.6 billion, a \$1.1billion (30.8 %) increase from June 30, 2013. Payables for investments purchased at June 30, 2013 amounted to \$3.5 billion, a \$1.5 billion (72.2%) increase from June 30, 2012. Investments purchased are accounted for on a trade-date basis. The increase resulted from timing differences in settlement dates, similar to receivables for investments sold discussed earlier. Investments purchased are accounted for on a trade-date basis.

Accrued benefits payable at June 30, 2014 amounted to \$11.2 million, a \$5.5 million (-32.7 %) decrease from June 30, 2013. The \$5.5 million accrued benefits payable decrease during Fiscal Year 2013 is primarily attributed to a decrease of pending survivor benefits payable to beneficiaries at year end. Accrued benefits payable at June 30, 2013 amounted to \$16.7 million, a \$4.2 million (33.4%) increase from June 30, 2012. The \$4.2 million accrued benefits payable increase during Fiscal Year 2013 is attributed to an increase of pending survivor benefits payable to beneficiaries at year end.

Assets due to the TDA Program reflect the TDA Program's share of assets of the pooled NYC Pension Fund/Fixed Fund investments. Assets in the TDA Program's Fixed Return Fund are pooled with the QPP assets as System assets in the NYC Pension Fund for investment purposes only. The amounts owned by the TDA Program are equal to member contributions, inter-fund transfers from other TDA program's passport funds, and earnings applied in accordance with statutory interest rates (7% for members of the UFT and 8.25% for certain other participants . See note 1 for a full description of the TDA Fixed Return Fund investment program.)

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## QPP Changes in Fiduciary Net Position Years Ended June 30, 2014, 2013, and 2012 (In thousands)

	2014	2013 *	2012 *
Additions:			
Member contributions	\$ 154,962	\$ 154,698	\$ 164,361
Employer contributions	3,054,424	2,912,844	2,732,263
(Payment) of statutory-interest to TDA Program	(1,147,923)	(1,047,979)	(945,967)
Net receipts from (payments to) other retirement systems	404	(44)	853
Securities lending income	6,405	32,338	30,189
Net investment income	<u>9,429,501</u>	<u>5,688,774</u>	<u>772,818</u>
Total	<u>11,497,773</u>	<u>7,740,631</u>	<u>2,754,517</u>
Deductions:			
Administrative expenses	46,042	39,682	39,713
Benefits payments	<u>3,818,248</u>	<u>3,619,254</u>	<u>3,541,580</u>
Total deductions	<u>3,864,290</u>	<u>3,658,936</u>	<u>3,581,293</u>
Net increase (decrease) in net position	<u>\$ 7,633,483</u>	<u>\$ 4,081,695</u>	<u>\$ (826,776)</u>
Net position restricted for benefits			
Beginning of year	<u>36,856,456</u>	<u>32,774,761</u>	<u>33,601,537</u>
End of year	<u>\$ 44,489,939</u>	<u>\$ 36,856,456</u>	<u>\$ 32,774,761</u>

\*Certain amounts have been reclassified to conform to the 2014 financial statement presentation.

TRS received \$155.0 million and \$154.7 million in member contributions during Fiscal Years 2014 and 2013, respectively. The \$155.0 million in Fiscal Year 2014 member contributions represents a \$264.0 thousand (0.2 %) increase from Fiscal Year 2013. The \$154.7 million in Fiscal Year 2013 member contributions represents a \$9.7 million (-5.9%) decrease from Fiscal Year 2012. The \$9.7 million decrease in member contributions is primarily attributed to a \$4.1 million decrease (-2.9%) in contributions received through members' payroll deductions, as Tier I/II members retired and as Tier III/IV members reached their contributions requirements (Chapter 126 of Laws of 2000), a \$5.2 million increase (458.5%) in returned prior payroll deductions which were in excess of members' contribution requirements, and a decrease of \$0.9 million (-4.2%) in service buyback purchases.

Employer contributions during Fiscal Year 2014 were \$3.1 billion, a \$141.6 million (4.9 %) increase from Fiscal Year 2013. Employer contributions during Fiscal Year 2013 were \$2.9 billion, a \$180.6 million (6.6%) increase from Fiscal Year 2012. June 30, 2012 (Lag) and June 30, 2011 (Lag) actuarial valuations were used to determine Fiscal Year 2014 and 2013 employer contributions.

The QPP's net investment income for Fiscal Year 2014 was \$9.4 billion, a \$3.7 billion (64.9%) increase from Fiscal Year 2013. The QPP's net investment income of \$9.4 billion consisted of \$1.6 billion in dividend and interest income plus an aggregate gain of \$8.0 billion on the appreciation in fair value of the QPP's investments offset by \$162.2 million in investment expenses. Gains on the appreciation in fair value of the QPP's investments for the QPP portion of the pooled NYC Pension Fund, the QPP portion of the variable Diversified Equity Fund, the QPP portion of the Bond Fund, the QPP portion of the International Equity Fund, the QPP portion of the Inflation Protection Fund, and the QPP portion of the Socially Responsive Equity Fund totaled \$7.4 billion, \$629.2 million, \$286.9 thousand, \$2.3 million,



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\$330.4 thousand and \$1.3 million, respectively. The QPP net investment income for Fiscal Year 2013 was \$5.7 billion, a \$4.9 billion (636.1%) increase from Fiscal Year 2012. The QPP's net investment income of \$5.7 billion consisted of \$1.5 billion in dividend and interest income and an aggregate gain of \$4.4 billion on the appreciation in fair value of the QPP investments offset by \$139 million in investment expenses. Gains on the appreciation in fair value of the QPP investments for the QPP portion of the pooled NYC Pension Fund, the QPP portion of the Diversified Equity Fund, the QPP portion of the International Equity Fund, and the QPP portion of the Socially Responsive Equity Fund totaled \$3.9 billion, \$496.1 million, \$1.8 million and \$1.3 million respectively, whereas the QPP portion of the Bond Fund and the QPP portion of the Inflation Protection Fund had losses on the depreciation in fair value of investments of \$878.3 thousand and 82.6 thousand, respectively.

The QPP's net investment income also increased due to investment returns attributable to the TDA Program's pooled NYC Pension Fund assets. For Fiscal Years 2014 and 2013, the TDA Fixed Return Fund program resulted in approximately \$1.5 billion and \$562.5 million, respectively, of additional assets accruing to the QPP's Contingent Reserve Fund of Employer's Contributions, as a result of the TDA Program's investment returns exceeding the Statutory Rates. Conversely, for Fiscal Year 2012 the TDA Fixed Return Fund program resulted in approximately \$714.3 million less assets accruing to the QPP's Contingent Reserve Fund of Employer's Contributions, as a result of TDA Program's investment returns being below the Statutory Rates.

Payments of statutory-interest due to the TDA from its investment in the pooled NYC Pension Fund Assets (Fixed Return Fund) during Fiscal Year 2014 were \$1.1 billion, an increase of \$99.9 million from Fiscal Year 2013. Payments of statutory interest due to the TDA from its investment in pooled NYC Pension Fund Assets (Fixed Return Fund) during Fiscal Year 2013 were \$1.0 billion, an increase of \$102.0 million from Fiscal Year 2012. As noted below under Benefits Payments, these amounts were included in prior fiscal year financial statements as a component of QPP Benefits Payments.

Administrative expenses during Fiscal Year 2014 were \$46.0 million, an increase of \$6.4 million (16.0 %) from Fiscal Year 2013. The increase in administrative expenses reflects an increase in the System's administrative expenses attributed to the QPP. (See Note 7) The QPP's total administrative expenses for Fiscal Year 2014 accounted for 75.7 % of the System's administrative expenditures. The balance of \$14.7 million (24.3%) includes \$17.2 million expensed to the TDA Program and also includes a \$2.5 million credit to loan service charge reserves. The \$2.5 million credit includes \$4.7 million rebalancing of Fiscal Years 2012 and 2013 due to inadequate reserves of loan service charge revenues during those years, offset by \$2.2 million administrative expenses (\$1.6 million Fiscal Year 2014 and \$0.6 million Fiscal Year 2015) to be covered by service charge revenues. The System's administrative expenditures have been \$60.1, \$52.3 million, and \$52.5 million, for Fiscal Years 2014, 2013, and 2012, respectively. The System's administrative expenses for the several upcoming fiscal years are also expected to be higher than previous fiscal years as the System has begun to modernize its pension database. The System will replace its outdated IBM A/S 400 computer system with a MS.net-based system with additional capabilities. Sagitec, an outside vendor and a provider of Pension Database Systems, is assisting with this multi-year project. Administrative expenses during Fiscal Year 2013 were \$39.7 million, a decrease of \$31 thousand (-0.1%) from Fiscal Year 2012. The decrease in administrative expenses reflects a decrease in the System's administrative expenses attributed to the QPP. The QPP's administrative expenses for Fiscal Year 2013 accounted for 75.8% of the System's administrative expenses.

Benefits payments during Fiscal Year 2014 were \$3.8 billion, a \$199.0 million (5.5 %) increase from Fiscal Year 2013. The \$199.0 million increase in benefits payments and withdrawals was primarily due to a \$187.6 million (5.3 %) increase in payments to retirees. In total, benefits payments and withdrawals distributed during Fiscal Year 2014 were composed of 97.6 % retirement benefits and 2.4 % in refund/withdrawals and survivor benefits. Also, benefits payments and withdrawals account for the funds



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disbursed to members from the System's Passport Funds. Fiscal Year 2014 disbursements are composed of 85.1 % from the Pension Fund, 14.4 % from the Diversified Equity Fund, 0.4% from the Bond Fund and 0.1 % from the International Equity, Inflation Protection, and Socially Responsive Equity Funds. Benefits payments and withdrawals during Fiscal Year 2013 were \$3.6 billion, a \$77.7 million (2.2%) increase from Fiscal Year 2012. The \$77.7 million increase in benefits payments and withdrawals was primarily due to a \$103.4 million (3.0%) increase in payments to retirees, and a \$25.7 million (-24.5%) decrease in refund/withdrawals and survivor benefits. In total, benefits payments and withdrawals distributed during Fiscal Year 2013 were composed of 97.8% retirement benefits and 2.2% in refund/withdrawals and survivor benefits. Also, benefits payments and withdrawals account for the funds disbursed to members from the Plan's Passport Funds. Fiscal Year 2013 disbursements are composed of 86.0% from the Pension Fund, 13.4% from the Diversified Equity Fund, 0.5% from the Bond Fund, and 0.1% from the International Equity, Inflation Protection, and Socially Responsive Equity Funds. It should be noted that, as a result of the new combined presentation of QPP and TDA assets and a change of accounting policy for recording the transfer of statutory-interest due to the TDA from the pooled QPP/TDA investments, statutory-interest transferred from the QPP to the TDA Program appears as a separate line item and is no longer part of QPP benefits payments and withdrawals. Accordingly, the amount of benefit payments for June 30, 2013 and June 30, 2012, as reflected in the above table, are \$1.0 billion and \$946.0 million less than the value reflected in prior fiscal year financial statements due the reclassification of TDA statutory interest payments.

**TDA Program Financial Highlights** — The TDA Program's net position restricted for benefits was \$25.9 billion, \$23.3 billion, and \$20.9 billion, as of June 30, 2014, 2013, and 2012, respectively. Member contributions amounted to \$639.0 million, \$633.9 million, and \$627.2 million for Fiscal Years 2014, 2013, and 2012, respectively. Benefit payments and withdrawals totaled \$757.3 million, \$600.9 million, and \$564.1 million, for Fiscal Years 2014, 2013, and 2012, respectively. Below is a summary of the TDA program's net position and changes in net position.

### **TDA Program's Fiduciary Net Position**

**June 30, 2014, 2013 and 2012**

(in Thousands)	2014	2013 *	2012 *
Cash	\$ 2,520	\$ 1,063	\$ 2,427
Receivables for investments sold	86,689	116,547	33,305
Receivables for accrued interest and dividends	11,411	10,544	10,005
Member loan receivables	348,935	335,562	320,412
Investments, at fair value	8,471,925	7,360,323	6,521,023
Investment in pooled NYC Pension Fund	17,236,032	15,753,693	14,288,078
Collateral from securities lending	338,062	2,825	57,317
Other assets	2,390	1,133	2,477
Total assets	<u>26,497,964</u>	<u>23,581,690</u>	<u>21,235,044</u>
Accounts payable	137,352	121,882	123,137
Payable for investment securities purchased	87,612	124,508	39,366
Accrued benefits payable	61,449	102,799	73,127
Payable for securities lending transactions	338,062	2,825	57,317
Total liabilities	<u>624,475</u>	<u>352,014</u>	<u>292,947</u>
Net position held in trust for benefits	<u>\$25,873,489</u>	<u>\$ 23,229,676</u>	<u>\$20,942,097</u>

\*Certain amounts have been reclassified to conform to the 2014 financial statement presentation.



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Cash balances amounted to \$2.5 million at June 30, 2014, an increase of \$1.5 million (137.1%) from June 30, 2013. Cash balances consist of accounts used to reimburse the funds of the Variable-Annuity Program or accounts used for advance funding of the variable-return funds' investment managers. Like the QPP, in 2014 accounts associated with the funding of variable-return funds' investment managers and accounts associated with the collections of loan insurance premiums and loan service charges were reclassified as cash balances. (Specifically for Fiscal Year 2013 and 2012 \$843.8 thousand and \$2.1 million associated with loan insurance premiums and loan service charges, previously classified as other assets, were reclassified as cash balances. Also, \$112.7 thousand for advance funding of the variable-return funds' investment managers as of June 30, 2013, previously classified as part of accounts payable, was reclassified as cash balances. Advance funding as of June 30, Fiscal Year 2012 had a net negative balance of \$99,100 and remains in the above table as part of accounts payable.) Cash balances amounted to \$1.1 million at June 30, 2013, a decrease of \$1.4 million (-56.2%) from June 30, 2012.

Receivables for investment securities sold at June 30, 2014 amounted to \$86.7 million, a decrease of \$29.9 million (-25.6%) from June 30, 2013. Receivables for investment securities sold at June 30, 2013 amounted to \$116.5 million, an increase of \$83.2 million (249.9%) from June 30, 2012. These balances are principally composed of receivables for securities that have been sold but have not yet settled (*i.e.*, the cash has not been collected). The year-over-year changes resulted from timing differences in trading and settlement dates. Trades typically do not settle until a few days after the trade date.

Receivables for accrued earnings at June 30, 2014 were \$11.4 million, an increase of \$867 thousand (8.2%) from June 30, 2013. Receivables for accrued earnings at June 30, 2013 were \$10.5 million, an increase of \$539 million (5.4%) from June 30, 2012. Changes in accrued earnings are impacted by the cumulative value of the interest or dividend bearing securities, discount rates, and interest payable dates.

Member loan receivables at June 30, 2014 amounted to \$348.9 million, an increase of \$13.4 million (4.0%) from June 30, 2013. For Fiscal Year 2014, loan disbursements amounted to \$180.1 million and principal and interest payments amounted to \$172.3 million. Member loan receivables at June 30, 2013 amounted to \$335.6 million, an increase of \$15.2 million (4.7%) from June 30, 2012. For Fiscal Year 2013, loan disbursements amounted to \$168.5 million and principal and interest payments amounted to \$164.0 million.

The variable-return funds' investments at June 30, 2014, including collateral received for securities lending, were \$8.8 billion, an increase of \$1.4 billion (19.7%) from June 30, 2013. Investments at June 30, 2013, including collateral received for securities lending, were \$7.4 billion, an increase of \$784.8 million (11.9%) from June 30, 2012.

Investments in pooled NYC Pension Fund Assets at June 30, 2014 were \$17.2 billion, an increase of \$1.5 billion (9.4%) from June 30, 2013. In addition to the 7% statutory return, for Fiscal Year 2014, contributions, withdrawals and investment transfers to (from) the Fixed Return Fund totaled \$467.2 million, -\$568.7 million and \$360.1 million, respectively. Investments in pooled NYC Pension Fund Assets at June 30, 2013 were \$15.8 billion, an increase of \$1.5 billion (10.3%) from June 30, 2012. In addition to the 7% statutory return, for Fiscal Year 2013, contributions, withdrawals and investment transfers to (from) the Fixed Return Fund totaled \$434.1 million, -\$414.3 million and \$395.8 million, respectively.

Other assets at June 30, 2014 were \$2.4 million, an increase of \$1.3 million (110.9%) over June 30, 2013. Other assets at June 30, 2013 were \$1.1 million, a decrease of \$1.3 million (-54.3%) over June 30, 2012. Other assets primarily represent assets reserved for future administrative expenses.

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Accounts payable at June 30, 2014 amounted to \$137.4 million, compared to \$121.9 million at June 30, 2013, an increase of 12.7%. The TDA Program's accounts payable balance primarily represents a reserve fund to pay the TDA Program's future investment and administrative expenses. Accounts payable at June 30, 2013 amounted to \$121.9 million, compared to \$123.1 million at June 30, 2012, a decrease of 1.0%.

Payables for investment securities purchased at June 30, 2014 amounted to \$87.6 million, a decrease of \$36.9 million (-29.6%) from June 30, 2013. Investments purchased are accounted for on a trade-date basis. The changes resulted from timing differences in settlement dates, similar to receivables for investments sold discussed earlier. Payables for investment securities purchased at June 30, 2013 amounted to \$124.5 million, an increase of \$85.1 million (216.3%) from June 30, 2012.

Accrued benefits payable at June 30, 2014 amounted to \$61.4 million, a decrease of \$41.4 million (-40.2%) from June 30, 2013. Accrued benefits payable at June 30, 2013 amounted to \$102.8 million, an increase of \$29.7 million (40.6%) from June 30, 2012. The changes in accrued benefits payables are attributed to changes in TDA withdrawal amounts processed in July and August (an estimate is used for August) after year end.

### Changes in TDA Program's Fiduciary Net Position Years Ended June 30, 2014, 2013, and 2012

	2014	2013 *	2012 *
Additions:			
Member contributions	\$ 638,979	\$ 633,900	\$ 627,159
Receipt of statutory-interest for portion of investment in pooled NYC Pension Fund	1,147,923	1,047,979	945,967
Net investment income	1,629,701	1,216,244	108,003
Net securities lending income	1,710	549	1,648
Total	<u>3,418,313</u>	<u>2,898,672</u>	<u>1,682,777</u>
Deductions:			
Administrative expenses	17,188	10,195	10,352
Benefits payments and withdrawals	<u>757,312</u>	<u>600,898</u>	<u>564,121</u>
Total deductions	<u>774,500</u>	<u>611,093</u>	<u>574,473</u>
Net increase (decrease)	\$ 2,643,813	\$ 2,287,579	\$ 1,108,304
Net position restricted for benefits			
Beginning of year	<u>23,229,676</u>	<u>20,942,097</u>	<u>19,833,793</u>
End of year	<u>\$25,873,489</u>	<u>\$ 23,229,676</u>	<u>\$ 20,942,097</u>

\*Certain amounts have been reclassified to conform to the 2014 financial statement presentation.

TRS received \$639.0 million in member contributions during Fiscal Year 2014, an increase of \$5.1 million (0.8%) from Fiscal Year 2013. TRS received \$633.9 million in member contributions during Fiscal Year 2013, an increase of \$6.7 million (1.1%) from Fiscal Year 2012.

Receipts of statutory interest for the TDA Program's Fixed Return Fund portion in investments in the pooled NYC Pension Fund assets for Fiscal Year 2014 was \$1.1 billion, an increase of \$99.9 million



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(9.5%) from Fiscal Year 2013. Receipts of statutory interest for the TDA Program's portion of investment in the pooled NYC Pension Fund Assets for Fiscal Year 2013 was \$1.0 billion, an increase of \$102,000 (10.8%) from Fiscal Year 2012. Annual amounts of receipts of statutory-interest to the Fixed Return Fund exceed the 7% rate when contributions and net investment transfers exceed withdrawals; see above "Investments in the pooled NYC Pension Fund".

Net investment income for the TDA Program's variable-return funds for Fiscal Year 2014 increased \$413 million (34.0%) from Fiscal Year 2013. Net investment income primarily reflects the appreciation in fair value of the TDA Program's variable-return fund investments, including both realized and unrealized gains. Net investment income for Fiscal Year 2013 increased \$1.1 billion (921.5%) from Fiscal Year 2012.

Administrative expenses for the Fiscal Year ended June 30, 2014 totaled \$17.2 million, an increase of \$7.0 million (68.6%) from Fiscal Year 2013. Administrative expenses for the Fiscal Year ended June 30, 2013 totaled \$10.2 million, a decrease of \$157 thousand (-1.5%) from Fiscal Year 2012. The TDA Program accounted for a portion of the System's total administrative expenses as was mentioned in the note above regarding QPP administrative expenses. The increase in Fiscal Year 2014 reflects an increase in the System's administrative expenses attributed to the TDA Program both for the current fiscal year; as well as, reallocation of Fiscal Year 2012 and 2013 expenses similar to the QPP.

Benefit payments and withdrawals for the Fiscal Year ended June 30, 2014 totaled \$757.3 million, an increase of \$156.4 million (26.0%) from Fiscal Year 2013. Benefit payments and withdrawals consist primarily of total and partial withdrawals. Benefit payments and withdrawals for the Fiscal Year ended June 30, 2013 totaled \$600.9 million, an increase of \$36.8 million (6.5%) from Fiscal Year 2011.

### Cash Flow

Monthly contributions, loan repayments, and interest and dividends earned on investments less benefit payments, new loans, and investment and administrative expenses account for the System's non-investment cash flow. The table below provides a three year summary.

Cash Flow Review	June 30, 2014	June 30, 2014	June 30, 2013	June 30, 2013	June 30, 2012	June 30, 2012
	QPP	TDA	QPP	TDA	QPP	TDA
Contributions	\$ 3,209,386	\$ 638,979	\$ 3,067,542	\$ 633,900	\$ 2,896,624	\$ 627,159
Contributions- Loan adj.	-	(31)	-	(50)	(92)	-
Loan repayments	109,414	171,349	101,133	163,092	95,233	154,482
401(a) receipts/(payments)	404	-	(44)	-	853	-
Interest income	709,594	33,367	660,118	48,715	561,666	64,528
Interest income- Loan adj.	(16,510)	(24,278)	(14,905)	(23,249)	(13,804)	(22,725)
Dividend income	854,701	116,160	811,982	131,153	706,921	109,942
Investment expenses	(162,208)	(7,528)	(139,154)	(12,248)	(110,382)	(12,266)
Benefits/withdrawals	(3,818,248)	(757,312)	(3,619,254)	(600,898)	(3,541,580)	(564,121)
Withdrawals- Loan adj.	7,193	19,700	8,899	13,560	12,775	18,944
New loans	(138,587)	(179,612)	(129,522)	(168,021)	(126,376)	(166,899)
Administrative expenses	(46,042)	(17,188)	(39,682)	(10,195)	(39,713)	(10,352)
	<u>\$ 709,097</u>	<u>\$ (6,394)</u>	<u>\$ 707,113</u>	<u>\$ 175,759</u>	<u>\$ 442,125</u>	<u>\$ 198,692</u>

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## Investments

TRS investment funds include both QPP & TDA Program assets. The table below details the QPP & TDA Program's portions of the funds.

### TRS Investment Funds by Plan Percentage

	June 30, 2014 QPP	June 30, 2014 TDA	June 30, 2013 QPP	June 30, 2013 TDA	June 30, 2012 QPP	June 30, 2012 TDA
Pooled NYC Pension Fund	71.2%	28.8%	68.9%	31.1%	68.4%	31.6%
Variable-Return Funds:						
Diversified equity*	28.2%	67.9%	30.6%	65.7%	32.9%	63.6%
Bond	14.7%	85.3%	18.1%	81.9%	22.1%	77.9%
International equity	12.1%	87.9%	14.7%	85.3%	18.1%	81.9%
Inflation protection	13.8%	86.2%	17.4%	82.6%	21.1%	78.9%
Socially responsive	9.7%	90.3%	13.1%	86.9%	16.8%	83.2%

\* Remaining portion is held by Board of Education Retirement System.

To rate investment performance, both the pooled NYC Pension Fund Assets and variable-return fund investments are monitored with extensive benchmarks.

In addition to other indices, the "policy index" is used to monitor the complete NYC Pension Fund. As of June 30, 2014, the policy index includes the following:

### NYC Pension Fund Policy Index as of June 30, 2014:

<u>Investment Type</u>	<u>Benchmark</u>	<u>Percent</u>
U.S. Equity	Russell 3000	34.97%
International Developed (EAFE) Markets	MSCI EAFE	9.00%
Emerging Markets	MSCI Emerging Markets	8.75%
REITs	Dow Jones Real Estate Securities	3.00%
Private Equity	Russell 3000 + 300 b.p per annum	4.47%
Private Real Estate	NFI - ODCE Net + 100BPS	2.33%
Domestic Fixed Income	NYC Core = 5	19.84%
TIPS	Lehman U.S. TIPS	4.00%
Enhanced Yield	Citigroup BB&B	5.30%
Bank Loans	Credit Suisse Leveraged Loan	2.57%
Convertible Bonds	BofAML All Convertibles Ex Mandatory	3.00%
Opportunistic Fixed	10% Annualized Return	2.03%
Cash	BofA ML 91 Day T-Bill	0.75%
		<u>100.00%</u>

Variable return funds are monitored using the Russell 3000, Standard & Poor's 500, MSCI EAFE, Barclays 1-5 Year Government/Credit, Barclays Capital US TIPS 1-10 Year Index, and CPI (SA) + 5% indices, as well as numerous other indices.

TRS earns additional investment income by lending its investment securities. The borrowers provide collateral to TRS that is valued in excess of the securities loaned and the collateral is invested in short-term interest-bearing funds. For the Fiscal Year ended June 30, 2014, net securities lending income amounted to \$6.4 million compared with \$32.3 million for Fiscal Year 2013. For the Fiscal Year ended June 30, 2013, net securities lending income amounted to \$32.3 million compared with \$30.2 million for Fiscal Year 2012. Fiscal Year 2014 Security Lending initial income of \$21.1 million was reduced by \$21.6 million in security lending investment losses and increased by \$6.9 million in security lending

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

recovered losses. (See Note 2) Investments held by TRS, including collateral from securities-lending transactions, are listed according to their investment classification in the following table:

<b>Investment Summary (in thousands)</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Short-term investments	\$ 2,744,926	\$ 1,561,360	\$ 2,144,939
Debt securities	12,963,886	11,829,882	12,189,875
Equity securities	47,368,373	40,870,391	35,233,611
Private equity	5,353,828	4,372,185	3,678,229
Fixed income	3,367,988	2,760,449	1,787,270
Promissory notes	-	9,934	18,444
Collateral from securities lending	<u>5,739,575</u>	<u>5,196,936</u>	<u>4,447,870</u>
Total	<u>\$ 77,538,576</u>	<u>\$ 66,601,137</u>	<u>\$ 59,500,238</u>

### CONTACT INFORMATION

This financial report is designed to provide a general overview of the Teachers' Retirement System's finances. Questions concerning any data provided in this report or requests for additional information should be directed to Mr. Paul J. Raucci, Chief Accountant, Teachers' Retirement System of The City of New York, 55 Water Street, New York, NY 10041.

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# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## NEW YORK CITY TEACHERS' RETIREMENT SYSTEM

### COMBINED STATEMENT OF FIDUCIARY NET POSITION

June 30, 2014

(In thousands)

	2014 QPP	2014 TDA	2014 ELIM	2014 Total
<b>ASSETS:</b>				
Cash	\$ 74,829	\$ 2,520	\$ -	\$ 77,349
Receivables:				
Investment securities sold	2,907,019	86,689	-	2,993,708
Accrued interest and dividends	134,559	11,411	-	145,970
Member loans (Note 6)	240,266	348,935	-	589,201
Total receivables	3,281,844	447,035	-	3,728,879
Investments — at fair value (Notes 2 and 3):				
Fixed Funds (Pooled NYC Pension Fund Assets):				
Short term investments:				
U.S. treasury bills & agencies	1,147,563	-	-	1,147,563
Commercial paper	563,976	-	-	563,976
Short-term investment fund	892,289	-	-	892,289
Discount notes	-	-	-	-
Debt securities:				
U.S. Government	4,829,426	-	-	4,829,426
Corporate & Other	7,543,799	-	-	7,543,799
Promissory notes	-	-	-	-
Equity securities	24,690,600	-	-	24,690,600
Alternative Investments	5,353,828	-	-	5,353,828
Collective Trust Funds:				
International equity	11,492,097	-	-	11,492,097
Mortgage debt security	351,908	-	-	351,908
Treasury inflation protected securities	1,599,809	-	-	1,599,809
Fixed income	1,416,271	-	-	1,416,271
Collateral from securities lending (Fixed Funds)	5,262,907	-	-	5,262,907
Diversified Equity Fund:				
Short term investments	37,417	90,053	-	127,470
Equity securities	3,257,181	7,702,256	-	10,959,437
Corporate bonds	72,911	175,478	-	248,389
Bond Fund:				
Short term investments	1,011	5,875	-	6,886
Corporate bonds	50,232	292,040	-	342,272
International Equity Fund:				
Short term investments	139	1,016	-	1,155
International equity	12,639	92,116	-	104,755
Inflation Protection Fund:				
Short term investments	11	67	-	78
Equity securities	5,723	35,828	-	41,551
Socially Responsive Equity Fund:				
Short term investments	532	4,977	-	5,509
Equity securities	7,413	69,404	-	76,817
International equity	301	2,815	-	3,116
Collateral from securities lending (Variable-Return Funds)	138,606	338,062	-	476,668
Total investments	68,728,589	8,809,987	-	77,538,576
TDA Investment in Pooled NYC Pension Fund	-	17,236,032	(17,236,032)	-
Other assets	32,391	2,390	(21,880)	12,901
Total assets	72,117,653	26,497,964	(17,257,912)	81,357,705
<b>LIABILITIES:</b>				
Accounts payable	353,908	137,352	(21,880)	469,380
Payable for investment securities purchased	4,623,463	87,612	-	4,711,075
Accrued benefits payable	11,226	61,449	-	72,675
Due to TDA Program's Fixed Return Fund	17,236,032	-	(17,236,032)	-
Securities lending (Note 2)	5,403,085	338,062	-	5,741,147
Total liabilities	27,627,714	624,475	(17,257,912)	10,994,277
<b>NET POSITION RESTRICTED FOR BENEFITS</b>				
Benefits to be provided by QPP	44,489,939	-	-	44,489,939
Benefits to be provided by TDA Program	-	25,873,489	-	25,873,489
Total net position restricted for benefits	\$ 44,489,939	\$ 25,873,489	\$ -	\$ 70,363,428

See notes to combined financial statements.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## NEW YORK CITY TEACHERS' RETIREMENT SYSTEM

### COMBINED STATEMENT OF FIDUCIARY NET POSITION

June 30, 2013

(In thousands)

	2013 QPP	2013 TDA	2013 ELIM	2013 Total
<b>ASSETS:</b>				
Cash	\$ 12,752	\$ 1,063	\$ -	\$ 13,815
Receivables:				
Investment securities sold	1,909,897	116,547	-	2,026,444
Accrued interest and dividends	128,162	10,544	-	138,706
Member loans (Note 6)	218,813	335,562	-	554,375
Total receivables	2,256,872	462,653	-	2,719,525
Investments — at fair value (Notes 2 and 3):				
Fixed Funds (Pooled NYC Pension Fund Assets):				
Short term investments:				
U.S. treasury bills & agencies	252,454	-	-	252,454
Commercial paper	297,511	-	-	297,511
Short-term investment fund	845,440	-	-	845,440
Discount notes	67,529	-	-	67,529
Debt securities:				
U.S. Government	5,168,574	-	-	5,168,574
Corporate & Other	5,870,664	-	-	5,870,664
Promissory notes	9,934	-	-	9,934
Equity securities	21,380,182	-	-	21,380,182
Alternative Investments	4,372,185	-	-	4,372,185
Collective Trust Funds:				
International equity	9,658,830	-	-	9,658,830
Mortgage debt security	260,709	-	-	260,709
Treasury inflation protected securities	1,356,046	-	-	1,356,046
Fixed income	1,143,694	-	-	1,143,694
Collateral from securities lending (Fixed Funds)	5,192,822	-	-	5,192,822
Diversified Equity Fund:				
Short term investments	30,565	65,737	-	96,302
Equity securities	3,104,060	6,564,501	-	9,668,561
Corporate bonds	134,980	290,305	-	425,285
Bond Fund:				
Short term investments	25	115	-	140
Corporate bonds	66,118	299,241	-	365,359
International Equity Fund:				
Short term investments	258	1,502	-	1,760
International equity	11,895	69,128	-	81,023
Inflation Protection Fund:				
Short term investments	16	74	-	90
Equity securities	5,923	28,056	-	33,979
Socially Responsive Equity Fund:				
Short term investments	18	116	-	134
Equity securities	6,268	41,548	-	47,816
International equity	-	-	-	-
Collateral from securities lending (Variable-Return Funds)	1,289	2,825	-	4,114
Total investments	59,237,989	7,363,148	-	66,601,137
TDA Investment in Pooled NYC Pension Fund	-	15,753,693	(15,753,693)	-
Other assets	444,981	1,133	(7,629)	438,485
Total assets	61,952,594	23,581,690	(15,761,322)	69,772,962
<b>LIABILITIES:</b>				
Accounts payable	589,437	121,882	(7,629)	703,690
Payable for investment securities purchased	3,533,790	124,508	-	3,658,298
Accrued benefits payable	16,684	102,799	-	119,483
Due to TDA Program's Fixed Return Fund	15,753,693	-	(15,753,693)	-
Securities lending (Note 2)	5,202,534	2,825	-	5,205,359
Total liabilities	25,096,138	352,014	(15,761,322)	9,686,830
<b>NET POSITION RESTRICTED FOR BENEFITS</b>				
Benefits to be provided by QPP	36,856,456	-	-	36,856,456
Benefits to be provided by TDA Program	-	23,229,676	-	23,229,676
Total net position restricted for benefits	\$ 36,856,456	\$ 23,229,676	\$ -	\$ 60,086,132

See notes to combined financial statements.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## NEW YORK CITY TEACHERS' RETIREMENT SYSTEM

### COMBINED STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED JUNE 30, 2014

(In thousands)	2014	2014	2014
	QPP	TDA	Total
ADDITIONS:			
Contributions:			
Member contributions (Note 4)	\$ 154,962	\$ 638,979	\$ 793,941
Employer contributions	2,998,694	-	2,998,694
Other employee contributions	55,730	-	55,730
Total contributions	<u>3,209,386</u>	<u>638,979</u>	<u>3,848,365</u>
Investment income (Note 2):			
Interest income	709,594	33,367	742,961
Dividend income	854,701	116,160	970,861
Net appreciation in fair value of investments	<u>8,027,414</u>	<u>1,487,702</u>	<u>9,515,116</u>
Total investment income	<u>9,591,709</u>	<u>1,637,229</u>	<u>11,228,938</u>
Less:			
Investment expenses	<u>162,208</u>	<u>7,528</u>	<u>169,736</u>
Net investment income	<u>9,429,501</u>	<u>1,629,701</u>	<u>11,059,202</u>
Securities lending transactions:			
Securities lending income	7,699	1,895	9,594
Less - securities lending fees	<u>(1,294)</u>	<u>(185)</u>	<u>(1,479)</u>
Net securities lending income	<u>6,405</u>	<u>1,710</u>	<u>8,115</u>
Other:			
Interest (to) from TDA Program's Fixed Return Fund	(1,147,923)	1,147,923	-
Net receipts (to) from other retirement systems	<u>404</u>	<u>-</u>	<u>404</u>
Total additions	<u>11,497,773</u>	<u>3,418,313</u>	<u>14,916,086</u>
DEDUCTIONS:			
Benefit payments and withdrawals	3,818,248	757,312	4,575,560
Administrative expenses (Note 8)	<u>46,042</u>	<u>17,188</u>	<u>63,230</u>
Total deductions	<u>3,864,290</u>	<u>774,500</u>	<u>4,638,790</u>
NET INCREASE IN NET POSITION	7,633,483	2,643,813	10,277,296
NET POSITION RESTRICTED FOR BENEFITS:			
Beginning of year	<u>36,856,456</u>	<u>23,229,676</u>	<u>60,086,132</u>
End of year	<u>\$ 44,489,939</u>	<u>\$ 25,873,489</u>	<u>\$ 70,363,428</u>

See notes to combined financial statements.



# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## NEW YORK CITY TEACHERS' RETIREMENT SYSTEM

### COMBINED STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED JUNE 30, 2013

(In thousands)

	2013 QPP	2013 TDA	2013 Total
ADDITIONS:			
Contributions:			
Member contributions (Note 4)	\$ 154,698	\$ 633,900	\$ 788,598
Employer contributions	2,855,640	-	2,855,640
Other employee contributions	57,204	-	57,204
Total contributions	<u>3,067,542</u>	<u>633,900</u>	<u>3,701,442</u>
Investment income (Note 2):			
Interest income	660,118	48,715	708,833
Dividend income	811,982	131,153	943,135
Net appreciation in fair value of investments	<u>4,355,828</u>	<u>1,048,624</u>	<u>5,404,452</u>
Total investment income	<u>5,827,928</u>	<u>1,228,492</u>	<u>7,056,420</u>
Less:			
Investment expenses	<u>139,154</u>	<u>12,248</u>	<u>151,402</u>
Net investment income	<u>5,688,774</u>	<u>1,216,244</u>	<u>6,905,018</u>
Securities lending transactions:			
Securities lending income	37,705	651	38,356
Less - securities lending fees	<u>(5,367)</u>	<u>(102)</u>	<u>(5,469)</u>
Net securities lending income	<u>32,338</u>	<u>549</u>	<u>32,887</u>
Other:			
Interest (to) from TDA Program's Fixed Return Fund	(1,047,979)	1,047,979	-
Net receipts (to) from other retirement systems	<u>(44)</u>	<u>-</u>	<u>(44)</u>
Total additions	<u>7,740,631</u>	<u>2,898,672</u>	<u>10,639,303</u>
DEDUCTIONS:			
Benefit payments and withdrawals	3,619,254	600,898	4,220,152
Administrative expenses (Note 8)	<u>39,682</u>	<u>10,195</u>	<u>49,877</u>
Total deductions	<u>3,658,936</u>	<u>611,093</u>	<u>4,270,029</u>
NET INCREASE IN NET POSITION	4,081,695	2,287,579	6,369,274
NET POSITION RESTRICTED FOR BENEFITS:			
Beginning of year	<u>32,774,761</u>	<u>20,942,097</u>	<u>53,716,858</u>
End of year	<u>\$ 36,856,456</u>	<u>\$ 23,229,676</u>	<u>\$ 60,086,132</u>

See notes to combined financial statements.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

### NOTES TO COMBINED FINANCIAL STATEMENTS YEARS ENDED JUNE 30, 2014 AND 2013

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#### 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") and City laws). The City's five major actuarially-funded pension systems are the Teachers' Retirement System of The City of New York ("TRS" or the "System"), the New York City Employees' Retirement System ("NYCERS"), the New York City Board of Education Retirement System ("BERS"), the New York City Police Pension Fund ("POLICE"), and the New York Fire Department Pension Fund ("FIRE"). Each pension system is a separate Public Employee Retirement System ("PERS") with a separate oversight body and is financially independent of the others.

TRS administers the TRS Qualified Pension Plan (the "QPP") and the TRS Tax-Deferred Annuity Program (the "TDA Program").

The QPP is a cost-sharing, multiple-employer pension plan. The QPP provides pension benefits for certain City public school teachers and certain other school and college teachers. The primary employers, in addition to The City, are The City University of New York ("CUNY") and twelve Charter Schools (collectively, the "Employers"). Substantially all teachers in the public schools of The City become members of the QPP and certain other specified school and college personnel may become members on the first day of permanent employment.

The QPP functions in accordance with State and City laws, which establish benefit terms and Employer and member contribution requirements for the QPP. The QPP is a tax-qualified retirement plan under 401(a) of the Internal Revenue Code ("IRC") that has received a favorable determination letter from the Internal Revenue Service ("IRS"). 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. Contributions are made by the Employers and the members.

The TDA Program was established and is administered pursuant to IRC Section 403(b) and NYC Administrative Code section 13-582 and became effective February 1, 1970. Members of the QPP have the option to participate in the TDA Program, which provides a means of deferring income tax payments on member's voluntary contributions until after retirement or upon withdrawal of contributions. Contributions to the TDA Program are made by the members only and are voluntary. Benefits provided under the TDA Program are derived from members' accumulated contributions. No benefits are provided by employer contributions. The TDA Program is considered a defined-contribution pension plan for financial reporting purposes.

The QPP and TDA Program are fiduciary funds of The City and are included in the Pension and Other Employee Benefit Trust Funds section of The City's Comprehensive Annual Financial Report ("CAFR").

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

### Board of Trustees

The Teachers' Retirement Board, a seven-trustee Board, sets policy and oversees TRS' operations. Three TRS Board trustees are elected from and by the TRS membership. These trustees serve three-year terms. The Mayor appoints two Board trustees, one of whom must be a member of the Panel for Educational Policy. The City Comptroller and the Chair of the Panel for Education Policy are the other two Board trustees, each of which may designate a representative to act in his or her behalf.

### Membership Data

At June 30, 2012 and June 30, 2011, the dates of the QPP's most recent actuarial valuations, the QPP's membership consisted of:

	2012	2011
Retirees and beneficiaries receiving benefits	76,539	74,064
Terminated vested members not yet receiving benefits	9,868	8,932
Other inactives*	9,689	10,938
Active members receiving salaries	<u>112,460</u>	<u>109,636</u>
Total	<u>208,556</u>	<u>203,570</u>

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

At June 30, 2012 and June 30, 2011, member participation of the TDA Program consisted of:

	2012	2011
Retirees receiving a TDA annuity	3,184	3,251
Members with TDA deferral	42,707	40,288
Active members contributing to TDA	<u>77,244</u>	<u>76,357</u>
Total	<u>123,135</u>	<u>119,896</u>

### Summary of Benefits

#### QPP Plan

The State Constitution provides that the pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976, 1983 and 2012 significant amendments made to the State Retirement and Social Security Law ("RSSL") modified certain benefits and member contributions for employees joining the QPP on or after the effective date of such amendments. As such, benefits under the QPP fall into various categories (also referred to as "Tiers") based on the year when an employee joined the QPP. A brief overview follows:

- Members who joined prior to July 1, 1973 ("Tier I") are entitled to service retirement benefits of 50% of "final salary" (as defined within State and City laws) after 20 years of service; a portion



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

(as defined within State and City laws) per year of service of “final salary” for years in excess of the 20-year minimum. These benefits are increased, where applicable, by an annuity attributable to accumulated member contributions in excess of the minimum required balance and by any benefits attributable to Increased-Take-Home-Pay (“ITHP”) contributions [accumulated after the twentieth year of member qualifying service]. ITHP represents amounts contributed by The City to members’ QPP accounts in lieu of members’ own contributions. These amounts reduce the contributions that members would have to make to the QPP during their service and thereby increase their take-home pay. Members have the choice of waiving their ITHP reduction, which would reduce their take-home pay, but provide them with increased benefits upon retirement.

In addition, these same members could elect a service retirement benefit with no minimum service requirement that provides an annual benefit for each year of service equal to a specified percentage (as described within State statutes and City laws) of “final salary” payable on attainment of age 55. This benefit is increased, where applicable, by an annuity attributable to the member’s contributions and by any benefits attributable to the Employers’ contributions with respect to such service under the ITHP contributions.

- Members who joined the QPP after June 30, 1973 and before July 27, 1976 (“Tier II”) have provisions similar to Tier I, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit. This maximum limitation was subsequently eliminated under Chapter 574 of the Laws of 2000 for all Tier II members who retired after December 8, 2000. Members retiring prior to the age of 62 without 30 years of credited service experience an age-reduction factor in their retirement allowance. Effective February 27, 2008, active members were eligible to enroll in a 55 retirement age minimum and 25 credited years of service retirement option (“55/25 retirement option”) enabling them to eliminate any age-reduction factor in their retirement allowance (Chapter 19 of Laws of 2008). Those choosing the 55/25 retirement option are required to make additional contributions of 1.85% of salary from February 28, 2008 until June 29, 2008, or until they have accumulated 25 years of credited service, whichever is later.
- For Tier I and II members enrolled in the QPP prior to July 27, 1976, ITHP contributions made on their behalf, as well as their own contributions are invested, at their election, in the Fixed Return Fund or variable-return funds. Members can elect to invest in multiples of 5% and change their elections on a quarterly basis. In the Fixed Return Fund, members receive statutory returns, currently 8.25%, on member contributions or ITHP contributions to the Fixed Return Fund (“Fixed Annuity Program”).

Certain members of Tier I and Tier II have the right to make voluntary member contributions (“Voluntary Contributions”) in excess of their required member contributions (“Required Contributions”). Both the investment of the Voluntary Contributions and the Required Contributions, are directed by each member. A member may invest in: (1) the QPP’s Fixed Return Fund in which it is credited with interest at the Statutory Interest Rate (currently, 7.0 percent for UFT members and 8.25 percent for non-UFT members) and/or (2) in one or more of the QPP’s Variable Return Funds (see note 2—Investment Programs). At the time of retirement or refund of contributions, a member’s aggregate balance of actual Required Contributions and Voluntary Contributions, including the actual accumulated earnings thereon, less the outstanding balance of any member loans (“Net Actual Contributions”), may exceed (“Excess of Contributions”) or fall short of (“Deficiency of Contributions”) the member’s Expected Balance. The Expected Balance is the sum of the Required Contributions which a member should have made during his or her credited service, plus the earnings that would have accumulated thereon at the Statutory Interest rate. The amount of the member’s retirement



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

annuity or the refund of contributions that he or she is entitled to is increased by any Excess of Contributions or reduced by any Deficiency of Contributions. The total value of members' Excess of Contributions, net of all Deficiencies of Contributions, is \$84.4 million and \$85.5 million, for the years ended June 30, 2014 and 2013 respectively. Actuarial estimates of the impact of Excesses and Deficiencies are incorporated into calculation of the QPP's net pension liability.

The variable-return funds include only member contributions and ITHP contributions made on their behalf, as described above, and are expressed in terms of units that are valued monthly based on investment experience. At retirement, monthly annuities attributable to member voluntary excess contributions and ITHP contributions can be paid in both fixed and variable amounts, based on the member's election, which can be changed quarterly. Other benefits are paid only in fixed amounts. Monthly annuities attributable to investments in the variable funds are not fixed in amount, but are based on investment experience through the preceding month.

- Members who joined the QPP on or after July 27, 1976 and prior to September 1, 1983 ("Tier III") were later mandated into Tier IV. However, these members retain their Tier III rights. Tier III requires member contributions of 3.0% of salary for a ten-year period (Chapter 126 of the Laws of 2000) and generally provides for reducing benefits by one-half of the primary Social Security benefit attributable to service with the Employer and for an annual cost-of-living escalator in pension benefits of not more than 3.0%. Members retiring prior to the age of 62 without 30 years of credited service experience an age-reduction factor in their retirement allowance.
- Members who joined the QPP on or after September 1, 1983 ("Tier IV") were required to make contributions of 3.0% of salary until termination of service. As of October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of ten years of credited service, whichever is earlier (Chapter 126 of the Laws of 2000). The annual benefit is 1.67% of "final average salary" per year of service for members with less than 20 years of service and 2.0% of "final average salary" per year of service for members with 20 to 30 years of service, plus a 1.5% addition of "final average salary" per year of service for service in excess of 30 years of service. Members retiring prior to the age of 62 without 30 years of credited service experience an age-reduction factor in their retirement allowance. Effective February 27, 2008, active members were eligible to enroll in a 55 retirement age minimum and 25 credited years of service retirement option enabling them to eliminate any age-reduction factor in their retirement allowance. Those choosing the age 55 retirement option are required to make additional contributions of 1.85% of salary from February 28, 2008 until June 29, 2008, or until they have accumulated 25 years of credited service, whichever is later. Members joining after February 27, 2008 are automatically enrolled in a 55 retirement age minimum and 27 credited years of service retirement program ("55/27 retirement program"). These members are required to make additional plan contributions of 1.85% of salary until they have accumulated 27 years of credited service.

Members under the 55/27 retirement program who joined after December 10, 2009 but before April 1, 2012, were required to make contributions of 4.85% of salary until they have 27 years of credited service and contributions of 1.85% of salary thereafter.

- Members who join on and after April 1, 2012 ("Tier VI") are required to make contributions of 3.0% per year through March 31, 2013. Thereafter, contributions range from 3.0% to 6.0% in accordance with a schedule based on salary. Member contributions continue until retirement. Salary is limited to the New York State Governor's salary. Tier VI members are generally

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eligible to retire with unreduced benefits beginning at age 63 or with reduced benefits beginning at age 55, if vested.

- Members enrolled in the QPP on or after July 27, 1976, ("Tier III, IV, and VI") who resign or otherwise terminate from service prior to eligibility for a benefit, are refunded all of their member contributions with 5.0% interest (RSSL, Article 15). Tier III, IV, and VI members who work for the Department of Education also receive a monthly supplemental contribution. The monthly supplemental contribution of \$550 per year for supervisors and administrators and \$400 per year for other eligible members is credited to the members' Annuity Savings Accumulation Fund ("ASAF").

Under all service retirement categories, annuities attributable to member contributions are reduced on an actuarial basis for any loans with unpaid balances outstanding at the date of retirement.

Subject to certain conditions, members become fully vested and eligible for benefits upon the completion of five years of service. After December 10, 2009, new members who belong to the UFT, and all Tier VI members, become fully vested upon the completion of ten years of service.

The QPP provides death benefits, and retirement benefits on the occurrence of accidental or ordinary disability. In terms of payment options of the retirement annuity, the QPP provides a number of options depending on whether retirement payments, following death, will continue to an assigned beneficiary.

During the spring 2000 session, the State Legislature approved and the State Governor ("Governor") authorized automatic Cost-of-Living Adjustments ("COLAs") for certain retirees and beneficiaries (Chapter 125 of the Laws of 2000). COLA is payable to all Tiers 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 is payable to members who retired for disability after being retired for 5 or more years and beneficiaries receiving accidental death benefits who have been receiving them for at least 5 years. COLA is one-half of the increase in the CPI-U based on the year ending March 31, rounding to the next higher 0.1%, not less than 1% nor greater than 3% of the first \$18,000 of the sum of the maximum retirement allowance and prior COLA.

### **TDA Program**

The TDA Program is administered by the TRS Board. Contributions to the TDA Program are made by the members only and are voluntary. To participate in the Program, active members of the QPP are required to submit a salary-reduction agreement and enrollment request. Members may choose to stop contributions at any time. A participant may elect to exclude an amount (within the maximum allowed by the IRS) of compensation from current taxable income by contributing it to the TDA Program. This maximum amount is calculated based on various individual factors. Members can elect to invest in the Fixed Return Fund or the variable-return funds.

A participant may withdraw all or part of the balance of his/her account prior to or at the time of retirement. As of January 1, 1989, the tax laws restrict withdrawals of tax-deferred annuity contributions and accumulated earnings thereon for reasons other than retirement or termination. Contributions made after December 31, 1988 and investment earnings credited after December 31, 1988, may only be withdrawn upon attainment of age 59 ½ or for reasons of hardship (as defined by IRS regulations). However, hardship withdrawals are limited to contributions only.



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An in-service member may withdraw all or part of the contributions made before January 1, 1989 and the earnings credited to accounts before January 1, 1989. If the withdrawal is prior to retirement, the member may not contribute to the TDA Program for the rest of the calendar year.

If a member dies while an in-service employee, the full value of his/her TDA Program account at the date of death is paid to the member's beneficiary or estate.

When a member resigns before attaining vested rights under the QPP, (s)he may withdraw the value of the account or may leave the account in the TDA Program for a period of up to seven school years after the date of resignation, provided (s)he does not withdraw his/her account from the QPP. If a member resigns after attaining vested rights under the QPP, (s)he may leave his/her account in the TDA Program, provided the member does not withdraw his/her QPP funds. Once a withdrawal is made from the QPP, the member's participation in the TDA Program is automatically terminated, and the value of the account in the TDA Program will be paid out to the member. Upon death, TDA balances are paid to the assigned beneficiaries or may be invested on behalf of the beneficiaries in the TDA Program's Variable-Return Funds.

At retirement, several payment options are available to those who annuitize their TDA Program funds. Generally, payment options similar to the QPP are available under the TDA Program.

See "Investments" below for a discussion of TDA investment programs.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Basis of Accounting** — In 2014, the City determined that it was preferable to present the Systems' financial statements on a combined basis for presentation purposes for inclusion in The City of New York's Comprehensive Annual Financial Report. Therefore, the System will no longer report on an individual basis the QPP and TDA Programs and will report the two on a combined basis. As a result, the Systems' 2013 financial statements were restated to conform to this change.

The QPP and the TDA Program 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 when the Employers make payroll deductions from members' salary. Employer contributions to the QPP 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 QPP and the TDA Program.

**Reclassifications** — Certain amounts have been reclassified for 2013 to conform to the 2014 financial statement presentation.

**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 (the "IIF"), and Alternative Investment Funds (the "ALTINVF"). The IIF are private funds of publicly traded securities that are managed by various investment managers on behalf of the QPP and the TDA Program. Fair value is determined by TRS 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

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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 the New York City Office of the Comptroller or TRS management based on information provided by the various GPs after review by an independent consultant and the custodial bank, State Street for the System's pooled NYC Pension Fund assets.

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.

**Investment Programs** — Prior to July 1, 2008, investments were composed of the assets of the following investment programs: the pooled New York City Pension Fund (which includes a component, the Fixed Return Fund, which was previously referred to as the Fixed Annuity Program) and two variable-return funds — the Diversified Equity Fund and the Stable-Value Fund. As of July 1, 2008, the investment programs were expanded to include three new variable-return funds — the International Equity Fund, the Inflation Protection Fund, and the Socially Responsive Equity Fund. As of January 1, 2012, the Stable-Value Fund became the Bond Fund. The Bond Fund objective is to seek current income by investing primarily in a portfolio of high quality bonds. The six investment programs are collectively referred to as the TRS Passport Funds.

All investment programs excluding the pooled New York City Pension Fund are referred to as the variable-return funds. The pooled New York City Pension Fund includes System investments from QPP employer contributions, QPP Tier I and II members' and ITHP contributions, QPP Tier III, IV, and VI members' contributions and ASAF contributions, and TDA Program member contributions invested in the Fixed Return Fund. Investing in variable-return funds is available for both QPP Tier I and II members' and ITHP contributions and TDA program investments.

In the Fixed Return Fund, deposits from members' TDA Program accounts are invested along with QPP assets, and TDA Program accounts are credited with a fixed rate of return, determined by the New York State Legislature ("Statutory Rates"). Payment of the statutory interest is an obligation of the City (NYC Admin. Code section 13-533). The Statutory Rates are as follows:

- 7% for TDA investments by members who are serving in (or resigned/retired from) titles represented by the United Federation of Teachers. The crediting rate of 7% has been in effect since December 11, 2009. The prior crediting rate of 8.25% was in effect from July 1, 1988 through December 10, 2009.
- 8.25% for TDA investments by all other members. This crediting rate has been in effect since July 1, 1988.

TDA Program assets are pooled with QPP assets for investment purposes only. NYC Administrative Code section 13-582, subdivision [k], provides for the maintenance of TDA accounts in the Annuity Savings Funds ("Fixed Return Fund") and Variable Annuity Programs ("Variable Return Funds") which are distinct from similar funds for the QPP. This is in accordance with requirements that assets of the TDA Program be accounted for separately from assets of the QPP Plan. Statutory rates of interest ("Statutory Rates") received by funds invested in the QPP Plan's and the TDA Plan's Annuity Savings Fund ("Fixed Return Fund") are set, respectively, by NYC Administrative Code sections 13-638.2 and 13-582 [d].

Assets in the TDA Fixed Return Fund are invested with assets of the QPP, on a pro rata basis consistent with the QPP's asset allocation policy. Earnings on these investments over (or under) the



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Statutory Rates are considered by the Actuary in determining employer contribution obligations. Earnings over the Statutory Rates accrue to the benefit of the QPP. Earnings under the Statutory Rates are considered by the Actuary in determining employer contributions to the QPP, such that the City is ultimately responsible for any deficiency. For financial reporting purposes, TDA fixed return assets invested alongside QPP assets are reflected as a receivable due from the QPP equal in amount to the aggregate original principal amounts contributed by TDA Program members to the fixed return program, plus accrued interest at the Statutory Rate. This receivable is reported by the TDA Program as Investment in the Fixed Return Fund and the corresponding liability is reported by the QPP as Fixed Return Funds Due to TDA.

Assets of the variable-return funds of the QPP and the TDA Program Diversified Equity Fund are co-invested along with certain assets of the BERS. These financial statements reflect the QPP's and TDA Program's variable-return funds' proportionate share of Diversified Equity Fund investments and the related activity.

**Investment Presentation** — The TDA Program Fixed Return Fund's portion of pooled NYC Pension fund assets are shown as commingled with the QPP's portion of pooled NYC Pension Fund assets and an offsetting liability is used to show the TDA Program's share of the funds.

**Income Taxes** — Income earned by the QPP and TDA Program is not subject to Federal income tax.

**Accounts Payable** — Accounts payable is principally comprised of amounts owed to the System's banks for overdrawn bank balances due to depositories, unclaimed funds, reserves for investment and administrative expenses for the variable-return funds, and investment expenses accrued to the QPP and TDA Program. The System's practice is to fully invest its day-end cash balances in a pooled short-term fund. A typical benefit payment bank account would show an overdrawn balance, since funds are only deposited as outstanding benefit checks are presented to the banks for payment each day.

**Cash and Accounts Payable Reclassifications** — In 2014 and 2013, cash specific balances used to fund investment managers, as well as accounts used to maintain QPP loan service charge fees and QPP loan insurance premiums are recorded as cash. Previously the accounts were included in accounts payable accounts due to depositories. As at year end, investment manager funding accounts can have either a debit or credit balances. For Fiscal Year 2014, \$72.3 million (primarily \$41.6 million in a State Street account and \$26.5 million in a Private Equity account, both of the pooled NYC Pension Fund) was classified as cash on the QPP statement of net position. For Fiscal Year 2013 \$12.6 million (attributable to a Private Equity Account of the pooled NYC Pension Fund) on the QPP statement of net position, was re-classified. For the TDA Program, in Fiscal Year 2014, \$2.3 million (primarily \$2.3 million related to TDA Program's advance funding for variable-return program investment manager, as well as \$35.2 thousand of accounts associated with collections of loan insurance premiums and service charges) was classified as cash on the TDA Program's statement of net position. Similarly, for Fiscal Year 2013 \$112.7 thousand, previously included in net accounts payable was re-classified.

**Payment of Statutory-Interest on TDA Program Fixed Return Funds** — The fixed interest, credited on TDA Program member account balances invested in the Fixed Return Funds (7.0% APR for UFT members after December 10, 2009, 8.25% APR for non-UFT members and for UFT members prior to December 10, 2009), owed and transferred to the TDA Program is reported as a transfer payment (or receipt) of interest on TDA Program Fixed Return Funds in the QPP and TDA Program. In the QPP and TDA Program's Financial Statement issued as of June 30, 2013 and in



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previous years, the payment of statutory-interest was classified as part of the QPP's benefit payments and the TDA Program's interest income.

**Accrued Benefits Payable** — In 2014, the System began to estimate the July and August benefit payments. In 2013, actual July and August benefit payments were used. Also, accrued benefits payable does not include accrued benefits due to retroactive payments agreed upon in the June 2014 UFT collective bargaining agreements. Due to these retroactive payments, recent retirees' monthly annuity payments will slightly increase following review of their individual benefit calculations. The Office of the Actuary of the City of New York is currently estimating the increased benefits, due to the contract, to current and future retirees.

**Intercompany Eliminations** — Included on the Combined Statements of Fiduciary Net Position and the Combined Changes in Fiduciary Net Position is an elimination column, the purpose of which is to remove from the statement any transactions involving dealings between the entities being reported. The eliminations include offsetting payables and receivables associated with the TDA Program's investment in the pooled NYC Pension Fund. In addition, payables and receivables between the QPP, the TDA Program, and the System's administrative expense fund are eliminated.

**Securities-Lending Transactions** — State statutes and Board policies permit the System's QPP and TDA Program to lend securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. The System's investment custodians lend the following types of securities: short-term securities; common stock; long-term corporate bonds; U.S. Government and U.S. Government agency bonds; asset-backed securities; and international equities and bonds held in collective investment funds. In return, it receives collateral in the form of cash and U.S. Treasury and U.S. Government agency securities at 102% to 105% of the principal plus accrued interest. Management believes the QPP and TDA Program have limited credit risk exposure to borrowers because the value of collateral posted by the borrowers exceeds the value of securities on loan. In addition, the contracts with the System's lending agents (i.e., the custodians) require the lending agent to indemnify the System if the borrower fails to return the securities. All securities loans can be terminated on demand within a period specified in each agreement by either the System or the borrowers. Cash collateral is invested in the lending agents' short-term investment pools, which have a weighted average maturity of 90 days. Underlying fixed income securities have an average maturity of ten years. The securities lending programs in which the System participates only allows pledging or selling securities in the case of borrower default.

During Fiscal Year 2014, net earnings from the security lending programs was \$6.4 million. The earnings included \$21.2 million in security-lending income and a \$6.9 million recovery. Offsets against these earnings include a \$16.5 million negative adjustment related to NPF XII securities and \$5.2 million negative adjustment related to prior security lending exposure to Lehman Brothers bonds.

During Fiscal Year 2003, the value of certain securities, NPF XII securities purchased in 1999 by Citibank and held in the collateral reinvestment account, became impaired due to 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 \$25 million to reflect this impairment and the net realizable value of the securities purchased with collateral from securities lending transactions. Following incremental recoveries, as of June 30, 2013 the impairment was \$8.4 million. During Fiscal Year 2014 an additional \$6.9 million was received, leaving a final \$1.6 million loss from the NPF impairment. Also, in addition to the NPF recoveries which were properly identified and recorded as recoveries, an additional \$16.5 million in income amounts received but



not properly identified as recoveries were discovered during the wind-down and reconciliation of the Pension Funds' Fiscal Year 2013 lending accounts with the Bank of New York Mellon. Those amounts were erroneously credited directly to the lending earnings accounts and were not correctly credited as recovery amounts to reduce the shortfall in the lending collateral account as they should have been. On October 28, 2013 the \$16.5 million was transferred back to the agent bank and the negative adjustment reduced the Fiscal Year 2014 security lending net income.

The \$5.2 million negative adjustment related to the September 2008 Lehman Brothers default on the payment of outstanding bonds. Through the lending program the Pension Fund had two exposures to Lehman Brothers securities. One was a direct holding of \$13.7 million in Lehman securities. In a settlement, the Bank of New York, agreed to pay \$11.63 million in damages for this loss, leaving \$2.07 million to the pension fund. On October 28, 2013 the Pension Fund transferred its portion of payment to the lending agent from the lending accounts closing out this matter. The second Lehman exposure was through the BNY Institutional Short-Term Fund (BNY-ICR). The total fund exposure was \$4.4 million; the Pension Fund recovered approximately \$1.35 million through subsequent sales of the security. On October 28, 2013 during the wind-down of the Pension Fund's Bank of New York custodian accounts, the remaining \$3.1 million was transferred to the agent bank.

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. As of the balance sheet date, the maturities of the investments made with cash collateral on average exceed the maturities of the securities loans by approximately 30 days. Securities received as collateral are also reported as assets if the government entity has the ability to pledge or sell them with a borrower default. Accordingly, the System records the investments purchased with the cash collateral from securities lending with a corresponding liability for securities lending. Securities on loan are carried at fair value; as of June 30, 2014 and 2013, the values on loan by the pooled NYC Pension Fund were \$5.1 billion and \$5.6 billion, respectively, and the values on loan by the Variable-Return Funds were \$438.2 million and \$3.9 million, respectively. Cash collateral received related to securities lending as of June 30, 2014 and 2013 was \$5.3 billion and \$5.2 billion, respectively for the pooled NYC Pension Fund, and \$476.7 million and \$4.1 million, respectively for the Variable-Return Funds.

**New Accounting Standards Adopted** — In 2014, TRS adopted Governmental Accounting Standard Board ("GASB") Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*. This Statement establishes financial reporting standards for state and local governmental pension plans, defined-benefit pension plans and defined-contribution pension plans that are administered through trusts or equivalent arrangements in which: (1) contributions from employers and nonemployer contributing entities to the pension plan and earnings on those contributions are irrevocable (2) pension plan assets are dedicated to providing pensions to plan members in accordance with the benefit terms and (3) pension plan assets are legally protected from the creditors of employers, nonemployer contributing entities, and the pension plan administrator. If the plan is a defined-benefit pension plan, plan assets are also legally protected from creditors of the plan members. For defined-benefit pension plans, this statement establishes standards of financial reporting for separately issued financial reports and specifies the required approach to measuring the pension liability of employers and non-employer contributing entities for benefits provided through the pension plan (the net pension liability), about which information is required to be presented. Distinctions are made regarding the particular requirements depending upon the type of pension plan administered. This Statement replaces the requirements of Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*, and Statement No. 50, *Pension Disclosures*, as they relate to pension

plans that are administered through trusts or equivalent arrangements that meet certain criteria. The requirements of Statement No. 25 and Statement No. 50 remain applicable to pension plans that are not administered through trusts covered by the scope of this Statement and to defined contribution plans that provide postemployment benefits other than pensions. Implementation of GASB Statement No. 67 did not impact the QPP or TDA Program's fiduciary net position; however, certain changes to note disclosures and required supplementary information have been incorporated to comply with the new standard.

### **3. INVESTMENTS AND DEPOSITS**

The Comptroller of The City of New York (the "Comptroller") acts as an investment advisor to TRS and employs an independent consultant for the pooled NYC Pension Fund. In addition, TRS employs an independent investment consultant as an investment advisor for its variable-return funds. TRS utilizes several investment managers to manage the long-term debt and equity portfolios. The managers are regularly reviewed, with regard to both their investment performance and their adherence to investment guidelines.

The State Retirement and Social Security Law ("RSSL") and Administrative Code of the City of New York ("NYCAC") authorizes the investments of assets subject to the terms, conditions, limitations, and restrictions imposed by law for investments by savings bank and domestic life insurance companies. The State Retirement and Social Security Law §§ 176-178(a), Banking Law § 235 and the ACNY establish the criteria for permissible equity investments. Investments up to 25% of total assets of the QPP and TDA Program may be made in instruments not expressly permitted by the State RSSL.

QPP and TDA Program assets are diversified over a range of investments, and multiple strategies are used to limit overall risk.



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TRS possesses investment policy statements for its QPP and TDA Program and investment risk management is an inherent function of the asset allocation process. The System's assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk. The asset allocation per investment program and targeted for Fiscal Year 2014 and 2013 included securities in the following categories. It is worth noting that the pooled NYC Pension Fund primarily holds QPP assets, and the returns from this fund impacts the funding of the QPP, a defined-benefit plan. The variable-return funds primarily relate to the TDA Program, a defined-contribution plan.

**NYC Pension Fund (pooled investments)**  
**Target Asset Allocations**

Investment Type	Asset Allocation Percentages	
	2014	2013
Common stock	34.8%	34.8%
International investments - Non U.S.	9.0	9.0
International investments - Emerging Markets	8.8	8.8
Common stock - REITS	3.0	3.0
Alternative investments - Real Estate	2.4	2.1
Alternative investments - Private Equity	4.5	4.8
International Investments - Emerging Markets Debt	0.0	0.0
Fixed income	35.4	35.9
Alternative investments - Opportunistic Fixed Income	<u>2.1</u>	<u>1.6</u>
Total	<u>100.0%</u>	<u>100.0%</u>



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### Variable-Return Funds Target Asset Allocations

Investment Type	Asset Allocation Percentages	
	2014	2013
Diversified Equity (Variable A):		
Common stock- Passive	50%	50%
Common stock - Active	20%	20%
Common stock - Defensive	15%	15%
International investments	15%	15%
Bond Fund (Variable B):		
Fixed income	100%	100%
International Equity (Variable C):		
International investments	100%	100%
Inflation Protection Equity (Variable D):		
Inflation Protection PIMCO Mutual Fund	100%	100%
Socially Responsible (Variable E):		
Socially Responsible NB Mutual Fund	100%	100%

Beginning October 2013, State Street is the primary custodian for significantly all securities of the pooled NYC Pension Fund. Beginning July 2013, JPMorgan Chase is the primary custodian for significantly all securities of the variable-return programs. During Fiscal Year 2013, the Bank of New York Mellon (“BNYM”) was the primary custodian for significantly all the Systems’ securities, both for the pooled NYC Pension Fund and variable-return funds.

The information reflected in the Credit Ratings and in the Years to Maturity is derived from the Custodian’s Risk and Performance Analytics Reporting System.

**Concentrations** —The System’s investment programs do not have any investments in any one entity that represent 5% or more of the assets in the QPP or TDA Program’s net position.

**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 or lower. Not-rated securities are considered to be non-investment grade. The quality ratings of the pooled NYC Pension Fund, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2014 and 2013 are as follows:

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Investment Type*	S&P Quality Ratings									
Pension Fund	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
June 30, 2014										
U.S. Government	- %	- %	- %	- %	- %	- %	- %	- %	- %	- %
Corporate bonds	2.31	2.12	9.56	22.06	9.85	12.96	4.02	-	12.30	75.18
Yankee bonds	-	-	-	-	-	-	-	-	-	-
Short-term:										
Commercial paper	-	-	-	-	-	-	-	5.62	-	5.62
Pooled funds	-	-	-	-	-	-	-	7.76	-	7.76
U.S. Treasuries	-	-	-	-	-	-	-	-	-	-
U.S. Agencies	-	-	-	-	-	-	-	11.44	-	11.44
Percent of rated portfolio	2.31 %	2.12 %	9.56 %	22.06 %	9.85 %	12.96 %	4.02 %	24.82 %	12.30 %	100.00 %

	S&P Quality Ratings									
June 30, 2013	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
Pension Fund										
U.S. Government	- %	- %	- %	- %	- %	- %	- %	- %	- %	- %
Corporate bonds	0.89	2.11	10.94	22.37	10.32	15.32	4.83	-	13.83	80.61
Yankee bonds	0.17	0.24	-	0.14	-	-	-	-	-	0.55
Short-term:										
Commercial paper	-	-	-	-	-	-	-	4.11	-	4.11
Pooled funds	-	-	-	-	-	-	-	10.31	-	10.31
U.S. Treasuries	-	-	-	-	-	-	-	3.49	-	3.49
U.S. Agencies	-	-	-	-	-	-	-	0.93	-	0.93
Master Notes	-	-	-	-	-	-	-	-	-	-
Percent of rated portfolio	1.06 %	2.35 %	10.94 %	22.51 %	10.32 %	15.32 %	4.83 %	18.84 %	13.83 %	100.00 %

\* 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.

The quality ratings of the variable-return fund investments, both QPP and TDA, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2014 and 2013 are as follows:

Investment Type	S&P Quality Ratings									
Variable Funds	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
June 30, 2014										
Government	0.11%	1.28%	- %	0.29%	- %	- %	- %	- %	- %	1.68%
Corporate bonds	-	2.15	11.42	14.21	4.24	4.01	0.83	-	14.33	51.19
Yankee bonds	-	0.04	0.19	-	-	-	-	-	-	0.23
Short-term:										
Money Market Funds	-	-	-	-	-	-	-	46.90	-	46.90
Percent of rated portfolio	0.11 %	3.47 %	11.61 %	14.50 %	4.24 %	4.01 %	0.83 %	46.90 %	14.33 %	100.00 %

	S&P Quality Ratings									
June 30, 2013	AAA	AA	A	BBB	BB	B	CCC & Below	Short term	Not Rated	Total
Variable Funds										
Government	- %	27.36%	0.13%	- %	- %	- %	- %	- %	- %	27.49%
Corporate bonds	0.82	1.88	8.57	9.58	5.04	2.42	0.82	-	8.44	37.57
Yankee bonds	0.09	0.20	0.01	0.03	-	-	-	-	0.10	0.43
Short-term:										
Money Market Funds	-	-	-	-	-	-	-	-	34.51	34.51
Percent of rated portfolio	0.91 %	29.44 %	8.71 %	9.61 %	5.04 %	2.42 %	0.82 %	- %	43.05 %	100.00 %

**Custodial Credit Risk** — Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. Custodial credit risk is the risk that, in the event of a failure of the counterparty, the

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

QPP and TDA Program 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 System or QPP and TDA Program, and are held by either the counterparty or the counterparty's trust department or agent, but not in the System's name.

Investments are held by the pooled NYC Pension Fund and variable-return funds custodians and registered in the System's or QPP and TDA Program's name.

All of the System's deposits are insured by the Federal Deposit Insurance Corporation or collateralized by securities held by a financial institution separate from their respective 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. TRS possesses investment policy statements for its QPP and TDA Program and investment risk management is an inherent function of the asset allocation process.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The lengths of investment maturities (in years) of pooled NYC Pension Fund investments, both QPP and TDA, as shown by the percent of the rated portfolio, at June 30, 2014 and 2013, are as follows:

## Years to Maturity

### June 30, 2014

#### Investment Type Pension Fund

Investment Maturities				
Fair Value	Less than One Year	One to Five Years	Six to Ten Years	More than Ten Years
32.49 %	0.14 %	2.33 %	5.72 %	24.30 %
50.76	2.23	13.74	23.13	11.66
3.79	3.79	-	-	-
5.24	5.24	-	-	-
7.72	7.72	-	-	-
100.00 %	19.12 %	16.07 %	28.85 %	35.96 %

### June 30, 2013

#### Investment Type Pension Fund

Investment Maturities				
Fair Value	Less than One Year	One to Five Years	Six to Ten Years	More than Ten Years
41.70 %	0.70 %	1.30 %	5.60 %	34.10 %
47.01	2.32	11.95	22.92	9.82
0.31	-	0.18	0.06	0.07
2.40	2.40	-	-	-
6.01	6.01	-	-	-
2.03	2.03	-	-	-
0.54	0.54	-	-	-
100.00 %	14.00 %	13.43 %	28.58 %	43.99 %



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The lengths of investment maturities (in years) of the variable-return funds', both QPP & TDA, investments, as shown by the percent of the rated portfolio, at June 30, 2014 and 2013 are as follows:

### Years to Maturity

<b>June 30, 2014</b>		<b>Investment Maturities</b>				
<b>Investment Type</b>	<b>Variable Funds</b>	<b>Fair Value</b>	<b>Less than One Year</b>	<b>One to Five Years</b>	<b>Six to Ten Years</b>	<b>More than Ten Years</b>
Government		21.67 %	0.24 %	21.11 %	0.33 %	- %
Corporate		40.84	5.19	22.28	6.20	7.18
Yankee bonds		0.18	-	0.15	0.03	-
Short term:						
Money market		<u>37.30</u>	<u>37.30</u>	<u>-</u>	<u>-</u>	<u>-</u>
Percent of rated portfolio		<u>100.00 %</u>	<u>42.72 %</u>	<u>43.54 %</u>	<u>6.55 %</u>	<u>7.18 %</u>

<b>June 30, 2013</b>		<b>Investment Maturities</b>				
<b>Investment Type</b>	<b>Variable Funds</b>	<b>Fair Value</b>	<b>Less than One Year</b>	<b>One to Five Years</b>	<b>Six to Ten Years</b>	<b>More than Ten Years</b>
Government		27.49 %	3.40 %	24.09 %	- %	- %
Corporate		37.57	3.56	23.93	2.09	8.00
Yankee bonds		0.43	0.04	0.35	0.03	-
Short term:						
Money market		<u>34.51</u>	<u>34.51</u>	<u>-</u>	<u>-</u>	<u>-</u>
Percent of rated portfolio		<u>100.00 %</u>	<u>41.51 %</u>	<u>48.37 %</u>	<u>2.12 %</u>	<u>8.00 %</u>

**Foreign Currency Risk** — Foreign currency risk is the risk that changes in the exchange rates will adversely impact the fair value of an investment. Currency risk is present in underlying portfolios that invest in foreign stock and/or bonds. The currency markets have proven to be good diversifiers in a total portfolio context; therefore, the pooled NYC Pension Fund has numerous managers that invest globally. In general, currency exposure is viewed as a benefit for its diversification reasons and not as an inherent risk within the portfolio.

In addition, the pooled NYC Pension Fund and Variable Return Funds have investments in foreign stocks and/or bonds denominated in foreign currencies. Foreign currency exposures as of June 30, 2014 and 2013 are as follows (amounts in U.S. dollars, in thousands):

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

Trade Currency	Pension Fund	Variable-Return Funds	Pension Fund	Variable-Return Funds
	June 30, 2014	June 30, 2014	June 30, 2013	June 30, 2013
Euro Currency	\$ 1,820,335	\$ 251,793	\$ 1,140,369	\$ 164,589
British Pnd Sterling	1,162,723	174,406	960,327	148,648
Japanese Yen	1,093,513	159,949	908,970	147,656
South Korean Won	895,093	-	548,152	-
New Taiwan Dollar	735,353	-	547,153	-
Indian Rupee	590,828	-	349,016	-
Swiss Franc	541,274	83,546	425,231	70,260
South African Rand	423,944	7,471	382,754	4,811
Brazilian Real	411,228	1,168	415,098	-
Hong Kong Dollar	315,651	31,157	225,970	36,139
Mexican Nuevo Peso	258,881	-	251,402	-
Australian Dollar	250,013	27,096	214,123	19,720
Swedish Krona	209,543	13,486	147,727	13,916
Malaysian Ringgit	208,401	-	345,316	-
Singapore Dollar	161,219	22,472	141,537	16,862
Thai Baht	140,798	598	155,026	-
Indonesian Rupiah	137,530	-	167,603	-
Turkish Lira	124,527	-	-	-
Polish Zloty	117,742	-	113,070	-
Canadian Dollar	112,309	28,319	89,923	28,637
Danish Krone	97,771	5,241	57,452	8,229
Chilean Peso	82,967	-	96,509	-
Philippines Peso	66,014	-	74,530	-
Colombian Peso	53,363	-	52,373	-
Norwegian Krone	51,930	11,794	22,776	7,833
Egyptian Pound	44,494	-	24,719	-
Hungarian Forint	36,274	1,112	40,429	844
Czech Koruna	35,128	-	50,364	-
UAE Dirham	27,818	-	-	-
Nuevo Sol	13,064	-	12,682	-
Israeli Shekel	6,919	4,047	3,552	2,445
Qatari Rial	6,286	-	-	-
New Zealand Dollar	2,194	-	-	-
Moroccan Dirham	-	-	1,001	-
New Turkish Lira	-	-	111,758	-
Other	-	-	544	-
Total	<u>\$ 10,235,127</u>	<u>\$ 823,655</u>	<u>\$ 8,077,456</u>	<u>\$ 670,589</u>

### Securities Lending Transactions

*Credit Risk* — The quality ratings of investments held as collateral for Securities Lending by the pooled NYC Pension Fund at June 30, 2014 and 2013, are as follows (in thousands):

Investment Type and Fair Value of Securities Lending Transactions (in thousands) June 30, 2014	S&P Quality Ratings										CCC & Below		Total
	AAA	AA	A	BBB	BB	B		Short Term	Not Rated				
Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -			\$ -	-
Corporate	-	-	-	-	-	-		-	-			-	-
Short-term:	-	-	-	-	-	-		-	-			-	-
Repurchase agreements	-	-	-	-	-	-		-	-			-	-
Reverse repurchase agreements	-	-	-	-	-	-		-	-			-	-
Certificates of deposit	-	-	-	-	-	-		-	-			-	-
Commercial paper	-	-	-	-	-	-		-	-			-	-
Money market	-	-	-	-	-	-		-	-			-	-
Bank notes	2,855,709	-	-	-	-	-		-	-			-	2,855,709
U.S. agency	-	-	-	-	-	-		-	-			-	-
Time deposit	-	-	-	-	-	-		-	-			-	-
Cash	-	-	525,780	-	-	-		-	-			-	-
Uninvested	-	-	-	-	-	-		-	-			-	-
Total	\$ 2,855,709	\$ -	\$ 525,780	\$ -	\$ -	\$ -		\$ -	\$ 1,881,418			\$ -	\$ 5,262,907
Percent of Securities Lending Portfolio	54.26 %	- %	9.99 %	- %	- %	- %		- %	35.75 %			- %	100.00 %

Investment Type and Fair Value of Securities Lending Transactions (in thousands) June 30, 2013	S&P Quality Ratings										CCC & Below		Total
	AAA	AA	A	BBB	BB	B		Short Term	Not Rated				
Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -			\$ -	-
Corporate	799,097	1,592,747	909,618	-	-	-		-	48,409			-	3,349,871
Short-term:	-	-	-	-	-	-		-	-			-	-
Repurchase agreements	-	-	-	-	-	-		-	-			-	-
Reverse repurchase agreements	-	-	-	-	-	-		-	-			-	-
Certificates of deposit	-	-	443,008	-	-	-		-	-			-	767,308
Commercial paper	-	-	338,578	-	-	-		-	-			-	443,008
U.S. agency	-	-	-	-	-	-		-	-			-	338,578
Time deposit	-	-	-	-	-	-		-	-			-	332,410
Uninvested	-	-	-	-	-	-		-	-			-	-
Total	\$ 799,097	\$ 1,592,747	\$ 1,691,204	\$ -	\$ -	\$ -		\$ -	\$ 1,109,774			\$ -	\$ 5,192,822
Percent of Securities Lending Portfolio	15.39 %	30.67 %	32.57 %	- %	- %	- %		- %	21.37 %			- %	100.00 %

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The quality ratings of investments held as collateral for Securities Lending under the variable-return funds at June 30, 2014 and 2013 are as follows (in thousands):

Investment Type and Fair Value of  
Securities Lending Transactions  
(In thousands)  
June 30, 2014

June 30, 2014	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short Term	Not Rated	Total
Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate	-	-	-	-	-	-	-	-	-	-
Short-term:										
Repurchase agreements	338,719	-	-	-	-	-	-	-	24,040	362,759
Reversal purchase agreements	-	-	-	-	-	-	-	-	-	-
Certificates of deposit	-	-	-	-	-	-	-	-	-	-
Commercial paper	-	-	-	-	-	-	-	-	-	-
Variable rate demand notes	-	-	-	-	-	-	-	-	512	512
U.S. agency	-	-	-	-	-	-	-	-	-	-
Time deposit	86,545	-	-	-	-	-	-	-	-	86,545
Uninvested	-	-	-	-	-	-	-	-	-	-
Total	\$ 425,264	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,539	\$ 449,816
Adjustment to custodial report	-	-	-	-	-	-	-	-	26,852	26,852
VRF portion of systems securities	\$ 425,264	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,404	\$ 476,668
Percent of securities lending portfolio	89.22 %	- %	- %	- %	- %	- %	- %	- %	10.78 %	100.00 %

June 30, 2013

June 30, 2013	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short Term	Not Rated	Total
Government	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate	14	-	83	10	-	-	-	-	-	107
Short-term:										
Repurchase agreements	-	-	-	-	-	-	-	-	2,434	2,434
Reversal purchase agreements	-	-	-	-	-	-	-	-	-	-
Certificates of deposit	-	-	-	-	-	-	-	-	-	-
Medium term notes	-	-	-	-	-	-	-	-	-	-
Commercial paper	-	-	-	-	-	-	-	-	-	-
Variable rate notes floating	-	-	-	-	-	-	-	-	-	-
U.S. treasury	-	-	-	-	-	-	-	-	-	-
U.S. agency	-	-	-	-	-	-	-	-	-	-
Time deposit	1,573	-	-	-	-	-	-	-	-	1,573
Uninvested	-	-	-	-	-	-	-	-	-	-
Total	\$ 156,114	\$ -	\$ 82	\$ 10	\$ -	\$ -	\$ -	\$ -	\$ 2,434	\$ 4,114
Percent of securities lending portfolio	38.59 %	- .00 %	1.99 %	0.25 %	- %	- .00 %	- %	- %	59.17 %	100.00 %



# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

*Interest Rate Risk* — The lengths of investment maturities (in years) of the collateral for Securities Lending held by the pooled NYC Pension Fund are as follows (in thousands):

Years to Maturity Investment Type June 30, 2014	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate	-	-	-	-	-
Short-term:					
Repurchase agreements	-	-	-	-	-
Reverse repurchase agreements	29,369	29,369	-	-	-
Certificates of deposit	-	-	-	-	-
Commercial paper	-	-	-	-	-
Money market	2,855,709	2,855,709			
Bank notes	1,852,049	1,113,660	738,389		
U.S. agency	-	-	-	-	-
Time deposit	-	-	-	-	-
Cash	525,780	525,780	-	-	-
Uninvested	-	-	-	-	-
Total	<u>\$ 5,262,907</u>	<u>\$ 4,524,518</u>	<u>\$ 738,389</u>	<u>\$ -</u>	<u>\$ -</u>
Percent of Securities Lending Portfolio	<u>100.00 %</u>	<u>85.97 %</u>	<u>14.03 %</u>	<u>- %</u>	<u>- %</u>

Investment Type June 30, 2013	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate	3,349,871	1,793,521	1,556,350	-	-
Short-term	-	-	-	-	-
Repurchase agreements	-	-	-	-	-
Reverse repurchase agreements	767,308	767,308	-	-	-
Certificates of deposit	443,008	443,008	-	-	-
Commercial paper	338,578	338,578	-	-	-
U.S. agency	332,410	253,869	78,541	-	-
Time deposit	-	-	-	-	-
Uninvested	(38,353)	(38,353)	-	-	-
Total	<u>\$ 5,192,822</u>	<u>\$ 3,557,931</u>	<u>\$ 1,634,891</u>	<u>\$ -</u>	<u>\$ -</u>
Percent of Securities Lending Portfolio	<u>100.00 %</u>	<u>68.52 %</u>	<u>31.48 %</u>	<u>- %</u>	<u>- %</u>

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The lengths of investment maturities (in years) of the collateral for Securities Lending held under the variable-return fund at June 30, 2014 and 2013 are as follows (in thousands):

## Years to Maturity

Investment Type (in thousands) June 30, 2014	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate	-	-	-	-	-
Short-term:					
Repurchase agreements	362,759	362,759	-	-	-
Reversal purchase agreements	-	-	-	-	-
Certificates of deposit	-	-	-	-	-
Commercial paper	-	-	-	-	-
Variable rate demand notes	512	512	-	-	-
U.S. treasury	-	-	-	-	-
U.S. agency	-	-	-	-	-
Time deposit	86,545	86,545	-	-	-
Uninvested	-	-	-	-	-
Totals	\$ 449,816	\$ 449,816	\$ -	\$ -	\$ -
Adjustment to Custodial Report	26,852	26,852	-	-	-
VRF Portion of Systems Securities	476,668	476,668	-	-	-
Percent of securities lending portfolio	100.00 %	100.00 %	- %	- %	- %

Investment Type (in thousands) June 30, 2013	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate	107	107	-	-	-
Short-term:					
Repurchase agreements	2,434	2,434	-	-	-
Reversal purchase agreements	-	-	-	-	-
Certificates of deposit	-	-	-	-	-
Medium term notes	-	-	-	-	-
Commercial paper	-	-	-	-	-
Variable rate notes floating	-	-	-	-	-
U.S. treasury	-	-	-	-	-
U.S. agency	-	-	-	-	-
Time deposit	1,573	1,573	-	-	-
Uninvested	-	-	-	-	-
	\$ 4,114	\$ 4,114	\$ -	\$ -	\$ -
Percent of securities lending portfolio	100.00 %	100.00 %	- %	- %	- %

**Rate of Return** – For the years ended June 30, 2014 and 2013, the annual money-weighted rate of return on the pooled NYC Pension Fund, was 11.703% and 17.551%. The money-weighted rate of return expresses investment performance, net of investment expense adjusted for the changing amounts actually invested.

#### 4. QPP CONTRIBUTIONS

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

**Member Contributions** — Members who joined prior to July 27, 1976, contribute by salary deductions on the basis of a normal rate of contribution that is assigned by the QPP at membership. This member normal rate, which is dependent upon age, years of prior service, and actuarial tables in effect at the time of membership, is determined so as to provide approximately one-fourth of the service retirement allowance at the earliest age for service retirement. For age at membership equal to 20 and with no prior service, the member normal rate is equal to 4.6%. For age at membership equal to 40 with no prior service, the member normal rate is equal to 3.6%.

Members who joined on or after July 27, 1976 are mandated to contribute 3% of salary. Effective October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of ten years of credited service, whichever is earlier.

Effective February 27, 2008, active members were eligible to enroll in a 55 retirement age minimum and 25 credited years of service retirement option ("55/25 retirement option") enabling them to eliminate any age-reduction factor in their retirement allowance. Those choosing the age 55/25 retirement option are required to make additional contributions of 1.85% of salary from February 28, 2008 until June 29, 2008, or until they have accumulated 25 years of credited service, whichever is later. Members joining after February 27, 2008 are automatically enrolled in a 55 retirement age minimum and 27 credited years of service retirement program ("55/27 retirement program"). These members are required to make additional pension contributions of 1.85% of salary until they have accumulated 27 years of credited service. Chapter 504 of the Laws of 2009 ("Chapter 504/09") provides that individuals joining after December 10, 2009, who participate in the 55/27 retirement program, are required to make pension contributions of 4.85% of salary until they have 27 years of credited service and contributions of 1.85% of salary thereafter.

Also, under Chapter 504/09, all members represented by the UFT who join the QPP on and after December 10, 2009 will become vested after ten years of credited service.

Under Chapter 18 of the Laws of 2012, members who join on and after April 1, 2012 are automatically enrolled in Tier VI. These members are required to make contributions ranging from 3.0% (based on a salary of \$45,000 and less) to 6.0% (based on a salary above \$100,000) until separation from service or retirement.

**Employer Contributions** — Statutorily-required contributions ("Statutory Contributions") to the QPP, determined by the City's Chief Actuary of the Office of the Actuary (the "Actuary") in accordance with the State statutes and City laws, are generally funded by the Employers within the appropriate fiscal year. These contributions consider any expected deficiencies between the statutory rates of interest on TDA Program deposits in the fixed return fund and on statutory rates of interest QPP members and actual investment earnings on such funds. The Statutory Contribution for the year ended June 30, 2014, based on an actuarial valuation as of June 30, 2012 was \$2,999 million and the Statutory Contribution for the year ended June 30, 2013, based on an actuarial valuation as of June 30, 2011 was \$2,856 million. The Statutory Contributions for Fiscal Years 2014 and 2013 were equal to the Actuarial Contributions. Refer to the Schedule of Employers' 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.



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

### 5. QPP NET PENSION LIABILITY

The components of the net pension liability of the Employers at June 30, 2014 and 2013 were as follows:

	(in millions)	
	2014	2013
Total pension liability	\$62,306	\$60,511
Fiduciary net position *	\$44,490	\$36,857
Employers' net pension liability	\$17,817	\$23,655
Fiduciary net position as a percentage of the total pension liability	71.4%	60.9%

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

#### Actuarial Methods and Assumptions

The total pension liability as of June 30, 2014 and 2013 were determined by an actuarial valuation as of June 30, 2012 and June 30, 2011, respectively, that was updated to roll forward the total pension liability to the respective fiscal year end. The following actuarial assumptions were applied to all periods included in the measurement:

Projected Salary Increases *	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per annum.
Investment Rate of Return *	7.0% per annum, net of Investment Expenses.
COLAs *	1.5% per annum for Tiers I, II, and IV. 2.5% per annum for Tiers III and VI.

\* Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per annum.

Mortality tables for Service and Disability pensioners were developed from an experience study of the QPP and the predecessor QPP's pensioners. The mortality tables for beneficiaries were 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 QPP is conducted every two years.

The most recently completed study was published by The Hay Group ("Hay") dated December 2011 and analyzed experience for Fiscal Years 2006 through 2009. Hay made recommendations with respect to the actuarial assumptions and methods based on their analysis.



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

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

Currently, Gabriel, Roeder, Smith & Company ("GRS") has been retained to study the actuarial experience assumptions for Fiscal Years 2010 through 2013.

### Expected Rate of Return on Investments

The long-term expected rate of return on QPP investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of QPP investment expense 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 future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocations and best estimates of arithmetic real rates of return for each major asset class included in the QPP's target asset allocation, portfolio component arithmetic real rates of return, and portfolio long-term average arithmetic real rate of return, as of the June 30, 2012 actuarial valuation is summarized in the following table:

Asset Class	Target Allocation	Real Return Arithmetic Basis	Portfolio Component Arithmetic Real Rate of Return
U.S. Public Markets Equities	34.00%	6.60%	2.24%
International Public Market Equities	9.00%	7.00%	0.63%
Emerging Public Market Equities	8.00%	7.90%	0.63%
Private Market Equities	6.00%	9.90%	0.59%
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	37.00%	2.70%	1.00%
Alternatives ( Real Assets)	<u>6.00%</u>	4.00%	<u>0.24%</u>
Portfolio Long-Term Average Arithmetic ROR	<u>100.00%</u>		<u>5.33%</u>

### Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2014 and 2013 was 7.0%. The projections of cash flows used to determine the discount rate assumed 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 QPP's fiduciary net position was projected to be available to make all projected future benefit payments of current active and non-active QPP members. Therefore, the long-term expected rate of return on QPP investments was applied to all periods of projected benefit payments to determine the total pension liability.

The following presents the net pension liability of the Employers, calculated using the discount rate of 7.0%, as well as what the Employers' net pension liability would be if it were calculated using a

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

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%)
Employers' net pension liability—June 30, 2014	\$24,068,913	\$17,816,440	\$12,426,227

### 6. MEMBER LOANS

The balance of member loans receivable for the QPP at June 30, 2014 and 2013 is \$240.3 million and \$218.8 million, respectively. QPP members are permitted to borrow up to 75% of their own contributions, including accumulated interest. Outstanding loan balances are insured in order to protect members' balances in case of death. In return for insurance coverage, Tiers III, IV, and VI members supplement their loan interest payments 7.0% APR with a 0.2% ("APR") insurance fee. Tiers I and II members pay loan interest payments of 6.0% APR and are not subject to the insurance fee. Upon termination of employment before retirement, certain QPP members are entitled to refunds of their own contributions, including accumulated interest, less any loans outstanding.

The balance of member loans receivable for the TDA Program at June 30, 2014 and 2013 is \$348.9 million and \$335.6 million, respectively. Members of the TDA Program are permitted to borrow up to 75% of their own contributions, including accumulated interest. Outstanding loan balances are insured in order to protect member balances in case of death. In return for the insurance coverage, TDA Program members supplement their interest payments (7.0% for UFT, 8.25% for all other member) with a 0.3% ("APR") insurance fee. Upon termination of employment before retirement, members are entitled to refunds of their own contributions, including accumulated interest, less any loans outstanding.

### 7. RELATED PARTIES

The Comptroller has been appointed by law as custodian for the assets of the QPP and TDA Program with discretionary authority. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller, Financial Information Services Agency ("FISA") and Office of Payroll Administration ("OPA") provide cash receipt and cash disbursement services to TRS. Actuarial services are provided to TRS by the Office of the Actuary employed by the Boards of Trustees of The City's pension systems. The City's Corporation Counsel provides legal services to TRS. The City also provides other administrative services. The cost of providing such services amounted to \$8.7 million and \$9.9 million in Fiscal Years 2014 and 2013.

### 8. ADMINISTRATIVE EXPENSES

Chapter 593 of the Laws of 1996 ("Chapter 593/96"), effective July 1, 1996, authorized the Board of Trustees to draw upon its assets to pay the administrative expenses incurred by TRS. Prior to Fiscal Year 1997, The City and Variable Annuity Programs had paid all administrative expenses. After Chapter 593/96, administrative expenses incurred by the System, net of loan service charge revenues reserves, is attributed to the QPP and the variable-return funds of the TDA Program. The cost sharing is weighted and depends on an assessment of the prior year's administrative activities. TRS' administrative expenses have been \$60.1 million and \$52.3 million for Fiscal Years 2014 and 2013, respectively. In addition to these TRS administrative expenses, other City agencies attribute the cost for services rendered by them during the fiscal year. In Fiscal Year 2014, \$8.7 million were incurred



on behalf of TRS by other City agencies, primarily the Comptroller's office. In Fiscal Year 2013, \$9.9 million were incurred on behalf of TRS by other City agencies, primarily the Comptroller's office.

## 9. CONTINGENT LIABILITIES AND OTHER MATTERS

**Contingent Liabilities** — In August 2002, a lawsuit was instituted on behalf of retired QPP members seeking service credit for work performed as “per session employment.” In January 2004, Plaintiffs’ request to proceed as a class action was granted by the lower court. Subsequently, the parties reached an initial settlement in September 2007 and a final agreement in February 2010. In December 2010 the settlement was implemented resulting in substantial costs to the Employers.

In March 2005, the President of the UFT and three retired teachers commenced two related lawsuits alleging miscalculation of the retirement formula applicable to QPP members who retire under the 20-Year Pension Plan. Subsequently, the parties have settled with the Employers, agreeing to pay a sum of \$160 million allocated to the plaintiffs according to a negotiated algorithm. In February 2010, the settlement was implemented.

Another QPP adjustment implemented in Fiscal Year 2011 is the inclusion of wages for class coverage into the calculation of retirement benefits. This also adds substantial cost to the Employers.

The QPP and TDA Program also have certain other contingent liabilities. TRS management, on advice from legal counsel, believes that such proceedings and contingencies will not have a material effect on the fiduciary net position of the QPP or TDA Program or cause changes in their fiduciary net position. Under the State statutes and City laws that govern the functioning of the QPP and TDA Program, increases in the obligation of the QPP and TDA Program to members and beneficiaries ordinarily result in increases in the obligations of the Employers to the QPP and TDA Program.

**Other Matters** — During Fiscal Years 2014 and 2013, certain events described below took place that, in the opinion of TRS management, could have the effect of increasing benefits to members and/or their beneficiaries, and therefore, would increase the obligations of the QPP and TDA Program. The effect of such events has not been fully quantified. However, it is the opinion of TRS management that such developments would not have a material effect on fiduciary net position restricted for benefits or cause changes in fiduciary 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 5 (“QPP Net Pension Liability”) for the results of the most recent actuarial audits for the QPP.

**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 Teachers’ Retirement System” (“February 2012 Report”).

The TRS Retirement Board 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



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

to the actuarial assumptions and methods that require legislation, including the AIR assumption of 7.0% per annum, net of investment expenses.

### **New York State Legislation** (only significant laws included) —

Chapter 19 of the Laws of 2008 (“Chapter 19/08”) established retirement programs to permit Tier II and Tier IV current members of TRS to elect to retire between ages 55 and 62 without reduction provided they have 25 years of service, by paying an additional contribution of 1.85% of future pay. New members after February 27, 2008, are mandated into this plan and are required to have 27 years of service.

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 504 of the Laws of 2009 provided that individuals joining TRS after December 10, 2009, who participate in the 55/27 retirement program, are required to make pension contributions of 4.85% of salary until they have 27 years of credited service and contributions of 1.85% of salary thereafter.

Also, under Chapter 504/09, these members of TRS who are represented by the UFT will become vested after ten years of credited service. In addition all members represented by the UFT who participate in the Tax-Deferred Annuity Program (“TDA”), will receive an interest rate of 7.0% per annum credited to their TDA Fixed Return Funds accounts beginning December 10, 2009.

Chapter 105 of the Laws of 2010 (“Chapter 105/10”) provided an Early Retirement Incentive (“ERI”) program for certain members.

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 286 of the Laws of 2010 enacted a technical correction to the definition of Final Average Salary (“FAS”) for certain TRS members to conform with current administrative practice.

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.

Chapter 18 of the Laws of 2012 amended portions of the Retirement and Social Security Law and Administrative Code of the City of New York that affect the contributions and benefits of members who join a New York State public retirement system (including TRS) on or after April 1, 2012. These changes are sometimes referred to as Tier VI.

Chapter 3 of the Laws of 2013 (“Chapter 3/13”) implemented changes in the actuarial procedures for determining Employer Contributions beginning Fiscal Year 2012. In particular, Chapter 3/13 continued the One-Year Lag Methodology (“OYLM”), employed the Entry Age Actuarial Cost Method (“EAACM”), established an Actuarial Interest Rate (“AIR”) assumption of 7.0% per annum, net of expenses, continued it and other interest rates until June 20, 2016 and defined the amortization of Unfunded Actuarial Accrued Liabilities (“UAAL”).

Chapter 489 of the Laws of 2013 ("Chapter 489/13") extended the WTC Disability Laws to vested members.

\* \* \* \* \*

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 1

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

## QUALIFIED PENSION PLAN

## SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS

(In thousands)

	2014	2013
Total pension liability:		
Service cost	\$ 1,205,662,452	\$ 1,170,546,070
Interest	4,407,702,189	4,176,571,397
Changes of benefit terms	-	-
Differences between expected and actual experience	-	-
Changes of assumptions	-	-
Benefit payments/withdrawals	(3,818,248,000)	(3,619,254,000)
Net change in total pension liability	1,795,116,641	1,727,863,467
Total pension liability – beginning	60,511,262,470	58,783,399,003
Total pension liability – ending (a)	62,306,379,111	60,511,262,470
Plan fiduciary net position:		
Contributions - Employer	3,054,424,000	2,912,844,000
Contributions - Employee	154,962,000	154,698,000
Net investment income	9,435,906,000	5,721,112,000
Benefit payments/withdrawals	(3,818,248,000)	(3,619,254,000)
Payment of Interest on TDA Fixed Funds	(1,147,923,000)	(1,047,979,000)
Administrative expenses	(46,042,000)	(39,682,000)
Other Changes	404,000	(44,000)
Net change in plan fiduciary net position	7,633,483,000	4,081,695,000
Plan fiduciary net position – beginning	36,856,456,000	32,774,761,000
Plan fiduciary net position – ending (b)*	44,489,939,000	36,856,456,000
Employer's net pension liability – ending (a)-(b)	\$ 17,816,440,111	\$ 23,654,806,470
Plan fiduciary net position as a percentage of the total pension liability	71.41%	60.91%
Covered Employee Payroll 1	\$ 7,996,941,545	\$ 7,964,148,973
TRS' Net Pension Liability as a Percentage of covered-employee payroll	222.79%	297.02%

1 Projected Employee Payroll at Time 1.0 under One-Year Lag Methodology.

**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 Systems' fiduciary net position and may differ from the Systems' final fiduciary net position.



## SCHEDULE 2

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

## QUALIFIED PENSION PLAN

## SCHEDULE OF EMPLOYERS' CONTRIBUTIONS

(In thousands)

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution	\$ 2,998,694	\$ 2,855,640	\$ 2,673,078	\$ 2,468,973	\$ 2,484,074	\$ 2,223,644	\$ 1,916,520	\$ 1,600,904	\$ 1,316,611	\$ 1,304,033
Contributions in relation to the actuarially determined contribution	2,998,694	2,855,640	2,673,078	2,468,973	2,484,074	2,223,644	1,916,520	1,600,904	1,316,611	1,228,275
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (75,758)
Covered-employee payroll	\$ 7,964,236	\$ 7,833,329	\$ 7,920,935	\$ 7,935,248	\$ 7,859,999	\$ 7,221,499	\$ 6,998,174	\$ 6,285,203	\$ 6,183,304	\$ 6,219,744
Contributions as a percentage of covered-employee payroll <sup>1</sup>	37.652%	36.455%	33.747%	31.114%	31.604%	30.792%	27.386%	25.471%	21.293%	19.748%

<sup>1</sup> The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on pay roll or projected to be on pay roll (under One-Year Lag Methodology) as of the preceding June 30 adjusted, where applicable, to be consistent with collective

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 2 (CONTINUED)

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

## QUALIFIED PENSION PLAN

## SCHEDULE OF EMPLOYERS' CONTRIBUTIONS

(In thousands)

## Notes 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, 2012	June 30, 2011	June 30, 2010	June 30, 2009- June 30, 2004	June 30, 2004
Actuarial cost method	Entry Age	Entry Age	Entry Age	Frozen Initial Liability <sup>1</sup>	Frozen Initial Liability <sup>1</sup>
Amortization method for Unfunded Actuarial Accrued Liabilities:					
Initial Unfunded	Increasing Dollar	Increasing Dollar	Increasing Dollar	NA <sup>2</sup>	NA <sup>2</sup>
Post-2010 Unfunded	Level Dollar	Level Dollar	Level Dollar	NA <sup>2</sup>	NA <sup>2</sup>
Remaining amortization period:					
Initial Unfunded	20 years (closed)	21 years (closed)	22 years (closed)	NA <sup>2</sup>	NA <sup>2</sup>
2010 ERI	4 years (closed)	5 years (closed)	NA	NA <sup>2</sup>	NA <sup>2</sup>
2011 Actuarial Loss	14 years (closed)	15 years (closed)	NA	NA <sup>2</sup>	NA <sup>2</sup>
2012 Actuarial Loss	15 years (closed)	NA	NA	NA <sup>2</sup>	NA <sup>2</sup>
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 "Market Value Restart" as of June 30, 1999.	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>	8.0% per annum, gross of investment expenses <sup>3</sup>	8.0% per annum, gross of investment expenses <sup>3</sup>
Post-retirement mortality	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2012
Active service: withdrawal, death, disability, service retirement	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2012	Tables adopted by Retirement Board during Fiscal Year 2006	Tables adopted by Retirement Board during Fiscal Year 2000
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>
Cost-of-Living Adjustments <sup>2</sup>	1.5% per annum for Tiers I II and IV, 2.5% per annum for Tiers III and VI. <sup>3</sup>	1.5% per annum for Tiers I, II, and IV, 2.5% per annum for Tier III. <sup>3</sup>	1.5% per annum for Tiers I, II, and IV, 2.5% per annum for Tier III. <sup>3</sup>	1.3% per annum <sup>4</sup>	1.3% per annum <sup>4</sup>

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

<sup>2</sup> In conjunction with Chapter 85 of the Laws of 2000, there is an amortization method. However, the June 30, 1999 UAAL for the QPP equaled \$0 and no amortization period was required.

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

<sup>4</sup> In the June 30, 2009 actuarial valuation the tables adopted by the Retirement Board during Fiscal Year 2006 were supplemented by additional assumptions adopted by the Retirement Board during Fiscal Year 2011 for valuing benefits payable to Tier III active members.

## SCHEDULE 3

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

## QUALIFIED PENSION PLAN

## SCHEDULE OF INVESTMENT RETURNS

(In thousands)

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The following table displays annual money-weighted rate of return, net of investment expense, for pooled NYC Pension Fund investments for each of the past two fiscal years:

<u>Fiscal year-ended</u>	<u>Money-weighted Rate of Return</u>
June 30, 2014	17.6%
June 30, 2013	11.7%

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



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 4

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

**ADDITIONAL SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF ADMINISTRATIVE EXPENSES**  
**Year Ended June 30, 2014**

	Total	QPP	TDA	Expense Reserve****
<b>PERSONNEL SERVICES</b>				
Staff Salaries	\$28,532,187	\$22,329,290	\$5,358,345	\$844,553
Social Security	1,648,493	1,290,110	309,587	48,795
Insurance (Health)	4,149,789	3,247,625	779,330	122,834
Welfare Benefit Fund	1,171,801	917,051	220,064	34,685
<b>TOTAL PERSONNEL SERVICES</b>	<b>35,502,269</b>	<b>27,784,076</b>	<b>6,667,326</b>	<b>1,050,867</b>
<b>PROFESSIONAL SERVICES</b>				
Data Processing Support Services	7,467,607	4,412,730	2,887,975	166,901
Temporary and Consulting Services	752,004	588,518	141,226	22,259
System Modernization Services	5,181,566	2,521,777	2,612,504	47,285
Professional Services	725,937	568,118	136,331	21,488
<b>TOTAL PROFESSIONAL SERVICES</b>	<b>14,127,114</b>	<b>8,091,144</b>	<b>5,778,037</b>	<b>257,933</b>
<b>COMMUNICATION</b>				
Telephone	159,724	125,000	29,996	4,728
Postage	666,170	521,345	125,107	19,719
Local Traveling Expenses*	34,866	27,286	6,548	1,032
Non-Local Traveling Expenses**	51,195	40,065	9,614	1,515
<b>TOTAL COMMUNICATION</b>	<b>911,955</b>	<b>713,696</b>	<b>171,265</b>	<b>26,994</b>
<b>RENTALS</b>				
Office Space	7,239,086	5,665,308	1,359,500	214,277
Equipment Leasing	383,885	300,429	72,094	11,363
<b>TOTAL RENTALS</b>	<b>7,622,971</b>	<b>5,965,737</b>	<b>1,431,594</b>	<b>225,640</b>
<b>MISCELLANEOUS</b>				
Utilities	432,924	338,806	81,303	12,815
Supplies and Materials	83,884	65,647	15,753	2,483
Maintenance, Repairs, and Services	496,402	388,485	93,224	14,694
Office Equipment and Furniture	51,341	40,180	9,642	1,520
Advertising Expenses	39,589	30,983	7,435	1,172
Storage	133,073	104,143	24,991	3,939
Printing	489,692	383,233	91,964	14,495
Training Program	206,094	161,289	38,704	6,100
Books	12,206	9,553	2,292	361
Miscellaneous	31,461	24,621	5,908	931
Reallocation of FY11- FY13 Expenses	(631,523)	1,940,714	2,768,437	(5,340,674)
Expense Reserve FY 2014 Prepaid Portion	631,523			631,523
<b>TOTAL MISCELLANEOUS</b>	<b>1,976,666</b>	<b>3,487,653</b>	<b>3,139,655</b>	<b>(4,650,642)</b>
<b>TOTAL ADMINISTRATIVE EXPENSES***</b>	<b>\$60,140,974</b>	<b>\$46,042,305</b>	<b>\$17,187,876</b>	<b>(\$3,089,207)</b>

\* Total TRS Local Traveling Expenses includes Local Travel Fare \$20,084, Courier \$1,019, and Meals & Refreshments \$13,763.

\*\* Total TRS Non-Local Traveling Expenses includes Hotels & Meals \$27,173, Travel Fare \$12,342, and Conferences \$11,680.

\*\*\* The schedule shows total expenses paid by TRS. Other administrative expenses of \$ 8,722,578 were paid on TRS' behalf by other City agencies under Regulation 85 of the New York State Superintendent of Insurance Regulations.

\*\*\*\* Expense Reserve is funded by loan service charge revenues. QPP and TDA loan service charge revenues for FY 2014 were \$1,346,199 and \$1,743,008 respectively.

See Notes of Financial Statements No. 7 for the Corpus Expenses.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 5

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ADDITIONAL SUPPLEMENTARY INFORMATION

## SCHEDULE OF INVESTMENT EXPENSES AND SERVICES (QPP &amp; TDA)

Year Ended June 30, 2014

	Assets Under Management	Investment Expenses
<b>INVESTMENT CATEGORY</b>		
Pension Fund	\$59,881,566,519	\$153,947,732
Diversified Equity and Int'l Equity Funds	11,441,207,805	15,327,141
Bond Fund	349,158,376	493,445
Inflation Protection Fund	41,628,816	228
Socially Responsive Equity Fund	85,441,378	228
<b>Other Investment Services</b>		
Consultant		4,065,446
Legal		680,559
<b>Provision for Expense Reduction</b>		(4,778,225)
	<b>\$71,799,002,894*</b>	<b>\$169,736,554</b>
* Excludes \$5,739,574,822 in securities lending.		



## 3. Investment





## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The below report on investment activity was prepared by Rocaton Investment Advisors. Fund summaries of the System's Investment Options follow it. After the reports are disclosures of sector returns, asset class allocation, investment management and other service fees, and bond and equity holdings. The disclosures supplement the investment information of the Financial Section.

### **Prepared by Rocaton Investment Advisors, LLC, Investment Consultant to the Teachers' Retirement System of the City of New York**

As of June 30, 2014, TRS offered six investment program options to its membership: the Fixed Return Fund, the Diversified Equity Fund, the Bond Fund, the International Equity Fund, the Inflation Protection Fund, and the Socially Responsive Equity Fund. The structure of each of these programs differs depending upon its investment objective. These six programs and their objectives are described below.

The pooled New York City Pension Fund includes a) all funds that Tier I/II members invested in the Fixed Return Fund; b) Employer Contribution assets for Tier I/II members; c) all Tier III/IV/VI QPP funds and d) all TDA funds invested in the Fixed Return Fund. The Fixed Return Fund currently provides Tier I/II participants with an 8.25% return. Tier III/IV/VI members are credited 5% in their QPP accounts. The combined QPP and TDA Fixed Return Funds assets totaled \$59.9 billion as of June 30, 2014. The overall Pension Fund earned a gross of fee return of 17.6% for the fiscal year ending June 30, 2014. As of June 30, 2014, the Fund had 41% U.S. equity investments, 18% non-U.S. equity investments, 5% private equity investments, 2% private real estate, 4% REITs, 30% fixed-income investments and short-term investments (due to rounding, percentages may not add to 100%). The Fund's long-term asset allocation policy is based on the Fund's long-term investment horizon of more than 20 years. The investment structure has a significant emphasis on risk control. For example, as of June 30, 2014, approximately 95% of U.S. equity assets were invested in indexed or risk-controlled strategies. This emphasis on indexed and risk-controlled strategies also enables the program to more effectively control costs. The Fund's fixed-income holdings are primarily high-quality U.S. securities with smaller allocations to sectors such as enhanced yield and convertibles securities.

The Diversified Equity Fund's objective is to provide participants with a diversified equity investment portfolio. As of June 30, 2014, the Diversified Equity Fund, including both QPP and TDA assets, had \$11.3 billion in assets and had a net of fee return of 23.6% for the fiscal year ending June 30, 2014. This portfolio's target structure is a mixture of U.S. equities (70%), non-U.S. equities (15%), and defensive strategies (15%). The defensive sector is made up of convertible bond strategies, conservatively oriented equity strategies and a tactical asset allocation strategy. Tactical asset allocation strategies shift allocations to and within asset classes such as stocks, bonds and cash depending upon the managers' analysis of market conditions. The diversification of this portfolio beyond U.S. equities is intended to broaden diversification and help protect participants against significant market downturns within a single asset class (*i.e.* U.S. stocks). Again, risk control and cost-effectiveness are a very important focus of the investment structure. For example, as of June 30, 2014, 51% of the assets within the Diversified Equity Fund were invested in indexed strategies.

The Bond Fund invests primarily in a portfolio or portfolios of high-quality bonds that provide for participant transactions at market value. These bonds include Treasuries, Agencies, Corporates, Mortgages, and other types of fixed-income instruments. As of June 30, 2014, the combined QPP and TDA Bond Funds' assets totaled \$349.2 million and the Fund earned a net of fee return of 1.6% for the fiscal year ending June 30, 2014.

The International Equity Fund invests primarily in the stocks of non-U.S. companies located in both developed and emerging markets. The objective of this fund is to provide a return comparable to the return of the non-U.S. developed equity markets over a full market cycle. As of June 30, 2014, the combined QPP and TDA International Equity Funds' assets totaled \$105.9 million. For the fiscal year ending June 30, 2014, the International Equity Fund returned 21.8%, net of fees.

The Inflation Protection Fund seeks exposure to multiple asset classes and markets. The objective of this fund is to provide a rate of return that exceeds inflation over a full market cycle. As of June 30, 2014, the combined TDA and QPP Inflation Protection Funds' assets totaled \$41.6 million. For the fiscal year ending June 30, 2014, the Inflation Protection Fund returned 11.3%, net of fees.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The Socially Responsive Equity Fund invests primarily in stocks of large and mid-cap U.S. and non-U.S. companies that meet certain financial and social criteria. The objective of this fund is to provide a rate of return comparable to the broad equity market while reflecting social priorities. As of June 30, 2014, the combined QPP and TDA Socially Responsive Equity Funds' assets totaled \$85.4 million. For the fiscal year ending June 30, 2014, the Socially Responsive Equity Fund returned 23.1%, net of fees.

The investment strategies of these investment managers are monitored periodically for consistency with TRS' overall investment objectives.

### **ECONOMIC REVIEW**

As the U.S. economy continued to strengthen during the second quarter, the Federal Reserve marched forward with its plan to reduce bond purchases under its quantitative easing program. At the end of the quarter, the Fed had reduced its purchases to \$35 billion per month. Despite the reduction in bond purchases, interest rates continued to fall in the U.S. with the 10-year Treasury note yielding 2.53% at the end of June, an increase of 4 basis points from June 30, 2013, but a decline of 19 basis points since the end of the first quarter of 2014. Most fixed-income sectors generated positive returns over the trailing one-year period. Developed and emerging market equity markets also continued to move higher during the one year period ending June 30, 2014. U.S. equities (proxied by the S&P 500) gained 24.6% during the trailing one year period, outperforming non-U.S. developed markets (proxied by the MSCI EAFE Index) which returned 24.1% for the period. Additionally, emerging market equities (proxied by the MSCI Emerging Markets Index) posted a gain of 14.7% for the one year ending June 30, 2014. The broad fixed income market also provided a positive return during the trailing one year period, gaining 4.4%. Other fixed income asset classes, such as high yield (below investment grade bonds) and emerging markets debt, also kept pace during the one-year period ending June 30, 2014, gaining 11.8% and 11.1%, respectively.

### **U.S. MARKETS REVIEW**

Most major domestic equity indices rose during the one-year period ending June 30, 2014 with larger market capitalization indices faring better than their smaller counterparts. The Russell 3000 Index, a broad measure of the U.S. equity markets, returned 25.2% for the one-year period ending June 30, 2014. For the 12 months ending June 30, 2014, growth stocks outperformed value stocks, as the Russell 3000 Value Index returned 23.7% versus the Russell 3000 Growth Index's return of 26.8% over the same period.

For the year ending June 30, 2014, the Barclays Capital Aggregate Bond Index, a broad index of U.S. investment grade bonds, returned 4.4%.

### **INTERNATIONAL MARKETS REVIEW**

The return for the MSCI EAFE Index, a measure of the developed international equity markets, was 24.1% in U.S. dollar terms for the one-year period ending June 30, 2014. Of the following four regions: Japan, Pacific ex-Japan, U.K. and Europe ex-U.K., had the strongest performance for the one-year period, with a return of 31.7%. U.K. followed with a return of 26.6% for the one-year period while the Pacific ex-Japan and Japan markets returned 19.0% and 10.1%, respectively. International small cap stocks outperformed foreign large cap companies for the 12-month period ending June 30, 2014 as the MSCI EAFE Index returned 24.1% versus the MSCI EAFE Small Cap Index's return of 29.5% over the same period. The MSCI Emerging Markets Index returned 14.7% for the one-year period ending June 30, 2014. All of the performance information regarding non-U.S. markets is provided from the perspective of U.S.-based investors and as such were translated at year end and reviewed as US dollar denominations.

*Rocaton Investment Advisors, LLC*

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Norwalk, Connecticut 06851



## INVESTMENT OPTIONS

Below is a depiction of the investment programs in the QPP and the TDA Program available to members. The programs' portfolios are structured differently to allow members to diversify their investments. Please see pages 3.5-3.9 for detailed descriptions of the investment programs.

PENSION FUND	DIVERSIFIED EQUITY FUND	BOND FUND
(Member Contributions, Pension Reserve Funds & ITHP Contributions)	(Member Contributions & ITHP Contributions)	(Member Contributions & ITHP Contributions)
Tiers I/II QPP funds in the Fixed Return Fund	Tiers I/II QPP funds in the Diversified Equity Fund	Tiers I/II QPP funds in the Bond Fund
+		
All Tiers III/IV/VI QPP Funds	+	+
+		
All Tiers' TDA funds in the Fixed Return Fund	All Tiers' TDA funds in the Diversified Equity Fund	All Tiers' TDA funds in the Bond Fund
INTERNATIONAL EQUITY FUND	INFLATION PROTECTION FUND	SOCIALLY RESPONSIVE EQUITY FUND
(Member Contributions & ITHP Contributions)	(Member Contributions & ITHP Contributions)	(Member Contributions & ITHP Contributions)
Tiers I/II QPP funds in the International Equity Fund	Tiers I/II QPP funds in the Inflation Protection Fund	Tiers I/II QPP funds in the Socially Responsive Equity Fund
+	+	+
All Tiers' TDA funds in the International Equity Fund	All Tiers' TDA funds in the Inflation Protection Fund	All Tiers' TDA funds in the Socially Responsive Equity Fund

*Note: Members' QPP accounts receive additional contributions from their employer: "Pension Reserve" funds, which are invested in the Pension Fund, are provided to all members on a statutory basis consistent with generally accepted actuarial principles; actuarial variations are performed annually as of June 30. "Increased-Take-Home Pay" (ITHP) funds, provided by the City of New York to Tier I and Tier II members only, are invested according to member designation in any combination of the six investment programs.*

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

The table below compares accumulations as of June 30, 2014, based on assumed contributions of \$100.00 per month into each of the Fixed Return, Diversified Equity, Bond, International Equity, Inflation Protection, and Socially Responsive Equity Funds.

### 10-YEAR COMPARISON OF ACCUMULATIONS IN TRS' INVESTMENT PROGRAMS *As of June 30, 2014*

MONTHS OF PARTICIPATION	12	24	36	48	60	72	84	96	108	120
Fixed Return Fund (TDA/UFT) <sup>1</sup>	\$ 1,239	\$ 2,564	\$ 3,982	\$ 5,500	\$ 7,124	\$ 8,879	\$ 10,780	\$ 12,838	\$ 15,063	\$ 17,473
Fixed Return Fund (All others) <sup>1</sup>	\$ 1,245	\$ 2,594	\$ 4,053	\$ 5,632	\$ 7,342	\$ 9,173	\$ 11,162	\$ 13,317	\$ 15,650	\$ 18,175
Diversified Equity Fund <sup>2</sup>	\$ 1,330	\$ 2,961	\$ 4,831	\$ 6,831	\$ 9,138	\$ 11,787	\$ 13,578	\$ 15,476	\$ 17,633	\$ 20,076
Bond Fund <sup>3</sup>	\$ 1,209	\$ 2,422	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
International Equity Fund <sup>4</sup>	\$ 1,303	\$ 2,840	\$ 4,512	\$ 6,150	\$ 7,968	\$ 10,214	N/A	N/A	N/A	N/A
Inflation Protection Fund <sup>5</sup>	\$ 1,283	\$ 2,598	\$ 4,048	\$ 5,570	\$ 7,306	\$ 9,317	N/A	N/A	N/A	N/A
Socially Responsive Equity Fund <sup>6</sup>	\$ 1,324	\$ 3,006	\$ 4,873	\$ 6,845	\$ 9,209	\$ 11,879	N/A	N/A	N/A	N/A

**1 Fixed Return Fund**

*QPP: Tiers I/II members are credited with 8.25% annually on QPP investments in the Fixed Return Fund; this rate has been in effect since July 1, 1988.*

*TDA: Members who are serving in (or resigned/retired from) UFT-represented positions are credited with 7% annually on TDA investments in the Fixed Return Fund. This rate has been in effect since December 11, 2009; the previous rate was 8.25%. All other members are credited with 8.25% annually on TDA investments in the Fund; this rate has been in effect since July 1, 1988.*

**2 Based on July 2014 unit value of \$81.078**

**3 Based on July 2014 unit value of \$18.122**

**4 Based on July 2014 unit value of \$11.011**

**5 Based on July 2014 unit value of \$11.806**

**6 Based on July 2014 unit value of \$14.469**

## PENSION FUND

### Fund Summary

Fiscal Year 2014

**Return: 17.62%**

**Total Investments: \$59.882 Billion**

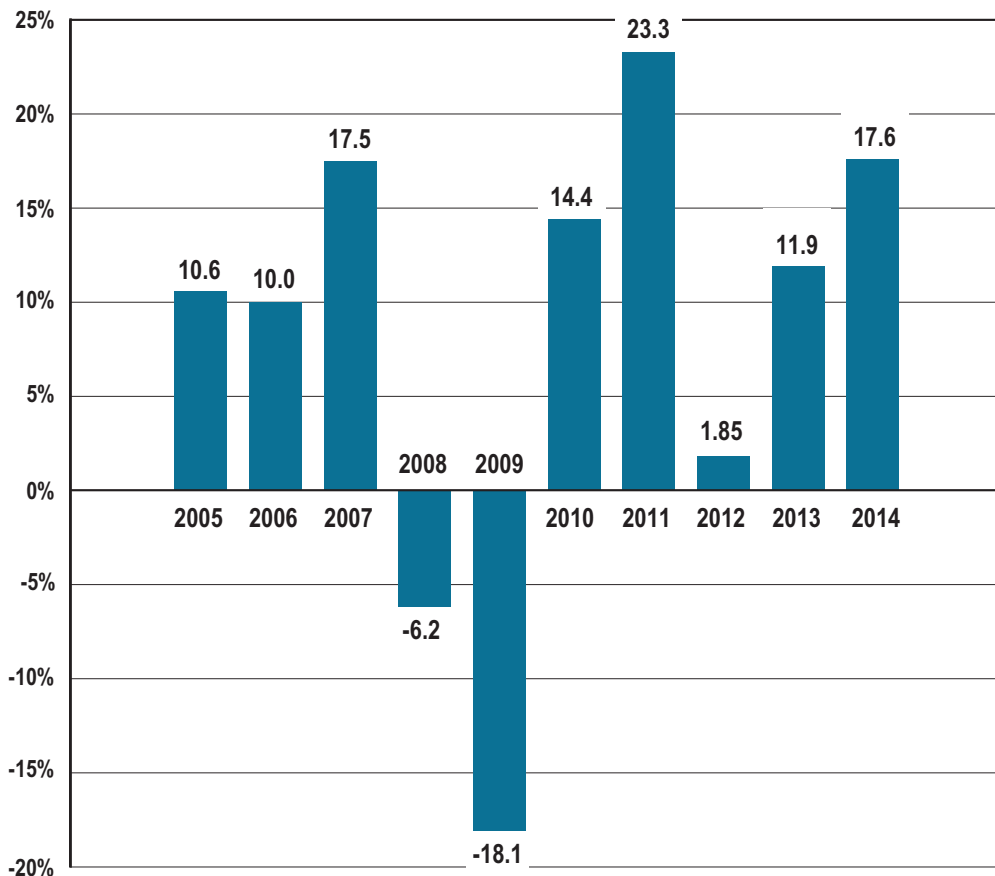
During Fiscal Year 2014, the Pension Fund's portfolio, consisting primarily of equities and fixed-income investments, yielded a gross return of 17.62%. This was an increase from the 11.90% return for Fiscal Year 2013.

The pooled New York City Pension Fund includes a) all funds that Tier I/II members invested in the Fixed Return Fund; b) Employer Contribution assets for Tier I/II members; c) all Tier III/IV/VI Qualified Pension Plan (QPP) funds; and d) all Tax-Deferred Annuity (TDA) Program funds invested in the Fixed Return

Fund. The Fixed Return Fund provides an annual rate of return that is set by the New York State Legislature in accordance with applicable laws. The combined QPP and TDA Fixed Return Fund assets totaled \$59.882 billion as of June 30, 2014.

The Comptroller of the City of New York invests the Pension Fund's holdings in a diversified portfolio, as authorized by the Teachers' Retirement Board. This portfolio consists of U.S. and international equities and fixed-income instruments, with smaller allocations to private equity and real estate investments.

### 2005-2014 PENSION FUND ANNUAL RATE OF RETURN





**DIVERSIFIED EQUITY FUND****Fund Summary**

Fiscal Year 2014

**Return: 23.56%****Total Investments: \$11.335 Billion**

For the 12-month period ending June 30, 2014, the U.S. equity market, as measured by the Russell 3000 Index, returned 25.22%. The Russell 3000 Index includes no fees and provides a passive representation of the overall U.S. stock market. For the same 12-month period ending June 30, 2014, the Diversified Equity Fund returned 23.56%, after fees. The Fund invests in a diversified blend of investment strategies that historically have made the Diversified Equity Fund less volatile over long time periods than the overall U.S. equity market. The Hybrid Benchmark, which includes no fees, is constructed based upon a passive reflection of the Diversified Equity Fund's target asset allocation among domestic stocks, domestic fixed-income securities, and international equities. The hybrid benchmark is 70% Russell 3000 Index, 15% MSCI EAFE Index and 15% Defensive Strategies benchmark. Over the 12-month period ending June 30, 2014, the Diversified Equity Fund underperformed the hybrid benchmark's return of 24.24%.

For the three-year period ending June 30, 2014 the Diversified Equity Fund returned 14.58% on an annualized basis after fees, trailing the Russell 3000 Index's annualized return of 16.46% and the Hybrid Benchmark's annualized returns of 15.30% over the same period. For the five-year period ending June 30, 2014, the Diversified Equity Fund returned 17.51%, annualized after fees, behind the Russell 3000 Index's annualized return of 19.33% and the Hybrid Benchmark's annualized returns of 17.96%. Due to its diversified structure, the Diversified Equity Fund has exhibited less performance volatility than the Russell 3000 Index over the rolling five-year periods, although this is not the case for the five-year period ending June 30, 2014.

As of June 30, 2014, approximately 79% of the Diversified Equity Fund's portfolio was invested in the U.S. common stock market. The Diversified Equity Fund's portfolio also contained approximately 14% in international stocks and approximately 5% in fixed income, cash-equivalents and other securities as of the fiscal year end. The international stock and the fixed income allocations contribute to portfolio diversification.

The Diversified Equity Fund utilizes a number of different investment strategies managed by professional money management firms. These strategies are classified into the component sectors described here. Returns after fees for all of the Diversified Equity Fund's component sectors for the one-year period ending June 30, 2014 are as follows:

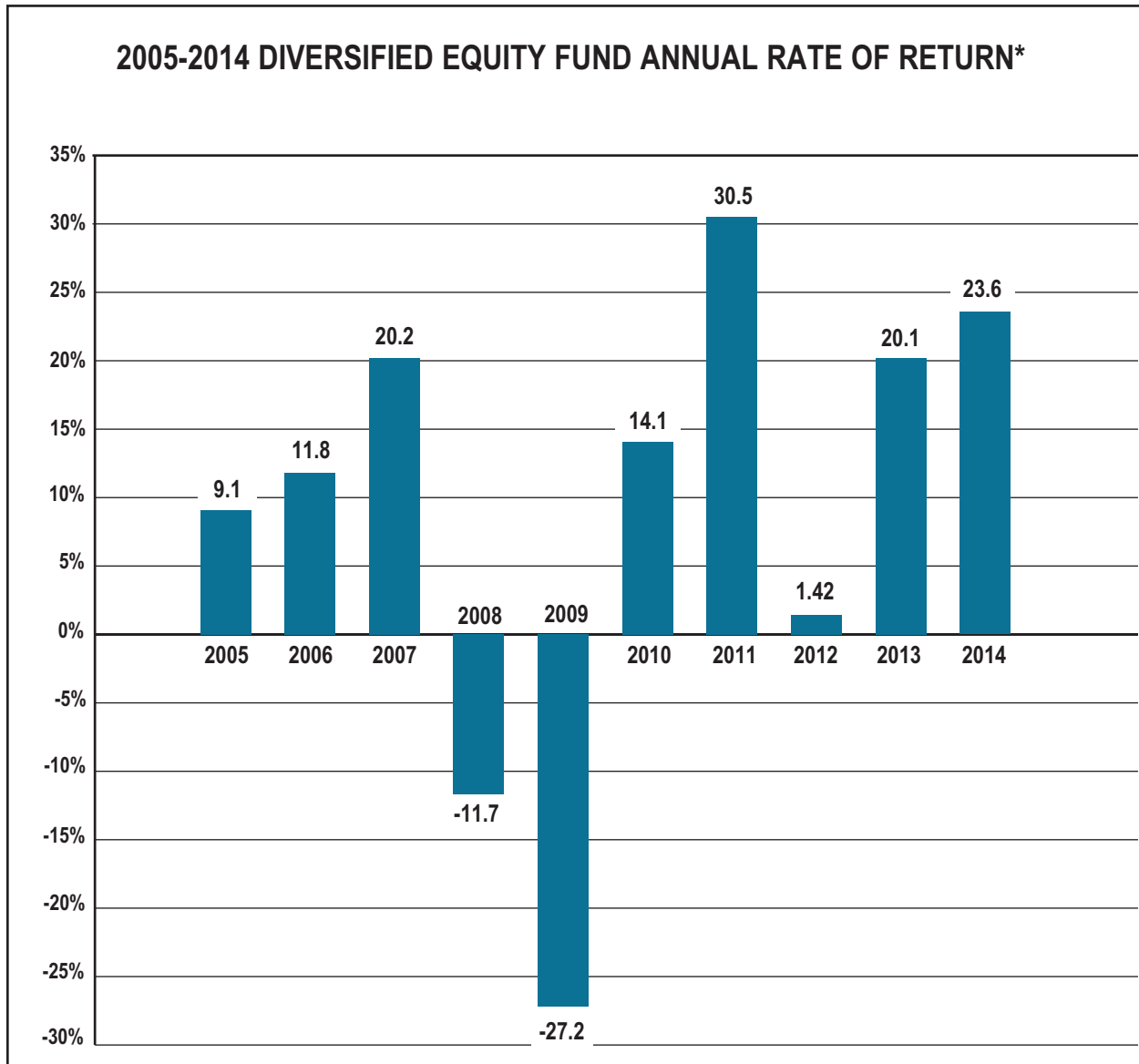
- The Passive Core (or index) sector earned a return of 25.16%, underperforming the Russell 3000 Index's return of 25.22%.
- The Active Domestic Equity sector is comprised of strategies focused on particular market capitalization ranges and investment styles. For the one-year period ending June 30, 2014 the Active Domestic Equity composite returned 25.66%, outperforming the Russell 3000 Index.
- The Defensive Strategies sector returned 18.07%, underperforming the Defensive Strategies benchmark (currently 30% Russell 1000 Index / 24.8% Russell 3000 Index / 15.2% Citigroup WGBI / 8.9% BofA ML Convertibles Yield Index / 8.9% BofA ML All Convertibles / 8.7% MSCI EAFE / 3.5% Barclays Gov't / Credit), which returned 19.73%. The Defensive Strategies sector is designed to provide a diversification benefit to the overall fund and has generally been beneficial to the fund during periods of market decline. The Tactical Asset Allocation manager within this sector,

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

which can modify its mix of equity, bonds and cash equivalents, was positioned with approximately 57.2% equity exposure and 42.8% fixed income exposure in their portfolio as of June 30, 2014. In early 2011, two low expected volatility equity strategies were added to the Defensive Strategies sector. These strategies invest primarily in lower beta stocks with the objective of offering equity-like performance with lower volatility over

market cycles. The convertible bond portfolios within this sector provide exposure that has a hybrid of equity and fixed income characteristics. The fixed income exposure of the overall Diversified Equity Fund comes from the Defensive Strategies sector.

- The International Equity sector earned 22.21%, while its benchmark, the MSCI EAFE Index returned 24.09%.



\* After expenses

**BOND FUND**  
**Fund Summary**  
Fiscal Year 2014

**Return: 1.60%**

**Total Investments: \$349.158 Million**

The Bond Fund invests primarily in a portfolio of high-quality bonds that will provide for participant transactions at market value. These bonds may include Treasuries, Agencies, Corporates, Mortgages, and other types of fixed-income instruments. Effective January 1, 2012, the Bond Fund discontinued much of its use of “wrapper agreements” from banks or insurance companies, which provide under certain conditions that members’ withdrawals from the portfolio will be

processed at book value, even if the current market value of the underlying investments has fluctuated due to changes in market conditions. As of June 30th, 2012 there were no longer any wrapper agreements, however the Fund still held small amounts of stable value investments. Over the 12-month period ending June 30, 2014, the Bond Fund returned 1.60%, underperforming Barclay’s 1-5 year Government/Credit Index, which returned 1.84%. Please note that the total return of this option includes the impact of the ongoing transition from a book valued option to a market valued option.

**INTERNATIONAL EQUITY FUND**  
**Fund Summary**  
Fiscal Year 2014

**Return: 21.78%**

**Total Investments: \$105.910 Million**

As of June 30, 2014, the International Equity Fund was comprised of 1 passive and 5 active non-US equity managers which invest primarily in the stocks of non-U.S. companies located in developed markets. The International Equity Fund began on July 1, 2008. For the one year period ending 6/30/2014 the International

Equity Fund returned 21.78 %, after fees, versus its benchmark, the MSCI EAFE Index, which returned 24.09%. Since the July 1, 2008 inception, the Fund has returned 5.69%, versus its benchmark, the MSCI EAFE Index, which returned 3.53% for the same period. The total return of this option reflects performance of the underlying managers as well as the impact of cash flows into and out of the fund.



## INFLATION PROTECTION FUND

### Fund Summary

Fiscal Year 2014

**Return: 11.29%**

**Total Investments: \$41.629 Million**

The Inflation Protection Fund primarily invests in an actively managed mutual fund that seeks exposure to multiple asset classes with the goal of providing a real rate of return that exceeds inflation over a full market cycle. The Inflation Protection Fund began on July 1, 2008. For the one year period ending 6/30/2014 the Inflation Protection Fund returned 11.29%, after fees, versus the Barclays

Capital US TIPS 1-10 Year Index's return of 3.59%. The Fund's alternate benchmark, the Consumer Price Index (CPI) plus 5%, was 7.10% for the same period. Since the July 1, 2008 inception, the Fund has returned an annualized 6.91%, after fees, compared to its primary benchmark, the Barclays Capital US TIPS 1-10 Year Index, which returned 3.36% for the same period. The total return of this option reflects performance of the underlying manager as well as the impact of cash flows into and out of the fund.

## SOCIALLY RESPONSIVE EQUITY FUND

### Fund Summary

Fiscal Year 2014

**Return: 23.11%**

**Total Investments: \$85.442 Million**

The Socially Responsive Equity Fund primarily invests in an actively managed mutual fund with the goal of providing a return comparable to the large capitalization U.S. equity market over a full market cycle while reflecting social priorities. The Socially Responsive Equity Fund began on July 1, 2008. For the one year period ending 6/30/2014, the

Socially Responsive Equity Fund returned 23.11%, after fees, versus the S&P 500 Index's return of 24.61%. Since the July 1, 2008 inception, the Fund has returned an annualized 10.62%, after fees, ahead of its benchmark, the S&P 500 Index, which returned 9.76% for the same period. The total return of this option reflects performance of the underlying manager as well as the impact of cash flows into and out of the fund.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ANNUALIZED INVESTMENT RESULTS<sup>9</sup>

As of June 30, 2014

	Current Year 2014	3 Year	Annualized 5 Year	10 Year
<b>TRS Pension Fund<sup>1</sup></b>	17.62%	10.26%	13.60%	7.57%
Benchmark: Policy Index <sup>2</sup>	17.26%	10.68%	14.09%	7.51%
<b>TRS Diversified Equity Fund<sup>3</sup></b>	23.56%	14.58%	17.51%	7.76%
Benchmark: Russell 3000 <sup>5</sup>	25.22%	16.46%	19.33%	8.23%
<b>TRS Bond Fund<sup>3</sup></b>	1.60%	N/A	N/A	N/A
Benchmark: Barclays 1-5 Year Government/Credit Index	1.84%	1.64%	2.67%	3.52%
<b>TRS International Equity Fund<sup>3</sup></b>	21.78%	7.59%	12.86%	N/A
Benchmark: MSCI EAFE <sup>6</sup>	24.09%	8.59%	12.27%	7.42%
<b>TRS Inflation Protection Fund<sup>3</sup></b>	11.29%	6.55%	9.85%	N/A
Benchmark A: Barclays Capital US TIPS 1-10 Year Index <sup>7</sup>	3.59%	2.16%	4.46%	4.57%
Benchmark B: CPI (SA) + 5% <sup>8</sup>	7.10%	6.92%	7.04%	7.32%
<b>TRS Socially Responsive Equity Fund<sup>3</sup></b>	23.11%	13.70%	17.79%	N/A
Benchmark: Standard & Poor's 500 <sup>4</sup>	24.61%	16.58%	18.83%	7.78%

1 All returns are gross of investment advisory fees except for the "Targeted" program allocation, which currently accounts for less than 0.2% of fund.

2 The "Policy Index" is a custom benchmark representing the weighted average return of the weighted benchmark indexes for each major investment program within the total fund and is calculated monthly based on adjusted policy weights at the beginning of each month.

3 Includes income; performance net of operational fees (advisory and custody) and administrative expenses.

4 Includes income; unmanaged index based on the common stock of 500 large capitalization U.S. companies. No fees reflected.

5 Includes income; unmanaged index representing approximately 98% of investable domestic common stocks. No fees reflected.

6 Morgan Stanley Capital International Europe, Australasia, and Far East unmanaged Index is a capitalization weighted index of publicly traded corporations in developed non-U.S. markets. No fees reflected.

7 Formerly known as the Lehman US TIPS 1-10 Year Index.

8 The US Consumer Price Index as shown for the stated periods above is provided for July 31, 2014; CPI calculations are subject to subsequent revisions over time.

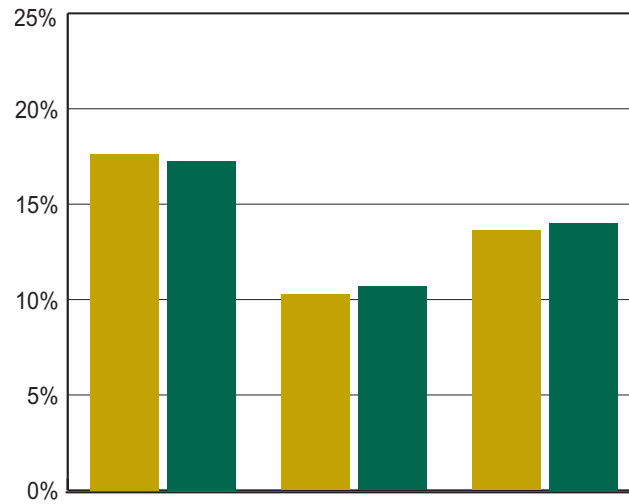
9 Performance calculations reflect time-weighted compound returns.

The above information has been gathered from reliable sources, but TRS can only take responsibility for the accuracy of the information concerning its own investment programs.

## ANNUALIZED INVESTMENT RESULTS

As of June 30, 2014

## TRS Pension Fund



NUMBER OF YEARS

1

3

5

TRS

17.62%

10.26%

13.60%

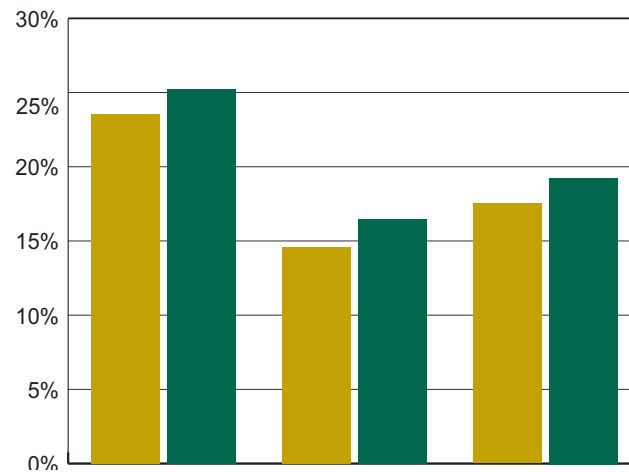
Benchmark: Policy Index

17.26%

10.68%

14.09%

## TRS Diversified Equity Fund



NUMBER OF YEARS

1

3

5

TRS

23.56%

14.58%

17.51%

Benchmark: Russell 3000

25.22%

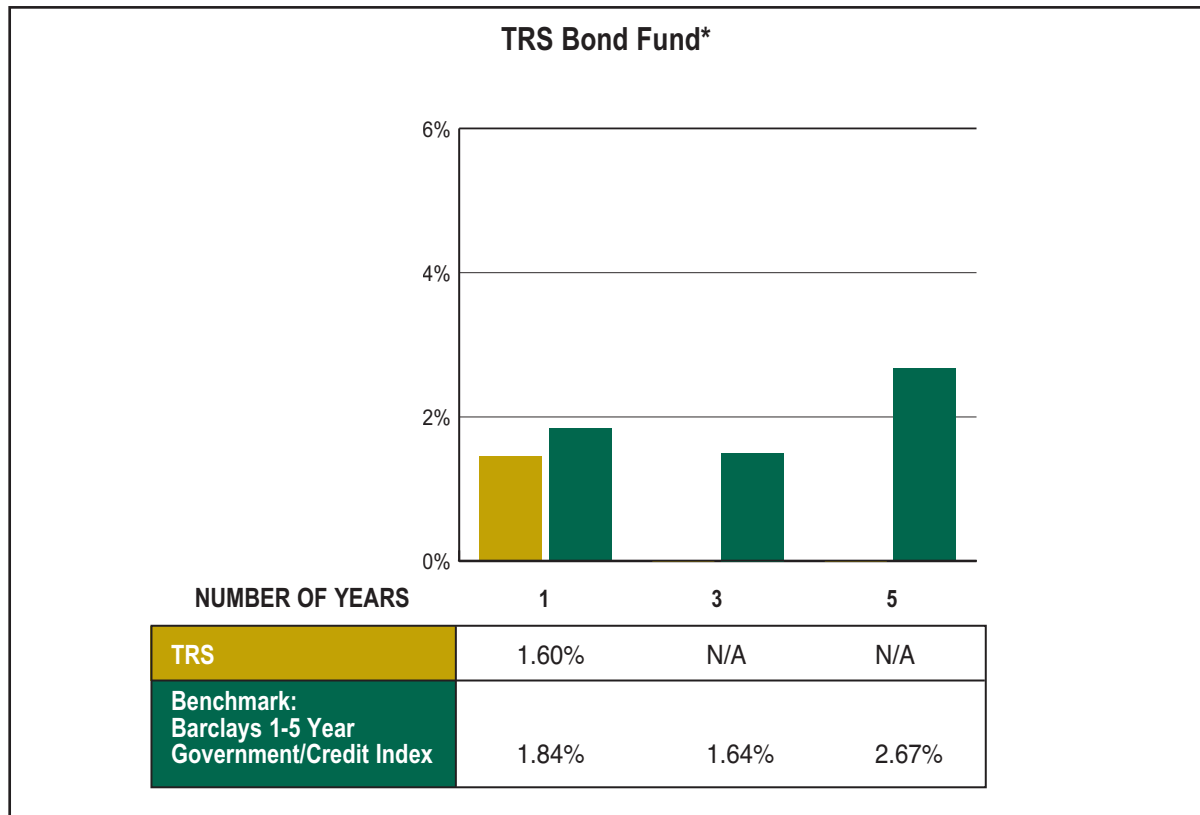
16.46%

19.33%

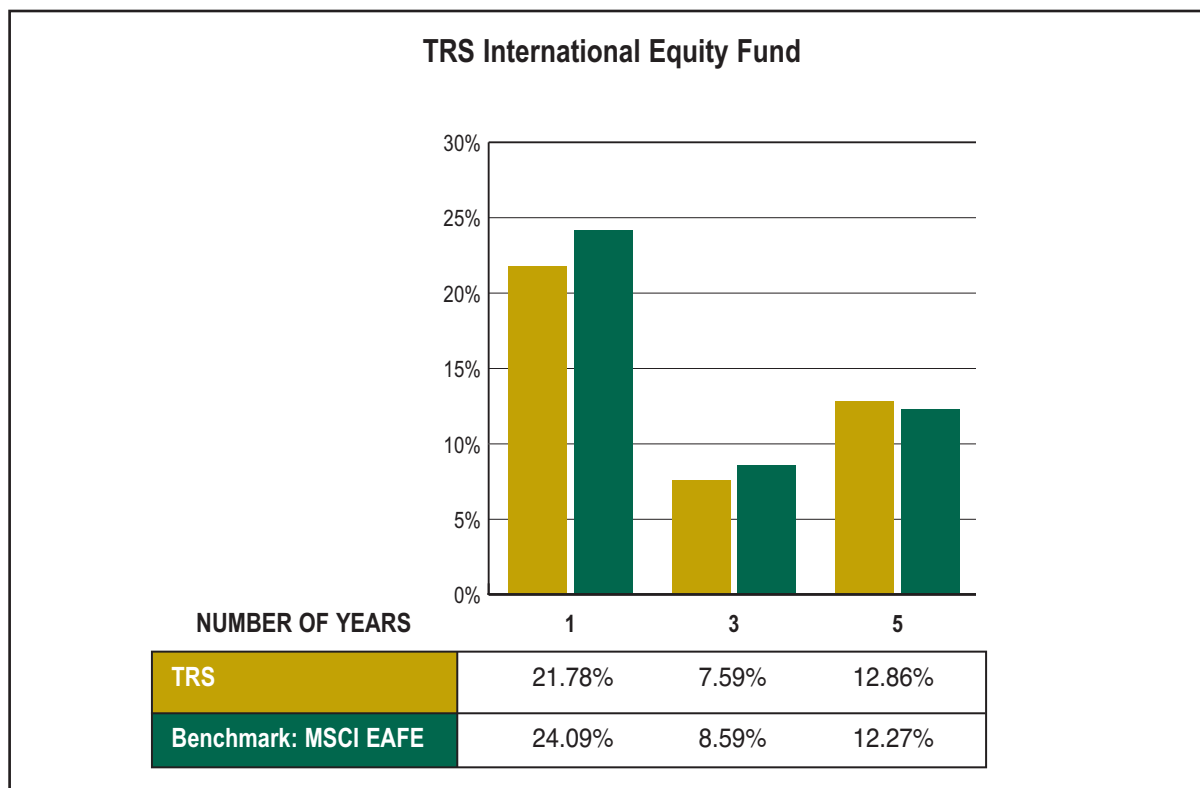


**ANNUALIZED INVESTMENT RESULTS (Continued)**

As of June 30, 2014

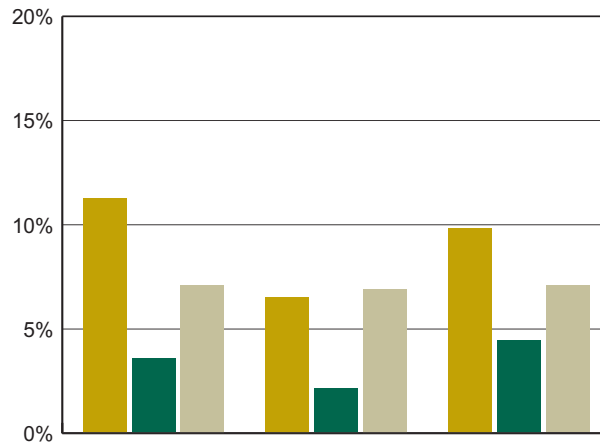


\*Reflects annualized performance beginning July 1, 2012. (As of January 1, 2012, the Stable-Value Fund became the Bond Fund.)



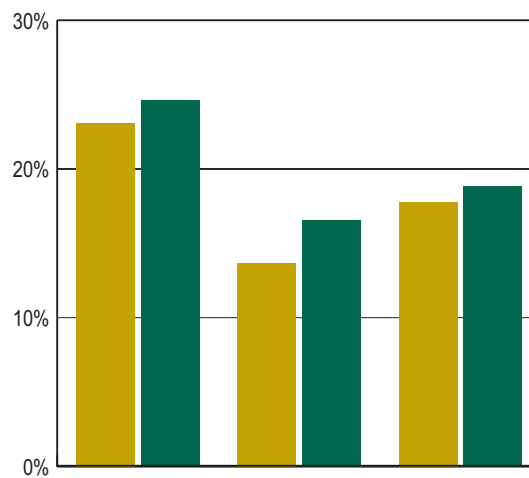
**ANNUALIZED INVESTMENT RESULTS (Continued)**

As of June 30, 2014

**TRS Inflation Protection Fund**

NUMBER OF YEARS

TRS	11.29%	6.55%	9.85%
Benchmark A: Barclays US TIPS 1-10 Year Index	3.59%	2.16%	4.46%
Benchmark B: CPI (SA) +5%	7.10%	6.92%	7.04%

**TRS Socially Responsive Equity Fund**

NUMBER OF YEARS

TRS	23.11%	13.70%	17.79%
Benchmark: Standard & Poor's 500	24.61%	16.58%	18.83%

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## INVESTMENT SUMMARY (QPP & TDA)

As of June 30, 2014

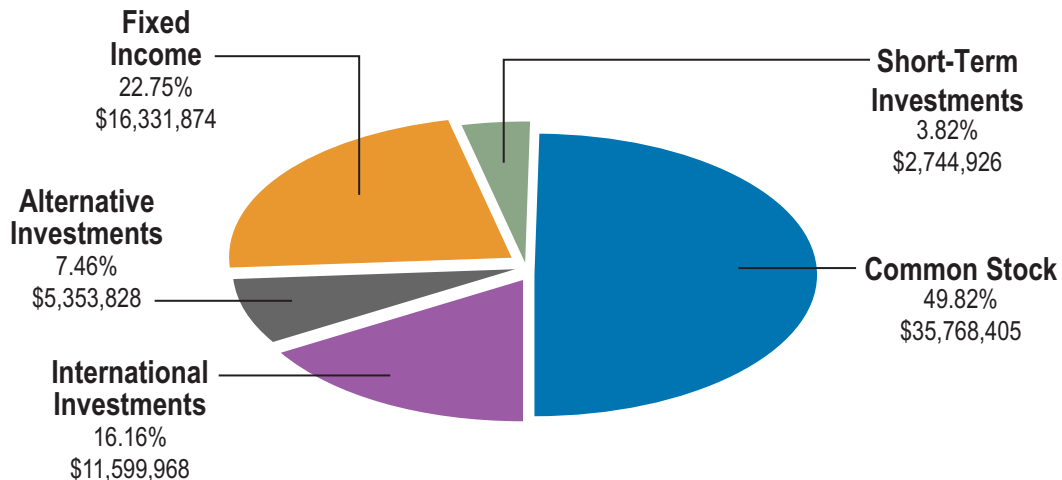
Type of Investment	Market Value In Thousands	Percent of Total Market Value
Fixed Income:		
Government Bonds	\$4,829,426	6.73%
Corporate Bonds	8,134,460	11.33
TIPS	1,599,809	2.23
Mortgages	351,908	0.49
Misc. Fixed Income	1,416,271	1.97
<b>Total Fixed Income</b>	<b>\$16,331,874</b>	<b>22.75%</b>
Common Stock:		
Financial & Utility	\$7,176,596	10.00%
Basic Industry	9,368,293	13.05
Consumer & Service	11,152,348	15.53
Technological	4,294,334	5.98
Other	3,776,834	5.26
<b>Total Common Stock</b>	<b>\$35,768,405</b>	<b>49.82%</b>
<b>International Investments</b>	<b>\$11,599,968</b>	<b>16.16%</b>
<b>Alternative/Private-Equity Investments</b>	<b>\$5,353,828</b>	<b>7.46%</b>
<b>Short-Term Investments</b>	<b>\$2,744,926</b>	<b>3.82%</b>
<b>Total Investments</b>	<b>\$71,799,001*</b>	<b>100.00%</b>

\* Excludes \$5,739,575 in securities lending.

## TOTAL INVESTMENTS ASSETS ALLOCATION\*

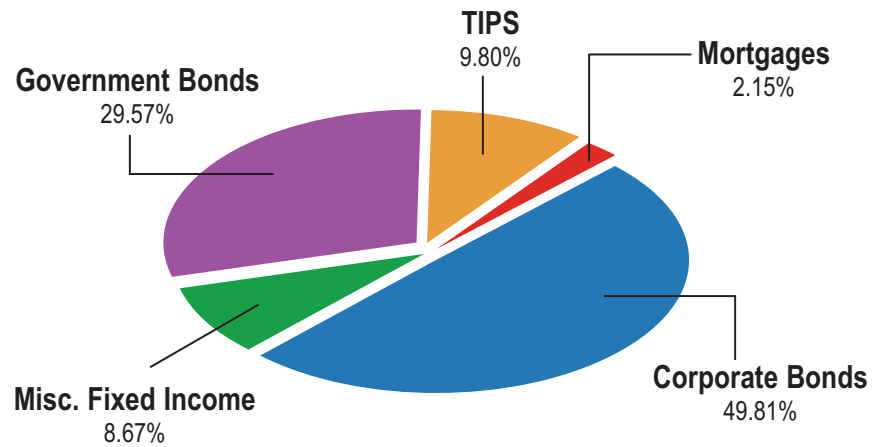
As of June 30, 2014

In Thousands



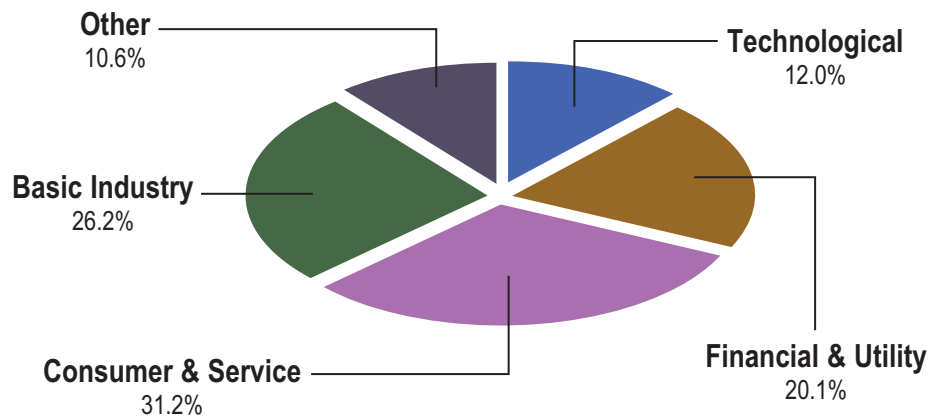
### FIXED-INCOME INVESTMENTS ASSET ALLOCATION

As of June 30, 2014

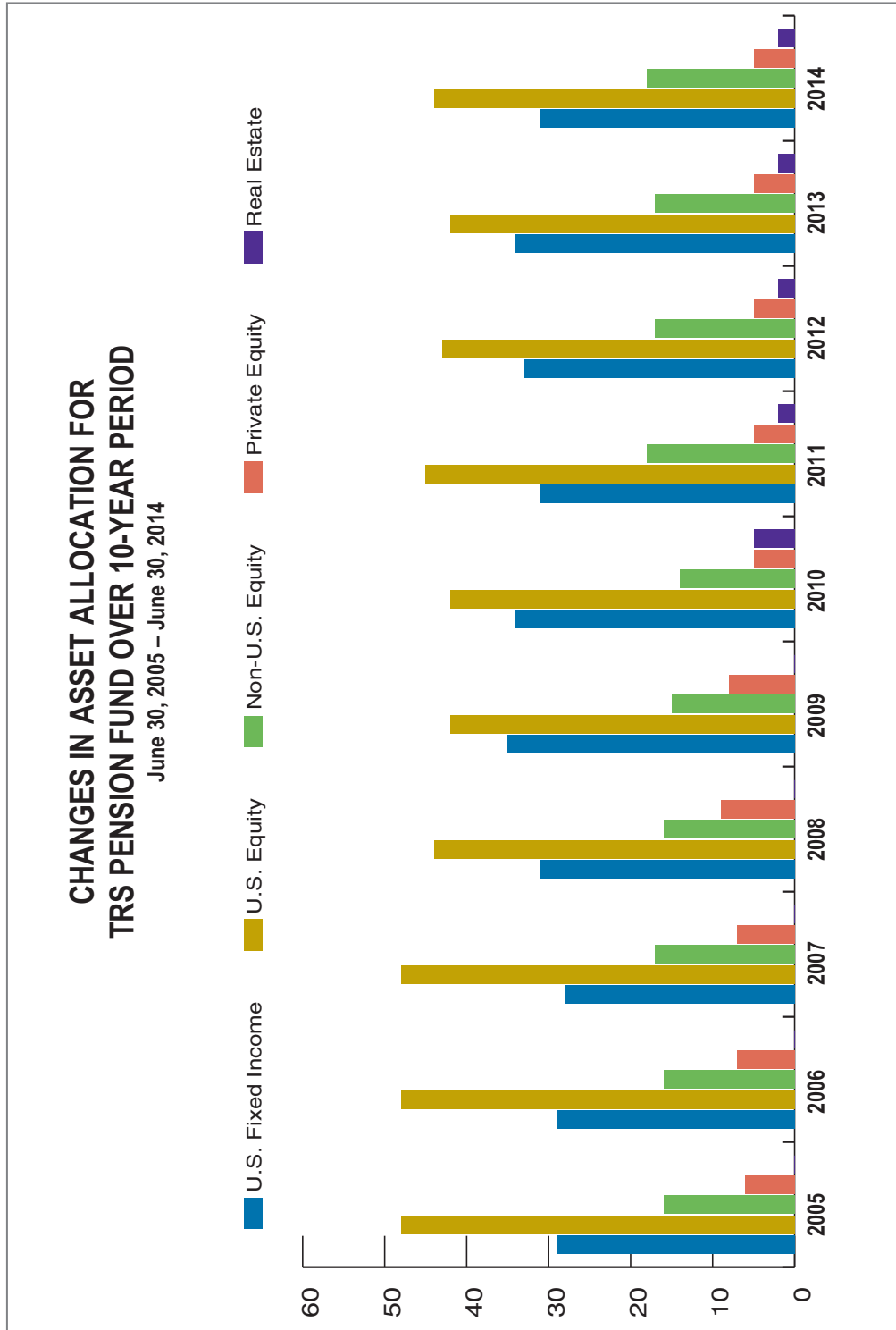


### EQUITY INVESTMENTS ASSET ALLOCATION

As of June 30, 2014







**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP & TDA)  
YEAR ENDED JUNE 30, 2014**

<b>INVESTMENT MANAGERS</b>		<b>QPP</b>	<b>TOTAL</b>
<b>Fixed Income</b>			
Advent	Investment Manager	\$1,851,315	\$1,851,315
Victory Conv Bonds	Investment Manager	800,817	800,817
Babson BL	Investment Manager	1,083,161	1,083,161
Blackrock	Investment Manager	1,022,237	1,022,237
Barrow Hanley - Credit	Investment Manager	490,600	490,600
Credit Suisse BL	Investment Manager	716,730	716,730
Fort Washington	Investment Manager	263,659	263,659
GIA	Investment Manager	381,229	381,229
Goldman Sachs - Mortgage	Investment Manager	97,889	97,889
Guggenheimbl	Investment Manager	1,333,771	1,333,771
ING BL	Investment Manager	734,617	734,617
Looms & Sayles Co., L.P.	Investment Manager	1,019,956	1,019,956
Neuberger Berman - Mortgage	Investment Manager	2,080,392	2,080,392
Oaktree	Investment Manager	947,114	947,114
Penn	Investment Manager	458,314	458,314
Pimco Advisor	Investment Manager	970,688	970,688
Prudential - Credit	Investment Manager	364,120	364,120
Shenkman Cap.	Investment Manager	754,576	754,576
Smith Breeden - Mortgage	Investment Manager	143,805	143,805
State Street - Govnt	Investment Manager	168,796	168,796
Stone Harbor	Investment Manager	1,595,532	1,595,532
T. Rowe Price Associates Inc.	Investment Manager	2,370,124	2,370,124
Taplin, Canida, Habacht	Investment Manager	718,865	718,865
Wells BL	Investment Manager	630,000	630,000
Wellington - Mortgage	Investment Manager	321,250	321,250
<b>Domestic Equity</b>			
Adelante Cap. Management	Investment Manager	902,994	902,994
Sec Capital	Investment Manager	899,286	899,286
Attucks Asset Management - AF	Investment Manager	372,467	372,467
Capital Prospects - CP	Investment Manager	398,131	398,131
Cohen & Steers - REITS	Investment Manager	891,719	891,719
FIS Equity Russ 3000	Investment Manager	933,393	933,393
Progress Asset Management - PIM	Investment Manager	192,522	192,522
Brown AM	Investment Manager	2,590,581	2,590,581
Seizert Cap	Investment Manager	614,405	614,405
Profit Inv. Mgmt	Investment Manager	833,989	833,989
Blackrock R3000	Investment Manager	247,816	247,816
State Street R3000	Investment Manager	600,796	600,796
State St GA S&P 400	Investment Manager	123,869	123,869
Urdang - REIT	Investment Manager	839,888	839,888
Walden Asset Mgmt	Investment Manager	328,552	328,552
Blackrock R2000 Growth	Investment Manager	1,100,005	1,100,005
Blackrock R2000 Value	Investment Manager	27,500	27,500
Blackrock R1000 Growth	Investment Manager	2,000	2,000
Blackrock R1000 Value	Investment Manager	2,137	2,137
<b>International Fund</b>			
Acadian	Investment Manager	1,007,714	1,007,714
Ballie Gifford EM EQ	Investment Manager	724,831	724,831

*Continued on page 3.18*

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

**SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP & TDA)**  
**YEAR ENDED JUNE 30, 2014 (Continued)**

INVESTMENT MANAGERS		QPP	TOTAL
Causeway	Investment Manager	\$2,790,659	\$2,790,659
CONY Baillie MTA	Investment Manager	2,746,087	2,746,087
CONY GT Blackrock MTA	Investment Manager	4,601,318	4,601,318
CONY Walter Scott MTA	Investment Manager	3,623,809	3,623,809
CONY Sprucegrove MTA	Investment Manager	2,489,151	2,489,151
CONY Thornburg MTA	Investment Manager	60,609	60,609
DFA Em Reit MTA	Investment Manager	6,800,490	6,800,490
Eaton Vance Em MTA	Investment Manager	7,729,123	7,729,123
European Reit MTA	Investment Manager	1,623,830	1,623,830
F&C SGE MTA	Investment Manager	584,705	584,705
MS Reit	Investment Manager	2,254,475	2,254,475
MSCI World SSGA MTA	Investment Manager	34,417	34,417
Pyramis	Investment Manager	1,866,666	1,866,666
SSGA Eafe Small Cap	Investment Manager	140,039	140,039
SSGA MTA	Investment Manager	376,879	376,879
<b>TIPS MTA Fund</b>			
Blackrock TIPS MTA	Investment Manager	162,355	162,355
Pimco TIPS MTA	Investment Manager	572,748	572,748
State Street TIPS MTA	Investment Manager	17,355	17,355
<b>Alternative Investment</b>			
ACS ( CONY ETI )	Investment Manager	164,560	164,560
AFL - CIO Housing Investment	Investment Manager	910,230	910,230
Acon Equity Partners	Investment Manager	137,113	137,113
Aisling Capital Partners	Investment Manager	185,044	185,044
Altaris Health Parts Fund	Investment Manager	32,195	32,195
American Sec Ptn VI	Investment Manager	1,719,420	1,719,420
Ampersand 2006	Investment Manager	134,014	134,014
Ampersand 2011	Investment Manager	350,000	350,000
Angelo Gordon Ct St Ptn LP	Investment Manager	1,823,186	1,823,186
Apollo Centre St Ptn	Investment Manager	1,605,741	1,605,741
Apollo Investment Fund	Investment Manager	2,193,021	2,193,021
Apollo Real Estate	Investment Manager	38,510	38,510
ARES Corp. Opp Fund	Investment Manager	2,204,702	2,204,702
Ardian Secondary	Investment Manager	82,261	82,261
Arsenal Capital Partners, II	Investment Manager	237,806	237,806
Aurora Eq	Investment Manager	5,642	5,642
AVE Special Situations FD V	Investment Manager	598,266	598,266
Avista Capital Partners, L.P.	Investment Manager	111,812	111,812
AXA Secondary Fd	Investment Manager	1,600,000	1,600,000
BC Eur Cap.	Investment Manager	808,678	808,678
BDCM Opp Fund	Investment Manager	351,318	351,318
Blackstone Group	Investment Manager	1,041,173	1,041,173
Blackstone Mezz Partners	Investment Manager	36,125	36,125
Blue Wolf Capital Fund II	Investment Manager	84,638	84,638
Bridgepoint Europe III, L.P.	Investment Manager	294,321	294,321
Capital Partners PE	Investment Manager	413,346	413,346
Carlyle Group	Investment Manager	1,427,442	1,427,442
Carpenter Comm Banc	Investment Manager	138,968	138,968
Catterton Partners VI , L.P.	Investment Manager	561,287	561,287
CCMP Capital Investors II	Investment Manager	198,033	198,033
CO Invest Prtnr Eur	Investment Manager	143,490	143,490

Continued on page 3.19

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP & TDA)**  
**YEAR ENDED JUNE 30, 2014 (Continued)**

INVESTMENT MANAGERS		QPP	TOTAL
Coller Cap	Investment Manager	\$37,890	\$37,890
Constellation Ventures III	Investment Manager	588,652	588,652
Contrarian CA	Investment Manager	341,277	341,277
Craton Equity Investors	Investment Manager	165,861	165,861
Credit Suisse Emergind Mgn Co	Investment Manager	599,479	599,479
Credit Suisse Emergind Mgn Fd	Investment Manager	74,050	74,050
CVC Capital Partners	Investment Manager	1,449,334	1,449,334
Cypress Mech BK Partners II	Investment Manager	44	44
EQT VI LP	Investment Manager	869,173	869,173
Fairview Capital Partners	Investment Manager	222,643	222,643
Fairview Emerg Mgrs Fd LP	Investment Manager	185,254	185,254
FDG Capital Partners L.L.C.	Investment Manager	161,656	161,656
First Reserve Fund	Investment Manager	882,914	882,914
Freeman Spogli & Co., Inc.	Investment Manager	23,196	23,196
Fortress Ctr St	Investment Manager	1,708,912	1,708,912
Fourth Cinven Fund	Investment Manager	148,921	148,921
FTV Capital	Investment Manager	719,929	719,929
GF Capital Private Equity FD, L.P.	Investment Manager	78,241	78,241
GI Partners Fund II L.P.	Investment Manager	228,368	228,368
GSC Recovery III	Investment Manager	101,977	101,977
GSO Cap. Opp	Investment Manager	3,359,713	3,359,713
Goldentree OD MTA	Investment Manager	57,332	57,332
Governance For Owners	Investment Manager	598,606	598,606
Green Eq Inv	Investment Manager	1,164,294	1,164,294
Grey Mt Partners Fund	Investment Manager	50,584	50,584
Halyard Capital II	Investment Manager	189,223	189,223
ICV Partners	Investment Manager	457,384	457,384
Incline Equity Partners	Investment Manager	311,534	311,534
InterMedia Partners VII, L.P.	Investment Manager	294,608	294,608
ING Clarion	Investment Manager	126,708	126,708
J.P. Morgan Investment Management Inc.	Investment Manager	60,561	60,561
KTR Ind Fund	Investment Manager	218,750	218,750
Landmark Equity Partners	Investment Manager	1,962,236	1,962,236
Lee Equity Partners	Investment Manager	273,238	273,238
Leeds Eq Partners V	Investment Manager	240,716	240,716
Leeds Weld Equity Partners IV	Investment Manager	84,901	84,901
Levine Leichtman Cap	Investment Manager	237,759	237,759
Lincolnshire Management, Inc.	Investment Manager	393,836	393,836
Lone Star Fund	Investment Manager	2,016,747	2,016,747
Marathon Ctr St Partners	Investment Manager	1,235,064	1,235,064
Marathon OD MTA	Investment Manager	1,470,055	1,470,055
Markstone Cap.	Investment Manager	244,036	244,036
Midocean Partners III	Investment Manager	82,661	82,661
Montreux Equity Partners IV	Investment Manager	278,945	278,945
Nautic Partners VI	Investment Manager	82,483	82,483
New Mountain Investments	Investment Manager	98,880	98,880
NGN Biomed Opportunity II	Investment Manager	83,333	83,333
ONEX Partners III	Investment Manager	547,076	547,076
Oak Hill Ctr St Partners	Investment Manager	1,336,496	1,336,496
Olympus Growth Fund	Investment Manager	526,635	526,635
Paladin Homeland Security	Investment Manager	470,868	470,868
Palladium Equity Partners III	Investment Manager	167,411	167,411

*Continued on page 3.20*



**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP & TDA)**  
**YEAR ENDED JUNE 30, 2014 (Continued)**

<b>INVESTMENT MANAGERS</b>		<b>QPP</b>	<b>TOTAL</b>
PCGAM Clean Energy & Tech Fund	Investment Manager	\$105,526	\$105,526
Pegasus Partners	Investment Manager	484,694	484,694
Perseus Partners VII	Investment Manager	145,406	145,406
Pine Brook Cap Partners	Investment Manager	171,503	171,503
Platinum Equity Cap Partners	Investment Manager	8,549,883	8,549,883
PRE Almanac Realty	Investment Manager	1,302,803	1,302,803
PRE Amer Value	Investment Manager	183,287	183,287
PRE Blackstone Pre Ptn Eur	Investment Manager	15,004	15,004
PRE Blackstone RE	Investment Manager	635,624	635,624
PRE Brookfield St RE Partners	Investment Manager	1,774,865	1,774,865
PRE Canyon Johnson UBN III	Investment Manager	312,068	312,068
PRE Capri Urban Investors, L.P.	Investment Manager	545,676	545,676
PRE Carlyle	Investment Manager	55,000	55,000
PRE Carlyle Realty Fd	Investment Manager	861,579	861,579
PRE Emmes Am Co	Investment Manager	173,292	173,292
PRE Hudson Sep	Investment Manager	129,385	129,385
PRE H/2 SP OPP FD	Investment Manager	331,198	331,198
PRE JPMC Strategick Property Fund	Investment Manager	1,202,787	1,202,787
PRE JPMC Special Situations Fund	Investment Manager	207,832	207,832
PRE Prologis Targeted US	Investment Manager	61,704	61,704
PRE RFM NYCERS Sandy	Investment Manager	368,873	368,873
PRE RREEF America	Investment Manager	292,440	292,440
PRE Silverpeak RE Partners	Investment Manager	76,026	76,026
PRE Stockbridge RE III	Investment Manager	227,867	227,867
PRE Taconic NY	Investment Manager	1,026,909	1,026,909
PRE Ventures	Investment Manager	835,626	835,626
Prisa	Investment Manager	815,548	815,548
Psilos Group Partners III	Investment Manager	778,022	778,022
Quadrangle Capital Partners II	Investment Manager	92,986	92,986
Quaker BioVentures II	Investment Manager	126,797	126,797
Relativity Fund	Investment Manager	94,403	94,403
Ripplewood Holdings, L.L.C.	Investment Manager	28,415	28,415
Riverstone / Carlyne GLB	Investment Manager	220,381	220,381
RLJ Equity Partners Fd	Investment Manager	229,877	229,877
SCP Private Equity Partners	Investment Manager	15,437	15,437
SCP Vitalife Partners II	Investment Manager	152,169	152,169
Snow Phipps & Guggenheim	Investment Manager	155,442	155,442
Solera Capital, L.L.C.	Investment Manager	126,892	126,892
Starvest Prtnrs II	Investment Manager	320,668	320,668
Terra Firma Cap III	Investment Manager	350,772	350,772
Thomas McNerney Ptn	Investment Manager	375,000	375,000
Thor Urban Propty FD II	Investment Manager	157,475	157,475
Tishman Speyer	Investment Manager	333,333	333,333
Torchlight Investors	Investment Manager	409,723	409,723
Trilantic Cap Ptnrs	Investment Manager	1,538,506	1,538,506
U. S. Power Fd	Investment Manager	747,222	747,222
UBS Real Estate Separate Account	Investment Manager	1,231,008	1,231,008
Vista Equity Partners III	Investment Manager	1,331,369	1,331,369
VSS Communication Partners IV	Investment Manager	20,461	20,461
Warburg Pincus Pe	Investment Manager	2,271,695	2,271,695
Wel Crsn Andrsn & Sto	Investment Manager	42,271	42,271

*Continued on page 3.21*

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP & TDA)**  
**YEAR ENDED JUNE 30, 2014 (Continued)**

<b>INVESTMENT MANAGERS</b>		<b>QPP</b>		<b>TOTAL</b>
Yucaipa American Alliance Fund	Investment Manager	\$1,582,063		\$1,582,063
Yucaipa Corporation Initiatives II	Investment Manager	209,604		209,604
Trident V. LP	Fee Refund	(258,317)		(258,317)
Legal Fees		680,559		680,559
Consultant Fees		4,065,446		4,065,446
<b>Diversified Equity Fund and International Equity Fund</b>			<b>TDA</b>	
Clearbridge All Cap-Aggr. Growth	Investment Manager	174,459	\$307,508	481,966
Small / Mid Cap Gro Wth	Investment Manager	138,405	243,959	382,364
Advent Conv Bond	Investment Manager	195,835	345,188	541,023
Zazove Conv Bond	Investment Manager	454,702	801,477	1,256,179
Sound Shore-Value	Investment Manager	184,674	325,515	510,189
Cardinal Sm Cap Val	Investment Manager	174,223	307,092	481,315
Shapiro - Small Cap	Investment Manager	224,753	396,160	620,913
Crm-Mid Value	Investment Manager	171,749	302,732	474,481
Rainer-Small / Mid	Investment Manager	162,982	287,278	450,260
Wasatch Advisors Inc	Investment Manager	321,998	567,568	889,566
Mcm - Russ 3000	Investment Manager	63,647	112,187	175,834
Intech-Super Fund	Investment Manager	319,275	562,768	882,043
Wellington - Lg Cp Cor	Investment Manager	359,787	634,176	993,963
Martingale Large Cap	Investment Manager	49,772	87,730	137,501
Analytic Investors	Investment Manager	190,168	335,198	525,366
Aronson Johnson Ortiz	Investment Manager	266,060	468,968	735,028
T. Rowe Price	Investment Manager	235,679	415,418	651,097
Short Term A-Qpp&Tda	Investment Manager	7,013	12,362	19,376
Gmo-Global Asset Alloc	Investment Manager	17,946	31,632	49,578
Amalgamated-S&P 1500	Investment Manager	15,142	26,689	41,831
Diamond Hill Capital Magt Inc	Investment Manager	68,149	120,122	188,272
New South Capital Magt Inc	Investment Manager	77,864	137,247	215,111
Mfs Investment Advisors	Investment Manager	167,177	294,673	461,849
Blackrock Intl Eafe Iidx	Investment Manager	91,843	161,885	253,728
Sprucegrove Invt Magt Ltd	Investment Manager	264,833	466,806	731,640
Wellington Magt Co, Llp Iep	Investment Manager	330,380	582,341	912,720
Thornburg Invt Magt Iep	Investment Manager	180,068	317,395	497,463
Pyramis Global	Investment Manager	243,482	429,172	672,654
Walter Scott - Int'l	Investment Manager	306,285	539,871	846,156
Mellon Trust Co.	Custodial Bank	89,650	158,022	247,672
<b>Bond Fund</b>				
Standish Mellon Asset Mgmt.	Funding Advisor	67,465	418,293	485,759
Mellon Global Securities Services	Custodial Bank	1,068	6,619	7,686
<b>Inflation Protection Fund</b>				
PIMCO	Mutual Fund			
Mellon Global Securities Services	Custodial Bank	40	187	228
<b>Socially Responsive Equity Fund</b>				
Neuberger Berman SRF	Mutual Fund			
Mellon Global Securities Services	Custodial Bank	29	199	228
<b>Total Investment Expenses*</b>		<b>\$164,310,341</b>	<b>\$10,204,437</b>	<b>\$174,514,778</b>

\* Total Investment Fees do not include \$2,102,004 and \$2,676,221 reductions in the QPP's and the TDA Program's variable-return funds' provision for expenses.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)  
FISCAL YEAR ENDED JUNE 30, 2014**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Abel Noser Corporation	105,889	\$0.02	\$2,189
Abg Securities Limited	8,100	0.04	301
Abg Securities, Oslo	15,200	0.02	274
Abn Amro Clearing Bank N.V.	22,556	0.10	2,343
Academy Securities Inc	107,187	0.02	2,144
American Portfolios Financial	438	0.04	18
Apex Clearing Corporation	3,288	0.01	33
Aqua Securities L.P.	29,074	0.02	581
Aros Securities Ab	27,600	0.02	671
Arqaam Securities LLC	225,800	0.00	791
Avondale Partners, LLC	60,376	0.04	2,359
B.Riley & Co., LLC	81,011	0.03	2,255
Baird Robert W & Co Inc	339,574	0.03	11,679
Banco Pactual S.A.	195,100	0.01	2,361
Banco Santander Central Hispano	600,000	0.01	4,193
Bank J.Vontobel Und Co. Ag	1,240	6.83	8,464
Bank Of New York Brussels	17,640	0.11	1,857
Bank Vontobel Ag, Zurich	430	6.97	2,995
Barclays Capital	2,598,740	0.01	34,158
Barclays Capital Fixed Income	40,938	0.03	1,412
Barclays Capital Inc LE	126,199	0.03	4,027
Barclays Capital Inc.	574,663	0.00	2,548
Barclays Capital LE	2,726,582	0.02	64,626
Barclays Capital Secs London	1,686,300	0.01	16,081
Barrington Research Associates Inc.	280	0.04	10
Baypoint Trading LLC	120,790	0.03	3,488
Bb&T Investment Services Inc.	496	0.04	20
Bb&T Securities, LLC	37,235	0.04	1,369
Bell Potter Securities Limited	24,452	0.00	112
Berenberg Bank, Hamburg	69,915	0.03	2,113
Blair William & Company LLC	89,123	0.04	3,279
Blaylock & Co Inc	568,296	0.04	20,124
Blaylock Robert Van LLC	1,933,506	0.03	63,321
Bloomberg Tradebook	28,022	0.02	420
Bloomberg Tradebook LLC	29,645	0.01	403
Bmo Capital Markets	239,491	0.03	7,903
Bmo Nesbitt Burns Corp	107,691	0.02	2,284
Bnp Paribas Brokerage Sec Inc	13,400	0.04	536
Bnp Paribas Peregrine Securities	7,283	0.16	1,169
Bnp Paribas Secs Services, LDN	10,430	0.18	1,830
Bnp Paribas Securities (Asia) LTD.	16,479	0.05	765
Bnp Paribas Securities Service	100,953	0.01	1,372
Bny Brokerage	121,650	0.03	3,650
Bny Brokerage Inc	94,350	0.03	2,831
Bny Convergenx Exec Solution	91,532	0.04	3,860
Bny Convergenx Ljr	2,774	0.02	46
Bny Davy Sec LTD	136,000	0.04	5,440
Brean Capital LLC	125,786	0.01	1,353
Brean Murray Carret& Co. LLC	35,679	0.01	404

*Continued on page 3.23*

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Brockhouse And Cooper	21,200	\$0.02	\$412
Btig, LLC	146,200	0.02	2,804
Buckingham Research Group Inc	8,700	0.04	357
Cabrera Capital Markets	738,490	0.02	17,981
Cabrera Capital Markets LLC	294,205	0.01	2,157
Canaccord Genuity Inc	39,366	0.04	1,513
Canaccord Nominees Limited	2,900	0.01	20
Canaccordgenuity Inc.	41,333	0.04	1,458
Canadian Imperial Bank Of Commerce	30,210	0.07	2,133
Cantor Fitzgerald & Co	1,138,074	0.02	26,312
Cantor Fitzgerald & Co / CastleOak Sec	67,550	0.03	2,027
Cantor Fitzgerald And Co Inc	19,617	0.04	687
Cantor Fitzgerald Europe	51,500	0.00	172
Cantor Fitzgerald/Cantor Clearing Serv	2,967,866	0.01	42,977
Cantor Fitzgerald/CastleOak	24,855	0.03	746
Cantor Fitzgerald/Clearing Svc	1,366,642	0.01	18,031
Capital Institutional Svcs Inc Equities	71,954	0.04	3,065
Carnegie Bank A S Copenhagen	113,500	0.01	784
Celfin Capital Sa Corredores De Bolsa	1,145,142	0.00	1,812
Celfin S.A., Santiago	76,300	0.00	253
Cheevers & Co. Inc.	361,823	0.03	12,082
Cibc London	98,430	0.04	3,800
Cimb-Gk Securities Pte.LTD.	36,479	0.00	89
Citation Group	797,574	0.04	29,652
Citation Group Bcc Clrg NY	24,257	0.02	485
Citation Group/Bcc Clrg	668,666	0.04	25,651
Citibank N.A.	2,174,598	0.01	14,600
Citibank NA, London	15,200	0.02	229
Citicorp Securities Thailand LTD	35,900	0.00	35
Citigroup Global Markets Australia	1,759	0.01	25
Citigroup Global Markets Inc	503,139,513	0.00	631,496
Citigroup Global Markets Korea Sec	4,370	0.11	463
Citigroup Global Markets LTD, LDN	22,395,194	0.01	131,424
Citigroupglbl Marktet Koera Secs LTD	1,966,795	0.04	76,150
Citigroupglobal Markets India	7,336,798	0.01	41,869
Citigroupglobal Markets Limited	32,129,448	0.01	202,185
Citigroupglobal Markets Taiwan	76,668,000	0.00	54,900
Clsa LTD, Hong Kong	173,200	0.01	2,266
Clsa Securities Korea	25,430	0.02	605
Clsa Securities Korea LTD.	1,360	0.17	229
Clsa Singapore Pte LTD.	2,791,183	0.00	5,385
Collins Stewart Europe LTD	14,600	0.01	102
Commerzbank Ag, Frankfurt	9,000	0.03	250
Compass Point Research & Trading, LLC	156,463	0.03	5,362
Concept Capital Markets,LLC	4,392	0.03	132
Convergex Execution Solutions	541,244	0.03	16,894
Convergexexecution Solutions LLC	1,481,464	0.03	45,353
Corp Banca	5,621,636	0.00	1,476
Cowen & Co LLC	251,797	0.03	8,603

*Continued on page 3.24*



**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Craig - Hallum	308,425	\$0.03	\$8,888
Credibolsa Sociedad Agente	640,430	0.00	2,515
Credit Agricole Sec Usa Inc	1,371	0.04	55
Credit Lyon Secs Asia LTD, Taipei	273,000	0.00	239
Credit Lyonnais Securities(Asia)	3,812,736	0.00	14,690
Credit Research & Trading LLC	134,355	0.03	3,870
Credit Suis Fst Boston (Eur), Seoul	40,769	0.02	954
Credit Suisse 1st Boston Corp, NY	1,680,850	0.01	9,973
Credit Suisse First Boston	809,994	0.02	16,174
Credit Suisse First Boston (Europe)	112,787	0.07	7,823
Credit Suisse First Boston HK	67,289,475	0.00	17,233
Credit Suisse First Boston, LDN	868,031	0.01	5,861
Credit Suisse Secs (Malaysia)	510,000	0.00	252
Credit Suisse Secs India Private LTD	2,016,790	0.00	6,347
Credit Suisse Securities (Europe) LTD	546,621	0.01	5,073
Credit Suisse Securities (Usa) LLC	81,518,486	0.00	130,489
Cs First Boston (Hong Kong) Limited	16,921,881	0.00	1,729
Cs First Boston India Sec Pte LTD	2,232,443	0.00	4,415
Csfb (Europe) LTD, London	70,000	0.00	260
Csfb Australia Equities LTD	57,097	0.01	329
Csfb Australia Securities LTD	99,915	0.01	600
Cuttone &Co.	8,827	0.02	177
Cuttone &Co, Inc	11,150	0.02	223
Daewoo Securities Co LTD	4,233	0.09	370
Dain Rauscher Inc	4,500	0.04	180
Daiwa	31,100	0.04	1,309
Daiwa Cap Mkts America Inc	24,824	0.01	149
Daiwa Securities (HK) LTD.	450,739	0.01	2,689
Daiwa Securities America	208,600	0.02	4,844
Daiwa Securities America Inc	309,586	0.02	5,832
Daiwa Securities Smbc HK LTD	1,099,973	0.00	2,962
Danske Bank A.S.	31,920	0.03	1,025
Danske Bank As Copenhagen	11,000	0.01	97
Davidson D.A & Co Inc Nscc	3,181	0.02	64
Davidson D.A. & Company Inc.	28,564	0.02	616
Davy Stockbrokers	141,351	0.02	2,894
Davy Stockbrokers, Dublin	596,925	0.01	7,254
Dbs Vickers Securities (S) Pte LTD	514,882	0.01	5,043
Dbs Vickers Securities (Singapore)	44,600	0.05	2,175
Deutsche Banc Securities Inc.	232,743,124	0.00	334,630
Deutsche Bank Ag	10,197	0.00	47
Deutsche Bank Ag London	116,182	0.05	5,576
Deutsche Bank Ag London	11,988,635	0.01	84,614
Deutsche Bank Alex Brown	700	0.05	35
Deutsche Bank Sec Inc.- Stock Loan	4,661	0.01	47
Deutsche Bank Trust Company Americas	2,836,000	0.00	7
Deutsche Eq In Prvt Lim Db	11,649,771	0.01	66,437
Deutsche Securities Asia LTD	189,056,794	0.00	405,223
Deutsche Securities Asia LTD, HK	4,949	0.04	199

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**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Dongwon Securities	15,065	\$0.04	\$652
Dougherty Company	94,163	0.03	3,056
Drexel Hamilton LLC	25,930	0.03	778
Dsp Merrill Lynch LTD	14,267,503	0.00	33,364
Evercore Group LLC	220,013	0.04	9,803
Exane S.A.	1,061,840	0.01	11,470
Exane, Paris	940,601	0.03	27,122
Execution Limited	33,400	0.01	171
Fbn Securities Inc	1,737	0.04	69
Fidelity Capital Markets	237,658	0.02	3,675
Fidelity Clearing Canada Ulc	34,100	0.02	682
Fig Partners LLC	95,297	0.02	2,062
First Analysis Securities Corp	3,376	0.03	110
First Clearing, LLC	8,082	0.02	162
Fokus Bank Asa	148,675	0.00	296
Frank Russell Sec/Broadcort	40	0.01	0
Frank Russell Sec/Broadcort Cap Clearing	715	0.01	7
Friedman, Billings & Ramsey	211,827	0.04	7,598
Friedman, Billings And Ramsey, NY	14,770	0.05	739
G Trade Services LTD	51,423,256	0.00	99,844
Gabelli & Co	12,750	0.04	510
Gilford Sec	6,000	0.03	180
Global Hunter Securities	88,225	0.02	1,623
Goldman Sachs (India)	1,748,000	0.02	35,147
Goldman Sachs & Co	21,655,344	0.01	119,539
Goldman Sachs Co, NY	4,875,811	0.00	23,939
Goldman Sachs Execution And Clear	20,786	0.02	492
Goldman Sachs International	3,351,240	0.01	35,758
Goldman Sachs Intl London	495,270	0.01	6,726
Goodbody Stockbrokers	10,607	0.02	162
Goodbody Stockbrokers Dublin	250,824	0.02	4,346
Green Street Advisors	902,738	0.04	35,807
Green Street Advisors (UK) LTD	238,507	0.03	7,344
Greentree Brokerage Services	25,450	0.02	509
Greentreebrokerage Services Inc	59,212	0.02	1,184
G-Trade Services LTD	6,662,967	0.00	32,445
Guggenheim Capital Markets LLC	186,611	0.04	7,254
Hibernia Southcoast Capital	1,387	0.04	55
Hibernia Southcoast Capital Inc	731	0.04	29
Hongkong And Shanghai Banking Corp	1,669,579	0.00	2,935
HSBC Bank Brasil, Sao Paulo	30,000	0.01	281
HSBC Bank Plc (All U.K. Offices)	41,500	0.01	614
HSBC Bank Plc (Jc Hib Settlement)	1,101,192	0.01	9,995
HSBC Bankplc	8,306,087	0.01	64,147
HSBC LTD Seoul Securities Branch	69,830	0.02	1,205
HSBC Secs Brokers(Asia) LTD	145,770	0.01	898
HSBC Securities (Usa) Inc.	462,722	0.01	2,357
HSBC Securities Asia LTD, Taipei	150,000	0.00	451
HSBC Securities India Hldgs, Mumbai	35,700	0.02	728

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**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
HSBC Securities India Holdings	146,600	\$0.00	\$513
Icap Do Brasil Dtvn LTDA	226,700	0.01	2,075
Im Trust S.A. Corredores De Bolsa	476,063	0.00	644
Imperial Capital LLC	63,714	0.03	2,001
Ing Bank N V	3,800	0.04	151
Instinet	1,123,065	0.02	17,146
Instinet Australia Clearing Srvc Pty LTD	16,258	0.00	56
Instinet Clearing Ser, Inc.	2,347,706	0.01	15,952
Instinet Europe Limited London	11,667,220	0.00	33,803
Instinet Pacific LTD	64,724,145	0.00	22,020
Instinet Singapore Services Pt	1,323,000	0.00	2,593
Instinet Singapore Services Pte LTD	481,200	0.01	2,887
Instinet U.K. LTD	5,125,509	0.01	50,832
Instinet Us Europe	437,044	0.01	5,091
Instinet, LLC	2,140,470	0.00	9,924
Investec Bank Plc	12,534	0.03	327
Investec Securities, London (331)	51,200	0.01	483
Investment Techn Group, Dublin	738,698	0.01	9,071
Investment Technology Group	207,711	0.02	4,253
Investment Technology Group Inc.	1,109,048	0.01	15,413
Investment Technology Group LTD	3,222,014	0.01	21,916
Investment Technology Grp New York	1,182	0.01	16
Isi Group, Inc.	397,333	0.04	15,086
Island Trader Securities Inc	138,967	0.04	5,236
Itg Australia LTD.	564,160	0.00	754
Itg Hoenig Limited, Hong Kong	31,971,564	0.00	20,616
Itg Inc.	450,326	0.01	3,117
Itg Securities (HK) LTD	10,356,503	0.00	5,403
Ivy Securities, Inc.	1,450,375	0.04	59,119
J.P. Morgan Clearing Corp.	20,571,489	0.00	90,928
J.P. Morgan Securities (Taiwan) LTD	1,110,000	0.00	304
J.P. Morgan Securities Inc.	1,313,997	0.03	40,491
J.P. Morgan Securities Limited	36,049	0.00	121
Janney Montgomery, Scott Inc	40,093	0.03	1,361
Jefferies And Companies Inc Jersey	10,341,288	0.00	19,984
Jefferies LLC	1,435,441	0.03	44,925
Jefferies& Company Inc	5,575,636	0.01	61,584
Jefferiesinternational LTD	61,964,593	0.00	12,638
Jeffries International LTD London	1,370,799	0.01	7,342
Jmp Securities	94,135	0.04	4,077
Jnk Securities Inc	34,118	0.04	1,365
Joh Berenberg Gossler And Co	69,139	0.05	3,618
Johnson Rice & Co	82,088	0.03	2,513
Jonestrading Institutional Services LLC	1,001,894	0.02	19,513
JP Morgan Secs Aust LTD Pid 2972	210,543	0.06	12,541
JP Morgan Secs Inc New York	95,258	0.01	708
JP Morgan Secs LTD London	3,350,357	0.02	55,754
JP Morgansecurities Australia LTD	81,751	0.00	290
JP Morgansecurities Plc	2,700,791	0.01	23,361

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**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
JP Morgan Chase Bank NA	23,689	\$0.00	\$106
JP Morgan Chase Bank NA London	92,220	0.01	625
JP Morgan Securit (Asia Pacific), HK	5,338,200	0.00	6,556
JP Morgan Securities(Asia Pacific) LTD	643,407	0.01	3,622
Jpmsl Equities, London	11,342	0.14	1,619
Kas-Associatie N.V.	18,190	0.03	605
Kcg Americas LLC	1,041	0.02	24
Keefe Bruyette & Woods Inc.	231,556	0.04	8,318
Keefe Bruyette And Wood Limited	50,602	0.03	1,672
Kempen & Co N.V.	6,055	0.17	1,052
Kepler Equities, Paris	594,404	0.05	28,936
Keybanc Capital Markets Inc.	767,042	0.04	30,904
Kim Eng Securities (HK) LTD.	201,904	0.01	1,096
King, Cl, & Associates	228,164	0.02	5,609
King, Cl, & Associates, Inc	568,868	0.03	16,197
Knight Capital Americas LLC	11,921	0.04	516
Knight Clearing Services LLC	99,192	0.01	1,144
Knight Direct LLC	5,860	0.01	30
Knight Equity Markets L.P.	154,537	0.02	3,252
Korea Investment And Securities Co., LTD	6,700	0.15	994
Ladenburg Thalman & Co	1,650	0.02	33
Larrain Vial	22,835	0.00	16
Larrain Vial, Santiago	10,905	0.03	341
Lazard Freres & Company	12,440	0.04	480
Lazard Freres And Co New York	740	0.05	37
Leerink Swann And Company	56,728	0.04	2,050
Liberum Capital Limited	90,931	0.00	387
Liquidnet Inc	1,765,731	0.03	47,078
Loop Capital Markets	10,717,479	0.03	275,294
Loop Capital Markets LLC	349,308	0.01	3,554
Lynch Jones & Ryan Inc	22,670	0.02	430
Lynch Jones Ryan	800	0.02	16
M M Warburg	7,422	0.13	968
M Ramsey King Securities, Inc	1,839,475	0.00	8,896
M. Ramsey King Securities	33,643	0.03	1,009
Macquarie Bank Limited	104,923,692	0.00	24,444
Macquarie Bank Limited Sydney	4,035	0.00	17
Macquarie Capital (Europe) Limited	9,522	0.15	1,396
Macquarie Capital Usa Inc	55,155	0.01	793
Macquarie Secs Usa Inc	66,031	0.04	2,579
Macquarie Securities Australia LTD	231,458	0.01	1,396
Macquariecapital (Europe) LTD	35,390	0.04	1,241
Macquariesec NZ LTD	14,340	0.00	50
Macquariesecurities (India) Pvt LTD	7,995,608	0.01	106,930
Macquariesecurities (Usa) Inc	91,874	0.03	3,150
Macquariesecurities LTD Seoul	56,994	0.01	658
Mainfirst Bank AG	27,695	0.17	4,633
Mainfirstbank DE	112,040	0.01	874
Mandatoryexchange Non Cash	2,892	0.04	118

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**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Maxim Group	40,013	\$0.04	\$1,477
Merrill Lynch	163,159	0.01	2,008
Merrill Lynch And Co Inc	470,855	0.00	1,713
Merrill Lynch Canada Inc	900	0.01	11
Merrill Lynch Co Inc (Ags), NY	26,667	0.01	153
Merrill Lynch International	113,720,382	0.00	346,393
Merrill Lynch Intl LTD Equit Settl	5,212,764	0.01	54,763
Merrill Lynch Pierce Fenner & Smith Inc	37,244,962	0.00	168,411
Merrill Lynch Professional	1,440	0.03	43
Merrill Lynch Professional Clearing Corp	729	0.03	22
Midwood Securities	126,352	0.04	5,054
Miller,Tabak, Hirsch & Co	572	0.02	11
Mirabaud Securities LLP	56,789	0.02	1,066
Mirae Asset Securities	581,027	0.03	15,731
Mischler Financial Group, Inc	1,041	0.03	31
Mischler Financial Group, Inc-Equities	23,434	0.03	702
Mitsubishi Ufj Securities (Usa)	3,700	0.07	275
Mizuho International Plc	1,165,800	0.01	7,861
Mizuho International Plc, LDN	31,200	0.04	1,315
Mizuho Securities Asia Limited	29,600	0.01	361
Mizuho Securities Usa Inc	148,200	0.05	6,941
Mizuho Securities Usa Inc, NY	142,300	0.01	2,104
Mkm Partners LLC	333,421	0.04	13,073
MLv	323	0.02	6
Morgan Stanley	174,261	0.03	5,571
Morgan Stanley & Co LLC	454,181	0.03	13,605
Morgan Stanley And Co Intl LTD, LDN	204,500	0.00	299
Morgan Stanley And Co Intl Taipei Metro	6,117,000	0.00	17,927
Morgan Stanley And Co Intl, Seoul	5,164	0.10	538
Morgan Stanley And Co. International	11,971,169	0.00	31,290
Morgan Stanley Co Inc New York	44,592,976	0.00	61,273
Morgan Stanley Co Incorporated	68,932,670	0.00	146,749
Morgan Stanley Co Intl LTD Taipei	5,892,000	0.00	3,692
Morgan Stanley India Company Pvt	2,689,949	0.01	19,104
Morgan Stanley India Company Pvt LTD	375,986	0.03	12,954
Morgan Stanley Securities Limited	49,100	0.01	570
Morgan Stanley Securities, London	99,600	0.01	1,161
Mr Beal & Company	379,535	0.03	10,995
National Financial Services Corp.	118,823	0.04	4,723
National Financial Services LLC	90,247	0.03	3,113
Natixis Securities	1,455	0.20	284
Needham & Co	148,542	0.04	5,221
Nesbitt Burns	448,440	0.02	7,481
Nesbitt Burns Inc Toronto	91,200	0.04	3,523
Newedge Group (UK Branch)	36,001	0.02	796
Noble Intl Investments Inc	28,054	0.03	842
Nomura Financial Advisory & Sec India	89,196	0.01	1,211
Nomura Financial And Investment	246,303	0.00	961
Nomura Financial And Investment Korea	51,204	0.01	407

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**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Nomura Securities Intl Inc NY	700	\$0.03	\$21
North South Capital LLC	7,413	0.04	297
Northland Securities Inc.	46,939	0.03	1,638
Northlandsecurities Inc.	69,058	0.03	2,201
Oddo Et Cie	22,300	0.01	300
Oppenheimer & Co. Inc.	166,376	0.04	5,929
Pacific Crest Securities	56,606	0.04	2,257
Parel	2,100,730	0.01	22,714
Parel, Paris	3,878,303	0.01	20,625
Pavilion Global Markets LTD	790,211	0.00	3,520
Penserra Securities	513,231	0.02	12,397
Pershing LLC	1,881,316	0.04	70,542
Pershing Securities Limited	3,581,074	0.00	15,820
Pershing Securities London	57,758	0.00	111
Piper Jaffray	253,919	0.03	8,695
Piper Jaffray & Co	50,402	0.04	1,934
Pulse Trading LLC	63,701	0.02	1,297
Raymond, James & Assoc., Inc.	679,572	0.04	25,169
Rbc Capital Markets	693,862	0.03	22,406
Rbc Capital Markets Corp	72,096	0.04	3,107
Rbc Capital Markets LLC	182,414	0.04	6,450
Redburn Partners LLP	2,131,079	0.01	24,843
Result Of Demerger	18	0.58	11
Robert W.Baird Co.Incorporate	538,998	0.04	19,910
Rosenblatt Securities LLC	8,319	0.04	292
Roth Capital Partners LLC	37,885	0.04	1,561
Roth Capital Partners, LLC	45,511	0.04	1,726
Royal Bank Of Canada (Australia)	61,472	0.00	199
Royal Bank Of Canada Europe LTD	318,513	0.02	5,098
Royal Bank Of Canada Europe LTD,LDN	196,224	0.02	3,612
Samsung Securities Co LTD	435,664	0.08	35,379
Samsung Securities Co LTD Seoul	5,010	0.06	291
Sandler O'Neill & Partners LP	31,570	0.04	1,110
Sanford C Bernstein & Co., LLC	2,131,492	0.00	9,564
Sanford C. Bernstein London	1,603,477	0.01	8,489
Sanford C. Bernstein LTD	2,464,006	0.01	31,043
Santandercentral Hispano Bolsa	742,055	0.00	3,506
Scotia Capital (Usa) Inc	95,696	0.03	3,238
SG Americas Securities LLC	14,231	0.00	38
SG Asia Securities (India) Pvt LTD	8,866,974	0.00	18,439
SG Asia Securities (Inoia) Pvt LTD	5,116,652	0.00	7,612
SG Securities (HK) Limited	15,793,362	0.00	11,153
SG Securities (London) LTD, Taipei	8,367,742	0.00	3,419
SG Securities (London) LTD.	3,717,850	0.00	1,852
SG Securities HK	30,674,779	0.00	13,396
Sidoti & Company, LLC	187,923	0.04	6,913
Singer Capital Markets Limited	244,399	0.02	5,110
Skandinaviska Enskilda Banken	3,400	0.01	27
Smbc Nikko Securities (Honk Kong) LTD	115,700	0.01	1,120

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**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND)**  
**FISCAL YEAR ENDED JUNE 30, 2014 (Continued)**

<b>BROKERAGE FIRM</b>	<b>NO. OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID</b>
Societe Generale Bank And Trust	3,260	\$0.42	\$1,376
Societe Generale London Branch	3,594,887	0.01	25,204
Societe Generale London Branch, LDN	7,782,698	0.00	19,224
Societe Generale Paris, Zurich	162,143	0.06	9,903
Spear, Leeds And Kellogg	5,895	0.01	45
Standard Chartered Bank (Hong Kong) LTD	70,284	0.01	362
State Street Bank And Trust Co	601	0.01	6
State Street Global Markets	1,542	0.03	46
State Street Global Markets, LLC	33,010	0.03	1,123
Stephens, Inc.	151,718	0.04	6,625
Sterne Agee & Leach Inc.	303,140	0.04	11,797
Stifel Nicholas & Co, Inc	1,472,423	0.03	51,136
Strategas Securities LLC	3,100	0.03	93
Stuart Frankel & Co Inc	1,554	0.04	62
Sturdivant And Co., Inc.	18,915	0.04	701
Suntrust Capital Markets, Inc.	96,204	0.04	3,442
Taiwan Depository And Clearing Corp.	1,147,000	0.04	43,949
Telsey Advisory Group LLC	483,041	0.04	18,298
Tera Menkul Degerler A.S.	143,313	0.00	300
The Bank Of New York Mellon Sa Nv	86	0.13	11
The Benchmark Company, LLC	27,889	0.03	824
The Hongkong And Shanghai Bank	6,953	0.03	234
The Williams Capital Group LP	1,522,381	0.01	21,828
Topeka Capital Markets Inc.	222,590	0.03	6,883
UBS Ag	12,284,087	0.01	72,175
UBS Ag London Equities	11,969,589	0.00	44,672
UBS Securities Asia LTD	3,446,178	0.01	34,729
UBS Securities Australia LTD	6,784	0.06	409
UBS Securities Canada Inc	281,877	0.01	1,677
UBS Securities India Private LTD	398,268	0.06	25,082
UBS Securities LLC	2,946,478	0.02	54,981
UBS Warburg Australia Equities	27,907	0.00	119
UBS Warburg LTD	312,744	0.03	8,901
Warburg Dillon Read Securities Co	186,840	0.00	53
Wedbush Morgan Securities Inc	103,389	0.04	3,754
Wedbush Securities Inc	38,437	0.03	1,267
Weeden & Co	2,484,150	0.03	70,583
Wells Fargo Securities, LLC	1,353,650	0.03	47,095
William Blair & Company LLC	197,915	0.04	7,493
Williams Capital Group LP	4,345,497	0.02	65,731
Woori Investment Securities	8,170	0.02	187
Wunderlich Securities Inc.	84,352	0.04	3,316
Yamner & Co Inc (CIs Thru 443)	92,789	0.01	919
Yamner & Company, Inc.	54,928	0.01	549

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## LIST OF LARGEST BOND ASSETS HELD (BY MARKET VALUE)

As of June 30, 2014

Par Value		Interest Rate	Due Date	Market Value
\$205,990,000	Federal Nat Mtg Assn TBA 30YR SFM	4.000%	12/01/2099	\$218,606,888
173,459,000	Federal Nat Mtg Assn TBA 30YRS SFM	3.500	12/01/2099	178,555,225
138,880,000	Federal Nat Mtg Assn TBA 30 YRS SFM	4.500	12/01/2099	150,402,874
139,980,000	Govt Nat Mtg Assn II TBA JUMBOS 30YR	3.500	12/01/2099	145,808,767
121,200,000	Govt Nat Mtg Assn II Pool MA1996	4.000	06/20/2044	129,923,976
105,515,000	Federal Nat Mtg Assn TBA 15YRS SFM	3.000	12/01/2099	109,603,706
106,400,000	Federal Nat Mtg Assn TBA 30YR SFM	3.500	12/01/2099	109,193,000
87,330,000	Federal Home Ln Mtg Corp Gold Convertible	3.000	12/01/2099	86,149,298
72,370,000	Federal Home Ln Mtg Corp TBA 30YR Gold SFM	4.500	12/01/2099	78,324,604
63,075,000	Federal Nat Mtg Assn TBA 30YR SFM	5.000	07/01/2099	70,042,895
69,185,000	United States Treasury Notes	2.000	11/30/2020	69,146,948

## LIST OF LARGEST EQUITY ASSETS HELD (BY MARKET VALUE)

As of June 30, 2014

Company Name	Shares	Market Value
Apple Inc	1,765,661	\$164,082,877
Microsoft Corp	2,839,116	118,391,137
Exxon Mobil Corp	1,172,183	118,015,384
Google Inc	175,212	101,614,082
Johnson & Johnson	797,833	83,469,288
General Electric Co.	2,969,411	78,036,121
Chevron Corp	597,710	78,031,041
Wells Fargo & Co	1,406,806	73,941,723
Procter & Gamble Co Npv	894,756	70,318,874
Berkshire Hathaway Inc	515,245	65,209,407
Verizon Communications Inc	1,330,710	65,111,632
JP Morgan Chase & Co	1,124,272	64,780,553
At&T Inc	1,736,973	61,419,365
International Business Machines Corp	329,541	59,735,897
Pfizer Inc	1,988,712	59,024,972
Merck & Co Inc	975,463	56,430,535
Qualcomm Inc	687,340	54,437,328
Pepsico Inc	591,582	52,851,936
Bank Of America Corp	3,266,991	50,213,652
Comcast Corp	932,312	50,046,508
Citigroup Inc	1,054,819	49,681,975
Biogen Idec Inc	156,472	49,337,186
Coca-Cola Co	1,134,502	48,057,505
Unitedhealth Group Inc	585,899	47,897,243
Walt Disney Co	544,083	46,649,676

**Note:** The above tables reflect assets of both the Qualified Pension Plan (QPP) and the Tax-Deferred Annuity (TDA) Program. The complete list of assets held by TRS' six investment programs is included in the publication Investment Portfolios.







## 4. Actuarial





**OFFICE OF THE ACTUARY**

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NEW YORK, NY 10007  
(212) 442-5775 • FAX: (212) 442-5777

**ROBERT C. NORTH, JR.**  
CHIEF ACTUARY

December 12, 2014

Retirement Board  
Teachers' Retirement System  
of the City of New York  
55 Water Street, 16th Floor  
New York, NY 10041

Re: Actuarial Information for the Comprehensive Annual Financial Report ("CAFR") for the  
Fiscal Year Ended June 30, 2014

Dear Members:

The financial objective of the Teachers' Retirement System of the City of New York - Qualified Pension Plan ("TRS-QPP" or the "Plan") is to fund members' retirement benefits during their active service and to establish 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, 2012 (Lag) actuarial valuation to determine Fiscal Year 2014 Employer Contributions).

Employers are required to contribute statutorily-required contributions ("Statutory Contributions") and these contributions are generally funded by Employers within the appropriate fiscal year.

For Fiscal Year 2014, the Actuarial Contributions to TRS, are equal to those recommended by the Actuary for the New York City Retirement Systems (the "Actuary") and represent the Statutory Contributions.

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



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

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December 12, 2014  
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GASB 67, Financial Reporting for Pension Plans, amends GASB Statement No. 25 ("GASB 25") and is effective for financial statements for fiscal years beginning after June 15, 2013 (*i.e.*, Fiscal Year 2014 for TRS).

GASB 68, Accounting and Financial Reporting for Pensions, amends GASB Statement No. 27 ("GASB 27") and is effective for financial statements for fiscal years beginning after June 15, 2014 (*i.e.*, Fiscal Year 2015 for the City of New York (the "City")).

The City decided to "early implement" and presented its Fiscal Year 2014 financial statements under the provisions of GASB 68.

On October 16, 2014 the Actuary published the "First Annual GASB 67/68 Report for the City of New York and the New York City Retirement Systems For Fiscal Year Ended June 30, 2014" (the "First GASB 67/68 Report"). Appendix B of the First GASB 67/68 Report contains information developed in accordance with GASB 67 for TRS.

### 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, 2012 (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.

These actuarial assumptions and methods are generally unchanged from those employed in the June 30, 2011 (Lag) actuarial valuation that was used to determine Fiscal Year 2013 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 Teachers' Retirement System" ("February 2012 Report").

The Retirement Board of the Plan adopted those changes in actuarial assumptions that require 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.

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December 12, 2014  
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### Benefits and Census Data

A summary of the benefits applicable to Plan members included in the June 30, 2012 (Lag) actuarial valuation is shown later in this Actuarial Section of the CAFR.

Included in the summary of benefits are benefit provisions that have been passed by the New York State Legislature and enacted as Chapter 504 of the Laws of 2009. These benefit provisions became applicable to certain members who join the Plan on and after December 10, 2009. Also included are the benefit provisions enacted as Chapter 18 of the Laws of 2012 (*i.e.*, Tier VI). These benefit provisions become applicable to members who join the Plan on and after April 1, 2012.

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

A summary of the census data used in the June 30, 2012 (Lag) actuarial valuation is included in this CAFR. A summary of the census data used in the June 30, 2011 (Lag) actuarial valuation of the Plan is available in the June 30, 2013 CAFR.

### Funded Status

The Funded Status of the Plan is usually expressed in various relationships of Assets to Liabilities.

With respect to the Funded Status of the Plan, included in the Financial Section of the CAFR is a Schedule of Funding Progress.

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) as prescribed by the Government Finance Officers Association ("GFOA"). This Solvency Test represents an alternative approach to describing progress toward funding objectives.

In addition to the Schedule of Funding Progress and the Solvency Test, included for informational purposes in the Actuarial Section of the CAFR (following the Solvency Test) is an Additional Discussion of Plan Funding and Other Measures of Funded Status that provides different comparisons between the Assets and Liabilities of the Plan.

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Presentation Style and Sources of Information

The actuarial information herein is being presented in a manner believed to be consistent with the requirements of the GFOA and, where applicable, with GASB 67.

The Additional Discussion of Plan Funding and Other Measures of Funded Status represents information provided by the Actuary to assist those users who desire additional disclosures.

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

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2012 (Lag) Actuarial Valuation.
- Active Member Valuation Data.
- Retirants and Beneficiaries Added to and Removed from Rolls.
- Funded Status based on Entry Age Actuarial Cost Method.
- Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets - Solvency Test.
- Additional Discussion of Plan Funding and Other Measures of Funded Status.
- Statutory vs. Actuarial Contributions.
- Summary of Plan Provisions.

In addition, the following schedules were prepared by the OA:

- Schedule of Funding Progress.
- Schedule of Employer Contributions.
- Schedule of Actuarial Assumptions and Methods.
- Additional Discussion of Plan Funding and Other Measures of Funded Status.
- Statutory vs. Annual Required Contributions.
- Summary of Plan Provisions.

The following information and schedules in other sections of the CAFR were also prepared by the OA:

- Summary of Plan Membership.
- Schedule of Participating Employers.

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. John R. Gibney, Jr., Mr. Edward Hue or me.

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

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Acknowledgement of Qualification

A Statement of Actuarial Opinion ("SAO"), acknowledging the qualification of the Actuary to render the actuarial opinion contained herein, appears at the end of this Actuarial Section.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert C. North, Jr.", with a stylized, cursive script.

Robert C. North, Jr., FSA, MAAA  
Acting Chief Actuary

RCN/srh

Att.

cc: Mr. J.R. Gibney  
Mr. E. Hue  
Mr. P.J. Raucci  
Ms. P.M. Reilly  
Mr. S.H. Rumley



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**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (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.

The most recently completed study was published by The Hay Group ("Hay"), dated December 2011, and analyzed experience for Fiscal Years 2006 through 2009. Hay made recommendations with respect to the actuarial assumptions and methods based on their analysis.

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

In accordance with the Administrative Code of the City of New York ("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 Teachers' Retirement System" ("February 2012 Report").

The Retirement Board of the Plan adopted those changes to actuarial assumptions that require Board approval. The State Legislature and the Governor have 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 (4.0% per annum for benefits payable under the Variable Annuity Programs).
- (3) The mortality tables for service and disability pensioners were developed from an experience study of the Plan's pensioners. Sample probabilities are shown in Table 1A. 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 Table 2 for members withdrawing from Active Service due to Death or Disability, in Table 3 for members withdrawing for Other Than Death or Disability or Retirement and in Tables 4A and 4B for members withdrawing from Active Service after eligibility for Service Retirement.

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION**

**(Cont'd)**

- (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) 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 COLA assumption is 1.5% per annum.
- (7) The valuation assumes a closed group of members. Salaries of members on the valuation date are assumed to increase in accordance with the Salary Scale.
- (8) 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.

Chapter 105 of the Laws of 2010 established, as of June 30, 2011, an Early Retirement Incentive ("ERI") for certain TRS members. The UAAL attributable to the ERI is amortized on a level basis over a period of five years (4 payments under the One-Year Lag Methodology).

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION**

**(Cont'd)**

- (9) One-Year Lag Methodology ("Lag" or "OYLM") uses a June 30, 2012 valuation date to determine Fiscal Year 2014 Employer Contributions.

This methodology requires technical adjustments to certain components used to determine Fiscal Year 2014 Employer Contributions as follows:

- Present Value of Future Salary ("PVFS").

The PVFS at June 30, 2012 is reduced by the value of salary projected to be paid during Fiscal Year 2013.

- Salary for Determining Employer Contributions.

Salary used to determine the employer normal contribution is the salary projected to be paid during Fiscal Year 2014 to members on payroll at June 30, 2012.

- UAAL payments.

For determining the UAAL payments for Fiscal Year 2014, and to be consistent with OYLM, the UAAL as of June 30, 2012 is adjusted by the discounted value of employer normal contributions paid during Fiscal Year 2013 and the discounted value of the administrative expenses reimbursed during Fiscal Years 2013 and 2014.

- (10) Beginning with the June 30, 2004 (Lag) actuarial valuation, the Actuarial Asset Valuation Method ("AAVM") was changed to a method that reset the AAV to Market Value (*i.e.*, "Market Value Restart") as of June 30, 1999. As of each June 30 thereafter the AAVM recognizes investment returns greater or less than expected over a period of six years.

Under this revised AAVM, any Unexpected Investment Returns ("UIR") for Fiscal Years 2000 and later are phased into the AAV beginning the following June 30 at a rate of 15%, 15%, 15%, 15%, 20% and 20% per year (or cumulative rates of 15%, 30%, 45%, 60%, 80% and 100% over a period of six years).

These revised averaging factors were applied against the UIR computed under the prior five-year AAVM used for Fiscal Years 2000 to 2004.

The revised AAVM was utilized for the first time in the June 30, 2004 (Lag) actuarial valuation to determine the Fiscal Year 2006 Employer Contributions in conjunction with the One-Year Lag Methodology and the revised economic and noneconomic assumptions.

The AAVM in effect for the June 30, 2009 (Lag) actuarial valuation was unchanged from the AAVM used in the June 30, 2008 (Lag) actuarial valuation.



**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

Note that beginning with the June 30, 2008 (Lag) actuarial valuation, the AAV was recomputed retroactive to June 30, 1999, by re-characterizing amounts credited as interest on TDA Fixed Fund account balances as payouts instead of investment losses.

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

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

The Actuary reset the Actuarial Asset Value to the Market Value of Assets ("MVA") as of June 30, 2011 (*i.e.*, "Market Value Restart").

For the June 30, 2010 (Lag) actuarial valuation, the AAV is defined to recognize Fiscal Year 2011 investment performance. The June 30, 2010 AAV is derived as equal to the June 30, 2011 MVA, discounted by the AIR assumption (adjusted for cash flow) to June 30, 2010.

- (11) The Actuarial Present Value of Future Benefits ("APVB") as of June 30, 2012, used to determine Fiscal Year 2014 Employer Contributions, includes estimates of liabilities for:
- a. World Trade Center Disability Benefits
  - b. World Trade Center Death Benefits
  - c. Proposed Litigation Settlements
- (12) As discussed herein, the actuarial assumptions and methods are generally unchanged from those used in the June 30, 2011 (Lag) actuarial valuation.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

**TABLE 1A**

**Deaths among Service and Disability Pensioners**

*Percentage of Pensioners Dying within Next Year*

<b><u>Age</u></b>	<b><u>Service Pensioners</u></b>		<b><u>Disability Pensioners</u></b>	
	<b><u>Males</u></b>	<b><u>Females</u></b>	<b><u>Males</u></b>	<b><u>Females</u></b>
<b>40</b>	.0875%	.0564%	1.3258%	1.3024%
<b>45</b>	.1364	.0842	1.3688	1.3484
<b>50</b>	.1815	.1292	1.4168	1.3964
<b>55</b>	.2923	.2176	1.6168	1.4494
<b>60</b>	.4875	.3722	1.9511	1.6659
<b>65</b>	.8897	.5921	2.2907	1.7289
<b>70</b>	1.4650	.9723	2.6651	1.9096
<b>75</b>	2.2299	1.4425	3.3423	2.6669
<b>80</b>	3.7991	2.5246	5.0785	3.8879
<b>85</b>	6.8955	5.0785	8.9495	6.3260
<b>90</b>	12.4543	8.9495	16.5497	11.1587
<b>95</b>	23.1217	16.5497	27.2485	18.5008
<b>100</b>	33.6045	23.1885	37.1685	23.1885
<b>105</b>	39.7886	29.3116	40.0000	29.3116
<b>110</b>	100.0000	100.0000	100.0000	100.0000

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION  
(Cont'd)

**TABLE 1B**

**Deaths among Beneficiaries**

*Percentage of Beneficiaries Dying within Next Year*

<b><u>Age</u></b>	<b><u>Males</u></b>	<b><u>Females</u></b>
<b>40</b>	.0875%	.0564%
<b>45</b>	.1364	.0842
<b>50</b>	.1815	.1292
<b>55</b>	.2923	.2176
<b>60</b>	.4875	.3722
<b>65</b>	.8897	.5921
<b>70</b>	1.4650	.9723
<b>75</b>	2.2299	1.4425
<b>80</b>	3.7991	2.5246
<b>85</b>	6.8955	5.0785
<b>90</b>	12.4543	8.9495
<b>95</b>	23.1217	16.5497
<b>100</b>	33.6045	23.1885
<b>105</b>	39.7886	29.3116
<b>110</b>	100.0000	100.0000

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

**TABLE 2**

**Withdrawals from Active Service (Due to Death or Disability)**

*Percentage of Active Members Separating within Next Year*

<b><u>Age</u></b>	<b><u>Accidental Disability</u></b>		<b><u>Ordinary Disability</u></b>		<b><u>Ordinary Death</u></b>	
	<b><u>Males</u></b>	<b><u>Females</u></b>	<b><u>Males</u></b>	<b><u>Females</u></b>	<b><u>Males</u></b>	<b><u>Females</u></b>
<b>20</b>	.00%	.00%	.01%	.01%	.040%	.020%
<b>25</b>	.00	.00	.01	.01	.040	.020
<b>30</b>	.00	.00	.01	.01	.040	.020
<b>35</b>	.01	.01	.06	.05	.050	.025
<b>40</b>	.02	.01	.10	.10	.060	.030
<b>45</b>	.03	.02	.15	.15	.110	.055
<b>50</b>	.03	.03	.15	.20	.160	.080
<b>55</b>	.04	.04	.15	.20	.210	.105
<b>60</b>	.04	.04	.15	.20	.260	.130
<b>65</b>	.04	.04	.15	.20	.320	.160
<b>70</b>	NA	NA	NA	NA	NA	NA



**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

**TABLE 3**

**Withdrawals for Other Than Death or Disability or Retirement**

*Percentage of Active Members Withdrawing within Next Year*

<u>Years of Service</u>	<u>Probability of Withdrawal</u>
0	9.00%
5	4.00
10	2.00
15	1.25
20	1.00

**TABLE 4A**

**Withdrawals from Active Service (After Eligibility for Service Retirement)  
Members Not Electing an Optional Retirement Plan\***

*Percentage of Eligible Active Members Retiring within Next Year*

<u>Males</u>					<u>Females</u>				
<u>Age</u>	<u>With Reduced Benefits</u>	<u>With Unreduced Benefits</u>			<u>Age</u>	<u>With Reduced Benefits</u>	<u>With Unreduced Benefits</u>		
		<u>Years of Service Since First Elig.</u>	<u>Years of Service Since First Elig.</u>	<u>Years of Service Since First Elig.</u>			<u>Years of Service Since First Elig.</u>	<u>Years of Service Since First Elig.</u>	<u>Years of Service Since First Elig.</u>
		<b>0-1</b>	<b>1-2</b>	<b>2+</b>			<b>0-1</b>	<b>1-2</b>	<b>2+</b>
<b>50</b>	0.00%	0.00%	0.00%	0.00%	<b>50</b>	0.00%	0.00%	0.00%	0.00%
<b>55</b>	2.00	20.00	0.00	0.00	<b>55</b>	2.00	20.00	0.00	0.00
<b>60</b>	4.00	20.00	15.00	15.00	<b>60</b>	4.00	20.00	15.00	15.00
<b>65</b>	0.00	30.00	20.00	20.00	<b>65</b>	0.00	30.00	20.00	20.00
<b>70</b>	NA	100.00	100.00	100.00	<b>70</b>	NA	100.00	100.00	100.00

\* Applies to members who did not voluntarily elect to participate in the 55/25 plan enacted under Chapter 19 of the Laws of 2008 and to members mandated into the 55/27 plan and into the Tier VI plans.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS  
IN EFFECT FOR THE JUNE 30, 2012 (LAG) ACTUARIAL VALUATION  
(Cont'd)**

**TABLE 4B**

**Withdrawals from Active Service (After Eligibility for Service Retirement)**

**Members Electing an Optional Retirement Plan\***

*Percentage of Eligible Active Members Retiring within Next Year*

<b><u>Males</u></b>					<b><u>Females</u></b>				
<b><u>Age</u></b>	<b><u>With Reduced Benefits</u></b>	<b><u>With Unreduced Benefits</u></b>			<b><u>Age</u></b>	<b><u>With Reduced Benefits</u></b>	<b><u>With Unreduced Benefits</u></b>		
		<b><u>Years of Service Since First Elig.</u></b>	<b><u>Years of Service Since First Elig.</u></b>	<b><u>Years of Service Since First Elig.</u></b>			<b><u>Years of Service Since First Elig.</u></b>	<b><u>Years of Service Since First Elig.</u></b>	<b><u>Years of Service Since First Elig.</u></b>
		<b><u>0-1</u></b>	<b><u>1-2</u></b>	<b><u>2+</u></b>			<b><u>0-1</u></b>	<b><u>1-2</u></b>	<b><u>2+</u></b>
<b>50</b>	0.00%	0.00%	0.00%	0.00%	<b>50</b>	0.00%	0.00%	0.00%	0.00%
<b>55</b>	2.00	30.00	0.00	0.00	<b>55</b>	2.00	30.00	0.00	0.00
<b>60</b>	4.00	30.00	20.00	20.00	<b>60</b>	4.00	30.00	20.00	20.00
<b>65</b>	0.00	40.00	30.00	30.00	<b>65</b>	0.00	40.00	30.00	30.00
<b>70</b>	NA	100.00	100.00	100.00	<b>70</b>	NA	100.00	100.00	100.00

\*Applies to members who voluntarily elected to participate in the 55/25 plan enacted under Chapter 19 of the Laws of 2008.

**TABLE 5**

**Salary Scale**

<b><u>Years of Service</u></b>	<b><u>Assumed Annual Percentage Increases Within Next Year*</u></b>
0	13.00%
5	8.00
10	4.00
15	4.00
20	4.00
25	4.00
30	4.00
35	4.00
40	4.00

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

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**ACTIVE MEMBER VALUATION DATA**

<u>As of June 30</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Annual Average Salary</u>	<u>Percentage Increase (Decrease) in Average Salary</u>
1999	86,682	\$4,217,560,016	\$48,656	5.4%
2000	91,494	4,721,526,309	51,605	6.1
2001	95,381	5,015,449,141	52,583	1.9
2002	95,678	5,469,239,283	57,163	8.7
2003	97,986	5,828,756,503	59,486	4.1
2004	105,391	6,219,808,501	59,017	(0.8)
2004 (Lag)	105,391	6,175,939,608 <sup>(1)</sup>	58,600	(1.5) <sup>(2)</sup>
2005 (Lag)	104,850	6,273,909,925	59,837	2.1
2006 (Lag)	109,992	6,978,725,642	63,448	6.0
2007 (Lag)	109,868	7,222,471,073	65,738	3.6
2008 (Lag)	112,472	7,926,647,584	70,477	7.2
2009 (Lag)	113,132	8,016,635,700	70,861	0.5
2010 (Lag) <sup>(3)</sup>	111,647	7,979,671,378	71,472	0.9
2011 (Lag)	109,636	7,888,203,642	71,949	0.7
2012 (Lag)	112,460	8,013,395,184	71,256	(1.0)
2013 (Lag) <sup>(4)</sup>	112,481	8,050,090,750	71,568	0.4

(1) The annualized covered payroll under the One-Year Lag Methodology as of June 30, 2004 used for the Fiscal Year 2006 Employer Contributions differs from that used to compute Fiscal Year 2005 Employer Contributions due to changes in actuarial assumptions and methods and updated information on labor contract settlements.

(2) Decrease from June 30, 2003.

(3) Beginning with the June 30, 2010 (Lag) actuarial valuation, the annualized covered payroll is based on revised actuarial assumptions.

(4) Preliminary.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**RETRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS**

<b>Year Ended June 30</b>	<b><u>Added to Rolls</u></b>		<b><u>Removed from Rolls</u></b>		<b><u>Rolls End of Year</u></b>		<b>% Increase in Annual Allowances<sup>(1)</sup></b>	<b>Average Annual Allowances</b>
	<b><u>Number</u></b>	<b><u>Annual Allowances<sup>(2)</sup></u></b>	<b><u>Number</u></b>	<b><u>Annual Allowances</u></b>	<b><u>Number</u></b>	<b><u>Annual Allowances<sup>(1)</sup></u></b>		
1999	1,794	\$147,046,596	1,537	\$ 36,719,223	50,525	\$1,604,299,434	7.4%	\$31,753
2000	1,989	97,255,275	1,545	41,436,595	50,969	1,660,118,114	3.5	32,571
2001	2,723	171,487,630	1,712	83,599,498	51,980	1,748,006,246	5.3	33,628
2002	4,309	194,808,813	1,727	120,082,520	54,562	1,822,732,539	4.3	33,407
2003	5,014	258,523,666	1,443	50,572,541	58,133	2,030,683,664	11.4	34,932
2004	6,264	415,127,840	1,669	53,234,112	62,728	2,392,577,392	17.8	38,142
2005	4,423	255,085,446	1,983	59,626,485	65,168	2,588,036,353	8.2	39,713
2006	4,207	231,094,649	1,799	55,372,752	67,576	2,763,758,250	6.8	40,899
2007	3,078	234,183,351	2,162	66,646,428	68,492	2,931,295,173	6.1	42,798
2008	3,252	75,074,813	1,969	64,757,835	69,775	2,941,612,151	0.4	42,159
2009	3,115	6,288,013	2,065	73,586,895	70,825	2,874,313,269	(2.3)	40,583
2010	3,534	207,981,284	2,003	64,538,942	72,356	3,017,755,611	5.0	41,707
2011	3,849	278,652,149	2,141	67,488,320	74,064	3,228,919,440	7.0	43,596
2012	4,684	200,786,572	2,209	62,805,438	76,539	3,366,900,574	4.3	43,989

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



# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## FUNDED STATUS BASED ON ENTRY AGE ACTUARIAL COST METHOD

(Dollar Amounts In Thousands)

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.

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability(AAL) - Entry Age (b)</b>	<b>Unfunded AAL (UAAL) - Entry Age (b-a)</b>	<b>Funded Ratio (a/b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll ((b-a)/c)</b>
June 30, 2013 (Lag) <sup>1,2</sup>	\$35,186,072	\$60,956,922	\$25,770,850	57.7%	\$8,050,091	320.1%
June 30, 2012 (Lag) <sup>1</sup>	\$33,871,180	\$58,783,399	\$24,912,219	57.6%	\$8,013,395	310.9%
June 30, 2011 (Lag) <sup>1</sup>	33,601,537	57,702,731	24,101,194	58.2%	7,888,204	305.5%
June 30, 2010 (Lag) <sup>1</sup>	32,477,527	55,138,366	22,660,839	58.9%	7,979,671	284.0%
June 30, 2009 (Lag)	30,774,981	47,988,459	17,213,478	64.1%	8,016,636	214.7%
June 30, 2008 (Lag)	32,227,375	49,400,762	17,173,387	65.2%	7,926,648	216.7%
June 30, 2007 (Lag)	33,854,152	48,625,202	14,771,050	69.6%	7,222,471	204.5%
June 30, 2006 (Lag)	32,405,645	45,138,925	12,733,403	71.8%	6,978,726	182.5%

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

<sup>1</sup> Reflects revised actuarial assumptions and methods based on experience review, including an AIR assumption of 7.0% per annum, net of investment expenses.

<sup>2</sup> Preliminary.

**COMPARATIVE SUMMARY OF ACTUARIAL VALUES AND PERCENTAGES COVERED  
BY ACTUARIAL VALUE OF ASSETS**

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

As of June 30	<u>Aggregate Accrued Liabilities for</u>				<u>Percentage of Actuarial Values Covered by Actuarial Value of Assets</u>	
	<u>Accumulated Member Contributions</u>	<u>Current Retirees and Beneficiaries</u>	<u>Active Members' Employer Financed Portion</u>	<u>Actuarial Value of Assets</u>	<u>(A)</u>	<u>(B)</u>
	<u>(A)</u>	<u>(B)</u>	<u>(C)</u>	<u>(D)</u>		<u>(C)</u>
1999	\$3,111,019	\$15,748,859	\$12,447,411 <sup>1</sup>	\$34,626,062	100%	100%
2000	3,354,746	17,446,520	14,340,434 <sup>1</sup>	36,142,435	100	100
2001	3,077,510	17,254,058	14,114,923 <sup>1</sup>	35,410,230	100	100
2002	2,931,464	18,189,124	13,623,528 <sup>1</sup>	34,177,750	100	100
2003	2,752,562	20,489,777	12,561,516	33,169,210	100	100
2004	2,628,369	24,460,479	11,465,947	32,817,102	100	100
2004 (Lag)	2,628,369	24,636,479	11,682,625	33,149,251	100	100
2005 (Lag)	2,624,824	26,590,313	11,418,808	32,865,126 <sup>2</sup>	100	100
2006 (Lag)	2,724,814	27,934,371	11,960,437	32,405,645	100	100
2007 (Lag)	2,927,133	29,528,062	13,957,521	33,854,152	100	100
2008 (Lag)	2,898,027	29,182,084	14,743,596	32,227,375	100	100
2009 (Lag)	2,823,873	27,862,679	14,620,140	30,774,981	100	100
2010 (Lag)	2,962,696	32,264,333	17,529,345	32,477,527	100	91
2011 (Lag)	3,167,737	34,317,270	17,770,140	33,601,537	100	89
2012 (Lag)	3,122,720	35,575,735	17,558,791	33,871,180	100	86

<sup>1</sup> Amounts shown were revised in the Fiscal Year 2004 CAFR from amounts published earlier to include annuitization of Variable Funds.

<sup>2</sup> Revised in the Fiscal Year 2008 CAFR to reflect updated information.

Also, see following "SOLVENCY TEST – NOTES."

**COMPARATIVE SUMMARY OF ACTUARIAL VALUES AND  
PERCENTAGES COVERED BY ACTUARIAL VALUE OF ASSETS**

**SOLVENCY TEST—NOTES**

The ultimate test of financial soundness in a retirement system is its ability to pay all of its promised benefits when due. The retirement system's progress in accumulating assets to pay all promised benefits can be measured by comparing the Actuarial Value of Assets of the retirement system with the 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, 2004 (Lag) valuation used to compute the Employer Contributions of Fiscal Year 2006 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.

Beginning with the June 30, 2008 (Lag) actuarial valuation the AAV was recomputed retroactive to June 30, 1999, by re-characterizing amounts credited as interest on TDA Fixed Fund account balances as payouts instead of investment losses.

To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. For the valuation dates appearing in the table, the Actuarial Interest Rate and the General Wage Increase assumptions were all equal to 8.0% per annum, gross of expenses, and 3.0% per annum, respectively, through the June 30, 2009 (Lag) actuarial valuation. Beginning with the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate ("AIR") assumption equals 7.0% per annum, net of investment expenses, and the General Wage Increase ("GWI") assumption equals 3.0% per annum.

**ADDITIONAL DISCUSSION OF PLAN FUNDING AND  
OTHER MEASURES OF FUNDED STATUS**

On-Going Funding of the Plan

Under the basic equation of pension funding, Contributions plus Investment Earnings pay for Benefits plus Expenses.

There are three major sources for financing those Benefits and Expenses paid from the Plan.

First, Member Contributions are established by statute and paid as percentages of member salaries.

Second, Investment Earnings reflect the rates of return achieved on the amounts of assets held in different asset classes in the Trust.

Third, Employer Contributions are determined by actuarial methodology to finance the Benefits payable by the Plan that are not provided by either Member Contributions or Investment Earnings and for the Administrative and Investment Expenses of the Plan.

This actuarial methodology includes demographic and certain tabular assumptions proposed by the Actuary and adopted by the Retirement Board, and certain economic assumptions and financing methods proposed by the Actuary, supported by the Retirement Board and, where required, enacted into law by the New York State Legislature and Governor.

Employer Contributions are particularly responsive to Investment Earnings and increase (decrease) on a smoothed basis whenever Investment Earnings are less (more) than expected.

For example, during Fiscal Years 2001 to 2003, the Assets of the Plan decreased because they earned less than expected. Consequently, over the following several years, the actuarial methodology responded by increasing Employer Contributions in order to bring the overall financial status of the Plan back into balance.

The New York City Charter requires an independent actuary to conduct an experience review of the Plan every two years. The Actuary utilizes this information and regularly proposes changes in actuarial assumptions and methods. The two most recent such changes occurred during Fiscal Year 2006 and Fiscal Year 2012.

The most recent changes, approved by the Retirement Board and implemented during Fiscal Year 2012, include: (1) updated demographic assumptions, (2) updated economic assumptions, (3) employing the Entry Age Actuarial Cost Method, (4) establishing Unfunded Actuarial Accrued Liabilities, their payment periods and payment methods, (5) resetting the Actuarial Asset Value to Market Value (*i.e.*, "Market Value Restart") as of June 30, 2011 and (6) defining the AAV as of June 30, 2010 to recognize Fiscal Year 2011 investment performance.



**ADDITIONAL DISCUSSION OF PLAN FUNDING AND  
OTHER MEASURES OF FUNDED STATUS  
(Cont'd)**

The ongoing process of actuarial rebalancing and periodic reviews of actuarial assumptions and methods by the Actuary and the Retirement Board, coupled with a financially responsible, long-duration employer like the City of New York (the "City") and other participating Employers that can afford some variability of Employer Contributions, help provide financial security for the Plan and its participants and reasonable intergenerational budget equity for taxpayers.

With the City and other participating Employers that have always paid and are expected to continue to pay the statutorily-required Employer Contributions as calculated by the Actuary and approved by the Retirement Board, changes in Employer Contributions represent the source for rebalancing the basic equation of pension funding.

Other Measures of Funded Status

Measures of Funded Status of the Plan are determined at specific points in time and are usually expressed in various relationships of Assets to Obligations. Assets as percentages of Obligations are referred to as Funded Ratios.

Comparisons of Funded Status over time provide insight into the evolving financial condition of the Plan.

The Other Measures of Funded Status presented herein provide different perspectives of the financial condition of the Plan and comparisons amongst these Other Measures of Funded Status can prove insightful.

As noted, there are multiple, possible definitions of the Plan's Assets and Obligations. Some of these definitions of and comments on Assets and Obligations are set forth immediately hereafter. Additional observations about the meanings and usefulness of and the relationships amongst certain of the Funded Ratios are provided following the Table of Funded Ratios.

Definition of and Comments on Assets

With respect to Assets, both the Market Value of Assets ("MVA") and the Actuarial Value of Assets (or Actuarial Asset Value ("the AAV")) are used to determine Funded Ratios.

In the case of the Plan, the AAVM currently in use provides for smoothing of the MVA by phasing any Unexpected Investment Returns (*i.e.*, Investment Earnings greater or less than those expected under the actuarial interest rate assumption used each year) into the AAV over a period of six years.

The advantage of using MVA is that it represents the fair value of the Assets of the Plan at any point in time.

The advantage of using AAV is that it is smoothed to remove the volatility of MVA. The disadvantage of AAV is that it is not the fair value of Assets in the marketplace and, therefore, does not show the volatility of the Assets.

**ADDITIONAL DISCUSSION OF PLAN FUNDING AND  
OTHER MEASURES OF FUNDED STATUS  
(Cont'd)**

Definition of and Comments on Obligations

With respect to Obligations, the Actuarial Accrued Liability ("AAL") under any particular Actuarial Cost Method ("ACM") is that portion of the APV of projected benefits which is not provided by future normal costs (employer and employee).

With respect to the Plan, where, prior to Fiscal Year 2012, the ACM was the Frozen Initial Liability ("FIL") ACM, the AAL mathematically can be recast as the Unfunded AAL ("UAAL") plus the AAV. To the extent that the UAAL does not change much year to year, then the related AAL remained relatively consistent in value with the AAV each year.

With respect to the ongoing funding of the Plan, the use of the FIL ACM provided for amortizing actuarial gains and losses over the future working lifetimes of active employees. As used by the Plan, the FIL ACM generally resulted in funding that was more conservative (*i.e.*, greater Employer Contributions) than that of most other Public Pension Plans.

The Entry Age Accrued Liability ("EAAL") is defined as the APV of projected benefits less the sum of the APV of future employee contributions and the APV of future employer Entry Age Normal Costs and is a required disclosure under Governmental Accounting Standards Board ("GASB") Statement Number 67 ("GASB 67") and GASB Statement Number 68 ("GASB 68").

The EAAL is also a required disclosure in accordance with GASB Statement Number 43 ("GASB 43") and GASB Statement Number 45 ("GASB 45") for Other Post-Employment Benefits ("OPEB") whose UAAL are determined under the Aggregate ACM.

In accordance with GASB Statement Number 50 ("GASB 50"), beginning with Fiscal Year 2008, the EAAL is a required disclosure for Public Pension Plans that determine employer contributions using the Aggregate ACM.

The Entry Age ACM is the most-commonly utilized ACM for funding Public Pension Plans.

Beginning with the June 30, 2010 (Lag) actuarial valuation (*i.e.*, Fiscal Year 2012 Employer Contributions), the Entry Age ACM is being used for the on-going funding of the Plan.

The Projected Benefit Obligation ("PBO") is defined as the proportion of APV of all benefits attributed by the Plan's benefit formula to employee service rendered prior to the valuation date. The PBO was required reporting under GASB Statement Number 5 ("GASB 5") prior to its replacement by GASB 25 and GASB 27.

The Accumulated Benefit Obligation ("ABO") is determined in a manner somewhat comparable to the PBO but using only salaries prior to the valuation date (*i.e.*, assuming no future salaries or future salary increases).

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ADDITIONAL DISCUSSION OF PLAN FUNDING AND OTHER MEASURES OF FUNDED STATUS (Cont'd)

The Market Value Accumulated Benefit Obligation ("MVABO") is determined in the same manner as an ABO using the same actuarial assumptions except that projected benefit payments are discounted using annual yields on U.S. Treasury securities of like duration. The MVABO is sometimes described as a Mark-to-Market measure of Obligations or a Market Value of Liabilities ("MVL").

### Table of Asset and Obligation Values

The following table presents the values of Assets and Obligations used to calculate alternative Funded Ratios.

Component Measures of Funded Status (Dollar Amounts in Millions)									
Valuation Date	Market Value of Assets (MVA)	Actuarial Asset Value (AAV) <sup>(1)</sup>	Actuarial Accrued Liability (AAL) <sup>(2)</sup>	Entry Age Accrued Liability (EAAL) <sup>(3)</sup>	Projected Benefit Obligation (PBO) <sup>(3)</sup>	Accumulated Benefit Obligation (ABO) <sup>(3)</sup>	Market Value Accumulated Benefit Obligation (MVABO) <sup>(4)</sup>	MVABO Equiv. Discount Yield (Per Annum)	MVABO Weighted Average Duration (Years)
6/30/99	\$34,626.1	\$34,626.1	\$34,626.1	\$32,542.5	\$31,307.3	\$27,929.8	\$31,828.0	6.0%	11.5
6/30/00	36,751.2	36,142.4	36,147.6	36,743.6	35,141.7	31,150.1	35,581.1	6.0	11.8
6/30/01	31,593.0	35,410.2	35,414.5	36,140.1	34,446.5	30,721.5	36,393.4	5.7	11.6
6/30/02	27,025.9	34,177.8	34,181.1	36,531.2	34,744.1	30,677.2	36,575.1	5.8	10.9
6/30/03	26,078.0	33,169.2	33,182.7	37,622.9	35,776.9	31,945.0	42,682.0	4.6	11.8
6/30/04	28,975.4	32,817.1	32,827.5	40,486.9	38,554.8	35,175.5	43,053.6	5.5	11.1
6/30/04 (Lag) <sup>(5)</sup>	28,975.4	33,149.3	33,159.7	40,872.0	38,947.5	35,277.6	43,223.1	5.5	11.2
6/30/05 (Lag)	30,492.2	32,865.1	32,872.3	42,644.4	40,633.9	37,033.8	51,957.2	4.2	13.0
6/30/06 (Lag)	32,206.7	32,405.5	32,410.5	45,138.9	42,619.6	38,580.8	47,892.4	5.4	11.9
6/30/07 (Lag)	37,142.8	33,854.2	33,856.7	48,625.2	46,412.7	42,362.9	53,151.3	5.2	12.0
6/30/08 (Lag)	32,297.9	32,227.4	32,227.4	49,400.8	46,823.7	41,911.8	57,275.0	4.5	12.1
6/30/09 (Lag)	23,077.5	30,775.0	30,775.0	47,988.5	45,306.7	40,883.2	59,266.2	4.1	12.3
6/30/10 (Lag) <sup>(6)</sup>	26,398.4	32,477.5	55,138.4	55,138.4	52,756.4	47,982.7	68,567.2	3.7	13.1
6/30/11 (Lag)	33,601.5	33,601.5	57,702.7	57,702.7	55,255.1	50,199.8	67,869.6	4.0	12.2
6/30/12 (Lag)	32,774.8	33,871.2	58,783.4	58,783.4	56,257.2	51,493.0	86,568.5	2.4	14.5
6/30/13 (Lag) <sup>(7)</sup>	36,856.5	35,186.1	60,956.9	60,956.9	58,368.8	53,584.9	80,229.4	3.2	13.4

(1) The AAV used for the June 30, 1999 to June 30, 2009 actuarial valuations assumes the AAV was reset to MVA as of June 30, 1999. As of each June 30 thereafter, the AAV recognizes Investment Returns greater or less than expected over a period of five years (six years beginning with the June 30, 2004 (Lag) actuarial valuation). The AAV used for June 30, 2010 and after assumes the AAV was reset to MVA as of June 30, 2011 with the June 30, 2010 AAV defined to recognize Fiscal Year 2011 investment performance and the June 30, 2012 and after AAV recognizing Investment Returns greater or less than expected over a period of six years.

(2) Calculated in accordance with the Actuarial Cost Method and actuarial assumptions used for determining Employer Contributions.

(3) Calculated based on actuarial assumptions used for determining Employer Contributions.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ADDITIONAL DISCUSSION OF PLAN FUNDING AND OTHER MEASURES OF FUNDED STATUS (Cont'd)

- (4) Calculated based on actuarial assumptions used for determining Employer Contributions except that projected benefit payments are discounted using annual yields derived from U.S. Treasury Spot Rates as published by the U.S. Department of the Treasury Office of Thrift Supervision ("OTS") in its Selected Asset and Liability Price Tables. For June 30, 2012 and after, these Spot Yields are based on OTS methodology as provided by the U.S. Department of Treasury. Also shown are the related MVABO Equivalent Discount Yield and the MVABO Weighted Average Duration.
- (5) Beginning with the June 30, 2004 (Lag) actuarial valuation, figures are based on the revised actuarial assumptions and methods used to develop Fiscal Year 2006 employer contributions.
- (6) Beginning with the June 30, 2010 (Lag) actuarial valuation, figures are based on the revised actuarial assumptions and methods used to develop Fiscal Year 2012 employer contributions, including the EAACM and an AIR assumption of 7.0% per annum, net of investment expenses.
- (7) Preliminary.

### Table of Funded Ratios

The following table presents alternative Funded Ratios comparing Assets to Obligations, including: (1) AAV divided by AAL, (2) AAV divided by EAAL, (3) MVA divided by EAAL, (4) AAV divided by PBO, (5) MVA divided by PBO, (6) AAV divided by ABO, (7) MVA divided by ABO and (8) MVA divided by MVABO.

Funded Ratios								
Valuation Date	AAV/AAL	AAV/EAAL	MVA/EAAL	AAV/PBO	MVA/PBO	AAV/ABO	MVA/ABO	MVA/MVABO
6/30/99	100%	106%	106%	111%	111%	124%	124%	109%
6/30/00	100	98	100	103	105	116	118	103
6/30/01	100	98	87	103	92	115	103	87
6/30/02	100	94	74	98	78	111	88	74
6/30/03	100	88	69	93	73	104	82	61
6/30/04	100	81	72	85	75	93	82	67
6/30/04 (Lag)	100	81	71	85	74	94	82	67
6/30/05 (Lag)	100	77	72	81	75	89	82	59
6/30/06 (Lag)	100	72	71	76	76	84	83	67
6/30/07 (Lag)	100	70	76	73	80	80	88	70
6/30/08 (Lag)	100	65	65	69	69	77	77	56
6/30/09 (Lag)	100	64	48	68	51	75	56	39
6/30/10 (Lag)	59	59	48	62	50	68	55	39
6/30/11 (Lag)	58	58	58	61	61	67	67	50
6/30/12 (Lag)	58	58	56	60	58	66	64	38
6/30/13 (Lag)	58	58	61	60	63	66	69	46



**ADDITIONAL DISCUSSION OF PLAN FUNDING AND  
OTHER MEASURES OF FUNDED STATUS  
(Cont'd)**

Comments on Funded Ratios and Funding Methodology

With respect to the different Funded Ratios shown in the preceding table, the ratio of AAV/AAL is from the Schedule of Funding Progress (Schedule 1) presented in the Financial Section of this CAFR.

Due to the mathematics of the FIL ACM where AAL equals AAV plus UAAL, the AAV/AAL Funded Ratios prior to Fiscal Year 2012 tended to remain relatively constant from year to year and provided limited insight into the ongoing financial performance of the Plan.

The Other Measures of Funded Status shown in the preceding table provide different relationships between the Assets and Obligations of the Plan and are designed to offer additional insight into the Funded Status of the Plan that the Actuary believes useful to some users.

The ratios of AAV/EAAL reflect information that is now a required disclosure for certain Public Pension Plans that utilize the Aggregate ACM. This requirement also exists for certain OPEB plans under GASB 43 and GASB 45.

The ratio of MVA/EAAL is a required disclosure for certain Public Pension Plans under GASB 67 and GASB 68.

The ratios of AAV/PBO present information that was previously required under GASB 5 and is a comparable but somewhat different representation of the information shown in the Solvency Test presented earlier in this Section of the CAFR.

The ratios of MVA/MVABO provide information on Funded Status that is (1) independent of the asset allocation of the Plan, (2) exclusive of any advance recognition of expected asset risk premia (*e.g.*, equity risk premium) and (3) absent any smoothing of asset values.

Inherent in its design, the MVA/MVABO Funded Ratio is expected to be volatile due to the impact of asset gains and losses without smoothing and the impact of changes in interest rates in the economy. Such volatility is a reflection of markets and can provide useful disclosure information. However, such volatility is not consistent with the needs of budgeting. Those budgeting needs are met by the actuarial assumptions and ACM in use to determine Employer Contributions.

Comparing the MVA/EAAL to AAV/EAAL, MVA/PBO to AAV/PBO or MVA/ABO to AAV/ABO provides an opportunity to evaluate the degree of smoothing provided by the Actuarial Asset Valuation Method.

Comparing Funded Ratios based on the same Assets (*i.e.*, MVA or AAV) but different definitions of Obligations (*e.g.*, EAAL versus PBO versus ABO) provides an opportunity to evaluate the differences in those different definitions of Obligations.

Comparing AAV/PBO with AAV/ABO provides insight into the impact of expected salary growth on the value of benefits earned to date.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

Comparing MVA/ABO with MVA/MVABO provides an opportunity to compare the impact of alternative interest rates on discounting the ABO.

It should also be noted that Measures of Funded Status are best examined with more consideration of their trends over time than their values at any given point in time.

Finally, over time, it should be noted that as the City and other participating Employers pay into the Plan the actuarially-determined Employer Contributions, all Funded Ratios can be expected to increase from their current levels.

### STATUTORY VS. ACTUARIAL REQUIRED CONTRIBUTIONS

<b><u>Fiscal Year Ended June 30</u></b>	<b><u>Statutory Contribution<sup>(1)</sup></u></b>	<b><u>Actuarial Contribution</u></b>	<b><u>Employer Rate of Contribution<sup>(2)</sup></u></b>
2000	\$181,769,965	\$181,769,965	4.310%
2001	444,965,372	571,955,543	9.424
2002	509,931,588	607,762,939	10.167
2003	639,617,910	805,782,222	11.695
2004	920,264,167	1,015,331,185	15.788
2005	1,228,275,356	1,304,032,623	19.748
2006	1,316,610,517	1,316,610,517	21.293
2007	1,600,904,278	1,600,904,278	25.471
2008	1,916,519,629	1,916,519,629	27.386
2009	2,223,643,770	2,223,643,770	30.792
2010	2,484,073,500	2,484,073,500	31.604
2011	2,468,973,357	2,468,973,357	31.114
2012	2,673,078,096	2,673,078,096	33.747
2013	2,855,639,947	2,855,639,947	36.455
2014	2,998,693,727	2,998,693,727	37.652

(1) Represents total employer contributions accrued for fiscal year.

The Statutory Contributions for Fiscal Years 2001 and 2002 were computed in accordance with Chapter 125/00 which provided for a five-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.

The Statutory Contributions for Fiscal Years 2003 through 2005 were computed in accordance with Chapter 278/02 which extended from five to ten years the phase-in period for the funding of the additional actuarial liabilities attributable to Chapter 125/00.

Beginning Fiscal Year 2006, the Statutory Contributions were computed using a One-Year Lag Actuarial Valuation 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.

Beginning Fiscal Year 2012, the Statutory Contributions were computed in accordance with Chapter 3/13.

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

## CHRONOLOGY OF PLAN

TRS was established as of August 1, 1917 and, at the outset, the Teachers' Retirement Board adopted the mortality tables, service tables, and other tables necessary for calculating contribution rates and for preparing valuation figures. Periodic comparisons of the actual experience with the expected experience, as obtained by calculations from the latest adopted tables, have been made since August 1, 1917.

## SUMMARY OF KEY PLAN BENEFIT AND FUNDING CHANGES

**2013** 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 extends WTC Disability Law benefits to vested members.

**2012** Chapter 18 of the Laws of 2012 ("Chapter 18/12") placed certain limitations on the Tier III and Tier IV benefits available to participants hired on and after April 1, 2012 in most New York State PERS, including TRS. These changes are sometimes referred to as Tier VI.

**2010** Chapter 105 of the Laws of 2010 ("Chapter 105/10") provided an Early Retirement Incentive ("ERI") program for certain members.

Chapter 286 of the Laws of 2010 ("Chapter 286/10") refined the method used to compute the Final 3-year Average Salary for members who have extended breaks in service and who would be impacted by Kingston Limits on the older salaries.

**2009** Chapter 504 of the Laws of 2009 ("Chapter 504/09") provides that individuals joining TRS after December 10, 2009, who participate in the 55/27 retirement program, are required to make pension contributions of 4.85% of salary until they have 27 years of credited service and contributions of 1.85% of salary thereafter.

Also, under Chapter 504/09, all members represented by the United Federation of Teachers ("UFT") will become vested after ten years of credited service. In addition, all members represented by the UFT who participate in the Tax-Deferred Annuity Program ("TDA"), will receive an interest rate of 7.0% per annum credited to their TDA Fixed Funds accounts beginning December 10, 2009.

**2008** Chapter 19 of the Laws of 2008 ("Chapter 19/08") established retirement programs to permit Tier II and Tier IV current members of TRS to elect to retire between ages 55 and 62 without reduction provided they have 25 years of service, by paying an additional contribution of 1.85% of future pay. New members after February 27, 2008 are mandated into this plan and are required to have 27 years of service.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

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 attacks on September 11, 2001.

**2007** 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.

**2006** Chapter 152 of the Laws of 2006 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 ("UAAL"). In addition, Chapter 152/06 provided 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.

**2005** Chapter 104 of the Laws of 2005 as amended by Chapter 93 of the Laws of 2005 creates 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 U.S. Armed Forces on and after June 14, 2005 is deemed a Line-of-Duty death while on active payroll.

Chapter 133 of the Laws of 2005 provided a similar extension of the interest rates as did Chapter 133 of the Laws of 2004, for Fiscal Year 2006. The investment rate of return assumption for determining Employer contributions for Fiscal Year 2006 remains at 8.0% per annum until and unless changed following the proposals of the Actuary and the actions by the Retirement Board, the State Legislature and the Governor.

**2004** Chapter 133 of the Laws of 2004 extended certain provision of Chapter 85/00 through Fiscal Year 2005. Thus, for Fiscal Year 2005, the interest rate used for Tier I and Tier II member contributions and ITHP Reserves remained at 8.25% per annum. The investment rate of return assumption for determining Employer Contributions for Fiscal Year 2005 remains at 8.0% per annum until and unless changed following the proposal of the Actuary and the actions by the Retirement Board, the State Legislature and the Governor.

Chapter 623 of the Laws of 2004 provided for an Excess Benefit Plan to be established which would provide benefits to those pensioners whose annual retirement benefits are limited because those benefits exceed the limitations set by IRC Section 415(b). The law is retroactive to July 1, 2000.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- 2003** Chapter 136 of the Laws of 2003 permitted certain Tier II members who are reemployed after retirement for other than disability and who received at least two years of service credit to be eligible for a recalculation of their retirement allowance.

Chapter 661 of the Laws of 2003 permitted members to change their option up to thirty days after the initial date of payability of their retirement allowance (for disability, up to the later of thirty days after approval of the disability retirement or the date of such retirement).

- 2002** Chapter 69 of the Laws of 2002 authorized an Early Retirement Incentive (“ERI”) for certain members in eligible titles.

Chapter 106 of the Laws of 2002 expanded and reopened provisions for certain substitute teacher tier reinstatements.

Chapter 215 of the Laws of 2002 increased Tier IV Accidental Disability Retirement to 2/3 of Final Average Salary.

Chapter 278 of the Laws of 2002 revised the phase-in schedule of Chapter 125 of the Laws of 2000 for Fiscal Years 2003 and later.

Chapter 381 of the Laws of 2002 extended Chapter 558 of the Laws of 2001 provisions to age 55 increased service fraction members.

- 2001** Chapter 470 of the Laws of 2001 allowed members who received service credit for seniority and length of service purposes while on layoff due to the New York City fiscal crisis of the 1970’s to also receive credit for such service for all pension purposes.

Chapter 532 of the Laws of 2001 allowed Tier I members to purchase up to 15 years of service that would have been creditable in another New York State Public Retirement System.

Chapter 558 of the Laws of 2001 allowed certain members on deferred retirement under the Career Pension Plan of the New York City Employees’ Retirement System (“NYCERS”) or the New York City Board of Education Retirement System (“BERS”) to transfer membership into TRS. If such member has started receiving a pension, such pension must be returned without interest to NYCERS or BERS.

- 2000** Chapter 85 of the Laws of 2000 amended the Administrative Code of the City of New York to implement changes in actuarial assumptions and methods that require legislation.

Chapter 86 of the Laws of 2000 authorized an ERI for certain members in eligible titles.

Chapter 110 of the Laws of 2000 amended the language of legislation that later became Chapter 126 of the Laws of 2000, which provided for benefit enhancements for certain members of the City of New York retirement systems.



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

Chapter 125 of the Laws of 2000 provided eligible retirees with automatic annual Cost-of-Living Adjustments.

Chapter 126 of the Laws of 2000 provided for benefit enhancements (*i.e.*, elimination of member contributions for Tier III/IV members with more than 10 years of membership, additional pension credit for Tier I/II members of up to a maximum of 24 months of additional service retirement credit, and allowed Tier III/IV members to retire at age 55 with reduced benefits under the same formula as used for Tier II members) for certain members of the City of New York retirement systems.

Chapter 548 of the Laws of 2000 permitted certain members to purchase up to 3 years of credit for certain U.S. Military Service by paying 3% of imputed salary.

Chapter 552 of the Laws of 2000 permitted Tiers II/III/IV members with at least 2 years of credited service to receive credit for certain previous service in a New York State Public Retirement System ("NYSPRS").

Chapter 553 of the Laws of 2000 lowered the reduction factors for Tier IV members who retire before age 62 with less than 30 years of service.

Chapter 554 of the Laws of 2000 provided that Tiers II/III/IV members who joined prior to January 1, 2001 and who elected Death Benefit 1 will receive the greater of Death Benefit 1 or Death Benefit 2 coverage. New members on and after January 1, 2001 will only receive coverage under Death Benefit 2.

**1999** Chapter 70 of the Laws of 1999 authorized an Early Retirement Incentive for certain members in eligible titles.

Chapter 409 of the Laws of 1999 amended Chapter 616 of the Laws of 1998 to include the death gamble benefit of Tier I.

Chapter 575 of the Laws of 1999 re-opened Chapter 666 of the Laws of 1990, which allows a retroactive transfer of pension credit under certain circumstances.

Chapter 581 of the Laws of 1999 allowed Tier II members to receive service credit while under a leave of absence for union activities.

Chapter 628 of the Laws of 1999 provided Tier I and Tier II members the opportunity to switch their retirement plans.

Chapter 646 of the Laws of 1999 provided active and future members the right to reinstate earlier membership by repaying prior member contributions with 5% interest.

Chapter 659 of the Laws of 1999 reduced the amount of service credit needed for Tier III/IV vested members to receive benefits at age 55 to 5 years.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

**1998** Chapter 7 (as amended by Chapter 47) of the Laws of 1998 authorized a retirement incentive for certain members in eligible titles.

Chapter 266 of the Laws of 1998 reduced the service required for Tier IV normal retirement benefits from 25 years to 20 years and permitted certain Tier III retirees to receive Tier IV benefits.

Chapter 366 of the Laws of 1998 increased the period of absence before loss of membership from 5 years to 7 years, provided member contributions are not withdrawn.

Chapter 388 of the Laws of 1998 provided a pre-retirement death benefit for certain vested members of the Plan.

Chapter 389 of the Laws of 1998 allowed members of the Plan to become vested after five years of service.

Chapter 390 of the Laws of 1998 ("Chapter 390/98") provided additional benefits for cost-of-living increases for certain retirees of the Plan. An initial increase for members who retired on or before Calendar Year 1992 is effective as of September 1998 as enacted by the City Council on August 27, 1998. A subsequent increase for members who retired on or before Calendar Year 1993 is effective as of September 1999 as enacted by the City Council on August 27, 1998.

Chapter 616 of the Laws of 1998 allowed Plan members who are terminally ill and eligible for disability retirement to elect advance payment of ordinary death benefit.

**1997** Chapter 41 of the Laws of 1997 authorized a retirement incentive for certain persons in eligible titles who are public employees and who are members of the Plan.

Chapter 601 of the Laws of 1997 amended the Administrative Code of the City of New York and the Retirement and Social Security Law ("RSSL") to bring the Plan into compliance with the requirement of the Federal Older Workers' Benefit Protection Act of 1990 ("OWBPA").

**1996** Chapter 30 of the Laws of 1996 established an ERI for certain members and was enacted by a Board Resolution.

Chapter 249 of the Laws of 1996 amended the schedules of payments toward the Unfunded Actuarial Accrued Liability ("UAAL") and Balance Sheet Liability ("BSL") to provide that the UAAL and BSL as of June 30, 1995 be amortized over a period of 15 years beginning Fiscal Year 1996, where the amount of each annual payment after the first is to equal 103% of the preceding annual payment.

Chapter 592 of the Laws of 1996 permitted excess earnings of the annuity fund to reduce employer contribution to the Plan.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

Chapter 593 of the Laws of 1996 permitted corpus funding of administrative expenses after July 1, 1996.

Chapter 712 of the Laws of 1996 permitted the increase in investment of Plan assets in equities to 70%.

- 1995** Chapter 12 of the Laws of 1995 established an ERI for certain CUNY employees and was enacted by a resolution of CUNY's Board.

Chapter 74 of the Laws of 1995 amended Chapter 12 to offer the ERI to certain Board of Education employees.

Chapter 119 of the Laws of 1995 amended the General Municipal Law and the Administrative Code of the City of New York and provides for Supplemental Retirement Allowances for certain retirees.

Chapter 642 of the Laws of 1995 amended the Administrative Code of the City of New York in relation to the rate of regular interest used in calculating contributions to TRS, as well as to the crediting of special and additional interest to members and the allowance of supplementary interest on TRS funds.

- 1994** Chapter 633 of the Laws of 1994 amended the schedules of payments toward the UAAL and BSL to provide that the UAAL and BSL of June 30, 1993 be amortized over a period of 17 years beginning Fiscal Year 1994, where the amount of each annual payment after the first is to equal 103% of the preceding annual payment.

Chapter 675 of the Laws of 1994 amended the RSSL in relation to the maximum amount of compensation that may be used in the determination of pension benefits. The annual compensation of each employee taken into account under the plan for any year may not exceed \$150,000 for plan years beginning after June 30, 1996. This figure is subject to cost-of-living adjustment. The State legislation grandfathers those who become members prior to July 1, 1996. This new law brings the New York City Retirement Systems into compliance with certain portions of the Tax Reform Act of 1986 and Internal Revenue Service regulations issued thereunder.

- 1992** Chapter 221 of the Laws of 1992 amended the Administrative Code of the City of New York, in relation to treatment of surplus, deficits and investment earnings of TRS' Tax-Deferred Annuity ("TDA") Program.

Chapter 494 of the Laws of 1992 provided an ERI for certain City University professional staff members of TRS.

- 1991** Chapter 178 of the Laws of 1991 became law on June 17, 1991. This law provided for an ERI for eligible employees of the Board of Education; this incentive granted up to three years of retirement credit.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

Chapter 607 of the Laws of 1991 amended the funding provisions effective June 30, 1990. This law provided that the Consolidated UAAL and BSL as of June 30, 1990 be amortized over 20 years with non-level payments for the first five years. The schedule of payments for the combined UAAL and BSL components for the first five years is to be comparable in pattern to the schedule of payments that was in effect under the amortization schedules immediately prior to the change in funding provisions. The balance of the combined UAAL and BSL components at the end of five years is to be amortized using level payments over the remaining 15 years. The BSL component is to be amortized using level payments over 20 years from June 30, 1990.

**1990** Chapter 210 became a law on June 6, 1990. This law provided for a ERI for eligible employees of CUNY, effective September 1, 1991.

Chapter 357 became a law on July 12, 1990. This law amended Chapter 835 of the Laws of 1987 in relation to medical review as provided by §13-522.1 of the Administrative Code of the City of New York. These provisions, which had been scheduled to expire on June 30, 1989, were made permanent.

Chapter 483 became a law on July 18, 1990. This law amended Chapter 296 of the Laws of 1984 by extending the elimination of mandatory retirement to tenured employees of CUNY.

Chapter 666 became a law on July 22, 1990. This law amended §13-503 of the Administrative Code of the City of New York in relation to the availability of additional pension benefits to certain retirees of other New York City retirement systems as the result of their joining TRS for an extended second public employment.

Chapter 878 became a law on July 25, 1990. This law amended the Administrative Code of the City of New York in relation to the rate and method of payment of regular interest, special interest, additional interest and supplementary interest to be credited by TRS.

Chapter 919 became a law on July 30, 1990, with an effective date of July 1, 1991. This law amended §§517 and 613 of the RSSL by permitting Tier III/IV members to borrow up to 75% of their accumulated contributions.

Chapter 948 of the Laws of 1990 became law on December 26, 1990. This law amended the funding provisions of the Retirement System effective June 30, 1990. The funding provisions were amended in relation to the interest rates used in the actuarial valuation of liabilities and amortization payments, for the purpose of calculating employer contributions. This law provided that an actuarial interest rate assumption of 9% per annum for TRS (4% per annum for benefits payable under the variable annuity programs) would be in effect for that purpose with respect to employer contributions due for Fiscal Years 1991-1995. However, this law was superseded by Chapter 607 of the Laws of 1991 before it was scheduled to take effect on June 30, 1990.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- 1989** Chapter 580 of the Laws of 1989 amended the funding provisions of the New York City Retirement Systems effective June 30, 1988 in relation to eliminating the deferred charge account.

Chapter 581 of the Laws of 1989 amended the funding provisions of the New York City Retirement Systems effective June 30, 1988 in relation to the interest rate used in the actuarial valuation of liabilities for the purpose of calculating employer contributions. The law provided that an 8.25% interest rate will be in effect for that purpose with respect to employer contributions due for Fiscal Years 1989 and 1990.

- 1988** Chapter 8 became a law on February 29, 1988. This law superseded many provisions of §13-680 of the Administrative Code of the City of New York in relation to the payment of supplemental retirement allowances to certain retirees.

Chapter 182 became a law in June 1988. This law amended §13-582 of the Administrative Code of the City of New York in relation to permitting deferral of the distribution of a member's TDA account to the latest date allowable by the Internal Revenue Code.

Chapter 273 became a law on July 19, 1988. This law amended §§13-568, 571, 581, and 582 of the Administrative Code of the City of New York in relation to the extent and frequency of participation in elections made by members and beneficiaries with respect to the Variable Annuity and TDA Programs.

Chapter 454 became a law on August 1, 1988, effective immediately, providing for the payment of monthly supplemental retirement allowances to certain spouses of deceased members or retirees. Generally, spouses of deceased members or retirees who are designated annuitants (*i.e.*, beneficiaries covered under Option I or Option IV-b, who, upon the death of the members or retirees, elect a monthly form of payment of the death benefit, rather than a lump sum) will be eligible to collect an extra \$50 per month as supplemental retirement allowance, provided the member or retiree died prior to January 1, 1980. However, any spouse who may become eligible to receive, or who is already receiving, a supplemental retirement allowance is not eligible for this benefit. Payments to an eligible spouse will be effective on the later of either [a] the month following the one in which the member's or retiree's death occurred, or [b] July 1, 1983.

Chapter 522 became a law on August 2, 1988. This law amended the RSSL in relation to TRS membership. Generally, any Tier III/IV member who was employed by the Board of Education as a regular substitute for at least one term during one of the three school years immediately prior to July 27, 1976 would have the same rights and privileges as a Tier II member, provided (s)he filed the appropriate application prior to July 1, 1989.

Chapter 523 became a law on August 2, 1988. This law amended the RSSL in relation to TRS membership. Generally, any Tier II member who was employed by the Board of Education as a regular substitute for at least one term during one of the three school years immediately prior to July 1, 1973 would have the same rights and privileges as a Tier I member, provided (s)he filed the appropriate application prior to July 1, 1989.



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Chapter 548 became a law on August 11, 1988. This law provided that pension service credit be granted to Tier III/IV members on leave of absence without pay for the purpose of conducting labor relations activity.

Chapter 768 became a law on December 26, 1988 to become effective January 1, 1990. This law amended the RSSL to include a new Article 15-A (§620) which provides that all TRS members and those who join TRS after this date will receive benefits payable subject to certain limitations of §415 of the Internal Revenue Code. The benefits payable will be subject to the greater of either [a] the limitations of §415 of the Internal Revenue Code, or [b] the accrued benefit of the member without regard to any benefit increases in accordance with plan amendments adopted after October 14, 1987.

Chapter 773 became a law on December 29, 1988. This law amended §13-521 of the Administrative Code of the City of New York in relation to providing certain benefits involving supplemental annuity contributions on behalf of certain Tier III/IV members.

Chapter 782 became a law on December 29, 1988. This law amended §§517 and 613 of the RSSL in relation to the treatment of Tier III/IV member contributions for income tax purposes under the provisions of the Internal Revenue Code.

Chapter 783 became a law on December 29, 1988. This law made certain technical changes to Chapter 782 of the Laws of 1988.

**1986** Chapter 617 of the Laws of 1986 amended the RSSL by repealing the Article 14 and the Article 15 Ordinary Death Benefits provisions and replacing them with provisions nearly identical to the Death Benefits applicable to Article 11 TRS members.

Chapter 630 of the Laws of 1986, which amended §B20-37.0 and §13-540 of the Administrative Code of the City of New York, increased the insurance for loans taken by TRS members from \$2,000 to \$10,000, effective July 1, 1986.

Chapter 683 of the Laws of 1986 amends §4402-§4406, §4408, §3030, §3202, §3602 and §3635 of the Education Law and §236 of the Family Court Act to provide additional educational opportunity in the months of July and August in and after Fiscal Year 1988 for severely handicapped children. In addition, this law established the “Additional Employer Specific Skills Training Grant Program” to conduct summer employer-specific skill training in coordination with participating employers. Also, the bill covers allocations of costs and educational services required of youths incarcerated in a correctional facility.

Chapter 793 of the Laws of 1986 amended §6214 of the Education Law and §13-630 of the Administrative Code of the City of New York in relation to the new members of the instructional staff at community colleges within the City University of New York, who will be eligible to become TRS members. In addition, present members of the New York City Employees' Retirement System who are employed on the instructional staff at community colleges within the City University of New York will have the right, until June 30, 1987, to transfer to TRS.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- 1985** Chapter 910 of the Laws of 1985 made it possible for TRS to use modernized actuarial tables in computing pension benefits. The Teachers' Retirement Board approved a resolution adopting new mortality tables for the purpose of determining certain benefits. The implementation of such a resolution was contingent upon the enactment of legislation increasing regular interest from 4% to 7%. Chapter 910 was signed into law on August 19, 1985.

Chapter 911 of the Laws of 1985 authorized TRS to continue to assume an 8.0% rate of return on investments. The Teachers' Retirement Board approved a resolution adopting new actuarial assumptions for the purpose of determining employer contributions to TRS for Fiscal Year 1986. The implementation of such a resolution was contingent upon the enactment of State legislation which would maintain the assumed rate of return on investments at 8.0%. Chapter 911 of the Laws of 1985 was signed into law on August 19, 1985. As a result, the new actuarial assumptions were utilized to determine pension expenses for Fiscal Year 1986 and thereafter.

- 1984** Chapter 371 of the Laws of 1984 amended the Administrative Code of the City of New York in relation to the payment of supplemental retirement allowances to spouses of certain deceased retirees.

Chapter 658 of the Laws of 1984 amended §D49-40.0 of the Administrative Code of the City of New York, increasing the amount of Supplemental Retirement Allowance (SRA) payable to every eligible retiree from 3% of the retiree's maximum fixed retirement allowance (*i.e.*, the "base amount") for post-1971 retirees to 42% for pre-1959 retirees. In addition, the retirement allowance ceiling on which SRA is based was raised from \$8,000 to \$10,500. These benefit increases began in September 1986, and the increase in percentages occurred over a two-year period.

- 1983** Chapter 414 of the Laws of 1983 amended the RSSL by adding a new article—Article 15. This Law established a new state-wide pension plan, the Coordinated Retirement Plan, effective September 1, 1983, covering most employees joining on or after July 27, 1976. This Plan, which sets a normal retirement age of 62 and mandates 3% contributions by members, superseded the Plan (CO-ESC) enacted as Chapter 890 of the Laws of 1976. However, members who joined from July 27, 1976 through August 31, 1983 may elect to receive a benefit from CO-ESC or the Coordinated Plan, whichever provides greater benefits.

- 1982** Chapter 914 of the Laws of 1982 amended the Administrative Code of the City of New York in relation to employer contributions, the actuarial valuation, the determination and appraisal of the liabilities, the disposition of TRS' investment earnings, the crediting of special interest and additional interest to members, and the allowance of supplementary interest on TRS' funds. It further provided for the determining of obligations of the State, the City University of New York, and TRS in relation to certain employer contributions payable to TRS on account of employees of the senior colleges of the City University of New York.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- 1981** Chapter 422 of the Laws of 1981 provided new or additional supplemental pensions for certain pensioners and made the funding of these benefits the obligation of TRS.
- 1977** Chapter 976 of the Laws of 1977 amended TRS' funding provisions, effective July 1, 1977.
- 1973** Chapter 1046 of the Laws of 1973 established Article 11 of the RSSL, which imposed certain limitations on the benefits available to members joining TRS after June 30, 1973 and created Plans C and D, which are modifications of Plans A and B.
- 1970** Legislation in 1970 substantially revised TRS provisions. Chapter 274 established two new retirement plans effective July 1, 1970. Members who joined TRS on or after the effective date were required to choose either [1] The Twenty-Year Pension Plan (Plan A), or [2] The Age-55-Increased-Benefits Pension Plan (Plan B).

A member who joined TRS prior to the effective date could continue under his/her existing plan, or could elect one of these new plans, providing such election was made before the member had rendered two years of service after June 30, 1970.

Chapter 581 of the Laws of 1970 made it possible for the Teachers' Retirement Board to adopt Rules and Regulations establishing a Group Term Life Insurance Plan. In accordance with these Rules and Regulations, the first \$50,000 of benefits on account of each death in active service will be payable from the funds of the Group Term Life Insurance Plan rather than from those of TRS. With respect to the Group Term Life Insurance Plan, the Teachers' Retirement Board adopted premium rates computed to be necessary to fund the benefits payable.

## SUMMARY OF PLAN PROVISIONS

This section summarizes TRS' principal benefit provisions. The benefits available under the Coordinated Retirement Plan are provided by Article 15 of the RSSL. The benefits available under the Twenty-Year Pension Plan and Age-55-Increased-Benefits Pension Plan are provided by Chapter 274 of the Laws of 1970 as well as the restrictions prescribed by Article 11 of the Retirement and Social Security Law.

This Summary of Plan Provisions is applicable to Plan members included in the June 30, 2012 (Lag) actuarial valuation and include the provisions of Chapter 18 of the Laws of 2012 (*i.e.*, Tier VI).

## COORDINATED RETIREMENT PLAN

A member whose date of membership is July 27, 1976 or later belongs to the Coordinated Retirement Plan.

## SERVICE RETIREMENTS

### Normal Service Retirement

**Eligibility:** A member is eligible to retire at age 62 (age 63 for Tier VI) with immediate payability after 5 or more years of service (10 or more years of service for Tier VI), subsequent to the date of membership.

Current members as of February 27, 2008 were provided a one hundred eighty day period during which they were allowed to join a plan that permitted them to retire at age 55 and later with immediate payability and without reduction after 25 years of service, provided they pay an additional 1.85% of future pay.

After February 27, 2008, new members are eligible to retire at age 55 and later with immediate payability and without reduction after 27 years of service and are required to pay an additional 1.85% of future pay.

After December 10, 2009, new members under the 55/27 retirement program are required to make contributions of 4.85% of salary until they have 27 years of credited service and contributions of 1.85% of salary thereafter.

After March 31, 2012, new Tier VI members are required to make contributions.

Note: In the Coordinated Retirement Plan, Final Average Salary ("FAS") is the average salary earned during any three consecutive years (any five consecutive years for Tier VI) providing the highest average salary. However, if salary earned during any year included in the three-year period exceed that of the average of the previous two years by more than 10%, the amount in excess of 10% will be excluded from the computation of FAS. Salary is defined as the regular compensation earned by, and paid to, a member.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- Benefits:**
- {1} For a member with fewer than 20 years of service, the benefit is  $\frac{1}{60}$  times FAS (see note above) multiplied by years of service.
  - {2} For a member with at least 20 (Tier VI) but fewer than 30 years of service (Tier IV), the benefit is  $\frac{1}{50}$  times FAS multiplied by years of service (Tier IV) or 35% plus 2% times FAS multiplied by each additional year exceeding 20 years of service (Tier VI).
  - {3} For a member with 30 or more years of service, the benefit is  $\frac{1}{50}$  times FAS for each of the first 30 years of service plus  $\frac{3}{200}$  times FAS for each additional year (Tier IV).

### Early Service Retirement

**Eligibility:** A member is eligible to retire at age 55 or later with immediate payability, after 5 or more years of service (10 or more years for Tier VI), subsequent to the date of membership.

**Benefits:** The pension is calculated similarly to the pension of a Normal Service Retirement, but it is reduced as follows:

- {1} For a Tier IV member who retires prior to age 62 with less than 30 years of service, his/her pension for service is reduced by 0.5% for each of the first 24 months that the payability date precedes age 62, and by 0.25% for each additional month.

After February 27, 2008, new Tier IV members are eligible to retire at age 55 and later without reduction after 27 years of service and are required to pay an additional 1.85% of future pay.

Current Tier IV members as of February 27, 2008 were provided a one hundred eighty day period during which they were allowed to join a plan that permitted them to retire at age 55 and later without reduction after 25 years of service, provided they pay an additional 1.85% of future pay.

- {2} A Tier IV member with 30 or more years of service receives no reduction in benefits because of early retirement.
- {3} For a Tier VI member who retires prior to age 63 the retirement allowance is reduced by 6.5% per year.

### Deferred Vested Benefit

**Eligibility:** A member who has 5 or more years of credited service upon termination of employment (ten years if hired after December 10, 2009), is entitled to a deferred vested benefit payable at age 55 or later. A member who elects payability before age 62 (age 63 for Tier VI) will receive a reduced benefit.



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

**Benefits:** The benefit formulas are the same as those set forth under a Normal Service Retirement and an Early Service Retirement. Should a member who elected to receive a vested deferred retirement allowance die before the attainment of payability age and had at least 10 years of service, the death benefit is 1/2 of the Ordinary Death Benefit in force on the last day of active service.

### DISABILITY RETIREMENTS

**Eligibility:** A member is eligible for Ordinary Disability Retirement benefits if (s)he has completed 10 or more years of service and is incapacitated for performance of gainful employment. If the disability is judged to be the result of an accident in the performance of duty, the 10-year requirement is waived.

**Benefits:** The benefit is the greater of: (a) 1/3 of FAS (2/3 of FAS for a member if the disability is judged to be the result of an accident in the performance of duty); or (b) 1/60 times FAS multiplied by the credited service.

### ORDINARY DEATH BENEFITS

**Benefits:** Upon joining TRS, a member must elect one of the following death benefits:

#### Death Benefit 1:

This benefit provides one month's salary for each year of service up to a maximum of three years' salary. If the member would have been eligible to receive an unreduced retirement allowance at the time of his/her death, the benefit is a lump sum that is actuarially equivalent to the retirement allowance which would have been payable had the member retired on the day before his/her death, if greater.

#### Death Benefit 2:

This benefit provides one year's salary for each year of service up to a maximum of three years' salary after three years of service. The benefits reduce after age 60 at the rate of 5% per year, to a maximum reduction of 50% of the benefit in effect at age 60.

A benefit is also payable upon death after retirement and is expressed as follows:

- \* If death occurs in the first year after retirement, 50% of the benefit in force immediately before retirement.
- \* If death occurs in the second year following retirement, 25% of the benefit in force immediately before retirement.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

\* If death occurs subsequently, 10% of the benefit in force at age 60 or immediately before retirement if retirement was earlier than age 60.

If retirement occurs after age 60, the minimum death benefit payable after retirement is 10% of the death benefit in force at age 60.

The Rules and Regulations adopted by the Teachers' Retirement Board in accordance with Chapter 581 of the Laws of 1970 provide that the first \$50,000 of each benefit on account of death in active service is payable from the Group Term Life Insurance Plan. Only the amount in excess of \$50,000, if any, is payable by TRS.

Members who joined TRS on or after July 27, 1976 and before September 1, 1983 are entitled to the following RSSL Article 14 Death Benefits, if greater (by ruling of the Court of Appeals in Public Employees' Federation v. Cuomo, dated June 29, 1984).

### The Death Benefits under RSSL Article 14 are as Follows:

If Death Occurs Before Age 60 and Service is:			Maximum Benefits Effective	
<u>But Not</u>				
<u>At Least</u>	<u>More Than</u>	<u>Lump Sum Benefit</u>	<u>4/01/11 – 3/31/12</u>	<u>4/01/12 – 3/31/13</u>
1 Year	2 Years	One x Final Rate of Pay, But Not in Excess of:	\$47,500	\$48,900
2 Years	3 Years	Two x Final Rate of Pay, But Not in Excess of:	\$95,000	\$97,800
3 Years	Or More	Three x Final Rate of Pay, But Not in Excess of:	\$118,700	\$122,200

If death occurs at age 60, the benefits determined shall be reduced by 5%. If death occurs after age 60, there is an additional 5% reduction for each year that death occurs thereafter to a maximum of a 50% reduction.

The maximum lump-sum death benefit is subject to increase each April 1st at a maximum rate of 3% per annum based on the Consumer Price Index as of the previous December 31st.

**Beneficiaries:** The latest named beneficiary, duly designated on a TRS Form filed with TRS, will receive the death benefits. If none is designated, the benefits will be paid to the member's estate.

## ACCIDENTAL DEATH BENEFITS

**Eligibility:** A beneficiary is entitled to the benefit if the member died before the effective date of retirement as a natural and proximate result of an accident sustained in the performance of duty, and if the accident was not caused by the member's willful negligence.

**Benefits:** The beneficiary receives a pension equal to 50% of the wages the member earned during the last year of actual service, but the application must be filed within 60 days of the member's death.

**Other Provisions:** {1} If the eligible beneficiary becomes ineligible to continue to receive the benefits, the pension shall be continued for all other members of the next eligible class of beneficiaries, and if none, to each successive class.

{2} If the benefits paid do not exceed the amount of the ordinary lump-sum death benefit because of the absence of eligible beneficiaries, the difference is to be paid to the last eligible beneficiary, or if none, to the member's estate.

**Beneficiaries:** Beneficiaries are prescribed in the following order:

{1} A surviving spouse who has not renounced survivorship rights in a separation agreement, or has not remarried;

{2} Surviving children until age 25;

{3} Dependent parents whose eligibility shall be determined in accordance with regulations promulgated by the Teachers' Retirement Board;

{4} Any other person who qualifies as a dependent on the final income tax return the member filed in the year preceding his/her year of death, until such person reaches 21 years of age.

**THE TWENTY-YEAR PENSION PLAN AND AGE-55-INCREASED-BENEFITS  
PENSION PLAN**

A member who elects the Twenty-Year Pension Plan may cancel such election at any time, in which case (s)he will become eligible for the benefits provided by the Age-55-Increased-Benefits Pension Plan and vice versa.

See the end of this section for Definitions of terms used in these plan descriptions.

**SERVICE RETIREMENT**

**Twenty-Year Pension Plan**

**Eligibility:** {1} A member who joined TRS prior to July 1, 1973 and who elects the Twenty-Year Pension Plan is eligible to retire after having completed 20 years of service, with benefits to begin on the payability date. Regardless of the number of years of service, such a member who has elected the Twenty-Year Pension Plan and who is at least 55 years of age may retire with benefits payable immediately by canceling his/her election of the Twenty-Year Pension Plan, thereby becoming eligible for the benefits under the Age-55-Increased-Benefits Pension Plan.

{2} A member who joined TRS after June 30, 1973 must also have rendered five years of continuous service immediately prior to retiring and must have attained age 55.

**Benefits:** The service retirement allowance for a member who joined prior to July 1, 1973, is the sum of the following:

{1} 50% of the average salary, reduced by an annuity which is the actuarial equivalent of the minimum accumulation;

{2} an annuity which is the actuarial equivalent of the accumulated deductions; and

{3} for service in excess of 20 years, (a) a pension for Increased-Take-Home-Pay which is the actuarial equivalent of the Reserve for Increased-Take-Home-Pay credited in such years, and (b) 1.2% of the average salary for each such year prior to July 1, 1970 and 1.7% of the average salary for each such year beginning on that date.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

If a member who joined TRS after June 30, 1973 retires prior to age 62 with less than 30 years of service, his/her pension for service is reduced by 0.5% for each of the first 24 months that the payability date precedes age 62, and by 0.25% for each additional month.

Current members as of February 27, 2008 were provided a one hundred and eighty day period during which they were allowed to join a plan that permitted them to retire at age 55 and later with immediate payability and without reduction after 25 years of service, provided they pay an additional 1.85% of future pay.

### **Age-55-Increased-Benefits Pension Plan**

**Eligibility:** {1} A member who joined TRS prior to July 1, 1973 and who either elects the Age-55-Increased-Benefits Pension Plan or who cancels his/her election of the Twenty-Year Pension Plan may retire after having attained age 55 with benefits payable immediately upon retirement.

{2} A member who joined TRS after June 30, 1973 must also have rendered five years of continuous service immediately prior to retiring and must have attained age 55.

**Benefits:** The service retirement allowance consists of a pension for service, a pension for Increased-Take-Home-Pay, and an annuity.

The pension for service is equal to 1.2% of the average salary multiplied by years of service prior to July 1, 1970, plus 1.53% of the average salary multiplied by years of service after June 30, 1970. The pension for Increased-Take-Home-Pay is the actuarial equivalent of the Reserve for Increased-Take-Home-Pay, and the annuity is the actuarial equivalent of the member's accumulated deductions.

If a member who joined TRS after June 30, 1973 retires prior to age 62 with less than 30 years of service, his/her pension for service is reduced by 0.5% for each of the first 24 months that the payability date precedes age 62, and by 0.25% for each additional month.

Current members as of February 27, 2008 were provided a one hundred eighty day period during which they were allowed to join a plan that permitted them to retire at age 55 and later with immediate payability and without reduction after 25 years of service, provided they pay an additional 1.85% of future pay.



## ORDINARY DISABILITY RETIREMENT

**Eligibility:** Regardless of the Plan elected, a member who has completed 10 or more years of City service preceding the occurrence of disability, for causes other than an accident in the actual performance of duty, is entitled to an ordinary disability retirement allowance.

**Benefits:** If, at the time of becoming disabled, the member could have retired for service with benefits payable immediately, the ordinary disability allowance will be the same as the service retirement allowance without reduction on account of age. For all other members, the ordinary disability allowance is computed in the same manner as though the member had been eligible for service retirement under the Age-55-Increased-Benefits Pension Plan with benefits payable immediately, but never less than the allowance that would have been payable under the provisions in effect prior to July 1, 1970.

## ACCIDENT DISABILITY RETIREMENT

**Eligibility:** A member is entitled to an accident disability retirement allowance upon the occurrence of a disability caused by an accident in the actual performance of duty.

**Benefits:** The retirement allowance will consist of a pension equal to three-fourths of the average salary in the last five years, plus a pension which is the actuarial equivalent of the Reserve for Increased-Take-Home-Pay, and an annuity purchased with the member's accumulated deductions. The pensions are subject to reduction for Workers' Compensation benefits granted on account of the accident.

## VESTED DEFERRED RETIREMENT ALLOWANCE

**Eligibility:** A member who either resigns or is dismissed from service would receive a benefit equal to his/her accumulated deductions. However, a member who is eligible for benefits under the Age-55-Increased-Benefits Pension Plan and who has at least 5 years of service immediately preceding resignation may instead elect to receive a deferred vested allowance.

**Benefits:** This allowance is computed in the same manner as the retirement allowance for service retirement under the Age-55-Increased-Benefits Pension Plan, except that the allowance is deferred to age 55. Should a member who elected to receive a vested deferred retirement allowance and who had 10 years of service die before the attainment of age 55, the death benefit is 1/2 of the Ordinary Death Benefit in force on the last day of service.

## ORDINARY DEATH BENEFITS

**Benefits:** Upon the death of a member in active service, a benefit is paid to his/her estate or to such person(s) as (s)he shall have nominated.

### **Members who joined TRS before July 1, 1973**

- \* If a member completed less than 10 years of City Service, the benefit is equal to the compensation earnable by the member in the six months immediately preceding death.
- \* If the total number of years of City Service is greater than 10, but less than 20, the benefit is equal to the compensation earnable by the member during the 12 months immediately preceding death.
- \* If the total number of years of City Service exceeds 20, the benefit is equal to twice the compensation earnable by the member during the 12 months immediately preceding death.
- \* In addition, the member's accumulated deductions and the Reserve for Increased-Take-Home-Pay are paid to the member's estate or to the designated beneficiary.

The benefits payable on account of such a member who, at the time of his/her death, would have been eligible for service retirement is either the benefit described above or a lump sum that is actuarially equivalent to the retirement allowance which would have been payable had the member retired on the day before his/her death, whichever is larger.

**Members who joined TRS between July 1, 1973 and July 27, 1976** must choose between the two following death benefits so that, upon the member's death, benefits are paid pursuant to the member's election:

**Death Benefit 1:** This benefit provides one month's salary for each year of service, up to a maximum of three years' salary. In addition, the member's accumulated deductions are payable. If the member would have been eligible to receive an unreduced retirement allowance at the time of his/her death, the benefit is a lump sum that is actuarially equivalent to the retirement allowance which would have been payable had the member retired on the day before his/her death, if greater.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

**Death Benefit 2:** In addition to a refund of the member's accumulated deductions, this benefit provides one year's salary for each year of service up to a maximum of three years' salary after three years of service. The benefit reduces after age 60 at the rate of 5% per year, to a maximum reduction of 50% of the benefits in effect at age 60.

A benefit is also payable upon death after retirement and is expressed as follows:

- \* If death occurs in the first year after retirement, 50% of the benefit in force immediately before retirement.
- \* If death occurs in the second year following retirement, 25% of the benefit in force immediately before retirement.
- \* If death occurs subsequently, 10% of the benefit in force at age 60 or immediately before retirement if retirement was earlier than age 60.

If retirement occurs after age 60, the minimum death benefit payable after retirement is 10% of the death benefit in force at age 60.

The Rules and Regulations adopted by the Teachers' Retirement Board in accordance with Chapter 581 of the Laws of 1970 provide that the first \$50,000 of each benefit on account of death in active service is payable from the Group Term Life Insurance Plan. Only the amount in excess of \$50,000, if any, is payable by TRS.

### ACCIDENTAL DEATH BENEFITS

**Eligibility:** A member is entitled to accidental death benefits upon the occurrence of death caused by an accident in the actual performance of duty and not the result of willful negligence.

**Benefits:** The accidental death benefits are (a) a lump-sum equal to the Reserve for Increased-Take-Home-Pay and (b) a pension equal to one-half of the average salary in the last five years payable annually to the widow until remarriage or death, or if there is no widow, to a child or children until the attainment of age 18 of the youngest child, or if there is no widow, or child, to the dependent parents, and (c) a lump-sum equal to the member's accumulated deductions and Reserve for Increased-Take-Home-Pay payable to the member's estate or to the designated beneficiary. Alternatively, if the member joined TRS prior to July 1, 1973, the beneficiary may elect to receive a lump sum that is actuarially equivalent to the retirement allowance which would have been payable if the member had retired on the day before the member's death, provided that the death occurred after the member became eligible to retire for service. The pension is subject to reduction because of Workers' Compensation benefits granted on account of the accidental death.

## **AUTOMATIC ANNUAL COST-OF-LIVING ADJUSTMENTS (“COLA”)**

**Eligibility:** COLA are 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 beneficiaries receiving accidental death benefits who have been receiving them for at least 5 years.

**Benefits:** Starting with benefits for September 2001, the annual increase for COLA is equal to 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 retirement allowance and prior COLA.

COLA are payable during the life of the retired member. One half of the amount is also payable after the member's death and during the life of the spouse beneficiary if such retired member had elected one of the options under the Administrative Code which provides that benefits are to be continued for the life of such spouse after the death of the retired member, and where the death of such retired member occurred or occurs more than thirty days after the effective date of the retirement of such member.

## **DEFINITIONS**

**Accumulated Deductions**—The total contributions the member made to his/her Annuity Savings Account, with regular and special interest thereon.

**Average Salary**—{1} For a member who joined prior to July 1, 1973, salary earnable in the last year of the most recent three-year period during which (s)he held no more than one position, or the average annual salary earnable in any five consecutive years designated by the member. {2} For a member who joined after June 30, 1973, the average salary earned during any three consecutive years which provides the highest average salary. However, if the salary earned during any year included in this three-year period exceeds the average of the previous two years by more than 20%, the amount in excess of 20% is excluded from the computation.

**City Service**—All service as an employee of the City.

**Minimum Accumulation**—The difference between: {1} the amount of required contributions during the member's first 20 years of City Service accumulated with interest to the member's payability date, and {2} the amount of the Reserve for Increased-Take-Home-Pay on the date such period of 20 years is completed.

**New Entrant**—With minor exceptions, a teacher appointed to the public schools after August 1, 1917.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

**Payability Date**—For members who elected the Twenty-Year Pension Plan, the date on which the Service Retirement allowance begins, which is the latest of {1} the date when the member retires, or {2} the date when (s)he attains age 55, or {3} the date when the member could have completed 25 years of City Service had (s)he remained active. For all other members, the retirement allowance begins on the date of retirement.

**Present Teacher**—A teacher in the public schools on August 1, 1917 and certain other specified school and college members.

**Prior Service**—All City Service and all teaching and supervisory service in schools maintained by the City prior to September 16, 1917, for the present teachers and, in the case of a New Entrant, prior to the date of appointment.

**Reserve For Increased-Take-Home-Pay**—A reserve of 2.5%, 5%, or 8% of the member's salary pursuant to the provisions of §13-546 of the Administrative Code of the City of New York, accumulated with regular and additional interest.

### **OPTIONS ON RETIREMENT OR DEATH**

A member, upon retirement, may receive his/her basic retirement allowance in monthly installments throughout life with all payments ending at death, or may elect to receive the actuarial equivalent in the following optional forms.

#### **Members who joined prior to July 27, 1976:**

- {1} For members who joined prior to July 1, 1973, a cash refund allowance under which reduced payments will be made during life with a provision that, in case of death before such payments have equaled the present value of the retirement allowance at the date of retirement, the balance shall be paid to the designated beneficiary or estate in a lump sum. For members who joined after June 30, 1973, this option is only available with regard to the annuity.
- {2} A ten-year or five-year certain and life allowance under which reduced payments will be made during life with a provision that in case of death within ten or five years of retirement, the balance that would have been payable had the member survived for ten or five years shall continue to be paid to the designated beneficiary or estate.
- {3} A joint-and-survivor allowance under which reduced payments will be made during life with a provision that upon the member's death, the same payments or one-half of such payments shall be continued throughout the life of such other person(s) as the member shall have designated.



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

- {4} Such other actuarial equivalent optional forms as may be certified by the Actuary and approved by the Teachers' Retirement Board. By resolution, the Teachers' Retirement Board has approved an option under which reduced payments will be made during life with a provision that, upon the member's death, a sum specified by the member at the time of retirement shall be paid to the designated beneficiary or estate.

Upon a member's death, the beneficiary may elect to receive the actuarial equivalent of the lump-sum otherwise payable in one of the following forms: 1) An annual amount payable for life in monthly installments, all payments ending at death; or 2) A cash refund allowance under which reduced payments will be made during life, with a provision that, in case of death before such payments have equaled the lump-sum payable upon the member's death, the balance shall be paid to the designated beneficiary or estate. This is only available to the beneficiary of a member who joined prior to July 1, 1973.

### **Members who joined on or after July 27, 1976:**

- {1} The same five-year or ten-year certain and life allowance as described in #2 above.
- {2} A joint-and-survivor allowance under which reduced payments will be made during life with a provision that upon the member's death, 100%, 75%, 50% or 25% of such payments shall be continued throughout the life of such other person(s) as the member shall have designated.

## **CONTRIBUTIONS**

TRS benefits are financed by employee and employer contributions and from earnings on TRS' invested funds.

### **MEMBER CONTRIBUTIONS**

#### **Coordinated Retirement Plan (Article 15):**

A Tier III/IV member of this Plan is mandated to contribute 3% of annual wages during all the years of coverage. If a member resigns or is otherwise terminated from City Service prior to eligibility for a benefit, all of his/her contributions with 5% interest will be refunded upon request.

Beginning October 1, 2000, Tier III and IV members will not be required to make basic required contributions after the 10th anniversary of their membership date or completion of ten years of City Service, whichever is earlier. New members after February 27, 2008 and members who elected to join the 55/25 plan pay an additional 1.85% of pay for all years of service. New members after December 10, 2009 who are represented by the UFT are required to contribute 4.85% of salary for the first 27 years of service and 1.85% of salary thereafter.

A Tier VI member is mandated to contribute between 3.0% and 6.0% of salary until the later of separation from service or retirement.

**Twenty-Year Pension Plan:**

A member of this Plan is required to contribute a percentage of salary which, if paid from the date of entry until the date of completion of 20 years of City Service, would provide at the payability date, an annuity of approximately one-eighth of the member's final salary as of the completion of 20 years of City Service. Tier II members who elected to join the 55/25 plan pay an additional 1.85% of pay.

**Age-55-Increased-Benefits Pension Plan:**

A member of this Plan is required to contribute a percentage of salary, which if paid to the age for service retirement under the law in effect prior to July 1, 1970, would provide an annuity equal to approximately 1% of the average annual compensation during the last five years of service multiplied by years of service. Tier II members who elected to join the 55/25 plan pay an additional 1.85% of pay.

Member contributions are accumulated with interest in individually maintained accounts. Except under Article 15, upon retirement, the amount to the member's credit (*i.e.*, Accumulated Deductions) is used to purchase his/her annuity on the basis of the tables adopted by the Teachers' Retirement Board. Upon death in service, the death benefits, including the Accumulated Deductions, are paid to the beneficiary and, on termination of employment other than by death or retirement, the Accumulated Deductions are returned to the member.

**Loans:** Subject to certain limitations, a member not covered under Article 15 may borrow an amount not exceeding 75% of the member's Accumulated Deductions. Effective July 1, 1991, subject to certain limitations, a member covered under Article 15 may borrow an amount not exceeding 75% of the member's Accumulated Deductions, provided it can be repaid with interest within five years by payroll deductions. Beginning 30 days after the inception of the loan, the amount of the unpaid portion of the loan is insured in full. Should the borrower subject to Article 15 retire before the loan is repaid, the actuarial equivalent of the outstanding loan is deducted from his/her retirement allowance.

**ITHP:** In general, the retirement and death benefits payable to or on account of members are supplemented by the Reserve For Increased-Take-Home-Pay, accumulated from City contributions at a rate equal to the Increased-Take-Home-Pay factor times salary. In general, the total benefit is equal to the benefit that would have been paid if the members' rates of contributions had not been reduced by the Increased-Take-Home-Pay rate. However, the Reserve For Increased-Take-Home-Pay is not payable upon the death of a member who joined after June 30, 1973.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

Beginning July 1, 1960, on a year-to-year basis, the required contributions of members were reduced by an Increased-Take-Home-Pay factor initially equal to 2.5% of salary. The following table shows effective periods and Increased-Take-Home-Pay factors.

PERIOD	INCREASED-TAKE-HOME-PAY FACTOR
<b>Board of Education Employees</b>	
07/01/60 – 06/30/61	2.5%
07/01/61 – 08/31/67	5.0%
09/01/67 – 08/31/68	8.0%
<b>Board of Higher Education Employees</b>	
09/01/67 – 08/31/68	5.0%
<b>Twenty-Year and Age-55-Increased-Benefits Pension Plan Members</b>	
09/01/68 – 06/30/70	8.0%
07/01/70 – 12/31/75	5.0%
01/01/76 and later	2.5%
<b>Article 15 Members</b>	
All	0.0%

### EMPLOYER CONTRIBUTIONS

The Entry Age Actuarial Cost Method is utilized by the Plan's Actuary to calculate the contributions due from the participating employers.

The Employer Contributions are accrued by the Plan and are funded by the participating employers on a current basis. The Employer Contributions amounted to \$2,998,693,727 for the Fiscal Year ended June 30, 2014.

In addition to the Employer Contributions, the employers make payments for the benefit of certain members of the Plan who have attained the maximum grade of their salary schedule, in accordance with amendments to the Administrative Code of the City of New York. Teachers at maximum grade have \$400 per annum paid on a monthly basis to their accounts, while \$550 per annum is paid on a monthly basis to the accounts of supervisory personnel at maximum grade.

**VARIABLE ANNUITY PROGRAMS**

**Diversified Equity:** Beginning January 1, 1968, members were given the option to participate in a variable-annuity program now known as the Diversified Equity (Variable A) Fund, thereby providing a means which can reasonably be expected to protect a portion of their retirement income against the effect of increases in the cost of living. The monthly Variable Annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments which are almost entirely in common stocks.

On January 1, 1968, the effective date of the Diversified Equity Fund, a unit was assigned an arbitrary value of \$10. Each month thereafter, the unit value changed, reflecting the investment experience of the common stock fund during the preceding month. Since January 1, 1968, the value of a unit of the Diversified Equity Fund varied between a high of \$81.078 during July 2014 and a low of \$5.453 during October 1974. The monthly unit value of the Diversified Equity Fund was \$81.078 during July 2014.

**Bond Fund:** Beginning July 1, 1983, members were given the option to participate in a second variable annuity program, now designated the Bond (Variable B) Fund (Formerly the Stable-Value Fund). The Bond Fund is income-oriented and is intended to be less volatile than the Diversified Equity Fund. The monthly Variable Annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments, which may include Treasuries, Agencies, Corporates, Mortgages and other types of fixed-income instruments.

On July 1, 1983, the effective date of the Bond Fund, a unit was assigned an arbitrary value of \$10. Each month thereafter, the unit value changed, reflecting the investment experience of the changes in market value and income received from the investments in the fund during the preceding month. Since July 1, 1983, the value of a unit of the Bond Fund varied between a high of \$19.750 during September 2002 and a low of \$10 at inception on July 1, 1983. The monthly unit value of the Bond Fund was \$18.122 during July 2014.

**International Equity:** Beginning July 1, 2008, members were given the option to participate in a third variable annuity program, designated the International Equity (Variable C) Fund. The International Equity Fund is capital growth oriented. The monthly Variable Annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments, which invests in non-U.S. equities as compared with the Diversified Equity Fund which invests primarily in U.S. equities.

On July 1, 2008, the effective date of the International Equity Fund, a unit was assigned an arbitrary value of \$10. Each month thereafter, the unit value changed, reflecting the investment experience of the changes in market value and income received from the investments in the fund during the preceding month. Since July 1, 2008, the value of a unit of the International Equity Fund varied between a high of \$ 11.011 during

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

July 2014 and a low of \$6.048 during March 2009. The monthly unit value of the International Equity Fund was \$11.011 during July 2014.

**Inflation** Beginning July 1, 2008, members were given the option to participate in a fourth variable annuity program, designated the Inflation Protection (Variable D) Fund. The Inflation Protection Fund seeks to provide a rate of return that exceeds inflation. The monthly Variable Annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments, which may include fixed income investments, bonds, real estate commodities, etc.

On July 1, 2008, the effective date of the Inflation Protection Fund, a unit was assigned an arbitrary value of \$10. Each month thereafter, the unit value changed, reflecting the investment experience of the changes in market value and income received from the investments in the fund during the preceding month. Since July 1, 2008, the value of a unit of the Inflation Protection Fund varied between a high of \$11.819 during May 2013 and a low of \$8.012 during March 2009. The monthly unit value of the Inflation Protection Fund was \$11.806 during July 2014.

**Socially Responsive Equity:** Beginning July 1, 2008, members were given the option to participate in a fifth variable annuity program, designated the Socially Responsive Equity (Variable E) Fund. The Socially Responsive Equity Fund is capital growth oriented while investing in equities from socially responsible companies. The monthly Variable Annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments, which is a mutual fund that attempts to avoid investing in companies that do not reflect social priorities.

On July 1, 2008, the effective date of the Socially Responsive Equity Fund, a unit was assigned an arbitrary value of \$10. Each month thereafter, the unit value changed, reflecting the investment experience of the changes in market value and income received from the investments in the fund during the preceding month. Since July 1, 2008, the value of a unit of the Socially Responsive Equity Fund varied between a high of \$14.469 during July 2014 and a low of \$6.844 during March 2009. The monthly unit value of the Socially Responsive Equity Fund was \$14.469 during July 2014.

A member may elect to place part or all of his/her contributions and the City's contributions for Increased-Take-Home-Pay in either variable annuity program. The normal pension for service which is provided by the City will be paid in fixed dollars. Subject to certain prescribed limitations, a member may periodically elect either to participate in the variable annuity programs or to revoke a previous election.

Individual accounts of the members' own contributions are maintained in each variable annuity savings fund. Individual accounts, based on the City's contribution for Increased-Take-Home-Pay, are maintained in the Variable Pension Accumulation Funds. Deposits in these accounts are credited in terms of units, the value of which is determined at the beginning of each month and remains unchanged during that month.



**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**  
**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
**FISCAL YEAR ENDED JUNE 30, 2014**  
**ACKNOWLEDGEMENT OF QUALIFICATION**

I, Robert C. North, Jr., am the Acting Chief Actuary for the New York City Retirement Systems. I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



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Robert C. North, Jr., FSA, FSPA, FCA, MAAA, EA  
Acting Chief Actuary  
Teachers' Retirement System  
of the City of New York  
December 12, 2014



## 5. Statistical



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

This part of the Comprehensive Annual Financial Report presents detailed information as a context for understanding how the information in the Financial Section relates to the Teachers' Retirement System's overall condition. The following are the categories of the various schedules that are included in this Section:

### **QPP Financial Trend Information**

Schedules 1 through 3 contain trend information to help the reader understand how the QPP's financial performance and condition have changed over time.

### **QPP Demographic and Economic Information of In-Service Members**

Schedules 4 and 7 offer demographic and economic information of in-service members to help the reader understand this segment of the QPP membership population.

### **QPP Benefit Payment and Demographic and Economic Information of Retired Members**

Schedules 8 through 16 present information to help the reader assess the QPP's current and future benefit payment obligations based on financial and demographic information of retired members.

### **QPP and TDA Operating Expense Information**

Schedule 17 contains trend information as it relates to investment expenses of the System.

### **TDA Financial Trend Information**

Schedules 18 through 20 contain trend information to help the reader understand how the TDA Program's financial performance and condition have changed over time.

### **TDA Membership Information of In-Service and Retired Members**

Schedules 21 through 25 present membership information to help the reader assess the TDA Program's demographics and financial activity.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 1: NET POSITION AND CHANGES IN NET POSITION—QPP**

<b>Year Ended</b>	<b>Pension Fund</b>	<b>Diversified Equity</b>	<b>Bond Fund*</b>	<b>International Equity</b>	<b>Inflation Protection</b>	<b>Socially Responsive Equity</b>	<b>Net Assets</b>	<b>Changes in Net Position</b>
2005	\$24,305,041	\$5,930,704	\$256,425	N/A	N/A	N/A	\$30,492,170	\$1,516,766
2006	26,025,602	5,958,485	222,630	N/A	N/A	N/A	32,206,717	1,714,547
2007	30,513,823	6,431,897	197,071	N/A	N/A	N/A	37,142,791	4,936,074
2008	27,054,108	5,072,017	171,739	N/A	N/A	N/A	32,297,864	(4,844,927)
2009	19,795,757	3,113,828	148,256	\$14,667	\$2,715	\$2,266	23,077,489	(9,220,375)
2010	23,140,827	3,107,689	129,595	13,803	3,754	2,742	26,398,410	3,320,921
2011	29,942,258	3,523,126	112,117	15,626	4,527	3,883	33,601,537	7,203,127
2012	29,611,995	3,053,466	80,952	16,802	5,937	5,609	32,774,761	(826,776)
2013	33,654,166	3,110,127	63,719	16,320	5,882	6,242	36,856,456	4,081,695
2014	41,199,953	3,210,248	48,507	17,082	5,662	8,487	44,489,939	7,633,483

\* Stable-Value Fund prior to January 1, 2012.

**SCHEDULE 2: 2014 CHANGES IN NET POSITION—QPP**

*In Thousands*

	<b>Pension Fund</b>	<b>Diversified Equity</b>	<b>Bond Fund</b>	<b>International Equity</b>	<b>Inflation Protection</b>	<b>Socially Responsive Equity</b>	<b>Net Position</b>
2013 Net Position	\$33,654,166	\$3,110,127	\$63,719	\$16,320	\$5,882	\$6,242	\$36,856,456
Member Contributions	154,393	513	49	5	-	2	154,962
Employer Contributions	3,054,344	78	2	-	-	-	3,054,424
Interest & Misc Income	711,965	3,192	831	11	-	-	715,999
Dividend Income	789,629	64,438	-	219	301	114	854,701
Realized Profit/Loss	2,343,744	277,655	(205)	944	10	2,978	2,625,126
Unrealized Profit/Loss	5,050,252	351,504	492	1,361	320	(1,641)	5,402,288
Benefit Payments	(3,246,908)	(552,898)	(15,356)	(1,704)	(633)	(730)	(3,818,229)
Refunds & Withdrawals	(18)	(1)	-	-	-	-	(19)
Interest Paid to TDA Funds	(1,147,923)	-	-	-	-	-	(1,147,923)
Transfer to other Systems	404	-	-	-	-	-	404
Interfund Transfer	32,334	(32,790)	(838)	(32)	(208)	1,534	-
Provision for Expenses*	(196,429)	(11,570)	(187)	(42)	(10)	(12)	(208,250)
<b>2014 Net changes</b>	<b>\$7,545,787</b>	<b>\$100,121</b>	<b>(\$15,212)</b>	<b>\$762</b>	<b>(\$220)</b>	<b>\$2,245</b>	<b>\$7,633,483</b>
<b>2014 Net Position</b>	<b>\$41,199,953</b>	<b>\$3,210,248</b>	<b>\$48,507</b>	<b>\$17,082</b>	<b>\$5,662</b>	<b>\$8,487</b>	<b>\$44,489,939</b>

\* Includes Administrative and Investment Expenses.



### SCHEDULE 3: CHANGES IN NET POSITION—QPP

*In Thousands*

	1	2	3	4	5	6	7	8	9	10	11
Year Ended June 30*	Net Member Contributions	Employer Contributions	Net Investment Income	Transfer from/to Other Systems	TDA Fixed Interest Payments	Total Retirement Benefits	Loans Closed at Retirement	Withdrawals	Other Benefits**	Administrative Expenses	Changes in Net Position
2005	\$124,539	\$1,248,704	\$3,311,302	\$3,215	(\$375,114)	(\$2,588,036)	(\$82,811)	(\$18,239)	(\$73,234)	(\$33,560)	\$1,516,766
2006	141,056	1,338,338	3,609,769	(401)	(451,631)	(2,763,758)	(56,817)	(14,917)	(53,154)	(33,938)	1,714,547
2007	143,786	1,622,743	6,787,568	(453)	(547,396)	(2,931,296)	(82,811)	(16,869)	(1,633)	(37,565)	4,936,074
2008	142,308	1,944,097	(3,109,764)	799	(648,015)	(3,065,092)	(55,832)	(17,194)	4,155	(40,389)	(4,844,927)
2009	143,281	2,297,789	(7,838,259)	1,035	(767,007)	(2,874,313)	(33,042)	(12,592)	(99,628)	(37,639)	(9,220,375)
2010	138,075	2,566,288	4,778,159	(2,109)	(816,557)	(3,017,755)	(30,338)	(12,782)	(240,595)	(41,465)	3,320,921
2011	158,829	2,525,111	8,888,669	737	(854,073)	(3,228,940)	(39,998)	(10,593)	(197,066)	(39,549)	7,203,127
2012	164,361	2,732,263	803,007	853	(945,967)	(3,366,901)	(28,031)	(17,273)	(129,375)	(39,713)	(826,776)
2013	154,698	2,912,844	5,721,112	(44)	(1,047,979)	(3,513,188)	(24,006)	(12,690)	(69,370)	(39,682)	4,081,695
2014	154,962	3,054,424	9,435,906	404	(1,147,923)	(3,706,037)	(24,866)	(18,813)	(68,532)	(46,042)	7,633,483

#### Total Retirement Benefits By Type

Year Ended June 30*	6a Service Retirement Allowances	6b Ordinary Disability Retirement Allowances	6c Accident Disability Retirement Allowances	6d Survivors' Benefits	6 Total Retirement Benefits
2005	(\$2,453,049)	(\$35,480)	(\$16,711)	(\$82,796)	(\$2,588,036)
2006	(2,619,238)	(37,816)	(18,324)	(88,380)	(2,763,758)
2007	(2,776,467)	(39,190)	(19,942)	(95,697)	(2,931,296)
2008	(2,888,552)	(42,663)	(22,621)	(111,256)	(3,065,092)
2009	(2,714,932)	(38,990)	(21,200)	(99,191)	(2,874,313)
2010	(2,851,639)	(40,327)	(22,809)	(102,980)	(3,017,755)
2011	(3,046,583)	(43,348)	(25,596)	(113,413)	(3,228,940)
2012	(3,178,074)	(46,071)	(27,811)	(114,945)	(3,366,901)
2013	(3,337,405)	(48,492)	(28,487)	(123,497)	(3,513,188)
2014	(3,493,623)	(51,325)	(29,527)	(131,562)	(3,706,037)

\* Benefit Payment categories for 2005-2013 take into account retirement valuation reports.

\*\* Other Benefits consists Retiree Advances, delayed interest payments, Active Death Payments, and excluding Fiscal Year 2014, adjustment of retirement benefits based on retirement valuation reports. Also, Fiscal Year 2011 includes \$112,462 in Nager II benefit payments, Fiscal Year 2010 includes \$149,406 minimum accumulation settlement.

**Note:** Benefit payments and withdrawals include columns 5, 6, 7, 8 and 9.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 4: PARTICIPATING EMPLOYERS—QPP

As of June 30, 2012 (Lag)

Employer			Number of In-Service Members*	Annual Payroll*
NYC Department of Education			106,691	\$7,720,523,160
City University of New York Senior Colleges & Community Colleges			5,171	251,596,472
Charter Schools**	Start Date	Type		
Beginning with Children	09/2001	DOE Conversion - UFT	36	2,600,243
Future Leaders Institute	09/2005	DOE Conversion - UFT	40	2,219,380
Harriet Tubman	09/2005	Non Conversion - Non Union	39	2,270,372
Kipp Academy	09/2000	DOE Conversion - UFT	59	4,671,711
Kipp AMP	09/2005	Non Conversion - Non Union	14	1,087,990
Kipp Infinity	09/2005	Non Conversion - Non Union	68	5,466,476
Opportunity	09/2004	Non Conversion - UFT	68	4,358,355
Renaissance	09/2000	DOE Conversion - UFT	51	3,787,764
UFT Elementary and Secondary	09/2005	Non Conversion - UFT	124	7,449,914
UFT Green Dot	09/2008	Non Conversion - UFT	42	3,218,375
Voice	09/2008	Non Conversion - Non Union	28	1,837,135
Wildcat	09/2000	DOE Conversion - UFT	29	2,307,837
SUBTOTAL			598	\$41,275,552
<b>TOTAL</b>			<b>112,460</b>	<b>\$8,013,395,184</b>

\* The number of in service employees and their corresponding Annual Payroll include only current active members receiving salary as of each June 30<sup>th</sup>.

\*\* Charter Schools that were converted from the NYC Department of Education Schools became participating employers when they were first converted to Charter Schools. Unless restricted by a collective bargaining agreement, a non-conversion Charter School decision to participate is voluntary and at the discretion of the individual school.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 5: ACTIVE MEMBERSHIP SUMMARY—QPP

	As of July 1	Contributors Registered	Payroll Updates	Contributors Withdrawn	As of June 30th
2004	97,986	17,930	(3,379)	(7,146)	105,391
2005	105,391	10,601	(5,676)	(5,466)	104,850
2006	104,850	11,477	(2,706)	(3,629)	109,992
2007	109,992	8,776	(3,928)	(4,972)	109,868
2008	109,868	11,234	(5,183)	(3,447)	112,472
2009	112,472	7,526	(4,015)*	(2,851)	113,132
2010	113,132	4,617	(3,378)	(2,724)	111,647
2011	111,647	4,779	(3,717)	(3,073)	109,636
2012	109,636	9,519	(3,135)	(3,560)	112,460
2013	112,460	7,101	(3,744)	(3,336)	112,481

\*Revised in FY 2010.

Active membership summary based on latest active valuation reports. 2014 active membership estimated at 112,600.

## SCHEDULE 6: TABLE OF AVERAGE SALARIES OF IN-SERVICE MEMBERS—QPP

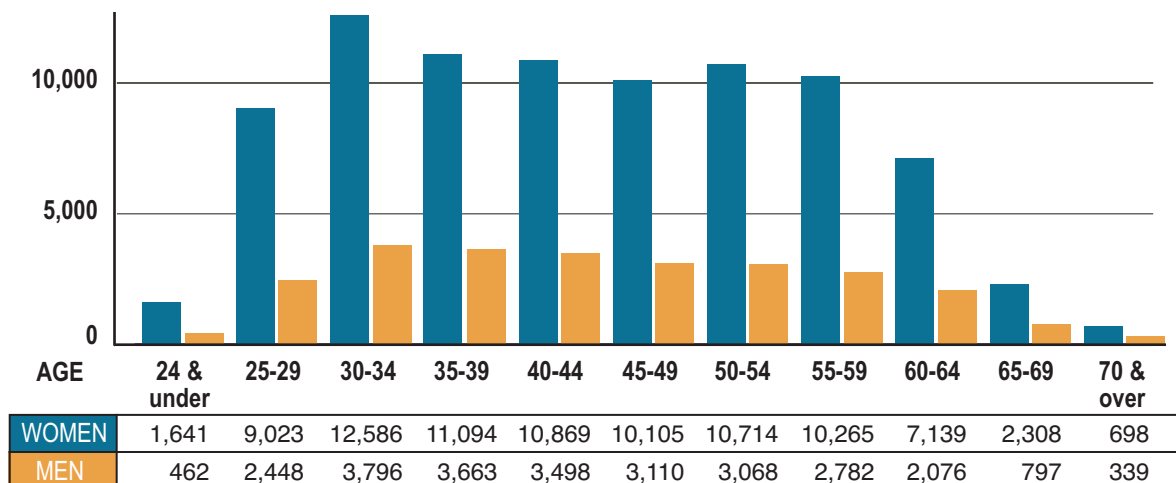
As of June 30, 2013

MEN			WOMEN		
Age	Number of In-Service Members*	Average Salaries*	Age	Number of In-Service Members*	Average Salaries*
24 & under	462	\$44,413	24 & under	1,641	\$46,711
25-29	2,448	55,290	25-29	9,023	56,847
30-34	3,796	67,771	30-34	12,586	67,829
35-39	3,663	75,539	35-39	11,094	72,406
40-44	3,498	79,065	40-44	10,869	72,654
45-49	3,110	81,806	45-49	10,105	72,083
50-54	3,068	84,706	50-54	10,714	73,569
55-59	2,782	84,599	55-59	10,265	75,248
60-64	2,076	82,922	60-64	7,139	75,735
65-69	797	77,801	65-69	2,308	71,867
70 & over	339	72,564	70 & over	698	62,307
<b>TOTAL</b>	<b>26,039</b>	<b>\$75,840</b>	<b>TOTAL</b>	<b>86,442</b>	<b>\$70,282</b>
TOTAL ANNUAL SALARIES		\$1,974,800	TOTAL ANNUAL SALARIES		\$6,075,291

\* The member count and the annual payroll include only those who were on the June 30<sup>th</sup> payroll.

## IN-SERVICE MEMBERS ON PAYROLL—DISTRIBUTION BY AGE

As of June 30, 2013



### SCHEDULE 7: IN-SERVICE MEMBERSHIP BY TIER AND BY TITLE—QPP

Year	Average Age	IN-SERVICE MEMBERSHIP BY TIER					IN-SERVICE MEMBERSHIP BY TITLE					
		Tier I	Tier II	Tier III	Tier IV	Tier VI	Teachers	Paraprofessionals	Principals and Administrators	Full-Time CUNY Faculty	Adjunct CUNY Instructors	Others
2005	36.5	3.4%	1.6%	4.1%	90.9%	0.0%	73.3%	14.0%	3.7%	0.7%	0.9%	7.4%
2006	36.3	4.1%	1.8%	3.9%	90.2%	0.0%	71.6%	14.4%	4.2%	0.8%	1.0%	8.0%
2007	44.6	3.2%	1.5%	3.7%	91.6%	0.0%	72.1%	14.4%	3.8%	1.0%	1.0%	7.7%
2008	44.3	2.4%	1.2%	3.4%	93.0%	0.0%	73.4%	13.2%	3.7%	1.1%	1.1%	7.5%
2009	44.8	2.1%	1.0%	3.0%	93.9%	0.0%	68.9%	14.6%	5.3%	1.6%	1.1%	8.5%
2010	45.2	1.6%	0.8%	2.7%	94.9%	0.0%	67.9%	15.2%	5.4%	1.9%	1.1%	8.5%
2011	45.5	1.2%	0.6%	2.3%	95.9%	0.0%	67.2%	15.6%	5.5%	2.1%	1.3%	8.3%
2012	45.4	0.9%	0.5%	1.8%	96.6%	0.2%	65.1%	16.7%	5.4%	2.4%	2.4%	8.0%
2013	45.3	0.7%	0.4%	1.4%	91.4%	6.1%	64.9%	16.9%	5.5%	2.7%	2.4%	7.6%
2014	44.8	0.5%	0.2%	1.0%	86.3%	12.1%	64.7%	16.6%	5.7%	3.0%	2.4%	7.6%

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 8: RETIREE SUMMARY—QPP

	As of July 1	Retirees Registered	Retirees Withdrawn	As of June 30th
2004	58,133	6,471	(1,876)	62,728
2005	62,728	4,423	(1,983)	65,168
2006	65,168	4,209	(1,801)	67,576
2007	67,576	3,078	(2,162)	68,492
2008	68,492	3,253	(1,970)	69,775
2009	69,775	3,118	(2,068)	70,825
2010	70,825	3,545	(2,014)	72,356
2011	72,356	3,852	(2,143)	74,065
2012	74,064	4,685	(2,210)	76,539
2013	76,539	4,079	(2,441)	78,177

Retiree membership summary based on latest retirement valuation reports. Estimated active memberships of 80,100 for 2014.

## SCHEDULE 9: AVERAGE YEARS OF SERVICE OF NEW RETIREES—QPP

### Average Years of Service

Year Ended June 30	Men	Women	Men and Women	Total Number of Retirees
2004	32.8	29.0	30.3	6,264
2005	30.9	27.5	28.3	4,104
2006	29.7	25.9	26.8	3,997
2007	28.7	26.3	26.9	2,715
2008	28.3	25.8	26.4	2,838
2009	26.7	25.1	25.5	2,699
2010	26.6	25.8	26.0	3,173
2011	26.5	25.3	25.6	3,423
2012	25.8	25.2	25.3	4,212
2013	25.1	24.8	24.9	3,583

## SCHEDULE 10: PAYMENT OPTIONS CHOSEN AT RETIREMENT—QPP

Year	Average Age	OPTIONS CHOSEN BY TIER I/II MEMBERS					OPTIONS CHOSEN BY TIER III/IV MEMBERS			
		Maximum Payout	Pop-UP Payments	Continuing Payments	Lump-Sum Payment	Guaranteed Number of Payments	Maximum Payout	Pop-UP Payments	Continuing Payments	Guaranteed Number of Payments
2005	60.5	63.9%	22.3%	12.3%	1.2%	0.3%	74.5%	13.4%	9.6%	2.5%
2006	60.3	59.1%	28.1%	11.1%	1.2%	0.5%	72.2%	14.3%	10.3%	3.2%
2007	60.5	67.3%	19.3%	11.5%	0.9%	1.0%	74.1%	12.3%	10.8%	2.8%
2008	60.4	68.1%	17.6%	12.3%	1.3%	0.7%	75.6%	11.8%	9.8%	2.8%
2009	60.4	62.8%	20.8%	14.5%	0.8%	1.1%	73.2%	14.3%	10.2%	2.3%
2010	60.5	65.2%	20.3%	12.5%	0.8%	1.2%	71.4%	17.1%	9.3%	2.2%
2011	60.5	59.2%	24.5%	12.1%	2.8%	1.4%	71.0%	16.4%	10.5%	2.1%
2012	60.6	61.1%	24.8%	11.3%	1.1%	1.7%	71.4%	17.2%	9.7%	1.7%
2013	60.7	64.1%	21.5%	11.5%	1.3%	1.6%	68.9%	19.1%	10.3%	1.7%
2014	60.8	62.1%	25.2%	10.7%	1.1%	0.9%	69.2%	19.5%	9.6%	1.7%



# **SCHEDULE 11: RETIREES' AVERAGE MONTHLY BENEFIT PAYMENTS AND FINAL AVERAGE SALARY ORGANIZED BY YEARS OF CREDITED SERVICE—QPP**

Year*	Survivor	Other**	Under 5 Yrs***	5 - 9 Yrs	10 - 14 Yrs	15 - 19 Yrs	20 - 24 Yrs	25 - 29 Yrs	30 - 34 Yrs	35 & up Yrs	Total
Retirees 2005	3,538	14,197	37	373	2,392	4,040	5,508	12,090	14,378	8,615	65,168
Retirees 2006	3,615	12,447	38	439	2,623	4,337	6,033	12,706	15,745	9,593	67,576
Retirees 2007	3,666	8,672	47	641	3,081	4,799	6,685	13,334	17,030	10,537	68,492
Retirees 2008	3,777	8,011	51	739	3,313	4,995	7,092	13,514	17,415	10,874	69,781
Retirees 2009	3,878	7,546	54	832	3,476	5,121	7,390	13,933	17,609	10,986	70,825
Retirees 2010	3,935	6,493	59	934	3,709	5,310	7,829	14,557	18,139	11,391	72,356
Retirees 2011	3,989	6,423	60	1,040	3,937	5,466	8,163	15,057	18,401	11,529	74,065
Retirees 2012	4,071	5,882	63	1,165	4,382	5,720	8,786	15,942	18,786	11,742	76,539
Retirees 2013	4,118	5,363	64	1,270	4,704	5,862	9,371	16,634	19,064	11,727	78,177
Retirees 2014****	4,305	7,841	65	1,377	5,054	6,011	9,600	16,671	18,140	11,036	80,100

Year*	Under 5 Yrs***	5 - 9 Yrs	10 - 14 Yrs	15 - 19 Yrs	20 - 24 Yrs	25 - 29 Yrs	30 - 34 Yrs	35 & up Yrs
Avg Monthly Benefit 2005	\$460	\$334	\$741	\$1,288	\$1,986	\$3,191	\$4,400	\$5,710
Avg Monthly Benefit 2006	\$610	\$368	\$773	\$1,319	\$2,061	\$3,327	\$4,590	\$6,001
Avg Monthly Benefit 2007	\$896	\$524	\$816	\$1,367	\$2,155	\$3,500	\$4,776	\$6,210
Avg Monthly Benefit 2008	\$996	\$506	\$839	\$1,387	\$2,152	\$3,452	\$4,717	\$6,151
Avg Monthly Benefit 2009	\$998	\$519	\$855	\$1,379	\$2,095	\$3,348	\$4,451	\$5,774
Avg Monthly Benefit 2010	\$1,073	\$609	\$872	\$1,336	\$2,172	\$3,466	\$4,592	\$5,976
Avg Monthly Benefit 2011	\$1,194	\$568	\$951	\$1,459	\$2,394	\$4,004	\$5,451	\$7,556
Avg Monthly Benefit 2012	\$1,265	\$588	\$987	\$1,504	\$2,331	\$3,682	\$4,798	\$6,286
Avg Monthly Benefit 2013	\$1,292	\$597	\$993	\$1,478	\$2,417	\$3,822	\$4,969	\$6,532
Avg Monthly Benefit 2014****	\$1,322	\$614	\$1,005	\$1,531	\$2,451	\$3,897	\$5,100	\$6,764

Year*	Under 5 Yrs***	5 - 9 Yrs	10 - 14 Yrs	15 - 19 Yrs	20 - 24 Yrs	25 - 29 Yrs	30 - 34 Yrs	35 & up Yrs
Final Average Salary 2005	\$21,125	\$32,062	\$35,371	\$37,207	\$44,482	\$51,312	\$63,832	\$72,380
Final Average Salary 2006	\$22,914	\$32,765	\$36,498	\$38,207	\$46,592	\$53,196	\$65,820	\$74,640
Final Average Salary 2007	\$26,668	\$36,178	\$38,348	\$40,419	\$48,902	\$55,302	\$67,802	\$76,827
Final Average Salary 2008	\$27,614	\$36,927	\$39,399	\$41,535	\$50,662	\$56,679	\$68,899	\$78,148
Final Average Salary 2009	\$27,306	\$38,280	\$40,348	\$42,379	\$51,881	\$58,811	\$69,802	\$79,190
Final Average Salary 2010	\$28,056	\$39,632	\$41,401	\$43,566	\$53,567	\$61,429	\$71,226	\$80,400
Final Average Salary 2011	\$28,895	\$40,803	\$42,607	\$44,701	\$55,226	\$63,830	\$72,377	\$81,273
Final Average Salary 2012	\$30,270	\$42,741	\$44,943	\$46,367	\$57,724	\$66,782	\$73,787	\$82,267
Final Average Salary 2013	\$31,076	\$43,539	\$46,381	\$47,698	\$59,738	\$69,113	\$74,985	\$82,940
Final Average Salary 2014****	\$30,646	\$43,911	\$47,700	\$48,561	\$60,661	\$70,338	\$75,376	\$83,206

\* Retiree figures for 2005-2013 take into account retirement valuation reports.

\*\* Refers to retirees with a payment setup processed by a previous database system. The current payment system was initiated in 1998.

\*\*\* Retirees include Service Retirement, Accidental Disability and Ordinary Disability. The majority of retirees with under 5 Yrs. of service are Accidental Disability.

\*\*\*\* Retiree figures for 2014 include Service or FAS retirement revision cases previously categorized as "Other."

**Note:** If elected, total monthly benefits for Tier I and Tier II members depend on current unit value.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 12: AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS—QPP**

Year Ended June 30	SERVICE RETIREMENT BENEFITS		ORDINARY (NON-DUTY) DISABILITY BENEFITS		ACCIDENTAL (DUTY) DISABILITY BENEFITS		SURVIVORS' BENEFITS	
	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Benefit
2008	63,343	45,603	2,043	20,883	573	39,478	3,822	29,109
2009	64,281	42,235	2,037	19,141	589	35,993	3,918	25,317
2010	65,734	43,381	2,068	19,500	619	36,849	3,935	26,170
2011	67,253	45,300	2,153	20,134	670	38,202	3,989	28,432
2012	69,515	45,718	2,242	20,549	711	39,116	4,071	28,235
2013	71,017	46,994	2,299	21,093	713	39,954	4,148	29,773

**SCHEDULE 13: SERVICE RETIREMENT ALLOWANCES—QPP**

*As of June 30, 2013*

**MEN**

Age	Number of Retirees	Average Annual Allowance
under 30	0	0
30-34	0	0
35-39	0	0
40-44	0	0
45-49	0	0
50-54	1	\$30,320
55-59	690	50,077
60-64	2,757	58,291
65-69	6,676	61,569
70-74	4,137	54,281
75-79	2,828	51,126
80-84	2,234	49,779
85-89	1,414	46,093
90 & over	662	43,501
<b>TOTAL</b>	<b>21,399</b>	<b>\$55,173</b>

**WOMEN**

Age	Number of Retirees	Average Annual Allowance
under 30	0	0
30-34	0	0
35-39	0	0
40-44	0	0
45-49	0	0
50-54	0	0
55-59	2,147	\$48,542
60-64	8,157	52,844
65-69	12,203	50,088
70-74	9,365	41,986
75-79	6,452	37,129
80-84	5,082	35,080
85-89	3,745	33,585
90 & over	2,467	29,775
<b>TOTAL</b>	<b>49,618</b>	<b>\$43,467</b>

**TOTAL ANNUAL ALLOWANCES PAID \$1,180,650,110**

**TOTAL ANNUAL ALLOWANCES PAID \$2,156,755,142**

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 14: ORDINARY DISABILITY RETIREMENT ALLOWANCES—QPP**

*As of June 30, 2013*

<b>MEN</b>			<b>WOMEN</b>		
<b>Age</b>	<b>Number of Retirees</b>	<b>Average Annual Allowance</b>	<b>Age</b>	<b>Number of Retirees</b>	<b>Average Annual Allowance</b>
under 30	0	-	under 30	0	-
30-34	0	-	30-34	0	-
35-39	2	\$27,546	35-39	8	\$22,217
40-44	5	26,257	40-44	20	20,977
45-49	16	23,432	45-49	60	22,659
50-54	50	26,289	50-54	164	22,058
55-59	86	23,141	55-59	279	22,006
60-64	122	25,093	60-64	388	22,247
65-69	129	23,933	65-69	342	20,169
70-74	65	21,077	70-74	210	16,916
75-79	33	21,687	75-79	101	15,058
80-84	19	21,619	80-84	67	15,181
85-89	9	21,711	85-89	45	16,350
90 & over	12	31,125	90 & over	67	20,033
<b>TOTAL</b>	<b>548</b>	<b>\$23,868</b>	<b>TOTAL</b>	<b>1,751</b>	<b>\$20,224</b>
<b>TOTAL ANNUAL BENEFITS PAID \$13,079,916</b>			<b>TOTAL ANNUAL BENEFITS PAID \$35,411,892</b>		

**SCHEDULE 15: ACCIDENT DISABILITY RETIREMENT ALLOWANCES—QPP**

*As of June 30, 2013*

<b>MEN</b>			<b>WOMEN</b>		
<b>Age</b>	<b>Number of Retirees</b>	<b>Average Annual Allowance</b>	<b>Age</b>	<b>Number of Retirees</b>	<b>Average Annual Allowance</b>
Under 30	0	-	under 30	1	\$38,810
30-34	0	-	30-34	2	38,038
35-39	2	\$51,517	35-39	4	33,473
40-44	4	44,053	40-44	9	47,306
45-49	2	51,188	45-49	15	38,276
50-54	11	42,869	50-54	39	39,454
55-59	17	50,398	55-59	62	36,689
60-64	30	44,350	60-64	117	40,217
65-69	70	44,410	65-69	111	36,216
70-74	32	47,224	70-74	45	45,042
75-79	19	42,196	75-79	48	30,931
80-84	10	36,672	80-84	28	34,095
85-89	7	41,016	85-89	11	39,337
90 & over	4	39,750	90 & over	13	40,441
<b>TOTAL</b>	<b>208</b>	<b>\$44,591</b>	<b>TOTAL</b>	<b>505</b>	<b>\$38,044</b>
<b>TOTAL ANNUAL ALLOWANCES PAID \$9,274,841</b>			<b>TOTAL ANNUAL ALLOWANCES PAID \$19,212,166</b>		

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 16: SURVIVORS' BENEFITS—QPP**

*As of June 30, 2013*

<b>MEN</b>			<b>WOMEN</b>		
<b>Age</b>	<b>Number of Beneficiaries</b>	<b>Average Annual Benefit</b>	<b>Age</b>	<b>Number of Beneficiaries</b>	<b>Average Annual Benefit</b>
under 30	6	\$19,579	under 30	5	\$25,446
30-34	5	29,688	30-34	12	23,095
35-39	5	9,565	35-39	13	19,951
40-44	11	22,730	40-44	17	25,655
45-49	19	10,863	45-49	29	13,534
50-54	24	12,148	50-54	58	19,419
55-59	29	17,424	55-59	71	24,453
60-64	78	21,919	60-64	177	36,894
65-69	141	31,999	65-69	295	37,451
70-74	137	28,393	70-74	376	35,567
75-79	138	24,970	75-79	410	35,616
80-84	170	25,393	80-84	497	33,488
85-89	185	24,396	85-89	513	29,277
90 & over	208	24,382	90 & over	519	24,854
<b>TOTAL</b>	<b>1,156</b>	<b>\$25,109</b>	<b>TOTAL</b>	<b>2,992</b>	<b>\$31,574</b>
<b>TOTAL ANNUAL BENEFITS PAID</b>		<b>\$29,025,710</b>	<b>TOTAL ANNUAL BENEFITS PAID</b>		<b>\$94,470,788</b>

**SCHEDULE 17: NUMBER AND COST OF INVESTMENT AND ADMINISTRATIVE SERVICES (QPP & TDA)**

<b>Year Ended</b>	<b>Investment Agent Count</b>	<b>Investment Expenses</b>	<b>**TRS Employees Count</b>	<b>Administrative Expenses</b>
2005	101	\$73,436,967	333	\$42,057,063
2006	114	\$80,370,285	364	\$42,827,260
2007	144	\$96,956,626	367	\$48,420,388
2008	170	\$110,210,842	375	\$52,524,702
2009	200	\$111,203,770	374	\$51,090,690
2010	206	\$139,101,694	365	\$51,929,857
2011	188	\$136,300,683	364	\$49,428,933
2012	221	\$122,647,913	368	\$50,064,502
2013	227	\$151,401,872	373	\$49,877,929
2014	230*	\$169,736,553*	376	\$63,230,181

\* 2014 details are found in the schedule: Summary of Investment Managers and Fees of the Investment Section.

\*\* Employee count does not include Consultants, Temporary Employees, and Summer Interns.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 18: NET POSITION AND CHANGES IN NET POSITION—TDA PROGRAM**

*In Thousands*

<b>Year Ended</b>	<b>Pension Fund</b>	<b>Diversified Equity</b>	<b>Bond* Fund</b>	<b>International Equity</b>	<b>Inflation Protection</b>	<b>Socially Responsive Equity</b>	<b>Net Assets</b>	<b>Changes in Net Assets</b>
2005	5,173,438	7,176,397	260,343	NA	NA	NA	12,610,178	1,210,258
2006	6,339,767	7,515,108	265,363	NA	NA	NA	14,120,238	1,510,060
2007	7,607,028	8,499,546	273,423	NA	NA	NA	16,379,997	2,259,759
2008	8,896,613	7,096,600	274,660	NA	NA	NA	16,267,873	(112,124)
2009	10,605,577	4,499,663	278,335	39,046	7,644	7,457	15,437,722	(830,151)
2010	11,884,377	4,999,750	293,448	51,831	11,978	12,441	17,253,825	1,816,103
2011	13,118,153	6,293,322	308,666	71,674	19,833	22,145	19,833,793	2,579,968
2012	14,554,722	5,975,066	301,727	57,905	22,590	30,087	20,942,097	1,108,304
2013	16,021,066	6,762,476	304,675	71,621	28,001	41,837	23,229,676	2,287,579
2014	17,450,769	7,909,321	304,788	96,028	37,488	75,095	25,873,489	2,643,813

**SCHEDULE 19: CHANGES IN NET POSITION—TDA PROGRAM**

*In Thousands*

<b>Year Ended</b>	<b>1 Net Member Contributions</b>	<b>2 Fixed Interest from Pooled Pension Fund</b>	<b>3 Net Investment Income</b>	<b>6 Withdrawals</b>	<b>7 Other Benefits*</b>	<b>4 Annuitized Payments</b>	<b>8 Administrative Expenses</b>	<b>9 Change in Net Position</b>
<b>June 30</b>								
2005	\$493,523	\$375,114	\$629,778	(\$209,612)	(\$32,559)	(\$37,489)	(\$8,497)	\$1,210,258
2006	556,813	451,631	842,530	(250,616)	(42,588)	(38,821)	(8,889)	1,510,060
2007	579,381	547,396	1,499,838	(274,074)	(40,997)	(40,930)	(10,855)	2,259,759
2008	602,749	648,015	(921,703)	(331,142)	(58,985)	(38,923)	(12,135)	(112,124)
2009	639,170	767,007	(1,849,614)	(263,692)	(80,563)	(29,008)	(13,451)	(830,151)
2010	640,370	816,557	683,726	(212,307)	(72,051)	(29,727)	(10,465)	1,816,103
2011	631,840	854,073	1,585,111	(369,370)	(80,565)	(31,241)	(9,880)	2,579,968
2012	627,159	945,967	109,651	(431,412)	(98,606)	(34,103)	(10,352)	1,108,304
2013	633,900	1,047,979	1,216,793	(460,659)	(104,402)	(35,837)	(10,195)	2,287,579
2014	638,979	1,147,923	1,631,411	(577,102)	(139,759)	(40,451)	(17,188)	2,643,813

\* Other Benefits consists active death payments and delayed interest payments.



**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 20: 2014 CHANGES IN NET POSITION—TDA PROGRAM**

*In Thousands*

	<b>Pension Fund</b>	<b>Diversified Equity</b>	<b>Bond Fund</b>	<b>International Equity</b>	<b>Inflation Protection</b>	<b>Socially Responsive Equity</b>	<b>Net Position</b>
2013 Net Position	\$16,021,066	\$6,762,476	\$304,675	\$71,621	\$28,001	\$41,837	\$23,229,676
Member Contributions	437,169	163,280	17,716	8,677	4,237	7,900	638,979
Payment of interest on TDA fixed return funds	1,147,923						1,147,923
Interest & Misc Income	24,277	5,609	5,154	37	-	-	35,077
Dividend Income	-	113,219	-	747	1,396	798	116,160
Realized Profit/Loss	-	487,852	(1,274)	3,219	45	20,778	510,620
Unrealized Profit/Loss	-	971,112	1,857	12,210	2,126	(10,223)	977,082
Benefit Payments	(125,874)	(69,599)	(4,130)	(413)	185	(79)	(199,910)
Refunds & Withdrawals	(413,923)	(132,434)	(6,980)	(1,424)	(1,499)	(1,142)	(557,402)
Interfund Transfer	360,131	(368,841)	(11,240)	1,570	3,055	15,325	-
Provision for Expenses*	-	(23,353)	(990)	(216)	(58)	(99)	(24,716)
<b>2014 Net changes</b>	<b>\$1,429,703</b>	<b>\$1,146,845</b>	<b>\$113</b>	<b>\$24,407</b>	<b>\$9,487</b>	<b>\$33,258</b>	<b>\$2,643,813</b>
<b>2014 Net Position</b>	<b>\$17,450,769</b>	<b>\$7,909,321</b>	<b>\$304,788</b>	<b>\$96,028</b>	<b>\$37,488</b>	<b>\$75,095</b>	<b>\$25,873,489</b>

\* Includes Administrative and Investment Expenses.

**SCHEDULE 21: TDA PROGRAM SUMMARY (EXCLUDES ANNUITANTS)**

	<b>As of July 1</b>	<b>Contributors Registered</b>	<b>Payroll Updates</b>	<b>Contributors Withdrawn</b>	<b>As of June 30th</b>
2004	68,629	6,616	(1,578)	(6,133)	67,534
2005	67,534	1,449	1,806	(4,112)	66,677
2006	66,677	1,888	3,908	(3,216)	69,257
2007	69,257	1,642	3,362	(3,148)	71,113
2008	71,113	1,841	3,023	(3,079)	72,898
2009	72,898	1,121	3,768	(2,638)	75,149
2010	75,149	458	3,041	(2,731)	75,917
2011	75,917	845	2,617	(3,022)	76,357
2012	76,357	1,435	2,965	(3,513)	77,244
2013	77,244	1,435	2,494	(3,400)	77,773

*Active membership summary based on latest active valuation reports.*

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## SCHEDULE 22: TDA PROGRAM ANNUITANTS SUMMARY

Year	As of July 1	Annuitants Registered	Annuitants Withdrawn	Administrative As of June 30th
2004	5,209	149	(444)	4,914
2005	4,914	157	(464)	4,607
2006	4,607	163	(397)	4,373
2007	4,373	215	(448)	4,140
2008	4,140	163	(446)	3,857
2009	3,857	151	(404)	3,604
2010	3,604	137	(322)	3,419
2011	3,419	177	(345)	3,251
2012	3,251	234	(301)	3,184
2013	3,184	162	(291)	3,055

*Annuitant membership summary based on latest retirement valuation reports.*

## SCHEDULE 23: MEMBERSHIP BY AGE (ACTIVE, DEFERRAL & BENEFICIARY ACCOUNTS AS OF 6/30/2014)—TDA PROGRAM

Age	Contributing		Non-Contributing		Deferred		Loans	
	Count	Fund Balance	Count	Fund Balance	Count	Fund Balance	Count	Loan Balance
=<25	6,154	\$67,710,369	440	\$2,876,347	11	\$334,390	484	\$1,990,600
30	10,210	310,983,044	1,267	31,664,636	98	3,260,714	3,112	19,327,746
35	10,463	557,010,653	1,599	58,968,900	205	10,226,082	6,099	40,641,591
40	10,240	787,354,810	1,167	52,580,917	286	18,367,175	7,788	51,965,869
45	9,409	966,386,749	955	45,089,530	379	27,326,241	7,544	51,042,408
50	10,044	1,386,673,216	912	64,574,572	523	55,790,820	8,056	53,626,033
55	8,906	1,409,364,865	684	46,820,777	3,478	847,660,515	6,875	50,462,920
60	6,019	1,138,312,372	405	29,926,105	9,097	2,834,046,820	5,062	41,645,929
65	1,887	411,531,542	161	9,505,976	15,519	5,909,403,578	3,473	31,798,851
70	367	106,493,801	60	4,782,349	10,034	3,994,692,329	1,489	13,605,534
75	91	36,890,120	33	2,778,101	5,496	2,105,488,123	530	4,916,657
80	23	11,602,807	14	3,037,585	3,085	1,104,918,722	198	1,644,705
85	6	2,657,617	2	83,025	1,232	357,452,410	49	397,074
90	1	167,499	2	108,622	149	26,783,969	6	99,627
=>91	1	8,734	-	-	2	306,034	-	-

Source: TRS query reports

\* Loan balances include interest and insurance receivable amounts.

## SCHEDULE 24: WITHDRAWALS BY AGE (FROM ACTIVE, DEFERRAL & BENEFICIARY ACCOUNTS, FISCAL YEAR 2014)—TDA PROGRAM

Age	Partial Withdrawals*		401(a) Service Purchase		RMD Withdrawals**		Total Withdrawals***		Survivors' Payments ****	
	Count	Distribution	Count	Distribution	Count	Distribution	Count	Distribution	Count	Distribution
=< 25	2	\$78,333	-	-	8	\$11,459	7	\$11,732	-	-
30	20	222,932	17	\$53,986	9	19,358	123	1,264,994	-	-
35	76	1,049,283	43	95,082	8	20,943	246	3,745,330	4	\$23,913.54
40	164	2,018,222	81	307,069	14	80,488	207	3,982,842	15	600,521.52
45	168	2,444,496	138	499,571	46	229,304	206	4,851,153	34	1,153,607.56
50	226	3,489,847	141	678,161	55	220,612	130	3,079,639	29	490,456.69
55	294	6,450,243	203	938,399	67	366,430	116	3,834,919	73	3,436,623.63
60	1,474	35,177,019	223	1,095,315	52	373,859	166	10,445,620	163	5,937,059.49
65	3,039	68,457,417	140	634,436	35	342,207	274	17,859,449	235	14,393,184.19
70	2,486	51,417,625	62	272,717	1,680	21,502,733	175	20,874,099	282	19,151,147.51
75	1,428	28,134,149	6	21,592	8,583	119,896,076	64	6,031,888	302	14,490,126.87
80	581	10,951,622	3	8,453	4,944	82,240,499	36	4,580,229	296	24,775,061.28
85	216	5,132,053	-	-	2,685	50,036,364	24	2,762,474	312	26,187,299.12
90	39	1,448,707	1	3,357	852	15,860,453	7	1,389,241	104	5,629,793.46
=>91	1	75,000	-	-	47	956,141	1	1,060	37	1,398,093.00

Source: TRS query reports

\* Includes 82 Partial Withdrawals to Beneficiaries.

\*\* Includes 535 RMD Withdrawals to Beneficiaries.

\*\*\* Includes 20 Total Withdrawals to Beneficiaries.

\*\*\*\* Includes the establishment of 733 (\$25.1 million) new Beneficiary accounts.

**TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK**

**SCHEDULE 25: FUND CONVERSION OF INVESTMENT BALANCES BY AGE  
(FISCAL YEAR 2014)—TDA PROGRAM**

From	To	=<25	30	35	40	45	50	55	60	65	70	75	80	85	90+
FX	VA	25.4%	23.2%	22.6%	15.4%	7.4%	5.3%	2.9%	3.7%	5.0%	4.1%	9.3%	8.1%	26.3%	100.0%
FX	VB	1.0%	0.4%	0.7%	0.2%	0.0%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FX	VC	16.5%	3.2%	2.5%	2.7%	0.4%	0.4%	0.5%	0.3%	0.4%	0.0%	0.5%	1.0%	0.3%	0.0%
FX	VD	0.1%	0.8%	0.5%	0.7%	0.2%	0.2%	0.2%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%
FX	VE	6.9%	8.1%	5.9%	4.2%	3.9%	0.8%	1.7%	1.8%	1.2%	1.2%	0.5%	0.5%	0.0%	0.0%
VA	FX	20.0%	38.9%	47.7%	63.3%	76.6%	82.9%	85.0%	86.4%	88.6%	90.3%	84.5%	79.6%	58.6%	0.0%
VA	VB	0.0%	0.0%	0.1%	0.3%	0.1%	0.0%	0.1%	0.2%	0.1%	0.0%	0.1%	0.0%	9.7%	0.0%
VA	VC	1.0%	1.9%	1.1%	1.2%	0.2%	0.8%	0.9%	0.4%	0.2%	0.2%	0.0%	0.2%	1.0%	0.0%
VA	VD	0.3%	0.1%	0.5%	0.2%	0.1%	0.0%	0.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%
VA	VE	1.9%	2.9%	1.1%	3.5%	1.4%	0.6%	0.6%	1.4%	1.4%	1.3%	1.0%	1.6%	0.1%	0.0%
VB	FX	5.4%	3.5%	5.1%	2.0%	3.3%	3.5%	5.0%	2.7%	0.7%	1.1%	0.9%	3.3%	0.0%	0.0%
VB	VA	1.4%	1.7%	1.7%	1.0%	2.1%	0.7%	0.2%	0.1%	0.1%	0.1%	0.7%	1.5%	0.0%	0.0%
VB	VC	0.4%	0.5%	0.5%	0.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%
VB	VD	0.0%	0.2%	0.0%	0.0%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.3%	1.5%	0.0%	0.0%
VB	VE	0.4%	0.2%	1.2%	0.1%	0.5%	0.1%	0.2%	0.0%	0.0%	0.4%	0.1%	0.0%	0.0%	0.0%
VC	VD	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
VC	VE	0.1%	0.5%	1.8%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	1.3%	0.0%	0.0%
VC	FX	7.5%	5.2%	2.1%	1.7%	1.0%	1.8%	1.1%	0.9%	0.7%	0.4%	1.3%	0.2%	0.2%	0.0%
VC	VA	0.6%	2.6%	1.6%	1.5%	0.2%	0.2%	0.2%	0.1%	0.3%	0.0%	0.2%	0.0%	0.6%	0.0%
VC	VB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
VD	VE	2.3%	0.3%	0.5%	0.6%	0.1%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%	0.7%	0.0%	0.0%
VD	FX	2.2%	1.1%	1.5%	0.7%	0.6%	0.5%	0.3%	0.4%	0.2%	0.2%	0.2%	0.0%	0.4%	0.0%
VD	VA	0.5%	0.3%	0.4%	0.2%	0.3%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
VD	VB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%
VD	VC	0.2%	0.0%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
VE	FX	4.7%	3.9%	0.6%	0.4%	0.7%	0.9%	0.3%	0.5%	0.3%	0.2%	0.1%	0.4%	0.5%	0.0%
VE	VA	1.0%	0.4%	0.1%	0.0%	0.1%	0.2%	0.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
VE	VB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
VE	VC	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
VE	VD	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: TRS query reports

**FX** refers to the Fixed Return Fund  
**VA** refers to the Diversified Equity Fund  
**VB** refers to the Bond Fund  
**VC** refers to the International Equity Fund  
**VD** refers to the Inflation Protection Fund  
**VE** refers to the Socially Responsive Equity Fund







## **Teachers' Retirement System of the City of New York**

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