



# Board of Education Retirement System of the City of New York

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

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## **Comprehensive Annual Financial Report** of the Qualified Pension Plan

For the Fiscal Years Ended June 30, 2013 and June 30, 2012





# **Board of Education Retirement System of the City of New York**

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

## **Comprehensive Annual Financial Report of the Qualified Pension Plan**

For the Fiscal Years Ended  
June 30, 2013 and June 30, 2012

**State of New York**

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# Comprehensive Annual Financial Report

## Table of Contents

	PAGE
<b>I. INTRODUCTORY SECTION</b>	
• Letter of Transmittal	3
• Board of Trustees	9
• Organizational Chart	10
• Consulting and Professional Services	11
• Certificate of Achievement for Excellence in Financial Reporting	12
<b>II. FINANCIAL SECTION</b>	
• <b>INDEPENDENT AUDITORS' REPORT</b>	14
• <b>MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)</b>	16
• <b>BASIC FINANCIAL STATEMENTS</b>	
• Statement of Plan Net Position	21
• Statement of Changes in Plan Net Position	22
• Notes to The Financial Statements	23
• <b>REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)</b>	
• Schedule 1 – Funding Progress	44
• Schedule 2 – Employer Contributions	45
• Schedule 3 – Actuarial Methods and Assumptions	46
• <b>ADDITIONAL SUPPLEMENTARY INFORMATION</b>	
• Schedule of Management Expenses	47
• Schedule of Payments to Consultants	49
• Schedule of Administrative Expenses	50
<b>III. INVESTMENT SECTION</b>	
• Report on Investment Activity	53
• Assets Allocation	56
• Investment Summary	58
• Schedule of Investment Return	59
• Largest Equity Holdings Fixed	60
• Largest Bond Holdings Fixed	61
• Largest International Equity Holdings Fixed	62
• Largest Europe Australasia Far East (“EAFE”) Holdings Fixed	63
• Largest Emerging Market (“EM”) Investment Holdings Fixed	64
• Largest Economically Targeted Investment Holdings Fixed	65
• Largest Treasury Inflation Protected Securities (“TIPS”) Holdings Fixed	66
• Largest Domestic Equity Holdings “Variable A” Program	67
• Schedule of Payments of Commissions	68
<b>IV. ACTUARIAL SECTION</b>	
• Actuary’s Certification Letter	76
• Summary of Actuarial Assumptions and Methods	80
• Schedule of Active Member Valuation Data	88
• Funded Status based on Entry Age Actuarial Cost Method	89
• Comparative Summary of Actuarial Values and Percentages covered by Actuarial Value of Assets (Solvency Test)	90
• Additional Discussion of Plan Funding	92
• Schedule of Retirants and Beneficiaries	98
• Schedule of Statutory vs. Annual Required Contributions	99
• Summary of Plan Provisions	100
• Acknowledgement of Qualification	117
<b>V. STATISTICAL SECTION</b>	
• Introduction	121
• Schedule of Revenues By Source	122
• Schedule of Expenses By Type	124
• Schedule of Refunds By Type	126
• Schedule of Changes In Net Position	128
• Schedule of Benefit Expenses By Type	130
• Schedule of Retired Members by Type of Benefits	131
• Schedule of Summary of Actives by Age and Service	134
• Schedule of Annual Average Benefit Payments Amount	137
• Schedule of Participating Employers	138





# **Board of Education Retirement System of the City of New York**

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

## **Comprehensive Annual Financial Report of the Qualified Pension Plan**

For the Fiscal Years Ended  
June 30, 2013 and June 30, 2012

### **Introductory Section**

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CHRISTINE BAILEY  
EXECUTIVE DIRECTOR

**BOARD OF EDUCATION RETIREMENT SYSTEM  
OF THE CITY OF NEW YORK  
65 COURT STREET, 16<sup>th</sup> FLOOR  
BROOKLYN, NEW YORK 11201- 4965**

718-935-5400  
OUTSIDE NEW YORK STATE  
1-800-843-5575

December 27, 2013

Board of Trustees  
Board of Education Retirement System  
City of New York  
65 Court Street, 16<sup>th</sup> Floor  
Brooklyn, NY 11201

Ladies and Gentlemen:

I am pleased to present the Comprehensive Annual Financial Report (CAFR) of the New York City Board of Education Retirement System (BERS) for the fiscal years ended June 30, 2013 and June 30, 2012. The responsibility of the accuracy of the data, and the completeness and fairness of the presentation, including all disclosures, rests with BERS. All disclosures necessary to enable the reader to gain an understanding of the system's financial activities have been included.

**MAJOR INITIATIVES - July 1, 2012 through June 30, 2013**

Chapter 372 of the Laws of 2012: Information Privacy – This act tracks the Federal Privacy Act of 1974 with respect to the obligation of a person to disclose their Social Security Number to another person, partnership, association, or corporation; provides where there is no legal basis that a person may refuse to provide his or her Social Security Number; provides for enforcement by the Attorney General.

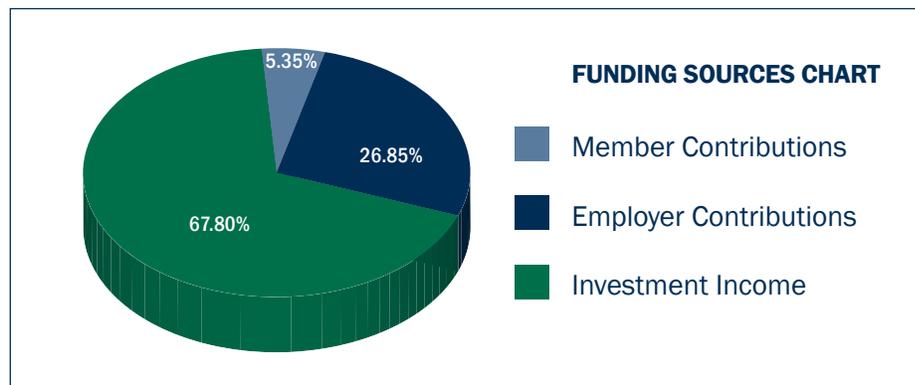
Chapter 3 of the Laws of 2013: Interest Rates and Funding – This act amends the Administrative Code of the City of New York to reduce the 8 percent per annum Actuarial Interest Rate assumption used to compute employer contributions to 7 percent; extends through Fiscal Year 2016 the 8.25 percent per annum rate used to credit interest on Tier I and Tier II member account balances and Increased-Take-Home-Pay Reserves; amends the State Education Law to require that employers promptly submit all unfunded accrued liability installments and any other payments to the contingent reserve fund required by applicable law, and to require that interest be assessed for late payments; revises certain actuarial methodologies for estimating pension-related liabilities.

**FUNDING**

An adequate funding level provides assurance and security for payment of future benefits. In fiscal year 2013, BERS sought to maintain a level of funding within the established guidelines of the Government Accounting Standards Board (GASB). The funds needed to finance retirement benefits are accumulated through employer and member contributions and through income from investments.

The chart below summarizes the contribution funding sources for fiscal year 2013.

Funding Sources (In thousands)		
Funds	Percentage	Contribution
Member Contributions	5.35%	\$39,056
Employer Contributions	26.85%	\$196,246
Investment Income	67.80%	\$495,361
<b>Total</b>	<b>100.00%</b>	<b>\$730,663</b>



BERS funding ratio is based on a two year lag (2011 for 2013; 2010 for 2012). One measure of the funded status of the Plan as of June 30, 2011, the most recent actuarial valuation date based on the Entry Age Actuarial Cost Method, the plan's funding method is as follows (dollar amounts in thousands):

Actuarial Value of Assets (a)	Actuarial Liability ("AAL") (b)	Unfunded AAL ("UAAL") (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
\$ 2,323,629	\$ 3,681,694	\$ 1,358,065	63.1 %	\$ 920,369	147.6 %

Funding is discussed in detail in the Notes to the Financial Statements and in the Actuarial Section of this report.

**Fund Summary**

The Board of Education Retirement System's total fund increased in value for the fiscal year ending June 2013 with a return of 12.9%, compared to 13.7% for the Board of Education Policy Benchmark, against which it is measured. The market value of the Fund easily cleared last year's \$3.0 billion mark and ended the fiscal year at \$3.5 billion. Performance was strong, and was well above long-term expectations. Longer-term returns remain favorable, and the

Fund leads both its policy benchmark and median public fund peer over the trailing five and ten year time periods. The Funds' five year average annual return is 5.7%, 7 basis point ahead of the benchmark index, while the fund's ten- year average return is 7.7% versus 7.6%.

## **INVESTMENTS**

### **Investment Policy**

BERS' investment policy statement, ratified by the Board of Trustees in January 2009 and amended in October 2011 and in January 2013, addresses investment objectives, investment philosophy and strategy, monitoring and evaluating performance, risk management, security lending protocol and rebalancing investment mix. The investment policy is available upon request.

### **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 International Investment Funds (the "IIF") and Alternative Investment Funds (the "ALTINVF"). The IIF are private funds of publicly traded securities which are managed by various investment managers on behalf of the Plan. Fair value is determined by Plan 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 plan management based on information provided by the various GPs after review by an independent consultant and the custodian bank for the fund.

No investment in any one security represents 5% or more of Plan's net position held in trust for benefits.

The Plan's investments are composed of the assets of two investment programs. These are the fixed income program and the variable investment program (which consists primarily of equity securities). Assets of the fixed income program of the Plan are co-invested with certain assets of the TDA Program, which is funded by voluntary member contributions. Assets of the variable investment program of the Plan are co-invested with certain assets of the TDA Program and Teacher Retirement System (TRS). These financial statements reflect the Plan's proportionate share of the assets and investment activity of each of these programs.

### **Fund Description**

The pension fund is a long-term investment fund structured to provide assets for the payouts needed for the benefits of the participants. The Trustees establish a target asset mix after considering the long-term growth prospects for the diversified group of investments and the cost of the plan participants' benefits. This asset allocation does not change significantly from year to year, and the fund is rebalanced to the target mix as it pays out benefits and receives contributions. The goal of the broad diversification of the fund is to have some portion of the investments in above average performing segments regardless of the overall market conditions. For more detailed information, please refer to our investment section.

## **ECONOMIC AND MARKET COMMENT**

The US economy continued to exhibit positive growth, supported by quantitative easing from the Federal Reserve, with guidance having been provided as to the economic conditions that would be conducive to the paring back of accommodative monetary policy. Gross Domestic Product grew 3.1% over the trailing fiscal year, compared to 2.1% for the fiscal year ended June 2012. Inflation remained constrained, and CPI grew by 1.8%. Commodity prices remained under pressure on signs of decelerating growth elsewhere in the world. The job market continued to strengthen with an average monthly increase in non-farm payrolls of 187,000 per month. While slower than the 200,000 monthly pace of FY 2012, it is still above levels deemed necessary to support population growth and prevent rising unemployment. The unemployment rate itself continued to exhibit marked improvement, and fell from 8.2% to 7.6%. These favorable indicators of economic health have had a proportionate effect on BERS investments.

The U.S. stock market, as measured by the Russell 3000 stock index, returned 21.5% for the fiscal year ending June 30, 2013. This was in contrast to the 3.8% return generated during the preceding fiscal year. Equity markets found support from improving economic data, supported by accommodative monetary policy, and a sense that the worst of the European sovereign debt crisis was over. A sharp rise in interest rates toward the end of the fiscal year stifled some of the gains. International stocks did similarly well, with the MSCI EAFE Index returning 18.6%, on the growing consensus that the troubled economies of Europe and Japan had bottomed. International returns lagged those of the US slightly as the prospect of higher US interest rates supported the US dollar, and weighed on foreign currencies. Fixed income returns were negative, however, with the Barclays Capital US Aggregate Index having lost -0.7% over the trailing year. This was the result of losses during the May-June period, where the index lost -3.3%. Interest rates rose during this time period as the yield on the 10-Year Treasury rose from about 1.9% to 2.5% on news that the Federal Reserve had begun to consider the “end-game” with respect to its quantitative easing policy. Treasuries lost -1.7% for the year, but high-yield gained 9.5%, supported by its sensitivity to equity-market gains.

## **OTHER INFORMATION**

### **Internal Control**

The Executive Director is responsible for establishing and maintaining an internal control structure designed to provide reasonable assurance that the assets of the system are safeguarded and to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The system’s internal control practices are designed to provide reasonable assurance that these objectives are met.

The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and that the valuation of costs and benefits requires estimates and judgments by management.

### **Accounting and Reporting**

The accrual basis of accounting is used to record assets, liabilities, revenues and expenses. Fixed income assets and equity investments are recorded at market value. This CAFR has been prepared in conformity with principles of governmental accounting and reporting, promulgated by the Governmental Accounting Standards Board (GASB), and according to guidelines adopted and published by the Government Finance Officers Association of the United States and Canada (GFOA). In June of 2012, GASB issued Statement No. 67, Financial Reporting for Pension Plans.

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 non-employer 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, non-employer 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. The provisions of Statement No. 67 are effective for financial statements for fiscal years beginning after June 15, 2013. The effects of these rules are described in details in the financial section of the CAFR.

### **Independent Audit**

The five major retirement systems of the City of New York are required to undergo an annual audit by a firm of certified public accountants, in accordance with generally accepted auditing standards. Deloitte & Touche LLP, whose opinion is presented in the Financial Section of this report, conducted the audit of the financial statements of BERS for the fiscal year ended 2013.

The five New York retirement systems also undergo a five year audit conducted by the State Insurance Office. During the fiscal year 2010, BERS went through an audit covering fiscal year 2004 thru fiscal year 2008.

### **Professional Services**

Buck Consultants and Britten Network are consultants retained by the Retirement Board to perform professional services that are essential to the effective and efficient operations of the BERS.

BERS is going through the process of installing an Enterprise Resource Planning software, Comprehensive Pension Management System (CPMS). It is a multiyear project and the services of Vitech Systems Group Incorporated; GTJZ Consulting; and KPMG LLP have been retained to guide BERS.

The Chief Actuary provides actuarial services for the five major pension systems maintained by the City. His actuarial report and certification are included in this annual report. The New York City Comptroller and the Teachers' Retirement System retain investment managers to assist in the execution of investment policy in accordance with statutory authority, Retirement Board decisions and standard governing fiduciary practices.

**Awards**

The GFOA awarded a Certificate of Achievement for Excellence in Financial Reporting to the BERS for its CAFR for the fiscal year ended June 30, 2012. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of a state and local government finance reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. BERS has received a Certificate of Achievement over the last twenty six consecutive years. We believe our current report continues to conform to the Certificate of Achievement program requirements and it will be submitted to the GFOA.

**Acknowledgments**

The dedicated service of the managers and staff of BERS made the preparation of this CAFR, on a timely basis, possible. In addition, our appreciation is extended to those members of the staffs of the Bureau of Accountancy and Asset Management of the New York City Comptroller's Office and the Office of the Actuary who worked closely with the BERS personnel in the compilation of this report. We hope that the members of the Retirement Board, officials of the Department of Education of the City of New York, our members and the citizens of the City will find this report informative and helpful.

Respectfully submitted,



Christine Bailey,  
Executive Director



# New York City Board of Education Retirement System

For the Fiscal Year Ended June 30, 2013

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## **BOARD OF TRUSTEES**

HON. JUDY BERGTRAUM  
HON. DAVID BROWN  
HON. JOSEPH D'AMICO  
HON. KELVIN DIAMOND  
HON. DMYTRO FEDKOWSKYJ  
HON. TINO HERNANDEZ  
HON. JOSEPH LEWIS  
HON. JEANETTE MOY  
HON. DIANE PERUGGIA  
HON. ROBERT POWELL  
HON. MILAGROS RODRIGUEZ  
HON. ALLISON ROGOVIN  
HON. IAN SHAPIRO  
HON. PATRICK SULLIVAN  
HON. DENNIS WALCOTT  
HON. MILTON WILLIAMS

### **Prepared By:**

Christine Bailey, Executive Director  
Rick Hederman, Director of Fiscal Operations

### **Actuary:**

Robert C. North, Jr.,  
Chief Actuary

### **Custodian of the Funds:**

John C. Liu,  
Comptroller of the City of New York

### **Headquarters Address:**

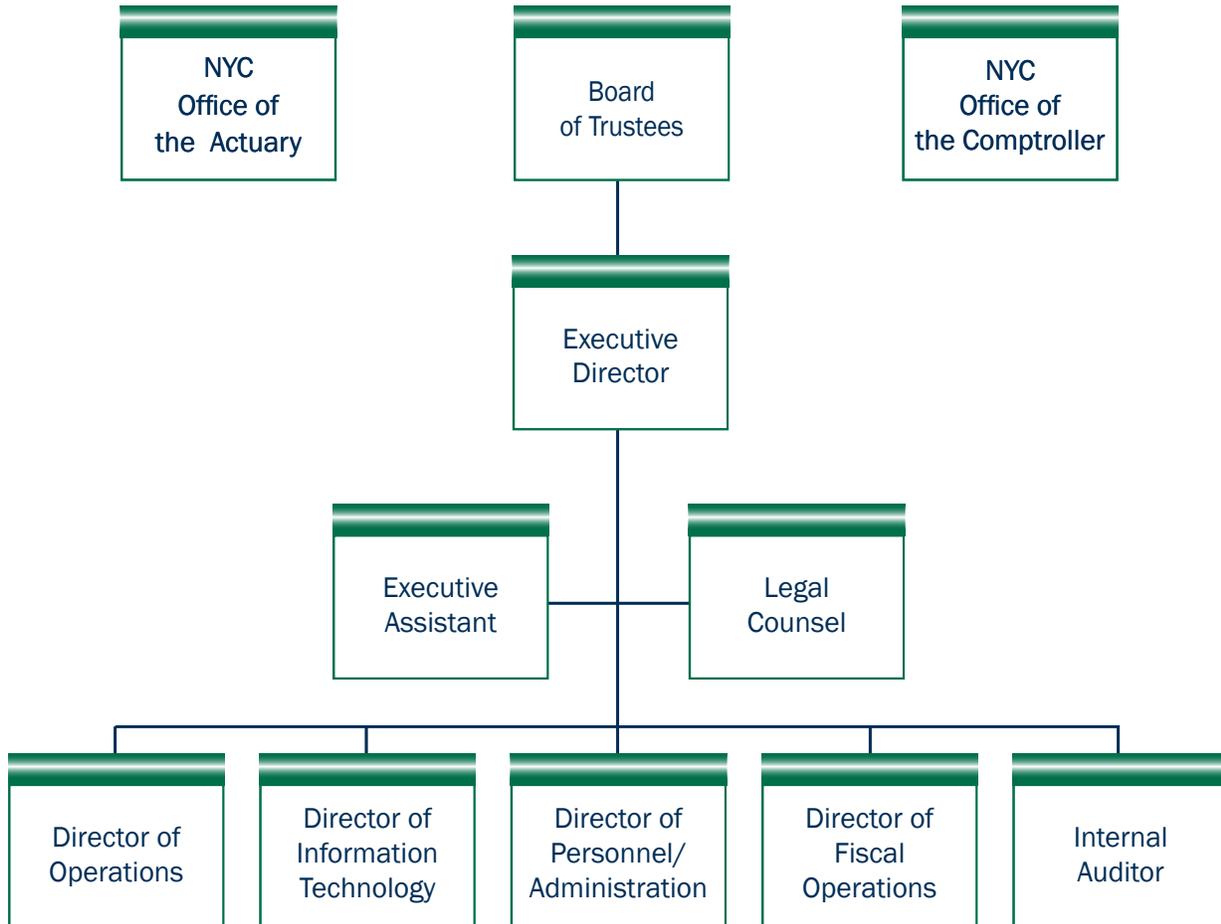
Board of Education Retirement System  
City of New York  
65 Court Street, 16th Floor  
Brooklyn, New York 11201



# New York City Board of Education Retirement System

For the Fiscal Year Ended June 30, 2013

## ORGANIZATIONAL CHART





# New York City Board of Education Retirement System

For the Fiscal Year Ended June 30, 2013

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## **CONSULTING AND PROFESSIONAL SERVICES**

### **Actuary**

Office of the Actuary  
75 Park Place, 9<sup>th</sup> Floor  
New York, NY 10013-6301

### **Auditors**

Deloitte & Touche LLP  
30 Rockefeller Plaza  
New York, NY 10112

### **Custodian of Funds**

Office of the Comptroller  
1 Centre Street  
New York, NY 10007

### **Consultant**

Britten Network  
434 Main Street  
Royersford, PA 19468

### **Investment Consultant**

Buck Investment Consultants  
485 Lexington Avenue  
New York, NY 10167

### **CPMS Consultant**

Vitech Systems Group, Inc.  
401 Park Avenue South, 12<sup>th</sup> Floor  
New York, NY 10016

### **CPMS Consultant**

Gary Tunnicliffe & Jack Ziegler, LLC  
321 Union Street, #4A  
Brooklyn, NY 11231

### **CPMS Consultant**

KPMG LLP  
345 Park Avenue  
New York, NY 10154



Government Finance Officers Association

**Certificate of  
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Presented to

**New York City Board of Education  
Retirement System  
Qualified Pension Plan**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2012**

Executive Director/CEO



# **Board of Education Retirement System of the City of New York**

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

## **Comprehensive Annual Financial Report of the Qualified Pension Plan**

For the Fiscal Years Ended  
June 30, 2013 and June 30, 2012

### **Financial Section**

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## INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the  
New York City Board of Education Retirement  
System Qualified Pension Plan:

### Report on the Financial Statements

We have audited the accompanying statements of plan net position of the New York City Board of Education Retirement System Qualified Pension Plan (the "Plan") as of June 30, 2013 and 2012, and the related statements of changes in plan net position for the years then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these 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 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 financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Plan's preparation and fair presentation of the 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 Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the 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 financial statements referred to above present fairly, in all material respects, the plan net position as of June 30, 2013 and 2012, and the changes in plan net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Member of  
Deloitte Touche Tohmatsu

## 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 financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic 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 financial statements, and other knowledge we obtained during our audit of the basic 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 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 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 financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic 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 financial statements or to the basic 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 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 financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

*Deloitte & Touche LLP*

October 29, 2013

## Management's Discussion and Analysis (Unaudited) Years Ended June 30, 2013 and 2012

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This narrative discussion and analysis of the New York City Board of Education Retirement System Qualified Pension Plan's ("Board of Education Retirement System Qualified Pension Plan," "BERS" or the "Plan"), financial performance provides an overview of the Plan's financial activities for the fiscal years ended June 30, 2013 and 2012. It is meant to assist the reader in understanding the Plan's financial statements by providing an overall review of the financial activities during the years and the effects of significant changes, as well as a comparison with the prior years' activities and results. This discussion and analysis is intended to be read in conjunction with the Plan's financial statements.

### OVERVIEW OF BASIC FINANCIAL STATEMENTS

The following "discussion and analysis" is intended to serve as an introduction to the Plan's basic financial statements. The basic financial statements are:

- **The Statement of Plan Net Position** — presents the financial position of the Plan at fiscal year-end. It provides information about the nature and amounts of resources with present service capacity that the Plan presently controls (assets), consumption of net assets by the Plan that is applicable to a future reporting period (deferred outflow of resources), present obligations to sacrifice resources that the Plan has little or no discretion to avoid (liabilities), and acquisition of net assets by the Plan 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 Statement of Changes in Plan Net Position** — presents the results of activities during the year. All changes affecting the assets and liabilities of the Plan 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 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 Plan's accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.

**Supplementary Information** — as required by the Governmental Accounting Standards Board (GASB) is presented after the notes to the financial statements. The financial statements are prepared in accordance with GASB pronouncements.

**Management's Discussion and Analysis (Unaudited)**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

**FINANCIAL HIGHLIGHTS**

**Changes in Plan Net Position**

During the fiscal year 2013, the Plan's net position held in trust for pension benefits increased to \$2.65 billion, a net increase of \$343.05 million or 14.85% from fiscal year 2012. The increase in fiscal year 2013 was due to the increase in the fair value of investment which increased by 20.02%.

During the fiscal year 2012, the Plan's net position held in trust for pension benefits decreased to \$2.31 billion, a net decrease of \$13.02 million or 0.56 % from the fiscal year 2011. The decrease in fiscal year 2012 was due to a lower fair market value of the variable investment which went down by 13.02%.

**Changes In Plan Net Position**  
**Years Ended June 30, 2013, 2012, and 2011**  
**(In thousands)**

	<b>2013</b>	<b>2012</b>	<b>2011</b>
Additions:			
Member contributions	\$ 39,056	\$ 32,866	\$ 31,008
Employer contributions	196,246	213,651	180,191
Net investment income	495,361	83,873	424,419
Net securities lending income	1,710	1,469	1,271
Net receipts from (payments to) other retirement systems	<u>(176,301)</u>	<u>(141,695)</u>	<u>95,958</u>
 Total	 <u>556,072</u>	 <u>190,164</u>	 <u>732,847</u>
Deductions:			
Benefit payments and withdrawals	204,093	194,507	186,265
Administrative expenses	<u>8,927</u>	<u>8,687</u>	<u>8,892</u>
 Total deductions	 <u>213,020</u>	 <u>203,194</u>	 <u>195,157</u>
 Net increase (decrease)	 <u>343,052</u>	 <u>(13,030)</u>	 <u>537,690</u>
Plan net position held in trust for pension benefits:			
Beginning of year	<u>2,310,599</u>	<u>2,323,629</u>	<u>1,785,939</u>
 End of year	 <u>\$ 2,653,651</u>	 <u>\$ 2,310,599</u>	 <u>\$ 2,323,629</u>

## Management's Discussion and Analysis (Unaudited) Years Ended June 30, 2013 and 2012 (Cont'd)

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During fiscal year 2013, member contributions which stood at \$39.06 million, increased by 18.83% from the 2012 member contribution amount of \$32.87 million. This increase was due to contributions made during the fiscal year by new Tier 4 members who joined Tier 4 pension system before April 1, 2012.

During fiscal year 2012, member contributions which stood at \$32.87 million, increased by 5.99% from the 2011 member contribution amount of \$31.01 million. This increase was due to 27.38% increase in new members joining Tier 4 before the Tier 6 onset of April 1, 2012.

Employer contributions received in fiscal year 2013 were at \$196.24 million, a decrease of 8.15% over the fiscal year 2012 figure of \$213.65 million primarily due to the net result of actuarial gains and losses. Employer contributions are made on a statutory basis based on the One-Year Lag methodology.

Employer contributions received in fiscal year 2012 were at \$213.65 million, an increase of 18.57 % over the fiscal year 2011 figure of \$180.19 million due to changes in actuarial methods and assumptions for fiscal years beginning 2012.

Plan benefits and withdrawals increased by 4.93%, from \$194.51 million to \$204.09 million during fiscal year 2013 and increased from \$186.26 million to \$194.51 million from fiscal year 2011 to fiscal year 2012. The increase in fiscal year 2013 was mostly due to an increase in the death benefit payments from fiscal year 2012. The increase in the plan benefits and withdrawals in fiscal year 2012 was due to an increase in the amount of loans at retirement.

In 2013, the administrative expenses account showed an increase of 2.76 % to \$8.92 million. The marginal increase was due to higher allocation of expenses to the pension program. In 2012, the administrative expenses account showed a net decrease of 2.31% to \$8.69 million. The decrease in administrative expenses in fiscal year 2012 was due to a combination of capitalization of expenses towards the ERP project and a lower allocation of expenses to the pension program.

### PLAN NET POSITION

During fiscal year 2013, the Plan experienced a 14.85% increase in net position held in trust for pension benefits. During fiscal year 2013, the fair value of the investments increased by 20.02%. During fiscal year 2012, the Plan experienced a 0.56 % decrease in net position held in trust for pension benefits. The fair value of the investments decreased by 3.62 % in fiscal year 2012.

Member loans outstanding at fiscal year-ends of 2013 and 2012 were \$39.28 million and \$37.09 million, respectively. During fiscal year 2013, the amount of QPP loans increased by 5.90%.

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

**Management's Discussion and Analysis (Unaudited)**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

**Plan Net Position**  
**June 30, 2013, 2012, and 2011**  
**(In thousands)**

	<b>2013</b>	<b>2012</b>	<b>2011</b>
<b>ASSETS:</b>			
Cash	\$ 903	\$ 231	\$ 9,966
Receivables	143,722	157,597	86,090
Investments, at fair value	2,720,279	2,314,388	2,394,495
Collateral from securities lending	296,382	198,990	213,327
Other	<u>658</u>	<u>691</u>	<u>708</u>
<b>Total assets</b>	<u><b>3,161,944</b></u>	<u><b>2,671,897</b></u>	<u><b>2,704,586</b></u>
<b>LIABILITIES:</b>			
Payables	211,911	162,308	167,630
Securities lending transactions	<u>296,382</u>	<u>198,990</u>	<u>213,327</u>
<b>Total liabilities</b>	<u><b>508,293</b></u>	<u><b>361,298</b></u>	<u><b>380,957</b></u>
<b>Plan net position held in trust for pension benefits</b>	<u><b>\$ 2,653,651</b></u>	<u><b>\$ 2,310,599</b></u>	<u><b>\$ 2,323,629</b></u>

**Investment Summary**  
**June 30, 2013, 2012, and 2011**  
**(In thousands)**  
**Fair Value**

	<b>2013</b>	<b>2012</b>	<b>2011</b>
Short Term Investments	\$ 48,394	\$ 131,000	\$ 126,531
US Debt Securities	629,910	621,445	555,087
Yankee Bonds	2,412	3,109	3,084
U S Equity Securities	1,142,904	858,515	932,495
Private Equity Securities	151,692	118,810	100,257
International Equity Securities	573,413	515,629	606,351
Mutual Fund Debt Securities	171,128	65,057	69,755
Promissory Notes	446	824	935
Security Lending Transactions	<u>296,382</u>	<u>198,990</u>	<u>213,327</u>
<b>Total</b>	<u><b>\$ 3,016,661</b></u>	<u><b>\$ 2,513,379</b></u>	<u><b>\$ 2,607,822</b></u>

**Management's Discussion and Analysis (Unaudited)**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

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Due to the long-term nature of the Plan's liabilities, the Plan's assets are invested with a long-term investment horizon. Assets are invested in a diversified portfolio of capital market securities. Investments in these assets are expected to produce higher returns, but are also subject to greater volatility and may produce negative returns. The Plan's investments increased by 20.02 % in fiscal year 2013 and decreased by 3.62% in fiscal year 2012. The 2013 results were due to an increase in the fair market value of the investments.

**CONTACT INFORMATION**

This financial report is designed to provide a general overview of The New York City Board of Education Retirement System Qualified Pension Plan's finances. Questions concerning any data provided in this report or requests for additional information should be directed to the Chief Accountant, New York City Board of Education Retirement System Qualified Pension Plan, 65 Court Street, 16th Floor, Brooklyn, New York 11201.

**Statement of Plan Net Position  
As Of June 30, 2013 and 2012  
(In thousands)**

	<b>2013</b>	<b>2012</b>
<b>ASSETS:</b>		
Cash	\$ 903	\$ 231
Receivables:		
Investment securities sold (Note 2)	92,452	57,468
Accrued interest and dividends (Note 2)	55	52
Member loans (Note 5)	39,281	37,092
Other	<u>11,934</u>	<u>62,985</u>
Total receivables	<u>143,722</u>	<u>157,597</u>
Investments — at fair value (Notes 2 and 3):		
Fixed funds:		
Short-term investments:		
Commercial paper	20,700	98,190
Short-term investment fund	19,801	21,351
Discount notes	7,503	11,095
Debt securities:		
U.S. government and U.S. government agency	339,142	350,393
Corporate	289,045	269,186
Yankee bonds	2,412	3,109
Equities:		
Domestic	1,104,594	825,214
Private equity	151,672	118,809
Mutual funds:		
International equity	573,413	515,629
Mutual Fund Debt Securities	171,128	65,057
Promissory notes	446	824
Collateral from securities lending	296,366	198,651
Variable funds:		
Short-term investments	390	364
Debt securities	1,723	1,866
Equities	38,310	33,301
Collateral from securities lending	<u>16</u>	<u>339</u>
Total investments	<u>3,016,661</u>	<u>2,513,378</u>
Other assets	<u>658</u>	<u>691</u>
Total assets	<u>3,161,944</u>	<u>2,671,897</u>
<b>LIABILITIES:</b>		
Accounts payable (Note 2)	11,190	8,582
Payable for investment securities purchased (Note 2)	192,937	148,387
Accrued benefits payable (Note 2)	7,784	5,339
Securities lending (Note 2)	<u>296,382</u>	<u>198,990</u>
Total liabilities	<u>508,293</u>	<u>361,298</u>
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS</b>	<u><u>\$ 2,653,651</u></u>	<u><u>\$ 2,310,599</u></u>

See notes to financial statements.

**Statement of Changes in Plan Net Position  
For The Years Ended June 30, 2013 and 2012  
(In thousands)**

	<b>2013</b>	<b>2012</b>
ADDITIONS:		
Contributions (Note 4):		
Member contributions	\$ 39,056	\$ 32,866
Employer contributions	<u>196,246</u>	<u>213,651</u>
Total contributions	<u>235,302</u>	<u>246,517</u>
Investment income (Note 2):		
Interest income	31,014	25,990
Dividend income	38,273	30,182
Net appreciation in fair value of investments	<u>432,847</u>	<u>33,513</u>
Total investment income	502,134	89,685
Less — investment expenses	<u>6,773</u>	<u>5,812</u>
Net investment income	<u>495,361</u>	<u>83,873</u>
Securities lending transactions (Note 2):		
Securities lending income	1,895	1,497
Securities lending fees	<u>(185)</u>	<u>(28)</u>
Net securities lending income	<u>1,710</u>	<u>1,469</u>
Net investment income	<u>497,071</u>	<u>85,342</u>
Other — receipts from other retirement systems and other revenues	<u>(176,301)</u>	<u>(141,695)</u>
Total additions	<u>556,072</u>	<u>190,164</u>
DEDUCTIONS:		
Benefit payments and withdrawals (Note 1)	204,093	194,507
Administrative expenses (Note 7)	<u>8,927</u>	<u>8,687</u>
Total deductions	<u>213,020</u>	<u>203,194</u>
INCREASE IN PLAN NET POSITION	343,052	(13,030)
PLAN NET POSITION HELD IN TRUST FOR PENSION BENEFITS:		
Beginning of year	<u>2,310,599</u>	<u>2,323,629</u>
End of year	<u>\$ 2,653,651</u>	<u>\$ 2,310,599</u>

See notes to 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”) statutes and City laws). The City’s five major actuarially-funded pension systems are the New York City Board of Education Retirement System-Qualified Pension Plan (“BERS” or the “Plan”), the New York City Employees’ Retirement System (NYCERS), the Teachers’ Retirement System of The City of New York-Qualified Pension Plan (TRS), 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.

The Plan is a cost-sharing, multiple-employer PERS. The Plan provides pension benefits for non-pedagogical employees of the Department of Education and certain other specific schools and certain employees of The New York City School Construction Authority (collectively, the “Employer”). Substantially all Department of Education non-pedagogical permanent employees, other than members of TRS, become members of the Plan on the first day of permanent employment. Employees classified as noncompetitive, exempt and provisional by Civil Service are eligible to enroll in the system voluntarily. Membership date is governed by the date of filing.

The Plan functions in accordance with existing State statutes and City laws. It combines features of a defined benefit pension plan with those of a defined contribution pension plan. Contributions are made by the employer and the members.

In June 1991, the Governmental Accounting Standards Board (GASB) issued Statement No. 14, *The Financial Reporting Entity*. The definition of the reporting entity is based primarily on the notion of financial accountability. In determining financial accountability for legally separate organizations, the Plan considered whether its officials appoint a voting majority of an organization’s governing body and is either able to impose its will on that organization or if there is a potential for the organization to provide specific financial benefits to, or to impose specific financial burdens on, the Plan. The Plan also considered whether there are organizations that are fiscally dependent on it. It was determined that there are no component units of the Plan.

The Plan is included in the Pension and Other Employee Benefit Trust Funds section of The City’s Comprehensive Annual Financial Report (CAFR).

Members of the Plan have the option to participate in a Tax Deferred Annuity (TDA) Program, which provides a means of deferring income tax payments on their voluntary tax-deferred contributions until the period after retirement or upon withdrawal of contributions. The TDA Program was created pursuant to the Internal Revenue Code Section 403 (b). Contributions to the TDA Program are made by the members only. The TDA Program is maintained as a separate plan and is not included in these financial statements.

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

At June 30, 2011 and June 30, 2010, the dates of the Plan's most recent actuarial valuations, the Plan's membership consisted of:

	2011	2010
Retirees and beneficiaries receiving benefits	14,399	13,969
Terminated vested members not yet receiving benefits	189	199
Other inactives*	3,445	3,661
Active members receiving salary	<u>23,131</u>	<u>23,324</u>
Total	<u>41,164</u>	<u>41,153</u>

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

Under the One-Year-Lag Methodology (OYLM) in effect for Fiscal Years beginning 2006, the actuarial valuation determines the employer contribution for the second following Fiscal Year. June 30, 2011 and June 30, 2010 are the dates used for calculating Fiscal Year 2013 and Fiscal Year 2012 employer contributions, respectively.

The State Constitution provides that 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 for employees joining the Plan on or after the effective date of such amendments. As such, benefits under the Plan fall into various categories based on the year when an employee joined the Plan. A brief overview follows:

- Members who joined prior to July 1, 1973 ("Tier 1") are entitled to service retirement benefits of 55% of "final salary" (as defined within State statutes and City laws) after 25 years of qualified service and attainment of age 55, a portion of which is provided from member contributions. Additional benefits equal to a specified percentage per year of service of "final salary" are payable for years in excess of the 25 year minimum. These additional 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 the Increased-Take-Home Pay (ITHP) contributions accumulated after the 25th year of member qualifying service. ITHP represents amounts contributed by The City in lieu of members' own contributions. These amounts reduce the contributions that members would have to make to the Plan 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 which 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 upon attainment of age 55. This benefit is increased, where applicable, by an annuity attributable to the member contributions and ITHP contributions.

- Members who joined after July 1, 1973 and before July 27, 1976 (“Tier 2”) have provisions similar to Tier 1, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on their maximum benefit. This maximum benefit limitation was subsequently eliminated under Chapter 574 of the Laws of 2000 for all Tier 2 members who retired after December 8, 2000.

For members enrolled in the Plan prior to July 27, 1976, ITHP contributions made on their behalf as well as their own contributions are invested, at their election, in either the fixed or variable investment programs or 50% of such contributions in each. These investment elections can be changed every two years. The Plan guaranteed a 7.5% return on member contributions or ITHP contributions to the fixed income program until June 30, 1982, increased the guaranteed return to 8% as of July 1, 1982, and 8.25% as of July 1, 1988, for members who enrolled in the Plan prior to July 27, 1976 (5% on member contributions for members enrolled on or after July 27, 1976). The variable investment program includes only member contributions and ITHP contributions made on their behalf as described above and is expressed in terms of units, which are valued monthly, based on investment experience.

At retirement, monthly annuities attributable to member contributions and ITHP contributions can be paid in both fixed and variable amounts based on the member’s election, which can be changed every two years. Other benefits are paid only in fixed amounts. Variable annuities are not fixed in amount, but are based on investment experience through the preceding month.

- Members who joined the Plan on or after July 27, 1976 and prior to September 1, 1983 (“Tier 3”) were later mandated into the Tier 4 plan. However, these members retain their Tier 3 rights. Tier 3 requires member contributions of 3% of salary for a period not to exceed 30 years and have benefits reduced by one half of the primary social security benefit attributable to service with the employer and provides an annual cost-of-living escalator in pension benefits of not more than 3%. Effective October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of 10 years of credited service, whichever is earlier.
- Members who joined the Plan on or after September 1, 1983 and prior to April 1, 2012 (“Tier 4”) were required to make contributions of 3% 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 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% 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. Certain 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

## Notes to Financial Statements

### Years Ended June 30, 2013 and 2012

#### (Cont'd)

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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.

After December 10, 2009 and prior to April 1, 2012, new members under the 55/27 retirement program, who are represented by the United Federation of Teachers (UFT), 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.

- During March 2012, the Governor signed Chapter 18 of the Laws of 2012 ("Chapter 18/12") that placed certain limitations on the Tier 3 and Tier 4 benefits available to participants in most New York State PERS who join a System on and after April 1, 2012, including BERS. Known as Tier 6, in general, these changes increase the age requirement to 63 for most non-uniformed employees to retire and receive a full pension, require member contributions for all years of service for non-uniformed employees, institute progressive member contributions for non-uniformed employees, lengthen the final average salary (FAS) period from 3 to 5 years, cap FAS for non-uniformed employees to an amount equal to the Governor's salary, extends and harmonizes the Tier 3 benefits for POLICE and FIRE to other uniformed forces and to DA Investigators and offers an optional defined-contribution plan to certain non-represented employees.
- 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 as to benefits upon the completion of five years of service, ten years for 55/27 members and ten years for Tier 6 members.
- The Plan provides death benefits and retirement benefits on the occurrence of accidental or ordinary disability. Certain retirees also receive supplemental benefits.
- Certain members who joined the Plan on or after June 28, 1995, must pay additional contributions for improved early retirement benefits. These improved early retirement benefits are also available for Tier 2 or Tier 4 members who joined the Plan prior to that date.
- During the spring 2000 session, the State Legislature approved and the State Governor ("Governor") signed laws that provide automatic Cost-of-Living Adjustments (COLA) for certain retirees and beneficiaries (Chapter 125 of the Laws of 2000). It also provides additional service credits for certain Tier 1 and Tier 2 members and reduced member contributions for certain Tier 3 and Tier 4 members (Chapter 126 of the Laws of 2000).

## **2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND PLAN ASSET MATTERS**

**Basis of Accounting** — The Plan uses the accrual basis of accounting where the measurement focus is on a 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 employer makes payroll deductions from Plan's members. Employer contributions are recognized when due, and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

**Investment Valuation** — Investments are reported at fair value. Securities purchased pursuant to agreements to resell are carried at the contract price, exclusive of interest, at which the securities will be resold. Fair value is defined as the quoted market value on the last trading day of the period, except for the Short-Term Investment fund (STIF) (a money market fund), International Investment funds (IIF) and Alternative Investment funds (ALTINVF). The IIF are private funds of publicly traded securities which are managed by various investment managers on behalf of the Plan. Fair value is determined by Plan 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 plan management based on information provided by the various GP's after review by an independent consultant and the custodian bank for the fund.

Purchases and sales of securities are reflected on the trade date. Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

No investment in any one security represents 5% or more of Plan's net position held in trust for benefits.

The Plan does not possess an investment risk policy statement nor does it actively manage Plan assets to specified risk targets. Rather, investment risk management is an inherent function of our asset allocation process. Plan assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk.

**Investment Programs** — The Plan's investments are composed of the assets of two investment programs. These are the fixed income program and the variable investment program (which consists primarily of equity securities). Assets of the fixed income program of the Plan are co-invested with certain assets of the TDA Program, which is funded by voluntary member contributions. Assets of the variable investment program of the Plan are co-invested with certain assets of the TDA Program and TRS. These financial statements reflect the Plan's proportionate share of the assets and investment activity of each of these programs.

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

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**Income Taxes** — Income earned by the Plan is not subject to federal income tax.

**Accounts Payable** — Accounts payable is principally comprised of amounts owed to the Plan's banks for overdrawn bank balances. The Plan's practice is to fully invest cash balances in most bank accounts on a daily basis. Overdrawn balances result primarily from outstanding benefit checks that are presented to the banks for payment on a daily basis and these balances are routinely settled each day.

**Securities Lending Transactions** — State statutes and the Board of Trustees' policies permit the Plan to lend its investments (the underlying 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 Plan's custodian lends 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 Treasury and U.S. Government agency securities at 100% to 105% of the principal plus accrued interest for reinvestment. At June 30, 2013, management believes the Plan has no credit risk exposure to borrowers because the amounts the Plan owed the borrowers equaled or exceeded the amounts the borrowers owed the Plan. The contracts with the Plan custodian require borrowers to indemnify the Plan if the borrowers fail to return the securities and if the collateral is inadequate to replace the securities loaned. The Plan is also indemnified for income distributions by the securities' issuers while the securities are on loan. All securities loans can be terminated on demand within a period specified in each agreement by either the Plan or the borrowers. Cash collateral is invested in the lending agents' short-term investment pools, which have a weighted average maturity of 90 days. The underlying fixed income securities in these pools have an average maturity of ten years.

The securities lending program in which the Plan participates only allows pledging or selling securities in the case of borrower default.

GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, requires that securities loaned as assets and related liabilities be reported in the statements of plan net position. Cash received as collateral on securities lending transactions and investments made with that cash are reported as assets. Securities received as collateral are also reported as assets if the government entity has the ability to pledge or sell them without a borrower default. Accordingly, the Plan recorded the investments purchased with the cash collateral as collateral from securities lending with a corresponding liability for securities lending. Securities on loan are carried at market value, the values as of June 30, 2013 and 2012 are \$396.0 million and \$270.1 million, respectively. As of 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.

**New Accounting Standards Adopted** — In fiscal year 2013, the Plan adopted Governmental Accounting Standards Board (“GASB”) Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*. The Statement’s objective is to provide a new statement of net position format to report all assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position (which is the net residual amount of the other elements). The Statement requires that deferred outflows of resources and deferred inflows of resources be reported separately from assets and liabilities. The Plan concluded that except for the change in nomenclature, the adoption of GASB Statement No. 63 had no impact on its financial position and results from operations.

The Plan has adopted GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*. GASB Statement No. 65 reclassifies certain items currently being reported as assets and liabilities as deferred outflows of resources and deferred inflows of resources. In addition, this Statement recognizes certain items currently being reported as assets and liabilities as outflows of resources and inflows of resources. The Plan has determined that GASB Statement No. 65 had no impact on its financial position or results of operations and therefore it is not applicable to its operation at the present time.

**New Accounting Standard Issued but Not Yet Effective** — In June of 2012, GASB issued Statement No. 67, *Financial Reporting for Pension Plans*. 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 non-employer 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, non-employer 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. The provisions of Statement No. 67 are effective for financial statements for fiscal years beginning after June 15, 2013. Earlier application is encouraged. The Plan has not completed the process of evaluating the impact of Statement No. 67 on its financial statements.

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

The Comptroller of The City of New York (the “Comptroller”) acts as an investment advisor to the Plan. In addition, the Plan employs an independent investment consultant as an investment advisor. The Plan 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.

**Concentration of Credit Risk** — The Plan does not have any investments in any one entity that represent 5% or more of the Plan’s net position.

The legal requirements for Plan investments are as follows:

- a. Fixed income, equity and other investments may be made as permitted by New York State RSSL §§ 176-178(a) and Banking Law § 235, the New York City Administrative Code, and the Legal Investments for New York Savings Banks list as published by The New York State Banking Department, subject to Note 3(b).
- b. Investments up to 25% of total pension fund assets may be made in instruments not expressly permitted by the State RSSL.

Bank of New York Mellon (“BNYM”) is the primary custodian for substantially all of the securities of the Plan.

Cash deposits are insured by the Federal Deposit Insurance Corporation for up to \$250,000 per Plan member and are, therefore, fully insured.

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. Such information is prepared as a result of the Custodian’s Risk Management Analysis.

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

Investment Type* June 30, 2013	Moody's Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short Term	Not Rated	Total
U.S. Government	- %	- %	- %	- %	- %	- %	- %	- %	- %	- %
Corporate bonds	0.59	2.86	14.15	24.80	12.21	18.11	6.35	-	7.51	86.58
Yankee bonds	-	0.35	-	0.37	-	-	-	-	-	0.72
Short term:										
Commercial paper	-	-	-	-	-	-	-	6.20	-	6.20
Pooled fund	-	-	-	-	-	-	-	4.26	-	4.26
U.S. Agencies	-	-	-	-	-	-	-	1.92	-	1.92
U.S. Treasuries	-	-	-	-	-	-	-	0.32	-	0.32
Portfolio	<u>0.59%</u>	<u>3.21%</u>	<u>14.15%</u>	<u>25.17%</u>	<u>12.21%</u>	<u>18.11%</u>	<u>6.35%</u>	<u>12.70%</u>	<u>7.51%</u>	<u>100.00%</u>

Investment Type* June 30, 2012	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short Term	Not Rated	Total
U.S. Government	- %	- %	- %	- %	- %	- %	- %	- %	- %	- %
Corporate bonds	1.43	4.01	14.64	18.49	11.63	13.11	3.14	-	2.25	68.70
Yankee bonds	-	0.05	0.45	0.29	-	-	-	-	-	0.79
Short term:										
Commercial paper	-	-	-	0.19	-	-	-	-	24.87	25.06
Pooled fund	-	-	-	-	-	-	-	-	5.45	5.45
U.S. Agencies	-	-	-	-	-	-	-	-	-	-
U.S. Treasuries	-	-	-	-	-	-	-	-	-	-
Portfolio	<u>1.43%</u>	<u>4.06%</u>	<u>15.09%</u>	<u>18.97%</u>	<u>11.63 %</u>	<u>13.11%</u>	<u>3.14 %</u>	<u>0.00%</u>	<u>32.57%</u>	<u>100.00%</u>

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

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

Consistent with the Plan's investment policy, the investments are held by the Plan's custodian and registered in the Plan's name.

All of the Plan's deposits are insured and are collateralized by securities held by a financial institution separate from the Plan's depository financial institution.

All of the Plan's securities are held by the Plan's custodial bank in the Plan's name.

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'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. The Plan has no formal risk policy. The lengths of investment maturities (in years), as shown by the percent of the rated portfolio, are as follows:

Years to Maturity 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
U.S. Government	50.39 %	0.57 %	2.22 %	7.48 %	40.12 %
Corporate bonds	42.95	2.18	10.43	18.58	11.76
Yankee bonds	0.36	0.02	0.27	-	0.07
Short term:					
Commercial paper	3.08	3.08	-	-	-
Pooled fund	2.11	2.11	-	-	-
U.S. Agencies	0.95	0.95	-	-	-
U.S. Treasuries	0.16	0.16	-	-	-
Percent of rated portfolio	100.00 %	9.07 %	12.92%	26.06 %	51.95 %

Years to Maturity Investment Type June 30, 2012	Investment Maturities				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
U.S. Government	46.51 %	- %	0.84 %	8.71 %	36.96 %
Corporate bonds	35.73	0.37	8.99	15.44	10.93
Yankee bonds	0.42	0.03	0.27	0.07	0.05
Short term:					
Commercial paper	13.04	13.04	-	-	-
Pooled fund	2.83	2.83	-	-	-
U.S. Agencies	0.27	0.27	-	-	-
U.S. Treasuries	1.20	1.20	-	-	-
Percent of rated portfolio	100.00 %	17.74 %	10.10 %	24.22 %	47.94 %

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

**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 Plan 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. The Plan has no formal risk policy.

In addition, the Plan has investments in foreign stocks and/or bonds denominated in foreign currencies. The Plan's foreign currency exposures as of June 30, 2013 and 2012 are as follows (amounts in U.S. dollars, in thousands):

<b>Trade Currency</b>	<b>2013</b>	<b>2012</b>
Euro Currency	\$ 99,421	\$ 79,694
British Pnd Sterling	70,013	76,805
Japanese Yen	66,662	62,875
Swiss Franc	44,972	41,719
Hong Kong Dollar	44,158	28,816
South Korean Won	26,081	20,565
Swedish Krona	19,613	19,315
Australian Dollar	19,261	23,257
New Taiwan Dollar	17,585	9,966
Brazilian Real	16,369	17,379
Singapore Dollar	12,205	13,513
South African Rand	11,734	14,773
Indian Rupee	11,296	9,369
Canadian Dollar	9,248	5,576
Thai Baht	7,812	3,175
Danish Krone	7,335	8,489
Malaysian Ringgit	6,387	2,276
Mexican Nuevo Peso	4,773	3,092
Norwegian Krone	3,707	679
Indonesian Rupiah	3,543	2,328
Polish Zloty	2,647	281
Philippines Peso	1,284	1,780
Hungarian Forint	976	1,246
Chilean Peso	368	366
Egyptian Pound	236	61
Colombian Peso	221	249
Renminbi Yuan	202	15,866
Pakistan Rupee	151	0
Czech Koruna	53	65
Russian Ruble	21	6,936
New Zealand Dollar	21	0
Moroccan Dirham	11	12
Turkish Lira	0	3,786
Nuevo Sol	0	2,459
Naira	0	74
<b>Total</b>	<b><u>\$ 508,366</u></b>	<b><u>\$ 476,842</u></b>

**Notes to Financial Statements  
Years Ended June 30, 2013 and 2012  
(Cont'd)**

**Securities Lending Transactions:**

**Credit Risk** — The quality ratings of investments held as collateral for Securities Lending are as follows:

Investment Type and Fair Value of Securities Lending Transactions (In thousands)	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short Term	Not Rated	Total
U.S. government Corporate bonds	39,775	87,106	45,827	-	-	-	\$ -	\$ -	-	\$ -
Yankee bonds	-	-	-	-	-	-	-	-	2,457	175,165
Short term:										
Commercial paper	-	-	20,631	-	-	-	-	-	-	20,631
Mutual funds	-	-	-	-	-	-	-	-	-	-
Money market	-	-	-	-	-	-	-	-	-	-
Bank notes	-	-	-	-	-	-	-	-	-	-
U.S. Agency	-	-	-	-	-	-	-	-	17,463	17,463
Reverse repurchase agreements	-	-	-	-	-	-	-	-	55,897	55,897
Repurchase agreements	-	-	-	-	-	-	-	-	10	10
Certificates of deposit	-	-	27,479	-	-	-	-	-	-	27,479
Certificates of deposit — floaters	-	-	-	-	-	-	-	-	-	-
Time deposit	6	-	-	-	-	-	-	-	-	6
Other	-	-	-	-	-	-	-	-	(269)	(269)
<b>Total</b>	<b>\$ 39,781</b>	<b>\$ 87,106</b>	<b>\$ 93,937</b>	<b>\$ -</b>	<b>\$ 75,558</b>	<b>\$ 296,382</b>				
Percent of securities lending portfolio	13.43 %	29.39 %	31.69 %	- %	- %	- %	- %	- %	25.49 %	100.00 %

Investment Type and Fair Value of Securities Lending Transactions (In thousands)	S&P Quality Ratings									
	AAA	AA	A	BBB	BB	B	CCC & Below	Short Term	Not Rated	Total
U.S. government* Corporate bonds	27,322	51,919	42,271	-	-	-	\$ -	\$ -	-	\$ -
Yankee bonds	-	-	-	-	-	661	-	-	963	125,136
Short term:										
Commercial paper	-	-	4,201	-	-	-	-	-	-	4,201
Mutual funds	-	-	-	-	-	-	-	-	-	-
Money market	-	-	-	-	-	-	-	-	-	-
Bank notes	-	-	-	-	-	-	-	-	-	-
U.S. Agency*	-	-	-	-	-	-	-	-	6,326	6,326
Reverse repurchase agreements	-	-	-	-	-	-	-	-	46,722	46,722
Repurchase agreements	-	-	-	-	-	-	-	-	318	318
Certificates of deposit	-	-	18,514	-	-	-	-	-	-	18,514
Certificates of deposit — floaters	-	-	-	-	-	-	-	-	-	-
Time deposit	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	(227)	(227)
<b>Total</b>	<b>\$ 27,322</b>	<b>\$ 51,919</b>	<b>\$ 64,986</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 661</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 54,102</b>	<b>\$ 198,990</b>
Percent of securities lending portfolio	13.73 %	26.09 %	32.66 %	- %	- %	0.33 %	- %	- %	27.19 %	100.00 %

\* There was a reclassification of the 2012 figures after the financials were published. These data show the correct classification

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

**Interest Rate Risk** – The lengths of investment maturities (in years) of the collateral for Securities Lending are as follows:

<b>Years to Maturity</b> <b>Investment Type</b> <b>(In thousands)</b> <b>June 30, 2013</b>	<b>Investment Maturities</b>				
	<b>Fair Value</b>	<b>Less Than One Year</b>	<b>One to Five Years</b>	<b>Six to Ten Years</b>	<b>More Than Ten Years</b>
U.S. government	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate bonds	175,165	93,607	81,558	-	-
Yankee bonds	-	-	-	-	-
Short term:					
Commercial paper	20,631	20,631	-	-	-
Mutual fund	-	-	-	-	-
Money market	-	-	-	-	-
Bank notes	-	-	-	-	-
U.S. Agency	17,463	13,121	4,342	-	-
Reverse repurchase agreements	55,897	55,897	-	-	-
Repurchase agreements	10	10	-	-	-
Certificates of deposit	27,479	27,479	-	-	-
Certificates of deposit – floaters	-	-	-	-	-
Time deposit	6	6	-	-	-
Other	(269)	(269)	-	-	-
<b>Total</b>	<b>\$ 296,382</b>	<b>\$ 210,482</b>	<b>\$ 85,900</b>	<b>\$ -</b>	<b>\$ -</b>
Percent of securities lending portfolio	100.00 %	71.02 %	28.98 %	- %	- %

<b>Years to Maturity</b> <b>Investment Type</b> <b>(In thousands)</b> <b>June 30, 2012</b>	<b>Investment Maturities</b>				
	<b>Fair Value</b>	<b>Less Than One Year</b>	<b>One to Five Years</b>	<b>Six to Ten Years</b>	<b>More Than Ten Years</b>
U.S. government*	\$ -	\$ -	\$ -	\$ -	\$ -
Corporate bonds	123,136	85,543	37,593	-	-
Yankee bonds	-	-	-	-	-
Short term:					
Commercial paper	4,201	4,201	-	-	-
Mutual fund	-	-	-	-	-
Money market	-	-	-	-	-
Bank notes	-	-	-	-	-
U.S. Agency*	6,326	1,370	4,956	-	-
Reverse repurchase agreements	46,722	46,722	-	-	-
Repurchase agreements	318	318	-	-	-
Certificates of deposit	18,514	18,514	-	-	-
Certificates of deposit – floaters	-	-	-	-	-
Time deposit	-	-	-	-	-
Other	(227)	(227)	-	-	-
<b>Total</b>	<b>\$ 198,990</b>	<b>\$ 156,441</b>	<b>\$ 42,549</b>	<b>\$ -</b>	<b>\$ -</b>
Percent of securities lending portfolio	100.00 %	78.62 %	21.38 %	- %	- %

\* There was a reclassification of the 2012 figures after the financials were published. These data show the correct classification

#### **4. CONTRIBUTIONS AND ACTUARIAL ASSUMPTIONS**

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

**Member Contributions** — Members who joined prior to July 27, 1976, contribute by salary deductions on the basis of a normal rate of contribution which is assigned by the Plan at membership. The member normal rate, which is dependent upon age 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, the member normal rate ranges from 5.7% to 8.5%. For age at membership equal to 40, the member normal rate is equal to 4.65%.

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 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. In addition, certain members who joined on or after June 28, 1995, must contribute an additional 4.35% or 6.33% (2.85% or 4.83% after January 1, 1998, 1.85% or 3.83% after December 1, 2001) for improved early retirement benefits. This is optionally available for Tier 2 or Tier 4 members who joined prior to that date.

Effective February 27, 2008, certain 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 plan 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 the Plan after December 10, 2009, who are represented by the United Federation of Teachers (UFT) and 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. These members become vested after ten years of credited service.

Members who join the plan on and after April 1, 2012 (Tier 6) are required to make Basic Member Contributions (BMC) until they separate from service or until they retire. The BMC rate is dependent on annual wages earned during a plan year and ranges from 3% for salaries less than \$45,000 to 6% for salaries greater than \$100,000. These members become vested after ten years of service.

**Employer Contributions** — Statutorily-required contributions (“Statutory Contributions”) to the Plan, determined by the Plan’s Chief Actuary of the Office of the Actuary (the “Actuary”) in accordance with State statutes and City laws, are generally funded by the employer within the appropriate fiscal year.

The June 30, 2011 (Lag) actuarial valuation was used to determine the Fiscal Year 2013 Employer Contributions. There were no changes in actuarial assumptions and methods from the prior actuarial valuation.

The June 30, 2010 (Lag) actuarial valuation used to determine the Fiscal Year 2012 Employer Contributions was based on revised actuarial assumptions and methods proposed by the Actuary (the “2012 A&M”). The Board of Trustees of the Plan adopted those changes to the actuarial assumptions and methods that require Board approval during Fiscal Year 2012. The New York State Legislature and the Governor enacted Chapter 3 of the Laws of 2013 (“Chapter 3/13”) to provide for those changes in actuarial assumptions and methods that require legislation, including the Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of expenses, the Entry Age Actuarial Cost Method and the amortization of Unfunded Actuarial Accrued Liabilities.

Beginning with the June 30, 2010 (Lag) actuarial valuation under the 2012 A&M, 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 Normal Cost. The portion of this APV not provided for at a valuation date by the APV of Future 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.

The concept in use for the Actuarial Asset Valuation Method (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.

## Notes to Financial Statements

### Years Ended June 30, 2013 and 2012

#### (Cont'd)

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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, June 30, 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.

For assets of the variable-return programs, current market value is used.

Chapter 125 of the Laws of 2000 ("Chapter 125/00") provided eligible retirees and eligible beneficiaries with increased Supplementation as of September 2000 and with automatic COLA beginning September 2001. Chapter 125/00 also provided for a five-year phase-in schedule for funding the additional actuarial liabilities created by the benefits provided by this law. Chapter 278 of the Laws of 2002 ("Chapter 278/02") required the Actuary to revise the methodology and timing for determining the Statutory Contributions on account of the additional actuarial liabilities attributable to the benefits provided under Chapter 125/00 by extending the phase-in period for funding these liabilities from five years to ten years.

The impact of the ten-year phase-in of Chapter 278/02 was to postpone funding of the additional actuarial liabilities attributable to Chapter 125/00 resulting in greater employer contributions in later years.

Chapter 152 of the Laws of 2006 ("Chapter 152/06") eliminated the ten-year phase-in. All actuarial liabilities attributable to Chapter 125/00 are now recognized in the actuarial valuation.

Chapter 85 of the Laws of 2000 ("Chapter 85/00") reestablished the UAAL and eliminated the Balance Sheet Liability (BSL) for actuarial purposes as of June 30, 1999. The schedule of payments toward the reestablished UAAL provides that the UAAL, if any, be amortized over a period of 11 years beginning Fiscal Year 2000, where each annual payment after the first equals 103% of its preceding annual payment.

Statutory Contributions for Fiscal Years 2013 and 2012 were equal to the Actuarial Contributions.

**Funded Status and Funding Progress** – One measure of the funded status of the Plan as of June 30, 2011, the most recent actuarial valuation date, based on the Entry Age Actuarial Cost Method, the plan’s funding method, is as follows (dollar amounts in thousands):

<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (“AAL”) (b)</b>	<b>Unfunded AAL  (“UAAL”) (b-a)</b>	<b>Funded Ratio (a/b)</b>	<b>Covered Payroll (c)</b>	<b>Percentage of Covered Payroll ((b-a)/c)</b>
<u>\$ 2,323,629</u>	<u>\$ 3,681,694</u>	<u>\$ 1,358,065</u>	<u>63.1 %</u>	<u>\$ 920,369</u>	<u>147.6 %</u>

The schedule of funding progress, presented as required supplementary information (RSI) following the notes to the financial statements, presents multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the Actuarial Accrued Liabilities (AAL) for benefits under the Plan’s Actuarial Cost Method.

An additional schedule of funding progress, presented as supplementary information following the notes to the financial statements, presents multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to AALs for benefits under the Entry Age Actuarial Cost Method.

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

Additional information as of the latest actuarial valuation follows:

Valuation Date	June 30, 2011 (Lag)
Actuarial Cost Method	Entry Age
Amortization Method	
Initial Unfunded	Increasing Dollar
Post-2010 Unfundeds	Level Dollar
Remaining Amortization Period	
Initial Unfunded	21 Years (Closed).
Post-2010 Unfundeds	15 Years (Closed).
Actuarial Asset Valuation Method	6-Year Smoothed Market <sup>1</sup>
Actuarial Assumptions	
Projected Salary Increases <sup>2</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per annum.
Investment Rate of Return <sup>2</sup>	7.0% per annum, net of Investment Expenses.
COLAs <sup>2</sup>	1.5% per annum.

<sup>1</sup> With the June 30, 2011 Actuarial Asset Value reset to Market Value of Assets.

<sup>2</sup> Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per annum.

**5. MEMBER LOANS**

Members are permitted to borrow up to 75% of their own contributions, including accumulated interest. The balance of member loans receivable at June 30, 2013 and 2012 is \$39.28 million and \$37.09 million, respectively. Upon termination of employment before retirement, certain members are entitled to the refunds of their own contributions including accumulated interest, less any loans outstanding.

**6. RELATED PARTIES**

The Comptroller has been appointed by law as custodian for the assets of the Plan. Fixed income program securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller also provides cash receipt and cash disbursement services to the Plan. Actuarial services are provided to the Plan by the Office of the Actuary employed by the Boards of Trustees of The City's main pension systems. The City's Corporation Counsel provides legal services to the Plan.

Other administrative services are also provided by The City. Costs of \$1.10 million and \$1.03 million were incurred on behalf of the Plan by other City agencies, primarily the Comptroller's Office for 2013 and 2012, respectively. The Plan's fixed investment program assets are co invested with those of the TDA Program. The Plan's variable investment program assets are co invested with those of the TDA Program and TRS (see Note 2). TRS holds the assets of the variable investment programs.

## **7. ADMINISTRATIVE AND INVESTMENT EXPENSES**

In Fiscal Years 2013 and 2012, as per Chapter 307 of the New York State Laws of 2002, The City provided the plan with Corpus funding for administrative expenses in the amount of \$8.92 million and \$8.69 million, respectively.

## **8. CONTINGENT LIABILITIES AND OTHER MATTERS**

**Contingent Liabilities** – The Plan has claims pending against it and has been named as a defendant in lawsuits and also has certain other contingent liabilities. Management of the Plan, on the advice of legal counsel, believes that such proceedings and contingencies will not have a material effect on the Plan's net position or changes in the Plan's net position. Under the existing State statutes and City laws that govern the functioning of the Plan, increases in the obligations of the Plan to members and beneficiaries ordinarily result in increases in the obligations of the employers to the Plan.

**Other Matters** – During Fiscal Year 2013 and 2012, certain events described below took place, which, in the opinion of Plan's management, could have the effect of increasing the obligations of the Plan to the members and/or their beneficiaries. The effect of such events has not been fully quantified. However, it is the opinion of Plan's management that such developments would not have a material effect on the Plan's net position held in trust for pension benefits or cause changes in the Plan's net position held in trust for pension 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.

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 assumptions for Fiscal Years 2010 through 2013.

**Notes to Financial Statements**  
**Years Ended June 30, 2013 and 2012**  
**(Cont'd)**

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**Revised Actuarial Assumptions and Methods** — In accordance with the ACNY and with appropriate practice, the Boards of Trustees of the five actuarially-funded NYCERS 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 Board of Education Retirement System” (“February 2012 Report”).

The Board of Trustees of the Plan 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 expenses.

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

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

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

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

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

Chapter 260 of the Laws of 2007 is a reopener of the Chapter 96/95 Age 55 optional retirement program for Tier II and Tier IV members in the loader and handler job titles.

Chapter 19 of the Laws of 2008 established retirement programs to permit certain Tier 2 and Tier 4 members 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 28, 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 provides that individuals joining the Plan after December 10, 2009, who are represented by the United Federation of Teachers (UFT) and 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. These members become vested after ten years of credited service.

Also, under Chapter 504/09, all members of the Plan 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.

Chapter 157 of the Laws of 2010 provided that members who were laid off from the School Construction Authority (SCA) on or after December 1, 2002 and who returned to work prior to January 8, 2008, can buy back their layoff time for retirement purposes. Similarly, members who were laid off from the SCA on after December 1, 2002 and retired prior to July 7, 2010, may purchase services for the layoff period.

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 placed certain limitations on Tier 3 and Tier 4 benefits available to participants hired on or after April 1, 2012 in most New York State PERS, including BERS. These changes are sometimes referred to as Tier 6.

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 expenses and defined the amortization of Unfunded Actuarial Accrued Liabilities (UAAL).

## Required Supplementary Information (Unaudited)

### Schedule 1

#### SCHEDULE OF FUNDING PROGRESS (IN CONFORMITY WITH THE PLAN'S FUNDING METHOD) (In thousands)

	(1)	(2)	(3)	(4)	(5)	(6)
Actuarial Valuation Date June 30	Actuarial Asset Value (AAV) (A)	Actuarial Accrued Liability (AAL) <sup>1</sup> (A)&(B)	Unfunded AAL (UAAL) (C) (2)-(1)	Funded Ratio (1)÷(2)	Covered Payroll	UAAL as a Percentage of Covered Payroll (3)÷(5)
2011 (Lag) <sup>2</sup>	\$ 2,323,629	\$ 3,681,694	\$1,358,065	63.1 %	\$ 920,369	147.6%
2010 (Lag) <sup>2</sup>	2,056,452	3,558,251	1,501,799	57.8	912,290	164.6
2009 (Lag)	1,963,719	1,963,719	0	100.0	910,609	0.0
2008 (Lag)	2,084,116	2,084,116	0	100.0	852,106	0.0
2007 (Lag)	1,983,714	1,985,613	1,899	99.9	777,626	0.2
2006 (Lag)	1,830,338	1,833,996	3,658	99.8	749,963	0.5

1 Effective June 30, 2010, based on Entry Age Actuarial Cost Method ("EAACM"). Previously, based on the Frozen Initial Liability Actuarial Cost Method.

2 Reflects revised actuarial assumptions and methods based on experience review.

#### Notes:

- A. For the June 30, 2011 (Lag) actuarial valuation, the AAV was reset to the MVA (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.

The Actuarial Asset Valuation Method (AAVM) in use for actuarial valuations after the June 30, 2011 (Lag) actuarial valuation is unchanged from the AAVM in use for the June 30, 2009 (Lag) actuarial valuation.

Beginning with the June 30, 2004 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) was changed to a method which 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 June 30, 2000, at rates 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).

**Required Supplementary Information (Unaudited)  
(Cont'd)**

The UIR for Fiscal Years 2000 to 2004 was set equal to the UIR under the prior AAVM.

The prior AAVM was changed as of June 30, 1999 to reflect a market basis for investments held by the Plan.

- B. To effectively assess the funding progress of the Plan, it is necessary to compare the AAV and the AAL calculated in a manner consistent with the Plan’s funding method over a period of time. The AAL is the portion of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future employer normal costs and future member contributions.
- C. The UAAL is the excess of the AAL over the AAV. Under the EAACM, 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.

(Schedule of Funding Progress Concluded)

**Schedule 2**

**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

**(In thousands)**

Fiscal Year Ended June 30	Annual Required Contribution ("ARC")	Percentage of ARC Contributed
2013	\$196,246	100.0 %
2012	213,651	100.0
2011	180,191	100.0
2010	147,349	100.0
2009	134,225	100.0
2008	143,100	100.0

Under the requirements of Governmental Accounting Standards Board Statement No. 25 (GASB25), as amended by GASB Statement No. 50 (GASB50), the Annual Required Contribution (ARC) is determined through an actuarial valuation reflecting all liabilities of the Plan. The employer contribution to the Plan is determined in accordance with statute (i.e., Statutory Contribution).

## Required Supplementary Information (Unaudited) (Cont'd)

### Schedule 3

#### SCHEDULE OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations as of June 30, 2011 (Lag) and June 30, 2010 (Lag). These actuarial valuations were used to determine Employer Contributions for Fiscal Years 2013 and 2012, respectively. Additional information as of the last two actuarial valuations follows:

	June 30, 2011 (Lag) <sup>1</sup>	June 30, 2010 (Lag) <sup>1</sup>
Actuarial cost method	Entry Age.	Entry Age.
Amortization method for Unfunded Actuarial Accrued Liabilities Initial Unfunded Post-2010 Unfundeds	Increasing Dollar. Level Dollar.	Increasing Dollar. Level Dollar.
Remaining amortization period Initial Unfunded Post-2010 Unfundeds	21 Years (Closed). 15 Years (Closed).	22 Years (Closed). NA
Actuarial asset valuation method	Modified 6-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 6-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.
Actuarial assumptions: Investment rate of return	7.0% per annum <sup>2</sup> net of Investment Expenses.	7.0% per annum <sup>2</sup> , net of Investment Expenses.
Post-retirement mortality	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.
Active service: withdrawal, death, disability, service retirement	Tables adopted by Board of Trustees during Fiscal Year 2012.	Tables adopted by Board of Trustees during Fiscal Year 2012.
Salary increases	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per annum. <sup>2</sup>	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per annum. <sup>2</sup>
Cost-of-living adjustments <sup>2</sup>	1.5% per annum.	1.3% per annum.

1 Under the One-Year Lag Methodology, the actuarial valuation determines the Employer Contribution for the second following Fiscal Year.

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

**Additional Supplementary Information**  
**Fiscal Year Ended June 30, 2013**

**SCHEDULE OF MANAGEMENT EXPENSES**

INVESTMENT MANAGER	INVESTMENT TYPE	MGMT FEE
<b><u>Fixed Investment Expenses:</u></b>		
Daruma Asset Mgmt Small Cap	Equity	105,537
Wellington Mgmt MCC	Equity	334,362
State Street GA S&P 400	Equity	2,147
Zevenbergen	Equity	64,304
Aronson Johnson	Equity	123,821
F.I.S. Fund Mgmt	Equity	204,226
Total Progress Trust	Equity	333,190
BlackRock	Equity	21,924
		<b><u>\$ 1,189,511</u></b>
Baillie	International Equity	627,249
Sprucegrove	International Equity	432,566
Acadian EAFE Small Cap MTA	International Equity	44,261
Acadian	International Equity	139,410
Blackrock Account EM	International Equity	30,418
CONY EAFE Rebel	International Equity	368
		<b><u>\$ 1,274,272</u></b>
Fairview Private Equity Fd	Private Equity	74,034
Mesirow Partners Fund III	Private Equity	322,288
Mesirow Partners Fund IV	Private Equity	168,443
Mesirow Partners Fund V	Private Equity	245,927
Platinum Eq Cap Ptnrs III	Private Equity	226,531
Warburg Pincus XI	Private Equity	254,873
Prudential Privest	Private Equity	1,270
Brookfield Strategic RE Ptnrs	Private Equity	172,604
Franklin Templeton Fd	Private Equity	134,755
Lasalle US Property Fd	Private Equity	81,318
New York fair view	Private Equity	3,223
Pre-franklin	Private Equity	423,045
		<b><u>\$ 2,108,311</u></b>
State Street	Fixed Income	33,574
Pimco	Fixed Income	118,369
Prudential	Fixed Income	70,369
Taplin Canida	Fixed Income	60,135
Loomis Sayles	Fixed Income	224,591
Shenkman	Fixed Income	172,500
Securities Lending	Fixed Income	54,829
		<b><u>\$ 734,367</u></b>
Pimco	TIPS	<b><u>\$ 39,380</u></b>
Babson BL MTA	Mutual Fund Fixed Income	<b><u>\$ 164,504</u></b>
Access RBC	Mutual Fund Mortgage	5,599
AFL-CIO Housing Inv Trust	Mutual Fund Mortgage	33,498
		<b><u>\$ 39,097</u></b>
<b>Fixed Investment Expenses</b>	<b>Sub-total</b>	<b><u>\$ 5,549,442</u></b>

**Additional Supplementary Information**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

**SCHEDULE OF MANAGEMENT EXPENSES (CONT'D)**

<b><u>Variable Investment Expenses:</u></b>	<b>\$ 78,558</b>
<b><u>Consultant Expenses:</u></b>	
Courtlandt Partners	6,929
Ernst & Young (SR Batliboi & Co)	719
Hamilton Lane	29,945
Nat'l Instit on Retirement Sec	112
Rodriguez Velazquez	9
Townsend Group	745,064
Cox, Castle & Nicholson	3,010
Pillsbury Winthrop Shaw Pittman	1,460
Nixon Peabody	1,976
Reinhart Boerner VanDeuren	832
Buck Consultants, LLC	135,690
Britten Network Co.	163,556
Prudential Insurance Co.	156,681
KPMG	345,967
Vitech Systems Group, INC	1,768,707
Gary Tunncliffe and Jack Ziegler, LLC	424,313
Donato Pascali	6,713
<b>Sub-Total</b>	<b>\$ 3,791,683</b>
<b>Total Management Expenses for FY 2013:</b>	<b><u>\$ 9,419,684</u></b>

**SCHEDULE OF DIRECT PAYMENTS TO CONSULTANTS**

<b>INDIVIDUAL OR FIRM NAME</b>	<b>NATURE OF SERVICES</b>	<b>AMOUNT</b>
<b>Buck Consultants, LLC</b> 485 Lexington Avenue New York, NY 10017	Investment Consultation	\$ 135,690
<b>Britten Network Co.</b> 536 Main Street Royersford, PA 19468	Investment Consultation	163,556
<b>Prudential Insurance Co.</b> 200 Wood Ave South Iselin, NJ 08830	Professional Services	156,681
<b>KPMG</b> 345 Park Avenue New York, NY 10154	CPMS Consultant*	345,967
<b>Vitech Systems Group, Inc.</b> 401 Park Avenue South, 12th Floor New York, NY 10016	CPMS Consultant	1,768,707
<b>Gary Tunncliffe &amp; Jack Ziegler, LLC</b> 321 Union Street, #4A Brooklyn, NY 11231	CPMS Consultant	424,313
<b>Donato Pascali</b> 2215 E 74th Street Brooklyn, NY 11234	CPMS Consultant	6,713
<b>Total Consulting Fees for FY 2013</b>		<u><u>\$ 3,001,627</u></u>

\* CPMS - Comprehensive Pension Management System

**Additional Supplementary Information**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

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**SCHEDULE OF ADMINISTRATIVE EXPENSES**  
**(In thousands)**

<b>EXPENSE TYPE</b>	<b>AMOUNT</b>
<b><u>Administrative Expenses:</u></b>	
Salaries paid to Plan Personnel	\$ 5,179
Consumable Supplies and Materials	99
Furniture and Equipment	68
General Services	104
Contractual services	<u>3,477</u>
Sub-Total	<b>8,927</b>
 <b><u>Miscellaneous Expenses:</u></b>	
Related Parties Administrative Expenses	<b>1,103</b>
(Adm expenses made by the Comptroller on our behalf. Charged on investment)	
 <b>Total Administrative Expenses for FY 2013:</b>	 <b><u><u>\$10,030</u></u></b>



# Board of Education Retirement System of the City of New York

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

## Comprehensive Annual Financial Report of the Qualified Pension Plan

For the Fiscal Years Ended  
June 30, 2013 and June 30, 2012

## Investment Section

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**Date:** December 6, 2013  
**To:** New York City Board of Education Retirement System  
**From:** Michael C. Wright  
**Re:** *Report on Investment Activity*

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Dear Members of the New York City Board of Education Retirement System:

### **Fund Summary**

The Board of Education Retirement System total fund increased in value for the fiscal year ending June 2013 with a return of 12.9%, compared to 13.7% for the Board of Education Policy Benchmark<sup>1</sup>, against which it is measured. The market value of the fund, was just under the \$3 billion mark during the previous year, easily cleared that level in FY2013 and ended the fiscal year at \$3.5 billion. Performance was strong, which helped to offset weaker returns from the previous year, and was well above long-term return expectations. Longer-term returns remain favorable, and the Fund leads both its Policy Benchmark and median public fund peer over the trailing five- and ten-year time periods. The Fund's five year average annual return is 5.7%, 7 basis points ahead of the benchmark index, while the Fund's ten-year average is 7.7% versus 7.6%.

### **Economic and Market Comment**

The US economy continued to exhibit positive growth, supported by quantitative easing from the Federal Reserve, with guidance having been provided as to the economic conditions that would be conducive to the paring back of accommodative monetary policy. Gross Domestic Product grew 3.1% over the trailing fiscal year, compared to 2.1% for the fiscal year ended June 2012. Inflation remained constrained, and CPI grew by 1.8%. Commodity prices remained under pressure on signs of decelerating growth elsewhere in the world. The job market continued to strengthen with an average monthly increase in non-farm payrolls of 187,000 per month. While slower than the 200,000+ monthly pace of FY 2012, it is still above levels deemed necessary to support population growth and prevent rising unemployment. The unemployment rate itself continued to exhibit marked improvement, and fell from 8.2% to 7.6%. These favorable indicators of economic health have had a proportionate effect on BERS investments.

The U.S. stock market, as measured by the Russell 3000 stock index, returned 21.5% for the fiscal year ending June 30, 2013. This was in contrast to the 3.8% return generated during the preceding fiscal year. Equity markets found support from improving economic data, supported by accommodative monetary policy, and a sense that the worst of the European sovereign debt crisis was over. A sharp rise in interest

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<sup>1</sup> The Board of Education Policy Benchmark is a custom index representing the weighted average return of the benchmarks for each major investment program in the Plan. The Policy Benchmark as of 6/30 consisted of: 40.81% Russell 3000, 21% MSCI EAFE, 4% MSCI Emerging Markets, 2.58% Russell 3000+500bps, 22% NYC Core+5 fixed income, 3% Barclays Capital US TIPS, and 5% Citigroup BB&B Index.

rates toward the end of the fiscal year stifled some of the gains. International stocks did similarly well, with the MSCI EAFE Index returning 18.6%, on the growing consensus that the troubled economies of Europe and Japan had bottomed. International returns lagged those of the US slightly as the prospect of higher US interest rates supported the US dollar, and weighed on foreign currencies. Fixed income returns were negative, however, with the Barclays Capital US Aggregate Index having lost -0.7% over the trailing year. This was the result of losses during the May-June period, where the index lost -3.3%. Interest rates rose during this time period as the yield on the 10-Year Treasury rose from about 1.9% to 2.5% on news that the Federal Reserve had begun to consider the “end-game” with respect to its quantitative easing policy. Treasuries lost -1.7% for the year, but high-yield gained 9.5%, supported by its sensitivity to equity-market gains.

### **Fund Description**

Asset allocation is a major contributor to the Board of Education Retirement System fund’s historical returns. The Trustees establish a target asset mix after considering the long-term growth prospects for the diversified group of investments and the cost of the plan participants’ benefits. This asset allocation does not change significantly from year to year, and the fund is rebalanced to the target mix as it pays out benefits and receives contributions. The fund’s target asset mix is 70% stocks (including non-US stocks, private equity, and real estate) and 30% bonds. Over the long investment future of the pension fund, we expect stocks to outperform bonds by a substantial margin. Our expectations were easily met this year as the domestic public equity allocation of the fund returned 23.1% (including a 27.6% return from actively managed strategies). International equity lagged the MSCI EAFE during the fiscal year (13.5% versus 18.6%), but the managers still retain favorable long-term records, and the allocation is ahead of benchmark over the trailing five-year period. While returns generated from the total domestic fixed income segment were modest, they still remained in positive territory with a FY return of 1.2%. The combination of a high-yield allocation and outperformance from high-yield managers, both served to offset the negative returns produced by the Fund’s investment-grade fixed income allocation.

Fiscal year 2013 saw continued implementation of the revised asset allocation. The Plan moved toward increased use of indexing strategies within US public equity. International equity allocation was diversified through the addition of a dedicated small-cap allocation and a change in the emerging-market equity manager. Private equity and direct real estate continue to be funded with the goal of reaching their respective 6% and 7% allocation targets. Fixed income investments were diversified through the addition of private investment-grade credit and a restructuring of the enhanced yield exposure. The latter included the replacement of a high-yield manager and an allocation to bank-loan securities. The latter will serve to provide some hedging characteristics against a rising interest-rate environment. Over almost all trailing time periods, the Total Fund is ahead of its median public fund peer (it lags slightly over 15 years, but is still ahead of the policy benchmark). All returns are calculated using a time-weighted rate of return and fully accrued market values. Data is collected by the fund custodian and presented, to the degree possible, in conformance with industry presentation standards. The pension fund is a long-term investment fund structured to provide assets for the payouts needed for the benefits of the participants. The fund is measured over time periods consistent with those future requirements. The primary strategy for the fund going forward remains to continue making investments to lower-correlated asset classes with favorable expected return characteristics, such as private equity and private real estate. As the Plan continues to fund its allocation, we expect improvements in portfolio efficiency, i.e., return per unit of risk.

**Re: Report on Investment Activity (cont'd)**  
December 6, 2013

Page 3

Although the market environment seems somewhat more favorable going forward, we do not anticipate an end to volatility, which can reemerge at any time in response to a change in economic or global geopolitical developments. We continue to take active steps with investment diversification to mitigate the effects on the fund. We will continue to monitor market conditions and fund performance in order to accomplish the goal of providing the plan benefits as promised.

Sincerely,

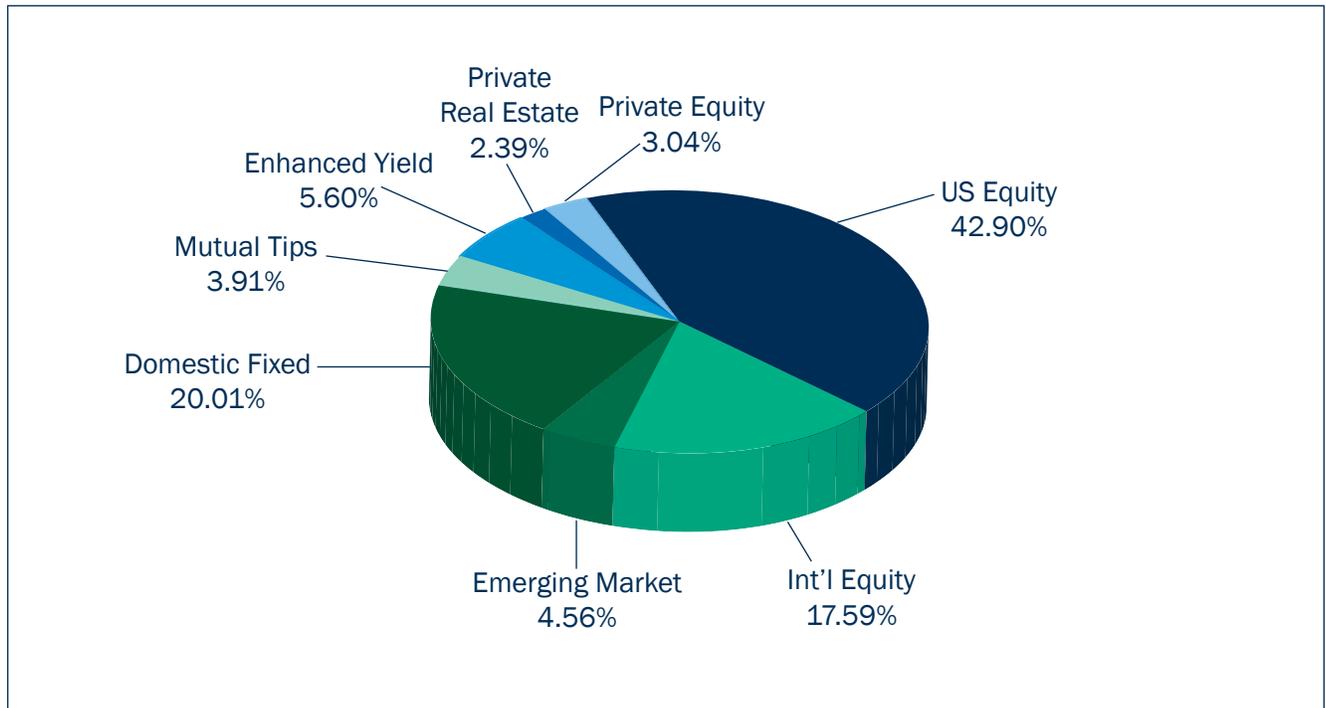


Michael C. Wright  
Principal and Investment Consultant

MCW: AF

**buck**consultants

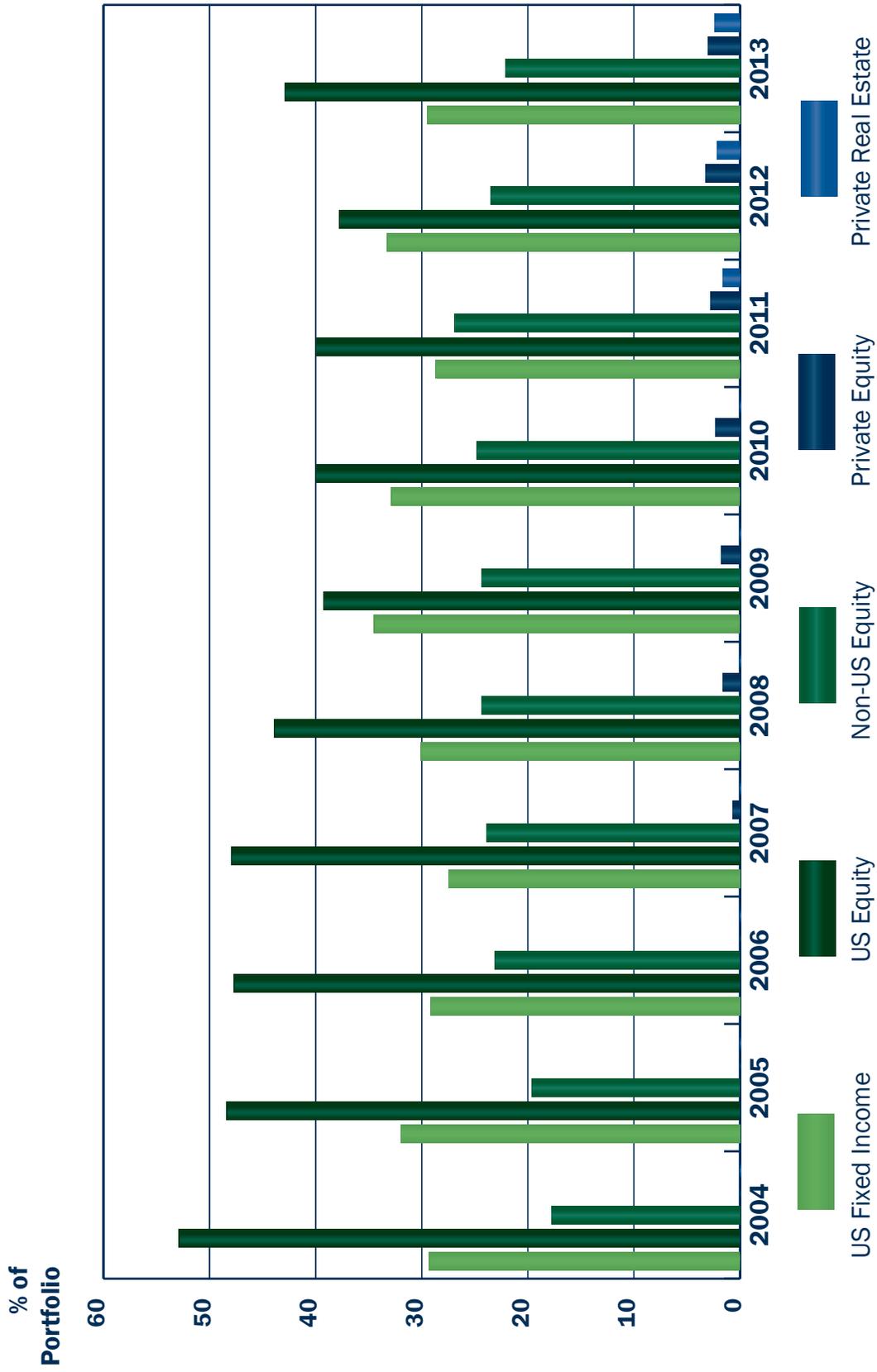
**Assets Allocation**  
**Fiscal Year Ended June 30, 2013**



INVESTMENT

Years	US Equity	Int'l Equity	Emerging Market	Domestic Fixed	Mutual TIPS	Enhanced Yield	Private Real Estate	Private Equity
6/30/2004	44.78	14.14	9.33	30.49	0.00	1.26	0.00	0.00
6/30/2005	39.80	15.65	8.94	33.39	0.00	2.22	0.00	0.00
6/30/2006	39.16	18.05	4.50	36.32	0.00	1.97	0.00	0.00
6/30/2007	47.90	19.30	4.50	20.40	2.80	4.40	0.00	0.70
6/30/2008	36.49	19.57	16.38	20.62	2.69	2.95	0.00	1.30
6/30/2009	34.28	20.48	11.00	26.06	2.73	3.94	0.00	1.51
6/30/2010	36.22	21.67	8.46	25.27	2.72	3.66	0.00	2.00
6/30/2011	39.97	21.51	5.37	22.63	2.62	3.43	1.66	2.81
6/30/2012	37.79	19.03	4.48	24.81	2.46	6.00	2.15	3.28
6/30/2013	42.90	17.59	4.56	20.01	3.91	5.60	2.39	3.04

**Assets Allocation  
Fiscal Year Ended June 30, 2013  
(Cont'd)**



INVESTMENT

**Investment Summary**  
**Fiscal Year Ended June 30, 2013**  
(In thousands)

<u>Type of Investments</u>	<u>Market Value</u>	<u>Percentage</u>
<b>Short Term Investments:</b>	<b>\$ 48,394</b>	<b>1.60 %</b>
<b>Fixed Income Debt Securities:</b>		
U.S. Government Bonds	340,865	11.30
Corporate Bonds	289,045	9.58
Yankee Bonds	2,412	0.08
<b>Total Fixed Income Debt Securities:</b>	<b>632,322</b>	<b>20.96</b>
<b>Total Fixed Income:</b>	<b>680,716</b>	<b>22.57</b>
<b>Equity Securities:</b>		
Common Stock	1,142,904	37.89
Private	151,672	5.03
<b>Total Equity Securities:</b>	<b>1,294,576</b>	<b>42.91</b>
<b>Mutual Funds:</b>		
International Investment Fund-Equities	573,413	19.01
Mutual Fund Fixed Income	58,724	1.95
Treasury Inflation-Protected Securities	101,248	3.36
Mortgages	11,156	0.37
<b>Total Mutual Funds:</b>	<b>744,541</b>	<b>24.68</b>
<b>Promissory Notes:</b>	<b>446</b>	<b>0.01</b>
<b>Collateral From Securities Lending:</b>	<b>296,382</b>	<b>9.82</b>
	<hr/>	<hr/>
<b>Total Investments</b>	<b><u>3,016,661</u></b>	<b><u>100.00 %</u></b>

**Schedule of Investment Return (Unaudited)  
Annualized Investments Results  
Fiscal Year Ended June 30, 2013**

Assets \$'000	Assets %	3 Mos Apr-13 Jun-13 %	6 Mos Jan-13 Jun-13 %	1 Yr Jul-12 Jun-13 %	3 Yrs Jul-10 Jun-13 %	5 Yrs Jul-08 Jun-13 %	10 Yrs Jul-03 Jun-13 %
<b>1,256,267</b>	<b>42.21</b>	<b>3.14</b>	<b>15.03</b>	<b>23.09</b>	<b>18.48</b>	<b>7.26</b>	<b>7.95</b>
		2.69	14.06	21.46	18.63	7.25	7.81
		<b>3.14</b>	<b>15.03</b>	<b>23.09</b>	<b>18.48</b>	<b>7.26</b>	<b>7.95</b>
		2.69	14.06	21.46	18.63	7.25	7.81
		<b>-3.75</b>	<b>0.02</b>	<b>13.52</b>	<b>9.79</b>	<b>1.42</b>	<b>10.47</b>
		-0.98	4.10	18.62	10.04	-0.63	7.67
		-0.79	3.70	18.04	10.72	0.85	9.13
		-7.95	-9.40	3.23	3.72	-0.11	14.02
		-7.40	-7.34	5.37	5.63	1.73	15.10
		<b>0.87</b>	<b>9.05</b>	<b>18.82</b>	<b>15.14</b>	<b>5.13</b>	<b>8.53</b>
		<b>-2.82</b>	<b>-2.21</b>	<b>1.24</b>	<b>5.27</b>	<b>6.40</b>	<b>5.57</b>
		-4.55	-5.37	-4.81	4.99	6.69	5.41
		-3.02	-3.02	2.29	6.08	7.12	5.15
		<b>-0.42</b>	<b>-0.36</b>	<b>-0.09</b>	<b>0.31</b>	<b>1.03</b>	<b>2.26</b>
<b>2,976,222</b>	<b>100.00</b>	<b>-0.26</b>	<b>5.40</b>	<b>12.90</b>	<b>11.96</b>	<b>5.73</b>	<b>7.72</b>

Yield data were obtained from the NYCBERS Performance Overview as of June 30, 2013

These returns are calculated using a time weighted rate of return based on the market value of the portfolio. (QPP) for time periods greater than one year the returns are annualized.

## List of 50 Largest Equity Holdings (Fixed) Fiscal Year Ended June 30, 2013

NAME OF EQUITY HOLDINGS	PAR VALUE	MARKET VALUE
1 EXXON MOBIL CORP	\$ 13,126,706	\$ 24,838,119
2 APPLE INC COM	10,273,580	22,984,522
3 MICROSOFT CORP COM	11,122,928	17,827,356
4 JOHNSON & JOHNSON COM	7,677,240	14,910,276
5 GENERAL ELECTRIC CO	11,203,490	14,828,219
6 GOOGLE INC CL A	7,951,871	14,678,409
7 CHEVRON CORPORATION	6,728,032	14,183,049
8 PROCTER & GAMBLE CO COM	6,910,553	13,046,879
9 BERKSHIRE HATHAWAY INC DEL	9,410,294	12,455,017
10 JPMORGAN CHASE & CO	7,282,771	12,338,343
11 WELLS FARGO & CO NEW	8,488,992	12,321,241
12 INTERNATIONAL BUSINESS MACHINES CORP	5,907,220	12,302,324
13 AT&T INC	8,241,837	11,774,217
14 PFIZER INC COM	7,008,696	11,580,763
15 COCA-COLA CO	5,468,120	9,486,857
16 CITIGROUP INC	10,380,692	9,024,884
17 VERIZON COMMUNICATIONS INC	5,585,164	8,904,139
18 PHILIP MORRIS INTL INC	4,086,598	8,759,881
19 MERCK & CO INC NEW	5,507,158	8,671,472
20 BANK OF AMER CORP	11,047,282	8,571,910
21 CISCO SYS INC	4,433,054	8,032,486
22 PEPSICO INC COM	3,995,776	7,821,414
23 INTEL CORPORATION	3,975,597	7,442,515
24 WAL MART STORES INC	3,974,930	7,417,714
25 DISNEY (WALT) COMPANY .	2,997,677	7,031,563
26 HOME DEPOT INC USD 0.05	2,687,690	6,997,710
27 COMCAST CORP NEW CL A	3,441,492	6,794,276
28 ORACLE CORPORATION	3,079,988	6,744,730
29 QUALCOMM INC	3,691,068	6,525,360
30 AMAZON COM INC	2,398,179	6,312,727
31 MC DONALDS CORPORATION COMMON	2,652,512	6,137,406
32 VISA INC	3,151,676	5,904,470
33 SCHLUMBERGER LIMITED COM	6,206,978	5,890,595
34 UNITED TECHNOLOGIES CORP	2,553,112	5,283,081
35 GILEAD SCIENCES INC	1,467,252	4,830,025
36 BOEING COMPANY	2,338,321	4,805,870
37 3M CO	2,593,287	4,667,167
38 AMGEN INC	2,201,301	4,574,963
39 CONOCOPHILLIPS	2,212,308	4,572,893
40 BRISTOL MYERS SQUIBB CO COM	2,601,561	4,538,270
41 UNION PACIFIC CORP	1,618,520	4,453,138
42 OCCIDENTAL PETROLEUM CORPORATION COMMON	2,100,803	4,444,279
43 AMERICAN EXPRESS COMPANY	1,556,471	4,380,413
44 ALTRIA GROUP INC	2,041,093	4,344,638
45 CVS CAREMARK CORP	1,828,080	4,328,698
46 GOLDMAN SACHS GROUP INC	3,622,593	4,290,509
47 MASTERCARD INC	1,824,802	4,151,337
48 EBAY INC	2,693,377	4,150,013
49 US BANCORP DEL	2,364,227	4,135,199
50 UNITED HEALTH GROUP INC	1,603,827	4,129,693

NOTE: Full listing of holdings can be obtained at  
NYC Board of Education Retirement System  
65 Court Street, Room 1603, Brooklyn, NY 11201

**List of 50 Largest Bond Holdings (Fixed)  
Fiscal Year Ended June 30, 2013**

NAME OF BOND HOLDINGS	PAR VALUE	MARKET VALUE
1 GOV'T NATL MTG ASSN II POOL# MA0932	\$ 22,824,313	\$ 22,092,186
2 FNMA TBA 30YR SFM 03.50% JUL	19,373,019	19,186,453
3 FEDERAL NAT'L MTGE ASSN POOL # 995939	18,329,366	18,419,123
4 FNMA TBA 30YRS SFM 04.0% AUG	13,662,188	13,514,410
5 FNMA TBA 15YRS SFM 02.50% JULY	12,991,625	12,874,000
6 FNMA TBA 30YRS SFM 03.0% AUGUST	10,071,328	10,230,938
7 FNMA TBA 30YRS SFM 03.0% JULY	7,949,607	7,913,953
8 FED'L HOME LOAN MTGE CORP GRP # Q00804	7,866,956	7,873,098
9 GOV'T NAT'L MTG ASSN POOL#	7,773,122	7,480,398
10 GOV'T NATL MTG ASSN II POOL# MA0697	7,759,372	7,475,677
11 FHLMC TBA 30YR GOLD SFM 4.00%	7,254,844	7,263,900
12 FEDERAL NAT'L MTGE ASSN POOL # 190397	6,699,746	6,685,664
13 FEDERAL NAT'L MTGE ASSN POOL # 931034	6,463,584	6,551,080
14 GOV'T NAT'L MTGE ASSN II POOL # 4113	6,509,063	6,495,361
15 FNMA TBA 30YRS SFM 04.0% JULY	6,283,642	6,250,560
16 UNITED STATES TREAS NTS	5,976,817	5,896,875
17 GOV'T NAT'L MTGE ASSN II POOL # 5233	6,052,384	5,829,532
18 GOV'T NAT'L MTGE ASSN POOL # 782386	5,944,032	5,807,559
19 GOV'T NAT'L MTG ASSN POOL# AD1612	5,808,048	5,610,301
20 UNITED STATES TREAS BDS	4,745,844	5,548,725
21 UNITED STATES TREAS NTS	5,554,788	5,220,145
22 FNMA TBA 15YR SFM 03.00% AUG	5,103,125	5,132,031
23 GNMA II TBA JUMBO 3.5% 30YR JUL	5,278,906	5,131,250
24 GNMA I TBA SFM 3.50% 30YR JULY	5,220,000	5,128,906
25 U S TREASURY BONDS	4,741,489	4,894,531
26 U S TREASURY BONDS	4,185,928	4,810,172
27 UNITED STATES TREAS NTS	4,932,902	4,776,469
28 UNITED STATES TREAS NTS	4,734,289	4,724,852
29 FNMA TBA 30YRS SFM 06.0% JULY	4,456,188	4,458,750
30 FEDERAL HOME LN MTG CORP	4,630,395	4,396,029
31 FEDERAL HOME LN MTG CORP	4,573,780	4,358,776
32 GNMA I TBA 30YRS SFM 04.50% JULY	4,269,375	4,244,200
33 FNMA DWARF TBA 15YR SFM 04.00% AUG	4,220,625	4,211,720
34 GNMA II TBA 30YRS JUMBO 03.0% JULY	4,079,063	3,955,625
35 UNITED STATES TREAS NTS	3,903,809	3,902,301
36 GOV'T NATL MTG ASSN II POOL # MA0781	3,880,186	3,737,838
37 GOV'T NATL MTG ASSN II POOL# MA0850	3,880,857	3,737,838
38 FEDERAL NAT'L MTGE ASSN POOL # AR9188	3,808,751	3,722,641
39 FEDERAL HOME LN MTG CORP	3,858,770	3,678,187
40 GOV'T NAT'L MTGE ASSN II POOL # 4713	3,741,739	3,671,893
41 FEDERAL NAT'L MTGE ASSN POOL # AT4037	3,752,211	3,667,379
42 FEDERAL NAT'L MTGE ASSN POOL # MA1378	3,455,154	3,377,038
43 UNITED STATES TREAS NTS	2,936,715	3,203,996
44 FNMA TBA 15YRS SFM 04.50% JULY	3,210,469	3,180,360
45 GNMA I TBA SFM 4.00% 30YR JULY	3,177,969	3,144,375
46 GOV'T NAT'L MTGE ASSN POOL # 708554	3,019,537	2,956,516
47 UNITED STATES TREAS NTS	2,526,756	2,843,303
48 FED'L HOME LOAN MTGE CORP GRP # G05478	2,867,850	2,787,354
49 GNMA II TBA JUMBO 4.50% 30YR JULY	2,683,594	2,665,125
50 FED'L HOME LOAN MTGE CORP GRP # G01820	2,581,590	2,608,921

NOTE: Full listing of holdings can be obtained at  
NYC Board of Education Retirement System  
65 Court Street, Room 1603, Brooklyn, NY 11201

## List of 50 Largest International Equity Holdings (Fixed) Fiscal Year Ended June 30, 2013

NAME OF INT'L EQUITY HOLDINGS	PAR VALUE	MARKET VALUE
1 NOVARTIS AG CHF 0.5	\$ 10,451,409	\$ 12,196,689
2 BANCO SANTANDER SA EUR 0.5	14,710,778	10,528,404
3 PRUDENTIAL PLC ORD GBP 0.05	7,244,560	9,702,591
4 INDITEX SA EUR 0.15	7,005,889	9,450,106
5 ATLAS COPCO AB NPV RFD	7,681,979	9,424,099
6 CIE FINANCIERE RICHEMONT SA CHF 1.0	5,424,591	9,222,917
7 HSBC HOLDINGS HONGKONG REG	9,097,538	9,183,590
8 L'OREAL SA EUR 0.2	7,099,153	9,086,798
9 RAKUTEN INC	5,811,873	8,868,055
10 ROLLS-ROYCE HOLDINGS PLC 20P	6,101,939	8,774,042
11 ARM HOLDINGS PLC OP	7,273,128	8,126,432
12 BAIDU COM INC USD 0.00005 ADR	5,713,434	7,946,468
13 SMC CORP/JAPAN NPV	5,673,979	7,556,189
14 NOVO NORDISK A/S DKK 1.0	5,006,237	7,219,896
15 AIA GROUP LTD	6,915,194	7,204,942
16 PPR EUR 4.0	5,375,030	6,996,456
17 ROYAL DUTCH SHELL PLC-B SHS	6,737,567	6,959,631
18 TENCENT HOLDINGS LTD HKD 0.0001	4,005,043	6,925,134
19 SYNGENTA AG CHF 0.1	5,881,609	6,882,755
20 SOFTBANK CORP NPV	5,113,186	6,694,365
21 STANDARD CHARTERED PLC USD 0.5	7,991,267	6,585,456
22 TOTAL SA EUR 2.5	6,423,901	6,482,081
23 NESTLE SA CHF 0.1	5,428,788	6,316,921
24 BRITISH AMERICAN TOBACCO P GBP 0.25	5,088,270	6,302,441
25 SVENSKA HANDELSBANKEN-A SHS	4,982,829	6,103,654
26 SAMSUNG ELECTERS	5,284,501	5,881,087
27 TESCO PLC	6,122,099	5,579,762
28 MEGGITT PLC	4,080,800	5,555,369
29 FIAT SPA EUR 3.58	4,320,777	5,511,157
30 BAYERISCHE MOTOREN WERKE AG EUR 1.0	4,431,608	5,462,097
31 HONDA MOTOR CO LTD NPV	5,057,251	5,452,996
32 UNICREDIT SPA NPV	5,113,145	5,445,816
33 ADIDAS AG NPV	3,990,425	5,332,413
34 CARNIVAL PLC USD 1	5,253,810	5,230,197
35 AUSTRALIA AND NZ BANKING GROUP	4,829,442	5,191,452
36 DENSO CORP NPV	4,071,403	5,174,454
37 GEBERIT AG CHF 0.1	3,513,854	4,894,048
38 CHINA MOBILE LTD HKD 0.1	4,747,635	4,877,051
39 OMRON CORP NPV	3,627,700	4,617,724
40 ESSILOR INTL SA CIE GEN D'OPTIQUE	3,403,058	4,585,683
41 SBM OFFSHORE NV EUR 0.25	4,159,972	4,472,708
42 ABB LTD CHF 1.03	3,873,198	4,416,647
43 UNITED OVERSEAS BANK LTD SGD 1.0	4,425,131	4,350,248
44 FUGRO NV EUR 0.05	4,282,219	4,045,812
45 KEYENCE CORP	3,216,556	4,011,101
46 SHIN-ETSU CHEMICAL CO LTD NPV	3,506,391	4,008,541
47 SWATCH GROUP AG/THE CHF 2.25	3,248,690	4,003,704
48 CRH PLC EUR 0.32	4,102,029	3,942,637
49 JARDINE MATHESON HOLDINGS USD 0.25	4,230,283	3,892,389
50 HOLCIM LTD CHF 2.0	4,043,355	3,824,749

NOTE: Full listing of holdings can be obtained at  
NYC Board of Education Retirement System  
65 Court Street, Room 1603, Brooklyn, NY 11201

**List of 50 Largest EAFE Investment Holdings (Fixed)  
Fiscal Year Ended June 30, 2013**

NAME OF EAFE INVESTMENTS HOLDINGS	PAR VALUE	MARKET VALUE
1 SWISS LIFE HOLDING AG CHF 5.1	\$ 785,080	\$ 862,006
2 CAP GEMINI SA EUR 8.0	785,900	843,568
3 WILLIAM HILL PLC GBP 0.10	721,418	841,676
4 ABERDEEN ASSET MGMT PLC	802,941	764,800
5 MONDI PLC/WI	708,011	683,691
6 MEDIASET SPA EUR 0.52	336,190	640,371
7 TUI TRAVEL PLC 0.1P	532,859	629,305
8 VALEO SA EUR 3.0 RFD	521,694	624,861
9 LEONI AG NPV	387,756	509,410
10 EASYJET PLC 27.28571P	383,759	478,504
11 ATOS EUR 1.0	432,248	471,121
12 BENDIGO AND ADELAIDE BANK LTD NPV	508,613	448,700
13 AIR FRANCE-KLM EUR 8.5 RFD	429,893	439,002
14 LONZA GROUP AG-REG	362,864	437,227
15 ACTELION LTD CHF 0.5	390,689	432,735
16 GN STORE NORD A/S DKK 4.0	423,331	424,811
17 FREENET AG NPV	422,726	387,407
18 NORDDEUTSCHE AFFINERIE AG	435,206	386,689
19 BORAL LTD NPV	494,412	377,836
20 REXAM PLC 71.42857P	391,014	356,243
21 LADBROKES ORD GBPO.28333	370,322	352,506
22 NOMURA REAL ESTATE HOLDINGS INC NPV	355,926	337,735
23 PERSIMMON PLC	289,262	333,873
24 DUERR AG NPV	269,046	318,936
25 DAIKYO INC NPV	362,664	289,264
26 QANTAS AIRWAYS LTD NPV	422,078	285,615
27 GIANT INTERACTIVE GROUP USD 0.0 ADR	250,276	280,513
28 ETABLISSEMENTS MAUREL ET P EUR 0.77	306,627	274,961
29 HANNOVER RUECKVERSICHERUNG SE NPV	285,056	271,809
30 PEGATRON CORP TWD 10.0	245,473	269,712
31 NAMCO BANDAI HOLDINGS INC NPV	276,969	265,916
32 NUTRECO NV EUR 0.12	272,379	259,687
33 KUKA AG NPV	241,082	251,816
34 SUEDZUCKER AG NPV	334,937	247,452
35 GERRESHEIMER AG NPV	236,301	245,503
36 TOYO TIRE & RUBBER CO LTD NPV	203,684	239,117
37 ALFRESA HOLDINGS CORP NPV	233,589	228,316
38 CLOSE BROTHERS GROUP PLC	238,714	227,412
39 AMLIN ORD GBP 0.28125	237,709	221,261
40 DAILY MAIL GENERAL CL A GBP 0.125	192,111	214,047
41 JM AB NPV	224,099	210,212
42 SHOWA SHELL SEKIYU KK NPV	181,615	207,622
43 ESSENTRA PLC 25P	204,676	205,309
44 DEMITSU KOSAN CO LTD NPV	213,606	204,417
45 SOJITZ CORP NPV	179,110	203,605
46 AXTEL SAB DE CV	192,988	200,861
47 UNITED INTERNET AG NPV	170,843	200,119
48 DULUXGROUP LTD NPV	236,140	199,306
49 TGS NOPEC GEOPHYSICAL CO A NOK 0.25	251,301	193,541
50 AAREAL BANK AG NPV	170,878	188,968

NOTE: Full listing of holdings can be obtained at  
NYC Board of Education Retirement System  
65 Court Street, Room 1603, Brooklyn, NY 11201

## List of 50 Largest Emerging Market Investment Holdings (Fixed) Fiscal year Ended June 30, 2013

NAME OF EMERGING MARKET INVESTMENT HOLDINGS	PAR VALUE	MARKET VALUE
1 SAMSUNG ELECTRONICS CO L KRW 5000.0	\$ 6,344,207	\$ 8,296,823
2 CHINA CONSTRUCTION	4,825,928	4,498,332
3 BANK OF CHINA LTD	3,409,084	3,364,343
4 PETROL BRASILEIROS PREF BRL0.12	4,525,826	3,348,035
5 LUKOIL OAO USD 0.25 ADR	3,319,119	3,191,197
6 INDUSTRIAL COMME	3,119,988	3,188,834
7 MALAYAN BANKING BHD MYR 1.0	2,515,547	2,654,025
8 TENAGA NASIONAL BHD MYR 1.0	2,166,191	2,379,403
9 KIA MOTORS CORP KRW 5000.0	1,726,277	2,342,905
10 TELEFONICA BRASIL SA PFD	2,391,240	2,094,913
11 FUBON FINANCIAL HOLDING CO TWD 10.0	1,201,721	1,919,069
12 CIA BRASILEIRA DE DISTR PFD GDR RFD	2,178,660	1,861,195
13 HYUNDAI MOTOR CO KRW 5000.0	1,041,935	1,799,122
14 FIRSTRAND LTD ZAR 0.01	1,831,726	1,723,050
15 IMPERIAL HOLDINGS LTD ZAR 0.04	1,396,410	1,478,728
16 SK TELECOM CO LTD KRW 500.0	1,400,600	1,474,906
17 HON HAI PRECISION INDUSTRY TWD 10.0	1,830,607	1,456,721
18 TIM PARTICIPACOES SA NPV	1,626,779	1,451,334
19 LG DISPLAY CO LTD KRW 5000.0	1,520,318	1,385,809
20 STANDARD BANK GROUP LTD ZAR 0.1	1,455,553	1,369,565
21 POLSKI KONCERN NAF PLN1.25	1,297,716	1,358,011
22 PTT GLOBAL CHEMICAL PCL THB 10.0	1,442,009	1,312,292
23 AMERICA MOVIL SA SER L NPV(L/VTG) L	1,293,204	1,305,676
24 KT CORP KRW 5000.0	1,282,832	1,215,469
25 ICICI BANKING CORP INR10(DEMAT)	1,381,667	1,179,997
26 POU CHEN CORP TWD 10.0	1,008,109	1,156,805
27 PEGATRON CORP TWD 10.0	1,209,308	1,139,585
28 ADVANCED INFO SERVICE-FOR RG	518,452	1,122,940
29 CHINA TELECOM CORP	1,131,252	1,107,150
30 MEGA FINANCIAL HOLDING CO LT	1,045,764	1,102,100
31 CHIMEI INNOLUX CORP TWD 10.0	1,319,934	1,095,578
32 UNITED MICROELECTRONICS CO TWD 10.0	871,375	1,066,352
33 CHINA PETROLEUM +	1,082,754	1,052,568
34 SUN PHARMACEUTICAL INDUSTRI INR 5.0	1,006,253	1,052,353
35 CIA ENERGETICA DE MINAS GERAIS PFD	1,368,881	1,039,987
36 TELEKOMUNIKASI INDONESIA IDR 250.0	1,038,816	1,037,879
37 WOORI FINANCE HOLDINGS C KRW 5000.0	1,238,608	1,036,051
38 FIBRIA CELULOSE SA NPV	987,775	1,018,962
39 LITE-ON TECHNOLOGY CORP TWD 10.0	700,177	980,950
40 EMBRAER S A NPV ADR	940,195	977,729
41 ALFA SAB DE CV NPV	528,369	962,470
42 AGRICULTURAL BANK	1,035,248	935,652
43 LUPIN LTD INR 10.0	957,517	923,437
44 BANCO DO BRASIL SA NPV	1,230,121	907,812
45 CHINA MOBILE LTD HKD 0.1	845,499	904,289
46 COMPANHIA DE SANEAMENTO BASICO ADR	698,078	903,505
47 AIRPORTS OF THAILAND PCL THB 10.0	454,950	898,907
48 KRUNG THAI BNK LTD THB10.0 (FR)	530,387	897,586
49 TOTAL ACCESS COM THB2 SING PART RES	520,762	890,601
50 HANA FINANCIAL GROUP INC KRW 5000.0	898,435	873,857

NOTE: Full listing of holdings can be obtained at  
NYC Board of Education Retirement System  
65 Court Street, Room 1603, Brooklyn, NY 11201

**List of 50 Largest Economically Targeted Investment Holdings (Fixed)**  
**Fiscal year Ended June 30, 2013**

NAME OF ECONOMICALLY TARGETED INVESTMENT HOLDINGS	PAR VALUE	MARKET VALUE
1 FEDERAL NAT'L MTGE ASSN POOL # AB7800	\$ 203,940	\$ 192,874
2 FEDERAL NAT'L MTGE ASSN POOL # 3490	157,329	164,050
3 FEDERAL NAT'L MTGE ASSN POOL # A03388	115,417	112,899
4 FEDERAL NAT'L MTGE ASSN POOL # AK6714	112,023	109,813
5 GOV'T NAT'L MTG ASSN POOL# 0738395	95,046	95,753
6 FEDERAL NAT'L MTGE ASSN POOL # AB7476	100,011	93,322
7 FEDERAL NAT'L MTGE ASSN POOL # AT2700	90,779	90,188
8 GOV'T NATL MTG ASSN II POOL# 770735	80,536	82,524
9 CPC#10920 20 NORTH	70,424	80,618
10 FEDERAL NAT'L MTGE ASSN POOL # AH8883	68,177	72,227
11 LIIF#2 405 WILLIAMS CPC#10993	68,207	70,521
12 FEDERAL NAT'L MTGE ASSN POOL # 3485	62,290	63,939
13 FEDERAL NAT'L MTGE ASSN POOL # AT1989	65,217	61,836
14 CCD #0008 AKA CPC #11252, 267 EAST BURN	52,881	55,424
15 CCD#0006AKACPC#11210	51,968	55,417
16 FEDERAL NAT'L MTGE ASSN POOL # AI8876	53,523	54,846
17 FEDERAL NAT'L MTGE ASSN POOL # 3484	51,399	53,634
18 CARVER #006	51,876	53,000
19 FEDERAL NAT'L MTGE ASSN POOL # AI6570	48,966	50,713
20 LIIF #006 AKA CPC #11286	48,822	50,558
21 GOV'T NAT'L MTG ASSN POOL# 741058	49,424	49,798
22 FEDERAL NAT'L MTGE ASSN POOL # 7106	47,361	49,093
23 GOV'T NAT'L MTG ASSN POOL# 0770388	43,459	44,051
24 CARVER #007 AKA CPC #11344	41,298	41,590
25 CCD #0016 AKA CPC #11250	39,386	40,624
26 FEDERAL NAT'L MTGE ASSN POOL # A03389	37,374	36,881
27 FEDERAL NAT'L MTGE ASSN POOL # AE2514	34,517	35,715
28 CCD#0009 AKA CPC #11337	34,980	35,261
29 FED'L HOME LOAN MTGE CORP GRP # A80305	32,321	34,624
30 FEDERAL NAT'L MTGE ASSN POOL # AE2480	31,937	32,619
31 FEDERAL NAT'L MTGE ASSN POOL # AQ4419	33,159	31,582
32 FEDERAL NAT'L MTGE ASSN POOL # 3494	28,543	29,230
33 FEDERAL NAT'L MTGE ASSN POOL # AE4796	28,302	28,775
34 GOV'T NATL MTG ASSN II POOL# 763246	26,609	27,896
35 FEDERAL NAT'L MTGE ASSN POOL # MC0601	28,303	27,800
36 LIIF#0003 AKA CPC#11303	27,035	27,572
37 FEDERAL NAT'L MTGE ASSN POOL # 5866	26,569	27,344
38 FEDERAL NAT'L MTGE ASSN POOL #AE6847	26,586	27,024
39 FEDERAL NAT'L MTGE ASSN POOL # AB7149	29,140	26,982
40 FED'L HOME LOAN MTGE CORP GRP # A80608	24,567	26,945
41 FED'L HOME LOAN MTGE CORP GRP # A93203	26,221	26,721
42 LIIF #1 451 48TH ST CPC #10598	24,784	26,022
43 GOV'T NAT'L MTG ASSN POOL# 698161	25,594	25,930
44 NEW YORK ST HSG FIN AGY HSE	25,000	24,809
45 NEW YORK ST HSG FIN AGY HSE	25,000	24,630
46 FEDERAL NAT'L MTGE ASSN POOL # AD9611	23,518	24,349
47 CPC #10386 2 WEST 129TH STREET	20,852	23,933
48 FEDERAL NAT'L MTGE ASSN POOL # 3493	22,591	23,457
49 FEDERAL NAT'L MTGE ASSN POOL # AD7241	21,871	22,996
50 FEDERAL NAT'L MTGE ASSN POOL # 5551	20,838	22,573

NOTE: Full listing of holdings can be obtained at  
 NYC Board of Education Retirement System  
 65 Court Street, Room 1603, Brooklyn, NY 11201

**List of Largest Tips Holdings (Fixed)**  
**Fiscal Year Ended June 30, 2013**

<b>NAME OF LARGEST TIPS HOLDINGS</b>	<b>PAR VALUE</b>	<b>MARKET VALUE</b>
1 TIPS POSITION HELD AT PIMCO	\$ 146,356,326	\$ 135,242,815

NOTE: Full listing of holdings can be obtained at  
 NYC Board of Education Retirement System  
 65 Court Street, Room 1603, Brooklyn, NY 11201

## List of 50 Largest Domestic Equity Holdings “Variable A” Program Fiscal Year Ended June 30, 2013

NAME OF DOMESTIC EQUITY HOLDINGS “VARIABLE A” PROGRAM	PAR VALUE	MARKET VALUE
1 PIMCO STOCKPLUS LP FUND A	\$ 10,613,703	\$ 1,559,483
2 AMALGAMATED BANK OF NY	8,817,535	5,493,404
3 US FLEXIBLE EQUITIES FUND V	8,487,473	7,601,733
4 EXXON MOBIL CORP	5,574,224	4,501,252
5 FPA CRESCENT FUND	5,161,575	4,979,073
6 APPLE INC	5,034,608	2,013,949
7 MICROSOFT CORP	3,875,107	3,262,439
8 GMO INTERNATIONAL INTRINSIC VA	3,577,462	3,431,655
9 GOOGLE INC	3,339,625	1,962,648
10 CHEVRON CORP	3,285,157	2,115,262
11 GENERAL ELECTRIC CO	3,211,030	4,354,466
12 JOHNSON & JOHNSON	3,127,804	2,384,738
13 JPMORGAN CHASE & CO	2,916,242	2,464,028
14 INTERNATIONAL BUSINESS MACHINE	2,849,796	1,580,210
15 PROCTER & GAMBLE CO	2,820,174	2,307,942
16 PFIZER INC	2,594,593	2,148,906
17 AT&T INC	2,588,513	2,402,858
18 WELLS FARGO & CO	2,558,498	2,989,031
19 BERKSHIRE HATHAWAY INC	2,328,002	1,706,798
20 CITIGROUP INC	2,309,917	4,552,770
21 VERIZON COMMUNICATIONS INC	2,257,833	1,615,264
22 PHILIP MORRIS INTERNATIONAL IN	2,238,012	1,339,253
23 MERCK & CO INC	2,043,512	1,621,681
24 WALMART STORES INC	1,898,937	1,354,301
25 COCACOLA CO	1,896,788	1,177,150
26 CURRENCY HEDGED INT'L EQUITY	1,857,450	1,562,103
27 BANK OF AMERICA CORP	1,856,134	4,900,163
28 COMCAST CORP	1,735,013	1,119,230
29 CISCO SYSTEMS INC	1,716,148	1,790,144
30 PEPSICO INC	1,691,655	1,317,402
31 INTEL CORP	1,607,862	1,402,740
32 STRATEGIC FIXED INCOME FUND	1,565,051	1,604,626
33 GMO US CORE EQUITY FUND	1,525,452	1,368,011
34 WALT DISNEY CO	1,524,580	838,932
35 HOME DEPOT INC	1,493,209	774,819
36 ORACLE CORP	1,480,962	979,662
37 QUALCOMM INC	1,423,217	990,459
38 SCHLUMBERGER LTD	1,406,137	1,600,843
39 VISA INC	1,336,895	637,780
40 AMAZON.COM INC	1,323,843	372,165
41 ALTRIA GROUP INC	1,222,058	759,781
42 CVS CAREMARK CORP	1,216,697	708,676
43 MCDONALD'S CORP	1,172,761	564,572
44 AMGEN INC	1,151,172	783,237
45 UNITED TECHNOLOGIES CORP	1,138,143	813,023
46 GILEAD SCIENCES INC	1,095,652	387,573
47 UNITEDHEALTH GROUP INC	1,081,999	775,309
48 AMERICAN INTERNATIONAL GROUP	1,044,106	2,496,468
49 UNION PACIFIC CORP	1,032,286	408,303
50 BOEING CO	1,020,858	832,306

NOTE: Full listing of holdings can be obtained at  
 NYC Board of Education Retirement System  
 65 Court Street, Room 1603, Brooklyn, NY 11201

## Schedule of Payments of Commissions to Brokers Fiscal Year Ended June 30, 2013

INDIVIDUAL OR BROKERAGE FIRM	NATURE OF SERVICES	# OF SHARES TRADED	COMMISSION PER SHARE	COMMISSION PAID (In \$)
ABEL NOSER CORPORATION	Equity	23,050	0.01	\$152
ACADEMY SECURITIES INC	Equity	6,100	0.04	235
AMERICAN PORTFOLIOS FINANCIAL	Equity	857	0.04	34
ANCORA SECURITIES INC	Equity	9,113	0.04	365
AVONDALE PARTNERS, LLC	Equity	14,054	0.03	444
B.RILEY AND CO,LLC	Equity	3,378	0.02	76
BAIRD ROBERT W & CO INC	Equity	155,029	0.04	5,796
BANK OF NY CUST CLEARANCE	Equity	2,732	0.02	55
BARCLAYS CAPITAL INC/LE	Equity	52,197	0.03	1,612
BARCLAYS CAPITAL LE	Equity	632,159	0.01	9,335
BAYPOINT TRADING LLC	Equity	36,662	0.04	1,295
BB&T SECURITIES LLC	Equity	12,474	0.04	478
BLAIR WILLIAM & COMPANY LLC	Equity	152,976	0.03	5,226
BLAYLOCK & CO INC	Equity	36,714	0.03	1,191
BLOOMBERG TRADEBOOK	Equity	3,433	0.02	62
BLUEFIN RESEARCH PARTNER INC.	Equity	1,363	0.04	55
BMO NESBITT BURNS CORP	Equity	5,891	0.04	210
BNP PARIBAS SECURITIES CORP	Equity	9,160	0.04	366
BOE SECS INC/BROADCORT CAP	Equity	72,467	0.03	1,929
BREAN MURRAY CARRET& CO. LLC	Equity	4,654	0.03	156
BUCKINGHAM RESEARCH GROUP INC	Equity	834	0.04	33
BURKE & QUICK PARTNERS LLC	Equity	1,050	0.04	42
CABRERA CAPITAL MARKETS	Equity	122,057	0.03	3,322
CANACCORD GENUITY INC	Equity	38,992	0.04	1,521
CANACCORD ADAMS INC	Equity	5,537	0.04	206
CANTOR FITZGERALD & CO	Equity	69,954	0.03	1,821
CANTOR FITZGERALD/CASTLEOAK	Equity	50,760	0.02	1,178
CAP INSTL SVCS INC-EQUITIES	Equity	21,603	0.03	563
CHEEVERS & CO INC	Equity	366,906	0.03	12,112
CITIGROUP GLOBAL MARKETS INC	Equity	1,052,289	0.01	6,415
CJS SECURITIES INC.	Equity	6,174	0.04	224
COMPASS PT RESECH & TRDING LLC	Equity	22,328	0.04	875
CONVERGEX EXECUTION SOLUTIONS	Equity	24,290	0.03	757
COWEN & CO LLC	Equity	132,609	0.03	4,297
CRAIG - HALLUM	Equity	22,615	0.03	596
CREDIT AGRICOLE SEC USA	Equity	59,101	0.04	2,162
CREDIT RESEARCH TRADING L.L.C	Equity	32,110	0.03	900
CREDIT SUISSE SECS (USA) LLC	Equity	871,385	0.01	5,795
CREDIT SUISSE SECS USA LLC	Equity	29,606	0.04	1,184
CROWELL WEEDON & CO	Equity	3,120	0.04	125
CUTTONE & CO. INC	Equity	4,200	0.01	48
DAHLMAN ROSE & COMPANY, LLC	Equity	4,330	0.04	173
DAVENPORT AND COMPANY LLC	Equity	9,200	0.03	308
DAVIDSON D.A & CO INC NSCC	Equity	22,653	0.04	926
DEUTSCHE BANC SECURITIES INC.	Equity	977,254	0.01	9,499
DIRECT ACCESS PARTNERS LLC	Equity	52,144	0.03	1,681
DOUGHERTY COMPANY	Equity	62,310	0.04	2,522
DOWLING & PARTNERS	Equity	120	0.04	5
DREXEL HAMILTON LLC	Equity	15,736	0.02	343
EVERCORE GROUP LLC	Equity	1,360	0.04	53
FIDELITY CAPITAL MARKETS	Equity	50,660	0.02	1,014
FIG PARTNERS LLC	Equity	1,620	0.04	65

**Schedule of Payments of Commissions to Brokers**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

<b>INDIVIDUAL OR BROKERAGE FIRM</b>	<b>NATURE OF SERVICES</b>	<b># OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID (In \$)</b>
FIRST ANALYSIS SECURITIES CORP	Equity	1,953	0.04	76
FRIEDMAN, BILLINGS & RAMSEY	Equity	47,613	0.04	1,871
GLOBAL HUNTER SECURITIES	Equity	14,681	0.04	635
GLOBAL HUNTER SECURITIES, LLC	Equity	3,128	0.04	127
GOLDMAN SACHS AND CO	Equity	2,014,538	0.00	8,736
GOLDMAN SACHS EXECUTION & CL	Equity	121,657	0.01	805
GREENTREE BROKERAGE SERVICES	Equity	1,318	0.03	40
GUGGENHEIM CAPITAL MARKETS LLC	Equity	3,580	0.04	143
GUZMAN & COMPANY	Equity	125,929	0.02	2,519
GUZMAN AND COMPANY	Equity	21,205	0.02	424
HEIGHT SECURITIES, LLC	Equity	1,840	0.04	64
HOWARD WEIL INCORPORATED	Equity	338	0.04	14
HUDSON SECURITIES, INC	Equity	270	0.02	5
INSTINET CLEARING SER, INC.	Equity	951,043	0.02	20,282
INSTINET, LLC	Equity	117,296	0.00	295
INVESTMENT TECHNOLOGY GROUP	Equity	236,156	0.02	3,635
ISI GROUP, INC.	Equity	98,307	0.03	3,281
ISLAND TRADER SECURITIES INC	Equity	210,166	0.03	6,944
IVY SECURITIES, INC	Equity	16,600	0.03	498
J.P MORGAN SECURITIES INC.	Equity	307,628	0.03	8,809
J.P. MORGAN CLEARING CORP.	Equity	627,497	0.00	3,018
JANNEY MONTGOMERY SCOTT INC.	Equity	38,977	0.04	1,541
JEFFERIES LLC	Equity	142,779	0.04	5,416
JMP SECURITIES	Equity	22,460	0.04	918
JOHNSON RICE & CO	Equity	20,382	0.03	710
JONESTRADING INST SVCS LLC	Equity	220,840	0.02	4,920
KEEFE BRUYETTE & WOODS INC.	Equity	28,527	0.03	893
KEYBANC CAPITAL MARKETS INC.	Equity	54,754	0.04	1,972
KING, CL, & ASSOCIATES	Equity	314,053	0.03	9,159
KNIGHT CLEARING SERVICES LLC	Equity	5,822	0.01	51
KNIGHT EQITY MARKETS L.P.	Equity	50,016	0.03	1,262
LADENBURG THALMAN & CO	Equity	1,577	0.02	32
LAZARD FRERES & COMPANY	Equity	31,864	0.04	1,329
LEERINK SWANN AND COMPANY	Equity	53,744	0.04	2,111
LIQUIDNET INC	Equity	170,922	0.02	3,626
LONGBOW SECURITIES LLC	Equity	4,828	0.04	186
LOOP CAPITAL MARKETS	Equity	585,397	0.03	14,843
LYNCH JONES & RYAN INC	Equity	4,431,747	0.01	28,019
M. RAMSEY KING SECURITIES	Equity	22,569	0.02	495
MACQUARIE SECS USA INC	Equity	11,956	0.04	478
MAXIM GROUP	Equity	1,946	0.03	59
MERRILL LYNCH BROADCOURT CAP	Equity	11,780	0.04	471
MERRILL LYNCH PIERCE FENNER	Equity	1,954,114	0.00	8,376
MERRILL LYNCH PROFESSIONAL	Equity	72,570	0.04	2,754
MERRIMAN CURHAN FORD & CO	Equity	35	0.02	1
MIDWOOD SECURITIES	Equity	11,341	0.04	454
MILLER,TABAK, HIRSCH & CO	Equity	3,040	0.04	120
MISCHLER FINANCIAL GROUP, INC	Equity	37,051	0.04	1,362
MIZUHO SECURITIES USA INC	Equity	26,382	0.04	997
MKM PARTNERS LLC	Equity	8,952	0.04	346
MND PARTNERS	Equity	6,647	0.02	133
MONTROSE SECURITIES EQUITIES	Equity	34,082	0.04	1,363

**Schedule of Payments of Commissions to Brokers**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

<b>INDIVIDUAL OR BROKERAGE FIRM</b>	<b>NATURE OF SERVICES</b>	<b># OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID (In \$)</b>
MORGAN KEEGAN AND COMPANY INC	Equity	8,067	0.05	403
MORGAN STANLEY & CO LLC	Equity	301,280	0.02	7,443
MR BEAL & COMPANY	Equity	195,187	0.03	5,752
NATL FINANCIAL SERVICES LLC	Equity	23,985	0.04	920
NEEDHAM & CO	Equity	50,338	0.04	1,824
NOBLE INTL INVESTMENTS INC	Equity	123	0.02	2
NOMURA SECURITIES INTL INC	Equity	1,400	0.04	56
NORTH SOUTH CAPITAL LLC	Equity	2,982	0.02	60
NORTHLAND SECURITIES INC.	Equity	7,753	0.03	243
OPPENHEIMER AND CO INC	Equity	111,677	0.03	3,714
PACIFIC CREST SECURITIES	Equity	60,622	0.04	2,602
PENSERRA SECURITIES	Equity	2,285	0.02	53
PENSON FINANCIL SER INC./RIDGE	Equity	29	0.02	1
PERSHING LLC	Equity	2,587	0.04	100
PICKERING ENERGY PARTNERS INC	Equity	15,210	0.04	594
PIPER JAFFRAY & CO	Equity	97,007	0.04	3,577
PULSE TRADING LLC	Equity	2,950	0.01	30
RAFFERTY CAPITAL MARKETS, LLC	Equity	5,714	0.03	171
RAYMOND, JAMES & ASSOC., INC.	Equity	133,384	0.04	5,123
RBC CAPITAL MARKETS LLC	Equity	190,723	0.03	6,058
ROSENBLATT SECURITIES LLC	Equity	63,250	0.02	1,274
SANDLER O'NEILL & PARTNERS LP	Equity	8,104	0.03	275
SANFORD C BERNSTEIN & CO.,LLC	Equity	94,401	0.02	2,199
SCOTIA CAITAL (USA) INC.	Equity	507	0.04	20
SG AMERICAS SECURITIES LLC	Equity	499,350	0.01	4,920
SIDOTI & COMPANY, LLC	Equity	56,319	0.04	2,003
SIMMONS & CO	Equity	6,090	0.04	244
STATE ST GLOBAL MARKETS LLC	Equity	4,760	0.03	143
STEPHENS, INC.	Equity	36,653	0.04	1,466
STERNE AGEE & LEACH INC	Equity	47,168	0.04	1,788
STIFEL NICHOLAUS & CO, INC	Equity	141,259	0.04	5,052
STRATEGAS SECURITIES LLC	Equity	936	0.04	37
SUNTRUST CAPITAL MARKETS, INC	Equity	28,541	0.04	1,073
THE BENCHMARK CO LLC	Equity	3,610	0.04	154
THE WILLIAMS CAPITAL GROUP LP	Equity	92,463	0.02	2,172
THINKEQUITY PARTNERS LLC	Equity	1,549	0.04	58
UBS SECURITIES LLC	Equity	295,045	0.02	5,016
VANDHAM SECURITIES CORP	Equity	80,288	0.02	1,357
WEDBUSH SECURITIES INC	Equity	45,178	0.03	1,248
WEDGE SECURITIES LLC	Equity	1,240	0.04	50
WEEDEN & CO	Equity	25,263	0.03	638
WELLS FARGO SECS LLC	Equity	66,300	0.04	2,525
WUNDERLICH SECURITIES INC.	Equity	183	0.02	4
MORGAN STANLEY CO INC NEW YORK	EAFE	912,533	0.00	1,814
AGORA COR DE TITUL E VAL MOB	EAFE	23,424	0.02	477
BARCLAYS CAPITAL SECS LONDON	EAFE	224,262	0.00	262
BNP PARIBAS EQUITIES	EAFE	6,277	0.00	22
BNY CONVERGEX EXEC SOLUTION	EAFE	20,342	0.01	102
CITIGROUP GLOBAL MARKETS INC	EAFE	376,565	0.00	651
CITIGROUP GLOBAL MARKETS LTD, LDN	EAFE	72,735	0.00	101
CLSA AUSTRALIA PTY LTD	EAFE	15,285	0.00	59
CLSA SINGAPORE PTE LTD	EAFE	25	0.71	18

**Schedule of Payments of Commissions to Brokers**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

<b>INDIVIDUAL OR BROKERAGE FIRM</b>	<b>NATURE OF SERVICES</b>	<b># OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID (In \$)</b>
CREDIT AGRICOLE CHEUVREUX	EAFE	22,116	0.00	103
CREDIT SUISSE 1ST BOSTON CORP,NY	EAFE	173,172	0.01	1,433
DAIWA SECURITIES AMERICA	EAFE	1,515	0.04	61
DAIWA SECURITIES SMBC HK LTD	EAFE	1	13.19	18
DANSKE BANK AS COPENHAGEN	EAFE	95	0.11	10
DEUTSCHE BANK SECURITIES INC	EAFE	444,012	0.00	497
FOKUS BK A S, TRONDHEIM	EAFE	2,480	0.02	41
GOLDMAN SACHS AND CO	EAFE	25,036	0.01	222
GOLDMAN SACHS CO, NY	EAFE	1,126	0.04	45
INSTINET CLEARING SERVICES INC	EAFE	21,905	0.01	158
INSTINET EUROPE LIMITED LONDON	EAFE	4,531	0.09	388
J.P.MORGAN SECURITIES (FAR EAST) LT	EAFE	39	6.41	248
JP MORGAN SECS AUST LTD PID 2972	EAFE	51,441	0.00	183
JP MORGAN SECS INC NEW YORK	EAFE	64,134	0.01	952
JP MORGAN SECS LTD LONDON	EAFE	218,926	0.00	445
JP MORGAN SECURITIES (TAIWAN) LTD	EAFE	5,590	0.01	58
J.P.MORGAN SECURITIES	EAFE	37,872	0.00	153
JPMORGAN SECURIT (ASIA PACIFIC), HK	EAFE	3,442	0.22	767
MACQUARIE BANK LIMITED	EAFE	107,646	0.00	26
MACQUARIE BANK LIMITED SYDNEY	EAFE	27,605	0.00	93
MACQUARIE EQUITIES LTD SYDNEY	EAFE	12,936	0.00	23
MERRILL LYNCH CO INC (AGS), NY	EAFE	23,998	0.01	178
MERRILL LYNCH INTL LTD EQUIT SETT	EAFE	24,095	0.00	55
MERRILL LYNCH PIERCE FENNER Smith I	EAFE	3,612	0.01	40
MERRILL LYNCH,PIERCE, FENNER, SMITH	EAFE	2,609	0.01	38
MORGAN STANLEY AND CO INTL, SEOUL	EAFE	0	143.61	33
MORGAN STANLEY AND CO LLC	EAFE	8,951	0.00	23
MORGAN STANLEY CO INTL LTD TAIPEI	EAFE	5,261	0.01	56
NOMURA FINANCIAL AND INVESTMENT KOR	EAFE	4	6.70	26
PERSHING SECURITIES LONDON	EAFE	147,528	0.00	201
SG AMERICAS SECURITIES LLC	EAFE	5,260	0.00	14
SG COWEN SECURITIES CORP, NEW YORK	EAFE	30,384	0.01	178
SG SECURITIES (HK) LIMITED	EAFE	107,444	0.01	1,587
SOCIETE GENERALE LONDON BRANCH, LDN	EAFE	20,022	0.01	255
UBS AG LONDON EQUITIES	EAFE	2,224	0.04	100
UBS SECURITIES ASIA LTD	EAFE	122	1.08	132
ABG SECURITIES, OSLO	International	67	0.24	16
BANK OF NYC JAMES CAPEL	International	120	0.04	5
BANK VONTOBEL AG, ZURICH	International	16,183	0.16	2,646
BERENBERG BANK, HAMBURG	International	52,296	0.06	3,078
BNP PARIBAS SECS SERVICES, LDN	International	429,712	0.00	1,897
BNP PARIBAS SECS SERVICES, ZURICH	International	2,959	0.06	173
BNP PARIBAS SECURITIES SVCS	International	586	0.07	39
BROCKHOUSE AND COOPER MONTREAL CANA	International	44,386	0.02	787
CIBC WORLD MARKETS - TORONTO	International	11,578	0.04	463
CIBC WORLD MARKETS INC	International	9,065	0.04	363
CITIBANK N.A NYC CUST	International	51	0.04	2
CITIGROUP GLOBAL MARKETS LTD, LDN	International	462,118	0.02	10,505
CLEARSTREAM BANKING SA, LUXEMBOURG	International	940,069	0.00	603 CLSA
SINGAPORE PTE LTD	International	436	5.37	2,338
CREDIT AGRICOLE CHEUVREUX	International	221,569	0.03	6,830
CREDIT AGRICOLE SEC USA INC	International	39,468	0.04	1,579

**Schedule of Payments of Commissions to Brokers**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

<b>INDIVIDUAL OR BROKERAGE FIRM</b>	<b>NATURE OF SERVICES</b>	<b># OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID (In \$)</b>
CREDIT SUISSE 1ST BOSTON CORP,NY	International	271,559	0.01	2,744
CREDIT SUISSE FIRST BOSTON	International	528,670	0.01	3,369
CREDIT SUISSE FIRST BOSTON, LDN	International	35,022	0.02	681
CS FIRST BOSTON INDIA SEC PTE LTD	International	1,184	0.11	135
CSFB (EUROPE) LTD, LONDON	International	10	18.72	185
DAIWA	International	519	1.78	923
DAIWA SECURITIES AMERICA	International	275	9.33	2,569
DAIWA SECURITIES SMBC HK LTD	International	61,891	0.01	590
DANSKE BANK AS COPENHAGEN	International	16,894	0.06	1,077
DAVY STOCKBROKERS, DUBLIN	International	104,503	0.01	1,019
DBS VICKERS SECURITIES (S) PTE LTD	International	90,129	0.04	3,396
DEUTSCHE BANK AG, LONDON	International	288,453	0.01	3,250
DEUTSCHE BANK SECURITIES INC	International	78,170	0.03	2,182
DSP MERRILL LYNCH LTD	International	1,659	0.39	649
EUROMOBILIARE SIM SPA, MILAN	International	478,718	0.00	1,803
GOLDMAN SACHS INTL LONDON	International	18,818	0.04	790
GOODBODY STOCKBROKERS DUBLIN	International	59,419	0.01	431
G-TRADE SERVICES LTD	International	393,945	0.01	3,059
HSBC BANK PLC (JC HIB SETTLEMENT)	International	62,056	0.01	866
INSTINET CLEARING SERVICES INC	International	24,892	0.02	498
INSTINET EUROPE LIMITED LONDO	International	61,873	0.13	8,254
INSTINET PACIFIC LTD	International	72,387	0.01	725
INSTINET SINGAPORE SERVICES PTE LTD	International	265,285	0.01	2,210
INVESTEC SECURITIES, LONDON (331)	International	11,458	0.02	247
INVESTMENT TECHN GROUP, DUBLIN	International	248,912	0.01	2,303
J.P. MORGAN CLEARING CORP.	International	347,156	0.01	4,177
J.P.MORGAN SECURITIES	International	71,845	0.02	1,090
JP MORGAN INDIA PRIVATE LTD, MUMBAI	International	4,356	0.53	2,294
JP MORGAN SECS AUST LTD PID 2972	International	8,688	0.01	107
JP MORGAN SECS INC NEW YORK	International	79,139	0.00	330
JP MORGAN SECS LTD LONDON	International	194,511	0.03	6,097
JPMORGAN SECURIT (ASIA PACIFIC), HK	International	293,309	0.01	3,060
KEEFE BRUYETTE AND WOOD LIMITED	International	6,579	0.03	173
KEMPEN AND CO NV AMSTERDAM	International	8,987	0.09	798
KEPLER EQUITIES, PARIS	International	76,144	0.04	3,307
LOMBARD ODIER CIE GENEVA	International	6,871	0.06	400
MAINFIRST BANK AG	International	39,068	0.08	3,024
MAINFIRST BANK AG, FRANKFURT	International	3,438	0.08	282
MERRILL LYNCH INTL LTD EQUIT SETT	International	1,005,280	0.01	8,171
MERRILL LYNCH PIERCE FENNER Smith I	International	81,081	0.02	1,517
MERRILL LYNCH,PIERCE, FENNER, SMITH	International	176,578	0.02	3,278
MORGAN STANLEY	International	235,053	0.02	5,442
MORGAN STANLEY AND CO LLC	International	24,244	0.03	698
MORGAN STANLEY CO INC NEW YORK	International	118,935	0.03	3,661
MORGAN STANLEY SECURITIES, LONDON	International	47,602	0.00	198
PERSHING LLC	International	41,140	0.05	2,076
PERSHING SECURITIES LONDON	International	26,244	0.02	430
RBC CAPITAL MARKETS CORP	International	17,094	0.04	684
RBC DOMINION SECURITIES TORONTO	International	23,949	0.03	691
REDBURN PARTNERS LLP	International	189,876	0.01	1,854
ROYAL BANK OF CANADA EUROPE LTD,LDN	International	254,631	0.01	3,247
SANFORD C. BERNSTEIN LONDON	International	423,508	0.01	4,277

**Schedule of Payments of Commissions to Brokers**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

<b>INDIVIDUAL OR BROKERAGE FIRM</b>	<b>NATURE OF SERVICES</b>	<b># OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID (In \$)</b>
SANTANDER CENTRAL HISPANO BOLSA	International	3,986,885	0.00	3,395
SANTANDER CENTRAL HISPANO INVEST SA	International	194,166	0.00	677
SG ASIA SECURITIES (INDIA) PVT LTD	International	7,113	0.25	1,757
SINOPAC SEC CO SP ASSETS MGT, TAIW	International	7,800	0.19	1,476
SKANDINAVISKA ENSKILDA BANKEN	International	3,758	0.18	658
SOCIETE GENERALE PARIS, ZURICH	International	3,574	0.16	560
UBS AG LONDON EQUITIES	International	530,639	0.02	8,131
UBS SECURITIES LLC	International	105,785	0.01	740
AGORA COR DE TITUL E VAL MOB	Emerging Market	157,429	0.02	3,588
BANCO SANTANDER CENTRAL HISPANO SA	Emerging Market	4,656	0.01	29
BARCLAYS BANK PLC, NY	Emerging Market	229,756	0.02	5,685
BARCLAYS CAPITAL SECS LONDON	Emerging Market	240,103	0.00	807
CELFIN S.A., SANTIAGO	Emerging Market	0	12.00	5
CHINA INTL CAP CORP LIMITED	Emerging Market	3,718	0.01	23
CITIGROUP GLOBAL MARKETS INC	Emerging Market	115,177	0.01	1,047
CITIGROUP GLOBAL MARKETS INDIA PRV	Emerging Market	744	0.21	154
CITIGROUP GLOBAL MARKETS LTD, LDN	Emerging Market	30,957	0.02	528
CLSA LTD, HONG KONG	Emerging Market	27,055	0.01	253
CLSA SINGAPORE PTE LTD	Emerging Market	65	0.12	8
CREDIT AGRICOLE CHEUVREUX	Emerging Market	9,327	0.03	276
CREDIT LYONNAIS SECURITIES INDIA	Emerging Market	859	0.44	382
CREDIT SUISSE 1ST BOSTON CORP,NY	Emerging Market	489,161	0.01	6,028
CREDIT SUISSE FIRST BOSTON	Emerging Market	16,617	0.23	3,879
CREDIT SUISSE FIRST BOSTON, LDN	Emerging Market	67,841	0.02	1,254
CREDIT SUISSE FIRST BOSTON, TAPEI	Emerging Market	2,579	0.01	18
CREDIT SUISSE SECS (MALAYSIA)	Emerging Market	11,373	0.00	22
CS FIRST BOSTON INDIA SEC PTE LTD	Emerging Market	7,127	0.25	1,816
CSFB (EUROPE) LTD, LONDON	Emerging Market	0	69.50	3
DEUTSCHE BANC SECURITIES INC	Emerging Market	3,851	0.01	50
DEUTSCHE BANK AG, LONDON	Emerging Market	3,615	0.01	45
DEUTSCHE BANK SECURITIES INC	Emerging Market	37,778	0.04	1,449
DEUTSCHE SECURITIES ASIA LTD, HK	Emerging Market	117,587	0.01	967
DSP MERRILL LYNCH LTD	Emerging Market	10,205	0.12	1,205
GOLDMAN SACHS AND CO	Emerging Market	76,104	0.01	497
GOLDMAN SACHS CO CUST ISCC PO, NY	Emerging Market	199,089	0.02	4,058
GOLDMAN SACHS CO, NY	Emerging Market	315,086	0.01	2,307
GOLDMAN SACHS EXECUTION AND CLEAR	Emerging Market	5,612	0.01	33
G-TRADE SERVICES LTD	Emerging Market	281,360	0.02	4,682
HSBC BANK BRASIL, SAO PAULO	Emerging Market	114	0.03	3
HSBC BANK PLC (JC HIB SETTLEMENT)	Emerging Market	34	0.54	18
HSBC LTD,HGKH (ALL HK OFFICES + HO)	Emerging Market	25,658	0.00	68
HSBC SECS BROKERS(ASIA) LTD	Emerging Market	722	0.00	2
HSBC SECURITIES USA INC	Emerging Market	499	0.05	24
INSTINET CLEARING SERVICES INC	Emerging Market	226,436	0.01	2,086
INSTINET PACIFIC LTD	Emerging Market	264,409	0.00	842
INTERACCIONES CASA DE BOLSA MEXICO	Emerging Market	1,490	0.03	48
INVESTMENT TECHN GROUP, DUBLIN	Emerging Market	29,813	0.02	512
ITG HOENIG LIMITED, HONG KONG	Emerging Market	99,175	0.00	229
J.P.MORGAN SECURITIES	Emerging Market	243,175	0.01	1,925
J.P.MORGAN SECURITIES (FAR EAST) LT	Emerging Market	3	7.61	25
JP MORGAN CHASE BANK	Emerging Market	121,818	0.03	3,296
JP MORGAN SECS INC NEW YORK	Emerging Market	15,205	0.07	1,108

**Schedule of Payments of Commissions to Brokers**  
**Fiscal Year Ended June 30, 2013**  
**(Cont'd)**

<b>INDIVIDUAL OR BROKERAGE FIRM</b>	<b>NATURE OF SERVICES</b>	<b># OF SHARES TRADED</b>	<b>COMMISSION PER SHARE</b>	<b>COMMISSION PAID (In \$)</b>
JP MORGAN SECS LTD LONDON	Emerging Market	7,442	0.01	61
JP MORGAN SECURITIES (TAIWAN) LTD	Emerging Market	14,269	0.01	125
JPMORGAN SECURIT (ASIA PACIFIC), HK	Emerging Market	28,666	0.00	15
KINGSWAY FINANCIAL SERVICES GP LTD	Emerging Market	6,364	0.00	31
MACQUARIE BANK LIMITED	Emerging Market	120,177	0.01	1,208
MACQUARIE CAPITAL USA INC	Emerging Market	43,585	0.00	159
MACQUARIE SECURITIES LTD - SEOUL	Emerging Market	23	58.47	1,319
MERRILL LYNCH AND CO INC NEW YORK	Emerging Market	2,706	0.00	12
MERRILL LYNCH CO INC (AGS), NY	Emerging Market	94,382	0.03	2,519
MERRILL LYNCH INTL LTD EQUIT SETTL	Emerging Market	220,446	0.01	1,320
MERRILL LYNCH PIERCE FENNER Smith I	Emerging Market	106,747	0.01	822
MERRILL LYNCH,PIERCE, FENNER, SMITH	Emerging Market	12,010	0.01	78
MORGAN STANLEY AND CO INTL LTD,LDN	Emerging Market	7,228	0.09	618
MORGAN STANLEY AND CO INTL, SEOUL	Emerging Market	18	47.59	853
MORGAN STANLEY AND CO LLC	Emerging Market	24,963	-	0
MORGAN STANLEY CO INC NEW YORK	Emerging Market	527,028	0.01	7,133
MORGAN STANLEY CO INTL LTD TAIPEI	Emerging Market	31,607	0.02	612
NOMURA FINANCIAL ADVISORY AND SECUR	Emerging Market	4,953	0.29	1,456
NOMURA FINANCIAL AND INVESTMENT KOR	Emerging Market	32	34.88	1,132
NOMURA INTERNATIONAL LTD TAIPEI	Emerging Market	32,620	0.01	413
PERSHING LLC	Emerging Market	32,077	0.00	125
SAMSUNG SECURITIES CO LTD SEOUL	Emerging Market	16	3.90	61
SANFORD C BERNSTEIN AND CO LLC	Emerging Market	302,760	0.00	580
SG AMERICAS SECURITIES LLC	Emerging Market	26,173	0.01	139
SG SECURITIES (HK) LIMITED	Emerging Market	21,324	0.02	390
SHENYIN AND WANGUO SECS CO LTD	Emerging Market	4,029	0.02	83
UBS AG	Emerging Market	408	0.04	17
UBS AG LONDON EQUITIES	Emerging Market	10,523	0.04	395
UBS SECURITIES ASIA LTD	Emerging Market	20,102	0.03	661
UBS SECURITIES LLC	Emerging Market	471	0.00	0
UBS SECURITIES LTD, SEOUL BRANCH	Emerging Market	0	203.00	8



# **Board of Education Retirement System of the City of New York**

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

## **Comprehensive Annual Financial Report of the Qualified Pension Plan**

For the Fiscal Years Ended  
June 30, 2013 and June 30, 2012

## **Actuarial Section**

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## OFFICE OF THE ACTUARY

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

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

November 8, 2013

Board of Trustees  
New York City Board of Education  
Retirement System  
65 Court Street  
Brooklyn, NY 11201

Re: Actuarial Information for the Comprehensive Annual Financial Report (“CAFR”) for the Fiscal Year Ended June 30, 2013

Dear Members:

The financial objective of the New York City Board of Education Retirement System - Qualified Pension Plan (“BERS” 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, 2011 (Lag) actuarial valuation to determine Fiscal Year 2013 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 2013, the Employer Contributions to BERS, based on the June 30, 2011 (Lag) actuarial valuation, are equal to those recommended by the Actuary for the New York City Retirement Systems (the “Actuary”) and represent the Statutory Contributions.

Employer Contributions for Fiscal Year 2013 were also equal to the Annual Required Contributions as defined under the Governmental Accounting Standards Board (“GASB”) Statement Number 25 (“GASB 25”) as amended by GASB No. 50 (“GASB 50”).

The Annual Required Contributions, computed in accordance with GASB 25 as amended by GASB 50, are consistent with generally accepted actuarial principles.

### 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, 2011 (Lag) Actuarial Valuation.” These actuarial assumptions and methods were first employed in the June 30, 2010 (Lag) actuarial valuation that was used to determine Fiscal Year 2012 Employer Contributions to the Plan (the “2012 A&M”).

These actuarial assumptions and methods are generally unchanged from those employed in the June 30, 2010 (Lag) actuarial valuation that was used to determine Fiscal Year 2012 Employer Contributions to the Plan.

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, 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 Board of Education Retirement System, (“February 2012 Report”).

The Board of Trustees 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 expenses.

### Benefits and Census Data

A summary of the benefits applicable to Plan members included in the June 30, 2011 (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.

Not included in the summary of benefits are the benefit provisions applicable to certain members who join the Plan on and after July 1, 2011.

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, 2011 (Lag) actuarial valuation is included in this CAFR. A summary of the census data used in the June 30, 2010 (Lag) actuarial valuation of the Plan is available in the June 30, 2012 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 (Schedule 1).

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 GASB 25 which was adopted for financial reporting purposes beginning Fiscal Year 1995 and with GASB 50 which was adopted for financial reporting purposes beginning Fiscal Year 2008.

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.

As prescribed by GASB 25, as amended by GASB 50, included in the Financial Section of the CAFR are the following schedules prepared by the OA:

- Schedule of Funding Progress.
- Schedule of Employer Contributions.
- Schedule of Actuarial Assumptions and Methods.

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, 2011 (Lag) Actuarial Valuation.
- Active Member Valuation Data.
- Funded Status Based on Entry Age Actuarial Cost Method.

Board of Trustees  
New York City Board of Education  
Retirement System  
November 8, 2013  
Page 4

- Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets - Solvency Test.
- Additional Discussion of Plan Funding and Other Measures of Funded Status.
- Retirants and Beneficiaries Added to and Removed from Rolls.
- Statutory vs. Annual Required Contributions.
- Summary of Plan Provisions.

The following information and schedules in other sections of the CAFR were 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.

Acknowledgment 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  
Chief Actuary

RCN/bs

Att.

cc: Ms. C.A. Bailey  
Mr. J.R. Gibney  
Mr. E. Hue  
Mr. S.H. Rumley

8507L&R:bs

## Summary of Actuarial Assumptions and Methods In Effect For The June 30, 2011 (Lag) Actuarial Valuation

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- (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 Board of Education Retirement System” (“February 2012 Report”).

The Board of Trustees 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 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 expenses (4.0% per annum for benefits payable under the Variable Annuity Program).
- (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 2A for members withdrawing from active service due to death or disability who did not elect an improved retirement program and Table 2B for members electing an improved retirement program, in Table 3 for members withdrawing for other than death or disability or retirement, and in Table 4 for members withdrawing from active service after eligibility for service retirement.

**Summary of Actuarial Assumptions and Methods  
In Effect For The June 30, 2011 (Lag) Actuarial Valuation  
(Cont'd)**

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- (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.

Increased (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 BERS members. The UAAL attributable to the ERI is amortized on a level basis over a period of five years (4 payments under the One-Year Lag Methodology).

## Summary of Actuarial Assumptions and Methods In Effect For The June 30, 2011 (Lag) Actuarial Valuation (Cont'd)

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- (9) One-Year Lag Methodology (“Lag” or “OYLM”) uses a June 30, 2011 valuation date to determine Fiscal Year 2013 Employer Contributions.

This methodology requires technical adjustments to certain components used to determine Fiscal Year 2013 Employer Contributions as follows:

- Present Value of Future Salary (“PVFS”).

The PVFS at June 30, 2010 is reduced by the value of salary projected to be paid during Fiscal Year 2011.

- Salary for Determining Employer Contributions.
- Salary used to determine the employer normal contribution is the salary projected to be paid during Fiscal Year 2013 to members on payroll at June 30, 2011.
- UAAL Payments.

For determining the UAAL payments for Fiscal Year 2013, and to be consistent with OYLM, the UAAL as of June 30, 2011 is adjusted by the discounted value of employer normal contributions paid during Fiscal Year 2012 and the discounted value of the administrative expenses reimbursed during Fiscal Years 2012 and 2013.

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

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

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

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

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

## Summary of Actuarial Assumptions and Methods In Effect For The June 30, 2011 (Lag) Actuarial Valuation (Cont'd)

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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, 2011, used to determine Fiscal Year 2013 Employer Contributions, includes estimates of liabilities for:
- World Trade Center Disability Benefits.
  - World Trade Center Death Benefits.
- (12) As discussed herein, the actuarial assumptions and methods are generally unchanged from those used in the June 30, 2010 (Lag) actuarial valuation.

**Summary of Actuarial Assumptions and Methods  
In Effect For The June 30, 2011 (Lag) Actuarial Valuation  
(Cont'd)**

**Table 1A  
DEATHS AMONG SERVICE AND DISABILITY PENSIONERS  
Percentage of Pensioners Dying within Next Year**

Age	Service Pensioners		Disability Pensioners	
	Males	Females	Males	Females
40	.1021%	.0493%	1.3736%	1.3502%
45	.2982	.0845	1.4166	1.3932
50	.4534	.1538	1.4646	1.4412
55	.6227	.2919	1.5176	1.4942
60	.7906	.5143	1.8782	1.6692
65	1.1438	.7339	2.3097	2.0464
70	1.6956	1.1757	2.7412	2.5358
75	2.3912	1.7747	3.5479	2.9979
80	4.4180	2.9858	5.1537	4.0595
85	7.5225	5.0839	7.5395	6.7921
90	12.1869	9.2180	12.2049	12.0106
95	22.1828	16.7157	22.2018	20.5966
100	33.6045	23.1601	33.6045	24.5034
105	39.7886	29.3116	39.7886	29.3116
110	100.0000	100.0000	100.0000	100.0000

**Table 1B  
DEATHS AMONG BENEFICAIRIES  
Percentage of Pensioners Dying within Next Year**

Years of Service	Males	Females
40	.1021%	.0591%
45	.2684	.1014
50	.3401	.1846
55	.5880	.3893
60	.8400	.7716
65	1.3072	1.1533
70	1.8086	1.5676
75	2.7100	2.2479
80	5.3016	3.7819
85	8.4627	6.3549
90	15.2335	11.5224
95	24.6664	19.5152
100	33.6045	23.1881
105	39.7886	29.3116
110	100.0000	100.0000

**Summary of Actuarial Assumptions and Methods  
In Effect For The June 30, 2011 (Lag) Actuarial Valuation  
(Cont'd)**

Table 2A

**WITHDRAWALS FROM ACTIVE SERVICE (DUE TO DEATH OR DISABILITY)  
MEMBERS WHO DO NOT ELECT AN IMPROVED RETIREMENT PROGRAM**

**Percentage of Active Members Separating within Next Year**

Age	Accidental Disability		Ordinary Disability		Death	
	Males	Females	Males	Females	Males	Females
20	.04%	.02%	.20%	.20%	.040%	.030%
25	.04	.02	.20	.20	.040	.030
30	.04	.02	.20	.20	.060	.040
35	.04	.02	.30	.20	.080	.050
40	.04	.02	.40	.25	.100	.060
45	.04	.02	.50	.30	.150	.100
50	.04	.02	.60	.50	.200	.150
55	.04	.02	.70	.70	.300	.200
60	.04	.02	.70	.70	.400	.250
65	.04	.02	.70	.70	.500	.300
70	NA	NA	NA	NA	NA	NA

Table 2B

**WITHDRAWALS FROM ACTIVE SERVICE (DUE TO DEATH OR DISABILITY)  
MEMBERS WHO ELECTED AN IMPROVED RETIREMENT PROGRAM**

**Percentage of Active Members Separating within Next Year**

Age	Accidental Disability		Ordinary Disability		Death	
	Males	Females	Males	Females	Males	Females
20	.04%	.02%	.20%	.20%	.040%	.030%
25	.04	.02	.20	.20	.040	.030
30	.04	.02	.20	.20	.060	.040
35	.04	.02	.30	.20	.080	.050
40	.04	.02	.40	.25	.100	.060
45	.04	.02	.50	.30	.150	.100
50	.04	.02	.60	.50	.200	.150
55	.04	.02	.70	.70	.300	.200
60	.04	.02	.70	.70	.400	.250
65	.04	.02	.70	.70	.500	.300
70	NA	NA	NA	NA	NA	NA

**Summary of Actuarial Assumptions and Methods  
In Effect For The June 30, 2011 (Lag) Actuarial Valuation  
(Cont'd)**

**Table 3**

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

Years of Service	Probability of Withdrawal	
	Males	Females
0	6.00%	4.00%
5	4.00	3.00
10	2.50	2.00
15	1.50	1.50
20	1.00	1.00
25	1.00	1.00

**Table 4**

**WITHDRAWALS FROM ACTIVE SERVICE (AFTER ELIGIBILITY FOR SERVICE RETIREMENT)  
Percentage of Eligible Active Members Retiring Within Next Year**

Age	With <sup>(2)</sup> Reduced Benefits	With Unreduced Benefit <sup>(1)</sup>					
		Members not Electing Optional Retirement Program			Members Electing Optional Retirement Program		
		Years of Service Since First Elig.			Years of Service Since First Elig.		
		0-1	1-2	2+	0-1	1-2	2+
50	0.00%	20.00%	15.00%	10.00%	40.00%	20.00%	15.00%
55	2.00	20.00	15.00	10.00	40.00	20.00	15.00
60	4.00	20.00	15.00	10.00	40.00	20.00	15.00
65	0.00	30.00	25.00	20.00	60.00	25.00	25.00
70	NA	100.00	100.00	100.00	100.00	100.00	100.00

- (1) Separate probabilities of Service Retirement are applicable to those active members who elected an Optional Retirement Program such as Chapter 96 of the Laws of 1995 or Chapter 19 of the Laws of 2008.
- (2) Applicable to members whose benefits will be reduced upon retiring prior to the date eligible for unreduced Service Retirement.

**Summary of Actuarial Assumptions and Methods  
In Effect For The June 30, 2011 (Lag) Actuarial Valuation  
(Cont'd)**

**Table 5  
SALARY SCALE**

Years of Service	Assumed Annual Percentage Increases Within Next Year*
0	9.00%
5	5.00
10	4.50
15	4.50
20	4.25
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

Valuation Date	Number	Annual Payroll	Annual Average Salary	Percentage Increase (Decrease) in Average Salary
6/30/99	22,933	\$592,168,563	\$25,822	3.9%
6/30/00	24,720	666,033,084	26,943	4.3
6/30/01	24,651	694,178,952	28,160	4.5
6/30/02	25,253	736,741,106	29,174	3.6
6/30/03	21,678	651,032,658	30,032	2.9
6/30/04 <sup>(1)</sup>	20,899	624,883,613	29,900	(0.4)
6/30/05 (Lag)	23,005	715,077,619	31,084	4.0
6/30/06 (Lag)	23,095	749,962,525	32,473	4.5
6/30/07 (Lag)	21,947	777,626,307	35,432	9.1
6/30/08 (Lag)	22,729	852,105,791	37,490	5.8
6/30/09 (Lag)	23,303	910,609,483	39,077	4.2
6/30/10 (Lag) <sup>(2)</sup>	23,324	912,290,136	39,114	0.1
6/30/11 (Lag)	23,131	920,369,154	39,789	1.7
6/30/12 (Lag) <sup>(3)</sup>	27,840	1,018,895,365	36,598	(8.0)

(1) Same amounts apply for June 30, 2004 (Lag) Actuarial Valuation.

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

(3) Preliminary.

**Funded Status Based on Entry Age Actuarial Cost Method  
(As shown in the Financial Statement for Fiscal Year Ended June 30, 2013)  
(Dollar Amounts in Thousands)**

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

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

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

<b>Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) - Entry Age (b)</b>	<b>Unfunded AAL (UAAL) - Entry Age (b-a)</b>	<b>Funded Ratio (a/b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll ((b-a)/ c)</b>
June 30, 2012 (Lag) <sup>1,2</sup>	\$2,371,613	\$3,763,130	\$1,391,517	63.0%	\$1,018,895	136.6%
June 30, 2011 (Lag) <sup>1</sup>	2,323,629	3,681,694	1,358,065	63.1	920,369	147.6
June 30, 2010 (Lag) <sup>1</sup>	2,056,452	3,558,251	1,501,799	57.8	912,290	164.6
June 30, 2009 (Lag)	1,963,719	2,858,115	894,396	68.7	910,609	98.2
June 30, 2008 (Lag)	2,084,116	2,721,629	637,513	76.6	852,106	74.8
June 30, 2007 (Lag)	1,983,714	2,591,773	608,059	76.5	777,626	78.2
June 30, 2006 (Lag)	1,830,338	2,502,127	671,789	73.2	749,963	89.6

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 assumptions of 7.0% per annum, net of expenses.
- 2 Preliminary.

### Comparative Summary of Actuarial Values and Percentages covered by Actuarial Value of Assets

#### SOLVENCY TEST (Dollar Amounts in thousands)

As of June 30	Aggregate Accrued Liabilities For			Actuarial Value of Assets (D)	Percentage of Actuarial Values Covered by Actuarial Value of Assets		
	Accumulated Member Contributions (A)	Current Retirees and Beneficiaries (B)	Active Members' Employer Financed Portion (C)		(A)	(B)	(C)
1999	\$201,855	\$ 707,681	\$493,231*	\$1,705,424	100%	100%	100%
2000	225,604	825,066	585,044*	1,749,405	100	100	100
2001	238,052	860,142	618,938*	1,781,702	100	100	100
2002	320,182	897,094	689,951*	1,835,770	100	100	90
2003	291,168	1,024,724	675,042	1,833,798	100	100	77
2004	289,999	1,086,068	667,724	1,822,740	100	100	67
2004 (Lag)	289,999	1,092,068	674,381	1,843,786	100	100	68
2005 (Lag)	301,021	1,131,335	742,368	1,841,041	100	100	55
2006 (Lag)	317,544	1,181,666	809,206	1,830,338	100	100	41
2007 (Lag)	319,153	1,233,708	839,993	1,983,714	100	100	51
2008 (Lag)	337,821	1,262,046	904,890	2,084,116	100	100	54
2009 (Lag)	359,122	1,303,453	965,681	1,963,719	100	100	31
2010 (Lag)	388,082	1,627,094	1,306,868	2,056,452	100	100	3
2011 (Lag)	409,625	1,714,099	1,319,938	2,323,629	100	100	15

\* Amounts shown were revised in the Fiscal Year 2004 CAFR from amounts published earlier to include annuitization of Variable Funds. Also, see following "SOLVENCY TEST - NOTES."

## Comparative Summary of Actuarial Values and Percentages covered by Actuarial Value of Assets (Cont'd)

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### 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 Employer Contributions for Fiscal Year 2006 and in the June 30, 2010 (Lag) valuation used to compute Employer Contributions for Fiscal Year 2012. These underlying bases can be found within the Comprehensive Annual Financial Report for each respective year.

To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. For the valuation dates appearing in the table, the Actuarial Interest Rate and 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 valuations, the Actuarial Interest Rate assumption equals 7.0% per annum, net of expenses, and the General Wage Increase assumption equals 3.0% per annum.

## Additional Discussion of Plan Funding and Other Measures of Funded Status

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### ON-GOING FUNDING OF THE PLAN

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

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

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

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

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

This actuarial methodology includes demographic and certain tabular assumptions proposed by the Actuary and adopted by the Board of Trustees, and certain economic assumptions and financing methods proposed by the Actuary, supported by the Board of Trustees 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, most recently during Fiscal Year 2012.

These most recent changes, approved by the Board of Trustees 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 Board of Trustees, 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 Board of Trustees, 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 ("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 each year) into the AAV over a period of six years.

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

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

## Additional Discussion of Plan Funding and Other Measures of Funded Status (Cont'd)

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### 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.

The EAAL is a required disclosure in accordance with Governmental Accounting Standards Board (“GASB”) Statement Number 43 (“GASB 43”) and GASB Statement Number 45 (“GASB 45”) for Other Post-Employment Benefits (“OPEB”) under the Aggregate ACMs.

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

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

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

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

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

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”).

## Additional Discussion of Plan Funding and Other Measures of Funded Status (Cont'd)

### TABLE OF ASSETS 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 June 30	Market Value of Assets (MVA)	Actuarial Asset Value (AAV) <sup>(1)</sup>	Actuarial Accrued Liability (AAL) <sup>(2)</sup>	Entry Age Accrued Liability (EAAL) <sup>(3)</sup>	Projected Benefit Obligation (PBO) <sup>(3)</sup>	Accumulated Benefit Obligation (ABO) <sup>(3)</sup>	Market Value Accumulated Benefit Obligation (MVABO) <sup>(4)</sup>	MVABO Equivalent Discount Yield (Per Annum)	MVABO Weighted Average Duration (Years)
1999	\$1,705.4	\$1,705.4	\$1,705.4	\$1,461.8	\$1,402.8	\$1,220.2	\$1,468.4	6.0%	10.4
2000	1,771.6	1,749.4	1,749.4	1,726.8	1,635.7	1,466.6	1,770.2	6.0	11.1
2001	1,546.4	1,781.7	1,781.7	1,862.8	1,717.1	1,526.3	1,903.5	5.7	10.8
2002	1,438.4	1,835.8	1,835.8	2,086.7	1,907.2	1,702.5	2,120.9	5.7	10.5
2003	1,410.6	1,833.8	1,842.0	2,144.1	1,990.9	1,808.6	2,561.2	4.6	11.5
2004	1,594.5	1,822.7	1,829.5	2,030.3	2,043.8	1,873.5	2,379.6	5.5	10.6
2004 (Lag) <sup>(5)</sup>	1,594.5	1,843.8	1,850.6	2,221.9	2,056.4	1,860.1	2,366.1	5.5	10.8
2005 (Lag)	1,685.5	1,841.0	1,846.3	2,361.3	2,174.7	1,943.1	2,886.7	4.2	12.6
2006 (Lag)	1,809.4	1,830.3	1,834.0	2,502.1	2,308.4	2,055.4	2,657.2	5.4	11.6
2007 (Lag)	2,179.5	1,983.7	1,985.6	2,591.8	2,392.9	2,105.7	2,792.4	5.2	11.7
2008 (Lag)	2,021.9	2,084.1	2,084.1	2,721.6	2,504.8	2,202.5	3,201.4	4.5	12.0
2009 (Lag)	1,536.6	1,963.7	1,963.7	2,858.1	2,628.3	2,318.3	3,519.2	4.1	12.1
2010 (Lag) <sup>(6)</sup>	1,785.9	2,056.5	3,558.3	3,558.3	3,322.0	2,983.4	4,487.7	3.7	13.5
2011 (Lag)	2,323.6	2,323.6	3,681.7	3,681.7	3,443.7	3,118.5	4,439.9	4.1	12.7
2012 (Lag) <sup>(7)</sup>	2,310.6	2,371.6	3,763.1	3,763.1	3,522.4	3,236.0	5,826.4	2.4	14.6

(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 expenses.

(7) Preliminary.

## Additional Discussion of Plan Funding and Other Measures of Funded Status (Cont'd)

### 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%	117%	117%	122%	122%	140%	140%	116%
6/30/00	100	101	103	107	108	119	121	100
6/30/01	100	96	83	104	90	117	101	81
6/30/02	100	88	69	96	75	108	84	68
6/30/03	100	86	66	92	71	101	78	55
6/30/04	100	90	79	89	78	97	85	67
6/30/04 (Lag)	100	83	72	90	78	99	86	67
6/30/05 (Lag)	100	78	71	85	78	95	87	58
6/30/06 (Lag)	100	73	72	79	78	89	88	68
6/30/07 (Lag)	100	77	84	83	91	94	104	78
6/30/08 (Lag)	100	77	74	83	81	95	92	63
6/30/09 (Lag)	100	69	54	75	58	85	66	44
6/30/10 (Lag)	58	58	50	62	54	69	60	40
6/30/11 (Lag)	63	63	63	67	67	75	75	52
6/30/12 (Lag)	63	63	61	67	66	73	71	40

### COMMENTS ON FUNDED RATIOS AND FUNDING METHODOLOGY

With respect to the different Funded Ratios shown in the preceding table, the ratio of AAV/AAL is from the Schedule of Funding Progress (Schedule 1) presented in the Financial Section of this CAFR. Due to the mathematics of the FIL ACM where AAL equals AAV plus UAAL, the AAV/AAL Funded Ratios prior to Fiscal Year 2012 tended to remain relatively constant from year to year and provided limited insight into the ongoing financial performance of the Plan.

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

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

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

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

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

### Retirants and Beneficiaries Added To and Removed From Rolls

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of Year		% Increase In Annual Allowances	Average Annual Allowances
	Number	Annual Allowances <sup>(2)</sup>	Number	Annual Allowances	Number	Annual Allowances <sup>(1)</sup>		
6/30/99	536	\$ 6,876,212	272	\$2,262,330	9,058	\$ 87,724,653	5.6%	\$ 9,685
6/30/00	673	7,000,476	324	2,652,306	9,407	92,072,823	5.0	9,788
6/30/01	711	13,847,963	280	2,815,207	9,838	103,105,579	12.0	10,480
6/30/02	693	7,712,942	256	3,039,034	10,275	107,779,487	4.5	10,489
6/30/03	1,068	16,795,369	360	3,581,174	10,983	120,993,682	12.3	11,016
6/30/04	995	11,412,512	353	3,527,249	11,625	128,878,945	6.5	11,086
6/30/05	779	8,763,397	431	3,995,277	11,973	133,647,065	3.7	11,164
6/30/06	1,066	12,053,392	466	3,414,306	12,573	142,286,151	6.5	11,317
6/30/07	958	10,886,720	540	3,850,151	12,991	149,322,720	4.9	11,494
6/30/08	667	8,148,653	462	4,350,475	13,196	153,120,898	2.5	11,604
6/30/09	936	10,879,798	491	4,135,086	13,641	159,865,610	4.4	11,719
6/30/10	850	10,705,737	522	4,700,094	13,969	165,871,253	3.8	11,874
6/30/11	901	14,977,636	471	4,325,573	14,399	176,523,316	6.4	12,259

(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, change in benefit type (e.g., Service to Accident Disability), COLA increases and other changes.

## Statutory vs. Annual Required Contributions

Fiscal Year Ended	Statutory Contribution <sup>(1)</sup>	Annual Required Contribution	Employer Rate of Contribution <sup>(2)</sup>
6/30/00	\$ 9,514,029	\$ 9,514,029	1.607%
6/30/01	39,202,604	52,070,363	5.886
6/30/02	56,547,710	66,660,509	8.146
6/30/03	70,215,171	87,924,410	9.531
6/30/04	84,054,254	95,004,623	12.911
6/30/05	96,648,286	106,358,977	15.467
6/30/06	90,838,671	90,838,671	14.926
6/30/07	129,820,109	129,820,109	18.641
6/30/08	143,100,327	143,100,327	19.627
6/30/09	134,224,615	134,224,615	17.766
6/30/10	147,348,563	147,348,563	17.822
6/30/11	180,191,397	180,191,397	20.461
6/30/12	213,650,880	213,650,880	24.293
6/30/13	196,245,777	196,245,777	22.145

(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 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 and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

## Summary of Plan Provisions

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This Summary of Plan Provisions is applicable to Plan members included in the June 30, 2011 (Lag) actuarial valuation.

### A. MEMBERSHIP

Membership in the New York City Board of Education Retirement System – Qualified Pension Plan is available to all non-temporary employees in education service, regardless of part-time or full-time status, other than persons eligible to participate in the New York City Teachers' Retirement System – Qualified Pension Plan.

All such persons holding permanent civil service positions are required to become members of the New York City Board of Education Retirement System – Qualified Pension Plan.

### B. BRIEF HISTORY

The Board of Education Retirement System was established as of September 1, 1921 and originally provided for its members a fractional retirement plan (i.e., age 60-1/140th). Subsequently, additional fractional plans were made available (i.e., the age 55-1/120th and the age 55-1/100th). These plans are known as the Old Service Fraction Plans.

Amendments in 1968 to the Rules and Regulations of the Board of Education Retirement System substantially revised the benefit structure by establishing two new retirement plans effective July 1, 1968. Members who joined the System on or after the effective date were required to choose either one of the two plans, namely (1) the Career Pension Plan ("Plan A"), or (2) the 55-Year Increased-Service-Fraction Plan ("Plan B"). A member who joined the System 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 prior to July 1, 1970. Members who elected one of these new plans are referred to as Tier I members.

Chapter 1046 of the Laws of 1973 imposed certain limitations on the benefits available to members joining the System after June 30, 1973. For members who joined the System between July 1, 1973 and June 30, 1976 (Tier II members), two plans were available: the Modified Career Pension Plan ("Plan C"); and the Modified 55-Year-Increased-Service-Fraction Plan ("Plan D").

Chapter 890 of the Laws of 1976 established a new statewide pension plan, the Coordinated Escalator ("CO-ESC") Retirement Plan, covering all employees joining on or after July 1, 1976 (Tier III members). However, the New York Court of Appeals on May 31, 1988 held, in *Civil Service Employees' Association vs. Regan*, that persons who became members between July 1, 1976 and July 26, 1976 are considered Tier II (i.e., Plans C and D) members.

Chapter 414 of the Laws of 1983 established the Coordinated Retirement Plan, effective September 1, 1983, superseding the CO-ESC plan for most employees joining the System on or after July 27, 1976 (Tier IV members). This plan set a normal retirement age of 62, and mandated a 3% contribution by the member

for all years of membership. Members who joined July 27, 1976 through August 31, 1983, however, are entitled to receive a benefit from either the CO-ESC or Coordinated Plan, whichever provides a greater benefit.

Chapter 749 of the Laws of 1992 set forth pension rights, including retroactive rights, to part-time employees.

Chapter 96 of the Laws of 1995 ("Chapter 96/95") established an Optional Retirement Program effective during Fiscal Year 1996. This Program increased early retirement benefits and required additional member contributions. This Program is optional for those hired prior to the effective date of the legislation and mandatory for those hired after.

Chapter 442 of the Laws of 1997 reduced from 4.35% to 2.85% the Additional Member Contributions for Tier II and Tier IV members participating in the Chapter 96/95 Optional Retirement Program.

Chapter 266 of the Laws of 1998 improved benefits for Tier IV members who had at least 20 years of service but less than 25 years of service and permitted certain Tier III retirees to elect to receive Tier IV benefits.

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 certain 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 644 of the Laws of 1998 provided that any active member with ten or more years of service and within three years of retirement may purchase up to three years of member service credit for U.S. Military Service during a period of war.

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 to five years the amount of service credit needed for Tier III/IV vested members to receive benefits at age 55.

Chapter 110 of the Laws of 2000 amended the language of the legislation that later became Chapter 126 of the Laws of 2000 which provides for benefit enhancements for certain members.

## Summary of Plan Provisions (Cont'd)

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Chapter 125 of the Laws of 2000 (“Chapter 125/00”) provided eligible retirees with annual automatic Cost-of-Living Adjustments. It also provided for a five-year phase-in for the funding of the additional actuarial liabilities.

Chapter 126 of the Laws of 2000 provided for benefit enhancements (i.e., elimination of employee basic contributions for Tier III/IV members with more than 10 years of membership, additional service credit for Tier I/II members of up to a maximum of 24 months, and allows 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 New York City Retirement Systems.

Chapter 553 of the Laws of 2000 permitted Tier IV members to retire early with a reduced benefit beginning at age 55 provided they have at least 5 years of credited service and are not members of the 25 Year Early Retirement Program or the Age 57 Retirement Program.

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

Chapter 509 of the Laws of 2001 reduced from 2.85% to 1.85% the Additional Member Contribution rate for Tier II and Tier IV members participating in the Chapter 96/95 Optional Retirement Programs.

Chapter 69 of the Laws of 2002 provided an Early Retirement Incentive (“ERI”) program for certain members.

Chapter 278 of the Laws of 2002 (“Chapter 278/02”) revised the phase-in schedule of Chapter 125/00 for Fiscal Year 2003 and later by extending from five to ten years the phase-in period for the funding of the additional actuarial liabilities attributable to Chapter 125/00.

Chapter 307 of the Laws of 2002 provided Corpus Funding of administrative expenses for the Plan commencing July 1, 2002 and allows for the appointment of an Executive Director for the Plan.

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.

Chapter 104 of the Laws of 2005, as amended by Chapter 93 of the Laws of 2005, created a presumptive eligibility for accidental disability in connection with the World Trade Center attack on September 11, 2001.

Chapter 105 of the Laws of 2005 states that a member killed in the 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 continued the valuation and other interest rates for one year to June 30, 2006 from June 30, 2005.

Chapter 152 of the Laws of 2006 (“Chapter 152/06”) provided for the changes in actuarial assumptions and methods that require legislation, including the continuation of the AIR assumption of 8.0% per annum and continuation of the current Frozen Initial Liability (“FIL”) Actuarial Cost Method and the existing Unfunded Actuarial Accrued Liability (“UAAL”). In addition, Chapter 152/06 provided for the 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 of accidental death benefits in conjunction with the World Trade Center attack on September 11, 2001.

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 deaths in the Line of Duty.

Chapter 260 of the Laws of 2007 is a reopener of the Chapter 96/95 Optional Retirement Program for Tier II and Tier IV members in the Loader and Handler job titles.

Chapter 19 of the Laws of 2008 established retirement programs to permit certain Tier II and Tier IV members 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 be age 55 and have 27 years of service to retire without reduction.

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, 2011 from June 30, 2009.

Chapter 504 of the Laws of 2009 (“Chapter 504/09”) provides that individuals joining the Plan after December 10, 2009, who are represented by the United Federation of Teachers (“UFT”) and who participate in the 55/27 retirement program, will be 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. These members will become vested after ten years of credited service.

Also, under Chapter 504/09, all members of the Plan 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.

## Summary of Plan Provisions (Cont'd)

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

Chapter 157 of the Laws of 2011 provided that members who were laid off from the School Construction Authority (“SCA”) on or after December 1, 2002 and who returned to work prior to January 8, 2008, can buy back their layoff time for retirement purposes.

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

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

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 BERS. 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 OYLM, employed the Entry Age Actuarial Cost Method (EAACM), an Actuarial Interest Rate (AIR) assumption of 7.0% per annum, net of expenses and defined the amortization of Unfunded Actuarial Accrued Liabilities (UAAL).

Following is a description of the principal benefit provisions of the System, preceded by simplified definitions of the technical terms used therein.

### C. COORDINATED RETIREMENT PLAN

#### ARTICLE 15 OF THE RETIREMENT AND SOCIAL SECURITY LAW (“RSSL”)

##### I. Definitions

**Final Average Salary (“FAS”)** - The average salary earned during any three consecutive years which provides the highest average salary. If the salary earned during any year included in the three-year period, however, 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** - The regular compensation earned by and paid to a member.

## II. Benefits Under The Coordinated Retirement Plan

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

### a. SERVICE RETIREMENT

#### 1. Normal Service Retirement

(a) Payability Date depends on Plan as follows:

- (1) Age 62 and 5 years of service;
- (2) Age 57 and 5 years of service;
- (3) Age 55 and 25 years of service; or
- (4) Age 55 and 27 years of service.

- (b)
- (1) Pension payable for members with fewer than 20 years of service (25 for members in Optional Retirement Plans):  $1/60$  times FAS times years of service.
  - (2) Pension payable for members with at least 20 years of service (25 for members in Optional Retirement Plans), but fewer than 30 years of service:  $1/50$  times FAS times years of service.
  - (3) Pension payable for members with 30 or more years of service:  $1/50$  times FAS for each of the first thirty years of service, plus  $3/200$  times FAS for each additional year.

#### 2. Early Service Retirement

Commencing as early as age 55, requires completion of five years of credited service. Benefit is equal to the Service Retirement benefit reduced depending on the number of months prior to age 62.

#### 3. Deferred Vested Benefit

A member who has five or more years of service upon termination of employment (ten years if hired after December 10, 2009) is entitled to a deferred vested benefit payable starting at age 62. The benefit formulas are the same as those set forth under Normal Service Retirement.

## Summary of Plan Provisions (Cont'd)

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### b. DISABILITY RETIREMENT

#### 1. Requirements

A member is eligible for ordinary disability retirement if:

- (a) he/she has completed ten or more years of service and,
- (b) he/she is incapacitated from performance of gainful employment.

If the disability is judged to be the result of an accident in the performance of duty, the service requirement is waived.

#### 2. Benefit Payable

The benefit is the greatest of:

- (a)  $\frac{1}{3}$  of FAS,
- (b)  $\frac{1}{60}$  times FAS times years of credited service, or
- (c) the service retirement allowance but only if member has met the eligibility requirements for Service Retirement.

### c. ORDINARY DEATH BENEFIT

Upon the death of a member in active service, a benefit is payable to his/her designated beneficiary. Under legislation effective July 26, 1986, the death benefits are the same as those applicable to members who joined the System between July 1, 1973 and July 26, 1976 (described in Section D.II.e of this Summary Of Plan Provisions).

### d. ACCIDENTAL DEATH BENEFIT

#### 1. Requirements

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 the accident was not caused by the member's own willful negligence.

#### 2. Pension Payable

The beneficiary receives a pension equal to 50% of wages earned during the last year of actual service (must be applied for within two years of death) and within 60 days if member joined after August 31, 1983.

3. Other Provisions

- (a) If the eligible beneficiary becomes ineligible to continue to receive the benefit, it shall be continued to the next eligible class of beneficiaries, and if none, to each successive class.
- (b) If the benefits paid do not exceed the amount of the ordinary lump sum benefit because of the absence of eligible beneficiaries, the difference is to be paid to the last eligible beneficiary, or if none, to the member's estate.

e. DESIGNATION OF BENEFICIARY

Beneficiaries are dealt with differently for ordinary death and accidental death benefits. For the ordinary death benefit, the latest named beneficiary, duly designated on a System form filed with the System will receive the death benefit. If none is designated, the benefit is paid to the member's estate.

For the accidental death benefit, beneficiaries are prescribed in the following order:

1. a surviving spouse who has not renounced survivorship rights in a separation agreement until remarriage;
2. surviving children, until age 25;
3. dependent parents whose eligibility shall be determined in accordance with regulations promulgated by the Board of Trustees; and,
4. any other person who qualified as a dependent on the final federal income tax return of the member filed in the year immediately preceding the year of death, until such person reaches 21 years of age.

**D. PLANS FOR MEMBERS JOINING PRIOR TO JULY 27, 1976**

**I. Definitions**

**ACCUMULATED DEDUCTIONS** - The total contributions made by a member to his annuity savings account, with regular and special interest, or increment thereon.

**FINAL SALARY** - (1) For a member who joined prior to July 1, 1973, salary earnable by the member in the year ending on the date of retirement or alternatively, the average annual compensation during any three calendar 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

## Summary of Plan Provisions (Cont'd)

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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.

**MINIMUM ACCUMULATION** - The amount of normal contributions accumulated with interest to the date on which a member either completed or could have completed 25 years of Career Pension Plan service, less the amount of the reserve for Increased-Take-Home-Pay on such date.

**PAYABILITY DATE** - For members who elected the Career Pension Plan, the date on which the service retirement allowance begins, which is the latest of (1) the date on which the member retires, (2) the date on which he/she attains the age 55 (age 50 for members in physically taxing positions for at least 25 years of service), or (3) the date on which he/she could have completed 25 years of service had he/she remained in Educational City Service. Except that for a member who last joined the System prior to July 1, 1959, the payability date is the date of retirement, regardless of age, provided such member has completed 35 years of service. For all other members, the retirement allowance begins on the date of retirement.

**PHYSICALLY TAXING POSITION** - Any career pension plan position which has been included as physically taxing by the List Administrator.

**RESERVE-FOR-INCREASED-TAKE-HOME-PAY** - A reserve of 2 percent, 2.5 percent, 4 percent or 5 percent of the member's salary, pursuant to the provisions of Section 28 of the Rules and Regulations, accumulated with regular and additional interest, or increment thereon.

## II. Benefits

### a. SERVICE RETIREMENT

1. Career Pension Plan - (i) A member who joined prior to July 1, 1973 who elected the career pension plan (Plan A) is eligible to retire after having completed 20 years of career pension plan qualifying service, with benefits to begin on the payability date. Regardless of the number of years of service, however, a member who has elected the career pension plan and who is at least 55 years of age may retire with benefits payable immediately by canceling his election of the career pension plan, thereby becoming eligible for the benefits under the 55 year-increased-service-fraction plan which is described in paragraph (2) below. (ii) In order for a member who joined after June 30, 1973 (Plan C) to be eligible for retirement, he must (a) have attained age 55 and (b) have rendered five years of credited service, in addition to the aforementioned requirements.

The service retirement allowance is the sum of (a) 2.2% of final salary, multiplied by the number of years of career pension plan service not in excess of 25, reduced by an annuity which is the actuarial equivalent of the Minimum Accumulation, (b) an annuity which is the actuarial equivalent of the accumulated deductions, and (c) for all years of service other

than the first 25 years of career pension plan service, (i) a pension for increased-take-home-pay made in each year and (ii) 1.2% of final salary for each such year prior to July 1, 1968 and 1.7% of final salary for each year beginning on or after that date.

2. 55-Year-Increased-Service-Fraction Plan - (i) A member who joined prior to July 1, 1973 (Plan B) and who elected the 55-year-increased-service-fraction plan may retire after having attained age 55 with benefits payable immediately upon retirement. (ii) In order for a member who joined after June 30 1973, (Plan D) to be eligible for retirement, he must have rendered five years of credited service, in addition to the aforementioned requirement.

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 final salary multiplied by each year of service prior to July 1, 1968, plus 1.53% of final salary multiplied by each year of service after June 30, 1968; 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.

Any Plan C or D member who did not join the Optional Retirement Programs and who retires prior to age 62 will have his pension for service reduced by 0.5% for each of the first 24 months that the payability date precedes age 62, and by 0.25% for each such additional month.

b. ORDINARY DISABILITY RETIREMENT

Regardless of the plan elected, a member, who has completed 10 or more years of city service immediately preceding the occurrence of disability from causes other than accident in the actual performance of duty, is entitled to an ordinary disability retirement allowance.

If upon becoming disabled, the member could have retired for service with benefits payable immediately, the ordinary disability allowance is the same as the service retirement allowance. 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 55-year-increased-service-fraction plan with benefits payable immediately regardless of age and without reduction for age.

c. ACCIDENT DISABILITY RETIREMENT

Upon the occurrence of disability caused by an accident in the actual performance of duty, a member is entitled to an accident disability retirement allowance consisting of a pension equal to three-fourths of final compensation, a pension for increased-take-home-pay which is the actuarial equivalent of the reserve for increased-take-home-pay, and an annuity purchased with the member's accumulated deductions. The pension is subject to reduction because of Worker's Compensation benefits granted on account of the accident.

## Summary of Plan Provisions (Cont'd)

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### d. CHANGING RETIREMENT PLAN

1. A member in Plan A (Plan C) may change to Plan B (Plan D) at any time after his first year of coverage under Plan A (Plan C).
2. A member who elected Plan B (Plan D) can change to Plan A (Plan C) at any time.
3. A member in an Old Service Fraction Plan can change to Plan A, B, C or D.
4. A Plan A (Plan C) member who intends to leave city service who has at least 5 years but less than 20 years of service credit, and who wishes to vest his rights must elect Plan B (Plan D) by filing with the Retirement System an affidavit withdrawing from Plan A (Plan C), prior to resignation.

### e. ORDINARY DEATH BENEFIT

Upon the death of a member from causes other than an accident in the actual performance of duty, a benefit is paid to the member's estate or to such person as the member shall have nominated.

With respect to a member who joined before July 1, 1973, and total number of years of allowable service less than ten, the benefit is equal to the compensation earnable by the member in the six months immediately preceding death and, if the total number of years of allowable service is greater than ten, but less than twenty, the benefit is equal to the compensation earnable during the twelve months immediately preceding death. If the total number of years of allowable service is greater than twenty, the benefit is equal to twice the compensation earnable during the twelve 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 member's designated beneficiary. The benefit payable on account of such a member who at the time of death would have been eligible for service retirement is either the benefit described above or an amount equal to the reserve on the retirement allowance which would have been payable had the member retired on the day before death, whichever is larger.

A member who joins after June 30, 1973 must choose between the following two death benefits which cannot be changed; upon death, a benefit is paid pursuant to such election.

**Death Benefit 1:** 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 death, the benefit is the reserve on the retirement allowance which would have been payable had the member retired on the day before his death, if greater.

Death Benefit 2: In addition to a refund of the member's accumulated deductions, one year's salary for each year of service up to a maximum of three years' salary. The maximum benefit declines after age 60 at the rate of 5% per year, to a minimum of 50% of the benefit in effect at age 60.

A benefit is also payable upon death after retirement, which benefit is expressed as a percent of the benefit in force immediately before retirement as follows: If death occurs in the first year after retirement, 50% of such benefit; if death occurs in the second year following retirement, 25%; upon death occurring subsequently, 10%. If retirement occurred 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 Board of Trustees 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 the retirement system.

f. ACCIDENTAL DEATH

The benefit is payable upon the death of a member which occurs as a result of an accident sustained in the performance of duty.

The accidental death benefit is a lump sum equal to the reserve for increased-take-home-pay and a pension equal to one-half of final average salary, payable to the surviving spouse until remarriage or death, or if there is no surviving spouse, to a child or children until the attainment of age 18 of the youngest child, or if there is no surviving spouse or child to the dependent parents. In addition, the member's accumulated deductions are paid to his/her estate or to the designated beneficiary. The pension is subject to reduction because of Worker's Compensation benefits granted on account of the accidental death.

g. TERMINATION OF EMPLOYMENT

A member who either resigns or is dismissed with fault receives a benefit equal to his accumulated deductions. At resignation with at least 5 years of service the member may elect, in lieu of a return of his accumulated deductions, to receive an allowance computed in the same manner as the retirement allowance for retirement under the 55-year-increased-service-fraction plan, except that the allowance is deferred to age 55. Should a member with less than 10 years of service who elected to receive a deferred retirement allowance die before the attainment of age 55, the benefit consists of the accumulated deductions. If a member who at resignation had at least 10 years of service and elected to receive a deferred retirement allowance dies before the attainment of age 55, the benefit is one-half of the ordinary death benefit.

## Summary of Plan Provisions (Cont'd)

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A member not eligible for service retirement and who is removed from service without fault or delinquency and has not less than one-half year of service in the year immediately preceding the date of termination or who is so removed from a position in the competitive or labor class, regardless of service, is entitled to the return of his accumulated deductions in a lump sum payment or to a pension whose present value is equal to the pension he would have received at his earliest payability date, based on his service to date of termination. If the member has attained age 50 and has completed at least 20 years of service, an additional pension is payable equal to one-half the difference between the pension so computed and the pension payable at his earliest age for service retirement. In addition, he receives a pension which is the actuarial equivalent of his reserve for increased-take-home-pay and an annuity of such amount as his accumulated deductions will purchase.

### h. AUTOMATIC ANNUAL COST-OF-LIVING ADJUSTMENTS (“COLA”)

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.

Starting with benefits for September 2001, COLA are 50% of the increase in the CPI-U based on the year ending March 31, rounding to the next higher .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.

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.

## E. OPTIONS ON RETIREMENT OR DEATH

### No Option (Maximum Retirement Allowance)

A member upon retirement may receive the basic maximum retirement allowance payable in monthly installments throughout life with all payments ending at death.

Alternatively, a member may elect to receive an actuarial equivalent benefit in any one of the following optional forms.

With respect to plans other than the Coordinated Retirement Plan (Article 15):

Option 1 (Cash Refund)

With respect to 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 date of retirement, the balance shall be paid to the designated beneficiary or estate. With respect to members who joined after June 30, 1973, this option is only available with respect to the benefits derived from employee contributions (annuity).

Option 2 (Joint and 100% Survivor Allowance)

Option 3 (Joint and 50% Survivor Allowance)

A joint and survivor allowance under which reduced payments will be made during life with a provision that at the death of the member the same payments (Option 2) or one half of such payments (Option 3) shall be continued throughout the life of such other person as the member shall have designated.

Option 4

Such other form of benefit which is the actuarial equivalent as may be certified by the Actuary and approved by the Board of Trustees. By resolution, the Board of Trustees has approved an option under which reduced payments will be made during life with a provision that upon his/her death, a sum specified by the member at the time of retirement shall be paid to the designated beneficiary or estate.

Option 4-2 and 4-3

Option 4-2 and Option 4-3 are known as the “Pop-Up” options. These are called “Pop-Ups” because they are variations of Options 2 and 3 that provide if a joint and survivor option is elected and the beneficiary predeceases the retiree, then the retirement allowance will increase (pop-up) to the level of the maximum retirement allowance.

Ten-Year (or Five-Year) Certain and Life

Ten-year (or five-year) certain and life allowance under which reduced payments will be made during the lifetime of the member with a provision that in case of death within ten (five) years of retirement, the remaining benefit that would have been payable had the member survived for ten (five) years shall be paid to the designated beneficiary or estate for the balance of the ten (five) years.

## Summary of Plan Provisions (Cont'd)

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With respect to Article 15, the options are as follows:

- a. A five-year or ten-year certain and life option, the same as described above.
- b. A joint and survivor option under which reduced payments will be made during life with a provision that at the death of the member, 100%, 75%, 50% or 25% of such payments shall be continued throughout the life of such other person as the member shall have designated.
- c. A pop-up option as described above.

### F. CONTRIBUTIONS

The benefits of the system are financed by employee and employer contributions and from investment earnings of the System.

#### I. Employee Contributions

Under Article 15 of the RSSL a member was mandated to contribute 3% of Salary. Effective October 1, 2000, these members are not required to make contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. For those who elected or were mandated into the Optional Retirement Plans, Additional Member Contributions (“AMC”) are required.

A member who joined prior to July 27, 1976 contributes by salary deductions on the basis of a normal rate of contribution which is assigned by the System at the time he/she elects his/her plan. The normal rate, which is dependent upon the member’s age and plan, as well as the tables in effect for that purpose at the time he/she became a member, is determined so as to provide approximately one-third of the benefit on account of the first 25 years of service.

In the plans which permit retirement for service at age 55, the normal contribution rate is calculated so as to provide an annuity equal to 1% of final salary for each year of service at the earliest age for service retirement. For such plans, the contribution rate for members who enter at age 55 or over is the rate applicable to a member entering at age 54.

Member contributions are accumulated with interest on individually maintained ledger accounts. Except under Article 15, upon retirement, the amount to his/her credit (i.e., accumulated deductions) is used to purchase an annuity on the basis of the tables adopted by the Board of Trustees. Upon death in service, the accumulated deductions are paid to the beneficiary.

Beginning July 1, 1960, on a year to year basis, the normal rates of contribution of members who joined before July 27, 1976 were reduced by an increased-take-home-pay rate equal to two and one-half percentage points and equal to five percentage points beginning July 1, 1961. Between July 1, 1968

and December 31, 1975, an increased-take-home-pay rate of four percentage points was effective for all members. On January 1, 1976, an increased-take-home-pay rate of two percentage points became effective for all members. Following is a table showing the effective periods and increased-take-home-pay rate.

<b><u>Period</u></b>	<b><u>Increased-Take-Home-Pay Rate</u></b>
07-01-1960 - 06-30-1961	2.5%
07-01-1961 - 06-30-1968	5%
07-01-1968 - 12-31-1975	4%
01-01-1976 and after	2% for non-Article 14 & 15 Members 0% for Article 14 & 15 Members

At present the reduction is two percentage points for members other than members in the Coordinated Retirement Plan. 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 equal to the increased-take-home-pay rate times salary so that in general, the total benefit is equal to the benefit which would have been paid if the members' rates of contribution had not been reduced. However, the reserve for increased-take-home-pay is not payable upon death of a member who joins after June 30, 1973.

**II. Purchase Of Prior Service**

A member is eligible to purchase credit for city service rendered prior to membership date by an additional contribution based on salary and periods of service being purchased.

In the case of any member in BERS prior to July 1, 1968, who has purchased service, the amount of purchased service can be used toward the twenty-five years needed for retirement eligibility under Plan A, provided such service was continuous and immediately preceded membership.

**III. Loans**

- a. After three years of membership in the Retirement System, a member may borrow up to 75% of accumulated deductions.
- b. A member may take three loans during any twelve month period.
- c. Loans are repaid through payroll deduction of not less than 5% of gross salary.

Beginning 90 days after the inception of the loan, the unpaid portion is insured without limitation. Should the borrower retire before the loan is repaid, the actuarial equivalent of the amount outstanding is deducted from his/her retirement allowance.

## Summary of Plan Provisions (Cont'd)

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### IV. Employer Contributions

The Entry Age Actuarial Cost Method is utilized by the Plan's Actuary to calculate the contribution from the employers.

Employer contributions are accrued by the Plan and are funded by the employers on a current basis.

### G. VARIABLE ANNUITY PROGRAM

Beginning July 1, 1970, members were given the option to participate in a Variable Annuity Program, thereby providing a means which can reasonably be expected to protect a portion of their retirement income against the effect of increases in the cost of living. The monthly variable annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments which are almost entirely in common stocks. A member may elect to place part or all of his/her contributions and the City's contributions for increased-take-home-pay in the variable annuity program. The remaining portion of the retirement allowance which is provided by the City must be paid in fixed dollar amounts. Subject to certain prescribed limitations, a member may periodically elect either to participate in the variable annuity program or to revoke a previous election.

An individual account of the member's own contributions is maintained in the Variable Annuity Savings Fund. Another individual account based on the City's contribution for increased-take-home-pay is maintained in the Variable Pension Accumulation Fund. 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. On July 1, 1970, the effective date of the program, a unit was assigned an arbitrary value of \$10. Each month, thereafter, the unit value changed reflecting the investment experience of the common stock fund during the preceding month.

### H. TAX-DEFERRED ANNUITY PROGRAM

Beginning January 1, 1970, members were given the option to participate in a tax-deferred annuity program, thereby providing a means of deferring income tax payments on their tax deferred contributions until the period after retirement. Each calendar year, a member may elect to contribute to the Tax-Deferred Annuity Program any amount not in excess of the maximum permissible amount under Section 403 (b) of the Internal Revenue Code. The City makes no contributions to the Tax-Deferred Annuity Program, but if elected by members, will guarantee the benefit payments to retired members. A member has the option either to have his/her contributions accumulate at regular and special interest per annum, or to have his/her contributions invested in variable funds.

The Tax-Deferred Annuity Program is maintained as a separate account within the Board of Education Retirement System. An individual account of the member's fixed dollar contributions is maintained in the Tax-Deferred-Annuity Savings Fund if he/she elected to have his/her benefit paid in fixed dollars; otherwise, in the Tax-Deferred Variable Annuity Savings Fund.

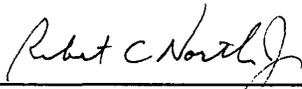
**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT**

**FISCAL YEAR ENDED JUNE 30, 2013**

**ACKNOWLEDGEMENT OF QUALIFICATION**

I, Robert C. North, Jr., am the Chief Actuary for the New York City Retirement Systems. I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



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Robert C. North, Jr., FSA, FSPA, FCA, MAAA, EA  
Chief Actuary  
New York City Retirement Systems  
November 8, 2013

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# **Board of Education Retirement System of the City of New York**

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

## **Comprehensive Annual Financial Report of the Qualified Pension Plan**

For the Fiscal Years Ended  
June 30, 2013 and June 30, 2012

### **Statistical Section**

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### INTRODUCTION:

The Statistical section presents three sets of data. The first group of data is comprised of five (5) schedules and accompanying graphs that provide a comparative horizontal base of the financials over a ten year spread. The second group of data offers an analysis of the BERS benefit payments based on demographic information. The third and final group gives a comparative analysis of the contributors based on their salary and their provenance.

The schedules and graphs of the first group are:

- a) Revenue by source
- b) Expenses by type
- c) Refunds by type
- d) Schedule of changes in net assets
- e) Benefit expenses by type

The second group of data is comprised of the following:

- a) Age and service retirement
- b) Ordinary disability retirement
- c) Accidental disability retirement
- d) Accidental death retirement
- e) Other beneficiaries
- g) All pensioners and beneficiaries

The third group of data is comprised of the following:

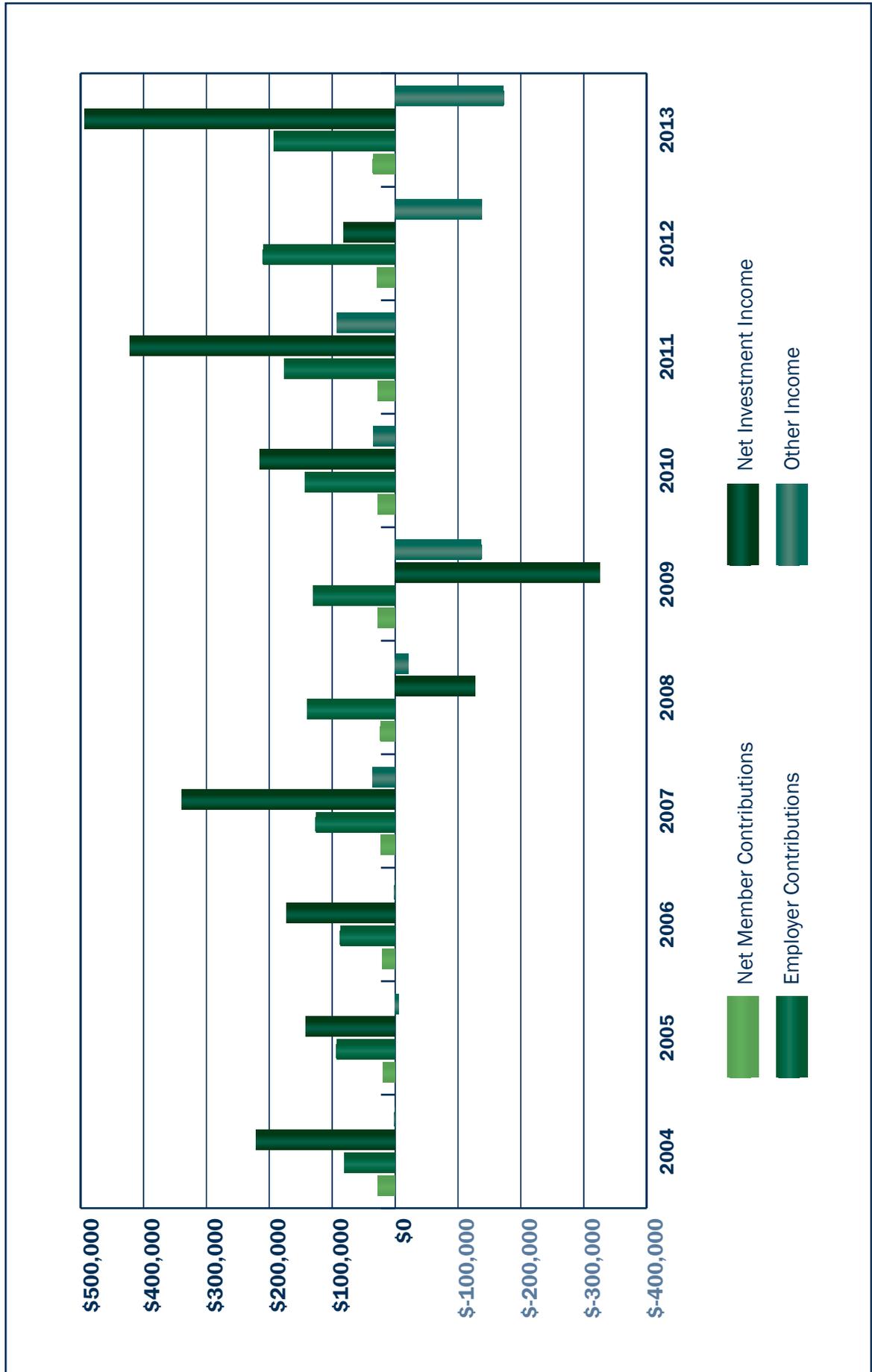
- a) Summary of activities by Age and Service
- b) Average annual benefit payments
- c) Participating Employers

### Revenues by Source (In thousands)

Fiscal Year Ended June 30	Net Member Contributions	Employer Contributions	Net Investment Income	Other Income	Total	Employer Contributions as % of Payroll
2004	\$31,347	\$84,054	\$224,385	\$4,770	\$344,556	12.9
2005	\$23,087	\$96,650	\$145,767	(\$9,746)	\$255,758	15.5
2006	\$23,810	\$90,839	\$176,320	(\$2,378)	\$288,591	15.0
2007	\$26,148	\$129,820	\$342,656	\$39,148	\$537,772	18.2
2008	\$27,109	\$143,100	(\$130,569)	(\$24,831)	\$14,809	19.1
2009	\$30,971	\$134,225	(\$329,365)	(\$141,090)	(\$305,259)	17.3
2010	\$31,361	\$147,349	\$218,872	\$38,232	\$435,814	17.3
2011	\$31,008	\$180,191	\$425,690	\$95,958	\$732,847	19.8
2012	\$32,867	\$213,651	\$85,342	(\$141,694)	\$190,165	23.4
2013	\$39,056	\$196,246	\$497,072	(\$176,301)	\$556,073	21.3

The table offers a horizontal comparison base for the revenue sources of the Plan for the past 10 years. It particularly stresses the importance of employer contributions that have steadily increased over the years.

**Revenues by Source  
(In thousands)  
(Cont'd)**

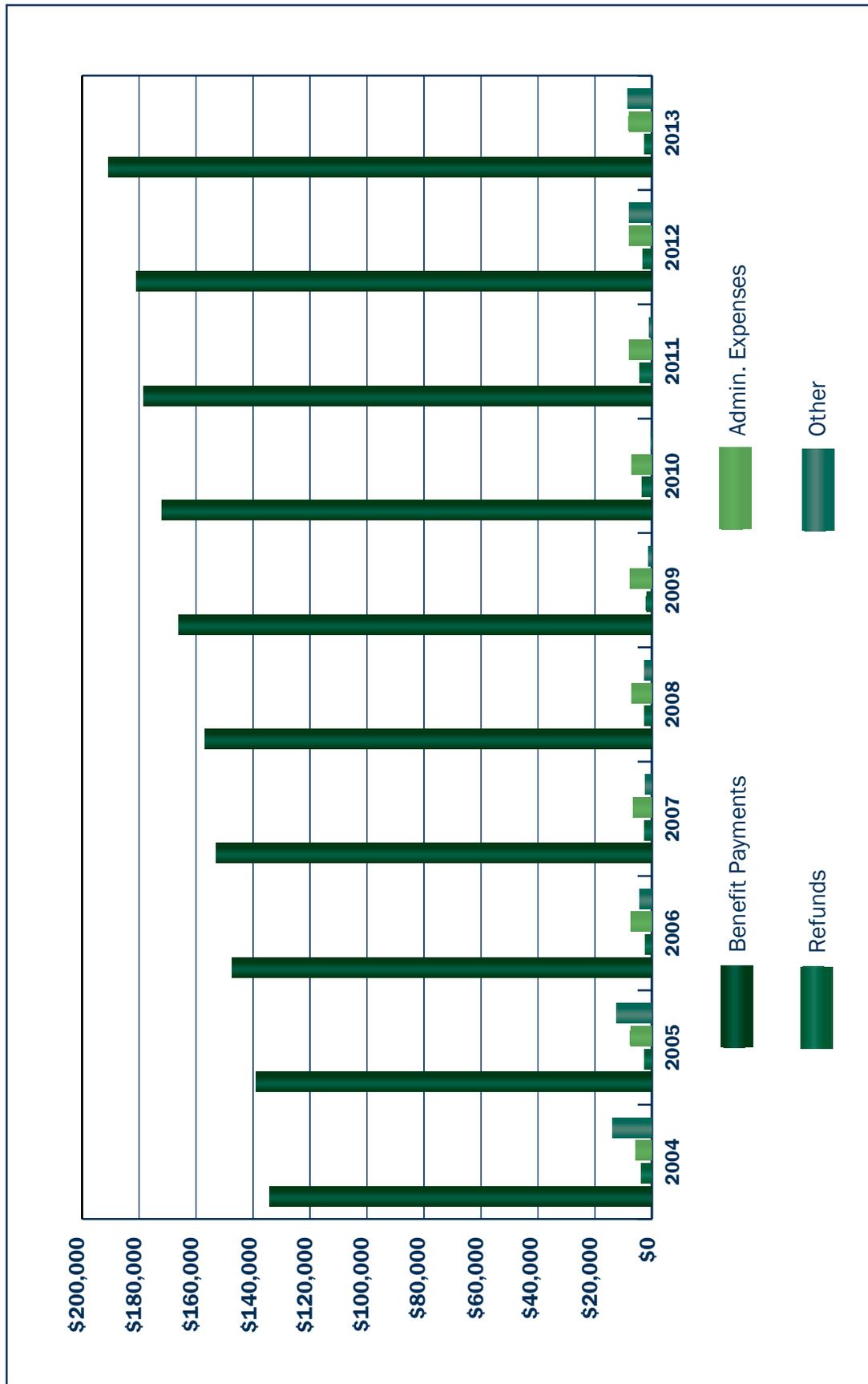


### Expenses by Type (In thousands)

Fiscal Year Ended June 30	Benefit Payments			Administrative Expenses	Total
	Death	Retirement	Refunds		
2004	\$7,143	\$127,772	\$4,676	\$6,419	\$160,611
2005	\$7,640	\$132,075	\$3,533	\$8,364	\$164,776
2006	\$7,656	\$140,626	\$3,145	\$8,195	\$164,705
2007	\$6,326	\$147,399	\$3,534	\$7,281	\$167,731
2008	\$3,827	\$153,886	\$3,395	\$7,854	\$172,410
2009	\$7,544	\$159,262	\$2,768	\$8,413	\$180,006
2010	\$8,548	\$164,362	\$4,207	\$8,047	\$186,460
2011	\$6,686	\$172,680	\$5,237	\$8,892	\$195,158
2012	\$6,827	\$181,735	\$4,009	\$8,687	\$203,194
2013	\$7,858	\$191,463	\$3,360	\$8,927	\$213,020

The table offers a horizontal comparison base for the expense groups of the Plan for the past 10 years.

**Expenses by Type  
(In thousands)  
(Cont'd)**



### Refunds by Type (In thousands)

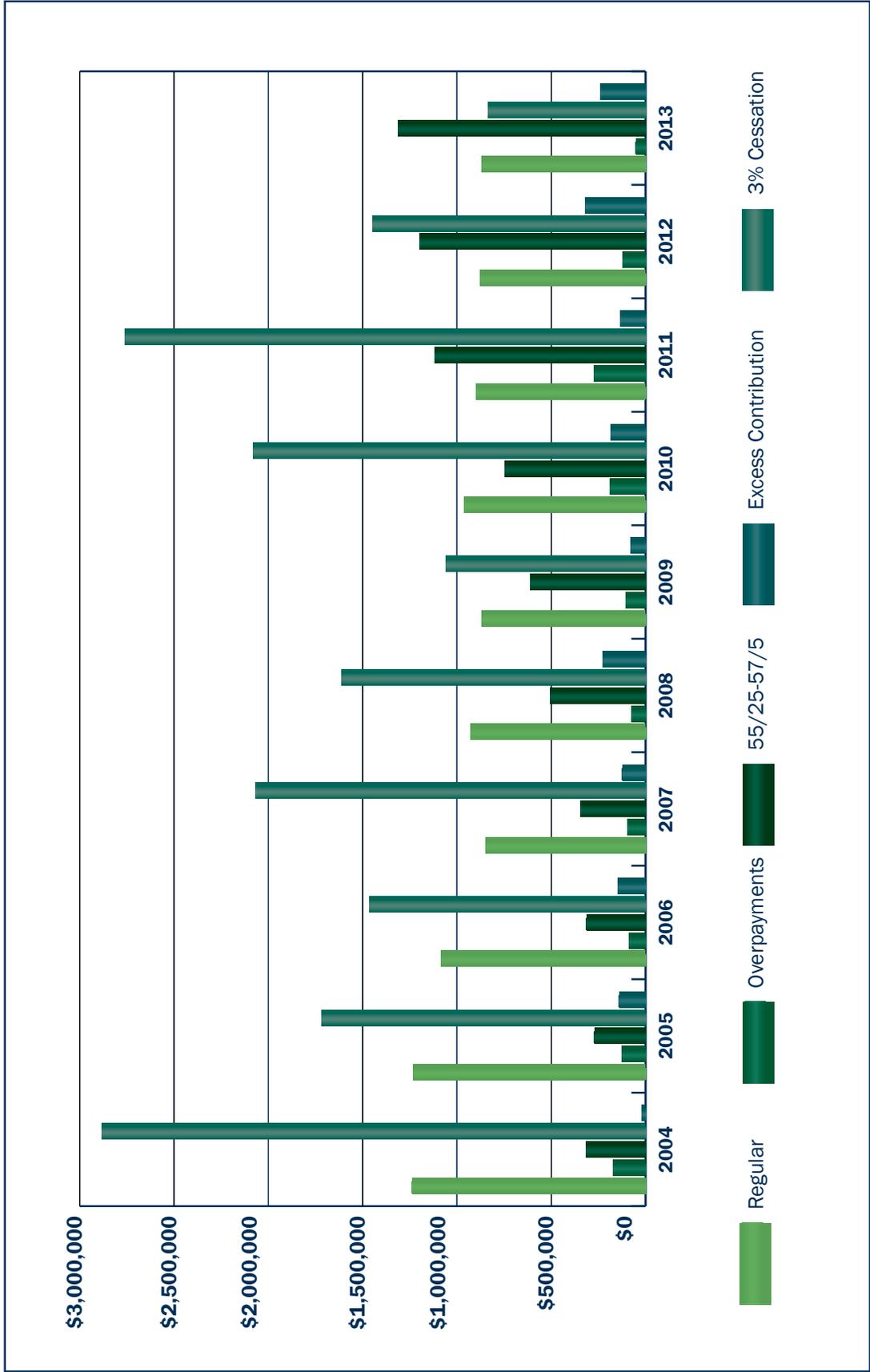
Fiscal Year Ended June 30	Refunds						Total
	Regular Resignation	Add Pension 55/25-57/5	Excess Contribution	3% Cessation	Other Overpayments		
2004	\$1,248	\$324	\$2,894	\$29	\$181		\$4,676
2005	\$1,242	\$281	\$1,726	\$150	\$134		\$3,533
2006	\$1,095	\$323	\$1,473	\$157	\$98		\$3,145
2007	\$859	\$356	\$2,079	\$133	\$106		\$3,534
2008	\$937	\$514	\$1,622	\$236	\$85		\$3,395
2009	\$879	\$620	\$1,067	\$88	\$113		\$2,768
2010	\$971	\$754	\$2,092	\$193	\$197		\$4,207
2011	\$909	\$1,129	\$2,772	\$144	\$283		\$5,237
2012	\$888	\$1,206	\$1,456	\$328*	\$458		\$4,009
2013	\$880	\$1,322	\$846	\$251	\$61		\$3,360

The table offers a horizontal comparison base for the refund segment of the expense groups of the Plan for the past 10 years.

The refund segment is broken down by type. It shows that excess contribution based refunds are more significant than resignation from the system.

\* The refund for 3% Cessation was reported together with Other Overpayment for FY 2012. They are reported separately this year.

**Refunds by Type  
(Cont'd)**

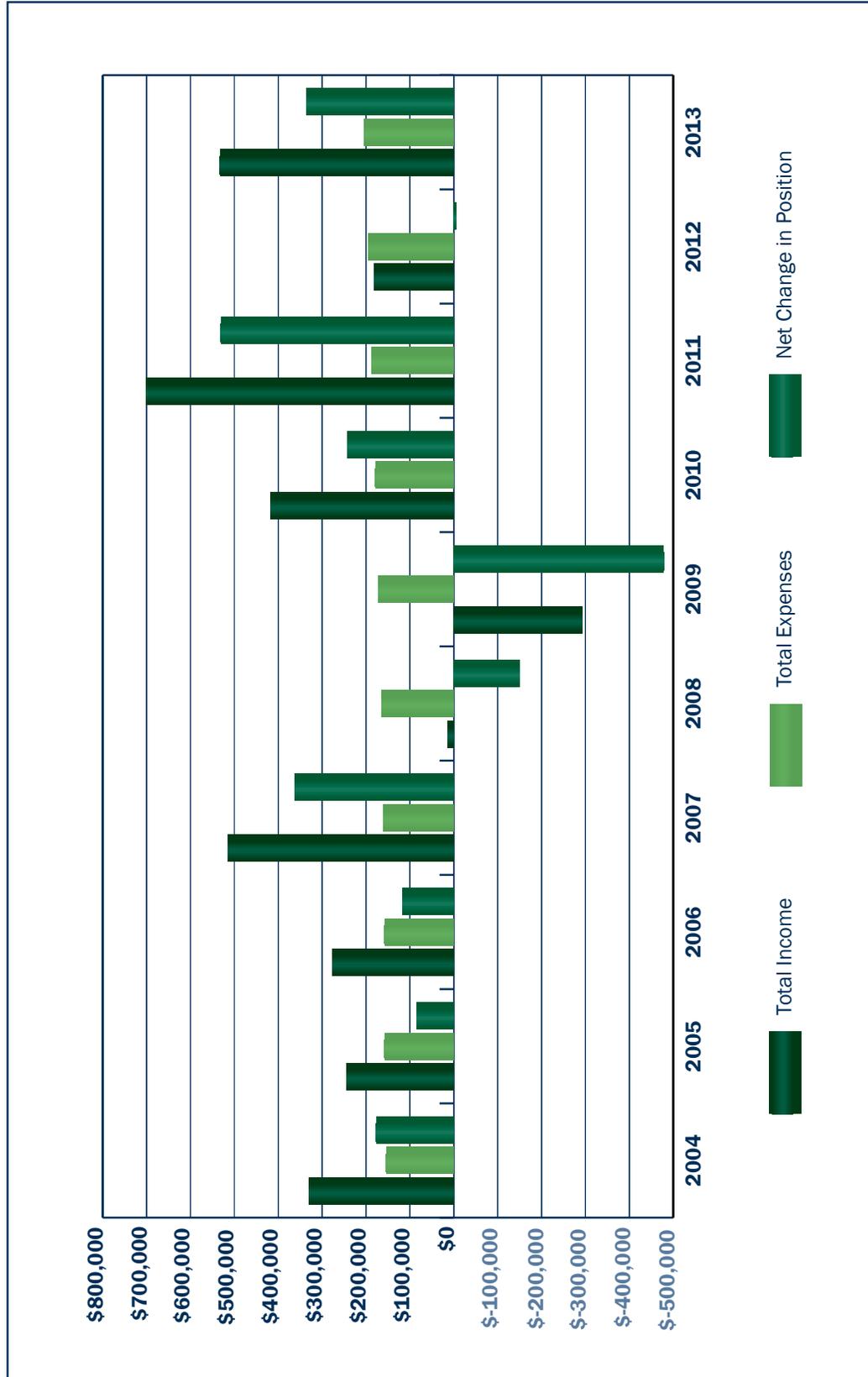


### Schedule of Changes in Net Position (In thousands)

Year Ended	Member Contributions	Employer Contributions	Net Investment Income	Other Income	Total Income	Benefit Payments			Administrative Expenses	Total Expenses	Net Change in Position
						Death	Refund	Retirement			
2004	\$31,347	\$84,054	\$224,385	\$4,770	<b>\$344,556</b>	\$7,143	\$4,676	\$127,772	\$14,601	<b>\$160,611</b>	\$183,945
2005	\$23,087	\$96,650	\$145,767	(\$9,746)	<b>\$255,758</b>	\$7,640	\$3,533	\$132,075	\$13,164	<b>\$164,776</b>	\$90,982
2006	\$23,810	\$90,839	\$176,320	(\$2,378)	<b>\$288,591</b>	\$7,656	\$3,145	\$140,626	\$5,083	<b>\$164,705</b>	\$123,886
2007	\$26,148	\$129,820	\$342,656	\$39,148	<b>\$537,772</b>	\$6,326	\$3,534	\$147,399	\$3,191	<b>\$167,731</b>	\$370,041
2008	\$27,109	\$143,100	(\$130,569)	(\$24,831)	<b>\$14,809</b>	\$3,827	\$3,395	\$153,886	\$3,448	<b>\$172,410</b>	(\$157,601)
2009	\$30,971	\$134,225	(\$329,365)	(\$141,090)	<b>(\$305,259)</b>	\$7,544	\$2,768	\$159,262	\$2,018	<b>\$180,006</b>	(\$485,265)
2010	\$31,361	\$147,349	\$218,872	\$38,232	<b>\$435,814</b>	\$8,548	\$4,207	\$164,362	\$1,296	<b>\$186,460</b>	\$249,354
2011	\$31,008	\$180,191	\$425,690	\$95,958	<b>\$732,847</b>	\$6,686	\$5,237	\$172,680	\$1,662	<b>\$195,158</b>	\$537,689
2012	\$32,867	\$213,651	\$85,342	(\$141,694)	<b>\$190,165</b>	\$6,827	\$4,009	\$181,735	\$1,936	<b>\$203,194</b>	(\$13,030)
2013	\$39,056	\$196,246	\$497,072	(\$176,301)	<b>\$556,073</b>	\$7,858	\$3,360	\$191,463	\$1,412	<b>\$213,020</b>	\$343,052

The table offers a 10 year horizontal comparison base for the operations of the BERS. It shows that over the years, revenues had more impact on the changes of net assets than the expenses.

**Schedule of Changes in Net Position  
(In thousands)  
(Cont'd)**



### Benefit Expenses by Type (In thousands)

Fiscal Year Ended June 30	Age And Service Retirement Benefits	Disability Retirement Benefits		Lump Sum Payments			Total
		Duty	Non-Duty	Survivors	Death In Service	Death After Retirement	
2004	\$115,356	\$1,376	\$2,890	\$8,030	\$6,198	\$1,795	\$135,645
2005	\$120,113	\$1,480	\$3,108	\$8,636	\$7,600	\$687	\$141,624
2006	\$122,753	\$1,592	\$3,343	\$9,288	\$6,172	\$1,064	\$144,212
2007	\$147,399	\$1,712	\$3,595	\$1,167	\$4,678	\$481	\$159,032
2008	\$148,179	\$1,841	\$3,866	\$1,226	\$2,318	\$284	\$157,715
2009	\$153,124	\$1,980	\$4,158	\$1,288	\$6,188	\$68	\$166,806
2010	\$157,760	\$2,130	\$4,472	\$1,624	\$6,887	\$37	\$172,910
2011	\$165,580	\$2,291	\$4,810	\$1,280	\$5,328	\$77	\$179,366
2012	\$174,099	\$2,464	\$5,173	\$1,782	\$5,035	\$10	\$188,562
2013	\$183,250	\$2,649	\$5,564	\$1,963	\$5,890	\$5	\$199,321

The table offers a horizontal comparison base for the benefit segment of the expense groups of the Plan across the past 10 years. The benefit segment is broken down by type.

## Retired Members by Type of Benefit

### AGE AND SERVICE RETIREMENT

Age	Men		Women	
	Number Of Retirants	Average Annual Allowance	Number Of Retirants	Average Annual Allowance
49 & Under	0	\$0	1	\$35,862
50 - 54	6	28,792	0	0
55 - 59	75	36,547	280	13,862
60 - 64	323	30,747	1,253	10,383
65 - 69	494	28,644	2,068	9,923
70 - 74	485	27,294	1,967	8,487
75 - 79	447	24,747	1,616	7,887
80 - 84	369	24,958	1,543	7,327
85 - 89	212	23,151	1,079	7,461
90 & Over	83	18,935	540	7,396
<b>Totals</b>	<b>2,494</b>	<b>\$26,858</b>	<b>10,347</b>	<b>\$8,721</b>

### ORDINARY DISABILITY (NON-DUTY) RETIREMENT

Age	Men		Women	
	Number Of Retirants	Average Annual Allowance	Number Of Retirants	Average Annual Allowance
49 & Under	14	\$20,531	15	\$12,756
50 - 54	19	16,808	32	11,602
55 - 59	39	15,106	75	9,847
60 - 64	35	16,645	152	9,636
65 - 69	32	15,302	131	8,637
70 - 74	15	11,215	79	8,814
75 - 79	11	13,428	20	8,114
80 - 84	12	15,034	9	6,693
85 - 89	2	15,047	3	8,078
90 & Over	3	8,563	0	0
<b>Totals</b>	<b>182</b>	<b>\$15,496</b>	<b>516</b>	<b>\$9,381</b>

NOTE: This schedule is based on 2011 data (LAG)

## Retired Members by Type of Benefit (Cont'd)

### ACCIDENTAL DISABILITY (DUTY) RETIREMENT

Age Of Retirants	Men		Women	
	Number Of Retirants	Average Annual Allowance	Number Of Retirants	Average Annual Allowance
49 & Under	2	\$15,762	4	\$10,360
50 - 54	9	15,106	8	8,710
55 - 59	5	17,599	7	9,599
60 - 64	9	14,512	19	8,378
65 - 69	8	18,729	11	6,068
70 - 74	9	23,864	16	6,856
75 - 79	4	26,633	11	7,260
80 - 84	4	37,871	4	5,988
85 - 89	4	20,114	4	6,557
90 & Over	0	0	0	0
<b>TOTALS</b>	<b>54</b>	<b>\$20,170</b>	<b>84</b>	<b>\$7,666</b>

### ACCIDENTAL DEATH (DUTY) RETIREMENT

Age Of Retirants	Men		Women	
	Number Of Retirants	Average Annual Allowance	Number Of Retirants	Average Annual Allowance
49 & Under	0	\$0	0	\$0
50 - 54	1	5,838	0	0
55 - 59	0	0	0	0
60 - 64	0	0	0	0
65 - 69	0	0	0	0
70 - 74	0	0	0	0
75 - 79	0	0	1	8,773
80 - 84	0	0	0	0
85 - 89	0	0	0	0
90 & Over	0	0	0	0
<b>TOTALS</b>	<b>1</b>	<b>\$5,838</b>	<b>1</b>	<b>\$8,773</b>

NOTE: This schedule is based on 2011 data (LAG)

**Retired Members by Type of Benefit  
(Cont'd)**

**OTHER BENEFICIARIES**

Age Of Retirants	Men		Women	
	Number Of Retirants	Average Annual Allowance	Number Of Retirants	Average Annual Allowance
49 & Under	21	\$5,666	40	\$5,763
50 - 54	8	3,405	14	4,938
55 - 59	9	6,931	22	10,993
60 - 64	14	4,722	35	13,771
65 - 69	17	6,948	47	17,136
70 - 74	21	5,816	75	19,294
75 - 79	15	6,737	85	19,844
80 - 84	17	5,296	107	15,946
85 - 89	9	11,607	92	16,326
90 & Over	5	6,244	67	13,155
<b>TOTALS</b>	<b>136</b>	<b>\$6,189</b>	<b>584</b>	<b>\$15,500</b>

**ALL PENSIONERS AND BENEFICIARIES**

Age Of Retirants	Men		Women	
	Number Of Retirants	Average Annual Allowance	Number Of Retirants	Average Annual Allowance
49 & UNDER	37	\$11,836	60	\$8,319
50 - 54	43	15,375	54	9,446
55 - 59	128	27,192	384	12,836
60 - 64	381	28,112	1,459	10,361
65 - 69	551	27,056	2,257	9,980
70 - 74	530	25,930	2,137	8,866
75 - 79	477	23,936	1,733	8,473
80 - 84	402	23,959	1,663	7,875
85 - 89	227	22,568	1,178	8,152
90 & OVER	91	17,896	607	8,032
<b>TOTALS</b>	<b>2,867</b>	<b>\$25,023</b>	<b>11,532</b>	<b>\$9,086</b>

NOTE: This schedule is based on 2011 data (LAG)

## Summary of Actives by Age and Service Male

### DATA USED IN THE JUNE 30, 2011 (LAG) ACTUARIAL VALUATION FOR DETERMINING FISCAL YEAR 2013 EMPLOYER CONTRIBUTIONS

Age \ Svc	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	All Years
<b>Number:</b>										
Under 20	1	0	0	0	0	0	0	0	0	1
20 To 24	52	3	0	0	0	0	0	0	0	55
25 To 29	169	18	1	0	0	0	0	0	0	188
30 To 34	207	116	26	0	0	0	0	0	0	349
35 To 39	239	217	86	14	0	0	0	0	0	556
40 To 44	199	242	141	63	18	0	0	0	0	663
45 To 49	204	220	163	92	107	17	2	0	0	805
50 To 54	173	173	202	125	184	73	16	1	0	947
55 To 59	127	143	150	91	158	91	46	12	0	818
60 To 64	67	117	88	64	82	45	29	24	4	520
65 To 69	23	50	41	24	30	17	8	6	3	202
70 & Up	21	20	32	14	15	13	1	5	2	123
<b>Total</b>	<b>1,482</b>	<b>1,319</b>	<b>930</b>	<b>487</b>	<b>594</b>	<b>256</b>	<b>102</b>	<b>48</b>	<b>9</b>	<b>5,227</b>

#### Salaries (In thousands):

Under 20	44	0	0	0	0	0	0	0	0	44
20 To 24	1,715	122	0	0	0	0	0	0	0	1,838
25 To 29	6,834	745	21	0	0	0	0	0	0	7,600
30 To 34	11,265	6,634	1,103	0	0	0	0	0	0	19,003
35 To 39	14,255	13,838	4,915	759	0	0	0	0	0	33,767
40 To 44	11,264	16,856	8,811	4,129	840	0	0	0	0	41,901
45 To 49	11,369	14,222	10,599	6,217	7,847	1,198	150	0	0	51,603
50 To 54	8,749	10,784	12,765	7,384	14,740	5,577	1,558	121	0	61,678
55 To 59	6,781	8,349	9,001	5,678	12,076	7,641	4,473	1,132	0	55,129
60 To 64	3,101	5,563	4,691	3,846	6,430	3,717	2,988	2,035	357	32,729
65 To 69	1,001	2,169	2,039	1,562	2,284	1,087	559	487	301	11,490
70 & Up	773	517	1,432	543	957	834	94	233	199	5,582
<b>Total *</b>	<b>77,152</b>	<b>79,799</b>	<b>55,378</b>	<b>30,119</b>	<b>45,174</b>	<b>20,054</b>	<b>9,821</b>	<b>4,008</b>	<b>856</b>	<b>322,362</b>

#### Average Salaries: \*\*

Under 20	43,591	0	0	0	0	0	0	0	0	43,591
20 To 24	32,989	40,809	0	0	0	0	0	0	0	33,415
25 To 29	40,435	41,393	21,123	0	0	0	0	0	0	40,424
30 To 34	54,420	57,192	42,433	0	0	0	0	0	0	54,449
35 To 39	59,646	63,768	57,150	54,198	0	0	0	0	0	60,731
40 To 44	56,603	69,654	62,491	65,543	46,650	0	0	0	0	63,198
45 To 49	55,730	64,646	65,026	67,580	73,336	70,489	75,008	0	0	64,103
50 To 54	50,572	62,334	63,195	59,072	80,110	76,390	97,374	120,680	0	65,129
55 To 59	53,393	58,385	60,006	62,392	76,431	83,962	97,231	94,312	0	67,395
60 To 64	46,284	47,545	53,308	60,098	78,417	82,611	103,026	84,805	89,176	62,940
65 To 69	43,543	43,384	49,739	65,089	76,148	63,949	69,816	81,187	100,184	56,881
70 & Up	36,832	25,833	44,749	38,821	63,780	64,156	93,999	46,547	99,606	45,384
<b>Total</b>	<b>52,059</b>	<b>60,500</b>	<b>59,546</b>	<b>61,846</b>	<b>76,051</b>	<b>78,336</b>	<b>96,283</b>	<b>83,492</b>	<b>95,163</b>	<b>61,672</b>

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

\* Total may not add up due to rounding.

\*\* Average based on actual unrounded salary.

## Summary of Actives by Age and Service Female

### DATA USED IN THE JUNE 30, 2011 (LAG) ACTUARIAL VALUATION FOR DETERMINING FISCAL YEAR 2013 EMPLOYER CONTRIBUTIONS

Age \ Svc	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	All Years
<b>Number:</b>										
Under 20	0	0	0	0	0	0	0	0	0	0
20 To 24	60	2	0	0	0	0	0	0	0	62
25 To 29	345	59	4	0	0	0	0	0	0	408
30 To 34	538	275	45	1	0	0	0	0	0	859
35 To 39	533	413	207	26	1	0	0	0	0	1,180
40 To 44	671	539	359	90	28	3	0	0	0	1,690
45 To 49	883	923	701	199	99	36	2	0	0	2,843
50 To 54	789	961	1,102	377	193	93	23	1	0	3,539
55 To 59	553	842	1,057	508	334	88	53	37	2	3,474
60 To 64	252	470	701	459	377	90	32	21	12	2,414
65 To 69	80	162	245	188	183	61	11	7	4	941
70 & Up	31	54	111	100	129	46	13	6	4	494
<b>Total</b>	<b>4,735</b>	<b>4,700</b>	<b>4,532</b>	<b>1,948</b>	<b>1,344</b>	<b>417</b>	<b>134</b>	<b>72</b>	<b>22</b>	<b>17,904</b>

#### Salaries (In thousands):

Under 20	0	0	0	0	0	0	0	0	0	0
20 To 24	1,961	47	0	0	0	0	0	0	0	2,009
25 To 29	16,619	2,273	115	0	0	0	0	0	0	19,007
30 To 34	25,974	14,370	1,718	69	0	0	0	0	0	42,131
35 To 39	21,462	19,992	9,880	1,151	19	0	0	0	0	52,504
40 To 44	21,877	19,166	13,252	4,845	1,395	223	0	0	0	60,758
45 To 49	25,770	27,770	22,142	8,066	5,152	2,283	133	0	0	91,315
50 To 54	23,035	28,214	31,731	12,397	8,303	5,889	1,578	79	0	111,226
55 To 59	16,348	24,479	29,677	15,924	12,167	5,035	3,127	2,260	62	109,077
60 To 64	6,786	13,302	18,346	13,280	12,347	4,323	1,461	1,260	726	71,832
65 To 69	1,906	4,161	6,318	4,889	5,254	2,284	484	400	229	25,925
70 & Up	853	1,240	2,573	2,138	3,193	1,327	551	204	146	12,224
<b>Total *</b>	<b>162,590</b>	<b>155,012</b>	<b>135,753</b>	<b>62,758</b>	<b>47,830</b>	<b>21,363</b>	<b>7,334</b>	<b>4,203</b>	<b>1,164</b>	<b>598,008</b>

#### Average Salaries: \*\*

Under 20	0	0	0	0	0	0	0	0	0	0
20 To 24	32,688	23,722	0	0	0	0	0	0	0	32,398
25 To 29	48,170	38,526	28,861	0	0	0	0	0	0	46,586
30 To 34	48,279	52,253	38,184	68,978	0	0	0	0	0	49,046
35 To 39	40,266	48,406	47,729	44,274	19,465	0	0	0	0	44,495
40 To 44	32,603	35,558	36,914	53,833	49,831	74,315	0	0	0	35,951
45 To 49	29,184	30,086	31,586	40,532	52,037	63,429	66,696	0	0	32,119
50 To 54	29,196	29,359	28,794	32,883	43,021	63,319	68,601	78,963	0	31,429
55 To 59	29,562	29,072	28,076	31,346	36,427	57,216	59,004	61,077	31,169	31,398
60 To 64	26,930	28,302	26,172	28,932	32,751	48,030	45,658	60,014	60,498	29,756
65 To 69	23,829	25,683	25,787	26,005	28,711	37,439	43,973	57,179	57,369	27,551
70 & Up	27,503	22,957	23,184	21,377	24,755	28,839	42,394	34,002	36,430	24,745
<b>Total</b>	<b>34,338</b>	<b>32,981</b>	<b>29,954</b>	<b>32,217</b>	<b>35,588</b>	<b>51,231</b>	<b>54,733</b>	<b>58,380</b>	<b>52,886</b>	<b>33,401</b>

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

\* Total may not add up due To rounding.

\*\* Average based on actual unrounded salary.

## Summary of Actives by Age and Service Male and Female

### DATA USED IN THE JUNE 30, 2011 (LAG) ACTUARIAL VALUATION FOR DETERMINING FISCAL YEAR 2013 EMPLOYER CONTRIBUTIONS

Age \ Svc	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Up	All Years
<b>Number:</b>										
Under 20	1	0	0	0	0	0	0	0	0	1
20 To 24	112	5	0	0	0	0	0	0	0	117
25 To 29	514	77	5	0	0	0	0	0	0	596
30 To 34	745	391	71	1	0	0	0	0	0	1,208
35 To 39	772	630	293	40	1	0	0	0	0	1,736
40 To 44	870	781	500	153	46	3	0	0	0	2,353
45 To 49	1,087	1,143	864	291	206	53	4	0	0	3,648
50 To 54	962	1,134	1,304	502	377	166	39	2	0	4,486
55 To 59	680	985	1,207	599	492	179	99	49	2	4,292
60 To 64	319	587	789	523	459	135	61	45	16	2,934
65 To 69	103	212	286	212	213	78	19	13	7	1,143
70 & Up	52	74	143	114	144	59	14	11	6	617
<b>TOTAL</b>	<b>6,217</b>	<b>6,019</b>	<b>5,462</b>	<b>2,435</b>	<b>1,938</b>	<b>673</b>	<b>236</b>	<b>120</b>	<b>31</b>	<b>23,131</b>

#### Salaries (In thousands):

Under 20	44	0	0	0	0	0	0	0	0	44
20 To 24	3,677	170	0	0	0	0	0	0	0	3,847
25 To 29	23,452	3,018	137	0	0	0	0	0	0	26,607
30 To 34	37,239	21,004	2,822	69	0	0	0	0	0	61,133
35 To 39	35,717	33,829	14,795	1,910	19	0	0	0	0	86,271
40 To 44	33,141	36,022	22,063	8,974	2,235	223	0	0	0	102,658
45 To 49	37,138	41,992	32,741	14,283	12,999	3,482	283	0	0	142,918
50 To 54	31,784	38,998	44,497	19,781	23,043	11,465	3,136	200	0	172,903
55 To 59	23,128	32,828	38,677	21,601	24,243	12,676	7,600	3,392	62	164,207
60 To 64	9,887	18,865	23,037	17,126	18,777	8,040	4,449	3,296	1,083	104,560
65 To 69	2,908	6,330	8,357	6,451	7,539	3,371	1,042	887	530	37,415
70 & Up	1,626	1,756	4,005	2,681	4,150	2,161	645	437	345	17,806
<b>TOTAL *</b>	<b>239,742</b>	<b>234,811</b>	<b>191,131</b>	<b>92,877</b>	<b>93,005</b>	<b>41,417</b>	<b>17,155</b>	<b>8,211</b>	<b>2,020</b>	<b>920,369</b>

#### Average Salaries: \*\*

Under 20	43,591	0	0	0	0	0	0	0	0	43,591
20 To 24	32,827	33,974	0	0	0	0	0	0	0	32,876
25 To 29	45,627	39,196	27,313	0	0	0	0	0	0	44,642
30 To 34	49,985	53,718	39,740	68,978	0	0	0	0	0	50,607
35 To 39	46,266	53,698	50,494	47,747	19,465	0	0	0	0	49,695
40 To 44	38,093	46,123	44,126	58,655	48,586	74,315	0	0	0	43,629
45 To 49	34,166	36,738	37,895	49,084	63,100	65,694	70,852	0	0	39,177
50 To 54	33,040	34,389	34,123	39,404	61,123	69,067	80,405	99,822	0	38,543
55 To 59	34,012	33,328	32,044	36,063	49,274	70,813	76,766	69,216	31,169	38,259
60 To 64	30,995	32,137	29,198	32,746	40,909	59,557	72,931	73,236	67,667	35,637
65 To 69	28,231	29,858	29,221	30,430	35,392	43,217	54,854	68,259	75,718	32,734
70 & Up	31,270	23,734	28,010	23,519	28,820	36,621	46,080	39,704	57,488	28,860
<b>TOTAL</b>	<b>38,562</b>	<b>39,012</b>	<b>34,993</b>	<b>38,143</b>	<b>47,990</b>	<b>61,541</b>	<b>72,692</b>	<b>68,425</b>	<b>65,160</b>	<b>39,789</b>

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

\* Total may not add up due to rounding.

\*\* Average based on actual unrounded salary.

### Annual Average Benefit Payments Amount

Fiscal Year Ended June 30	Service Retirement Benefits			Ordinary (Non-Duty) Disability Benefits			Accidental (Duty) Disability Benefits			Survivor Benefits		
	Number	Average Annual Allowance	Average Monthly Allowance	Number	Average Annual Allowance	Average Monthly Allowance	Number	Average Annual Allowance	Average Monthly Allowance	Number	Average Annual Allowance	Average Monthly Allowance
2001	8,927	\$10,359	\$863	273	\$9,558	\$797	97	\$12,242	\$1,020	541	\$12,630	\$1,053
2002	9,286	\$10,362	\$864	325	\$9,566	\$797	99	\$12,355	\$1,030	565	\$12,785	\$1,065
2003	9,898	\$10,938	\$912	399	\$9,785	\$815	104	\$12,294	\$1,025	582	\$12,968	\$1,081
2004	10,450	\$11,018	\$918	454	\$9,881	\$823	118	\$12,295	\$1,025	603	\$12,942	\$1,079
2004 (Lag)	10,450	\$11,018	\$918	454	\$9,881	\$823	118	\$12,295	\$1,025	603	\$12,942	\$1,079
2005 (Lag)	10,723	\$11,106	\$926	495	\$9,802	\$817	125	\$12,555	\$1,046	628	\$12,956	\$1,080
2006 (Lag)	11,246	\$11,260	\$938	543	\$9,967	\$831	127	\$12,501	\$1,042	657	\$13,168	\$1,097
2007 (Lag)	11,618	\$11,440	\$953	565	\$10,131	\$836	141	\$12,354	\$1,030	667	\$13,497	\$1,125
2008 (Lag)	11,820	\$11,556	\$963	575	\$10,278	\$857	133	\$12,614	\$1,051	668	\$13,382	\$1,115
2009 (Lag)	12,176	\$11,665	\$972	627	\$10,547	\$879	118	\$13,036	\$1,086	720	\$13,448	\$1,121
2010 (Lag)	12,435	\$11,844	\$987	671	\$10,655	\$888	133	\$12,700	\$1,058	730	\$13,356	\$1,113
2011 (Lag)	12,841	\$12,244	\$1,020	698	\$10,975	\$915	138	\$12,559	\$1,047	722	\$13,724	\$1,144

### Participating Employers As Of June 30, 2011 (Lag)

Employer	As of June 30, 2011 (Lag)		As of June 30, 2003	
	Number of Employees*	Annual Payroll*	Number of Employees*	Annual Payroll*
NYC Board of Education **	22,571	\$ 868,363,084	21,339	\$ 626,243,336
NYC Schools Construction Authority	544	\$ 51,262,621	328	\$ 24,345,351
Charter Schools				
Beginning with Children	4	\$ 118,555	3	\$ 82,720
Renaissance	12	\$ 624,894	8	\$ 361,251
<b>Total</b>	<b>23,131</b>	<b>\$ 920,369,154</b>	<b>21,678</b>	<b>\$ 651,032,658</b>

\* The Number of Employees and their corresponding salaries (Annual Payroll) include only current active members receiving salary as of June 30th.

\*\* A limited number of these employees have been reported as employed by employers other than those listed in the table.  
For actuarial valuation purposes these employees are included with the NYC Department of Education pending confirmation of status.

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## **Board of Education Retirement System of the City of New York**

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