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



Comprehensive Annual Financial Report
of the Qualified Pension Plan
For the Fiscal Year Ended June 30, 2011

A Pension Trust Fund of the City of New York


New York City Board of Education Retirement System

## Qualified Pension Plan

A Pension Trust Fund of the City of New York

## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2011
Prepared by the Retirement System's Accounting Division

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Management
Expenses
Actuarial Leverage Results
Cost method
Pension


# New York City <br> Board of Education Retirement System 

Qualified Pension Plan
A Pension Trust Fund of the City of New York

## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2011

## Introductory Section

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# BOARD OF EDUCATION RETIREMENT SYSTEM OF THE CITY OF NEW YORK 65 COURT STREET, $16{ }^{\text {th }}$ FLOOR BROOKLYN, NEW YORK 11201-4965 

Board of Trustees
Board of Education Retirement System
City of New York
65 Court Street, $16^{\text {th }}$ 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 year ended June 30, 2011. 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, 2010 through June 30, 2011

Chapter 180 of the Laws of 2011: Interest Rate Extender - This act amends the Administrative Code of the City of New York which extends for one year 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 and the 8 percent per annum Actuarial Interest Rate assumption used to compute employer contributions.

Chapter 399 of the Laws of 2011 - Part C: Pension Forfeiture - This act amends the Retirement and Social Security Law to provide that when a public official is convicted of a crime relating to public office, the court may order the public official's pension reduced or revoked, and his or her contributions returned.

Chapter 582 of the Laws of 2011: H.E.A.R.T. Act - This act amends the Retirement and Social Security Law, the Education Law, the Administrative Code of the City of New York, and the Civil Service Law so as to provide for death benefits and health insurance coverage to eligible survivors of public employees who die while ordered to service in the uniformed services, including for training purposes.

## FUNDING

An adequate funding level provides assurance and security for payment of future benefits．In fiscal year 2011，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．Funding is discussed in detail in the Notes to the Financial Statements and in the Actuarial Section of this report．

BERS＇funding ratio is based on a two year lag（2009 for 2011； 2008 for 2010）．For the past two years，BERS has maintained a $100 \%$ funding ratio．

The chart below summarizes the contribution funding sources for fiscal year 2011.

| Funding Sources（In thousands） |  |  |
| :--- | :---: | :---: |
| Funds | Percentage | Contribution |
| Member Contributions | $5 \%$ | $\$ 31,008$ |
| Employer Contributions | $28 \%$ | $\$ 180,191$ |
| Investment Income | $67 \%$ | $\$ 424,419$ |
| Total | $\mathbf{1 0 0} \%$ | $\mathbf{\$ 6 3 5 , 6 1 8}$ |



## Fund Summary

The Board of Education Retirement System total fund increased in value for the fiscal year ending June 2011 with a return of $24.2 \%$ ，compared to $24.0 \%$ for the Board of Education Policy Benchmark，against which it is measured．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．The market value of the fund rose from $\$ 1.96$ billion to $\$ 2.61$ billion．Performance was extremely strong and exceeded that of the prior fiscal year，which was already outside of the normal range of expected returns for policy allocation．The fund also performed favorably compared to other
similar funds, ranking above 90 percent of its peer group. Over the past five years, the fund returned an average of $5.6 \%$ versus $4.9 \%$ for the benchmark index. The ten-year return averaged $6.0 \%$ versus $5.5 \%$ for the index.

## INVESTMENTS

## Investment Policy

BERS' investment policy statement, ratified by the Board of Trustees in January 2009 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 GP's after review by an independent consultant and the custodian bank for the fund.

## 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 grew more slowly than expected this year. Gross Domestic Product grew by $1.6 \%$ over the trailing fiscal year, compared to $3.0 \%$ for the fiscal year ended June 2010. Headline inflation spiked higher in response to rising commodity prices, as CPI grew $3.4 \%$ versus $1.1 \%$ one year ago. Core inflation, which excludes volatile food and energy prices, remained at more muted levels and rose $1.6 \%$. Signs of a job-market recovery began to emerge midfiscal year, though not enough to improve consumer sentiment or provide a housing price boost. The unemployment rate inched lower from $9.5 \%$ to $9.2 \%$. Employment has still not reached pre-2008 crisis levels, and job growth is not deemed sufficient by economists to keep pace with population growth. These are important indicators of the
economic effect on the funds' investments. The US economy and consumer spending are not providing the positive effect on our investments that they provided in prior recoveries.

The U.S. stock market, as measured by the Russell 3000 stock index, returned $32.4 \%$ for the fiscal year ending June 30, 2011. International stocks, as measured by the MSCI EAFE index, returned $30.9 \%$. Strong corporate profit growth, market expectations, and low interest rates made for a positive outlook early in the year. Equities began the fiscal year on a strong note but began to falter towards fiscal year-end given renewed concerns over the European sovereign fiscal issues and the slower growth noted above. The aggregate fixed income market, as measured by the Barclays Capital US Aggregate Index gained $3.9 \%$ over the trailing year. Within fixed income, riskier assets outperformed, as indicated by a $15.6 \%$ gain among corporate high yield issues, compared to $2.2 \%$ for US Treasuries.

## 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.

## 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 GASB, and according to guidelines adopted and published by the Government Finance Officers Association of the United States and Canada ("GFOA"). The requirements of Statement No. 25 of the GASB, "Financial Reporting for Defined Benefit Pension Plan and Note Disclosures for Defined Contribution Plans" have been adhered to in determining the information reported in the financial statements. Also GASB Statement No. 34, "Basic Financial Statements - and Management's Discussion and Analysis ("MD\&A") - For State and Local Governments," which mandates that governments amend their financial reporting to provide additional information about their fiscal health, including information about the status of public infrastructure and revised budgetary reporting. In addition, an MD\&A is included to provide an objective and easily readable analysis of the government's financial activities based on currently known facts, decisions, or conditions. It should be noted that since BERS is considered a fund of the City, the only requirement applicable to BERS' CAFR is the MD\&A, as all other reporting requirements will be accomplished on a citywide level.

## 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 2011.

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 2009.

## 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 system, Comprehensive Pension Management System ("CPMS"). It is a 3 year 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, 2010. 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 four 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 staff 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, 2011

## BOARD OF TRUSTEES

HON. LINDA LAURSELL BRYANT
HON. JOE CHAN
HON. JOSEPH D'AMICO
HON. DMYTRO FEDKOWSKYJ
HON. FREIDA FOSTER
HON. TINO HERNANDEZ
HON. JEFF KAY
HON. MONICA MAJOR
HON. EDUARDO MARTI
HON. LISETTE NIEVES
HON. GBUBEMI OKTIEURO
HON. GITTE PENG
HON. MILAGROS RODRIGUEZ
HON. PATRICK SULLIVAN
HON. DENNIS WALCOTT

## 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, 2011

ORGANIZATIONAL CHART



## New York City Board of Education Retirement System

For the Fiscal Year Ended June 30, 2011

## CONSULTING AND PROFESSIONAL SERVICES

## Actuary

Office of the Actuary
75 Park Place, $9^{\text {th }}$ Floor
New York, NY 10013-6301

## Auditors

Deloitte \& Touche LLP
Two World Financial Center
New York, NY 10281

## 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
245 Park Avenue, $23^{\text {rd }}$ Floor
New York, NY 10167

## CPMS Consultant

Vitech Systems Group, Inc.
401 Park Avenue South, $12^{\text {th }}$ 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

# Certificate of Achievement for Excellence in Financial Reporting 

# Presented to <br> Board of Education <br> Retirement System Qualified <br> Pension Plan, New York 

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
June 30, 2010
A Certificate of Achievement for Excellence in Financial
Reporting is presented by the Govermment Finance Officers
Association of the United States and Canada to
government units and public employee retircment systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.


Executive Director

## Prior service <br> Custodian <br> Validity

 Statements| ते |
| :--- |
| $\substack{0 \\ \\ 0 \\ ن \\ \hline}$ | Trust fund Cost Method Retirement

Annuity

Definition

## Vesting

長 Messue Market Value Systems Summary

Evaluation $\underset{\Sigma}{ }$ Labilities Costs

Benefits

Methods
Calculations
Transfers
Withdrawals
Auditors


New York City
Board of Education Retirement System

Qualified Pension Plan

A Pension Trust Fund of the City of New York

## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2011

## Financial Section

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Deloitte \& Touche LLP
Two World Financial Center New York, NY 10281-1414 USA

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Fax +12124365000
www.deloitte.com

## INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the<br>New York City Board of Education Retirement System Qualified Pension Plan

We have audited the accompanying statements of plan net assets of the New York City Board of Education Retirement System Qualified Pension Plan (the "Plan") as of June 30, 2011 and 2010, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the Plan's management. 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 of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing 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 over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets of the Plan as of June 30,2011 and 2010, and the changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Management's Discussion and Analysis and the supplemental schedules, Schedule 1, Schedule 2, and Schedule 3, listed in the table of contents are not a required part of the financial statements, but are supplementary information required by the Governmental Accounting Standards Board ("GASB"). This supplementary information is the responsibility of Plan Management. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of such required supplementary information. However, we did not audit this information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements of the Plan. The accompanying additional supplementary information listed in the accompanying table of contents is presented for the purpose of additional analysis and is not a required part of the basic financial statements. This additional supplementary information is the responsibility of management. The additional supplementary information has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

[^0]The Introductory, Investment, Actuarial, and Statistical Sections are presented for the purpose of additional analysis and are not a required part of the basic financial statements of the Plan. This supplementary information is also the responsibility of Plan management. Such supplementary information has not been subjected to the auditing procedures applied in our audit of the basic financial statements and, accordingly, we express no opinion on it.


October 27, 2011

This narrative discussion and analysis of New York City Board of Education Retirement System Qualified Pension Plan's ("Board of Education Retirement System Qualified Pension Plan" or the "Plan"), financial performance provides an overview of the Plan's financial activities for the fiscal years ended June 30, 2011 and 2010. 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 Assets - presents the financial position of the Plan at fiscal year-end. It indicates the assets available for payment of future benefits and any current liabilities that are owed as of the statement date. Investments are shown at fair value. All assets and liabilities are determined on an accrual basis.
- The Statement of Changes in Plan Net Assets - 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.

## FINANCIAL HIGHLIGHTS

## Changes in Plan Net Assets

During the fiscal year 2011, the Plan's net assets held in trust for pension benefits increased to $\$ 2.32$ billion, a net increase of $\$ 538$ million or $30.11 \%$ from the fiscal year 2010. The increase in fiscal year 2011 was due to increase in the fair value of the investments which went up by $33.17 \%$.

During the fiscal year 2010, the Plan's net assets held in trust for pension benefits increased to $\$ 1.79$ billion, a net increase of $\$ 249$ million or $16.23 \%$ from the fiscal year 2009. The increase in fiscal year 2010 was due to increase in the fair value of the investments which went up by $10.42 \%$..

| Changes In Plan Net Assets |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years Ended June 30, 2011, 2010, and 2009 (In thousands) | Years Ended June 30, 2011, 2010, and 2009 |  |  | 2010 |  | 2009 |
| Additions: |  |  |  |  |  |  |
| Member contributions | \$ | 31,008 | \$ | 31,361 | \$ | 30,971 |
| Employer contributions |  | 180,191 |  | 147,349 |  | 134,225 |
| Net investment income (loss) |  | 424,419 |  | 217,761 |  | $(332,332)$ |
| Net securities lending income |  | 1,271 |  | 1,111 |  | 2,967 |
| Net receipts from (payments to) other retirement systems |  | 95,958 |  | 38,232 |  | $(141,090)$ |
| Total |  | 732,847 |  | 435,814 |  | $(305,259)$ |
| Deductions: |  |  |  |  |  |  |
| Benefit payments and withdrawals |  | 186,265 |  | 178,413 |  | 171,593 |
| Administrative expenses |  | 8,892 |  | 8,047 |  | 8,413 |
| Total deductions |  | 195,157 |  | 186,460 |  | 180,006 |
| Net increase (decrease) |  | 537,690 |  | 249,354 |  | $(485,265)$ |
| Plan net assets held in trust for pension benefits: |  |  |  |  |  |  |
| Beginning of year |  | 1,785,939 |  | 1,536,585 |  | 2,021,850 |
| End of year | \$ | 2,323,629 | \$ | 1,785,939 | \$ | 1,536,585 |

During fiscal year 2011, member contributions which stood at $\$ 31.01$ million, decreased slightly from the 2010 member contribution amount of $\$ 31.36$ million. In fiscal year 2010, member contributions which stood at $\$ 31.36$ million, increased slightly from the 2009 member contribution amount of $\$ 30.97$ million.

Employer contributions received in fiscal year 2011 were at $\$ 180.19$ million, an increase of 22.29 \% over the fiscal year 2010 figure of $\$ 147.35$ million. Employer contributions are made on a statutory basis based on the One-Year Lag methodology.

Employer contributions received in fiscal year 2010 were at $\$ 147.35$ million, an increase of $9.78 \%$ over the fiscal year 2009 figure of $\$ 134.23$ million.

Plan benefits and withdrawals increased from $\$ 178.41$ million to $\$ 186.26$ million from fiscal year 2010 to fiscal year 2011 and increased from $\$ 171.59$ million to $\$ 178.41$ million from fiscal year 2009 to fiscal year 2010. The increase in the plan benefits and withdrawals in fiscal year 2011 was due to an increase in the number of members obtaining a refund of their pension funds.

In 2011, the administrative expenses account showed a net increase of $10.5 \%$ to $\$ 8.89$ million. In 2010, the administrative expenses account showed a net decrease of $4.35 \%$ to $\$ 8.04$ million. The decrease in administrative expenses in fiscal year 2010 was due to capitalization of expenses relating to professional services for Enterprise Resource Planning software ("ERP"), as per GASB 51. The increase in administrative expenses in fiscal year 2011 was due to a combination of lower capitalization of expenses towards the ERP project and a higher allocation of administrative expenses to the pension program.

## PLAN NET ASSETS

During FY 2011, the Plan experienced a 30.11 \% increase in net assets held in trust for pension benefits. The increase in pension trust funds could be attributable to the increase in the fair value of the investments during the year which went up by 33.17\%. During FY 2010, the Plan experienced 16.23\% increase in net assets held in trust for pension benefits. The increase in pension trust funds during FY 2010 could also be attributable to the increase in the fair value of the investments during the year which went up by $10.42 \%$.

Member loans outstanding at fiscal year-ends of 2011 and 2010 were $\$ 34.17$ million and $\$ 31.26$ million, respectively. During fiscal year 2011, the number of new loans increased by $9.55 \%$.

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.

Plan Net Assets
June 30, 2011, 2010, and 2009
(In thousands)

|  |  | 2011 |  | 2010 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |  |  |
| Cash | \$ | 9,966 | \$ | 11,581 | \$ | 7,131 |
| Receivables |  | 86,090 |  | 92,355 |  | 112,024 |
| Investments, at fair value |  | 2,394,495 |  | 1,792,613 |  | ,578,355 |
| Collateral from securities lending |  | 213,327 |  | 165,624 |  | 195,084 |
| Other |  | 708 |  | 703 |  | 700 |

Total assets
2,704,586 2,062,876 1,893,294

LIABILITIES:
Payables
Securities lending transactions

Total liabilities

Plan net assets held in trust for pension benefits

Investment Summary
(In thousands)
Fair Value
June 30, 2011 June 30, 2010 June 30, 2009

| Short Term Investments | $\$$ | 126,531 | $\$$ | 62,936 |
| :--- | ---: | ---: | ---: | ---: |

# Management's Discussion and Analysis (Unaudited) 

Years Ended June 30, 2011 and 2010
(Cont'd)

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 33.17 \% and 10.42 \% in fiscal years 2011 and 2010, respectively. The 2011 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.

|  | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |
| Cash | \$ | 9,966 | \$ | 11,581 |
| Receivables: |  |  |  |  |
| Investment securities sold (Note 2) |  | 47,431 |  | 43,730 |
| Accrued interest and dividends (Note 2) |  | 53 |  | 40 |
| Member loans (Note 5) |  | 34,168 |  | 31,255 |
| Other |  | 4,438 |  | 17,330 |
| Total receivables |  | 86,090 |  | 92,355 |
| Investments - at fair value (Notes 2 and 3): |  |  |  |  |
| Fixed funds: |  |  |  |  |
| Short-term investments: |  |  |  |  |
| Commercial paper |  | 112,870 |  | 745 |
| Short-term investment fund |  | 12,250 |  | 46,154 |
| Discount notes |  | 943 |  | 15,724 |
| Debt securities: |  |  |  |  |
| U.S. government and U.S. government agency |  | 350,008 |  | 268,270 |
| Corporate |  | 202,929 |  | 221,832 |
| Yankee bonds |  | 3,084 |  | 2,812 |
| Equities: |  |  |  |  |
| Domestic |  | 896,385 |  | 680,925 |
| Private equity |  | 100,257 |  | 39,243 |
| Mutual funds: |  |  |  |  |
| International equity |  | 606,351 |  | 424,363 |
| Treasury inflation-protected securities |  | 59,160 |  | 53,174 |
| Mortgages |  | 10,595 |  | 8,091 |
| Promissory notes |  | 935 |  | 707 |
| Collateral from securities lending |  | 210,813 |  | 163,345 |
| Variable funds: |  |  |  |  |
| Short-term investments |  | 468 |  | 313 |
| Debt securities |  | 2,150 |  | 1,939 |
| Equities |  | 36,110 |  | 28,321 |
| Collateral from securities lending |  | 2,514 |  | 2,279 |
| Total investments |  | 2,607,822 |  | 1,958,237 |
| Other assets |  | 708 |  | 703 |
| Total assets |  | 2,704,586 |  | 2,062,876 |
| LIABILITIES: |  |  |  |  |
| Accounts payable (Note 2) |  | 8,675 |  | 6,222 |
| Payable for investment securities purchased (Note 2) |  | 153,150 |  | 98,281 |
| Accrued benefits payable (Note 2) |  | 5,805 |  | 6,810 |
| Securities lending (Note 2) |  | 213,327 |  | 165,624 |
| Total liabilities |  | 380,957 |  | 276,937 |
| PLAN NET ASSETS HELD IN TRUST FOR BENEFITS <br> (A schedule of funding progress for the Plan is presented on Schedule 1) | \$ | 2,323,629 | \$ | 1,785,939 |

See notes to financial statements.

Statements of Changes in Plan Net Assets For The Years Ended June 30, 2011 and 2010
(In thousands)

| ADDITIONS: | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Contributions (Note 4): |  |  |  |  |
| Member contributions | \$ | 31,008 | \$ | 31,361 |
| Employer contributions |  | 180,191 |  | 147,349 |
| Total contributions |  | 211,199 |  | 178,710 |
| Investment income (Note 2): |  |  |  |  |
| Interest income |  | 28,462 |  | 27,765 |
| Dividend income |  | 29,010 |  | 22,199 |
| Net appreciation in fair value of investments |  | 373,410 |  | 171,833 |
| Total investment income |  | 430,882 |  | 221,797 |
| Less - investment expenses |  | 6,463 |  | 4,036 |
| Net investment income |  | 424,419 |  | 217,761 |
| Securities lending transactions (Note 2): |  |  |  |  |
| Securities lending income |  | 1,388 |  | 1,248 |
| Securities lending fees |  | (117) |  | (137) |
| Net securities lending income |  | 1,271 |  | 1,111 |
| Net income |  | 425,690 |  | 218,872 |
| Other - receipts from other retirement |  |  |  |  |
| Total additions |  | 732,847 |  | 435,814 |
| DEDUCTIONS: |  |  |  |  |
| Benefit payments and withdrawals (Note 1) |  | 186,265 |  | 178,413 |
| Administrative expenses (Note 7) |  | 8,892 |  | 8,047 |
| Total deductions |  | 195,157 |  | 186,460 |
| INCREASE IN PLAN NET ASSETS |  | 537,690 |  | 249,354 |
| PLAN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS: |  |  |  |  |
| Beginning of year |  | 1,785,939 |  | ,536,585 |
| End of year |  | 2,323,629 |  | 1,785,939 |

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 (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 City 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 nonpedagogical 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 <br> Years Ended June 30, 2011 and 2010 <br> (Cont'd) 

At June 30, 2009 and 2008, the dates of the Plan's most recent actuarial valuations, the Plan's membership consisted of:

|  | 2009 | 2008 |
| :--- | ---: | ---: |
| Retirees and beneficiaries receiving benefits | 13,641 | 13,196 |
| Terminated vested members not yet receiving benefits | 229 | 283 |
| Other inactives* | 3,673 | 3,999 |
| Active members receiving salary | 23,303 | 22,729 |
| Total | $\underline{40,846}$ | 40,207 |

* 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, 2009, and 2008 are the dates used for calculating Fiscal Year 2011 and Fiscal Year 2010 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, and 1983, 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. The service retirement benefits under the Plan are as 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 provided 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.

# Notes to Financial Statements 

Years Ended June 30, 2011 and 2010
(Cont'd)

- 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.
- Members who joined the Plan on or after July 27, 1976 and prior to September 1, 1983 ("Tier 3") were mandated into the Tier 4 plan. However, these members could elect to remain in a plan that 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 10th 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 ("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 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, 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.

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

# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 <br> (Cont'd) 

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.

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.

In addition, 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.

# Notes to Financial Statements 

Years Ended June 30, 2011 and 2010
(Cont'd)


#### Abstract

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 assets held in trust for benefits.

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.

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, 2011, 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

# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 <br> (Cont'd) 

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 assets. 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, 2011 and 2010 are $\$ 294.5$ million and $\$ 220$ 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 Standard Adopted - In fiscal year 2011, the Plan adopted one new statement on financial accounting standards issued by the Governmental Accounting Standards Board ("GASB"). GASB Statement No. 59, Financial Instruments Omnibus updates and improves existing standards regarding financial reporting and disclosure requirements of certain financial instruments and external investment pools for which significant issues have been identified in practice. The Plan has determined that GASB Statement No. 59 had no impact on the Plan's financial statements as a result of the implementation.

## 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 assets.

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 $B B \& B$ 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, 2011 | S\&P Quality Ratings |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AAA | AA | A | BBB | BB | B | CCC \& Below | Short Term | Not Rated | Total |
| U.S. Government | \% | \% | \% | - \% | - \% | - \% | - \% | - \% | - \% | - \% |
| Corporate bonds | 3.58 | 6.43 | 16.84 | 15.05 | 10.49 | 6.23 | 3.11 | - | 0.03 | 61.76 |
| Yankee bonds | - | 0.19 | - | 0.19 | - | - | 0.02 | - | 0.05 | 0.45 |
| Short term: |  |  |  |  |  |  |  |  |  |  |
| Commercial paper | - | - | - | - | - | - | - | 34.09 | - | 34.09 |
| Pooled fund | - | - | - | - | - | - | - | - | 3.70 | 3.70 |
| U.S. Agencies | - | - | - | - | - | - | - | - | - | - |
| U.S. Treasuries | - | - | - | - | - | - | - | - | - | - |
| Portfolio | 3.58\% | 6.62\% | 16.84\% | 15.24\% | 10.49\% | 6.23\% | 3.13\% | 34.09\% | 3.78\% | 100.00\% |
|  | S\&P Quality Ratings |  |  |  |  |  |  |  |  |  |
| Investment Type* |  |  |  |  |  |  | CCC \& | Short | Not |  |
| June 30, 2010 | AAA | AA | A | BBB | BB | B | Below | Term | Rated | Total |
| U.S. Government | - \% | - \% | - \% | - \% | - \% | - \% | - \% | - \% | - \% | - \% |
| Corporate bonds | 3.37 | 4.88 | 15.64 | 21.18 | 15.41 | 16.12 | 3.44 | - | 1.69 | 81.73 |
| Yankee bonds | - | 0.08 | 0.45 | 0.41 | 0.06 | - | - | - | 0.06 | 1.06 |
| Short term: |  |  |  |  |  |  |  |  |  |  |
| Commercial paper | - | - | - | - | - | - | - | 0.28 | - | 0.28 |
| Pooled fund | - | - | - | - | - | - | - | - | 16.93 | 16.93 |
| U.S. Agencies | - | - | - | - | - | - | - | - | - | - |
| U.S. Treasuries | - | - | - | - | - | - | - | - | - | - |
| Portfolio | 3.37\% | 4.96\% | 16.09\% | 21.59\% | 15.47\% | 16.12\% | 3.44\% | 0.28\% | 18.68\% | 100.00\% |

[^1]
# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 

(Cont'd)

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.

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. Duration is limited to a range of -1 to .75 years. 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 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, 2011 | Investment Maturities |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value | Less Than One Year | One to Five Years | Six to Ten Years | More Than Ten Years |
| U.S. Government | 51.24 \% | - \% | 2.22 \% | 9.08\% | 39.94 \% |
| Corporate bonds | 30.03 | 0.87 | 7.48 | 11.74 | 9.94 |
| Yankee bonds | 0.22 | 0.06 | 0.14 | 0.02 | - |
| Short term: |  |  |  |  |  |
| Commercial paper | 16.54 | 16.54 | - | - | - |
| Pooled fund | 1.80 | 1.80 | - | - | - |
| U.S. Agencies | 0.17 | 0.17 | - | - | - |
| U.S. Treasuries | - | - | - | - | - |
| Percent of rated portfolio | 100.00 \% | 19.44 \% | 9.84\% | 20.84 \% | 49.88 \% |
| Years to Maturity | Investment Maturities |  |  |  |  |
| Investment Type | Fair | Less Than | One to Five | Six to Ten | More Than |
| June 30, 2010 | Value | One Year | Years | Years | Ten Years |
| U.S. Government | 48.60 \% | - \% | 0.66 \% | 8.50 \% | 39.44 \% |
| Corporate bonds | 39.68 | 1.13 | 10.71 | 15.87 | 11.97 |
| Yankee bonds | 0.52 | - | 0.15 | 0.31 | 0.06 |
| Short term: |  |  |  |  |  |
| Commercial paper | 0.13 | 0.13 | - | - | - |
| Pooled fund | 8.22 | 8.22 | - | - | - |
| U.S. Agencies | 2.85 | 2.85 | - | - | - |
| U.S. Treasuries | - | - | - | - | - |
| Percent of rated portfolio | 100.00\% | 12.33 \% | 11.52 \% | 24.68\% | 51.47 \% |

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.

Foreign Currency Holdings - As of June 30, 2011 and 2010
(Amounts in U.S. dollars)

| Trade Currency | 2011 |  | 2010 |  |
| :---: | :---: | :---: | :---: | :---: |
| Euro Currency | \$ | 96,122 | \$ | 67,935 |
| British Pnd Sterling |  | 91,504 |  | 64,176 |
| Japanese Yen |  | 76,065 |  | 61,280 |
| Swiss Franc |  | 47,709 |  | 29,961 |
| Hong Kong Dollar |  | 44,469 |  | 30,147 |
| South Korean Won |  | 26,108 |  | 11,403 |
| Australian Dollar |  | 25,579 |  | 17,506 |
| Swedish Krona |  | 23,704 |  | 15,239 |
| South African Rand |  | 14,689 |  | 6,598 |
| Singapore Dollar |  | 13,688 |  | 10,659 |
| Brazilian Real |  | 13,451 |  | 7,407 |
| New Taiwan Dollar |  | 11,382 |  | 5,234 |
| Danish Krone |  | 7,845 |  | 6,903 |
| Canadian Dollar |  | 6,335 |  | 4,315 |
| Turkish Lira |  | 5,518 |  | 5,400 |
| Indian Rupee |  | 5,195 |  | 3,512 |
| Mexican Nuevo Peso |  | 4,143 |  | 2,758 |
| Russian Ruble |  | 4,039 |  | 2,408 |
| Thai Baht |  | 3,831 |  | 887 |
| Polish Zloty |  | 3,321 |  | 776 |
| Indonesian Rupiah |  | 2,424 |  | 3,462 |
| Malaysian Ringgit |  | 2,113 |  | 1,974 |
| Czech Koruna |  | 1,811 |  | 949 |
| Hungarian Forint |  | 1,577 |  | 1,409 |
| Philippines Peso |  | 1,174 |  | 606 |
| Egyptian Pound |  | 706 |  | 1,253 |
| Chilean Peso |  | 404 |  | - |
| Renminbi Yuan |  | 376 |  | - |
| Colombian Peso |  | 186 |  | 201 |
| Norwegian Krone |  | 23 |  | - |
| Moroccan Dirham |  | 18 |  | 1,379 |
| Other |  | - |  | 2,309 |
| Total | \$ | 535,510 | \$ | 368,046 |

Securities Lending Transactions:
Credit Risk - The quality ratings of investments held as collateral for Securities Lending are as follows:
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| S\&P Quality Ratings |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | CCC \& |  | Short |  | Not |  |  |
|  | AAA |  | AA |  | A |  | BBB |  | BB |  | B |  | Below |  | Term |  | Rated |  | Total |
| \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
|  | 41,010 |  | 63,044 |  | 53,129 |  | - |  | - |  | - |  | - |  | - |  | - |  | 157,183 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | 698 |  | - |  | - |  | - |  | - |  | - |  | - |  | 698 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 37 |  | 37 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 45,894 |  | 45,894 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 1,922 |  | 1,922 |
|  | - |  | - |  | 3,745 |  | - |  | - |  | - |  | - |  | - |  | - |  | 3,745 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | 504 |  | - |  | 3,344 |  | - |  | - |  | - |  | - |  | - |  | - |  | 3,848 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| \$ | 41,514 | \$ | 63,044 | \$ | 60,916 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | 47,853 | \$ | 213,327 |
|  | 19.46 \% |  | 29.55 \% |  | 28.56 \% |  | - \% |  | -\% |  | - \% |  | - \% |  | -\% |  | 22.43 \% |  | 100.00\% |
|  |  |  |  |  |  |  |  |  | Qualit | ngs |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | CCC \& |  | Short |  | Not |  |  |
|  | AAA |  | AA |  | A |  | BBB |  | BB |  | B |  | Below |  | Term |  | Rated |  | Total |
| \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
|  | 27,165 |  | 41,363 |  | 12,233 |  | - |  | - |  | 11 |  | - |  | - |  | - |  | 80,772 |
|  |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | 3,024 |  | - |  | - |  | - |  | - |  | 7 |  | 3,031 |
|  | - |  | - |  | - |  | , |  | - |  | - |  | - |  | - |  | - |  |  |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 43 |  | 43 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 34,848 |  | 34,848 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 1,507 |  | 1,507 |
|  | - |  | 13,022 |  | 4,492 |  | 22,631 |  | - |  | - |  | - |  | - |  | - |  | 40,145 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | 361 |  | - |  | - |  | 4,917 |  | - |  | - |  | - |  | - |  | - |  | 5,278 |
|  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| \$ | 27,526 | \$ | 54,385 | \$ | 16,725 | \$ | 30,572 | \$ | - | \$ | 11 | \$ | - | \$ | - | \$ | 36,405 | \$ | 165,624 |
|  | 16.62\% |  | 32.83 \% |  | 10.10\% |  | 18.46\% |  | - \% |  | 0.01\% |  | - \% |  | -\% |  | 21.98\% |  | 100.00\% |

Investment Type and Fair Value of Securities Lending Transactions
(In thousands)
June 30, 2011
U.S. government
Corporate bonds
Percent of securities lending portfolio

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


## 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. Under current law, the employer contributes statutorily-required contributions ("Statutory Contributions") that together with member contributions and investment income would ultimately be sufficient to accumulate assets to pay benefits when due.

# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 <br> (Cont'd) 

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.

Employer 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, 2009 (Lag) actuarial valuation was used to determine the fiscal year 2011 employer contribution. There were no changes in actuarial assumptions and methods from the prior actuarial valuation.

The June 30, 2008 (Lag) actuarial valuation was used to determine the fiscal year 2010 employer contribution. There were no changes in actuarial assumptions and methods from the prior actuarial valuation.


#### Abstract

The Frozen Initial Liability ("FIL") Actuarial Cost Method is utilized by the Actuary to calculate the contributions from the employer. Under this actuarial cost method, the Initial Liability was reestablished by the Entry Age Actuarial Cost Method as of June 30, 1999, but with the Unfunded Actuarial Accrued Liability ("UAAL") not less than zero. The excess of the Actuarial Present Value ("APV") of projected benefits of members as of the valuation date, over the sum of the Actuarial Asset Value ("AAV") plus UAAL, if any, and the APV of future employee contributions, is allocated on a level basis over the future earnings of members who are on the payroll as of the valuation date. Actuarial gains and losses are reflected in the employer normal contribution rate.

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.


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 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).

The UIR for fiscal years 2000 to 2004 under the revised AAVM was set equal to the UIR under the prior AAVM.

For determining employer contributions for fiscal years 2000 through 2005 inclusive, the AAVM was changed as of June 30, 1999, to reflect a market basis for investments held by the Plan. This AAVM recognized expected investment returns immediately and phased in UIR.

Under this prior AAVM, any UIR for fiscal years 2000 through 2004 inclusive were phased into the AAV beginning the following June 30 at a rate of $10 \%, 15 \%, 20 \%, 25 \%$ and $30 \%$ per year (i.e., cumulative rates of $10 \%, 25 \%, 45 \%, 70 \%$ and $100 \%$ over a period of five years).

For assets of the variable annuity program, 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

# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 

(Cont'd)
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.

Statutory Contributions for fiscal years 2011 and 2010 were equal to the amounts calculated by the Actuary.

Funded Status and Funding Progress - One measure of the funded status of the Plan as of June 30, 2009, the most recent actuarial valuation date, based on the Frozen Initial Liability Actuarial Cost Method, the plan's funding method, is as follows (dollar amounts in thousands):


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 AALs 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 actuarial values of plan assets are increasing or decreasing over time relative to AALs for benefits under the Entry Age Actuarial Cost Method.

Additional information as of the latest actuarial valuation follows:

| Valuation Date | June 30, 2009 (Lag) |
| :--- | :--- |
| Actuarial Cost Method | Frozen Initial Liability |
| Amortization Method <br> Initial Unfunded | Increasing Dollar |
| Remaining Amortization Period <br> Initial Unfunded | NA |
| Asset Valuation Method | 6-Year Smoothed Market |
| Actuarial Assumptions |  |

Projected Salary Increases* In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per annum.

Investment Rate of Return* 8.0\% per annum
COLAs* $\quad 1.3 \%$ per annum

* 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, 2011 and 2010 is $\$ 34.17$ million and $\$ 31.26$ million, respectively. Upon termination of employment before retirement, certain members are entitled to 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 $\$ 0.94$ million and $\$ 1.06$ million were incurred on behalf of the Plan by other City agencies, primarily the Comptroller's Office for 2011 and

# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 

(Cont'd)

2010, 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 2011 and 2010, 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 $\$ 8.89$ million and $\$ 8.05$ 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 assets or changes in the Plan's net assets. 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 2011 and 2010, 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 assets held in trust for pension benefits or cause changes in the Plan's net assets 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 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, the Hay Group ("Hay") is conducting a study of actuarial assumptions and analyzing experience for fiscal years 2006 through 2009. Hay has generally completed their study and prepared draft reports that are expected to be finalized by December 2011.

The Actuary is currently reviewing results from the Segal and Hay studies in preparation for recommending revised actuarial assumptions and methods.

Revised Actuarial Assumptions and Methods - In accordance with the Administrative Code of The City of New York ("ACNY") and with appropriate practice, the Boards of Trustees of the five actuariallyfunded 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 an October 2003 experience study by Gabriel, Roeder, Smith \& Company ("GRS"), the Actuary issued an August 31, 2005 report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years beginning on and After July 1, 2005, for the New York City Board of Education Retirement System" ("August 2005 Report"). Where required, the Board of Trustees of the Plan adopted those changes to actuarial assumptions that required Board approval and the State Legislature and the Governor enacted Chapter 152/06 to provide for those changes to the actuarial assumptions and methods that required legislation, including the AIR assumption of 8.0\% per annum.

GASB 50 - In May 2007, the Governmental Accounting Standards Board issued Statement No. 50 ("GASB 50") - Pension Disclosures. This statement amends note disclosure and required supplementary information ("RSI") of GASB Statements No. 25 and No.27. The additional note disclosures required by GASB 50 are included effective with fiscal year ended June 30, 2008. There is no financial impact as a result of the implementation of GASB 50.

New York State Legislation (Only Significant Laws Included) - Chapter 104 of the Laws of 2005, as amended by Chapter 93 of the Laws of 2005 , created a presumptive eligibility for accidental disability in connection with the World Trade Center attack on September 11, 2001.

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

Chapter 152/06 provided for the changes in actuarial assumptions and methods that require legislation, including the continuation of the AIR assumption of $8.0 \%$ per annum and continuation of the current Frozen Initial Liability ("FIL") Actuarial Cost Method and the existing Unfunded Actuarial (Accrued) Liability ("UAL"). In addition, Chapter 152/06 provides for elimination of the use of the tenyear 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.

# Notes to Financial Statements <br> Years Ended June 30, 2011 and 2010 

(Cont'd)

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 ("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.

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

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

## Schedule 1

## SCHEDULE OF FUNDING PROGRESS

(IN CONFORMITY WITH THE PLAN'S FUNDING METHOD) (In thousands)

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial <br> Valuation <br> Date <br> June 30 | Actuarial <br> Asset <br> Value <br> (AAV) <br> (A) | Actuarial <br> Accrued <br> Liability <br> (AAL)* <br> (A) \&(B) | Actuarial Unfunded AAL (UAAL) (C) (2)-(1) | Funded <br> Ratio $(1) \div(2)$ | Covered <br> Payroll | UAAL as a Percentage of Covered Payroll (3) $\div(5)$ |
| 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 |
| 2005 (Lag) | 1,841,041 | 1,846,327 | 5,286 | 99.7 | 715,078 | 0.7 |
| 2004 (Lag)\# | 1,843,786 | 1,850,580 | 6,794 | 99.6 | 624,884 | 1.1 |
| 2004 | 1,822,740 | 1,829,534 | 6,794 | 99.6 | 624,884 | 1.1 |

* Based on the Frozen Initial Liability Actuarial Cost Method.
\# Reflects revised actuarial assumptions and methods based on experience review.
Notes:
(A) 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). The UIR for Fiscal Years 2000 to 2004 under the revised AAVM 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 and was made as one component of an overall revision of actuarial assumptions and methods as of June 30, 1999.

Under the AAVM used for the June 30, 1999 to June 30, 2004, actuarial valuations, any UIR for fiscal years 2000 and later were phased into the AAV beginning the following June 30 at a rate of $10 \%, 15 \%$, $20 \%, 25 \%$ and $30 \%$ per year (i.e., cumulative rates of $10 \%, 20 \%, 45 \%, 70 \%$ and $100 \%$ over a period of five years).
(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. This is the same as the unfunded frozen AAL, which is not adjusted from one actuarial valuation to the next to reflect actuarial gains and losses.
(Schedule of Funding Progress Concluded)

Schedule 2

## SCHEDULE OF EMPLOYER CONTRIBUTIONS

 (In thousands)| Fiscal Year <br> Ended June 30 | Annual Required <br> Contribution <br> (ARC) | Percentage <br> of ARC <br> Contributed |
| :---: | :---: | :---: |
| 2011 | $\$ 180,191$ | $100.0 \%$ |
| 2010 | 147,349 | 100.0 |
| 2009 | 134,225 | 100.0 |
| 2008 | 143,100 | 100.0 |
| 2007 | 129,820 | 100.0 |
| 2006 | 90,839 | 100.0 |

Under the requirements of Governmental Accounting Standards Board Statement Number 25 ("GASB 25"), as amended by GASB Statement No. 50 ("GASB 50"), 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, 2009 (Lag) and 2008 (Lag). These actuarial valuations were used to determine employer contributions for fiscal years 2011 and 2010, respectively. Additional information as of the last two actuarial valuations follows::

|  | June 30, 2009 (Lag) ${ }^{1}$ | June 30, 2008 (Lag) ${ }^{1}$ |
| :---: | :---: | :---: |
| Actuarial cost method | Frozen Initial Liability. ${ }^{2}$ | Frozen Initial Liability. ${ }^{2}$ |
| Amortization method for Unfunded Actuarial Accrued Liabilities | None. | None. |
| Remaining amortization period | None. | None. |
| Actuarial asset valuation method | Modified six-year moving average of market values with a "market value restart" as of June 30, 1999. For assets of variable annuity funds, current market value. | Modified six-year moving average of market values with a "market value restart" as of June 30, 1999. For assets of variable annuity funds, current market value. |
| Actuarial assumptions: Investment rate of return | 8.0\% per annum ${ }^{3}$ (4.0\% per annum for benefits payable under Variable Annuity Program). | 8.0\% per annum ${ }^{3}$ (4.0\% per annum for benefits payable under Variable Annuity Program). |
| Post-retirement mortality | Tables adopted by Board of Trustees during Fiscal Year 2006. | Tables adopted by Board of Trustees during Fiscal Year 2006. |
| Active service: withdrawal, death, disability, service retirement | Tables adopted by Board of Trustees during Fiscal Year 2006. | Tables adopted by Board of Trustees during Fiscal Year 2006. |
| Salary increases | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per annum. ${ }^{3}$ | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per annum. ${ }^{3}$ |
| Cost-of-living adjustments | 1.3\% per annum. ${ }^{3}$ | 1.3\% per annum. ${ }^{3}$ |

[^2]
## SCHEDULE OF MANAGEMENT EXPENSES

INVESTMENT MANAGER

Fixed Investment Expenses:

STATE STREET<br>PIMCO<br>PRUDENTIAL<br>TAPLIN, CANIDA<br>LOOMIS SAYLES<br>SEIX

FAIRVIEW PRIVATE EQUITY FD MESIROW PARTNERS FUND III MESIROW PARTNERS FUND IV MESIROW PARTNERS FUND V

FRANKLIN TEMPLETON FD UBS TRUMBULL PROPERTY

WELLINGTON MGMT MCC DARUMA ASSET MGMT SMALL PYRAMIS GLOBAL ADVISORS ZEVENBERGEN ARONSON JOHNSON F I S FUND MANAGEMENT TOTAL PROGRESS TRUST BLACKROCK

BAILLIE SPRUCEGROVE
BLACKROCK
STATE STREET

## PIMCO

ACCESS RBC
AFL CIO

## Fixed Investment <br> Variable Investment Expenses:

Consultant Expenses:
BUCK CONSULTANTS 129,899
BRITTEN NETWORK 168,924
PRUDENTIAL INSURANCE 158,805
PCG
36,825
KPMG
VITECH SYSTEMS GROUP, INC
GARY TUNNICLIFFE AND JACK ZIEGLER, LLC
INVESTMENT TYPE MGMT FEE

| Fixed Income | \$ 31,761 |
| :---: | :---: |
| Fixed Income | 303,896 |
| Fixed Income | 57,322 |
| Fixed Income | 46,680 |
| Fixed Income | 202,863 |
| Fixed Income | 75,910 |
|  | 718,432 |
| Private Equity | 240,102 |
| Private Equity | 351,324 |
| Private Equity | 178,049 |
| Private Equity | 887,728 |
|  | 1,657,203 |
| Private Real Estate | 69,589 |
| Private Real Estate | 78,521 |
|  | 148,110 |
| Domestic Equity | 352,934 |
| Domestic Equity | 130,551 |
| Domestic Equity | 54,987 |
| Domestic Equity | 83,832 |
| Domestic Equity | 137,087 |
| Domestic Equity | 189,333 |
| Domestic Equity | 290,053 |
| Domestic Equity | 22,071 |
|  | 1,260,848 |
| Int'I Equity | 645,358 |
| Int'I Equity | 450,614 |
| Int'I Equity | 21,341 |
| Int'I Equity | 461,677 |
|  | 1,578,990 |

53,916
5,217
33,441
92,574

5,456,157
77,660 914,490 393,000

SCHEDULE OF DIRECT PAYMENTS TO CONSULTANTS

## INDIVIDUAL OR FIRM NAME

Buck Investment Services
One Pennsylvania Plaza
New York, New York 10121

Britten Network Co.
434 Main Street
Royersford, PA 19468

Prudential Insurance Co.
200 Wood Ave
South Iselin, NJ 08830

## KPMG

345 Park Avenue
New York, NY 10154

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

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

Total Consulting Fees for FY 2011
CPMS Consultants
\$ 2,109,607

[^3]
## SCHEDULE OF ADMINISTRATIVE EXPENSES

## (In thousands)

EXPENSE TYPE AMOUNT
Administrative Expenses:
Salaries paid to Plan Personnel ..... \$ 5,092
Consumable Supplies and Materials ..... 84
Furniture and Equipment ..... 99
General Services ..... 106
Contractual services ..... 3,511
Sub-Total ..... 8,892
Miscellaneous Expenses:
Related Parties Administrative Expenses ..... 940
(Adm expenses made by the Comptroller on our behalf.
Charged on investment)
Total Administrative Expenses for FY 2011:\$ 9,832

Capitalization

Accounts
Payroll Factors Disclosures Return Accruals Pension Material Return Accruals Pension Material

## Benchmark

 Refund Assessment ${ }^{3}$Value
Average Interest


# Earinins Amount Objectives Allocation <br> Treasury 403в <br> Custodian <br> Commissions <br> <br> <div class="inline-tabular"><table id="tabular" data-type="subtable">
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</tr>
<tr style="border-top: none !important; border-bottom: none !important;">
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# New York City <br> Board of Education Retirement System 

Qualified Pension Plan
A Pension Trust Fund of the City of New York

## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2011

## Investment Section

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Date: $\quad$ November 23, 2011<br>To: New York City Board of Education Retirement System<br>From: $\quad$ Michael C. Wright<br>Re: $\quad$ Report on Investment Activity

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 2011 with a return of $24.2 \%$, compared to $24.0 \%$ for the Board of Education Policy Benchmark ${ }^{1}$, against which it is measured. The market value of the fund rose from $\$ 2.3$ billion to $\$ 2.9$ billion. Performance was extremely strong and exceeded that of the prior fiscal year, which was already outside of the normal range of expected returns for policy allocation. The fund also performed favorably compared to other similar funds, ranking above 90 percent of its peer group. Over the past five years, the fund returned an average of $5.6 \%$ versus $4.9 \%$ for the benchmark index. The ten-year return averaged $6.0 \%$ versus $5.5 \%$ for the index.

## Economic and Market Comment

The US economy grew more slowly than expected this year. Gross Domestic Product grew by $1.6 \%$ over the trailing fiscal year, compared to $3.0 \%$ for the fiscal year ended June 2010. Headline inflation spiked higher in response to rising commodity prices, as CPI grew $3.4 \%$ versus $1.1 \%$ one year ago. Core inflation, which excludes volatile food and energy prices, remained at more muted levels and rose $1.6 \%$. Signs of a job-market recovery began to emerge mid-fiscal year, though not enough to improve consumer sentiment or provide a housing price boost. The unemployment rate inched lower from $9.5 \%$ to $9.2 \%$. Employment has still not reached pre-2008 crisis levels, and job growth is not deemed sufficient by economists to keep pace with population growth. These are important indicators of the economic effect on the funds' investments. The US economy and consumer spending are not providing the positive effect on our investments that they provided in prior recoveries.

The U.S. stock market, as measured by the Russell 3000 stock index, returned $32.4 \%$ for the fiscal year ending June 30, 2011. International stocks, as measured by the MSCI EAFE index, returned $30.9 \%$. Strong corporate profit growth, market expectations, and low interest rates made for a positive outlook early in the year. Equities began the fiscal year on a strong note but began to falter towards fiscal yearend given renewed concerns over the European sovereign fiscal issues and the slower growth noted

[^4]above. The aggregate fixed income market, as measured by the Barclays Capital US Aggregate Index gained $3.9 \%$ over the trailing year. Within fixed income, riskier assets outperformed, as indicated by a $15.6 \%$ gain among corporate high-yield issues, compared to $2.2 \%$ for US Treasuries.

## 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 with the total equity portion of the fund returning $32.6 \%$. Within US equities, all of the active managers with assets for the full fiscal year outperformed their respective benchmarks and returned no less than $30 \%$. In the non-U.S. equity programs, both developed and emerging-market allocations generated similarly strong returns outperformed their benchmarks.

The total domestic fixed income segment returned $6.7 \%$ with performance mixed relative to their respective benchmarks. The best absolute results in fixed income came from the fund's high yield and credit-oriented allocations, which benefited from narrowing credit spreads. The total high yield, or enhanced yield, component of the plan returned $17.4 \%$ during the fiscal year and ahead of benchmark.

Within fiscal year 2011, the public market allocation saw the creation of a dedicated mid-cap equity allocation and a slight increase in exposure to emerging-market equity investments. Also, investments in core private real estate were funded, and the allocation to private equity was maintained with the funding of a new investment. Opportunistic investments continue to be evaluated with the objective of increasing diversification. 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. The fund is invested in a diversified portfolio of stocks and bonds so that the Board of Education Retirement System can reduce the variability that would occur if the fund were concentrated in any one asset segment. Over the past 15 -years, the return on the total fund has averaged $7.5 \%$ per year, in-line with that of its median peer public fund return. This is compared to a policy benchmark return of $7.0 \%$. 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. Historically, the fund has had a higher allocation to U.S. equities and a lower allocation to private market alternatives, such as private equity and real estate, compared to its peers. As the Plan continues to fund its allocation to private market and real-estate investments, we expect its results to improve relative to peers in terms of both return and risk.

Although the Fund experienced abnormally large asset-price gains for the fiscal year, sentiment took a significant shift downward during the final quarter as fiscal problems again emerged among developed Eurozone economies and the pace of the domestic job-market recovery appeared to slow. The Board of Education Retirement System's investment policy and management approach is long term with active rebalancing to policy allocations and increasing diversification to position the fund for the current and expected market conditions. We expect volatility to continue in the capital markets, and we take active

Re: Report on Investment Activity (cont'd)
November 23, 2011
steps with investment diversification and selection 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,
M/ilal (wagdy
Michael C. Wright
Principal and Investment Consultant
MCW: AF

## Asset Allocation

## Fiscal Year Ended June 30, 2011

| Years | US <br> Equity | Int'I <br> Equity | Emerging <br> Market | Domestic <br> Fixed | Mutual <br> TIPS | Enhanced <br> Yield | Private <br> Equity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 30 / 2002$ | 48.71 | 12.46 | 5.92 | 30.76 | 0.00 | 2.15 | 0.00 |
| $6 / 30 / 2003$ | 47.79 | 14.21 | 7.12 | 28.67 | 0.00 | 2.21 | 0.00 |
| $6 / 30 / 2004$ | 44.78 | 14.14 | 9.33 | 30.49 | 0.00 | 1.26 | 0.00 |
| $6 / 30 / 2005$ | 39.80 | 15.65 | 8.94 | 33.39 | 0.00 | 2.22 | 0.00 |
| $6 / 30 / 2006$ | 39.16 | 18.05 | 4.50 | 36.32 | 0.00 | 1.97 | 0.00 |
| $6 / 30 / 2007$ | 47.90 | 19.30 | 4.50 | 20.40 | 2.80 | 4.40 | 0.70 |
| $6 / 30 / 2008$ | 36.49 | 19.57 | 16.38 | 20.62 | 2.69 | 2.95 | 1.30 |
| $6 / 30 / 2009$ | 34.28 | 20.48 | 11.00 | 26.06 | 2.73 | 3.94 | 1.51 |
| $6 / 30 / 2010$ | 36.22 | 21.67 | 8.46 | 25.27 | 2.72 | 3.66 | 2.00 |
| $6 / 30 / 2011$ | 39.97 | 21.51 | 5.37 | 22.63 | 2.62 | 3.43 | 4.47 |

Asset Allocation
Fiscal Year Ended June 30, 2011
(Cont'd)


| Type of Investments | Market Value |  |  | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Short Term Investments: | \$ | 126,532 | 4.85 | \% |
| Fixed Income Debt Securities: |  |  |  |  |
| U.S. Government Bonds |  | 350,008 | 13.42 |  |
| Corporate Bonds |  | 205,079 | 7.86 |  |
| Yankee Bonds |  | 3,084 | 0.12 |  |
| Total Fixed Income Debt Securities: |  | 558,171 | 21.40 |  |
| Total Fixed Income: |  | 684,703 | 26.26 |  |
| Equity Securities: |  |  |  |  |
| Common Stock |  | 932,495 | 35.76 |  |
| Private |  | 100,257 | 3.84 |  |
| Total Equity Securities: |  | 1,032,752 | 39.60 |  |
| Mutual Funds: |  |  |  |  |
| International Investment Fund-Equities |  | 606,351 | 23.25 |  |
| Treasury Inflation-Protected Securities |  | 59,160 | 2.27 |  |
| Mortgages |  | 10,595 | 0.41 |  |
| Total Mutual Funds: |  | 676,106 | 25.93 |  |
| Promissory Notes: |  | 934 | 0.04 |  |
| Collateral From Securities Lending: |  | 213,327 | 8.18 |  |
| Total Investments |  | 2,607,822 | 100.00 | \% |

Fiscal Year Ended June 30, 2011

| Assets \$K | Assets \% |  | 3 Mos <br> Apr-11 <br> Jun-11 <br> \% | $\begin{gathered} 6 \text { Mos } \\ \text { Jan-11 } \\ \text { Jun-11 } \\ \% \end{gathered}$ | $\begin{gathered} 1 \mathrm{Yr} \\ \text { Jul-10 } \\ \text { Jun-11 } \\ \% \end{gathered}$ | $\begin{gathered} 3 \text { Yrs } \\ \text { Jul-08 } \\ \text { Jun-11 } \\ \% \end{gathered}$ | $\begin{gathered} 5 \text { Yrs } \\ \text { Jul-06 } \\ \text { Jun-11 } \\ \% \end{gathered}$ | $\begin{gathered} 10 \text { Yrs } \\ \text { Jul-01 } \\ \text { Jun-11 } \\ \% \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 996,642 | 38.83 | U.S. Equities | -0.25 | 6.79 | 33.38 | 4.42 | 3.60 | 3.72 |
|  |  | Russell 3000 Index | -0.03 | 6.35 | 32.37 | 4.00 | 3.35 | 3.44 |
| 606,351 | 23.62 | Total International Equities | 1.76 | 4.08 | 31.98 | 2.28 | 6.42 | 8.92 |
| 485,121 | 18.90 | Int'I. Equities-Developed Markets |  |  |  |  |  |  |
|  |  | MSCI EAFE | 1.56 | 4.98 | 30.36 | -1.77 | 1.47 | 5.66 |
|  |  | International Equity Median | 1.83 | 5.32 | 32.32 | 0.72 | 3.83 | 7.78 |
| 121,230 | 4.72 | Int'l. Equities-Emerging Markets |  |  |  |  |  |  |
|  |  | MSCI Emerging Markets Free | -1.04 | 1.03 | 28.17 | 4.54 | 11.75 | 16.55 |
|  |  | Emerging Market Median | -0.63 | 0.31 | 27.46 | 5.75 | 12.92 | 16.83 |
| 1,602,993 | 62.46 | Total Equities - Public \& Private | 0.77 | 6.10 | 32.56 | 3.70 | 4.54 | 5.23 |
| 626,711 | 24.42 | U.S. Fixed Income | 2.03 | 3.56 | 6.69 | 7.62 | 7.17 | 6.63 |
| 350,008 | 13.64 | Total Government | n/a | n/a | n/a | n/a | n/a | n/a |
| 276,703 | 10.78 | Total Corporate | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a |
| 210,813 | 8.21 | Securities lending | n/a | n/a | n/a | $\mathrm{n} / \mathrm{a}$ | n/a | n/a |
| 126,064 | 4.91 | Short-term Investments | 0.23 | 0.34 | 0.43 | 1.34 | 2.78 | 2.67 |
| 2,566,580 | 100.00 | Total Portfolio | 1.10 | 5.41 | 24.19 | 5.34 | 5.62 | 6.02 |

[^5]These returns are calculated using a time weighted rate of return based on the market value of the portfolio, for time periods greater than one year the returns are annualized.

List of 50 Largest Equity Holdings (Fixed)
Fiscal Year Ended June 30, 2011

|  | NAME OF STOCKS HOLDINGS | PAR VALUE | MARKET VALUE |
| :---: | :---: | :---: | :---: |
| 1 | EXXON MOBIL CORP | \$ 10,286,662 | \$ 22,353,784 |
| 2 | APPLE INC COM | 3,135,653 | 17,689,473 |
| 3 | CHEVRON CORPORATION | 7,010,744 | 14,464,343 |
| 4 | GENERAL ELECTRIC CO | 10,412,565 | 11,811,676 |
| 5 | INTERNATIONAL BUSINESS MACHINES CORP | 4,182,560 | 11,570,361 |
| 6 | JPMORGAN CHASE \& CO | 8,743,154 | 11,538,980 |
| 7 | MICROSOFT CORP COM | 8,078,689 | 11,308,206 |
| 8 | AT\&T INC | 8,195,862 | 11,044,164 |
| 9 | PFIZER INC COM | 7,994,113 | 10,457,878 |
| 10 | PROCTER \& GAMBLE CO COM | 5,354,151 | 10,091,865 |
| 11 | WELLS FARGO \& CO NEW | 9,548,288 | 9,815,612 |
| 12 | JOHNSON \& JOHNSON COM | 4,570,437 | 9,113,573 |
| 13 | NYC CUSTOM STIF | 8,500,756 | 8,501,925 |
| 14 | INTEL CORPORATION | 5,107,142 | 8,434,916 |
| 15 | GOOGLE INC CLA | 5,981,109 | 8,234,752 |
| 16 | CONOCOPHILLIPS | 3,866,340 | 7,826,677 |
| 17 | QUALCOMM INC | 3,364,752 | 7,492,248 |
| 18 | VERIZON COMMUNICATIONS INC | 5,990,414 | 7,444,176 |
| 19 | COCA-COLA CO | 4,014,178 | 7,415,657 |
| 20 | ORACLE CORPORATION | 2,003,425 | 7,105,565 |
| 21 | CITIGROUP INC | 9,991,061 | 7,036,702 |
| 22 | PHILIP MORRIS INTL INC | 2,698,592 | 6,965,128 |
| 23 | BERKSHIRE HATHAWAY INC DEL | 7,132,912 | 6,775,030 |
| 24 | AMAZON COM INC | 2,002,067 | 6,539,386 |
| 25 | MERCK \& CO INC NEW | 4,830,759 | 6,462,378 |
| 26 | BANK OF AMER CORP | 10,762,476 | 6,306,614 |
| 27 | PEPSICO INC COM | 2,918,037 | 6,117,409 |
| 28 | SCHLUMBERGER LIMITED COM | 5,187,918 | 5,909,701 |
| 29 | WAL MART STORES INC | 3,205,487 | 5,339,082 |
| 30 | CISCO SYS INC | 4,007,146 | 5,125,122 |
| 31 | MC DONALDS CORPORATION COMMON | 1,735,269 | 5,032,471 |
| 32 | COMCAST CORP NEW CL A | 3,309,108 | 4,559,528 |
| 33 | GOLDMAN SACHS GROUP INC | 4,698,631 | 4,533,578 |
| 34 | UNITED HEALTH GROUP INC | 1,928,545 | 4,518,666 |
| 35 | OCCIDENTAL PETROLEUM CORPORATION COMMON | 1,126,488 | 4,299,124 |
| 36 | UNITED TECHNOLOGIES CORP | 1,500,240 | 4,225,998 |
| 37 | CATERPILLAR INC | 1,365,553 | 4,185,688 |
| 38 | ABBOTT LABORATORIES | 2,276,324 | 4,143,772 |
| 39 | HEWLETT PACKARD COMPANY | 2,094,732 | 4,060,808 |
| 40 | COGNIZANT TECHNOLOGY SOLUTIONS CORP CL A | 862,089 | 3,977,742 |
| 41 | FREEPORT-MCMORAN COPPER \& GOLD INC COM | 2,471,847 | 3,963,903 |
| 42 | 3M CO | 2,159,674 | 3,957,521 |
| 43 | UNION PACIFIC CORP | 1,669,537 | 3,793,784 |
| 44 | DISNEY (WALT) COMPANY . | 1,726,366 | 3,708,332 |
| 45 | MARATHON OIL CORP | 1,666,224 | 3,454,228 |
| 46 | US BANCORP DEL | 2,638,128 | 3,450,707 |
| 47 | CVS CAREMARK CORP | 1,899,106 | 3,447,852 |
| 48 | NETFLIX COM INC | 1,485,812 | 3,294,658 |
| 49 | ALTRIA GROUP INC | 1,374,590 | 3,274,481 |
| 50 | AMERICAN EXPRESS COMPANY | 1,231,726 | 3,230,943 |

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

|  | NAME OF BOND HOLDINGS | PAR VALUE | MARKET VALUE |
| :---: | :---: | :---: | :---: |
| 1 | TIPS POSITION HELD AT PIMCO | \$ 71,445,982 | \$ 76,512,128 |
| 2 | UNITED STATES TREAS NTS | 33,956,535 | 35,395,267 |
| 3 | U S TREASURY BONDS | 31,732,118 | 33,596,672 |
| 4 | FNMA TBA 30YR SFM 04.50\% JUL | 20,590,285 | 20,690,625 |
| 5 | FEDERAL NAT'L MTGE ASSN POOL \# AIO143 | 19,830,730 | 20,468,255 |
| 6 | FHLMC TBA 30YR GOLD SFM 04.50\% AUG | 15,546,094 | 15,447,656 |
| 7 | FEDERAL NAT'L MTGE ASSN POOL \# AH0527 | 13,922,159 | 14,086,327 |
| 8 | FEDERAL NAT'L MTGE ASSN POOL \# AE0949 | 13,004,100 | 13,062,050 |
| 9 | FEDERAL NAT'L MTGE ASSN POOL \# AB2089 | 11,276,444 | 11,658,527 |
| 10 | FNMA TBA 30YR 5.50\% JUL | 10,869,414 | 10,812,500 |
| 11 | FNMA TBA 15YR SFM 04.00\% JUL | 10,389,609 | 10,415,625 |
| 12 | GNMA I TBA SFM 4.00\% 30YR JULY | 10,166,983 | 10,160,473 |
| 13 | UNITED STATES TREAS BDS | 10,138,349 | 10,104,339 |
| 14 | FNMA TBA 15YR SFM 04.50\% AUG | 8,473,750 | 8,463,750 |
| 15 | GOV'T NAT'L MTG ASSN POOL \# 0737031 | 7,981,351 | 8,164,163 |
| 16 | FEDERAL NAT'L MTGE ASSN POOL \# AB2072 | 7,686,271 | 7,676,884 |
| 17 | GNMA I TBA 30YR SFM 05.00\% AUG | 7,557,949 | 7,561,094 |
| 18 | FEDERAL NAT'L MTGE ASSN POOL \# AB2087 | 7,095,152 | 7,056,533 |
| 19 | FHLMC TBA 30YR GOLD SFM 05.00\% JUL | 6,346,875 | 6,365,625 |
| 20 | NYC CUSTOM STIF | 6,349,561 | 6,351,087 |
| 21 | FED'L HOME LOAN MTGE CORP GRP \# G01820 | 6,097,415 | 6,242,698 |
| 22 | FHLMC TBA 30YR GOLD SFM 04.00\% JULY | 5,972,813 | 5,994,375 |
| 23 | FEDERAL NAT'L MTGE ASSN POOL \# AH1130 | 5,224,222 | 5,401,236 |
| 24 | FNMA TBA 30YR 5.00\% JUL | 5,325,313 | 5,312,500 |
| 25 | FEDERAL NAT'L MTGE ASSN POOL \# AB2810 | 4,870,044 | 5,025,997 |
| 26 | GOV'T NAT'L MTGE ASSN POOL \# 737797 | 4,749,050 | 4,834,276 |
| 27 | FNMA TBA 30YR JULY 6.50\% | 4,725,344 | 4,755,188 |
| 28 | FEDERAL NAT'L MTGE ASSN POOL \# AIO142 | 4,495,292 | 4,647,608 |
| 29 | GNMA TBA 30 YR 6.00\% JUL | 4,439,688 | 4,456,250 |
| 30 | FNMA TBA 30YR SFM 05.50\% AUG | 4,330,156 | 4,316,875 |
| 31 | FNMA TBA 30YR SFM 04.50\% AUG | 4,147,344 | 4,125,625 |
| 32 | FED'L HOME LOAN MTGE CORP GRP \# G04692 | 3,784,257 | 4,092,354 |
| 33 | FEDERAL HOME LN MTG CORP | 3,864,497 | 4,085,574 |
| 34 | GNMA I TBA SFM 4.00\% 30YR AUG | 4,063,000 | 4,062,500 |
| 35 | GOV'T NAT'L MTGE ASSN POOL \# 737814 | 3,934,997 | 3,912,090 |
| 36 | GOV'T NAT'L MTGE ASSN POOL \# 782520 | 3,650,978 | 3,782,309 |
| 37 | CITIGROUP INC | 3,678,295 | 3,635,628 |
| 38 | MORGAN STANLEY | 3,446,568 | 3,503,433 |
| 39 | FEDERAL NAT'L MTGE ASSN POOL \# 889334 | 3,386,431 | 3,467,143 |
| 40 | FEDERAL NAT'L MTGE ASSN POOL \# 745275 | 3,070,600 | 3,120,609 |
| 41 | FEDERAL NAT'L MTGE ASSN POOL \# AH6783 | 2,935,146 | 3,009,639 |
| 42 | FHLMC GOLD TBA 30 YR TBA 6.00\% | 2,974,422 | 2,965,359 |
| 43 | GOV'T NAT'L MTGE ASSN POOL \# 737904 | 2,918,768 | 2,928,818 |
| 44 | FEDERAL HOME LN BKS | 2,500,364 | 2,846,615 |
| 45 | U S TREASURY STRIPPED | 2,443,560 | 2,777,400 |
| 46 | GENERAL ELEC CAP CORP MEDIUM | 2,757,246 | 2,767,842 |
| 47 | JPMORGAN CHASE \& CO | 2,530,821 | 2,719,000 |
| 48 | FEDERAL NATL MTG ASSN | 2,357,202 | 2,573,968 |
| 49 | ALTRIA GROUP INC | 1,966,849 | 2,365,452 |
| 50 | GNMA I TBA 30YR SFM 05.50\% JUL | 2,186,875 | 2,200,625 |

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 Security Lending Holdings ("Variable A" Program)
Fiscal Year Ended June 30, 2011

|  | NAME OF SECURITY LENDING HOLDINGS "VARIABLE A" PROGRAM | PAR VALUE | MARKET VALUE |
| :---: | :---: | :---: | :---: |
| 1 | BNP D (Agency MBS \& Pass Throughs) | 251,209 | \$ 251,209 |
| 2 | JPM Z ("AAA" Private Labels \& ABS) | 234,336 | 234,336 |
| 3 | HSBC D (Agency MBS \& Pass Throughs) | 173,277 | 173,277 |
| 4 | DEU D (Agency MBS \& Pass Throughs) | 159,864 | 159,864 |
| 5 | UBS D (Agency MBS \& Pass Throughs) | 159,864 | 159,864 |
| 6 | RBS D (Agency MBS \& Pass Throughs) | 159,864 | 159,864 |
| 7 | BARC Y ("AAA" Corps) | 157,291 | 157,291 |
| 8 | HSBC O ("A" Corps, A1/P1 Money Market) | 107,440 | 107,440 |
| 9 | CITI 0 ("A" Corps, A1/P1 Money Market) | 100,284 | 100,284 |
| 10 | UBS Z ("AAA" Private Labels \& ABS) | 87,320 | 87,320 |
| 11 | UBS Y ("AAA" Corps) | 85,496 | 85,496 |
| 12 | CREDIT AGRICOLE NEW YORK (CAYMAN) TD 0.12\% 7/1/2011 | 83,129 | 83,129 |
| 13 | CREDIT INDUSTRIEL ET COMMERCIAL (CAYMAN) TD 0.01\% 7 | 81,530 | 81,530 |
| 14 | NORDEA BANK FINLAND PLC, NY BRANCH (CAYMAN) TD 0.01 | 75,935 | 75,935 |
| 15 | BNP Y ("AAA" Corps) | 75,228 | 75,228 |
| 16 | SOCIETE GENERALE NY (CAYMAN) TD 0.01\% 7/1/2011 | 73,537 | 73,537 |
| 17 | NATIXIS NEW YORK (CAYMAN) TD 0.09\% 7/1/2011 | 71,939 | 71,939 |
| 18 | CITI Z ("AAA" Private Labels \& ABS) | 59,390 | 59,390 |
| 19 | NATIONAL AUSTRALIA BANK LTD NEW York (CAYMAN) td 0. | 57,551 | 57,551 |
| 20 | BARC A (T Bills, Notes, Bonds \& STRIPS) | 55,714 | 55,714 |
| 21 | ML Z ("AAA" Private Labels \& ABS) | 49,002 | 49,002 |
| 22 | NORTHERN TRUST COMPANY (CAYMAN) TD 0.01\% 7/1/2011 | 37,568 | 37,568 |
| 23 | ARRMF 2007-3A A2B | 25,520 | 25,237 |
| 24 | HSBC BANK PLC (LONDON) TD 0.01\% 7/1/2011 | 23,180 | 23,180 |
| 25 | GRANM 2007-2 2A1 | 16,816 | 16,003 |
| 26 | MEDL 2007-1G A1 | 12,995 | 12,720 |
| 27 | GRANM 2007-1 2A1 | 10,542 | 10,033 |
| 28 | GRANM 2006-4 A4 | 7,831 | 7,453 |
| 29 | SLMA 2007-A A1 | 6,425 | 6,389 |
| 30 | BNP D (Agency MBS \& Pass Throughs) | 5,923 | 5,923 |
| 31 | KDRE 2007-1A A2 | 4,835 | 4,403 |
| 32 | GRAN 2003-2 1A3 | 2,920 | 2,813 |
| 33 | GRAN 2004-3 2A1 | 1,361 | 1,306 |
| 34 | CWL 2007-2 2A1 | 816 | 794 |
|  | JPMAC 2007-CH1 AV2 | 437 | 432 |
|  | IMT 2002-1G A2 | 330 | 330 |
|  | HSBC D (Agency MBS \& Pass Throughs) | 200 | 200 |

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

| NAME OF INT'L STOCKS HOLDINGS |  | PAR VALUE |  | MARKET VALUE |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | BANCO SANTANDER SA EUR 0.5 | \$ | 16,381,677 | \$ | 14,809,479 |
| 2 | ADIDAS AG NPV |  | 8,642,222 |  | 13,844,853 |
| 3 | NYC CUSTOM STIF |  | 13,518,114 |  | 13,519,065 |
| 4 | ATLAS COPCO AB NPV RFD |  | 7,388,779 |  | 13,223,211 |
| 5 | BHP BILLITON PLC U |  | 9,122,452 |  | 12,412,680 |
| 6 | CIE FINANCIERE RICHEMONT SA CHF 1.0 |  | 6,320,885 |  | 12,232,997 |
| 7 | CANON INC |  | 10,908,517 |  | 12,024,019 |
| 8 | NOVARTIS AG CHF 0.5 |  | 8,001,902 |  | 10,831,360 |
| 9 | TESCO PLC |  | 11,216,317 |  | 10,485,322 |
| 10 | RAKUTEN INC |  | 5,956,572 |  | 10,170,319 |
| 11 | PPR EUR 4.0 |  | 6,500,886 |  | 9,955,224 |
| 12 | SMC CORP/JAPAN JPY 50.0 |  | 6,265,126 |  | 9,704,935 |
| 13 | STANDARD CHARTERED PLC USD 0.5 |  | 9,367,914 |  | 9,077,388 |
| 14 | BAIDU INC NPV ADR |  | 2,007,424 |  | 8,734,611 |
| 15 | WOODSIDE PETROLEUM LTD |  | 7,527,310 |  | 8,209,975 |
| 16 | INDITEX SA EUR 0.15 |  | 5,093,693 |  | 7,641,192 |
| 17 | BRITISH AMERICAN TOBACCO P GBP 0.25 |  | 5,579,038 |  | 7,501,017 |
| 18 | HSBC HOLDINGS HONGKONG REG |  | 8,005,194 |  | 7,445,556 |
| 19 | TOTAL SA EUR 2.5 |  | 6,210,324 |  | 7,314,920 |
| 20 | L'OREAL SA EUR 0.2 |  | 6,000,031 |  | 7,308,527 |
| 21 | ROYAL DUTCH SHELL PLC-B SHS |  | 5,740,051 |  | 6,877,712 |
| 22 | TENCENT HOLDINGS LTD HKD 0.0001 |  | 4,508,592 |  | 6,867,064 |
| 23 | SABMILLER PLC USD |  | 4,364,800 |  | 6,648,476 |
| 24 | SAP AG NPV |  | 5,519,374 |  | 6,525,462 |
| 25 | NESTLE SA CHF 0.1 |  | 2,933,067 |  | 6,377,692 |
| 26 | GEBERIT AG CHF 0.1 |  | 3,717,464 |  | 6,367,922 |
| 27 | PRUDENTIAL PLC ORD GBP 0.05 |  | 5,354,814 |  | 6,219,179 |
| 28 | NOVO NORDISK A/S DKK 1.0 |  | 3,011,223 |  | 6,217,714 |
| 29 | BAYERISCHE MOTOREN WERKE AG EUR 1.0 |  | 2,632,497 |  | 6,126,080 |
| 30 | ROLLS-ROYCE HOLDINGS PLC 20P |  | 4,971,237 |  | 6,058,898 |
| 31 | SYNGENTA AG CHF 0.1 |  | 5,095,923 |  | 5,986,264 |
| 32 | SVENSKA HANDELSBANKEN-A SHS |  | 4,991,657 |  | 5,960,662 |
| 33 | MEGGITT PLC |  | 4,700,522 |  | 5,911,892 |
| 34 | SANDVIK AB NPV |  | 5,145,259 |  | 5,800,258 |
| 35 | PORSCHE AUTOMOBIL HOLDING SE NPV |  | 8,115,427 |  | 5,742,559 |
| 36 | ESSILOR INTL SA CIE GEN D'OPTIQUE |  | 4,241,149 |  | 5,709,317 |
| 37 | TURKIYE GARANTI TRY 500.0 ADR 144A |  | 4,308,975 |  | 5,655,669 |
| 38 | CARNIVAL PLC USD 1 |  | 5,266,789 |  | 5,604,581 |
| 39 | WOOLWORTHS LTD NPV |  | 4,527,772 |  | 5,477,792 |
| 40 | HONDA MOTOR CO LTD NPV |  | 4,090,570 |  | 5,470,774 |
| 41 | BRAMBLES LTD NPV |  | 5,756,626 |  | 5,450,814 |
| 42 | SWATCH GROUP AG/THE CHF 2.25 |  | 2,587,031 |  | 5,121,505 |
| 43 | SAMSUNG ELECTERS |  | 3,467,553 |  | 5,090,538 |
| 44 | FORTESCUE METALS GROUP LTD |  | 2,927,395 |  | 4,843,437 |
| 45 | KEYENCE CORP |  | 3,010,349 |  | 4,482,850 |
| 46 | AUSTRALIA AND NZ BANKING GROUP |  | 3,274,748 |  | 4,457,602 |
| 47 | ABB LTD CHF 1.03 |  | 2,666,169 |  | 4,445,182 |
| 48 | ITAU UNIBANCO HOLDING S.A. |  | 3,442,621 |  | 4,348,675 |
| 49 | BG GROUP PLC 10P |  | 3,905,644 |  | 4,261,098 |
| 50 | DENSO CORP NPV |  | 3,086,597 |  | 4,257,461 |

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
Fiscal Year Ended June 30, 2011

| NAME OF TIPS HOLDINGS | PAR VALUE | MARKET VALUE |
| :---: | :---: | :---: |
| UNITED STATES TREA 3.375 15JAN12 IL | \$8,362,116 | \$8,461,666 |
| UNITED STATES TREAS 2.375 15JAN2017 | 6,360,933 | 6,605,241 |
| UNITED STATES TREAS 1.875 15JUL2015 | 5,952,410 | 6,256,899 |
| US TREAS BDS I 3.625 15APR28 | 4,119,126 | 4,616,238 |
| US TREAS 2.375 | 3,433,592 | 3,965,160 |
| UNITED STATES TREA 1.625 15JAN18 IL | 3,387,518 | 3,858,533 |
| UNITED STATES TREAS 2.0 15APR12 IL | 3,776,547 | 3,808,269 |
| US TREAS 2.0 15JUL | 3,252,455 | 3,628,809 |
| US TREAS BDS I 3.875 15APR2029 | 3,281,175 | 3,603,226 |
| UNITED STATES TREAS BDS | 2,980,113 | 3,483,712 |
| UNITED STATES TREAS BD 1.75 15JAN28 | 3,223,189 | 3,456,224 |
| UNITED STATES TREAS 2.375 15JAN2027 | 2,856,148 | 3,334,374 |
| UNITED STATES TREAS 1.25 15JUL20 IL | 3,028,890 | 3,151,802 |
| UNITED STATES TREAS 2.5 15JUL16 IL | 3,025,769 | 3,115,612 |
| FORWARD USD/EUR | 2,985,840 | 2,985,840 |
| FORWARD USD/AUD | 2,951,479 | 2,951,479 |
| UNITED STATES TREA 2.125 15FEB41 IL | 2,518,623 | 2,565,265 |
| TSY INFL IX N/B | 2,354,581 | 2,494,468 |
| UNITED STATES TREA 2.625 15JUL17 IL | 2,073,274 | 2,316,584 |
| AUSTRALIA GOVERNMENT 4.0 20AUG20 IL | 1,539,024 | 1,923,179 |
| ITALY BUONI POLIENNA 2.1 15SEP16 IL | 1,572,944 | 1,526,714 |
| ITALY BUONI POLIENNA 2.1 15SEP21 IL | 1,433,416 | 1,463,274 |
| UNITED STATES TREAS N 0.625 15APR13 | 1,285,393 | 1,316,006 |
| US TREAS 1.875 | 903,960 | 1,013,291 |
| ALLY FINANCIAL 0.2465 19DEC12 FRN | 871,320 | 872,100 |
| NEW SOUTH WALES TRE 2.75 20NOV25 IL | 539,899 | 702,695 |
| US TREASURY 3.375 | 591,388 | 692,472 |
| US TREAS N 3.0 | 468,045 | 472,790 |
| UNITED STATES TREA 0.125 15APR16 IL | 326,689 | 334,034 |
| BANK NOVA SCOTIA INSTL 09AUG12 FRN | 320,484 | 321,055 |
| UNITED STATES TREA 2.125 15FEB40 IL | 246,659 | 271,850 |
| UNITED STATES TREAS 1.25 15APR14 IL | 229,705 | 255,424 |
| ISRAEL ST 5.518 SEP 23 | 236,346 | 254,640 |
| AUSTRALIA GOVERNMENT 2.5 20SEP30 IL | 195,746 | 227,335 |
| AUSTRALIA GOVERNMENT 3.0 20SEP25 IL | 108,504 | 137,105 |
| FEDERAL HOME LN MTG COR 0.0 26SEP11 | 94,521 | 94,523 |
| FEDERAL HOME LOAN BANK DISCOUNT | 32,876 | 32,878 |
| NYC CUSTOM STIF | 23,238 | 23,251 |
| AUSTRALIAN DOLLAR | 71 | 59 |
| EURO | 59 | 59 |
| POUNDS STERLING | 9 | 8 |

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

|  | NAME OF ECONOMICALLY TARGETED INVESTMENTS | PAR VALUE | MARKET VALUE |
| :---: | :---: | :---: | :---: |
| 1 | FEDERAL NAT'L MTGE ASSN POOL \# 3490 | \$255,406 | \$254,738 |
| 2 | NYC CUSTOM STIF | 140,232 | 140,203 |
| 3 | GOV'T NAT'L MTG ASSN POOL\# 0738395 | 118,084 | 118,565 |
| 4 | FEDERAL NAT'L MTGE ASSN POOL \# 3485 | 102,497 | 102,067 |
| 5 | GOV'T NATL MTG ASSN II POOL\# 770735 | 97,068 | 96,786 |
| 6 | FEDERAL NAT'L MTGE ASSN POOL \# 3484 | 90,492 | 90,187 |
| 7 | FEDERAL NAT'L MTGE ASSN POOL \# AH8883 | 86,977 | 85,282 |
| 8 | CPC\#10920 20 NORTH 5TH ST BROOKLYN,NY | 78,686 | 72,550 |
| 9 | LIIF\#2 405 WILLIAMS CPC\#10993 | 75,958 | 76,391 |
| 10 | FEDERAL NAT'L MTGE ASSN POOL \# 7106 | 62,154 | 62,285 |
| 11 | GOV'T NAT'L MTG ASSN POOL\# 0770388 | 59,863 | 59,692 |
| 12 | GOV'T NAT'L MTG ASSN POOL\# 741058 | 58,957 | 58,832 |
| 13 | CARVER \#006 107-109 W 37TH STREET | 54,789 | 53,404 |
| 14 | FED'L HOME LOAN MTGE CORP GRP \# A80305 | 51,280 | 47,669 |
| 15 | FEDERAL NAT'L MTGE ASSN POOL \# AE2514 | 43,210 | 43,873 |
| 16 | FEDERAL NAT'L MTGE ASSN POOL \# AE2480 | 41,868 | 41,840 |
| 17 | FEDERAL NAT'L MTGE ASSN POOL \# AE7615 | 40,398 | 40,938 |
| 18 | FED'L HOME LOAN MTGE CORP GRP \# A80608 | 40,007 | 36,348 |
| 19 | FEDERAL NAT'L MTGE ASSN POOL \# 966194 | 39,887 | 36,731 |
| 20 | FED'L HOME LOAN MTGE CORP GRP \# A80942 | 37,677 | 33,556 |
| 21 | FED'L HOME LOAN MTGE CORP GRP \# A93203 | 37,619 | 37,429 |
| 22 | FED'L HOME LOAN MTGE CORP GRP \# A75660 | 36,153 | 33,649 |
| 23 | FEDERAL NAT'L MTGE ASSN POOL \# AD9592 | 35,686 | 35,697 |
| 24 | FEDERAL NAT'L MTGE ASSN POOL \# 257956 | 35,387 | 32,670 |
| 25 | FED'L HOME LOAN MTGE CORP GRP \# A93391 | 34,103 | 34,457 |
| 26 | CCB \#1 938 ST NICHOLAS | 33,752 | 30,453 |
| 27 | FEDERAL NAT'L MTGE ASSN POOL \# AE4796 | 33,329 | 34,441 |
| 28 | GOV'T NATL MTG ASSN II POOL\# 763246 | 32,894 | 31,998 |
| 29 | FEDERAL NAT'L MTGE ASSN POOL \# 3494 | 29,560 | 29,535 |
| 30 | FED'L HOME LOAN MTGE CORP GRP \# A93202 | 29,228 | 29,350 |
| 31 | FED'L HOME LOAN MTGE CORP GRP \# Q01251 | 29,040 | 28,922 |
| 32 | FEDERAL NAT'L MTGE ASSN POOL \#AE6847 | 28,879 | 29,796 |
| 33 | FEDERAL NAT'L MTGE ASSN POOL \# 5866 | 28,654 | 29,217 |
| 34 | FEDERAL NAT'L MTGE ASSN POOL \# 1845 | 28,274 | 28,032 |
| 35 | FEDERAL NAT'L MTGE ASSN POOL \# 5552 | 28,254 | 27,419 |
| 36 | FEDERAL NAT'L MTGE ASSN POOL \# AD9611 | 27,453 | 27,552 |
| 37 | FED'L HOME LOAN MTGE CORP GRP \# A77241 | 27,229 | 25,164 |
| 38 | FEDERAL NAT'L MTGE ASSN POOL \# 899920 | 27,065 | 24,974 |
| 39 | GOV'T NAT'L MTG ASSN POOL\# 698161 | 26,668 | 26,482 |
| 40 | FEDERAL NAT'L MTGE ASSN POOL \# 3493 | 26,650 | 26,708 |
| 41 | LIIF \#1 451 48TH ST CPC \#10598 | 25,803 | 25,573 |
| 42 | FEDERAL NAT'L MTGE ASSN POOL \# AD7241 | 25,375 | 25,093 |
| 43 | FED'L HOME LOAN MTGE CORP GRP \# A80624 | 24,509 | 22,267 |
| 44 | FEDERAL NAT'L MTGE ASSN POOL \# 5551 | 24,414 | 23,684 |
| 45 | CPC \#10386 2 WEST 129TH STREET | 23,544 | 21,518 |
| 46 | FEDERAL NAT'L MTGE ASSN POOL \# 933374 | 22,255 | 20,736 |
| 47 | FED'L HOME LOAN MTGE CORP GRP \# A63615 | 22,229 | 19,933 |
| 48 | FEDERAL NAT'L MTGE ASSN POOL \# AE5858 | 22,178 | 22,388 |
| 49 | FEDERAL NAT'L MTGE ASSN POOL \# 135 | 22,005 | 21,529 |
| 50 | FED'L HOME LOAN MTGE CORP GRP \# A93392 | 21,546 | 21,554 |

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, 2011

| INDIVIDUAL ORBROKERAGE FIRM | \# OF SHARES |  |  | COMMISSION |
| :---: | :---: | :---: | :---: | :---: |
|  | NATURE OF SERVICES | TRADED | COMMISSION | PAID |
| ABEL NOSER CORPORATION | Equity | 73,900.00 | 0.0100 | 739.00 |
| AMERICAN PORTFOLIOS FINANCIAL | Equity | 1,804.00 | 0.0494 | 89.09 |
| AMERICAN TECHNOLOGY RESEARCH | Equity | 8,075.00 | 0.0307 | 247.80 |
| ASSENT LLC | Equity | 220,819.00 | 0.0094 | 2,074.27 |
| AURIGA USA LLC | Equity | 1,194.00 | 0.0145 | 17.28 |
| AVIAN SECURITIES INC | Equity | 21,200.00 | 0.0200 | 424.00 |
| AVONDALE PARTNERS, LLC | Equity | 9,649.00 | 0.0292 | 281.57 |
| B RILEY AND CO INC. | Equity | 7,720.00 | 0.0200 | 154.40 |
| BAIRD ROBERT W \& CO INC | Equity | 140,721.00 | 0.0369 | 5,189.33 |
| BARCLAYS CAPITAL INC/LE | Equity | 59,910.00 | 0.0328 | 1,964.18 |
| BARCLAYS CAPITAL LE | Equity | 453,005.00 | 0.0223 | 10,102.79 |
| BARCLAYS GLOBAL INVESTORS | Equity | 1,611,390.00 | 0.0053 | 8,566.53 |
| BAYPOINT TRADING LLC | Equity | 26,404.00 | 0.0344 | 908.86 |
| BLAIR WILLIAM \& COMPANY LLC | Equity | 122,650.00 | 0.0392 | 4,806.77 |
| BLAYLOCK \& CO INC | Equity | 24,073.00 | 0.0387 | 930.61 |
| BLOOMBERG TRADEBOOK LLC | Equity | 90,836.00 | 0.0150 | 1,362.52 |
| BLUEFIN RESEARCH PARTNER INC. | Equity | 9,420.00 | 0.0400 | 376.80 |
| BMO NESBITT BURNS CORP | Equity | 11,375.00 | 0.0400 | 455.00 |
| BNP PARIBAS BROKERAGE SEC INC | Equity | 6,625.00 | 0.0400 | 265.00 |
| BNP PARIBAS SECURITIES CORP IB | Equity | 20,200.00 | 0.0200 | 404.00 |
| BNP SECURITIES (U.S.A.) INC | Equity | 24,750.00 | 0.0237 | 587.25 |
| BNY BROKERAGE INC | Equity | 29,268.00 | 0.0346 | 1,011.47 |
| BNY CONVERGEX EXEC SOLUTIONS | Equity | 51,206.00 | 0.0115 | 587.06 |
| BOE SECS INC/BROADCORT CAP | Equity | 152,291.00 | 0.0382 | 5,815.25 |
| BREAN MURRAY CARRET\& CO. LLC | Equity | 21,510.00 | 0.0421 | 904.65 |
| BUCKINGHAM RESEARCH GROUP INC | Equity | 3,267.00 | 0.0472 | 154.29 |
| CABRERA CAPITAL MARKETS | Equity | 619,210.00 | 0.0177 | 10,930.54 |
| CANACCORO ADAMS INC | Equity | 39,793.00 | 0.0369 | 1,469.12 |
| CANTOR FITZGERALD \& CO . INC | Equity | 436,405.00 | 0.0363 | 15,840.56 |
| CANTOR FITZGERALD/CASTLEOAK | Equity | 30,113.00 | 0.0339 | 1,021.68 |
| CAP INSTL SVCS INC-EQUITIES | Equity | 27,360.00 | 0.0454 | 1,242.00 |
| CARIS AND COMPANY INC. | Equity | 5,684.00 | 0.0307 | 174.22 |
| CHARLES SCHWAB \& CO. | Equity | 85,500.00 | 0.0065 | 554.90 |
| CHEEVERS \& CO INC | Equity | 251,414.00 | 0.0299 | 7,507.74 |
| CITATION GROUP/BCC CLRG | Equity | 25,907.00 | 0.0481 | 1,246.45 |
| CITIGROUP GLOBAL MARKETS INC | Equity | 2,453,132.00 | 0.0092 | 22,625.43 |


| INDIVIDUAL OR |  | \# OF SHARES |  | COMMISSION PAID |
| :---: | :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NATURE OF SERVICES | TRADED | COMMISSION |  |
| CJS SECURITIES INC | Equity | 35,270.00 | 0.0392 | 1,382.40 |
| CJS SECURITIES INC. | Equity | 234.00 | 0.0200 | 4.68 |
| CLEARVIEW CORRESPONDENT SVCS | Equity | 42,545.00 | 0.0366 | 1,558.90 |
| COLLINS STEWART LLC | Equity | 21,225.00 | 0.0415 | 880.25 |
| COWEN \& CO LLC | Equity | 109,539.00 | 0.0346 | 3,793.10 |
| CRAIG - HALLUM | Equity | 31,030.00 | 0.0316 | 980.50 |
| CREDIT RESEARCH TRADING L.L.C | Equity | 14,400.00 | 0.0304 | 438.00 |
| CREDIT SUISSE FIRST BOSTON | Equity | 2,252,601.00 | 0.0066 | 14,932.66 |
| CROWELL WEEDON \& CO | Equity | 5,300.00 | 0.0400 | 212.00 |
| CSI US INSTITUTIONAL DESK | Equity | 41,085.00 | 0.0402 | 1,649.63 |
| CUTTONE \& CO. INC | Equity | 6,075.00 | 0.0225 | 136.69 |
| DAHLMAN ROSE \& COMPANY, LLC | Equity | 15,750.00 | 0.0400 | 630.00 |
| DAIWA SEC AMERICA INC | Equity | 2,450.00 | 0.0300 | 73.50 |
| DAVENPORT \& COMPANY LLC | Equity | 1,322.00 | 0.0400 | 52.88 |
| DAVIDSON D.A \& CO INC NSCC | Equity | 29,000.00 | 0.0411 | 1,192.00 |
| DEUTSCHE BANC/ALEX BROWN | Equity | 4,420,014.00 | 0.0058 | 25,442.86 |
| DEUTSCHE BANK ALEX BROWN | Equity | 3,620.00 | 0.0366 | 132.35 |
| DIRECT ACCESS PARTNERS LLC | Equity | 77,298.00 | 0.0275 | 2,127.05 |
| DIVINE CAPITAL MARKETS LLC - E | Equity | 104,324.00 | 0.0200 | 2,086.48 |
| DOUGHERTY COMPANY | Equity | 13,073.00 | 0.0390 | 509.66 |
| DOWLING \& PARTNERS | Equity | 1,100.00 | 0.0400 | 44.00 |
| FIDELITY CAPITAL MARKETS | Equity | 23,875.00 | 0.0223 | 533.19 |
| FIG PARTNERS LLC | Equity | 11,338.00 | 0.0411 | 466.52 |
| FIRST ANALYSIS SECS CORP | Equity | 12,115.00 | 0.0438 | 530.55 |
| FIRST ANALYSIS SECURITIES CORP | Equity | 6,730.00 | 0.0452 | 303.90 |
| FIRST CLEARING, LLC | Equity | 2,504.00 | 0.0400 | 100.16 |
| FRIEDMAN, BILLINGS \& RAMSEY | Equity | 36,325.00 | 0.0397 | 1,440.80 |
| GARDNER RICH \& COMPANY | Equity | 27,165.00 | 0.0419 | 1,138.66 |
| GLEACHER NATWEST INC | Equity | 670.00 | 0.0500 | 33.50 |
| GLOBAL HUNTER SECURITIES, LLC | Equity | 6,395.00 | 0.0349 | 223.30 |
| GOLDMAN SACHS \& CO | Equity | 1,148,094.00 | 0.0141 | 16,150.24 |
| GOLDMAN SACHS EXECUTION \& CL | Equity | 948,022.00 | 0.0083 | 7,861.12 |
| GREENTREE BROKERAGE SERVICES | Equity | 56,316.00 | 0.0110 | 619.00 |
| GUGGENHEIM CAPITAL MARKETS LLC | Equity | 3,200.00 | 0.0350 | 112.00 |
| GUZMAN \& COMPANY | Equity | 734,508.00 | 0.0242 | 17,791.74 |
| HEFLIN \& CO LLC | Equity | 14,825.00 | 0.0400 | 593.00 |


| INDIVIDUAL OR |  | \# OF SHARES |  | COMMISSION PAID |
| :---: | :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NATURE OF SERVICES | TRADED | COMMISSION |  |
| HEIGHT SECURITIES, LLC | Equity | 8,000.00 | 0.0400 | 320.00 |
| HOWARD WEIL INCORPORATED | Equity | 3,509.00 | 0.0413 | 144.93 |
| HUDSON SECURITIES, INC | Equity | 5,175.00 | 0.0427 | 220.75 |
| INSTINET CLEARING SERVICES INC | Equity | 6,342.00 | 0.0025 | 15.95 |
| INSTINET CORPORATION | Equity | 622,249.00 | 0.0197 | 12,284.06 |
| INVESTMENT TECHNOLOGY GROUP | Equity | 561,258.00 | 0.0122 | 6,847.54 |
| ISI GROUP, INC. | Equity | 70,350.00 | 0.0249 | 1,752.00 |
| ISLAND TRADER SECURITIES INC | Equity | 18,550.00 | 0.0433 | 803.50 |
| ITG INC | Equity | 284.00 | 0.0125 | 3.55 |
| IVY SECURITIES, INC | Equity | 24,016.00 | 0.0300 | 720.48 |
| J.P MORGAN SECURITIES INC. | Equity | 255,251.00 | 0.0346 | 8,821.80 |
| J.P. MORGAN CLEARING CORP. | Equity | 221,496.00 | 0.0089 | 1,969.86 |
| JANNEY MONTGOMERY SCOTT INC. | Equity | 28,490.00 | 0.0400 | 1,139.60 |
| JEFFERIES \& COMPANY | Equity | 16,130.00 | 0.0395 | 637.80 |
| JEFFERIES \& COMPANY, INC. | Equity | 224,053.00 | 0.0307 | 6,878.72 |
| JMP SECURITIES | Equity | 60,300.00 | 0.0440 | 2,653.78 |
| JNK SECURITIES INC | Equity | 14,200.00 | 0.0200 | 284.00 |
| JOHNSON RICE \& CO | Equity | 8,350.00 | 0.0470 | 392.11 |
| JONESTRADING INST SVCS LLC | Equity | 34,995.00 | 0.0255 | 892.00 |
| KAUFMAN BROTHERS | Equity | 14,195.00 | 0.0451 | 640.75 |
| KEEFE BRUYETTE \& WOODS INC. | Equity | 118,733.00 | 0.0376 | 4,458.57 |
| KEYBANC CAPITAL MARKETS INC. | Equity | 16,775.00 | 0.0394 | 661.71 |
| KING, CL, \& ASSOCIATES | Equity | 27,707.00 | 0.0378 | 1,046.91 |
| KNIGHT CLEARING SERVICES LLC | Equity | 42,327.00 | 0.0079 | 333.13 |
| KNIGHT EQITY MARKETS L.P. | Equity | 46,708.00 | 0.0217 | 1,013.04 |
| KNIGHT SECURITIES | Equity | 23,951.00 | 0.0280 | 670.72 |
| LABRANCHE FINANCIAL SVCS LLC | Equity | 10,600.00 | 0.0200 | 212.00 |
| LAZARD FRERES \& COMPANY | Equity | 34,591.00 | 0.0319 | 1,104.92 |
| LEERINK SWANN AND COMPANY | Equity | 60,961.00 | 0.0382 | 2,328.88 |
| LIQUIDNET INC | Equity | 434,905.00 | 0.0166 | 7,240.85 |
| LONGBOW SECURITIES LLC | Equity | 8,480.00 | 0.0357 | 302.40 |
| LOOP CAPITAL MARKETS | Equity | 239,352.00 | 0.0289 | 6,913.56 |
| LOOP CAPITAL MKTS,LLC | Equity | 77,192.00 | 0.0343 | 2,650.02 |
| LYNCH JONES \& RYAN INC | Equity | 164,032.00 | 0.0096 | 1,574.09 |
| M. RAMSEY KING SECURITIES | Equity | 5,855.00 | 0.0317 | 185.88 |
| MACQUARIE SECS USA INC | Equity | 9,175.00 | 0.0400 | 367.00 |


| INDIVIDUAL OR |  | \# OF SHARES |  | COMMISSION PAID |
| :---: | :---: | :---: | :---: | :---: |
| BROKERAGE FIRM | NATURE OF SERVICES | TRADED | COMMISSION |  |
| MADISON WILLIAMS AND COMPANY | Equity | 4,204.00 | 0.0280 | 117.88 |
| MAXIM GROUP | Equity | 480.00 | 0.0400 | 19.20 |
| MELVIN SECURITIES | Equity | 127,800.00 | 0.0150 | 1,912.57 |
| MERRILL LYNCH PIERCE FENNER | Equity | 3,415,008.00 | 0.0101 | 34,488.64 |
| MERRILL LYNCH PROFESSIONAL | Equity | 110,100.00 | 0.0335 | 3,685.00 |
| MERRIMAN CURHAN FORD \& CO | Equity | 12,465.00 | 0.0189 | 235.38 |
| MIDWOOD SECURITIES | Equity | 10,151.00 | 0.0400 | 406.04 |
| MILLER,TABAK, HIRSCH \& CO | Equity | 5,698.00 | 0.0337 | 191.96 |
| MISCHLER FINANCIAL GROUP, INC | Equity | 6,880.00 | 0.0317 | 218.20 |
| MIZUHO SECURITIES USA INC | Equity | 900.00 | 0.0400 | 36.00 |
| MKM PARTNERS LLC | Equity | 2,825.00 | 0.0427 | 120.50 |
| MONTROSE SECURITIES EQUITIES | Equity | 23,430.00 | 0.0400 | 937.20 |
| MORGAN KEEGAN \& COMPANY, INC. | Equity | 64,084.00 | 0.0451 | 2,893.08 |
| MORGAN STANLEY \& CO | Equity | 1,679,898.00 | 0.0097 | 16,363.58 |
| MORGAN STANLEY DW INC | Equity | 31,359.00 | 0.0288 | 904.36 |
| MR BEAL \& COMPANY | Equity | 382,813.00 | 0.0258 | 9,892.14 |
| NATL FINANCIAL SERVICES CORP | Equity | 71,675.00 | 0.0297 | 2,131.63 |
| NEEDHAM \& CO | Equity | 94,753.00 | 0.0377 | 3,567.86 |
| NOBLE INTL INVESTMENTS INC | Equity | 195.00 | 0.0200 | 3.90 |
| NOMURA SECURITIES INTL INC | Equity | 56,536.00 | 0.0230 | 1,299.97 |
| NORTH SOUTH CAPITAL LLC | Equity | 24,789.00 | 0.0486 | 1,205.37 |
| NORTHLAND SECURITIES INC. | Equity | 4,690.00 | 0.0200 | 93.80 |
| O'NEIL, WILLIAM \& CO/BCC CLRG | Equity | 13,300.00 | 0.0500 | 665.00 |
| OPPENHEIMER AND CO INC | Equity | 130,927.00 | 0.0373 | 4,888.06 |
| PACIFIC AMERICAN SECS LLC | Equity | 237,674.00 | 0.0396 | 9,418.15 |
| PACIFIC CREST SECS | Equity | 66,680.00 | 0.0373 | 2,485.70 |
| PENSERRA SECURITIES LLC | Equity | 555.00 | 0.0325 | 18.06 |
| PENSON FINANCIL SER INC./RIDGE | Equity | 27,074.00 | 0.0176 | 476.17 |
| PERSHING \& COMPANY | Equity | 124,490.00 | 0.0079 | 982.60 |
| PIPELINE TRADING SYSTEMS LLC | Equity | 7,000.00 | 0.0189 | 132.00 |
| PIPER JAFFRAY \& CO | Equity | 173,795.00 | 0.0322 | 5,603.09 |
| PODESTA \& CO | Equity | 2,230.00 | 0.0500 | 111.50 |
| PRITCHARD CAPITAL PARTNERS LLC | Equity | 1,551.00 | 0.0200 | 31.02 |
| PULSE TRADING LLC | Equity | 67,125.00 | 0.0211 | 1,414.07 |
| RAYMOND, JAMES \& ASSOC., INC. | Equity | 51,142.00 | 0.0399 | 2,041.64 |
| RBC CAPITAL MARKETS CORP | Equity | 80,493.00 | 0.0344 | 2,770.86 |


| INDIVIDUAL ORBROKERAGE FIRM | \# OF SHARES |  |  | COMMISSION |
| :---: | :---: | :---: | :---: | :---: |
|  | NATURE OF SERVICES | TRADED | COMMISSION | PAID |
| RODMAN \& RENSHAW LLC | Equity | 13,271.00 | 0.0240 | 318.67 |
| ROSENBLATT SECURITIES LLC | Equity | 33,500.00 | 0.0202 | 678.25 |
| ROTH CAPITAL PARTNERS, LLC | Equity | 9,450.00 | 0.0492 | 465.20 |
| SANDLER O'NEILL \& PARTNERS LP | Equity | 28,307.00 | 0.0400 | 1,132.28 |
| SANFORD C BERNSTEIN \& CO.,LLC | Equity | 217,702.00 | 0.0250 | 5,440.07 |
| SG AMERICAS SECURITIES LLC | Equity | 759,050.00 | 0.0100 | 7,613.00 |
| SIDOTI \& COMPANY, LLC | Equity | 46,151.00 | 0.0373 | 1,721.00 |
| SIGNAL HILL CAPITAL GROUP LLC | Equity | 2,580.00 | 0.0342 | 88.20 |
| SJ LEVINSON \& SONS LLC | Equity | 1,425.00 | 0.0400 | 57.00 |
| SOLEIL SECURITIES CORP. | Equity | 8,317.00 | 0.0238 | 198.34 |
| STATE ST GLOBAL MARKETS LLC | Equity | 11,625.00 | 0.0300 | 348.75 |
| STEPHENS, INC. | Equity | 6,675.00 | 0.0400 | 267.00 |
| STERNE AGEE \& LEACH INC | Equity | 39,717.00 | 0.0375 | 1,490.34 |
| STIFEL NICHOLAUS \& CO, INC | Equity | 175,700.00 | 0.0360 | 6,326.28 |
| STUART FRANKEL \& CO INC | Equity | 997.00 | 0.0200 | 19.94 |
| STURDIVANT AND CO., INC. | Equity | 5,900.00 | 0.0400 | 236.00 |
| SUNTRUST CAPITAL MARKETS, INC | Equity | 26,116.00 | 0.0341 | 890.46 |
| THE BENCHMARK CO LLC | Equity | 27,194.00 | 0.0360 | 979.60 |
| THE WILLIAMS CAPITAL GROUP LP | Equity | 238,944.00 | 0.0221 | 5,284.65 |
| THINKEQUITY PARTNERS LLC | Equity | 9,815.00 | 0.0413 | 405.55 |
| UBS SECURITIES LLC | Equity | 300,419.00 | 0.0174 | 5,215.80 |
| UNIVERSAL NETWORK EXCHANGE INC | Equity | 55.00 | 0.0200 | 1.10 |
| VANDHAM SECURITIES CORP | Equity | 10,400.00 | 0.0162 | 168.00 |
| W J BONFANTI INC | Equity | 4,493.00 | 0.0316 | 141.86 |
| WEDBUSH MORGAN SECURITIES,INC. | Equity | 54,603.00 | 0.0371 | 2,023.90 |
| WEDGE SECURITIES LLC | Equity | 1,025.00 | 0.0400 | 41.00 |
| WEEDEN \& CO | Equity | 11,793.00 | 0.0127 | 149.49 |
| WELLS FARGO INVESTMENTS, LLC | Equity | 714.00 | 0.0500 | 35.70 |
| WELLS FARGO SECS LLC | Equity | 70,945.00 | 0.0392 | 2,780.95 |
| WJB CAPITAL GROUP, INC. | Equity | 9,018.00 | 0.0363 | 327.76 |
| WUNDERLICH SECURITIES INC. | Equity | 995.00 | 0.0400 | 39.80 |
| YAMNER \& COMPANY, INC. | Equity | 311,911.00 | 0.0132 | 4,103.76 |
| BNP PARIBAS BROKERAGE SEC INC | Fixed | 6,200.00 | 0.0332 | 206.00 |
| BANK VONTOBEL AG, ZURICH | International | 7,335.870 | 0.2904 | 2,130.65 |
| BNP PARIBAS EQUITIES | International | 81,987.520 | 0.0115 | 939.68 |
| BNP PARIBAS SECS SERVICES, LDN | International | 13,896.200 | 0.0437 | 607.53 |


| INDIVIDUAL OR |  | \# OF SHARES |  | COMMISSION |
| :--- | :--- | ---: | ---: | ---: |
| BROKERAGE FIRM | NATURE OF SERVICES | TRADED | COMMISSION | PAID |
| BNP PARIBAS SECURITIES SVCS | International | $14,185.350$ | 0.0714 | $1,013.43$ |
| BROCKHOUSE AND COOPER MONTREAL CANA | International | $214,919.710$ | 0.0065 | $1,389.41$ |
| BROCKHOUSE COOPER SA PTY | International | $9,050.100$ | 0.2334 | $2,112.30$ |
| CACEIS BANK DEUTSCHLAND GMBH | International | $1,272.250$ | 0.1186 | 150.95 |
| CALYON SECS USA INC | International | $3,378.960$ | 0.0400 | 135.17 |
| CANACCORD CAPITAL EUROPE LTD, LDN | International | $32,901.240$ | 0.0055 | 181.92 |
| CIBC LONDON | International | $171,255.700$ | 0.0069 | $1,174.40$ |
| CITIBANK MAILAND AT CREDIT AGR CHVR | International | $40,978.070$ | 0.0425 | $1,743.01$ |
| CITIGROUP GLOBAL MARKETS INC | International | 30.650 | 55.8333 | $1,711.29$ |
| CITIGROUP GLOBAL MARKETS LTD, LDN | International | $156,043.880$ | 0.0081 | $1,258.97$ |
| CITIGROUP GLOBAL MARKETS UK EQ LTD | International | $3,988,651.340$ | 0.0010 | $4,057.93$ |
| CLSA LTD, HONG KONG | International | $30,304.300$ | 0.1545 | $4,680.66$ |
| CLSA SINGAPORE PTE LTD | International |  | 5.860 | 22.4061 |


| INDIVIDUAL ORBROKERAGE FIRM | \# OF SHARES |  |  | COMMISSIONPAID |
| :---: | :---: | :---: | :---: | :---: |
|  | NATURE OF SERVICES | TRADED | COMMISSION |  |
| ITG HOENIG LIMITED, HONG KONG | International | 25,583.290 | 0.0305 | 779.97 |
| J P MORGAN CLEARING CORP | International | 2,896.090 | 0.0492 | 142.38 |
| J.P. MORGAN CLEARING CORP. | International | 320,948.720 | 0.0094 | 3,030.54 |
| JEFFRIES INTERNATIONAL LTD LONDON | International | 1,093,058.920 | 0.0021 | 2,321.63 |
| JP MORGAN SEC LTD, LONDON | International | 328,458.520 | 0.0089 | 2,938.05 |
| JPMORGAN SECURIT (ASIA PACIFIC), HK | International | 8,129.720 | 0.0799 | 649.36 |
| KEMPEN AND CO NV AMSTERDAM | International | 35,048.680 | 0.0517 | 1,813.59 |
| KEPLER EQUITIES, SUCURSAL EN ESPANA | International | 23,044.080 | 0.0073 | 169.36 |
| LIQUIDNET ASIA LIMITED | International | 10,518.210 | 0.0197 | 207.54 |
| MACQUARIE EQUITIES LTD SYDNEY | International | 209,480.160 | 0.0170 | 3,559.38 |
| MACQUARIE SECURITIES LTD, HONG KONG | International | 261.440 | 7.1249 | 1,862.74 |
| MAINFIRST BANK AG, FRANKFURT | International | 159,827.290 | 0.0105 | 1,672.38 |
| MERRILL LYNCH INTL LTD EQUIT SETTL | International | 1,248,171.750 | 0.0051 | 6,366.96 |
| MERRILL LYNCH PIERCE FENNER | International | 483,916.300 | 0.0072 | 3,465.38 |
| MERRILL LYNCH,PIERCE, FENNER, SMITH | International | 132.550 | 5.5645 | 737.57 |
| MIRAE ASSET SECURITIES CO LTD | International | 47.640 | 68.4385 | 3,260.41 |
| MORGAN STANLEY | International | 351.150 | 5.0111 | 1,759.64 |
| MORGAN STANLEY AND CO | International | 48,413.520 | 0.0191 | 927.08 |
| MORGAN STANLEY CO INC NEW YORK | International | 49,310.550 | 0.0597 | 2,945.27 |
| MORGAN STANLEY SECS LTD | International | 23,145.190 | 0.0060 | 139.58 |
| NOMURA INTERNATIONAL PLC LONDON | International | 2.700 | 300.1333 | 810.36 |
| NOMURA SECURITIES INTL INC NY | International | 12,270.310 | 0.2492 | 3,057.88 |
| ODDO ET CIE, PARIS | International | 6,005.350 | 0.1049 | 629.77 |
| PAREL, PARIS | International | 5,471.830 | 0.0471 | 257.79 |
| PERSHING AND COMPANY | International | 14,132.660 | 0.0500 | 706.63 |
| PERSHING SECURITIES LONDON | International | 5,524.330 | 0.1261 | 696.48 |
| REDBURN PARTNERS LLP | International | 179,900.620 | 0.0069 | 1,235.49 |
| SANFORD C. BERNSTEIN LONDON | International | 137,966.710 | 0.0479 | 6,608.23 |
| SKANDINAVISKA ENSKILDA BANKEN | International | 106,229.690 | 0.0297 | 3,157.19 |
| SOCIETE GENERALE PARIS, ZURICH | International | 1,357.520 | 0.4057 | 550.81 |
| SOCIETE GENERALE PARIS, ZURICH BR | International | 5,258.580 | 0.4690 | 2,466.31 |
| THE ROYAL BANK OF SCOTLAND N.V. | International | 3,264.670 | 0.0090 | 29.32 |
| UBS AG LONDON EQUITIES | International | 452,838.430 | 0.0240 | 10,864.56 |
| UBS SECURITIES LLC | International | 20,742.480 | 0.0400 | 829.71 |
| BANCO SANTANDER CENTRAL HISPANO SA | Emerging Markets | 3,287.590 | 0.0120 | 39.50 |
| CHINA INTL CAP CORP LIMITED | Emerging Markets | 1,758.750 | 0.0013 | 2.20 |


| INDIVIDUAL OR |  | \# OF SHARES |  | COMMISSION |
| :--- | :--- | ---: | ---: | ---: |
| BROKERAGE FIRM | NATURE OF SERVICES | TRADED | COMMISSION | PAID |
| CITIGROUP GLOBAL MARKETS INC | Emerging Markets | $64,665.350$ | 0.0281 | $1,815.60$ |
| CITIGROUP GLOBAL MARKETS LTD, LDN | Emerging Markets | $10,702.050$ | 0.0097 | 104.14 |
| CREDIT SUISSE 1ST BOSTON CORP,NY | Emerging Markets | $606,929.800$ | 0.0118 | $7,147.79$ |
| CREDIT SUISSE FIRST BOSTON | Emerging Markets | 563.910 | 0.0175 | 9.86 |
| CREDIT SUISSE FIRST BOSTON HK | Emerging Markets | $6,894.300$ | 0.0037 | 25.37 |
| CREDIT SUISSE FIRST BOSTON, TAIPEI | Emerging Markets | 319.320 | 0.0057 | 1.83 |
| CREDIT SUISSE SECS (MALAYSIA) | Emerging Markets | $16,064.840$ | 0.0024 | 38.29 |
| CS FIRST BOSTON INDIA SEC PTE LTD | Emerging Markets | $4,317.310$ | 0.3311 | $1,429.52$ |
| CSFB (EUROPE) LTD, LONDON | Emerging Markets | 1.060 | 25.1226 | 26.63 |
| CSFB EUR, LONDON | Emerging Markets | 257.380 | 0.0071 | 1.84 |
| DEUTSCHE BANC/ALEX BROWN | Emerging Markets | $28,696.780$ | 0.0204 | 584.51 |
| DEUTSCHE BANK AG, LONDON | Emerging Markets | $19,809.520$ | 0.0444 | 878.82 |
| DEUTSCHE BANK SECURITIES INC | Emerging Markets | $79,241.100$ | 0.0304 | $2,406.20$ |
| LARRAIN VIAL, SANTIAGO | Emerging Markets | 81.620 | 0.4003 | 32.67 |
| MORGAN STANLEY AND CO | Emerging Markets | $4,760.770$ | 0.0246 | 117.15 |
| MORGAN STANLEY AND CO INTL LTD,LDN | Emerging Markets | $1,525.510$ | 0.0470 | 71.64 |
| MORGAN STANLEY CO INC NEW YORK | Emerging Markets | $208,923.160$ | 0.0178 | $3,717.11$ |
| MORGAN STANLEY CO INC, NYK | Emerging Markets | 270.550 | 0.0318 | 8.60 |
| MORGAN STANLEY DW ASIA, HONG KONG | Emerging Markets | $1,557.750$ | 0.0036 | 5.66 |
| MORGAN STANLEY HK SECS LTD HONGKONG | Emerging Markets | $4,138.590$ | 0.0008 | 3.49 |
| MORGAN STANLEY INDIA COMPANY PVT | Emerging Markets | 866.670 | 0.3491 | 302.57 |
| STATE STREET BANK AND TRUST CO | Emerging Markets | 54.470 | 0.1289 | 7.02 |
| UBS AG | Emerging Markets | 30.900 | 0.0366 | 1.13 |

## Analysis

## Examination

$\underset{\text { Transactions }}{\text { Securities }}$



## Diversification

 Holdings

Stocks 咼 Leverage Aggregate index Costs Financial Quantitative Results Allowance Status Interest



# New York City <br> Board of Education Retirement System 

Qualified Pension Plan
A Pension Trust Fund of the City of New York

## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2011

## Actuarial Section



# OFFICE OF THE ACTUARY 

75 PARK PLACE - $9^{\text {mi }}$ FLOOR<br>NEW YORK, NY 10007<br>(212) 442.5775 - FAX: $\{212\} 442-5777$<br>Robert C. North, Jr. CHIEF ACTUARY

December 9, 2011

Board of Trustees
New York City Board of Education
Retirement System
65 Court Street
Brooklyn, NY 1 i201

Re: Actuarial Information for the Comprehensive Annual Financial Report ("CAFR") for the Fiscal Year Ended June 30, 2011

Dear Members:
The financial objective of the New York City Board of Education Retirement System - Qualified Pension Plan (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 payrolt, would remain approximately level over the future working lifetimes of those active members and, together with member contributions and investment income, would 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, 2009 (Lag) actuarial valuation to determine Fiscal Year 2011 Employer Contributions).

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

Statutory Contributions for Fiscal Year 2011 were equal to the Annual Required Contributions as defined under Governmental Accounting Standards Board ("GASB") Statement Number 25 ("GASB 25") as amended by GASB No. 50 ("GASB 50 ").

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

## Board of Trustees

New York City Board Of Education
Retirement System
December 9， 2011
Page 2

## 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， 2009 （Lag）Actuarial Valuation．＂These actuarial assumptions and methods were first employed in the June 30,2004 （Lag）actuarial valuation that was used to determine Fiscal Year 2006 Employer Contributions to the Plan and are referenced in the Summary of Actuarial Assumptions and Methods as the August 2005 Report．

These actuarial assumptions and methods are unchanged from those employed in the June 30 ， 2008 （Lag）actuarial valuation that was used to determine Fiscal Year 2010 Employer Contributions to the Plan．

## Benefits and Census Data

A summary of the benefits applicable to Plan members included in the June 30， 2009 （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.

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， 2009 （Lag）actuarial valuation is included in th：s CAFR．A summary of the census data used in the June 30,2008 （Lag）actuarial valuation of the Plan is available in the June 30， 2010 CAFR．

## Funded Status

The Funded Status oî 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．

Board of Trustees
New York Ciry Board Of Education
Retirement System
December 9, 2011
Page 3

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. Included in this Other Measures of Funded Status discussion is information consistent with the disclosure requirements of GASB 50 .

## 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 begiming 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 Mcasurcs 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 Scction of the CAFR were prepared by the OA:

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2009 (Lag) Actuarial Valuation.
- Active Member Valuation Data.
- Funded Status Rased on Entry Age Actuarial Cost Method.
- Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets - Solvency Test.
- Additional Discussion of Plan Funding and Other Measures of Funded Status.
- Ketirants and Beneficiaries Added to and Removed from Rolls.
- Statutory vs. Annual Required Contributions.
- Sumnary of Plan Provisions.

Board of Trustees
New York City Board Of Education
Retirement System
December 9, 2011
Page 4

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

- 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.

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.

Respectfully submitted,


Robert C. North, Jr., FS $\Lambda$, MAMA Chief Actuary

Att.

RCN/srh
ce: Ms. C.A. Bailey
Mr. J.R. Gibney
Mt.E. Hue

197L:srh

## Summary of Actuarial Assumptions and Methods In Effect For The June 30, 2009 (Lag) Actuarial Valuation

(1) Based in part upon a review of an October 2003 experience study by Gabriel, Roeder, Smith \& Company ("GRS"), the Actuary issued an August 31, 2005 Report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2005 for the New York City Board of Education Retirement System" ("August 2005 Report"). Where required, the Board of Trustees of the Plan adopted those changes to actuarial assumptions that required Board approval and the State Legislature and the Governor enacted Chapter 152 of the Laws of 2006 ("Chapter 152/06") to provide for those changes to the actuarial assumptions and methods that required legislation, including the Actuarial Interest Rate ("AIR") assumption of $8.0 \%$ per annum.

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 elimination of the use of the ten-year phase-in under Chapter 278 of the Laws of 2002 ("Chapter 278/02") for funding the additional actuarial liabilities created by the benefits provided by Chapter 125 of the Laws of 2000 ("Chapter 125/00").
(2) The investment rate of return assumption is 8.0\% per annum (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 1.
(4) Active Service tables are used to estimate various withdrawals from active service. Sample probabilities are shown in Table 2 for members withdrawing from active service due to death or disability, in Table 3 for members withdrawing for other than death or disability or retirement, and in Table 4 for members withdrawing from active service after eligibility for service retirement.
(5) A Salary Scale is used to estimate salaries at termination, retirement or death. Sample percentage increases are shown in Table 5. The Salary Scale includes a General Wage Increase ("GWI") assumption of $3.0 \%$ per annum.
(6) The economic assumptions (i.e., the assumed investment return rate, GWI rate and Cost-of-Living Adjustments ("COLA")) were developed assuming a long-term Consumer Price Inflation ("CPI") assumption of $2.5 \%$ per annum. The COLA assumption is $1.3 \%$ 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) The Frozen Initial Liability Actuarial Cost Method is utilized by the Plan's Actuary to calculate the employer contributions. Under this Actuarial Cost Method, the Initial Liability was reestablished under the Entry Age Actuarial Cost Method as of June 30, 1999 but with the UAAL not less than $\$ 0$.

# Summary of Actuarial Assumptions and Methods In Effect For The June 30, 2009 (Lag) Actuarial Valuation 

Under this method, the excess of the Actuarial Present Value ("APV") of projected benefits of members as of the valuation date, over the sum of the Actuarial Asset Value ("AAV") plus UAAL, if any, and APV of future employee contributions, is allocated on a level basis over the future earnings of members who are on payroll as of the valuation date. Actuarial gains and losses are reflected in the employer normal contribution rate.

All outstanding components of the UAAL are being amortized over closed periods.

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 annual payment equals $103 \%$ of its preceding annual payment. However, the initial UAAL as of June 30, 1999 equaled $\$ 0$ and no amortization period was required.

Chapter 69 of the Laws of 2002 established a UAAL as of June 30, 2003 for an Early Retirement Incentive (Part A only). This UAAL was amortized on a level basis over a period of five years beginning Fiscal Year 2004.

Note: Because the UAAL equals zero as of June 30, 2009, the financial results using the Frozen Initial Liability Actuarial Cost Method are identical to those that would be produced using the Aggregate Actuarial Cost Method.
(9) One-Year Lag Methodology ("Lag") uses a June 30, 2009 valuation date to determine Fiscal Year 2011 Employer Contributions.

This methodology requires technical adjustments to certain components used to determine Fiscal Year 2011 Employer Contributions as follows:

- Present Value of Future Salary ("PVFS")

The PVFS at June 30, 2009 is reduced by the value of salary projected to be paid during Fiscal Year 2010.

- Salary for Determining Employer Contributions

Salary used to determine the employer Normal Cost is the salary projected to be paid during Fiscal Year 2011 to members on payroll at June 30, 2009.

```
Summary of Actuarial Assumptions and Methods
In Effect For The June 30, }2009\mathrm{ (Lag) Actuarial Valuation
(Cont'd)
```

- Present Value of Future Normal Costs ("PVFNC")

The PVFNC at June 30, 2009 is reduced by the discounted value of the Fiscal Year 2010 Employer Contribution (after offsetting for any UAAL payments).
(10) Beginning with the June 30, 2004 (Lag) actuarial valuation, the Actuarial Asset Valuation Method ("AAVM") was changed to a method that reset the AAV to Market Value (i.e., "Market Value Restart") as of June 30, 1999. As of each June 30 thereafter, the AAVM recognizes investment returns greater or less than expected over a period of six years.

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

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

The revised AAVM was utilized for the first time in the June 30, 2004 (Lag) actuarial valuation to determine the Fiscal Year 2006 Employer Contribution 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 is unchanged from the AAVM used in the June 30, 2008 (Lag) actuarial valuation.

The Actuarial Present Value of Future Benefits ("APVB") as of June 30, 2009, used to determine Fiscal Year 2011 Employer Contributions, includes estimates of liabilities for:

- World Trade Center Disability Benefits
- World Trade Center Death Benefits
- TDA Fixed Funds
(12) The Actuarial Assumptions and Methods are generally unchanged from the June 30, 2008 (Lag) actuarial valuation.

Table 1

## DEATHS AMONG SERVICE AND DISABILITY PENSIONERS

Percentage of Pensioners Dying within Next Year

|  | Service Pensioners |  | Disability Pensioners |  |
| :---: | :---: | :---: | :---: | :---: |
| Age | Males | Females | Males | Females |
| 40 | .1209\% | .0677\% | 2.3055\% | 3.1297\% |
| 45 | . 3925 | . 1185 | 2.5505 | 3.2009 |
| 50 | . 6640 | . 2205 | 2.7639 | 3.2720 |
| 55 | 1.0351 | . 3840 | 3.2012 | 3.3431 |
| 60 | 1.3866 | . 7143 | 3.7649 | 3.4142 |
| 65 | 2.1971 | 1.1649 | 4.4364 | 3.5556 |
| 70 | 3.1053 | 1.7416 | 5.3787 | 4.0596 |
| 75 | 4.2868 | 2.8009 | 6.8150 | 5.1494 |
| 80 | 7.2749 | 4.6138 | 9.0925 | 7.0032 |
| 85 | 10.8977 | 7.2110 | 12.2138 | 9.4462 |
| 90 | 16.5712 | 12.2729 | 16.8444 | 13.0674 |
| 95 | 24.6685 | 19.4640 | 24.6685 | 19.4640 |
| 100 | 32.8097 | 28.6331 | 32.8097 | 28.6331 |
| 105 | 49.9036 | 47.3182 | 49.9036 | 47.3182 |
| 110 | 100.0000 | 100.0000 | 100.0000 | 100.0000 |

## Summary of Actuarial Assumptions and Methods

In Effect For The June 30, 2009 (Lag) Actuarial Valuation
(Cont'd)

Table 2
WITHDRAWALS FROM ACTIVE SERVICE (DUE TO DEATH OR DISABILITY)
Percentage of Active Members Separating within Next Year

|  | Accidental Disability |  | Ordinary Disability |  | Death |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Males | Females | Males | Females | Males | Females |
| 20 | .02\% | .01\% | .10\% | .05\% | .040\% | .020\% |
| 25 | . 02 | . 01 | . 10 | . 05 | . 040 | . 020 |
| 30 | . 02 | . 01 | . 10 | . 05 | . 040 | . 020 |
| 35 | . 02 | . 01 | . 15 | . 05 | . 050 | . 025 |
| 40 | . 02 | . 01 | . 20 | . 10 | . 060 | . 030 |
| 45 | . 02 | . 01 | . 30 | . 20 | . 110 | . 055 |
| 50 | . 02 | . 01 | . 40 | . 30 | . 160 | . 080 |
| 55 | . 02 | . 01 | . 50 | . 40 | . 210 | . 105 |
| 60 | . 02 | . 01 | . 50 | . 40 | . 260 | . 130 |
| 65 | . 02 | . 01 | . 50 | . 40 | . 320 | . 160 |
| 70 | NA | NA | NA | NA | NA | NA |

Table 3

## WITHDRAWALS FOR OTHER THAN DEATH OR DISABILITY OR RETIREMENT

Percentage of Active Members Withdrawing within Next Year

|  | Probability of Withdrawal |  |
| :---: | :---: | :---: |
| Years of Service | Males | Females |
| 0 | $6.00 \%$ | $4.50 \%$ |
| 5 | 4.00 | 3.50 |
| 10 | 2.50 | 2.50 |
| 15 | 1.50 | 2.00 |
| 20 | 1.00 | 1.50 |
| 25 | 1.00 | 1.00 |

## Summary of Actuarial Assumptions and Methods In Effect For The June 30, 2009 (Lag) Actuarial Valuation

Table 4
WITHDRAWALS FROM ACTIVE SERVICE (AFTER ELIGIBILITY FOR SERVICE RETIREMENT)
Percentage of Eligible Active Members Retiring Within Next Year

|  |  | With Unreduced Benefit* |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Members not Electing Optional Retirement Program Years of Service Since First Elig. |  |  | Members Electing Optional Retirement Program |  |  |
|  |  | Years of Service Since First Elig. |
| Age | With** <br> Reduced <br> Benefits |  |  |  | 0-1 | 1-2 | 2+ | 0-1 | 1-2 | 2+ |
| 50 | 2.00\% | 20.00\% | 15.00\% | 15.00\% | 60.00\% | 40.00\% | 20.00\% |
| 55 | 2.00 | 20.00 | 15.00 | 15.00 | 60.00 | 40.00 | 20.00 |
| 60 | 5.00 | 20.00 | 15.00 | 15.00 | 60.00 | 40.00 | 20.00 |
| 65 | 0.00 | 25.00 | 25.00 | 25.00 | 60.00 | 60.00 | 60.00 |
| 70 | N/A | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

* 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.
** Applicable to members whose benefits will be reduced upon retiring prior to the date eligible for unreduced Service Retirement.

Table 5
SALARY SCALE

| Years of <br> Service | Assumed Annual <br> Percentage Increases <br> Within Next Year* |
| :---: | :---: |
| 0 | $8.00 \%$ |
| 5 | 5.50 |
| 10 | 5.00 |
| 15 | 4.50 |
| 20 | 4.50 |
| 25 | 4.50 |
| 30 | 4.50 |
| 40 | 4.50 |

[^6]| Valuation <br> Date | Number | Annual <br> Payroll | Annual <br> Average <br> 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* | 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)** | 23,324 | 906,479,210 | 38,865 | (0.5) |

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

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

The Actuarial Cost Method ("ACM") used to develop the funding requirements for the Plan is 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.

| Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) Entry Age (b) | Unfunded AAL (UAAL) - Entry Age (b-a) | Funded <br> Ratio <br> (a/b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ( $(\mathrm{b}-\mathrm{a}) / \mathrm{c})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 89.2 |
| June 30, 2005 (Lag) | 1,841,041 | 2,361,255 | 520,214 | 78.0 | 715,078 | 72.7 |
| June 30, 2004 (Lag) | 1,843,786 | 2,221,875 | 378,089 | 83.0 | 624,884 | 60.5 |

Note: This schedule is based on actuarial assumptions used for determining Employer Contributions.
Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets

| $\begin{aligned} & \text { As of } \\ & \text { June } 30 \end{aligned}$ | Accumulated <br> Member <br> Contributions | Current Retirants and Beneficiaries | Active Members' Employer Financed Portion | Actuarial Value of Assets | Percentage of Actuarial Values Covered by Actuarial Value of Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) | (C) | (D) | (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 | 62 |
| 2009 (Lag) | 359,122 | 1,303,453 | 965,681 | 1,963,719 | 100 | 100 | 31 |

* 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."


## 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 most recent change in assumptions and methods occurred in the June 30, 2004 (Lag) valuation used to compute the employer contribution for Fiscal Year 2006. 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 and $3.0 \%$ per annum, respectively.

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

## ON-GOING FUNDING OF THE PLAN

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

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

First, Member Contributions are established by statute and paid as percentages of member salaries.
Second, Investment Earnings reflect the rates of return achieved on the amounts of assets held in different asset classes in the Trust.

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

This actuarial methodology includes demographic and certain tabular assumptions recommended by the Actuary and adopted by the Board of Trustees, and certain economic assumptions and financing methods recommended 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 2006.

These most recent changes, approved by the Board of Trustees and implemented during Fiscal Year 2006, include (1) updated demographic assumptions, (2) full recognition of all Obligations of the Plan (i.e., removing the statutory phase-in of certain liabilities) and (3) revised methodologies for smoothing changes in Employer Contributions due to Plan experience. Together, these changes further enhance the long-term financial integrity of the Plan.

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 somewhat different insights into the financial condition of the Plan and comparisons amongst these Other Measures of Funded Status can provide even more.

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 assumption of $8.0 \%$ of AAV each year) into the AAV over a period of six years.

The advantage of using MVA is that it represents the tradable 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 tradable value of Assets in the marketplace and, therefore, does not show the volatility of the Assets.

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

## DEFINITION OF AND COMMENTS ON OBLIGATIONS

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

With respect to the Plan, where the ACM is 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 remains relatively consistent in value with the AAV each year.

With respect to the ongoing funding of the Plan, the use of the FIL ACM provides for amortizing actuarial gains and losses over the future working lifetimes of active employees. As used by the Plan, the FIL ACM generally results in funding that is 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 PostEmployment Benefits ("OPEB") under certain 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.

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 the same manner as the PBO but without assuming future salary increases.

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

## table of 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)

|  | $\begin{gathered} \underset{\sim}{\circ} \\ \end{gathered}$ | - | $\stackrel{\infty}{0}$ | - | $\stackrel{\sim}{7}$ | $\begin{aligned} & \circ \\ & \hline- \\ & \hline- \end{aligned}$ | $\begin{aligned} & \infty \\ & \stackrel{\sim}{0} \end{aligned}$ | $\stackrel{\leftrightarrow}{\dot{\sim}}$ | $\stackrel{\square}{7}$ | F |  |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

 Returns greater or less than expected over a period of five years (six years beginning with the June 30, 2004 (Lag) actuarial valuation). ** Calculated based on actuarial assumptions used for determining Employer Contributions

 the MVABO Weighted Average Duration.


## Additional Discussion of Plan Funding and Other Measures of Funded Status <br> (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/ <br> EAAL | MVA/ <br> EAAL | $\begin{aligned} & \text { AAV/ } \\ & \text { PBO } \end{aligned}$ | $\begin{gathered} \text { MVA/ } \\ \text { PBO } \end{gathered}$ | $\begin{aligned} & \text { AAV/ } \\ & \text { ABO } \end{aligned}$ | $\begin{gathered} \text { MVA/ } \\ \text { ABO } \end{gathered}$ | 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)\# | 100 | 71 | 61 | 77 | 66 | 86 | 73 | 45 |

\# Preliminary.

## 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 tend to remain relatively constant from year to year and provide 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 FIL 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

|  | Added to Rolls |  | Removed from Rolls |  | Rolls End of Year |  | \% Increase <br> In Annual <br> Allowances | Average <br> Annual <br> Allowances |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year <br> Ended | Number | Annual Allowances** | Number | Annual Allowances | Number | Annual Allowances* |  |  |
| 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 (Lag) | 779 | 8,763,397 | 431 | 3,995,277 | 11,973 | 133,647,065 | 3.7 | 11,164 |
| 6/30/06 (Lag) | 1,066 | 12,053,392 | 466 | 3,414,306 | 12,573 | 142,286,151 | 6.5 | 11,317 |
| 6/30/07 (Lag) | 958 | 10,886,720 | 540 | 3,850,151 | 12,991 | 149,322,720 | 4.9 | 11,494 |
| 6/30/08 (Lag) | 667 | 8,148,653 | 462 | 4,350,475 | 13,196 | 153,120,898 | 2.5 | 11,604 |
| 6/30/09 Lag) | 936 | 10,879,798 | 491 | 4,135,086 | 13,641 | 159,865,610 | 4.4 | 11,719 |

* Allowances shown in table are those used in the actuarial valuation for the given fiscal year and are not adjusted for anticipated changes due to finalization of benefit calculation or contract settlements.
** 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. *** Same amounts apply for June 30, 2004 (Lag) actuarial valuation

| Fiscal Year Ended | Statutory Contribution* | Annual Required Contribution | Employer Rate of Contribution** |
| :---: | :---: | :---: | :---: |
| 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 |

* 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.
** The employer rates of contribution equal the Statutory Contributions as percentages 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.

This Summary of Plan Provisions is applicable to Plan members included in the June 30, 2009 (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 $55-1 / 120^{\text {th }}$ and the age $55-1 / 100^{\text {th }}$ ). 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)

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 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 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)

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.

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.

## 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) $1 / 3$ of FAS,
(b) $1 / 60$ 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.

## Summary of Plan Provisions

(Cont'd)

## 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 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-homepay 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. $\quad$ 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.
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

## Summary of Plan Provisions

(Cont'd)
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-homepay 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.

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.

## Summary of Plan Provisions

(Cont'd)

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.

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 onethird of the benefit on account of the first 25 years of service.

## Summary of Plan Provisions

(Cont'd)

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.

## Period

07-01-1960-06-30-1961
07-01-1961-06-30-1968
07-01-1968-12-31-1975
01-01-1976 and after

## Increased-Take-Home-Pay Rate

2.5\%

5\%
4\%
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.

## IV. Employer Contributions

The Frozen Initial Liability 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.

## Summary of Plan Provisions

(Cont'd)

## 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.

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# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM COMPREHENSIVE ANNUAL FINANCIAL REPORT <br> FISCAL YEAR ENDED JUNE 30, 2011 <br> ACKNOWLEDGEMENT OF QUALIFICATION 


#### Abstract

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.


## Pout Cnbogy

Robert C. North, Jr., FSA, FSPA, FCA, MAAA, EA Chief Actuary New York City Retirement Systems December 9, 2011

Payments
Objectives Legal
Material Prior service BADAFCHATAOS 응

## Vesting Amount Commissions Auditors Earnings <br> Market Value <br> Systems <br> Allocation



Statistical
Calculations


# New York City <br> Board of Education Retirement System 

Qualified Pension Plan
A Pension Trust Fund of the City of New York

## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2011

## 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
f) 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
Revenue 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002 | \$24,093 | \$56,548 | (\$93,603) | \$1,669 | $(\$ 11,293)$ | 8.1 |
| 2003 | \$32,285 | \$70,200 | \$17,326 | \$12,652 | \$132,463 | 9.5 |
| 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) | $(\mathbf{3 0 5 , 2 5 9})$ | 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 |

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.
Revenue by Source (In thousands) (Cont'd)

Expenses by Type (In thousands)

| Fiscal Year Ended | Benefit Payments |  |  |  | Administrative <br> Expenses | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30 | Death | Retirement | Refunds | Other |  |  |
| 2002 | \$7,315 | \$101,787 | \$7,784 | \$11,028 | \$1,818 | \$129,732 |
| 2003 | \$8,738 | \$119,502 | \$9,528 | \$17,725 | \$4,744 | \$160,237 |
| 2004 | \$7,143 | \$127,772 | \$4,676 | \$14,601 | \$6,419 | \$160,611 |
| 2005 | \$7,640 | \$132,075 | \$3,533 | \$13,164 | \$8,364 | \$164,776 |
| 2006 | \$7,656 | \$140,626 | \$3,145 | \$5,083 | \$8,195 | \$164,705 |
| 2007 | \$6,326 | \$147,399 | \$3,534 | \$3,191 | \$7,281 | \$167,731 |
| 2008 | \$3,827 | \$153,886 | \$3,395 | \$3,448 | \$7,854 | \$172,410 |
| 2009 | \$7,544 | \$159,262 | \$2,768 | \$2,018 | \$8,413 | \$180,006 |
| 2010 | \$8,548 | \$164,362 | \$4,207 | \$1,296 | \$8,047 | \$186,460 |
| 2011 | \$6,686 | \$172,680 | \$5,237 | \$1,662 | \$8,892 | \$195,157 |

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)


| Fiscal Year Ended June 30 | Refunds |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Regular Resignation | Add Pension 55/25-57/5 | Excess Contribution | $3 \%$ <br> Cessation | Other <br> Overpayments | Total |
| 2002 | \$1,595 | \$108 | \$3,082 | \$2,884 | \$116 | \$7,784 |
| 2003 | \$2,225 | \$169 | \$5,441 | \$1,550 | \$143 | \$9,528 |
| 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 |

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.
Refunds by Type
(Cont'd)

Schedule of Changes in Net Assets (In thousands)

| Year <br> Ended | Member Contributions | Employer Contributions | Net Investment Income | Other <br> Income | Total <br> Income | Benefit Payments |  |  |  | Administrative <br> Expenses | Total <br> Expenses | Net Change in Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Death | Refund | Retirement | Other |  |  |  |
| 2002 | \$24,093 | \$56,548 | $(\$ 93,603)$ | \$1,669 | $(\$ 11,293)$ | \$7,315 | \$7,784 | \$101,787 | \$11,028 | \$1,818 | \$129,732 | (\$141,025) |
| 2003 | \$32,285 | \$70,200 | \$17,326 | \$12,652 | \$132,463 | \$8,738 | \$9,528 | \$119,502 | \$17,725 | \$4,744 | \$160,237 | $(\$ 27,774)$ |
| 2004 | \$31,347 | \$84,054 | \$224,385 | \$4,770 | \$344,556 | \$7,143 | \$4,676 | \$127,772 | \$14,601 | \$6,419 | \$160,611 | \$183,945 |
| 2005 | \$23,087 | \$96,650 | \$145,767 | $(\$ 9,746)$ | \$255,758 | \$7,640 | \$3,533 | \$132,075 | \$13,164 | \$8,364 | \$164,776 | \$90,982 |
| 2006 | \$23,810 | \$90,839 | \$176,320 | $(\$ 2,378)$ | \$288,591 | \$7,656 | \$3,145 | \$140,626 | \$5,083 | \$8,195 | \$164,705 | \$123,886 |
| 2007 | \$26,148 | \$129,820 | \$342,656 | \$39,148 | \$537,772 | \$6,326 | \$3,534 | \$147,399 | \$3,191 | \$7,281 | \$167,731 | \$370,041 |
| 2008 | \$27,109 | \$143,100 | (\$130,569) | (\$24,831) | \$14,809 | \$3,827 | \$3,395 | \$153,886 | \$3,448 | \$7,854 | \$172,410 | (\$157,601) |
| 2009 | \$30,971 | \$134,225 | (\$329,365) | (\$141,090) | (\$305,259) | \$7,544 | \$2,768 | \$159,262 | \$2,018 | \$8,413 | \$180,006 | (\$485,265) |
| 2010 | \$31,361 | \$147,349 | \$218,872 | \$38,232 | \$435,814 | \$8,548 | \$4,207 | \$164,362 | \$1,296 | \$8,047 | \$186,460 | \$249,354 |
| 2011 | \$31,008 | \$180,191 | \$425,690 | \$95,958 | \$732,847 | \$6,686 | \$5,237 | \$172,680 | \$1,662 | \$8,892 | \$195,157 | \$537,690 |

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

Benefit Expenses by Type (In thousands)

| Fiscal Year <br> Ended June 30 | Age And <br> Service <br> Retirement <br> Benefits | Disability Retirement Benefits |  | Lump Sum Payments |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Survivors | Death In Service | Death <br> After <br> Retirement |  |
|  |  | Duty | Non-Duty |  |  |  |  |
| 2002 | \$91,722 | \$1,126 | \$2,366 | \$6,574 | \$6,405 | \$1,010 | \$109,203 |
| 2003 | \$116,880 | \$1,297 | \$2,725 | \$7,570 | \$7,941 | \$814 | \$137,227 |
| 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 |

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.

## AGE AND SERVICE RETIREMENT

| Age | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number Of Retirants | Average Annual Allowance | Number Of Retirants | Average Annual Allowance |
| 49 \& Under | 0 | \$0 | 0 | \$0 |
| 50-54 | 6 | \$28,652 | 1 | \$15,314 |
| 55-59 | 112 | \$34,308 | 321 | \$12,057 |
| 60-64 | 289 | \$30,726 | 1,167 | \$9,787 |
| 65-69 | 469 | \$26,507 | 1,914 | \$9,111 |
| 70-74 | 497 | \$25,760 | 1788 | \$7,789 |
| 75-79 | 440 | \$22,983 | 1685 | \$7,524 |
| 80-84 | 340 | \$25,171 | 1546 | \$7,155 |
| 85-89 | 187 | \$21,465 | 944 | \$7,156 |
| 90 \& Over | 65 | \$18,386 | 405 | \$7,052 |
| Totals | 2,405 | \$25,783 | 9,771 | \$8,190 |

## ORDINARY DISABILITY (NON-DUTY) RETIREMENT

| Age | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number Of Retirants | Average Annual Allowance | Number Of Retirants | Average Annual Allowance |
| 49 \& Under | 13 | \$17,822 | 11 | \$11,954 |
| 50-54 | 28 | \$11,738 | 32 | \$10,059 |
| 55-59 | 34 | \$15,508 | 75 | \$9,525 |
| 60-64 | 34 | \$17,350 | 133 | \$9,027 |
| 65-69 | 29 | \$12,996 | 122 | \$8,424 |
| 70-74 | 15 | \$15,211 | 44 | \$9,024 |
| 75-79 | 11 | \$14,527 | 25 | \$6,962 |
| 80-84 | 8 | \$13,831 | 4 | \$6,247 |
| 85-89 | 4 | \$8,946 | 3 | \$8,930 |
| 90 \& Over | 2 | \$6,429 | 0 | \$0 |
| Totals | 178 | \$14,628 | 449 | \$8,930 |

NOTE: This schedule is based on 2009 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 | 3 | \$15,618 | 1 | \$9,295 |
| 50-54 | 8 | \$14,445 | 3 | \$8,128 |
| 55-59 | 9 | \$13,895 | 7 | \$10,369 |
| 60-64 | 8 | \$18,740 | 13 | \$6,649 |
| 65-69 | 6 | \$19,280 | 12 | \$5,729 |
| 70-74 | 9 | \$25,777 | 12 | \$7,372 |
| 75-79 | 2 | \$37,595 | 8 | \$6,324 |
| 80-84 | 8 | \$22,517 | 3 | \$8,043 |
| 85-89 | 1 | \$26,114 | 3 | \$7,021 |
| 90 \& Over | 1 | \$19,079 | 1 | \$7,021 |
| Totals | 55 | \$19,738 | 63 | \$7,186 |

## 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 | \$5,769 | 0 | 0 |
| 55-59 | 0 | 0 | 0 | 0 |
| 60-64 | 0 | 0 | 0 | 0 |
| 65-69 | 0 | 0 | 0 | 0 |
| 70-74 | 0 | 0 | 1 | \$8,576 |
| 75-79 | 0 | 0 | 0 | 0 |
| 80-84 | 0 | 0 | 1 | \$16,816 |
| 85-89 | 0 | 0 | 0 | 0 |
| 90 \& Over | 0 | 0 | 0 | 0 |
| Totals | 1 | \$5,769 | 2 | \$12,696 |

NOTE: This schedule is based on 2009 data (LAG)

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

## OTHER BENEFICIARIES

| Age Of Retirants | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number Of Retirants | Average Annual Allowance | Number Of Retirants | Average Annual Allowance |
| 49 \& Under | 14 | \$5,766 | 35 | \$5,990 |
| 50-54 | 10 | \$4,487 | 13 | \$6,522 |
| 55-59 | 5 | \$4,714 | 26 | \$11,926 |
| 60-64 | 16 | \$5,621 | 30 | \$15,112 |
| 65-69 | 15 | \$5,478 | 49 | \$16,888 |
| 70-74 | 16 | \$7,157 | 77 | \$17,134 |
| 75-79 | 19 | \$4,774 | 95 | \$19,357 |
| 80-84 | 10 | \$9,405 | 115 | \$15,747 |
| 85-89 | 10 | \$8,641 | 90 | \$14,826 |
| 90 \& Over | 7 | \$4,873 | 65 | \$12,135 |
| TOTALS | 122 | \$5,934 | 595 | \$15,005 |

## ALL PENSIONERS AND BENEFICIARIES

| Age Of Retirants | Men |  | Women |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number Of Retirants | Average Annual Allowance | Number Of Retirants | Average Annual Allowance |
| 49 \& Under | 30 | \$10,175 | 47 | \$7,259 |
| 50-54 | 53 | \$12,581 | 49 | \$9,110 |
| 55-59 | 160 | \$28,240 | 429 | \$11,579 |
| 60-64 | 347 | \$27,981 | 1343 | \$9,800 |
| 65-69 | 519 | \$25,060 | 2,097 | \$9,233 |
| 70-74 | 537 | \$24,911 | 1,922 | \$8,190 |
| 75-79 | 472 | \$22,115 | 1813 | \$8,131 |
| 80-84 | 366 | \$24,435 | 1669 | \$7,752 |
| 85-89 | 202 | \$20,606 | 1040 | \$7,825 |
| 90 \& Over | 75 | \$16,815 | 471 | \$7,754 |
| Totals | 2,761 | \$24,059 | 10,880 | \$8,588 |

NOTE: This schedule is based on 2009 data (LAG)

Summary of Actives by Age and Service
Males

DATA USED IN THE JUNE 30, 2009 (LAG) ACTUARIAL VALUATION FOR DETERMINING FISCAL YEAR 2011 EMPLOYER CONTRIBUTIONS

| Age \Svc | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& Up | All Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number: |  |  |  |  |  |  |  |  |  |  |
| Under 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 To 24 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| 25 To 29 | 180 | 28 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 209 |
| 30 To 34 | 260 | 102 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 387 |
| 35 To 39 | 287 | 177 | 60 | 17 | 1 | 0 | 0 | 0 | 0 | 542 |
| 40 To 44 | 249 | 199 | 139 | 62 | 22 | 2 | 0 | 0 | 0 | 673 |
| 45 To 49 | 240 | 198 | 166 | 151 | 102 | 19 | 2 | 0 | 0 | 878 |
| 50 To 54 | 202 | 185 | 155 | 148 | 160 | 61 | 14 | 0 | 0 | 925 |
| 55 To 59 | 146 | 125 | 122 | 122 | 135 | 73 | 46 | 10 | 1 | 780 |
| 60 To 64 | 94 | 110 | 69 | 65 | 78 | 38 | 20 | 15 | 1 | 490 |
| 65 To 69 | 41 | 36 | 26 | 22 | 38 | 10 | 9 | 11 | 3 | 196 |
| 70 \& Up | 16 | 26 | 24 | 12 | 16 | 4 | 4 | 5 | 1 | 108 |
| Total | 1,775 | 1,186 | 786 | 600 | 552 | 207 | 95 | 41 | 6 | 5,248 |

Salaries (In thousands):

| Under 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 TO 24 | 2,043 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,043 |
| 25 TO 29 | 8,065 | 1,128 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 9,214 |
| 30 TO 34 | 14,334 | 5,875 | 1,273 | 52 | 0 | 0 | 0 | 0 | 0 | 21,533 |
| 35 TO 39 | 17,080 | 11,820 | 3,527 | 880 | 25 | 0 | 0 | 0 | 0 | 33,331 |
| 40 TO 44 | 15,379 | 12,791 | 9,697 | 4,005 | 1,286 | 162 | 0 | 0 | 0 | 43,319 |
| 45 TO 49 | 12,154 | 11,617 | 11,460 | 10,353 | 7,806 | 1,372 | 147 | 0 | 0 | 54,909 |
| 50 TO 54 | 10,421 | 10,729 | 10,243 | 10,439 | 12,464 | 5,630 | 1,254 | 0 | 0 | 61,181 |
| 55 TO 59 | 7,338 | 6,136 | 7,084 | 8,590 | 10,188 | 6,303 | 4,123 | 752 | 100 | 50,614 |
| 60 TO 64 | 4,206 | 4,807 | 4,159 | 4,311 | 5,792 | 3,081 | 1,961 | 1,407 | 117 | 29,841 |
| 65 TO 69 | 2,016 | 1,576 | 1,408 | 1,198 | 2,777 | 811 | 725 | 870 | 230 | 11,610 |
| 70 \& Up | 321 | 707 | 977 | 651 | 894 | 284 | 257 | 397 | 123 | 4,611 |
| Total* | 93,357 | 67,186 | 49,848 | 40,478 | 41,231 | 17,643 | 8,467 | 3,426 | 570 | 322,206 |

## Average Salaries: **

| Under 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 To 24 | 34,049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34,049 |
| 25 To 29 | 44,805 | 40,297 | 21,187 | 0 | 0 | 0 | 0 | 0 | 0 | 44,088 |
| 30 To 34 | 55,130 | 57,596 | 53,029 | 51,595 | 0 | 0 | 0 | 0 | 0 | 55,641 |
| 35 To 39 | 59,512 | 66,778 | 58,777 | 51,790 | 24,617 | 0 | 0 | 0 | 0 | 61,497 |
| 40 To 44 | 61,761 | 64,276 | 69,759 | 64,592 | 58,471 | 81,110 | 0 | 0 | 0 | 64,368 |
| 45 To 49 | 50,644 | 58,670 | 69,038 | 68,563 | 76,526 | 72,197 | 73,461 | 0 | 0 | 62,539 |
| 50 To 54 | 51,591 | 57,995 | 66,084 | 70,533 | 77,900 | 92,301 | 89,591 | 0 | 0 | 66,142 |
| 55 To 59 | 50,262 | 49,085 | 58,067 | 70,410 | 75,463 | 86,340 | 89,636 | 75,187 | 100,049 | 64,889 |
| 60 To 64 | 44,740 | 43,701 | 60,279 | 66,319 | 74,259 | 81,068 | 98,058 | 93,825 | 117,050 | 60,900 |
| 65 To 69 | 49,169 | 43,791 | 54,147 | 54,437 | 73,067 | 81,099 | 80,562 | 79,061 | 76,601 | 59,234 |
| 70 \& Up | 20,077 | 27,197 | 40,695 | 54,257 | 55,898 | 70,985 | 64,158 | 79,366 | 123,105 | 42,694 |
| TOTAL | 52,596 | 56,649 | 63,420 | 67,463 | 74,694 | 85,230 | 89,129 | 83,555 | 95,001 | 61,396 |

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

* Total may not add up due to rounding.
** Average based on actual unrounded salary.

DATA USED IN THE JUNE 30, 2009 (LAG) ACTUARIAL VALUATION FOR DETERMINING FISCAL YEAR 2011 EMPLOYER CONTRIBUTIONS

| $\underline{\text { Age \Svc }}$ | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& Up | All Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number: |  |  |  |  |  |  |  |  |  |  |
| Under 20 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 20 To 24 | 74 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 25 To 29 | 377 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 430 |
| 30 To 34 | 534 | 277 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 847 |
| 35 To 39 | 614 | 401 | 142 | 26 | 1 | 0 | 0 | 0 | 0 | 1,184 |
| 40 To 44 | 853 | 604 | 325 | 103 | 39 | 4 | 0 | 0 | 0 | 1,928 |
| 45 To 49 | 1,012 | 996 | 556 | 215 | 88 | 38 | 1 | 0 | 0 | 2,906 |
| 50 To 54 | 919 | 1,170 | 845 | 370 | 196 | 92 | 24 | 8 | 0 | 3,624 |
| 55 To 59 | 632 | 922 | 818 | 561 | 318 | 86 | 41 | 29 | 4 | 3,411 |
| 60 To 64 | 272 | 512 | 572 | 453 | 369 | 77 | 26 | 17 | 8 | 2,306 |
| 65 To 69 | 85 | 187 | 199 | 189 | 159 | 44 | 13 | 6 | 3 | 885 |
| 70 \& Up | 34 | 57 | 100 | 105 | 120 | 27 | 6 | 4 | 2 | 455 |
| Total | 5,408 | 5,182 | 3,592 | 2,023 | 1,290 | 368 | 111 | 64 | 17 | 18,055 |

Salaries (In thousands):

| Under 20 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 To 24 | 2,482 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,556 |
| 25 To 29 | 18,043 | 2,004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,046 |
| 30 To 34 | 25,897 | 14,205 | 1,489 | 70 | 0 | 0 | 0 | 0 | 0 | 41,662 |
| 35 To 39 | 22,390 | 17,261 | 6,790 | 1,506 | 76 | 0 | 0 | 0 | 0 | 48,022 |
| 40 To 44 | 26,130 | 19,544 | 11,712 | 5,039 | 2,173 | 376 | 0 | 0 | 0 | 64,973 |
| 45 To 49 | 28,631 | 29,190 | 17,228 | 8,501 | 4,585 | 2,420 | 91 | 0 | 0 | 90,647 |
| 50 To 54 | 26,255 | 33,877 | 24,376 | 12,591 | 8,787 | 5,805 | 1,772 | 468 | 0 | 113,929 |
| 55 To 59 | 17,316 | 25,253 | 22,302 | 17,936 | 11,755 | 4,795 | 2,535 | 1,623 | 220 | 103,735 |
| 60 To 64 | 7,429 | 13,086 | 15,156 | 12,964 | 12,712 | 3,323 | 1,410 | 954 | 523 | 67,557 |
| 65 To 69 | 2,228 | 4,524 | 4,976 | 5,061 | 5,008 | 1,906 | 642 | 203 | 217 | 24,765 |
| 70 \& Up | 760 | 1,201 | 2,162 | 2,260 | 2,846 | 764 | 262 | 143 | 66 | 10,463 |
| Total* | 177,609 | 160,218 | 106,190 | 65,927 | 47,942 | 19,389 | 6,711 | 3,391 | 1,027 | 588,403 |

Average Salaries: **

| Under 20 | 24,188 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24,188 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 To 24 | 33,539 | 24,827 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33,199 |
| 25 To 29 | 47,858 | 37,804 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46,619 |
| 30 To 34 | 48,496 | 51,282 | 42,550 | 70,169 | 0 | 0 | 0 | 0 | 0 | 49,187 |
| 35 To 39 | 36,465 | 43,044 | 47,816 | 57,910 | 76,304 | 0 | 0 | 0 | 0 | 40,559 |
| 40 To 44 | 30,632 | 32,357 | 36,036 | 48,921 | 55,713 | 94,029 | 0 | 0 | 0 | 33,700 |
| 45 To 49 | 28,292 | 29,307 | 30,986 | 39,538 | 52,106 | 63,687 | 91,052 | 0 | 0 | 31,193 |
| 50 To 54 | 28,569 | 28,954 | 28,847 | 34,029 | 44,834 | 63,093 | 73,826 | 58,469 | 0 | 31,437 |
| 55 To 59 | 27,398 | 27,389 | 27,264 | 31,972 | 36,965 | 55,762 | 61,821 | 55,970 | 55,007 | 30,412 |
| 60 To 64 | 27,313 | 25,558 | 26,496 | 28,619 | 34,449 | 43,155 | 54,237 | 56,118 | 65,431 | 29,296 |
| 65 To 69 | 26,216 | 24,195 | 25,005 | 26,777 | 31,498 | 43,312 | 49,347 | 33,856 | 72,362 | 27,983 |
| 70 \& Up | 22,350 | 21,069 | 21,616 | 21,523 | 23,716 | 28,293 | 43,584 | 35,645 | 33,155 | 22,995 |
| Total | 32,842 | 30,918 | 29,563 | 32,589 | 37,165 | 52,687 | 60,457 | 52,978 | 60,404 | 32,589 |

[^7]* Total may not add up due to rounding.
** Average based on actual unrounded salary.

Summary of Actives by Age and Service
Males and Females

DATA USED IN THE JUNE 30, 2009 (LAG) ACTUARIAL VALUATION FOR DETERMINING FISCAL YEAR 2011 EMPLOYER CONTRIBUTIONS

| Age \Svc | Under 5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 \& Up | All Years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number: |  |  |  |  |  |  |  |  |  |  |
| Under 20 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 20 To 24 | 134 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 |
| 25 To 29 | 557 | 81 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 639 |
| 30 To 34 | 794 | 379 | 59 | 2 | 0 | 0 | 0 | 0 | 0 | 1,234 |
| 35 To 39 | 901 | 578 | 202 | 43 | 2 | 0 | 0 | 0 | 0 | 1,726 |
| 40 To 44 | 1,102 | 803 | 464 | 165 | 61 | 6 | 0 | 0 | 0 | 2,601 |
| 45 To 49 | 1,252 | 1,194 | 722 | 366 | 190 | 57 | 3 | 0 | 0 | 3,784 |
| 50 To 54 | 1,121 | 1,355 | 1,000 | 518 | 356 | 153 | 38 | 8 | 0 | 4,549 |
| 55 To 59 | 778 | 1,047 | 940 | 683 | 453 | 159 | 87 | 39 | 5 | 4,191 |
| 60 To 64 | 366 | 622 | 641 | 518 | 447 | 115 | 46 | 32 | 9 | 2,796 |
| 65 To 69 | 126 | 223 | 225 | 211 | 197 | 54 | 22 | 17 | 6 | 1,081 |
| 70 \& Up | 50 | 83 | 124 | 117 | 136 | 31 | 10 | 9 | 3 | 563 |
| Total | 7,183 | 6,368 | 4,378 | 2,623 | 1,842 | 575 | 206 | 105 | 23 | 23,303 |

Salaries (In thousands):

| Under 20 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 To 24 | 4,525 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,599 |
| 25 To 29 | 26,107 | 3,132 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 29,261 |
| 30 To 34 | 40,231 | 20,080 | 2,762 | 122 | 0 | 0 | 0 | 0 | 0 | 63,195 |
| 35 To 39 | 39,470 | 29,080 | 10,317 | 2,386 | 101 | 0 | 0 | 0 | 0 | 81,353 |
| 40 To 44 | 41,508 | 32,335 | 21,408 | 9,044 | 3,459 | 538 | 0 | 0 | 0 | 108,292 |
| 45 To 49 | 40,786 | 40,807 | 28,689 | 18,854 | 12,391 | 3,792 | 238 | 0 | 0 | 145,555 |
| 50 To 54 | 36,676 | 44,606 | 34,619 | 23,030 | 21,251 | 11,435 | 3,026 | 468 | 0 | 175,110 |
| 55 To 59 | 24,654 | 31,389 | 29,386 | 26,526 | 21,943 | 11,098 | 6,658 | 2,375 | 320 | 154,349 |
| 60 To 64 | 11,635 | 17,893 | 19,315 | 17,275 | 18,504 | 6,404 | 3,371 | 2,361 | 640 | 97,398 |
| 65 To 69 | 4,244 | 6,101 | 6,384 | 6,258 | 7,785 | 2,717 | 1,367 | 1,073 | 447 | 36,375 |
| 70 \& Up | 1,081 | 1,908 | 3,138 | 2,911 | 3,740 | 1,048 | 518 | 539 | 189 | 15,074 |
| Total * | 270,966 | 227,404 | 156,038 | 106,405 | 89,174 | 37,031 | 15,178 | 6,816 | 1,597 | 910,609 |

## Average Salaries: **

| Under 20 | 24,188 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24,188 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 To 24 | 33,767 | 24,827 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33,572 |
| 25 To 29 | 46,872 | 38,666 | 21,187 | 0 | 0 | 0 | 0 | 0 | 0 | 45,791 |
| 30 To 34 | 50,669 | 52,981 | 46,813 | 60,882 | 0 | 0 | 0 | 0 | 0 | 51,211 |
| 35 To 39 | 43,806 | 50,312 | 51,072 | 55,491 | 50,461 | 0 | 0 | 0 | 0 | 47,134 |
| 40 To 44 | 37,666 | 40,267 | 46,138 | 54,810 | 56,708 | 89,723 | 0 | 0 | 0 | 41,635 |
| 45 To 49 | 32,576 | 34,176 | 39,735 | 51,512 | 65,215 | 66,524 | 79,324 | 0 | 0 | 38,466 |
| 50 To 54 | 32,718 | 32,919 | 34,619 | 44,459 | 59,695 | 74,738 | 79,634 | 58,469 | 0 | 38,494 |
| 55 To 59 | 31,689 | 29,980 | 31,262 | 38,838 | 48,438 | 69,800 | 76,528 | 60,897 | 64,016 | 36,829 |
| 60 To 64 | 31,789 | 28,766 | 30,132 | 33,350 | 41,395 | 55,683 | 73,289 | 73,793 | 71,166 | 34,835 |
| 65 To 69 | 33,685 | 27,358 | 28,372 | 29,661 | 39,517 | 50,310 | 62,117 | 63,106 | 74,482 | 33,650 |
| 70 \& Up | 21,623 | 22,988 | 25,309 | 24,880 | 27,502 | 33,801 | 51,813 | 59,934 | 63,138 | 26,774 |
| TOTAL | 37,723 | 35,710 | 35,641 | 40,566 | 48,411 | 64,402 | 73,680 | 64,918 | 69,430 | 39,077 |

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 Payment Amounts (Unaudited)

| Fiscal Year | Service <br> Retirement Benefits |  |  | Ordinary (Non-Duty) Disability Benefits |  |  | Accidental (Duty) Disability Benefits |  |  | Survivor <br> Benefits |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ended <br> June 30 | Number | Average <br> Annual <br> Allowance | Average <br> Monthly <br> Allowance | Number | Average Annual Allowance | Average <br> Monthly <br> Allowance | Number | Average <br> Annual <br> Allowance | Average <br> Monthly <br> Allowance | Number | Average <br> Annual <br> Allowance | Average Monthly Allowance |
| 1999 | 8,304 | \$9,617 | \$801 | 190 | \$9,113 | \$759 | 87 | \$10,719 | \$893 | 477 | \$10,911 | \$909 |
| 2000 | 8,570 | \$9,707 | \$809 | 230 | \$9,062 | \$755 | 94 | \$10,553 | \$879 | 513 | \$11,325 | \$944 |
| 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 | \$844 | 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 |

Participating Employers
As Of June 30, 2009 (Lag)

| Employer | As of June 30, 2009 (Lag) |  | As of June 30, 2001 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number of Employees* | Annual Payroll* | Number of Employees* | Annual Payrol** |
| NYC Board of Education ** | 22,771 | \$ 861,651,145 | 24,298 | \$ 669,819,388 |
|  |  |  |  |  |
| NYC Schools Construction Authority | 514 | 48,075,180 | 353 | 24,359,564 |
|  |  |  |  |  |
| Charter Schools\# |  |  |  |  |
| Beginning with Children | 4 | 102,589 |  | 0 |
| KIPP Academy | 1 | 100,000 |  | 0 |
| Renaissance | 13 | 680,569 |  | 0 |
| Total | 23,303 | \$ 910,609,483 | 24,651 | \$ 694,178,952 |

* 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.
\# Charter Schools did not exist as of June 30,2001.




Computations


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

Cost-of-Living
65 Court Street, 16th Floor
Brooklyn, New York 11201
(718) 935-5400 (800) 843-5575
www.nycbers.org


[^0]:    Member of
    Deloitte Touche Tohmatsu

[^1]:    * 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.

[^2]:    1 Under the One-Year Lag Methodology, the actuarial valuation determines the Employer Contribution for the second following Fiscal Year.
    2 Under this Actuarial Cost Method, the Initial Liability was reestablished as of June 30, 1999 by the Entry Age Actuarial Cost Method but with the UAAL not less than $\$ 0$. The financial results using this Frozen Initial Liability Actuarial Cost Method differ minimally from those that would be produced using the Aggregate Actuarial Cost Method.
    3 Developed assuming a long-term Consumer Price Inflation assumption of 2.5\% per annum.

[^3]:    * Comprehensive Pension Management System

[^4]:    ${ }^{1}$ 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 $3000+500 \mathrm{bps}$, $22 \%$ NYC Core +5 fixed income, 3\% Barclays Capital US TIPS, and 5\% Citigroup BB\&B Index.

[^5]:    Yield data were obtained from the NYCBERS Performance Overview as of June 30, 2010

[^6]:    * Salary Scale includes a General Wage Increase assumption of 3.0\% per annum

[^7]:    Note: Age is last birthday. Service is completed years.

