trsnyc Teachers' Retirement System of the City of New York

# 97 Annual Report 

# Teachers' Retirement System of the City of New York 

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## Introduction

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TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 55 Water Street, New York, NY 10041 • www.trsnyc.org • 1 (888) 8-NYC-TRS

December 31, 2014
Board of Trustees
Teachers' Retirement System of the City of New York (TRS)
55 Water Street
New York, NY 10041
We are pleased to present the $97^{\text {th }}$ Annual 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 Department of Education and certain employees of 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.

## Participating Employers

The Department of Education (DOE), City University of New York (CUNY), and 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.

## Funding

The QPP'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 to 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.

One measure of the Plan'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 QPP'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, are provided in the Management's Discussion and Analysis portion of the Financial Section.

## Investments

During Fiscal Year 2014, TRS' total net assets were $\$ 70,363,428$. This included net assets for the QPP of $\$ 44,489,939$, and for the TDA Program of $\$ 25,873,489$.

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.

Both plans utilize the investment vehicles below. The performance summary for Fiscal Year 2014 follows:
-The Pension Fund (which includes all Tiers III/IV/VI QPP funds, as well as QPP and TDA funds invested by members in the Fixed Return Fund) yielded an annual gross return of $17.62 \%$.

- The Diversified Equity Fund returned 23.56\% (net of fees).
- The Bond Fund returned $1.60 \%$ (net of fees).
- The International Equity Fund returned 21.78\% (net of fees).
- The Inflation Protection Fund returned $11.29 \%$ (net of fees).
- The Socially Responsive Equity Fund returned $23.11 \%$ (net of fees).


## 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 program.

## Statistical Reports

Past and current data are 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.

## Acknowledgements

The compilation of TRS' $97^{\text {th }}$ Annual 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

## CHIEF ACCOUNTANT'S CERTIFICATION

The management of the Teachers' Retirement System of the City of New York (TRS) is responsible for establishing and maintaining an internal control structure designed to provide reasonable assurance that TRS' assets are protected from loss, theft, or misuse, and that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The concept of reasonable assurance recognizes that:

- the cost of a control should not exceed the benefits likely to be derived from it; and
- the valuation of costs and benefits requires estimates and judgment by management.
I hereby certify that the following consolidated financial statements and attached schedules of the Qualified Pension Plan and the Tax-Deferred Annuity Program were prepared under the direction and supervision of the Chief Accountant, that they give a complete and correct exhibit of TRS' financial operations from July 1, 2013 to June 30, 2014, and that on June 30, 2014, the assets and liabilities were as enumerated to the best of my knowledge and belief.


Chief Accountant
Teachers' Retirement System of the City of New York

## PRINCIPAL ADVISORS

TEACHERS' RETIREMENT BOARD
Melvyn Aaronson, Chairperson
Thomas Brown
Kathleen Grimm
Sandra March
Scott M. Stringer
Carolyn Wolpert

## MEDICAL BOARD

Laura Brumberg, M.D.
Alan David, M.D.
Walter F. Pizzi, M.D.
CHIEF ACTUARY
Robert C. North, Jr.

## PRINCIPAL OFFICIALS



## Membership Overview

T'he Teachers' Retirement System of the City of New York (TRS) was established on August 1, 1917 and has since grown into one of the 40 largest pension funds in the U.S. Our programs impact more than 190,000 in-service members, retirees, and beneficiaries.

Our membership includes individuals of varying ages, tiers, and employment status. And although many TRS members are currently in active service, approximately one-third of them are retired. The following demographic data provide a snapshot of our membership as of June 30, 2014.

## In-Service Members

As of June 30, 2014, there were 111,726 in-service members. Following is some basic information about these active members receiving salaries.

## Average Age of In-Service Members: 44.8 years

## IN-SERVICE MEMBERSHIP BY TIER*



* Tiers are classifications that determine the benefits for which members may be eligible. Tier status generally depends on when an individual last became a TRS member.


## IN-SERVICE MEMBERSHIP BY TITLE



[^0]
## Retired Members

As of June 30, 2014, there were 76,162 retired TRS members. Some statistics related to these members are below.

## Average Age of Members at Retirement Date: 60.8 years

## Retirement Payment Options Chosen by TRS Retirees

When TRS members retire, they receive a lifetime allowance under the QPP. Members may choose to receive a reduced allowance in order to provide for one or more beneficiaries. TRS offers a variety of retirement payment options to meet our members' needs. The categories of payment options chosen by TRS members retiring during Fiscal Year 2014 are displayed below, followed by a brief description.

## OPTIONS CHOSEN BY TIERS III MEMBERS



## OPTIONS CHOSEN BY TIERS IIIIV MEMBERS



## Categories of Retirement Payment Options

Maximum Payment-Member receives highest monthly payments, but does not provide for beneficiary. Lump-Sum Payment (Tiers I/II only)—Member's beneficiary receives payment in a lump sum.
Guaranteed Number of Payments-A specific number of retirement allowance payments is assured.
Continuing Payments-Lifetime monthly payments are made to beneficiary.
Pop-Up Payments-Member's payments increase to maximum allowed if beneficiary predeceases member.

## Contributions and Benefits

Among the many services we provide our membership, TRS' primary responsibility remains managing and distributing our members' retirement benefits. In order to receive a retirement allowance, all TRS members participate in the Qualified Pension Plan (QPP), a retirement plan administered under Section 401(a) of the Internal Revenue Code. The QPP combines features of a defined-benefit pension plan with those of a defined-contribution pension plan.

Contributions to the QPP totaled \$3,209.38 million during the 2014 Fiscal Year. Employer contributions represented $\$ 3,054.42$ million, while the remaining $\$ 154.96$ million came from member contributions. As of the end of the fiscal year, 111,726 members were on payroll. Accordingly, the average employer contribution was $\$ 27,339$ per member and the average member contribution was $\$ 1,387$.

## TOTAL CONTRIBUTIONS-QPP <br> 2014 Fiscal Year-\$3,209.38 Million



At the end of the 2014 Fiscal Year, 80,419 members and beneficiaries were receiving QPP retirement allowances totaling $\$ 3.74$ billion. The chart below organizes this information by members' type of retirement.

## RETIREMENT ALLOWANCES UNDER THE QPP <br> As of June 30, 2014

|  | Service | Ordinary <br> Disability | Accident <br> Disability | Beneficiary |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Retirees and Beneficiaries Receiving QPP Allowances | 73,069 | 2,379 | 714 | 4,257 |
| Total Annual Allowances Paid | $\$ 3,531,070,573$ | $\$ 51,483,832$ | $\$ 23,087,047$ | $\$ 134,601,085$ |
| Average Annual Retirement Allowance | $\$ 48,325$ | $\$ 21,641$ | $\$ 32,335$ | $\$ 31,619$ |

TRS maintains assets to fund QPP retirement benefits, with a $\$ 44.49$ billion net position held in trust for pension benefits as of June 30, 2014.

## NET POSITION RESTRICTED FOR BENEFITS-QPP (In Billions)



While members are required to make QPP contributions, their participation in the Tax-Deferred Annuity (TDA) Program is optional. A defined-contribution plan under Section 403(b) of the Internal Revenue Code, the TDA Program allows in-service members to defer taxes on the portion of their salary that they invest. The TDA Program is funded exclusively through members' contributions, interest earned, and investment returns. As of the end of the fiscal year, 77,705 members were contributing to the TDA Program through salary deductions.

> MEMBER PARTICIPATION IN THE TDA PROGRAM As of June 30,2014


* This total includes members who have made TDA contributions but were not contributing as of June 30, 2014.

The number of contributors, representing 70\% of our in-service membership, indicates that our members are actively planning for their financial future.

## MEMBERS MAKING TDA CONTRIBUTIONS



At retirement, TDA participants may choose to maintain their TDA accounts by electing TDA Deferral status, or they may elect to begin receiving their TDA funds as an annuity. (Alternatively, they may close their TDA accounts by withdrawing the balance.) As of the end of the 2014 Fiscal Year, 49,051 retirees (or $61 \%$ of those receiving QPP allowances) were maintaining their accounts through TDA Deferral status; these accounts totaled $\$ 17.1$ billion. The number of retirees and beneficiaries receiving TDA annuities was 3,036 (or 3.8\% of those receiving QPP allowances); these annuities totaled $\$ 42.17$ million. The chart below organizes information about TDA annuities by members' type of retirement under the QPP.

## ANNUITIES UNDER THE TDA PROGRAM <br> As of June 30, 2014

|  | Service | Ordinary <br> Disability | Accident <br> Disability | Beneficiary |
| :--- | ---: | ---: | ---: | ---: |
| Retirees and Beneficiaries Receiving TDA Annuities | 2,308 | 153 | 25 | 550 |
| Total Annual Annuities Paid | $\$ 34,062,684$ | $\$ 1,161,765$ | $\$ 169,786$ | $\$ 6,780,059$ |
| Average Annual Annuity | $\$ 14,759$ | $\$ 7,593$ | $\$ 6,791$ | $\$ 12,327$ |

As of June 30, 2014, the TDA Program had a $\$ 25.87$ billion net position held in trust for TDA benefits.

## NET POSITION RESTRICTED FOR BENEFITS-TDA PROGRAM (In Billions)



## Financial Summary

| FINANCIAL HIGHLIGHTS (In Thousands) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| QUALIFIED PENSION PLAN (QPP) 2014 |  |  |  |  |
|  |  |  |  |  |
| Total Assets (As of June 30)* | \$ | 72,117,653 | \$ | 61,952,594 |
| Total Investments** | \$ | 51,492,557 | \$ | 43,484,296 |
| Total Receivables, Cash, and Other Assets | \$ | 3,389,064 | \$ | 2,714,605 |
| Total Liabilities (As of June 30)* | \$ | 27,627,714 | \$ | 25,096,138 |
| Net Position Held in Trust for Pension Benefits (As of June 30) | \$ | 44,489,939 | \$ | 36,856,456 |
| Total Revenue (For the Fiscal Year) | \$ | 12,801,095 | \$ | 8,895,470 |
| Benefits Payments \& Withdrawals (For the Fiscal Year) | \$ | $(3,818,248)$ | \$ | $(3,619,254)$ |
| Interest Paid to the TDA Program | \$ | $(1,147,923)$ | \$ | $(1,047,979)$ |
| TAX-DEFERRED ANNUITY (TDA) PROGRAM |  |  |  |  |
| Total Assets (As of June 30) | \$ | 26,497,964 | \$ | 23,581,690 |
| Total Investments*** | \$ | 26,046,019 | \$ | 23,116,841 |
| Total Receivables, Cash, and Other Assets | \$ | 451,945 | \$ | 464,849 |
| Total Liabilities (As of June 30) | \$ | 624,475 | \$ | 352,014 |
| Net Position Held in Trust for Benefits (As of June 30) | \$ | 25,873,489 | \$ | 23,229,676 |
| Total Revenue (For the Fiscal Year) | \$ | 3,424,131 | \$ | 2,910,371 |
| Benefits Payments \& Withdrawals (For the Fiscal Year) | \$ | $(757,312)$ | \$ | $(600,898)$ |

*, *** Includes $\$ 17,236,032$ thousand and $\$ 15,753,693$ thousand TDA Investment in Pooled NYC Pension Fund for the Fiscal Years 2014 and 2013, respectively. ** $\$ 17,236,032$ thousand and $\$ 15,753,693$ thousand TDA Investment in Pooled NYC Pension Fund not included for Fiscal Years 2014 and 2013, respectively.

## TOTAL REVENUE (In Thousands)



## Investment Choices

Through the Qualified Pension Plan (QPP), TRS provides retirement allowances to our members. Through the Tax-Deferred Annuity (TDA) Program, we enable members to build additional personal savings for retirement. Beginning in Fiscal Year 2009, TRS has offered six investment options under these plans: 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 portfolios are structured differently to allow members to diversify and customize their investments.

## INVESTMENT FUND ALLOCATION BY ASSET CLASS As of June 30, 2014

PENSION FUND


DIVERSIFIED EQUITY FUND


## INVESTMENT FUND ALLOCATION BY ASSET CLASS (Continued) As of June 30, 2014

BOND FUND


## INTERNATIONAL EQUITY FUND



Note: The compositions of the Inflation Protection Fund and Socially Responsive Equity Fund are not depicted because each Fund utilizes a mutual fund as its sole investment vehicle.

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## INDEPENDENT AUDITORS' REPORT

To the Retirement Board of the<br>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

## Management's Discussion and Analysis (Unaudited)

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.
- 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.

|  | Members <br> Active | Contribution <br> Employer | Contribution <br> Member | Members <br> Retired | Payments <br> Pension |
| :--- | :---: | :---: | :---: | ---: | :---: |
| 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.

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.)

QPP FIDUCIARY NET POSITION

|  | (In Thousands) |  |  |
| :---: | :---: | :---: | :---: |
|  | 2014 | As of June 30 |  |
|  |  | 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 | \$ 72,117,653 | \$ 61,952,594 | \$ 54,088,233 |
| 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 | 5,403,085 | 5,202,534 | 4,398,976 |
| TOTAL LIABILITIES | \$ 27,627,714 | \$ 25,096,138 | \$ 21,313,472 |
| NET POSITION RESTRICTED FOR BENEFITS | \$ 44,489,939 | \$ 36,856,456 | \$ 32,774,761 |

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 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.

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 $\$ 1.1$ billion ( $30.8 \%$ ) 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.)

## QPP CHANGES IN FIDUCIARY NET POSITION

(In Thousands)

|  |  |  | Year Ended June 302013* |  |  | 2012* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 |  |  |  |  |  |
| 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 |  | 9,429,501 |  | 5,688,774 |  | 772,818 |
| TOTAL ADDITIONS |  | 11,497,773 | \$ | 7,740,631 | \$ | 2,754,517 |
| Deductions: |  |  |  |  |  |  |
| Administrative expenses |  | 46,042 |  | 39,682 |  | 39,713 |
| Benefits payments |  | 3,818,248 |  | 3,619,254 |  | 3,541,580 |
| TOTAL DEDUCTIONS | \$ | 3,864,290 | \$ | 3,658,936 | \$ | 3,581,293 |
| NET INCREASE (DECREASE) IN NET POSITION | \$ | 7,633,483 | \$ | 4,081,695 | , | $(826,776)$ |
| NET POSITION RESTRICTED FOR BENEFITS |  |  |  |  |  |  |
| Beginning of year |  | 36,856,456 |  | 32,774,761 |  | 33,601,537 |
| End of year |  | 44,489,939 |  | 36,856,456 |  | 32,774,761 |

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, $\$ 330.4$ 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 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

(In Thousands)

|  | 2014 |  | As of June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 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 |  | 5,753,693 |  | 4,288,078 |
| Collateral from securities lending |  | 338,062 |  | 2,825 |  | 57,317 |
| Other assets |  | 2,390 |  | 1,133 |  | 2,477 |
| TOTAL ASSETS |  | \$ 26,497,964 |  | 23,581,690 |  | 21,235,044 |
| 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 |  | \$ 624,475 | \$ | 352,014 | \$ | 292,947 |
| NET POSITION HELD IN TRUST FOR BENEFITS |  | \$ 25,873,489 |  | 23,229,676 |  | 20,942,097 |

${ }^{*}$ Certain amounts have been reclassified to conform to the 2014 financial statement presentation.

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.

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

 (In Thousands)|  | (In Thousands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 |  | Year Ended June 30 |  |  |  |
|  |  |  |  | 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 ADDITIONS | \$ | 3,418,313 | \$ | 2,898,672 | \$ | 1,682,777 |
| Deductions: |  |  |  |  |  |  |
| Administrative expenses |  | 17,188 |  | 10,195 |  | 10,352 |
| Benefits payments and withdrawals |  | 757,312 |  | 600,898 |  | 564,121 |
| TOTAL DEDUCTIONS | \$ | 774,500 | \$ | 611,093 | \$ | 574,473 |
| NET INCREASE | \$ | 2,643,813 | \$ | 2,287,579 | \$ | 1,108,304 |
| NET POSITION RESTRICTED FOR BENEFITS |  |  |  |  |  |  |
| Beginning of year |  | 23,229,676 |  | 20,942,097 |  | 19,833,793 |
| End of year | \$ | 25,873,489 | \$ | 23,229,676 | \$ | 20,942,097 |

*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 (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, 2013 |  | 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 | $(46,042)$ | $(17,188)$ | $(39,682)$ | $(10,195)$ | $(39,713)$ | $(10,352)$ |
|  | \$ 709,097 | \$ $(6,394)$ | \$ 707,113 | \$ 175,759 | \$ 442,125 | \$ 198,692 |

## 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 |  | June 30, 2013 |  | June 30, 2012 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | QPP | TDA | QPP | TDA | QPP | 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:

| Investment Type | Benchmark | Percent |
| :--- | :--- | :---: |
| 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 Convertitles Ex Mandatory | 3.00 |
| Opportunistic Fixed | 10\% Annualized Return | 2.03 |
| Cash | BofA ML 91 Day T-Bill | 0.75 |
|  |  | $-100.00 \%$ |
|  |  |  |

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 shortterm 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 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:

## INVESTMENT SUMMARY (In Thousands)

| Type of Investment | $\mathbf{c} 2014$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 2}$ |
| :--- | ---: | ---: | ---: |
| 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 | $5,739,575$ | $5,196,936$ | $4,447,870$ |
| TOTAL | $\mathbf{\$ 7 7 , 5 3 8 , 5 7 6}$ | $\mathbf{\$ 6 6 , 6 0 1 , 1 3 7}$ | $\mathbf{\$ 5 9 , 5 0 0 , 2 3 8}$ |

## 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.

## COMBINED STATEMENTS OF FIDUCIARY NET POSITION (In Thousands)



[^1]
## COMBINED STATEMENTS OF FIDUCIARY NET POSITION (In Thousands)

| As of June 30, 2013 | QPP | TDA | ELIM | Total |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |
| 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 Return (Pooled NYC Pension Fund Assets): |  |  |  |  |
| Short-term investment: |  |  |  |  |
| 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 |
| LIABILITIES: |  |  |  |  |
| 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 |
| NET POSITION RESTRICTED FOR BENEFITS: |  |  |  |  |
| 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 |

[^2]| COMBINED STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION <br> (In Thousands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year Ended June 30, 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 employer contributions | 55,730 |  | - |  | 55,730 |
| TOTAL CONTRIBUTIONS | \$ 3,209,386 | \$ | 638,979 | \$ | 3,848,365 |
| 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 | 8,027,414 |  | 1,487,702 |  | 9,515,116 |
| TOTAL INVESTMENT INCOME | \$ 9,591,709 | \$ | 1,637,229 |  | 11,228,938 |
| Less: |  |  |  |  |  |
| Investment expenses | 162,208 |  | 7,528 |  | 169,736 |
| NET INVESTMENT INCOME | \$ 9,429,501 | \$ | 1,629,701 |  | 11,059,202 |
| Securities-lending transactions: |  |  |  |  |  |
| Securitie-lending income | 7,699 |  | 1,895 |  | 9,594 |
| Less Securities-lending fees | $(1,294)$ |  | (185) |  | $(1,479)$ |
| NET SECURITIES-LENDING INCOME | 6,405 | \$ | 1,710 | \$ | 8,115 |
| Other: |  |  |  |  |  |
| Interest (to) from TDA Program's Fixed Return Fund | (1,147,923) |  | 1,147,923 |  | - |
| Net receipts (to) from other retirement systems | 404 |  | - |  | 404 |
| TOTAL ADDITIONS | \$11,497,773 | \$ | 3,418,313 |  | 14,916,086 |
| DEDUCTIONS: |  |  |  |  |  |
| Benefit payments and withdrawals | 3,818,248 |  | 757,312 |  | 4,575,560 |
| Administrative expenses (Note 8) | 46,042 |  | 17,188 |  | 63,230 |
| TOTAL DEDUCTIONS | \$ 3,864,290 | \$ | 774,500 | \$ | 4,638,790 |
| NET INCREASE IN NET POSITION | 7,633,483 |  | 2,643,813 |  | 10,277,296 |
| NET POSITION RESTRICTED FOR BENEFITS: |  |  |  |  |  |
| Beginning of year | 36,856,456 |  | 23,229,676 |  | 60,086,132 |
| End of year | \$44,489,939 |  | 25,873,489 |  | 70,363,428 |

[^3]|  | Year Ended June 30, 2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | QPP |  | TDA |  | TOTAL |
| ADDITIONS: |  |  |  |  |  |
| Contributions: |  |  |  |  |  |
| Member contributions (Note 4) | \$ 154,698 | \$ | 633,900 | \$ | 788,598 |
| Employer contributions | 2,855,640 |  | - |  | 2,855,640 |
| Other employer contributions | 57,204 |  | - |  | 57,204 |
| TOTAL CONTRIBUTIONS | \$ 3,067,542 | \$ | 633,900 | \$ | 3,701,442 |
| 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 | 4,355,828 |  | 1,048,624 |  | 5,404,452 |
| TOTAL INVESTMENT INCOME | \$ 5,827,928 | \$ | 1,228,492 | \$ | 7,056,420 |
| Less: |  |  |  |  |  |
| Investment expenses | 139,154 |  | 12,248 |  | 151,402 |
| NET INVESTMENT INCOME | \$ 5,688,774 | \$ | 1,216,244 | \$ | 6,905,018 |
| Securities-lending transactions: |  |  |  |  |  |
| Securities-lending income | 37,705 |  | 651 |  | 38,356 |
| Less Securities-lending fees | $(5,367)$ |  | (102) |  | $(5,469)$ |
| NET SECURITIES-LENDING INCOME | \$ 32,338 | \$ | 549 | \$ | 32,887 |
| Other: |  |  |  |  |  |
| Interest (to) from TDA Program's Fixed Return Fund | $(1,047,979)$ |  | 1,047,979 |  | - |
| Net receipts (to) from other retirement systems | (44) |  | - |  | (44) |
| TOTAL ADDITIONS | \$ 7,740,631 | \$ | 2,898,672 |  | 10,639,303 |
| DEDUCTIONS: |  |  |  |  |  |
| Benefit payments and withdrawals | 3,619,254 |  | 600,898 |  | 4,220,152 |
| Administrative expenses (Note 8) | 39,682 |  | 10,195 |  | 49,877 |
| TOTAL DEDUCTIONS | \$ 3,658,936 | \$ | 611,093 | \$ | 4,270,029 |
| INCREASE IN NET POSITION | 4,081,695 |  | 2,287,579 |  | 6,369,274 |
| NET POSITION RESTRICTED FOR BENEFITS: |  |  |  |  |  |
| Beginning of year | 32,774,761 |  | 20,942,097 |  | 53,716,858 |
| End of year | \$36,856,456 |  | 23,229,676 |  | 60,086,132 |

[^4]
## Notes to Combined Financial Statements

## 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").

## (a) 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.

## (b) 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:

## PLAN MEMBERSHIP

|  | As of June 30 |  |
| :--- | ---: | ---: |
|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 1}$ |
| 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 | 112,460 | 109,636 |
| TOTAL | $\mathbf{2 0 8 , 5 5 6}$ | $\mathbf{2 0 3 , 5 7 0}$ |

* 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:

|  | PLAN MEMBERSHIP | As of June 30 |  |
| :--- | ---: | ---: | :---: |
|  | $\mathbf{2 0 1 2}$ |  |  |
| Retirees receiving a TDA annuity | 3,184 | 3,251 |  |
| Members with TDA deferral | 42,707 | 40,288 |  |
| Active members contributing to TDA | 77,244 | 76,357 |  |
| TOTAL | $\mathbf{1 2 3 , 1 3 5}$ | $\mathbf{1 1 9 , 8 9 6}$ |  |

## 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 is provided from member contributions, plus additional benefits equal to specified percentages (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 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 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 $591 / 2$ or for reasons of hardship (as defined by IRS regulations). However, hardship withdrawals are limited to contributions only.

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

## (a) 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.

## (b) Reclassifications

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

## (c) 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 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.

## (d) 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 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.

## (e) 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.

## (f) Income Taxes

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

## (g) 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.

## (h) 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 variablereturn 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.

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

## (j) 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.

## (k) 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.

## (1) 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' shortterm 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.

## (m) 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.

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 definedcontribution plan.

NYC Pension Fund (pooled investments) Target Asset Allocations

| Investment Type | Asset Allocation Percentages |  |
| :--- | :---: | :---: |
|  | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 3}$ |
|  | $34.8 \%$ | $34.8 \%$ |
| Common stock | 9.0 | 9.0 |
| International investments - Non U.S. | 8.8 | 8.8 |
| International investments - Emerging Markets | 3.0 | 3.0 |
| Common stock - REITS | 2.4 | 2.1 |
| Alternative investments - Real Estate | 4.5 | 4.8 |
| Alternative investments - Private Equity | 0.0 | 0.0 |
| International Investments - Emerging Markets Debt | 35.4 | 35.9 |
| Fixed income | 2.1 | 1.6 |
| Alternative investments - Opportunistic Fixed Income | $\mathbf{1 0 0 . 0 \%}$ | $\mathbf{1 0 0 . 0 \%}$ |
| TOTAL |  |  |

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.

## (a) 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.

## (b) 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 $\mathrm{BB} \& \mathrm{~B}$ rated securities. While non-investment grade managers are primarily invested in $\mathrm{BB} \& \mathrm{~B}$ 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:

| Investment Type* |  |  |  |  | ality P | tings |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pension Fund |  |  |  |  |  |  |  |  |  |  |
| June 30, 2014 | AAA | AA | A | BBB | BB | B | CCC \& | Short Term | Not Rated | Total |
| 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\% |



[^5]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 | uality | ngs |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable Funds |  |  |  |  |  |  |  |  |  |  |
| June 30, 2014 | AAA | AA | A | BBB | BB | B | CCC \& Below | Short Term | Not Rated | Total |
| 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\% |

Variable Funds

| June 30, 2013 | AAA | AA | A | BBB | BB | B | CCC \& Below | Short Term | Not Rated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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\% |

## (c) 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 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.

## (d) 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.

The lengths of investment maturities (in years) of the 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
Investment Type-Pension Fund
June 30, 2014
```

|  | Investment Maturities |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value | Less Than One Year | One to Five Years | Six to Ten Years | More Than Ten Years |
| Government | 32.49\% | 0.14\% | 2.33\% | 5.72\% | 24.30\% |
| Corporate Bonds | 50.76 | 2.23 | 13.74 | 23.13 | 11.66 |
| Short-Term: |  |  |  |  |  |
| Commercial Paper | 3.79 | 3.79 | - | - | - |
| Pooled Funds | 5.24 | 5.24 | - | - | - |
| U.S. Agencies | 7.72 | 7.72 | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 19.12\% | 16.07\% | 28.85\% | 35.96\% |

Pension Fund

|  | Fair Value | Less Than One Year | One to Five Years | Six to Ten Years | More Than Ten Years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Government | 41.70\% | 0.70\% | 1.30\% | 5.60\% | 34.10\% |
| Corporate Bonds | 47.01 | 2.32 | 11.95 | 22.92 | 9.82 |
| Yankee Bonds | 0.31 | - | 0.18 | 0.06 | 0.07 |
| Short-Term: |  |  |  |  |  |
| Commercial Paper | 2.40 | 2.40 | - | - | - |
| Pooled Funds | 6.01 | 6.01 | - | - | - |
| U.S. Treasuries | 2.03 | 2.03 | - | - | - |
| U.S. Agencies | 0.54 | 0.54 | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 14.00\% | 13.43\% | 28.58\% | 43.99\% |

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

## Years to Maturity Investment Type-Variable Funds

June 30, 2014

|  | Investment Maturities |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value | Less Than One Year | One to Five Years | Six to Ten Years | More Than Ten Years |
| Government | 21.67\% | 0.24\% | 21.11\% | 0.33\% | -\% |
| Corporate Bonds | 40.84 | 5.19 | 22.28 | 6.20 | 7.18 |
| Yankee Bonds | 0.18 | - | 0.15 | 0.03 | - |
| Short-Term: |  |  |  |  |  |
| Money Market | 37.30 | 37.30 | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 42.72\% | 43.54\% | 6.55\% | 7.18\% |

Variable Funds

|  | Fair Value | Less Than One Year | One to Five Years | Six to Ten Years | More Than Ten Years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Government | 27.49\% | 3.40\% | 24.09\% | - \% | -\% |
| Corporate Bonds | 37.57 | 3.56 | 23.93 | 2.09 | 8.00 |
| Yankee Bonds | 0.43 | 0.04 | 0.35 | 0.03 | - |
| Short-Term: |  |  |  |  |  |
| Money Market | 34.51 | 34.51 | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 41.51\% | 48.37\% | 2.12\% | 8.00\% |

## (e) 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):

| Trade Currency (As of June 30) | Pension Fund 2014 | Variable-Return Funds 2014 | Pension Fund 2013 | Variable-Return Funds 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 | \$10,235,127 | \$823,655 | \$8,077,456 | \$670,589 |

(f) 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):


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


| June 30, 2013 | AAA | AA | A | BBB | BB | B | $\begin{aligned} & \text { CCC \& } \\ & \text { Below } \end{aligned}$ | Short- <br> 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. Treasuries | - | - | - | - | - | - | - | - | - | - |
| U.S. Agencies | - | - | - | - | - | - | - | - | - | - |
| Timed Deposit | 1,573 | - | - | - | - | - | - | - | - | 1,573 |
| Uninvested | - | - | - | - | - | - | - | - | - | - |
| Total | \$1,587 | - | \$ 83 | \$10 | - | - | - | - | \$ 2,434 | \$ 4,114 |
| Percent of SecuritiesLending Portfolio | 38.59\% | - \% | 1.99\% | 0.25\% | - \% | - \% | - \% | - \% | 59.17\% | 100.00\% |

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 <br> 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. Agencies | - | - |  | - |  | - |  | - |
| Time Deposit | - | - |  | - |  | - |  | - |
| Cash | 525,780 | 525,780 |  | - |  | - |  | - |
| Uninvested | - | - |  | - |  | - |  | - |
| Total | \$ 5,262,907 | \$ 4,524,518 | \$ | 738,389 | \$ | - | \$ | - |
| Percent of Securities Lending Portfolio | 100.00\% | 85.97\% |  | 14.03\% |  | - \% |  | - \% |

## 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. Agencies | 332,410 | 253,869 | 78,541 |  | - |  | - |
| Time Deposit | - | - | - |  | - |  | - |
| Uninvested | $(38,353)$ | $(38,353)$ | - |  | - |  | - |
| Total | \$ 5,192,822 | \$ 3,557,931 | \$ 1,634,891 | \$ | - | \$ | - |
| Percent of Securities Lending Portfolio | 100.00\% | 68.52\% | 31.48\% |  | - \% |  | - \% |

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 Repurchase Agreements | - |  | - |  | - |  | - |  | - |
| Certificates of Deposit | - |  | - |  | - |  | - |  | - |
| Commercial Paper | - |  | - |  | - |  | - |  | - |
| Variable Rate Demand Notes | 512 |  | 512 |  | - |  | - |  | - |
| U.S. Treasury | - |  | - |  | - |  | - |  | - |
| U.S. Agencies | - |  | - |  | - |  | - |  | - |
| Time Deposit | 86,545 |  | 86,545 |  | - |  | - |  | - |
| Uninvested | - |  | - |  | - |  | - |  | - |
| Total | \$ 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 Repurchase Agreements |  | - |  | - |  | - |  | - |  | - |
| Certificates of Deposit |  | - |  | - |  | - |  | - |  | - |
| Medium Term Notes |  | - |  | - |  | - |  | - |  | - |
| Commercial Paper |  | - |  | - |  | - |  | - |  | - |
| Variable Rate Notes Floating |  | - |  | - |  | - |  | - |  | - |
| U.S. Treasury |  | - |  | - |  | - |  | - |  | - |
| U.S. Agencies |  | - |  | - |  | - |  | - |  | - |
| Time Deposit |  | 1,573 |  | 1,573 |  | - |  | - |  | - |
| Uninvested |  | - |  | - |  | - |  | - |  | - |
| Total | \$ | 4,114 | \$ | 4,114 | \$ | - | \$ | - | \$ | - |
| Percent of Securities Lending Portfolio |  | 00.00\% |  | 100.00\% |  | - \% |  | -\% |  | - \% |

## (f) 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.

## (a) 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.

## (b) 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.

## 5. QPP Net Pension Liability

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


## (a) 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.

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.

## (b) 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 <br> Allocation | Real Return <br> Arithmetic Basis | Portfolio Component Arithmetic <br> 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, | $37.00 \%$ | $2.70 \%$ |  |
| $\quad$ Opportunistic, Convertibles) | $\underline{6.00 \%}$ | $4.00 \%$ | $1.00 \%$ |
| Alternatives (Real Assets) | $\underline{0.03 \%}$ |  |  |
| Portfolio Long-Term Average Arithmetic ROR | $\underline{100.00 \%}$ |  | $\underline{5.33 \%}$ |

## (c) 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 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 <br> $(6.0 \%)$ | Current discount rate <br> $(7.0 \%)$ | $1 \%$ Increase <br> $(8.0 \%)$ |
| :--- | :---: | :---: | :---: |
| 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

## (a) 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.

## (b) 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 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.

# SCHEDULE 1: REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) QUALIFIED PENSION PLAN <br> SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION <br> LIABILITY AND RELATED RATIOS <br> (In Thousands) 

Total pension liability:
Service Cost
Interest

| 2014 | 2013 |
| ---: | ---: |
|  |  |
| $\$ 1,205,662,452$ | $\$ 1,170,546,070$ |
| $4,407,702,189$ | $4,176,571,397$ |
| - | - |
| - | - |
| $(3,818,248,000)$ | $(3,619,254,000)$ |
| $1,795,116,641$ | $1,727,863,467$ |
| $60,511,262,470$ | $58,783,399,003$ |
| $62,306,379,111$ | $60,511,262,470$ |
|  |  |
| $3,054,424,000$ | $2,912,844,000$ |
| $154,962,000$ | $154,698,000$ |
| $9,435,906,000$ | $5,721,112,000$ |
| $(3,818,248,000)$ | $(3,619,254,000)$ |
| $(1,147,923,000)$ | $(1,047,979,000)$ |
| $(46,042,000)$ | $(39,682,000)$ |
| 404,000 | $(44,000)$ |
| $7,633,483,000$ | $4,081,695,000$ |
| $36,856,456,000$ | $32,774,761,000$ |
| $44,489,939,000$ | $36,856,456,000$ |
| $\$ 17,816,440,111$ | $\$ 23,654,806,470$ |
|  |  |
| $71,41 \%$ | $60,91 \%$ |
| $\$ 7,996,941,545$ | $\$ 7,964,148,973$ |
|  |  |
| 2, | $297,02 \%$ |

${ }^{1}$ 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: REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) <br>  <br> (spuesnoبı Ul)

|  | 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 ${ }^{1}$ | 37.652\% | 36.455\% | 33.747\% | 31.114\% | 31.604\% | 30.792\% | 27.386\% | 25.471\% | 21.293\% | 19.748\% |

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

| 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 ${ }^{1}$ | Frozen Initial Liability ${ }^{1}$ |
| Amortization method for Unfunded Actuarial Accrued Liabilities: |  |  |  |  |  |
| Initial Unfunded Post-2010 Unfundeds | Increasing Dollar Level Dollar | Increasing Dollar Level Dollar | Increasing Dollar Level Dollar | $\begin{aligned} & N A^{2} \\ & N A^{2} \end{aligned}$ | $\begin{aligned} & N A^{2} \\ & N A^{2} \end{aligned}$ |
| Remaining amortization period: |  |  |  |  |  |
| Initial Unfunded | 20 Years (Closed) | 21 Years (Closed) | 22 Years (Closed) | $N A^{2}$ | $N A^{2}$ |
| 2010 ERI | 4 Years (Closed) | 5 Years (Closed) | NA | $N A^{2}$ | $N A^{2}$ |
| 2011 Actuarial Loss | 14 Years (Closed) | 15 Years (Closed) | NA | $N A^{2}$ | $N A^{2}$ |
| 2012 Actuarial Loss | 15 Years (Closed) | NA | NA | $N A^{2}$ | $N A^{2}$ |
| 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 ${ }^{3}$ | $7.0 \%$ per annum, net of Investment Expenses ${ }^{3}$ | $7.0 \%$ per annum, net of Investment Expenses ${ }^{3}$ | $8.0 \%$ per annum, gross of Investment Expenses ${ }^{3}$ | $8.0 \%$ per annum, gross of Investment Expenses ${ }^{3}$ |
| 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 ${ }^{3}$ | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year ${ }^{3}$ | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year ${ }^{3}$ | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year ${ }^{3}$ | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year |
| Cost-of-living adjustments ${ }^{2}$ | 1.5\% per annum for Tiers I, II, and IV, 2.5\% per annum for Tiers III and VI ${ }^{3}$ | 1.5\% per annum for Tiers I, II, and IV, 2.5\% per annum for Tier III ${ }^{3}$ | 1.5\% per annum for Tiers I, II, and IV, $2.5 \%$ per annum for Tier III ${ }^{3}$ | $1.3 \%$ per annum ${ }^{3}$ | $1.3 \%$ per annum ${ }^{3}$ |

(1)—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. (2)-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. (3)-Developed using a long-term Consumer Price Inflation assumption of $2.5 \%$ per year.
(4)-In the June 30, 2009 actuarial valuation the tables adopted by the Retirement Board d

## SCHEDULE 3: REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) QUALIFIED PENSION PLAN SCHEDULE OF INVESTMENT RETURNS <br> (In Thousands)

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:

| Fiscal Year Ended | Money-weighted Rate of Return |
| :---: | :---: |
| June 30, 2014 | $17.6 \%$ |
| June 30, 2013 | $11.7 \%$ |
| Note: In accordance with the Governmental Accounting Standards Board Statement Number 67 (GASB67), paragraph 50, such information was not readily |  |
| available for periods prior to 2013. |  |

# SCHEDULE 4: ADDITIONAL SUPPLEMENTARY INFORMATION SCHEDULE OF ADMINISTRATIVE EXPENSES <br> (Year Ended June 30, 2014) 

|  | Total | QPP | TDA | Expense Reserve**** |
| :---: | :---: | :---: | :---: | :---: |
| PERSONNEL SERVICES |  |  |  |  |
| 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 |
| TOTAL PERSONNEL SERVICES | 35,502,269 | 27,784,076 | 6,667,326 | 1,050,867 |
| PROFESSIONAL SERVICES |  |  |  |  |
| 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 |
| TOTAL PROFESSIONAL SERVICES | 14,127,114 | 8,091,144 | 5,778,037 | 257,933 |
| COMMUNICATION |  |  |  |  |
| 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 |
| TOTAL COMMUNICATION | 911,955 | 713,696 | 171,265 | 26,994 |
| RENTALS |  |  |  |  |
| Office Space | 7,239,086 | 5,665,308 | 1,359,500 | 214,277 |
| Equipment Leasing | 383,885 | 300,429 | 72,094 | 11,363 |
| TOTAL RENTALS | 7,622,971 | 5,965,737 | 1,431,594 | 225,640 |
| MISCELLANEOUS |  |  |  |  |
| 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 |
| TOTAL MISCELLANEOUS | 1,976,666 | 3,487,653 | 3,139,655 | $(4,650,642)$ |
| TOTAL ADMINISTRATIVE EXPENSES*** | \$60,140,974 | \$46,042,305 | \$17,187,876 | $(\$ 3,089,207)$ |

* 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.

SCHEDULE 5: ADDITIONAL SUPPLEMENTARY INFORMATION SCHEDULE OF INVESTMENT EXPENSES AND SERVICES (QPP\& TDA) (Year Ended June 30, 2014)

|  | Assets Under Management | Investment Expenses |
| :---: | :---: | :---: |
| INVESTMENT CATEGORY |  |  |
| Pension Fund | \$59,881,566,519 | \$153,947,732 |
| Diversified Equity and Int'I 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 |
| Other Investment Services |  |  |
| Consultant |  | 4,065,446 |
| Legal |  | 680,559 |
| Provision for Expense Reduction |  | $(4,778,225)$ |
|  | \$71,799,002,894* | \$169,736,554 |
| * Excludes \$5,739,574,822 in securities lending. |  |  |

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## REPORT ON INVESTMENT ACTIVITY

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 <br> 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.

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 oneyear 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.

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## 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 76-80 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/IVNVI 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.

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) ${ }^{1}$, | \$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)' | \$1,245 | \$2,594 | \$4,053 | \$5,632 | \$7,342 | \$9,173 | \$11,162 | \$13,317 | \$15,650 | \$18,175 |
| Diversified Equity Fund ${ }^{2}$ | \$1,330 | \$2,961 | \$4,831 | \$6,831 | \$9,138 | \$11,787 | \$13,578 | \$15,476 | \$17,633 | \$ 20,076 |
| Bond Fund ${ }^{3}$ | \$1,209 | \$2,422 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| International Equity Fund ${ }^{4}$ | \$1,303 | \$ 2,840 | \$4,512 | \$6,150 | \$7,968 | \$ 10,214 | N/A | N/A | N/A | N/A |
| Inflation Protection Fund ${ }^{5}$ | \$1,283 | \$2,598 | \$4,048 | \$5,570 | \$7,306 | \$9,317 | N/A | N/A | N/A | N/A |
| Socially Responsive Equity Fund ${ }^{6}$ | \$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.


# DIVERSIFIED EQUITY FUND <br> <br> Fund Summary 

 <br> <br> Fund Summary}

Fiscal Year 2014

## Return: 23.56\% <br> 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,
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\%.


[^6]
## BOND FUND <br> 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 <br> 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 <br> 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 separate account 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.

## ANNUALIZED INVESTMENT RESULTS ${ }^{9}$

## As of June 30, 2014

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



## 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 Socially Responsive Equity Fund


## INVESTMENT SUMMARY (QPP \& TDA)

As of June 30, 2014

| Type of Investment | Market Value <br> In Thousands | Percent of Total <br> Market Value |
| :--- | :---: | :---: |
| Fixed Income: | $\$ 4,829,426$ | $6.73 \%$ |
| Government Bonds | $8,134,460$ | 11.33 |
| Corporate Bonds | $1,599,809$ | 2.23 |
| TIPS | 351,908 | 0.49 |
| Mortgages | $1,416,271$ | 1.97 |
| Misc. Fixed Income | $\$ 16,331,874$ | $22.75 \%$ |
| Total Fixed Income |  |  |
| Common Stock: | $\$ 7,176,596$ | $10.00 \%$ |
| Financial \& Utility | $9,368,293$ | 13.05 |
| Basic Industry | $11,152,348$ | 15.53 |
| Consumer \& Service | $4,294,334$ | 5.98 |
| Technological | $3,776,834$ | 5.26 |
| Other | $\$ 35,768,405$ | $49.82 \%$ |
| Total Common Stock | $\$ 11,599,968$ | $16.15 \%$ |
| International Investments | $\$ 5,353,828$ | $7.46 \%$ |
| Alternative/Private-Equity Investments | $\$ 2,744,926$ | $3.82 \%$ |
| Short-Term Investments |  | $100.00 \%$ |
| Total Investments | $\$ 71,799,001^{*}$ |  |

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


## TOTAL INVESTMENTS ASSETS ALLOCATION*

As of June 30, 2014
In Thousands




| SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP \& TDA) <br> YEAR ENDED JUNE 30, 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| INVESTMENT MANAGERS |  | QPP | TOTAL |
| Fixed Income |  |  |  |
| 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 |
| Domestic Equity |  |  |  |
| 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 |
| International Fund |  |  |  |
| Acadian | Investment Manager | 1,007,714 | 1,007,714 |
| Ballie Gifford EM EQ | Investment Manager | 724,831 | 724,831 |
| Causeway | Investment Manager | 2,790,659 | 2,790,659 |
| Continued on page 89 |  |  |  |


| SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP \& TDA) YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| INVESTMENT MANAGERS |  | QPP | TOTAL |
| 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 |
| TIPS MTA Fund |  |  |  |
| 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 |
| Alternative Investment |  |  |  |
| 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 |
|  |  |  | d on page 90 |


| 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 Suisee Emergind Mgn Co | Investment Manager | 599,479 | 599,479 |
| Credit Suisee 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 |
|  |  |  | on page 91 |


| SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP \& TDA) <br> YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| INVESTMENT MANAGERS |  | QPP | total |
| Palladium Equity Parters III | Investment Manager | \$167,411 | \$167,411 |
| PCGAM Clean Energy \& Tech Fund | Investment Manager | 105,526 | 105,526 |
| Pegasus Parners | Investment Manager | 484,694 | 484,694 |
| Perseus Parters VIII | Investment Manager | 145,406 | 145,406 |
| Pine Brook Cap Parners | 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 Brookield St RE Parters | 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 Carlye 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 NYCRS 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 Stockridge 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 Parters 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 Parters | 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 Capita, L.L.C. | Investment Manager | 126,892 | 126,892 |
| Starvest Prthrs 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 |
| Torchight 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 Parners III | Investment Manager | 1,331,369 | 1,331,369 |
| VSS Communication Parters IV | Investment Manager | 20,461 | 20,461 |
| Warburg Pincus Pe | Investment Manager | 2,271,695 | 2,271,695 |
|  |  |  | Continued on page 92 |


| SUMMARY OF INVESTMENT MANAGERS AND FEES (QPP \& TDA) YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| INVESTMENT MANAGERS |  | QPP |  | TOTAL |
| Wel Crsn Andrsn \& Sto | Investment Manager | \$42,271 |  | \$42,271 |
| 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 |
| Diversified Equity Fund and International Equity Fund |  |  | TDA |  |
| 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 lidx | Investment Manager | 91,843 | 161,885 | 253,728 |
| Sprucegrove Invt Magt Ltd | Investment Manager | 264,833 | 466,806 | 731,640 |
| Wellington Magt Co, Llp lep | Investment Manager | 330,380 | 582,341 | 912,720 |
| Thornburg Invt Magt lep | 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 |
| JP Morgan Chase | Custodial Bank | 89,650 | 158,022 | 247,672 |
| Bond Fund |  |  |  |  |
| Standish Mellon Asset Mgmt. | Funding Advisor | 67,465 | 418,293 | 485,759 |
| JP Morgan Chase | Custodial Bank | 1,068 | 6,619 | 7,686 |
| Inflation Protection Fund |  |  |  |  |
| PIMCO | Mutual Fund |  |  |  |
| JP Morgan Chase | Custodial Bank | 40 | 187 | 228 |
| Socially Responsive Equity Fund |  |  |  |  |
| Neuberger Berman SRF | Mutual Fund |  |  |  |
| JP Morgan Chase | Custodial Bank | 29 | 199 | 228 |
| Total Investment Expenses* |  | \$164,310,341 | \$10,204,437 | \$174,514,778 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) <br> FISCAL YEAR ENDED JUNE 30, 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | COMMISSION PAID |
| 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 Convergex Exec Solution | 91,532 | 0.04 | 3,860 |
| Bny Convergex 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 |
|  |  |  | nued on page 94 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{aligned} & \text { COMMISSION } \\ & \text { PAID } \end{aligned}$ |
| 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 |
|  |  |  | nued on page 95 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{gathered} \text { COMMISSION } \\ \text { PAID } \end{gathered}$ |
| 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 \& ${ }^{\text {co. }}$ | 8,827 | 0.02 | 177 |
| Cuttone \& $\mathrm{Co}^{\text {a }}$ 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 |
|  |  |  | nued on page 96 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{aligned} & \text { COMMISSION } \\ & \text { PAID } \end{aligned}$ |
| 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 Int 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 PIc (All U.K. Offices) | 41,500 | 0.01 | 614 |
| HSBC Bank Plc (Jc Hib Setlement) | 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 |
|  |  |  | nued on page 97 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{aligned} & \text { COMMISSION } \\ & \text { PAID } \end{aligned}$ |
| HSBC Securities India Holdings | 146,600 | \$0.00 | \$513 |
| Icap Do Brasil Dtvm 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 NV | 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 |
|  |  |  | nued on page 98 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | COMMISSION PAID |
| 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 Paciific) 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 |
|  |  |  | nued on page 99 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{aligned} & \text { COMMISSION } \\ & \text { PAID } \end{aligned}$ |
| 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 Intt 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 PIC | 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 Int 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 |
| Continued on page 100 |  |  |  |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) <br> FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{aligned} & \text { COMMISSION } \\ & \text { PAID } \end{aligned}$ |
| Nomura Securities Int 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 |
|  |  |  | ued on page 101 |


| SCHEDULE OF PAYMENTS OF COMMISSIONS TO BROKERS (PENSION FUND) FISCAL YEAR ENDED JUNE 30, 2014 (Continued) |  |  |  |
| :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NO. OF SHARES TRADED | COMMISSION PER SHARE | $\begin{gathered} \text { COMMISSION } \\ \text { PAID } \end{gathered}$ |
| 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 Nicholaus \& 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 (Cls Thru 443) | 92,789 | 0.01 | 919 |
| Yamner \& Company, Inc. | 54,928 | 0.01 | 549 |

# 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 | $4.000 \%$ | TBA | $\$ 218,606,888$ |
| $173,459,000$ | Federal Nat Mtg Assn TBA 30YRS SFM | 3.500 | TBA | $188,555,225$ |
| $138,880,000$ | Federal Nat Mtg Ass TBA 30 YRS SFM | 4.500 | TBA | $100,402,874$ |
| $139,980,000$ | Govt Nat Mtg Assn II TBA JUMBOS 30YR | 3.500 | TBA | $145,008,767$ |
| $121,200,000$ | 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 | TBA | $109,603,706$ |
| $106,400,000$ | Federal Nat Mtg Assn TBA 30YR SFM | 3.500 | TBA | $109,193,000$ |
| $87,330,000$ | Federal Home Ln Mtg Corp Gold Convertible | 3.000 | TBA | $86,149,298$ |
| $72,370,000$ | Federal Home Ln Mtg Corp TBA 30YR Gold SFM | 4.500 | TBA | $78,324,604$ |
| $63,075,000$ | Federal Nat Mtg Assn TBA 30YR SFM | 5.000 | TBA | $70,042,895$ |
| $69,185,000$ | 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 | $2,839,116$ | $11,391,137$ |
| 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 | 655,245 | $65,19,407,632$ |
| Verizon Communications Inc | $1,330,710$ | $64,780,553$ |
| JP Morgan Chase \& Co | $1,124,272$ | $61,419,365$ |
| At\&T Inc | $1,736,973$ | $59,735,897$ |
| International Business Machines Corp | 329,541 | $59,024,972$ |
| Pfizer Inc | $1,988,712$ | $56,430,535$ |
| Merck \& Co Inc | 975,463 | $54,437,328$ |
| Qualcomm Inc | 687,340 | $52,851,936$ |
| Pepsico Inc | 591,582 | $50,21,652$ |
| Bank Of America Corp | $3,266,991$ | $50,046,508$ |
| Comcast Corp | 932,312 | $49,681,975$ |
| Citigroup Inc | $1,054,819$ | $49,37,186$ |
| Biogen Idec Inc | 156,472 | $48,057,505$ |
| Coca-Cola Co | $1,134,502$ | $47,897,243$ |
| Unitedhealth Group Inc | 585,899 | $46,649,676$ |
| Walt Disney Co | 544,083 |  |

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.

## Actuarial Section

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Robert C. North, Jr.
CHIEF ACTUARY

December 12, 2014
Retirement Board
Teachers' Retirement System of the City of New York
55 Water Street
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 ("GASB67") and Statement No. 68 ("GASB68"), collectively "GASB 67/68".

GASB 67, Financial Reporting for Pension Plans, amends GASB Statement No. 25 ("GASB25") and is effective for financial statements for fiscal years beginning after June 15, 2013 (i.e., Fiscal Year 2014 for TRS).

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

The City decided to "early implement" and presented its Fiscal Year 2014 financial statements under the provisions of GASB68.

On October 16, 2014 the Actuary published the "First Annual GASB67/68 Report for the City of New York and the New York City Retirement Systems For Fiscal Year Ended June 30, 2014" (the "First GASB67/68 Report"). Appendix B of the First GASB67/68 Report contains information developed in accordance with GASB67 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.

## 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.

## 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 GASB67.

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 AssetsSolvency 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.

## 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,


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

## 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.
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).
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.
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.

## TABLE 1A <br> DEATHS AMONG SERVICE AND DISABILITY PENSIONERS

Percentage of Pensioners Dying within Next Year

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


|  | TABLE 1B <br> DEATHS AMONG BENEFICIARIES <br> Percentage of Beneficiaries Dying within Next Year |  |
| :---: | :---: | :---: |
|  | Males | Females |
| Age | $.0875 \%$ | $.0564 \%$ |
| 40 | .1364 | .0842 |
| 45 | .1815 | .1292 |
| 50 | .2923 | .2176 |
| 55 | .4875 | .3722 |
| 60 | .8897 | .5921 |
| 65 | 1.4650 | .9723 |
| 70 | 2.2299 | 1.4425 |
| 75 | 3.7991 | 2.5246 |
| 80 | 6.8955 | 5.0785 |
| 85 | 12.4543 | 8.9495 |
| 90 | 23.1217 | 16.5497 |
| 95 | 33.6045 | 23.1885 |
| 100 | 39.7886 | 29.3116 |
| 105 | 100.0000 | 100.0000 |


| TABLE 2 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WITHDRAWALS FROM ACTIVE SERVICE (DUE TO DEATH OR DISABILITY) <br> Percentage of Active Members Separating within Next Year |  |  |  |  |  |  |  |  |
| Accidental Disability |  |  | Ordinary Disability |  |  | Ordinary Death |  |  |
| Age | Males | Females | Age | Males | Females | Age | Males | Females |
| 20 | .00\% | .00\% | 20 | . $01 \%$ | . $01 \%$ | 20 | . $040 \%$ | .020\% |
| 25 | . 00 | . 00 | 25 | . 01 | . 01 | 25 | . 040 | . 020 |
| 30 | . 00 | . 00 | 30 | . 01 | . 01 | 30 | . 040 | . 020 |
| 35 | . 01 | . 01 | 35 | . 06 | . 05 | 35 | . 050 | . 025 |
| 40 | . 02 | . 01 | 40 | . 10 | . 10 | 40 | . 060 | . 030 |
| 45 | . 03 | . 02 | 45 | . 15 | . 15 | 45 | . 110 | . 055 |
| 50 | . 03 | . 03 | 50 | . 15 | . 20 | 50 | . 160 | . 080 |
| 55 | . 04 | . 04 | 55 | . 15 | . 20 | 55 | . 210 | . 105 |
| 60 | . 04 | . 04 | 60 | . 15 | . 20 | 60 | . 260 | . 130 |
| 65 | . 04 | . 04 | 65 | . 15 | . 20 | 65 | . 320 | . 160 |
| 70 | NA | NA | 70 | NA | NA | 70 | NA | NA |

TABLE 3
WITHDRAWALS FOR OTHER THAN DEATH OR DISABILITY OR RETIREMENT
Percentage of Active Members Withdrawing within Next Year

| Years of <br> Service | Probability of <br> Withdrawal |
| :---: | :---: |
| 0 | $9.00 \%$ |
| 5 | 4.00 |
| 10 | 2.00 |
| 15 | 1.25 |
| 20 | 1.00 |

## TABLE 4A <br> 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

| Males |  |  |  |  |
| :---: | :---: | ---: | :---: | :---: |
|  | With <br> Reduced <br> Benefits | With Unreduced <br> Benefits <br> Years of Service <br> Since First Elig. |  |  |
|  |  | $0-1$ | $\mathbf{1 - 2}$ | 2+ |
| 50 | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ | $0.00 \%$ |
| 55 | 2.00 | 20.00 | 0.00 | 0.00 |
| 60 | 4.00 | 20.00 | 15.00 | 15.00 |
| 65 | 0.00 | 30.00 | 20.00 | 20.00 |
| 70 | NA | 100.00 | 100.00 | 100.00 |


| Females |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Age | With Reduced Benefits | With Unreduced Benefits Years of Service Since First Elig |  |  |
|  |  | 0-1 | 1-2 | 2+ |
| 50 | 0.00\% | 0.00\% | 0.00\% | 0.00\% |
| 55 | 2.00 | 20.00 | 0.00 | 0.00 |
| 60 | 4.00 | 20.00 | 15.00 | 15.00 |
| 65 | 0.00 | 30.00 | 20.00 | 20.00 |
| 70 | 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.


## TABLE 4B <br> WITHDRAWALS FROM ACTIVE SERVICE <br> (AFTER ELIGIBILITY FOR SERVICE RETIREMENT) MEMBERS ELECTING AN OPTIONAL RETIREMENT PLAN* <br> Percentage of Eligible Active Members Retiring within Next Year

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

[^7]| TABLE 5 SALARY SCALE |  |
| :---: | :---: |
| Years of Service | Assumed Annual Percentage Increases Within Next Year* |
| 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.

ACTIVE MEMBER VALUATION DATA

| As of June 30 | Number | Annual Payroll | Annual Average Salary | Percentage Increase (Decrease) in Average Salary |
| :---: | :---: | :---: | :---: | :---: |
| 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 ${ }^{(1)}$ | 58,600 | $(1.5)^{21}$ |
| 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) ${ }^{(3)}$ | 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) ${ }^{(4)}$ | 112,481 | 8,050,090,750 | 71,568 | 0.4 |

[^8]|  | RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

(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.

## 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.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability(AAL) - Entry Age <br> (b) | Unfunded AAL $\begin{aligned} & \text { (UAAL) - } \\ & \frac{\text { Entry Age }}{(b-a)} \end{aligned}$ | Funded <br> Ratio <br> (a/b) | Covered Payroll (c) | UAAL as a Percentage of Covered $\xrightarrow{\text { Payroll }}$ ((b-a)/c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30, 2013 (Lag) ${ }^{1,2}$ | \$35,186,072 | \$60,956,922 | \$25,770,850 | 57.7\% | \$8,050,091 | 320.1\% |
| June 30, 2012 (Lag) ${ }^{1}$ | 33,871,180 | 58,783,399 | 24,912,219 | 57.6 | 8,013,395 | 310.9 |
| June 30, 2011 (Lag) ${ }^{1}$ | 33,601,537 | 57,702,731 | 24,101,194 | 58.2 | 7,888,204 | 305.5 |
| June 30, 2010 (Lag) ${ }^{1}$ | 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 |

[^9]

| Percentage of <br> Actuarial Values <br> Covered by Actuarial <br> Value of Assets |  |
| :--- | :---: |
| (A) (B) (C) <br> $100 \%$ $100 \%$ $100 \%$ <br> 100 100 100 <br> 100 100 100 <br> 100 100 96 <br> 100 100 79 <br> 100 100 50 <br> 100 100 50 <br> 100 100 32 <br> 100 100 15 <br> 100 100 10 <br> 100 100 1 <br> 100 100 1 <br> 100 91 0 <br> 100 89 0 <br> 100 86 0 |  |

AGGREGATE ACCRUED LIABILITIES ACt
Accumulated Current Active Members'
Retirants and
Beneficiaries
(B)
$\$ 15,748,859$
$\mathbf{1 7 , 4 4 6 , 5 2 0}$
17,254,058
18,189,124
$20,489,777$
$24,460,479$ 24,636,479 26,590,313 27,934,371 29,528,062 29,182,084 27,862,679 32,264,333 34,317,270 2012 (Lag) 3,122,720 35,575,735
${ }^{1}$ Amounts shown were revised in the Fiscal Year 2004 CAFR from amounts published earlier to include annuitization of Variable Funds. ${ }^{2}$ Revised in the Fiscal Year 2008 CAFR to reflect updated information. Also, see following "SOLVENCY TEST - NOTES."

## COMPARATIVE SUMMARY OF ACTUARIAL VALUES AND <br> 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

## Ongoing 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.
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 $A A V$ is that it is not the fair value of Assets in the marketplace and, therefore, does not show the volatility of the Assets.

## 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 ("GASB67") and GASB Statement Number 68 ("GASB68").
The EAAL is also a required disclosure in accordance with GASB Statement Number 43 ("GASB43") and GASB Statement Number 45 ("GASB45") for Other Post-Employment Benefits ("OPEB") whose UAAL are determined under the Aggregate ACM.
In accordance with GASB Statement Number 50 ("GASB50"), 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).
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) ${ }^{1}$ | Actuarial <br> Accrued <br> Liability <br> (AAL) ${ }^{2}$ | Entry Age Accrued Liability (EAAL) ${ }^{3}$ | Projected Benefit Obligation (PBO) ${ }^{3}$ | Accumulated Benefit Obligation (ABO) ${ }^{3}$ | Market Value Accumulated Benefit Obligation (MVABO) ${ }^{4}$ | MVABO Equiv. Discount Yield (Per Annum) | MVABO <br> 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) ${ }^{5}$ | 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) ${ }^{6}$ | 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) ${ }^{7}$ | 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.
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 |

## 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 GASB43 and GASB45.
The ratio of MVA/EAAL is a required disclosure for certain Public Pension Plans under GASB67 and GASB68.

The ratios of AAV/PBO present information that was previously required under GASB5 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.
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. ANNUAL REQUIRED CONTRIBUTIONS

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

[^10]
## 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.

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.

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.

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.

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.

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.

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 $\S 13-503$ 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.

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 $1,1989$.

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 $\S 13-521$ 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 $\S$ 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.

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.

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-IncreasedBenefits 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.

Benefits: $\quad\{1\} \quad$ For a member with fewer than 20 years of service, the benefit is $1 / 60$ 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 $1 / 50$ 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 $1 / 50$ times FAS for each of the first 30 years of service plus 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.

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.
* 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

| $\underline{\text { At Least }}$ | But Not <br> More Than | Lump Sum Benefit |
| :--- | :--- | :--- |
| 1 Year | 2 Years | One x Final Rate of Pay, But Not in Excess of: |
| 2 Years | 3 Years | Two x Final Rate of Pay, But Not in Excess of: |
| 3 Years | Or More | Three x Final Rate of Pay, But Not in Excess of: |

4/01/11-3/31/12
4/01/12-3/31/13
\$47,500
\$48,900
\$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:

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: $\quad\{1\}$ 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.

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: $\quad\{1\} \quad$ 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.

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.
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.
\{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.

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

## Board of Education Employees

| $07 / 01 / 60-06 / 30 / 61$ | $2.5 \%$ |
| :--- | :--- |
| $07 / 01 / 61-08 / 31 / 67$ | $5.0 \%$ |

09/01/67-08/31/68 8.0\%

## Board of Higher Education Employees

09/01/67-08/31/68
5.0\%

## Twenty-Year and Age-55-Increased-Benefits Pension Plan Members

09/01/68-06/30/70
8.0\%

07/01/70 - 12/31/75
5.0\%

01/01/76 and later
2.5\%

## Article 15 Members

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 Beginning January 1, 1968, members were given the option to participate in a variableEquity:

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 StableValue 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 Beginning July 1, 2008, members were given the option to participate in a third variable Equity: 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 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 Beginning July 1, 2008, members were given the option to participate in a fifth variable Responsive annuity program, designated the Socially Responsive Equity (Variable E) Fund. Equity: 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 <br> <br> ACKNOWLEDGEMENT OF QUALIFICATION 

 <br> <br> 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.


Robert C. North, Jr., FSA, FSPA, FCA, MAAA, EA
Acting Chief Actuary
Teachers' Retirement System
of the City of New York
December 12, 2014

## Statistical Section

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## Introduction to Statistical Section

This part of TRS' $97^{\text {th }}$ Annual 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 through 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 and administrative 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.

## SCHEDULE 1: NET POSITION AND CHANGES IN NET POSITION—QPP

| Year <br> Ended | Pension <br> Fund | Diversified <br> Equity | Bond <br> Fund* | International <br> Equity | Inflation <br> Protection | Socially <br> Responsive <br> Equity | Net <br> Assets | Changes in <br> Net Position |
| :---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
| 2005 | $\$ 24,305,041$ | $\$ 5,930,704$ | $\$ 256,425$ | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\$ 30,492,170$ | $\$ 1,516,766$ |
| 2006 | $26,025,602$ | $5,958,485$ | 222,630 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $32,206,717$ | $1,714,547$ |
| 2007 | $30,513,823$ | $6,431,897$ | 197,071 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $37,142,791$ | $4,936,074$ |
| 2008 | $27,054,108$ | $5,072,017$ | 171,739 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $32,297,864$ | $(4,844,927)$ |
| 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 <br> In Thousands

|  | Pension <br> Fund | Diversified <br> Equity | Bond <br> Fund | International <br> Equity | Inflation <br> Protection | Socially <br> Responsive <br> Equity | Net <br> Position |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 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* | $(196,429)$ | $(11,570)$ | $(187)$ | $(42)$ | $(10)$ | $(12)$ | $(208,250)$ |
| 2014 Net changes | $\$ 7,545,787$ | $\$ 100,121$ | $(\$ 15,212)$ | $\$ 762$ | $(\$ 220)$ | $\$ 2,245$ | $\$ 7,633,483$ |
| 2014 Net Position | $\$ 41,199,953$ | $\$ 3,210,248$ | $\$ 48,507$ | $\$ 17,082$ | $\$ 5,662$ | $\$ 8,487$ | $\$ 44,489,939$ |
| *Includes Administrative and Investment Expenses. |  |  |  |  |  |  |  |


| SCHEDULE 3: CHANGES IN NET POSITION—QPP <br> In Thousands |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| $\begin{aligned} & \text { Year Ended } \\ & \text { June } 30^{\star} \\ & \hline \end{aligned}$ | Net Member Contributions | $\begin{gathered} \text { Employer } \\ \text { Contributions } \\ \hline \end{gathered}$ | Investment Income | $\begin{aligned} & \text { Transfer from/to } \\ & \text { Other Systems } \\ & \hline \end{aligned}$ | TDA Fixed Interest Payments | Total Retirement Benefits | Loans Closed at Retirement | Withdrawals | $\begin{gathered} \text { Other } \\ \text { Benefits** } \end{gathered}$ | $\begin{gathered} \text { Administrative } \\ \text { Expenses } \\ \hline \end{gathered}$ | 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 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Year Ended } \\ & \text { June } 30^{*} \end{aligned}$ | 6a Service Retirement Allowances | $\begin{gathered} \text { 6b } \\ \text { Ordinary Disability } \\ \text { Retirement Allowances } \end{gathered}$ | $6 c$ <br> Accident Disability Retirement Allowances | 6d Survivors' 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 | $(3,046,583)$ | $(43,348)$ | $(2,596)$ | $(113,413)$ | $(3,228,940)$ |
| 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 of 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.

| SCHEDULE 4: PARTICIPATING EMPLOYERS—QPP <br> As of June 30, 2012 (Lag) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Employer |  |  | Number of In-Service Members* | Annual <br> Payroll* |
| NYC Department of Education |  |  | 106,691 | \$7,720,523,160 |
| City University of New York |  |  |  |  |
| Senior Colleges \& Community C |  |  | 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 | ר 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 |
| TOTAL |  |  | 112,460 | \$8,013,395,184 |
| * The number of in service employees and their corresponding Annual Payroll include only current active members receiving salary as of each June $30^{\text {th }}$. <br> ** 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. |  |  |  |  |

## SCHEDULE 5: ACTIVE MEMBERSHIP SUMMARY—QPP

|  | As of July 1 | Contributors <br> Registered | Payroll <br> Updates | Contributors <br> Withdrawn | As of June 30th |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |
| 2014 | 112,481 | 7,915 | $(4,032)$ | $(4,638)$ | 111,726 |

*Revised in FY 2010.
Active membership summary based on latest active valuation reports.
SCHEDULE 6: TABLE OF AVERAGE SALARIES OF IN-SERVICE MEMBERS—QPP As of June 30, 2014

| Age | MEN Number of In-Service Members* | Average Salaries* | Age | WOMEN Number of In-Service Members* | Average Salaries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 24 \& under | 489 | \$45,127 | 24 \& under | 1,819 | \$48,378 |
| 25-29 | 2,534 | 57,676 | 25-29 | 9,343 | 59,187 |
| 30-34 | 3,802 | 70,801 | 30-34 | 12,648 | 70,628 |
| 35-39 | 3,773 | 79,000 | 35-39 | 11,604 | 74,969 |
| 40-44 | 3,485 | 83,163 | 40-44 | 11,051 | 76,600 |
| 45-49 | 3,159 | 85,635 | 45-49 | 10,270 | 75,284 |
| 50-54 | 3,069 | 87,998 | 50-54 | 10,730 | 76,767 |
| 55-59 | 2,602 | 87,252 | 55-59 | 9,435 | 75,768 |
| 60-64 | 1,753 | 85,002 | 60-64 | 6,423 | 76,871 |
| 65-69 | 724 | 79,530 | 65-69 | 2,083 | 73,837 |
| 70 \& over | 312 | 77,666 | 70 \& over | 618 | 66,435 |
| TOTAL | 25,702 | \$78,738 | TOTAL | 86,024 | \$72,665 |
| TOTAL ANNU | AL SALARIES | \$2,023,730 include only then | TOTAL AN | NUAL SALARIES 30th payroll. | \$6,250,955 |

IN-SERVICE MEMBERS ON PAYROLL-DISTRIBUTION BY AGE As of June 30, 2014



## SCHEDULE 8: RETIREE SUMMARY-QPP

|  | As of July 1 | Retirees <br> Registered | Retiress <br> Withdrawn | As of June 30th |
| :---: | :---: | :---: | :---: | :---: |
| 2005 | 62,728 | 4,423 | $(1,983)$ | 65,168 |
| 2006 | 6,168 | 4,209 | $(1,001)$ | 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 |
| 2014 | 78,177 | 4,356 | $(2,114)$ | 80,419 |

Retiree membership summary based on latest retirement valuation reports.

## SCHEDULE 9: AVERAGE YEARS OF SERVICE OF NEW RETIREES-QPP

Average Years of Service

| Year Ended <br> June 30 | Men | Women | Men and <br> Women | Total Number <br> of Retirees |
| :---: | :---: | :---: | :---: | :---: |
| 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 |
| 2014 | 24.2 | 24.7 | 24.6 | 3,911 |

## 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 <br> Payments | Continuing Payments | Lump-Sum Payment | Guaranteed Number of Payments | Maximum Payout | Pop-UP <br> 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


|  | 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 |



[^11]Note: If elected, total monthly benefits for Tier I and Tier II members depend on current unit value.

SCHEDULE 12: AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS——PP

| Year Ended June 30 | SERVICE <br> RETIREMENT BENEFITS |  | ORDINARY (NON-DUTY) DISABILITY BENEFITS |  | ACCIDENTAL (DUTY) DISABILITY BENEFITS |  | SURVIVORS' BENEFITS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Average <br> Annual <br> Allowance | Number | Average <br> Annual <br> Allowance | Number | Average <br> Annual <br> Allowance | Number | Average Annual Benefit |
| 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 |
| 2014 | 73,069 | 48,325 | 2,379 | 21,641 | 714 | 40,738 | 4,257 | 31,619 |

SCHEDULE 13: SERVICE RETIREMENT ALLOWANCES-QPP
As of June 30, 2014

| MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | 0 | under 30 | 0 | 0 |
| 30-34 | 0 | 0 | 30-34 | 0 | 0 |
| 35-39 | 0 | 0 | 35-39 | 0 | 0 |
| 40-44 | 0 | 0 | 40-44 | 0 | 0 |
| 45-49 | 0 | 0 | 45-49 | 0 | 0 |
| 50-54 | 0 | 0 | 50-54 | 0 | 0 |
| 55-59 | 700 | \$49,777 | 55-59 | 2,236 | \$48,596 |
| 60-64 | 2,337 | 54,904 | 60-64 | 7,469 | 51,275 |
| 65-69 | 6,736 | 62,837 | 65-69 | 13,095 | 51,932 |
| 70-74 | 4,535 | 57,471 | 70-74 | 10,136 | 44,760 |
| 75-79 | 3,003 | 53,944 | 75-79 | 6,694 | 38,771 |
| 80-84 | 2,224 | 53,106 | 80-84 | 5,185 | 36,803 |
| 85-89 | 1,478 | 48,379 | 85-89 | 3,827 | 35,723 |
| 90 \& over | 736 | 46,399 | 90 \& over | 2,678 | 32,048 |
| TOTAL | 21,749 | \$56,683 | TOTAL | 51,320 | \$44,783 |
| TOTAL ANN | LOWANCES | AID \$1,232,807,271 | TOTAL ANN | LLOWANCES | AID \$2,298,263,302 |


| SCHEDULE 14: ORDINARY DISABILITY RETIREMENT ALLOWANCES-QPP <br> As of June 30, 2014 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MEN |  |  | WOMEN |  |  |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | - | under 30 | 0 | - |
| 30-34 | 0 | - | 30-34 | 0 | - |
| 35-39 | 2 | \$31,477 | 35-39 | 8 | \$20,954 |
| 40-44 | 8 | 24,631 | 40-44 | 29 | 22,516 |
| 45-49 | 12 | 20,642 | 45-49 | 66 | 23,431 |
| 50-54 | 47 | 27,424 | 50-54 | 154 | 24,007 |
| 55-59 | 74 | 24,781 | 55-59 | 299 | 22,511 |
| 60-64 | 113 | 23,185 | 60-64 | 392 | 21,977 |
| 65-69 | 135 | 25,118 | 65-69 | 382 | 21,076 |
| 70-74 | 82 | 23,835 | 70-74 | 219 | 17,455 |
| 75-79 | 36 | 21,021 | 75-79 | 114 | 16,437 |
| 80-84 | 13 | 24,098 | 80-84 | 68 | 15,023 |
| 85-89 | 12 | 21,125 | 85-89 | 41 | 17,179 |
| 90 \& over | 9 | 31,853 | 90 \& over | 64 | 21,792 |
| TOTAL | 543 | \$24,320 | TOTAL | 1,836 | \$20,849 |
| TOTAL ANN | BENEFITS PAID | \$13,205,962 | TOTAL ANN | BENEFITS PAID | \$38,277,870 |

## SCHEDULE 15: ACCIDENT DISABILITY RETIREMENT ALLOWANCES—QPP As of June 30, 2014

| MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| Under 30 | 0 | - | under 30 | 1 | \$38,810 |
| 30-34 | 0 | - | 30-34 | 0 | 0 |
| 35-39 | 2 | \$51,517 | 35-39 | 7 | 41,744 |
| 40-44 | 4 | 46,543 | 40-44 | 11 | 44,138 |
| 45-49 | 3 | 47,445 | 45-49 | 11 | 37,689 |
| 50-54 | 7 | 33,101 | 50-54 | 34 | 39,909 |
| 55-59 | 14 | 51,521 | 55-59 | 63 | 37,134 |
| 60-64 | 28 | 48,673 | 60-64 | 104 | 40,165 |
| 65-69 | 71 | 44,237 | 65-69 | 113 | 38,842 |
| 70-74 | 38 | 48,432 | 70-74 | 64 | 42,151 |
| 75-79 | 20 | 43,368 | 75-79 | 41 | 31,107 |
| 80-84 | 11 | 39,077 | 80-84 | 31 | 35,251 |
| 85-89 | 7 | 42,849 | 85-89 | 10 | 43,079 |
| 90 \& over | 4 | 40,899 | 90 \& over | 15 | 40,487 |
| TOTAL | 209 | \$45,404 | TOTAL | 505 | \$38,807 |
| TOTAL ANNU | OWANCES PAID | \$9,489,360 | TOTAL ANNU | OWANCES PAID | \$19,597,687 |


| SCHEDULE 16: SURVIVORS' BENEFITS—QPP <br> As of June 30, 2014 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MEN |  |  | WOMEN |  |  |
| Age | Number of Beneficiaries | Average Annual Benefit | Age | Number of Beneficiaries | Average Annual Benefit |
| under 30 | 7 | \$17,109 | under 30 | 5 | \$26,592 |
| 30-34 | 3 | 28,092 | 30-34 | 9 | 24,366 |
| 35-39 | 8 | 27,072 | 35-39 | 14 | 18,642 |
| 40-44 | 11 | 21,173 | 40-44 | 12 | 25,587 |
| 45-49 | 18 | 10,481 | 45-49 | 29 | 15,534 |
| 50-54 | 23 | 13,387 | 50-54 | 61 | 19,834 |
| 55-59 | 31 | 19,678 | 55-59 | 78 | 23,789 |
| 60-64 | 65 | 20,429 | 60-64 | 179 | 37,679 |
| 65-69 | 127 | 31,512 | 65-69 | 284 | 38,811 |
| 70-74 | 164 | 31,215 | 70-74 | 401 | 37,873 |
| 75-79 | 136 | 25,763 | 75-79 | 400 | 38,021 |
| 80-84 | 165 | 27,163 | 80-84 | 518 | 35,263 |
| 85-89 | 201 | 26,441 | 85-89 | 507 | 32,414 |
| 90 \& over | 237 | 26,998 | 90 \& over | 504 | 27,295 |
| TOTAL | 1,196 | \$26,679 | TOTAL | 3,061 | \$33,549 |
| TOTAL ANNU | BENEFITS PAID | \$31,908,114 | TOTAL ANNU | BENEFITS PAID | \$102,692,271 |

## SCHEDULE 17: NUMBER AND COST OF INVESTMENT AND

 ADMINISTRATIVE SERVICES (QPP \& TDA)| Year Ended | Investment Agent <br> Count | Investment <br> Expenses | **TRS Employees <br> Count | Administrative <br> Expenses |
| :---: | :---: | :---: | :---: | :---: |
| 2005 | 101 | $\$ 73,436,967$ | 333 | $\$ 42,057,063$ |
| 2006 | 114 | $\$ 80,370,285$ | 364 | $\$ 42,827,260$ |
| 2007 | 144 | $\$ 96,956,626$ | 367 | $\$ 48,420,380$ |
| 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.


## SCHEDULE 18: NET POSITION AND CHANGES IN NET POSITION-TDA PROGRAM <br> In Thousands

| Year <br> Ended | Pension Fund | Diversified Equity | Bond* Fund | International Equity | Inflation Protection | Socially Responsive Equity | Net Assets | Changes in Net Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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

|  | 1 | 2 | 3 | 6 | 7 | 4 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Year } \\ \text { Ended } \\ \text { June } 30 \\ \hline \end{gathered}$ | Net <br> Member Contributions | Fixed Interest from Pooled Pension Fund | Net Investment Income | Withdrawals | Other Benefits* | Annuitized Payments | Administrative Expenses | Change in Net Position |
| 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.


## SCHEDULE 20: 2014 CHANGES IN NET POSITION—TDA PROGRAM

In Thousands

|  | Pension Fund | Diversified Equity | Bond Fund | International Equity | Inflation Protection | Socially Responsive Equity | Net Position |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 ProfitLoss | - | 487,852 | $(1,274)$ | 3,219 | 45 | 20,778 | 510,620 |
| Unrealized ProfitLoss | - | 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) | $(24,716)$ |
| 2014 Net changes | \$1,429,703 | \$1,146,845 | \$113 | \$24,407 | \$9,487 | \$33,258 | \$2,643,813 |
| 2014 Net Position | \$17,450,769 | \$7,909,321 | \$304,788 | \$96,028 | \$37,488 | \$75,095 | \$25,873,489 |

## SCHEDULE 21: TDA PROGRAM SUMMARY (EXCLUDES ANNUITANTS)

|  | As of July 1 | Contributors <br> Registered | Payroll <br> Updates | Contributors <br> Withdrawn | As of June 30th |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |
| 2014 | 77,773 | 1,435 | 2,066 | $(3,569)$ | 77,705 |

Active membership summary based on latest active valuation reports.

| SCHEDULE 22: TDA PROGRAM ANNUITANTS SUMMARY |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | As of July 1 | Annuitants Registered | Annuitants Withdrawn | Administrative As of June 30th |
| 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 |
| 2014 | 3,055 | 195 | (214) | 3,036 |

Annuitant membership summary based on latest retirement valuation reports.


| SCHEDULE 24: WITHDRAWALS BY AGE (FROM ACTIVE, DEFERRAL \& BENEFICIARY ACCOUNTS, FISCAL YEAR 2014)-TDA PROGRAM |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Par | Withdrawals* | 401(a) S | vice Purchase | RMD | ithdrawals** |  | ithdrawals ${ }^{* * *}$ | Surv | Payments **** |
| Age | 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

[^12]
## 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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[^0]:    *This category primarily consists of positions such as secretaries, guidance counselors, and social workers.

[^1]:    (See accompanying "Notes to Combined Financial Statements.")

[^2]:    (See accompanying "Notes to Combined Financial Statements.")

[^3]:    (See accompanying "Notes to Combined Financial Statements.")

[^4]:    (See accompanying "Notes to Combined Financial Statements.")

[^5]:    * 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.

[^6]:    *After expenses

[^7]:    *Applies to members who voluntarily elected to participate in the 55/25 plan enacted under Chapter 19 of the Laws of 2008.

[^8]:    (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.

[^9]:    Note: This schedule is based on actuarial assumptions used for determining Employer Contributions.
    ${ }^{1}$ Reflects revised actuarial assumptions and methods based on experience review, including an AIR assumption of 7.0\% per annum, net of investment expenses.
    ${ }^{2}$ Preliminary.

[^10]:    (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.

[^11]:    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 senvice are Accidental Disability.
    **** Retiree figures for 2014 include Service or FAS retirement revision cases previously categorized as "Other."

[^12]:    *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.

