Fiscal Year Ended
June 30, 2005

FIXED-INCOME MANAGERS ASSET ALLOCATION


# Comprehensive Annual Financial Report 

## Teachers' Retirement Board

Teachers' Retirement System of the City of New York

Fiscal Year Ended
June 30, 2005

# COMPREHENSIVE ANNUAL FINANCIAL REPORT A PENSION TRUST FUND OF THE CITY OF NEW YORK FOR FISCAL YEAR ENDED JUNE 30, 2005 

Prepared by Accounting Units
QUALIFIED PENSION PLAN

## TEACHERS' RETIREMENT BOARD MEMBERS

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Mr. Paul J. Raucci
Chief Accountant
Teachers' Retirement System

Mr. Robert C. North, Jr.
Chief Actuary

Teachers' Retirement System of the City of New York

55 Water Street
New York, NY 10041

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1. Introduction

TEACHERS' RETIREMENT BOARD TEACHERS' RETIREMENT SYSTEM
55 Water Street, New York, N.Y. 10041

December 27, 2005

Dear Members of the Board of Trustees:
We are pleased to present herewith the Comprehensive Annual Financial Report of the Teachers' Retirement System of the City of New York (TRS) for the fiscal year ended June 30, 2005. Responsibility for the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with TRS. To the best of our knowledge, the enclosed data is accurate in material respects and is reported in a manner designed to present fairly the financial position and results of the operations of TRS. All disclosures necessary to enable the reader to gain an understanding of the financial activities of TRS have been included.

The Comprehensive Annual Financial Report is presented in five sections: Introduction, Financial, Investment, Actuarial, and Statistical. The Introduction includes this transmittal letter, an organization chart, and a list of TRS' principal officials. The Financial Section includes Statements of Plan Net Assets Available for Pension Benefits, Statements of Changes in Plan Net Assets Available for Pension Benefits, the Independent Auditor's Report on the financial statements and schedules, and Management's Discussion and Analysis. The Investment Section includes investment information and tables that track investment yields and performance. The Actuarial Section contains the Actuary's certification letter, the Actuary's statements, a summary of actuarial assumptions and methods, and the actuarial tables. The Statistical Section includes financial and demographic information.

ECONOMIC CONDITION AND OUTLOOK-The performance of the Pension Fund yielded an annual return of $10.63 \%$. The monthly Unit Value for the Variable A Annuity Program increased from $\$ 56.883$ (July 2004) to $\$ 59.684$ (July 2005). Variable A had a $9.12 \%$ annual return. The Unit Value for the Variable B Annuity Program decreased from \$19.566 (July 2004) to $\$ 19.478$ (July 2005), for an annual return of $3.54 \%$. The annual returns include a $4 \%$ rate for the variable increment factor. The July Unit Value was based on the portfolio's return as of June 30 .

HISTORY OF THE PLAN—TRS was established as of August 1, 1917 under Chapter 303 of the Laws of 1917 and is governed by the Administrative Code of the City of New York and the New York State Retirement and Social Security Law. TRS covers all the teachers and administrative personnel employed by the Department of Education and certain employees of Charter Schools and the City University of New York.

FINANCIAL INFORMATION-The management of TRS is responsible for establishing and maintaining an internal control structure designed to ensure that TRS' assets are protected from loss, theft, or misuse, and to guarantee that adequate accounting data is compiled to allow for the preparation of financial statements in conformity with generally accepted accounting
principles. The internal control structure is designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that [1] the cost of a control should not exceed the benefits likely to be derived from it; and [2] the valuation of costs and benefits requires estimates and judgment by management.

SOURCE OF REVENUES-The funds needed to finance retirement benefits are accumulated through the collection of employer and member contributions and through income from investments. Contribution and investment income for Fiscal Year 2005 amounted to a total of $\$ 4.7$ billion.

## REVENUES

In Thousands

|  | Fiscal Year 2005 Amount |  | Fiscal Year 2004 Amount |  |  | Increase (Decrease) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Member Contributions | \$ | 124,539 | \$ | 97,858 | \$ | 26,681 |
| Employer Contributions |  | 1,228,275 |  | 920,264 |  | 308,011 |
| Other Employer Contributions |  | 20,429 |  | 20,324 |  | 105 |
| Other Receipts |  | 3,215 |  | $(1,764)$ |  | 4,979 |
| Investment Income |  | 3,311,302 |  | 4,511,935 |  | $(1,200,633)$ |
| TOTAL | \$ | 4,687,760 | \$ | 5,548,617 |  | $(860,857)$ |

EXPENDITURES-The primary expense of a retirement system relates to the purpose for which it was created, namely the payment of benefits. Consequently, recurring benefit payments and death benefits prescribed by the Plan and refunds of contributions to terminated employees comprise major expenses. Expenses for Fiscal Year 2005 totaled $\$ 3.1$ billion, reflecting an increase of $\$ 511$ million in benefit expenses from Fiscal Year 2004.

## EXPENDITURES

## In Thousands

|  | Fiscal Year 2005 <br> Amount | Fiscal Year 2004 <br> Amount | Increase <br> (Decrease) |
| :--- | ---: | ---: | :---: |
| Benefits Paid \& Refunds | $\$ 3,133,272$ | $\$ 2,622,611$ | $\$ 510,661$ |
| Administrative | 37,722 | 28,592 | 9,130 |
| TOTAL | $\mathbf{\$ 3 , 1 7 0 , 9 9 4}$ | $\mathbf{\$ 2 , 6 5 1 , 2 0 3}$ | $\mathbf{\$ ~ 5 1 9 , 7 9 1}$ |

INVESTMENTS-The Administrative Code of the City of New York authorizes the investments of plan assets subject to the terms, conditions, limitations, and restrictions imposed by law for investments by savings banks and domestic life insurance companies. The New York State Retirement and Social Security Law and the Administrative Code establish the
criteria for permissible equity investments. Details concerning the criteria for TRS' investments may be found in the Notes to the Financial Statements.

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

Actuarial services are provided by the Office of the Actuary of the City of New York, which is employed by the City's five major pension systems. The Chief Actuary's report and certifications are included in this Report.

The City's Corporation Counsel provides legal services to TRS in addition to private legal counsel providing services to the Variable Annuity and Tax-Deferred Annuity Programs.

Rocaton Investment Advisors, LLC is working as investment consultant to TRS.
All investment decisions are reviewed and approved by the Teachers' Retirement Board.
INDEPENDENT AUDIT-State statutes require an annual audit by independent certified public accountants. The accounting firm of Deloitte \& Touche LLP was selected by the Teachers' Retirement Board. The Independent Auditor's Report on the financial statements and schedules is included in the Financial Section of this Report.

AWARDS-The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to TRS for its Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2004. This was the $17^{\text {th }}$ consecutive year that TRS was accorded this prestigious award.

In order to be awarded a Certificate of Achievement, TRS published an easily readable and efficiently organized Comprehensive Annual Financial Report. This Report satisfied both the generally accepted accounting principles and the applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current Comprehensive Annual Financial Report continues to meet the Certificate of Achievement Program's requirements and are submitting it to the GFOA for consideration.

ACKNOWLEDGEMENTS-The compilation of the Report reflects the efforts of the TRS staff under the leadership of the Board of Trustees.

It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for determining responsible stewardship for the assets contributed by the members and their employers.

The Report is available to both administrative personnel and members of TRS. We believe they will find this material informative and helpful.

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

Sincerely,


Nelson Serrano
Executive Director


Paul J. Raucci
Chief Accountant

# Certificate of Achievement for Excellence in Financial Reporting 

Presented to

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

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
June 30, 2004
A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.


President


Executive Director


## PRINCIPAL OFFICIALS <br> as of June 30, 2005




# 2. Financial Section 

## Deloitte.

## Deloitte \& Touche LLP

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USA
Tel: 973.683.7126
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## INDEPENDENT AUDITORS' REPORT

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

We have audited the accompanying statements of Plan net assets of the Teachers' Retirement System of the City of New York Qualified Pension Plan (the "Plan") as of June 30, 2005 and 2004, 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, 2005 and 2004, and the changes in its 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 is not a required part of the financial statements, but is supplementary information required by the Governmental Accounting Standards Board (GASB). We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the 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 taken as a whole. The supplemental schedules listed in the table of contents are required by GASB. The required supplemental information is the responsibility of the management of the Plan. Such 2005, 2004, 2003 and 2002 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 when considered in relation to the basic financial statements taken as a whole. The required supplemental information for the years ended June 30, 2001, 2000 and 1999 was not subjected to auditing procedures applied in the audit of the basic 2001 financial statements by other auditors whose report dated October 30, 2001 stated that they expressed no opinion on it.

The supplemental information included in the Other Supplementary Information, Introductory, Investment, Actuarial, and Statistical sections is presented for the purpose of additional analysis and is not a required part of the basic financial statements of the Plan. Such additional information has not been subjected to the auditing procedures applied in our audits of the basic financial statements and, accordingly, we express no opinion on it.

Deloitte \&Touche LLA

October 24, 2005

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK QUALIFIED PENSION PLAN 

## MANAGEMENT'S DISCUSSION AND ANALYSIS <br> JUNE 30, 2005 AND 2004

This narrative discussion and analysis of the Teachers' Retirement System of the City of New York's ("TRS" or the "Plan") financial performance provides an overview of the Plan's financial activities for the fiscal years ended June 30, 2005 and 2004. It is meant to assist the reader in understanding TRS’ financial statements by providing an overall review of the financial activities during the two years and the effects of significant changes, as well as a comparison with prior years' activity and results. This discussion and analysis is intended to be read in conjunction with the Plan's financial statements, which begin on page 2.8.

## 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 as follows:

- 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 other assets and liabilities are determined on an accrual basis.
- The Statement of Changes in Plan Net Assets - presents the results of activities during the fiscal 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.

Required 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 - The assets of TRS exceeded its liabilities by \$30.5 billion, \$29.0 billion and \$26.1 billion as of June 30, 2005, 2004 and 2003, respectively. These net assets are held in trust for the payment of future benefits to members and pensioners.

TRS' net assets held in trust increased by $\$ 1.5$ billion from Fiscal Year 2004 and by $\$ 4.4$ billion from Fiscal Year 2003. These represent respective increases of $5.2 \%$ and 16.9\%.

## Plan Net Assets <br> June 30, 2005, 2004 and 2003 <br> (In thousands)

|  | 2005 | 2004 | 2003 |
| :---: | :---: | :---: | :---: |
| Cash | 65 | 39 | \$ 36 |
| Receivables for investments sold | 1,127,808 | 888,025 | 1,042,873 |
| Receivables for accrued interest and dividends | 118,584 | 120,270 | 101,850 |
| Member loan receivables | 135,065 | 150,612 | 167,424 |
| Investments, at fair value | 36,133,048 | 36,394,689 | 31,764,382 |
| Other assets | 49,264 | 27,241 | 20,708 |
| Total assets | 37,563,834 | 37,580,876 | 33,097,273 |
| Accounts payable | 27,488 | 575,788 | 195,027 |
| Payable for investments purchased | 2,357,121 | 2,220,732 | 2,345,449 |
| Accrued benefits payable | 12,835 | 16,442 | 13,433 |
| Payable for securities lending | 4,674,220 | 5,792,510 | 4,465,374 |
| Total liabilities | 7,071,664 | 8,605,472 | 7,019,283 |
| Net assets held in trust for benefits | \$30,492,170 | \$28,975,404 | \$26,077,990 |

Receivables for investment securities sold amounted to $\$ 1.1$ billion at June 30, 2005, an increase of $\$ 239.8$ million (27\%) from June 30, 2004 and an increase of $\$ 84.9$ million ( $8.1 \%$ ) from June 30, 2003. This balance is principally composed of receivables for securities that have been sold but have not yet settled (i.e., the cash has not been collected). This increase resulted primarily from timing differences in settlement dates. Trades typically do not settle until a few days after the trade date.

Receivables for accrued earnings amounted to $\$ 118.5$ million as of June 30 , 2005, a decrease of $\$ 1.7$ million (1.4\%) from June 30, 2004 and an increase of $\$ 16.7$ million (16.4\%) from June 30, 2003.

At June 30, 2005 member loan receivables amounted to $\$ 135.0$ million, a decrease of $\$ 15.6$ million ( $10.3 \%$ ) from the previous year and $\$ 32.4$ million decrease ( $19.3 \%$ ) from June 30, 2003. The decrease in the outstanding loans is attributed to a decline in new Qualified Pension Plan loans and a higher volume of loans paid back at retirement.

Investments at June 30, 2005 were $\$ 36.1$ billion in comparison to $\$ 36.4$ billion at June 30, 2004 and $\$ 31.8$ billion at June 30, 2003. The investment asset balances represent a decrease of $\$ 261.6$ million (.7\%) from June 30, 2004 and an increase of $\$ 4.4$ billion (13.8\%) from June 30, 2003.

Accounts payable at June 30, 2005 amounted to $\$ 27.5$ million a decrease of $\$ 548.3$ million ( $99.9 \%$ ) from June 30, 2004 and $\$ 167.5$ million ( $85.9 \%$ ) from June 30, 2003. The decrease during 2005 was as a result of settling the TDA interest due for Fiscal Year 2004. As of June 30, 2005, accounts payable is principally composed of amounts owed to the Plan's banks for overdrawn bank balances. The Plan's practice is to fully invest the cash balances in most of its 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.

Payables for investments purchased at June 30, 2005 amounted to $\$ 2.4$ billion an increase of $\$ 136.4$ million (6.1\%) from the previous year ended June 30, 2004 and $\$ 11.7$ million (.5\%) from June 30, 2003. Investments purchased are accounted for on a trade-date basis. This increase resulted from timing differences in settlement dates, similar to receivables for investments sold discussed earlier. Accrued benefits payable at

June 30, 2005 amounted to $\$ 12.8$ million, a decrease of $\$ 3.6$ million (21.9\%) from June 30, 2004 and $\$ 598$ thousand (4.4\%) from June 30, 2003.

## CHANGES IN PLAN NET ASSETS

TRS received \$124.5 million in member contributions during Fiscal Year 2005 and \$97.8 million and \$81.8 million in Fiscal Years 2004 and 2003, respectively. These reflect increases of 27.3\% from Fiscal Year 2004 and $52.1 \%$ from Fiscal Year 2003. Member contributions increased as a result of the increase in membership from 112,429 members at June 30, 2003 to 125,763 members at June 30, 2005.

Employer contributions for the Fiscal Year ended June 30, 2005 totaled \$1.2 billion, an increase of 32.8\% and 88.9\% over Fiscal Years 2004 and 2003 respectively.

## Changes in Plan Net Assets <br> Years Ended June 30, 2005, 2004 and 2003 (In thousands)

| Additions: | 2005 |  | 2004 |  | 2003 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Member contributions | \$ | 124,539 | \$ | 97,858 | \$ | 81,877 |
| Employer contributions |  | 1,248,704 |  | 940,588 |  | 660,915 |
| Net receipts from (payments to) other retirement systems |  | 3,215 |  | $(1,764)$ |  | $(7,888)$ |
| Securities - lending income (loss) |  | 17,166 |  | 8,066 |  | $(16,923)$ |
| Net investment income |  | 3,294,136 |  | 4,503,869 |  | 801,144 |
| Total |  | 4,687,760 |  | 5,548,617 |  | 1,519,125 |
| Deductions: |  |  |  |  |  |  |
| Administrative expenses |  | 37,722 |  | 28,592 |  | 35,455 |
| Benefits payments and withdrawals |  | 3,133,272 |  | 2,622,611 |  | 2,431,595 |
| Total deductions |  | 3,170,994 |  | 2,651,203 |  | 2,467,050 |
| Net increase (decrease) | \$ | 1,516,766 | \$ | 2,897,414 | \$ | $(947,925)$ |

Net investment income decreased by $\$ 1.2$ billion from Fiscal Year 2004 and increased by $\$ 2.5$ billion from Fiscal Year 2003.

Benefits payments and withdrawals for the Fiscal Year ended June 30, 2005 totaled $\$ 3.1$ billion, an increase of 19.3\% from Fiscal Year 2004 and 28.9\% from Fiscal Year 2003.

Benefits payments and withdrawals include interest that is credited to TDA accounts and transferred to the TDA Program. TDA interest for Fiscal Year 2005 totaled $\$ 375$ million. Benefit payments and withdrawals for the Fiscal Year ended June 30, 2005, excluding the $\$ 375$ million TDA interest, totaled $\$ 2.7$ billion, representing an increase of 5.5\% from 2004 and 13.3\% from Fiscal Year 2003.

Administrative expenses for the Fiscal Year ended June 30, 2005 totaled $\$ 37.7$ million an increase of 31.9\% over Fiscal Year 2004 and 6.4\% over Fiscal Year 2003.

## INVESTMENTS

TRS uses the Russell 3000 and S\&P 500 indices to provide benchmarks for the domestic equity investment returns and the EAFE and TUCS International Equity Median indices for international equity returns. The Salomon Bros BB \& B Rated and NYC indices and the TUCS Enhanced Yield Median, MSCI EAFE and MSCI EAFE Plus Canada indices are used to provide a benchmark for U.S. and international debt securities, respectively. TRS does not use benchmarks for short-term, private equity, and mortgage loan investments.

TRS earns additional investment income by lending its investment securities. The borrowers provide collateral to TRS that is valued in excess of the securities loaned. For the Fiscal Year ended June 30, 2005, net securities lending income amounted to $\$ 17.2$ million compared with $\$ 8.1$ million for Fiscal Year 2004 and a $\$ 16.9$ million loss for Fiscal Year 2003.

Investments held by TRS, including collateral from securities lending transactions, are listed according to their investment classification in the following table:

Type of Investment

## 2005 <br> 2004

(in Thousands)

| Short-term investments | $\$ 1,407,897$ | $\$ 1,145,683$ |
| :--- | ---: | ---: |
| Debt securities | $7,660,277$ | $7,631,254$ |
| Equity securities - Domestic | $21,474,277$ | $22,286,570$ |
| Private equity | 393,552 | 570,199 |
| Mutual Funds - International equity | $4,491,329$ | $4,454,071$ |
| Mutual Funds - TIPS | 408,953 | - |
| Mortgages | 53,668 | - |
| Promissory notes | 7,261 | - |
| Managed investment contracts | 148,310 | 164,062 |
| Guaranteed investment contracts | $\underline{87,524}$ | 142,850 |
| Total | $\underline{\underline{\$ 36,133,048}}$ | $\underline{\underline{\$ 36,394,689}}$ |

## CONTACT INFORMATION

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

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK QUALIFIED PENSION PLAN

## STATEMENTS OF PLAN NET ASSETS

JUNE 30, 2005 AND 2004
(In Thousands)

|  |  | 2005 |  | 2004 |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |
| CASH | \$ | 65 | \$ | 39 |
| RECEIVABLES: |  |  |  |  |
| Investment securities sold |  | 1,127,808 |  | 888,025 |
| Accrued interest and dividends |  | 118,584 |  | 120,270 |
| Member loans |  | 135,065 |  | 150,612 |
| Total receivables |  | 1,381,457 |  | 1,158,907 |
| INVESTMENTS, AT FAIR VALUE (Notes 2 and 3): |  |  |  |  |
| Fixed funds: |  |  |  |  |
| Short-term investment fund |  | 1,089,912 |  | 834,490 |
| Debt securities: |  |  |  |  |
| U.S. Government |  | 3,458,760 |  | 3,665,955 |
| Corporate |  | 3,130,839 |  | 2,755,584 |
| Foreign |  | 83,442 |  | 100,432 |
| Equity securities: |  |  |  |  |
| Domestic |  | 12,750,683 |  | 12,710,225 |
| Private equity |  | 342,832 |  | 479,811 |
| Mutual funds: |  |  |  |  |
| International equity |  | 3,912,499 |  | 3,647,574 |
| Treasury inflation - protected securities |  | 356,248 |  |  |
| Mortgages |  | 46,751 |  | - |
| Promissory notes |  | 6,325 |  | - |
| Variable A funds: |  |  |  |  |
| Short-term investments |  | 95,860 |  | 104,926 |
| Equity securities |  | 5,956,048 |  | 6,043,451 |
| Variable B funds: |  |  |  |  |
| Short-term investments |  | 40,679 |  | 24,652 |
| Managed investment contracts |  | 129,196 |  | 138,054 |
| Guaranteed investment contracts |  | 76,244 |  | 120,205 |
| Collateral from securities lending |  | 4,656,730 |  | 5,769,330 |
| Total investments |  | 36,133,048 |  | 36,394,689 |
| OTHER ASSETS |  | 49,264 |  | 27,241 |
| Total assets |  | 37,563,834 |  | 37,580,876 |
| LIABILITIES |  |  |  |  |
| Accounts payable |  | 27,488 |  | 575,788 |
| Payables for investment securities purchased |  | 2,357,121 |  | 2,220,732 |
| Accrued benefits payable |  | 12,835 |  | $16,442$ |
| Securities lending (Note 2) |  | 4,674,220 |  | 5,792,510 |
| Total liabilities |  | 7,071,664 |  | 8,605,472 |
| PLAN NET ASSETS HELD IN TRUST FOR PENSION |  |  |  |  |
| BENEFITS (A schedule of funding progress for the Plan is presented on Schedule 1) | \$ | 30,492,170 | \$ | 28,975,404 |

See notes to financial statements.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK QUALIFIED PENSION PLAN

## STATEMENTS OF CHANGES IN PLAN NET ASSETS <br> YEARS ENDED JUNE 30, 2005 AND 2004 (In Thousands)

|  | 2005 |  | 2004 |  |
| :---: | :---: | :---: | :---: | :---: |
| ADDITIONS: |  |  |  |  |
| Contributions: |  |  |  |  |
| Member contributions | \$ | 124,539 | \$ | 97,858 |
| Employer contributions |  | 1,228,275 |  | 920,264 |
| Other employer contributions |  | 20,429 |  | 20,324 |
| Total contributions |  | 1,373,243 |  | 1,038,446 |
| Investment income (Note 2): |  |  |  |  |
| Interest income |  | 438,525 |  | 374,184 |
| Dividend income |  | 413,003 |  | 324,122 |
| Net appreciation in fair value of investments |  | 2,502,792 |  | 3,846,492 |
| Total investments income |  | 3,354,320 |  | 4,544,798 |
| Less: |  |  |  |  |
| Investment expenses |  | 60,184 |  | 40,929 |
| Net income |  | 3,294,136 |  | 4,503,869 |
| Securities lending transactions: |  |  |  |  |
| Securities lending income |  | 114,275 |  | 34,349 |
| Securities lending fees |  | $(97,109)$ |  | $(26,283)$ |
| Net securities lending income |  | 17,166 |  | 8,066 |
| Net investment income |  | 3,311,302 |  | 4,511,935 |
| Other: |  |  |  |  |
| Net receipts from (payments to) other retirement systems |  | 3,215 |  | $(1,764)$ |
| Total additions |  | 4,687,760 |  | 5,548,617 |
| DEDUCTIONS: |  |  |  |  |
| Benefits payments and withdrawals (Note 1 and 2) |  | 3,133,272 |  | 2,622,611 |
| Administrative expenses |  | 37,722 |  | 28,592 |
| Total deductions |  | 3,170,994 |  | 2,651,203 |
| INCREASE IN PLAN NET ASSETS |  | 1,516,766 |  | 2,897,414 |
| PLAN NET ASSETS HELD IN TRUST FOR BENEFITS: |  |  |  |  |
| Beginning of year |  | 28,975,404 |  | 26,077,990 |
| End of year | \$ | 30,492,170 |  | 28,975,404 |

See notes to financial statements.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 

## NOTES TO FINANCIAL STATEMENTS <br> YEARS ENDED JUNE 30, 2005 AND 2004

## 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 Teachers' Retirement System of the City of New York Qualified Pension Plan (the "Plan"), the New York City Employees' Retirement System ("NYCERS"), the New York City Board of Education Retirement System-Qualified Pension Plan ("BERS"), the New York City Police Pension Fund ("POLICE") and the New York City Fire 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 certain City public school teachers and certain other school and college teachers. The primary employers, in addition to the City, are the City University of New York and certain other specific schools (collectively, the "Employer"). Substantially, all teachers in the public schools of the City become members of the Plan and certain other specified school and college personnel may become members on the first day of permanent employment.

The Plan functions in accordance with existing State statutes and certain 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 members a means of deferring income tax payments on their voluntary contributions until the period after retirement or upon withdrawal of contributions. The TDA Program was created pursuant to 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.

At June 30, 2004 and June 30, 2003, the dates of the Plan's most recent actuarial valuations, the Plan's membership consisted of:

|  | $\mathbf{2 0 0 4}$ | $\mathbf{2 0 0 3}$ |
| :--- | ---: | ---: |
| Retirees and beneficiaries receiving benefits | 62,728 | 58,133 |
| Terminated vested members not yet receiving benefits | 4,754 | 4,307 |
| Active members receiving salaries | $\underline{105,391}$ | $\underline{97,986}$ |
| Total | $\underline{\underline{172,873}}$ | $\underline{\underline{160,426}}$ |

The State Constitution provides that the 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 I) are entitled to service retirement benefits of $50 \%$ of "final pay" (as defined within State statutes and City laws) after 20 years of service; a portion is provided from member contributions, plus additional benefits equal to specified percentages (as defined within State statutes and City laws) per year of service of "final pay" for years in excess of the 20-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 twentieth 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, which would reduce their take-home pay, but provide them with greater benefits upon retirement.

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

- Members who joined the Plan after June 30, 1973 and before July 27, 1976 (Tier II) have provisions similar to Tier I, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit.
- Members who joined the Plan on or after September 1, 1983 (Tier IV) must make contributions of 3\% of salary until termination of service. Effective October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of ten years of credited service, whichever is earlier. 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.
- Members who joined the Plan on or after July 27, 1976 and prior to September 1, 1983 (Tier III) were mandated into Tier IV. However, these members could elect to remain in Tier III which requires member contributions of $3.0 \%$ of salary for a period not to exceed thirty years, reduces benefits 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 $3.0 \%$. Effective October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of ten years of credited service, whichever is earlier.

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 Annuity Programs. Members can elect to invest in multiples of $5 \%$ and change their elections once a year. The Employer guaranteed a $7.5 \%$ return on member contributions to the Fixed Annuity Program until June 30, 1982, increased the guaranteed return to $8.0 \%$ as of July 1, 1982 and to $8.25 \%$ as of July 1,1988 for members who enrolled in the Plan prior to July 27, 1976. (Members enrolled on or after July 27, 1976 receive a guaranteed return of $5.0 \%$ on member contributions.) The Variable Annuity Programs include only member contributions and ITHP contributions made on their behalf, as described above, and are expressed in terms of units that are valued monthly based on investment experience.

At retirement, monthly annuities attributable to member contributions and ITHP contributions can be paid in both fixed and variable amounts, based on the member's election, which can be changed once a year. 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 and eligible for 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.

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), additional service credit for certain Tier I and Tier II members, and reduced member contributions for certain Tier III and Tier IV 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 the flow of economic resources. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred. Contributions from members are recognized when the Employer makes payroll deductions from Plan members' salary. 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 Fund ("IIF") and Private Equity ("PE"). The IIF and PE are private funds, 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.

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 organization represents 5\% or more of the Plan net assets held in trust for pension benefits.

Investment Programs - The Plan's investments are composed of the assets of three investment programs. These are the Fixed Annuity Program and two Variable Annuity Programs: Variable A, which consists primarily of equity securities and Variable B, which consists primarily of guaranteed investment contracts.

Assets of the Fixed Annuity Program of the Plan are co-invested with certain assets of the TDA Program. The TDA Program is funded by voluntary member contributions. Assets of the Variable Annuity Programs of the Plan are co-invested with certain assets of the TDA Program and BERS. These financial statements reflect the Plan's proportionate share of the investments and the related 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.

Benefits Payments and Withdrawals - Plan deductions are primarily due to benefits payments and withdrawals. Included in withdrawals is the interest fixed income ( $8.25 \% \mathrm{APR}$ ) owed and transferred to the TDA program. For Fiscal Year 2005, TDA interest of $\$ 375$ million was classified as part of the benefit payments and withdrawals.

Securities Lending Transactions - State statutes and Board policies permit the Plan to lend its investments 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 U.S. Treasury and U.S. Government agency securities at $100 \%$ to $105 \%$ of the principal plus accrued interest for reinvestment. Management believes the Plan has limited credit risk exposure to borrowers because the amounts the Plan owed the borrowers equaled or exceeded the amounts the borrowers owed the Plan. In addition, the contracts with the Plan's 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 or fail to pay the Plan for income distributions by the securities' issuers while the securities are on loan. All securities loans can be terminated on demand within a period specified in each agreement by either the Plan or the borrowers. Cash collateral is invested in the lending agents' short-term investment pools, which have a weighted average maturity of 90 days. The underlying fixed income securities have an average maturity of ten years.

During Fiscal Year 2003, the value of certain underlying securities became impaired because of the credit failure of the issuer. Accordingly, the carrying amount of the collateral reported in the Plan's statements of Plan net assets for Fiscal Year 2003 was reduced by $\$ 25$ million to reflect this impairment and reflect the net realizable value of the securities purchased with collateral from securities lending transactions. In May 2004, the Plan received $\$ 1.8$ million from a distribution in bankruptcy proceeds from the defaulted issuer. In

August 2004, the Plan received $\$ 5.7$ million as partial settlement from parties involved in the initial purchase of the impaired security.

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 statement 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 with a borrower default. Accordingly, the Plan recorded the investments purchased with the cash collateral from securities lending with a corresponding liability for securities lending.

Pronouncement Issued But Not Yet Effective - In April, 2004, GASB issued Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. The Statement prescribes uniform financial reporting standards for Other Postemployment Benefits (OPEB) plans of all state and local governments. OPEB refers to postemployment benefits other than pension benefits and includes: (i) postemployment healthcare benefits and (ii) other types of postemployment benefits (e.g., life insurance) if provided separately from a pension plan. 'Plans’ refer to trust or other funds through which assets are accumulated to finance OPEB, and benefits are paid as they become due. The Statement provides standards for measurement, recognition, and display of the assets, liabilities, and, where applicable, net assets and changes in net assets of such funds and for related disclosures. The requirements of Statement No. 43 apply whether an OPEB plan is reported as a trust or agency fund or a fiduciary component unit of a participating employer or plan sponsor, or the plan is separately reported by a public employee retirement system or other entity that administers the plan. The Plan is currently reviewing Statement No. 43 to determine if its requirements are applicable to the Plan.

In June 2004, GASB issued Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. The Statement establishes standards for the measurement, recognition, and display of Other Postemployment Benefits (OPEB) expense and related liabilities (assets), note disclosures, and, if applicable, required supplementary information in the financial reports of state and local governmental employers. OPEB includes postemployment healthcare, as well as other forms of postemployment benefits (e.g., life insurance) when provided separately from a pension plan. The approach followed in the Statement generally is consistent with the approach adopted in Statement No. 27, Accounting for Pensions by State and Local Governmental Employers, with modifications to reflect differences between pension benefits and OPEB. Statement No. 45 improves the relevance and usefulness of financial reporting by: (i) recognizing the cost of benefits in periods when the related services are received by the employer; (ii) providing information about the actuarial accrued liabilities for promised benefits associated with past services and whether and to what extent those benefits have been funded; and (iii) providing information useful in assessing potential demands on the employer's future cash flows. The Plan is currently reviewing Statement No. 45 to determine if its requirements are applicable to the Plan.

In June 2005, GASB issued Statement No. 47, Accounting for Termination Benefits. The Statement provides guidance for measuring, recognizing, and reporting liabilities and expense related to all termination benefits, including voluntary termination benefits (e.g., early retirement incentives), without limitation as to the period of time during which the benefits are offered, and involuntary termination benefits (e.g., severance benefits). Statement No. 47 excludes postemployment benefits (pensions and Other Postemployment Benefits (OPEB) which are part of the compensation that is offered in exchange for services received because they differ in nature from termination benefits. Accounting and reporting requirements for pensions and OPEB are addressed in Statement No. 27, Accounting for Pensions by State and Local Governmental Employers and Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, respectively. The Statement requires the Plan to disclose a description of the termination benefit arrangement, the cost of the termination benefits (required in the period in which the Plan becomes obligated if that information is not otherwise identifiable from information displayed on the face of the financial statements), and significant methods and assumptions used to determine termination benefit liabilities. The Plan is currently reviewing Statement No. 47 to determine if its requirements are applicable to the Plan.

New Accounting Standards Adopted - In Fiscal Year 2005, the Plan adopted one new statement issued by Governmental Accounting Standards Board (GASB):
— Statement No. 40 Deposit and Investment Risk Disclosures, an amendment of GASB Statement No. 3
Statement No. 40 establishes and modifies disclosure requirement related to investment risks, which includes credit risk, interest rate risk and foreign currency risk. The implementation of Statement No. 40 expands note disclosure regarding the Plan's investments and their related investment and deposit risks. Under Statement No. 40, the Plan is required to disclose information (if applicable) covering four principal areas:

- Investment credit risk disclosures, including credit quality information issued by rating agencies;
- Interest rate disclosures that include investment maturity information, such as weighted average maturities or specific identification of the securities;
- Interest rate sensitivity for investments that are highly sensitive to changes in interest rates
- Foreign exchange exposures that would indicate the foreign investment's denomination.


## 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 Plan 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 $15 \%$ of total pension fund assets may be made in instruments not expressly permitted by the State RSSL.

Mellon Global Securities Services was the primary custodian for significantly all of the Variable A and B securities for the years ended June 30, 2005 and 2004. Citibank, N.A. was the primary custodian for substantially all of the other securities of the Plan for the periods prior to March 31, 2004. Bank of New York ("BONY") became custodian on April 1, 2004, to present.

Cash deposits are insured by the Federal Deposit Insurance Corporation for up to $\$ 100,000$ 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-The quality ratings of investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, are as follows:

| Investment Type* | S\&P Quality Ratings |  |  |  |  |  |  | Short term | Not Rated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30, 2005 | AAA | AA | A | BBB | BB | B |  <br> Below |  |  |  |
| U.S. Government | 12.30\% | - | - | - | - | - | - | - | - | 12.30\% |
| Corporate bonds | 22.80\% | 3.23\% | 11.23\% | 10.65\% | 9.00\% | 14.78\% | 2.00\% | 0.04\% | 1.10\% | 74.83\% |
| Yankee Bonds | 0.28\% | 1.17\% | 3.31\% | 2.82\% | 0.89\% | 1.30\% | 0.07\% | - | - | 9.84\% |
| Short Term | 0.49\% | - | - | - | - | - | - | 2.36\% | 0.18\% | 3.03\% |
| Percent of Rated Portfolio | 35.87\% | 4.40\% | 14.54\% | 13.47\% | 9.89\% | 16.08\% | 2.07\% | 2.40\% | 1.28\% | 100.00\% |


|  | AAA | AA | A | BBB | BB | B | CCC \& Below | Short term | Not Rated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| June 30, 2004 |  |  |  |  |  |  |  |  |  |  |
| U.S Government | 18.56\% | - | - | - | - | - | - | 0.25\% | 0.01\% | 18.82\% |
| Corporate | 20.76\% | 2.26\% | 7.78\% | 13.11\% | 5.17\% | 12.06\% | 1.81\% | - | 4.41\% | 67.36\% |
| Yankee Bonds | 0.30\% | 0.36\% | 3.55\% | 2.47\% | 0.39\% | 0.73\% | 0.16\% | - | 0.04\% | 8.00\% |
| Short Term | - | - | - | - | - | - | - | 1.18\% | 4.64\% | 5.82\% |
| Percent of Rated Portfolio | 39.62\% | 2.62\% | 11.33\% | 15.58\% | 5.56\% | 12.79\% | 1.97\% | 1.43\% | 9.10\% | 100.00\% |

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

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 or 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. 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, 2005

|  | Investment Maturities |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Fair <br> Value | Less than <br> one year | One to five <br> years | Six to ten <br> years | More than <br> ten years |  |
|  |  | $15.72 \%$ | $0.24 \%$ | $2.14 \%$ | $4.42 \%$ | $8.92 \%$ |
| U.S Government | $75.32 \%$ | $0.46 \%$ | $17.40 \%$ | $16.58 \%$ | $40.70 \%$ |  |
| Corporate | $6.85 \%$ | $0.71 \%$ | $3.04 \%$ | $1.68 \%$ | $1.43 \%$ |  |
| Yankee Bonds | $2.11 \%$ | $2.11 \%$ | - | - | - |  |
| Short Term | $100.00 \%$ | $3.52 \%$ | $22.58 \%$ | $22.68 \%$ | $51.05 \%$ |  |
| Percent of Rated Portfolio |  |  |  |  |  |  |

June 30, 2004

|  | Fair <br> Value |  | Less than <br> one year | One to five <br> years |  | Six to ten <br> years |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  | More than |  |  |
| ten years |  |  |  |  |  |  |

Securities Lending Transactions
Credit Risk - The quality ratings of investments held as collateral for Securities Lending are as follows:
Investment Type and Fair
Value of Securities Lending
Transactions
(In thousands)
June 30, 2005
Government
June 30, 2004
Government
Corporate
Short Term
Portfolio

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

| Years to Maturity |
| :--- |
| Investment Type |
| (In thousands) |

June 30, 2005

June 30, 2004

|  | $\begin{array}{c}\text { Fair } \\ \text { Value }\end{array}$ |  |  |  |  |  |  | $\begin{array}{c}\text { Less than } \\ \text { one year }\end{array}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | \(\left.\begin{array}{c}One to five <br>

years\end{array} $$
\begin{array}{c}\text { Six to ten } \\
\text { years }\end{array}
$$ $$
\begin{array}{c}\text { More than } \\
\text { ten years }\end{array}
$$\right]\)

## 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 statutorilyrequired contributions ("Statutory Contributions") that together with member contributions and investment income would ultimately be sufficient to accumulate assets to pay benefits when due.

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

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

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 the State statutes and City laws, are generally funded by the Employer within the appropriate fiscal year.

The June 30, 2004 and 2003 actuarial valuations used to determine Fiscal Years 2005 and 2004 Employer contributions, respectively, were, in general, based on actuarial assumptions and methods proposed by the Actuary. Where required, the Retirement Board of the Plan adopted those changes to the actuarial assumptions and methods that required Board approval and the State Legislature and the Governor enacted Chapter 85 of the Laws of 2000 ("Chapter 85/00") to provide for those changes to the actuarial assumptions and methods that required legislation, including the investment rate of return assumption of $8.0 \%$ per annum.

The Frozen Initial Liability 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 85/00 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.

Chapter 70 of the Laws of 1999 established the UAAL as of June 30, 2000, for an Early Retirement Incentive. This UAAL is being amortized on a level basis over a period of five years beginning Fiscal Year 2001.

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

Additionally, the Actuarial Asset Valuation Method (AAVM") was changed as of June 30, 1999 to reflect a market basis for investments held by the Plan. This AAVM recognizes expected investment returns immediately and phases in investment returns greater or less then expected (i.e., Unexpected Investment Returns ("UIR")).

Under this AAVM, any UIR for Fiscal Years 2000 and later are 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). Therefore, for the fixed income program, the average market value is used which is calculated as the current market value plus the amortization of the UIR for the five previous 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 Cost-of-Living Adjustments ("COLA") beginning September 2001. Chapter 125/00 also provided for a five-year phase-in schedule for funding the additional actuarial liabilities created by the benefits provided by this law. Chapter 278 of the Laws of 2002 ("Chapter 278/02") required the Actuary to revise the methodology and timing for determining the Statutory Contributions on account of the additional actuarial liabilities attributable to the benefits provided under Chapter 125/00 by extending the phase-in period for funding these liabilities from five years to ten years.

Specifically, in accordance with Chapter 125/00 the Actuary, in calculating the statutory contributions for Fiscal Years 2001 and 2002, included the following percentages of the increase in actuarial liabilities attributable to Chapter 125/00 COLA benefits:

## Fiscal Year

2001
2002

Phase-In Percent
20\%
40\%

Chapter 278/02 revised the phase-in schedule of Chapter 125/00 for Fiscal Years 2003 and later.
Chapter 278/02 provided that, for the June 30, 2000 actuarial valuation, the Actuary is required to recognize, on a theoretical basis, only $10 \%$ of the additional actuarial liabilities created by the benefits provided by Chapter 125/00 for determining Fiscal Year 2001 Employer contributions.

For each of the next eight June 30 actuarial valuations (i.e., June 30, 2001 to June 30, 2008), the Actuary is required to recognize progressively increasing percentages (i.e., $20 \%$ to $90 \%$ ) of the additional actuarial liabilities attributable to Chapter 125/00 for determining the Fiscal Year 2002 to Fiscal Year 2009 Employer contributions.

For the June 30, 2009 and later actuarial valuations, the Actuary is required to recognize the full amount of the additional actuarial liabilities attributable to Chapter 125/00 for determining Fiscal Years 2010 and later Employer contributions.

Because the Fiscal Year 2002 and 2001 accounting periods were closed and Chapter 278/02 had a retroactive effect, the interest-adjusted difference between Employer contributions actually paid for Fiscal Year 2002 and 2001 under Chapter 125/00 and the amounts that would have been payable under the ten-year phase-in schedule for such fiscal years was deducted from the otherwise required Employer contributions for Fiscal Year 2003.

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

Statutory Contributions for Fiscal Years 2005 and 2004 were equal to the amounts calculated by the Actuary and reflect the impact of Chapter 125/00 and Chapter 278/02. These contributions were less than the annual pension costs computed in accordance with GASB Statement No. 25, due to the phase-in schedule for funding provided by Chapter 125/00 and Chapter 278/02.

## 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, 2005 and 2004 is $\$ 135.1$ million and $\$ 150.6$ 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 Fixed Annuity Program assets with discretionary authority. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller also provides cash receipt and cash disbursement services to the 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. The City also provides other administrative services. The cost of providing such services amounted to $\$ 3.6$ million and $\$ 3.1$ million in Fiscal Years 2005 and 2004.

## 7. ADMINISTRATIVE AND INVESTMENT EXPENSES

Chapter 593 of the Laws of 1996, effective July 1, 1996, authorized the Board of Trustee to draw upon its assets to pay the administrative expenses incurred by the Plan. Prior to Fiscal Year 1997, the City and Variable A and Variable B Annuity Programs had paid all administrative expenses. In Fiscal Year 2005, total expenses attributed to the Plan were approximately $\$ 41.4$ million. $\$ 4.2$ million were attributed to a Variable A and Variable B provision for expenses. Of the $\$ 37.2$ million, $\$ 33.6$ million was paid from the assets of the Plan and the remaining $\$ 3.6$ million was paid by The City on behalf of the Plan. In Fiscal Year 2004, total non-investment expenses attributed to the Plan were approximately $\$ 31.6$ million, of which $\$ 28.5$ million was paid from the assets of the Plan and $\$ 3.1$ million was incurred on behalf of the Plan by the City agencies, primarily the Comptroller's Officer. Investment expenses charged to the investment earnings of the Plan, exclusive of expenses relation to securities-lending transaction amounted to approximately $\$ 60.1$ million in 2005 and $\$ 40.9$ million in 2004.

## 8. CONTINGENT LIABILITIES AND OTHER MATTERS

Contingent Liabilities - In February 1997, a former New York City school principal filed an action in New York State Supreme Court challenging the investment policies and practices of the Retirement Board with regard to the Variable B Annuity Program. The plaintiff alleges that the Trustees of the Plan illegally maintained the Variable B Annuity Program as a fixed-income fund and ignored a requirement that a substantial amount of the Program's assets be invested in equity securities. The Plan and the individual Trustees are the defendants in the case. Plaintiff seeks damages on behalf of all Variable B Annuity Program participants in excess of $\$ 250$ million. In May 1999, the Appellate Division, First Department, affirmed the Supreme Court's earlier denial of the defendant's motion for summary judgment. The discovery process has been completed and a motion for summary judgment is pending. Subsequently, during September 2005, this case was tried in New York Supreme Court and a decision is pending. If the plaintiff were to prevail in this action, it could result in substantial costs to the Employer.

In November 1998, the United Federation of Teachers ("UFT") and a number of individual plaintiffs filed a suit challenging the Plan's policy of denying pension service credit for work performed as "per session employment," (i.e., employment with the Department of Education in addition to regular duties and
compensated on an hourly basis). Plaintiffs were seeking to have the Court direct the Plan to grant pension credit for all past and future per session work performed by current in-service members. Plaintiffs’ motion for summary judgment was granted. The Appellate Division, First Department, affirmed the lower court decision. In October 2002, the New York State Court of Appeals also affirmed the lower court decision. Subsequently, TRS has implemented the court decision.

In August 2002, a similar lawsuit was instituted on behalf of retired Plan members also seeking service credit for work performed as "per session employment." Plaintiffs' request to proceed as a class action was granted by the lower court. Subsequently, the parties have developed an initial settlement agreement and negotiations continue. Final agreement, if consistent with the initial agreement, is expected to result in substantial costs to the Employer.

In March 2005, the President of the UFT and three retired teachers filed a suit alleging miscalculation of the retirement formula applicable to TRS members who retire under the 20-Year Pension Plan. If the plaintiffs were to prevail in the action, it could result in substantial costs to the Employer.

The Plan also has certain other contingent liabilities. Management of the Plan, on advice from legal counsel, believes that such proceedings and contingencies will not have a material effect on Plan net assets or cause changes in Plan net assets. Under the State statutes and City laws that govern the functioning of the Plan, increases in the obligation of the Plan to members and beneficiaries ordinarily result in increases in the obligations of the Employer to the Plan.

Other Matters - During Fiscal Years 2005 and 2004, certain events took place that, in the opinion of Plan management, could have the effect of increasing benefits to members and/or their beneficiaries and therefore would increase the obligations of the Plan. The effect of such events has not been fully quantified. However, it is the opinion of Plan management that such developments would not have a material effect on Plan net assets held in trust for pension benefits or cause changes in Plan 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 recent study was published by Gabriel, Roeder, Smith \& Company ("GRS") dated October 2003 and analyzed experience for Fiscal Years 1998 through 2001. The Actuary has proposed changes to the actuarial assumptions and methods applicable to the determination of the Fiscal Year 2005 Employer contribution.

Revised Actuarial Assumptions and Methods - In accordance with the ACNY and with appropriate practice, the Boards of Trustees of the five actuarially-funded NYCRS are to periodically review and adopt actuarial assumptions as proposed by the Actuary for use in the determination of Employer contributions.

Based upon a review of the October 1999 Watson Wyatt and Company ("Wyatt") study, the Actuary proposed changes to certain actuarial assumptions and methods to be used by the NYCRS for Fiscal Years beginning on and after July 1, 1999 (i.e., Fiscal Years beginning 2000). Where required, the Retirement Board of the Plan has adopted those changes to actuarial assumptions and methods that required Board approval and the State Legislature and the Governor enacted Chapter 85/00 to provide for those changes to the actuarial assumptions and methods that required legislation, including the investment rate of return assumption of $8.0 \%$ per annum.

After reviewing the results of the October 2003 GRS study, the Actuary issued a 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 Teachers’ Retirement System" dated August 31, 2005.

The Retirement Board of the Plan has adopted the Actuary's proposed changes in actuarial assumptions and the methods that require Board approval. For those changes to the actuarial assumptions and methods that require legislation, such actions are anticipated during the Fiscal Year 2006.

New York State Legislation - Chapter 133 of the Laws of 2004 extended certain provisions of Chapter 85/00 through Fiscal Year 2005. Thus, for Fiscal Year 2005, the interest rate used for Tier I and Tier II member contributions and ITHP Reserves remained at $8.25 \%$ per annum. Chapter 133 of the Laws of 2005 now provides a similar extension of the interest rates for Fiscal Year 2006. The investment rate of return assumption for determining Employer contributions for Fiscal Year 2006 remains at $8.0 \%$ per annum until and unless changed following the proposals of the Actuary and the actions by the Retirement Board, the State Legislature and the Governor.

Chapter 623 of the Laws of 2004 provides for an Excess Benefit Plan to be established that 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, creates a presumptive eligibility for accidental disability in connection with the World Trade Center attack on September 11, 2001.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK QUALIFIED PENSION FUND

## REQUIRED SUPPLEMENTARY INFORMATION <br> SCHEDULE OF FUNDING PROGRESS (UNAUDITED) <br> (IN CONFORMITY WITH THE PLAN'S FUNDING METHOD) <br> (In Thousands)

|  | (1) | (2) |  | (3) | (4) |  | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial Valuation Date June 30 | Actuarial <br> Asset Value <br> (AAV) <br> (A) | Actuarial <br> Accrued Liability (AAL)* (A)\&(B) |  | Unfunded <br> AAL <br> (UAAL) <br> (C)(2)-(1) | $\begin{aligned} & \text { Funded } \\ & \text { Ratio } \\ & \text { (1) } \div(2) \end{aligned}$ |  | Covered Payroll | UAAL as a Percentage of Covered Payroll (3) $\div(5)$ |
| 2004 | \$32,817,102 | \$32,827,541 | \$ | 10,439 | 100.0 \% | \$ | 6,219,809 | 0.2\% |
| 2003 | 33,169,210 | 33,182,652 |  | 13,442 | 100.0 |  | 5,828,757 | 0.2 |
| 2002 | 34,177,750 | 34,181,065 |  | 3,315 | 100.0 |  | 5,469,239 | 0.1 |
| 2001 | 35,410,230 | 35,414,490 |  | 4,260 | 100.0 |  | 5,015,334 | 0.1 |
| 2000 | 36,142,435 | 36,147,571 |  | 5,136 | 100.0 |  | 4,721,526 | 0.1 |
| 1999 | 34,626,062 | 34,626,062 |  | - | 100.0 |  | 4,217,560 | 0.0 |

Notes:
(A) As of June 30, 1995 and June 30, 1999, economic and noneconomic assumptions were revised due to experience review. The AAVM was changed, as of June 30, 1995 and 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, 1995 and June 30, 1999.

Under the AAVM used as of June 30, 1995, the AAV was reset to Market Value (i.e., "Market Value Restart"). Prior to June 30, 1995, this AAVM recognized expected investment returns immediately and phased in investment returns greater or less than expected (i.e., UIR) over five years at a rate of $20 \%$ per year (i.e., cumulative rates of $20 \%, 40 \%, 60 \%, 80 \%$ and $100 \%$ over five years).

The AAVM used as of June 30, 1996 was a modified version of that used prior to June 30, 1995.
Under this modified AAVM, any UIR for Fiscal Years 1997 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 $10 \%$, $25 \%, 45 \%, 70 \%$ and $100 \%$ over five years). The UIR for Fiscal Year 1996 was phased in beginning June 30,1996 at a cumulative rates of $20 \%, 35 \%, 45 \%, 70 \%$ and $100 \%$ over five years.
Under the AAVM used as of June 30, 1999, any UIR for Fiscal Years 2000 and later are 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 $10 \%, 25 \%, 45 \%, 70 \%, 90 \%$ and $100 \%$ over 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 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)

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK QUALIFIED PENSION PLAN <br> REQUIRED SUPPLEMENTARY INFORMATION <br> SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED) <br> (In Thousands) 

| Fiscal Year <br> Ended June 30 | Annual <br> Required <br> Contribution (ARC) | Percentage <br> of ARC <br> Contributed |
| :---: | :---: | :---: |
| 2005 | $\$ 1,304,033$ | $94.2 \%$ |
| 2004 | $1,015,331$ | 90.6 |
| 2003 | 805,782 | 79.4 |
| 2002 | 607,763 | 83.9 |
| 2001 | 571,956 | 77.8 |
| 2000 | 202,758 | 100.0 |
| 1999 | 486,780 | 100.0 |

Under the requirements of Governmental Accounting Standards Board Statement Number 27 ("GASB 27") 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). The difference between the ARC and the Statutory Contribution is the consequence of Chapter 278/02 which phasesin over ten years the additional actuarial liabilities attributed to the benefits provided by Chapter 125/00 (i.e., automatic COLA).

The statutory contribution of $\$ 1.2$ billion, $\$ 920.3$ million, $\$ 639.6$ million, $\$ 509.9$ million and $\$ 445.0$ million for Fiscal Years 2005, 2004, 2003, 2002 and 2001, respectively, were computed in accordance with Chapter 125/00, which provides for a five-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00 and Chapter 278/02 which extended the phase-in period for funding these liabilities from five years to ten years.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK QUALIFIED PENSION PLAN 

## REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF ACTUARIAL METHODS AND ASSUMPTIONS (UNAUDITED)

The information presented in the required supplementary schedules was determined as part of the actuarial valuations as of June 30, 2004 and 2003. These actuarial valuations were used to determine Employer contributions for Fiscal Years 2005 and 2004, respectively. Additional information as of the last two actuarial valuations follows.

|  | June 30, 2004 | June 30, 2003 |
| :---: | :---: | :---: |
| Actuarial cost method | Frozen Initial Liability ${ }^{1}$ | Frozen Initial Liability ${ }^{1}$ |
| Amortization method for Unfunded Actuarial Accrued Liabilities | Level dollar for UAAL attributable to 1999 and 2002 (Part A only) Early Retirement Incentive (ERI). All outstanding components of UAAL are being amortized over closed periods ${ }^{2}$ | Level dollar for UAAL attributable to 1999 and 2002 (Part A only) Early Retirement Incentive (ERI). All outstanding components of UAAL are being amortized over closed periods ${ }^{2}$. |
| Remaining amortization period | 1 years for 1999 ERI and 4 years for 2002 ERI (Part A only) | 2 years for 1999 ERI and 5 years for 2002 ERI (Part A only) |
| Actuarial asset valuation method | Modified 5-year moving average of market values with a "market value restart" as of June 30, 1999. For assets of Variable Annuity Program, current market value. | Modified five-year moving average of market values with "market value restart" as of June 30, 1999. For assets of Variable Annuity Program, current market value. |
| Actuarial assumptions: |  |  |
| Investment rate of return | $8.0 \%$ per annum ${ }^{3}$ ( $4.0 \%$ per annum for benefits payable under the Variable Annuity Programs). | 8.0\% per annum ${ }^{3}$ (4.0\% per annum for benefits payable under the Variable Annuity Programs). |
| Post-retirement mortality | Tables adopted by Retirement Board during Fiscal Year 2000. | Tables adopted by Retirement Board during Fiscal Year 2000. |
| Active service: withdrawal, death, disability, service retirement | Tables adopted by Retirement Board during Fiscal Year 2000. | Tables adopted by Retirement Board during Fiscal Year 2000. |
| Salary increases | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year ${ }^{3 .}$ | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year ${ }^{3}$. |
| Cost-of-living adjustments | 1.3\% per annum ${ }^{3}$ | 1.3\% per annum ${ }^{3 .}$ |

1. Under this Actuarial Cost Method, the Initial Liability was reestablished as of June 30, 1999 by the Entry Age Actuarial Cost Method, but with the UAAL no less than $\$ 0$.
2. In conjunction with Chapter $85 / 00$, there is an amortization method. However, the initial UAAL for the Plan as of June 30 , 1999 equaled $\$ 0$ and no amortization period was required. There is an amortization period used if there is a UAAL.
3. Developed assuming a long-term Consumer Price Inflation of $2.5 \%$ per year.

| SCHEDULE 4: COMMISSIONS AND PAYMENTS TO BROKERS AND CONSULTANTS Year Ended June 30, 2005(Unaudited) |  |  |
| :---: | :---: | :---: |
| INVESTMENT EXPENSES Investment Agent | Service T | TRS' Share of Fees and Commissions Paid |
| FIXED ANNUITY PROGRAM |  |  |
| Aeltus Investment Mgmt., Inc. | Investment Manager | r \$ 746,691 |
| Allegra Capital Partners, L.P. | Investment Manager | $r \quad 360,000$ |
| Apollo Investment Fund | Investment Manager | r 456,838 |
| ARES Corp. | Investment Manager | r 262,500 |
| Ariel Capital Mgmt Inc. - Mid. Cap. \& Small Cap. | Investment Manager | $r 1,067,212$ |
| Aurora Equity Capital Partners | Investment Manager | r 432,422 |
| Bank of Ireland Asset Management (U.S.) Ltd. | Investment Manager | r 2,297,223 |
| Barclays Global Investors, N.A. | Investment Manager | r 301,663 |
| BDCM OPP | Investment Manager | $r$ 750,648 |
| BlackRock Financial Management-Corp. | Investment Manager | r 285,028 |
| BlackRock Financial Management-Mortgage | Investment Manager | r 320,930 |
| Blackstone Capital | Investment Manager | $r$ 608,005 |
| Blackstone RE | Investment Manager | $r$ 455,558 |
| BZW Barclays Global Investors | Investment Manager | r 20 |
| Canyon Johnson | Investment Manager | r 416,480 |
| Canyon Johnson URB | Investment Manager | $r$ 75,000 |
| Capital Guardian Trust Co. (Domestic Eq.) | Investment Manager | $r \quad 341,351$ |
| Capital Guardian Trust Co. (Intl.) | Investment Manager | r 4,037,669 |
| Carlyle Partners | Investment Manager | $r \quad 569,879$ |
| Chicago Eq. Partners | Investment Manager | $r \quad 400,619$ |
| Citi Invest | Investment Manager | $r$ 1,500,000 |
| CitiGroup Asset Mgmt. | Investment Manager | $r$ 690,855 |
| Coller Capital | Investment Manager | $r$ 367,500 |
| Credit Suisse (BEA Associates) Mgmt. | Investment Manager | r 883,402 |
| Cypress Merch BK Partners II | Investment Manager | $r$ 750,000 |
| Delaware International Advisors | Investment Manager | r $2,428,105$ |
| Fairview Capital Partners | Investment Manager | r 344,624 |
| FdG Capital Partners | Investment Manager | - 572,180 |
| FdG Capital Partners II | Investment Manager | $r$ 700,000 |
| Fischer, Francis, Trees \& Watts, Inc.-Govt. | Investment Manager | r 277,259 |
| Fischer, Francis, Trees \& Watts, Inc.-Int'l | Investment Manager | $r$ 336,679 |
| Freeman Spogli | Investment Manager | $r$ 432,928 |
| G.E. Investment Management, Inc. | Investment Manager | $r$ 1,486,761 |
| Landmark Equity Partners | Investment Manager | r 171,521 |
| Leeds Weld Equity Partners | Investment Manager | $r$ 489,910 |
| Lehman Brothers-Govt. | Investment Manager | r 95,546 |
| Lehman Brothers-Mortgage | Investment Manager | - 336,589 |
| Lend Lease Rosen | Investment Manager | $r$ 952,168 |
| Lincolnshire Equity Fund II | Investment Manager | $r$ 458,527 |
| Lincolnshire Equity Fund III | Investment Manager | r 500,000 |
| Lumina Ventures | Investment Manager | r 375,000 |
| Markstone Capital Partners | Investment Manager | $r$ 730,275 |
| Mellon Capital Management | Investment Manager | r 85,823 |
| Miller, Anderson \& Sherrerd | Investment Manager | r 627,008 |
| Morgan Stanley (Domestic Eq.) | Investment Manager | $r$ 2,067,963 |
| New Mountain Partners | Investment Manager | $r 377,398$ |
| New Mountain Partners II | Investment Manager | $r$ 464,000 |
| OCM Re Opp Fund | Investment Manager | $r$ 187,500 |
| Pacific Investment Management Company (PIMCO) | Investment Manager | $r$ 493,763 |
| PIMCO Govt Transition Acct. | Investment Manager | $r$ 139,258 |
| PIMCO TIPS MTA | Investment Manager | $r$ - 53,428 |
| Paladin Homeland Security | Investment Manager | r 716,717 |
| Putnam Institutional Management | Investment Manager | $r$ 200,903 |
| Ripplewood Partners | Investment Manager | $r$ 269,604 |
| Rowe Price Fleming International Inc. | Investment Manager | $r \quad 902,344$ |
| RRE Ventures 111 L.P. | Investment Manager | r 550,000 |
| SCP Private Equity Partners | Investment Manager | $r$ 400,000 |
| Security Capital | Investment Manager | $r$ 993,683 |
| Seix | Investment Manager | $r \quad 30,074$ |
| Shenkman Cap. | Investment Manager | $r$ 1,102,493 |
| Silver Lake | Investment Manager | $r$ 558,790 |
| Solera Partners | Investment Manager | $r 375,000$ |
| Sprucegrove Investment Management Ltd. T. Rowe Price Associates, Inc. | Investment Manager | $\begin{array}{rr}r & 1,964,030 \\ 981,727\end{array}$ |
| T. Rowe Price Associates, Inc. | Investment Manager | $r$ 981,727 |


| SCHEDULE 4: COMMISSIONS AND PAYMENTS TO BROKERS AND CONSULTANTS (Continued) Year Ended June 30, 2005 (Unaudited) |  |  |
| :---: | :---: | :---: |
| INVESTMENT EXPENSES Investment Agent | Service TRS' | TRS' Share of Fees and Commissions Paid |
| T. Rowe Price - Corp. | Investment Manager | 300,487 |
| Taplin, Canida, Habacht | Investment Manager | 468,946 |
| Tishman Speyer | Investment Manager | 3,842,416 |
| W.R. Huff Asset Management Co., L.L.C. | Investment Manager | 1,504,974 |
| Westpeak Investment Advisors L.P. | Investment Manager | 335,707 |
| Yucaipa American Alliance Fund | Investment Manager | 1,283,236 |
| Bank of New York | Custodial Bank | 333,553 |
| Consultant fees |  | 1,670,680 |
| TOTAL FIXED ANNUITY PROGRAM |  | \$ 52,334,070 |
| VARIABLE A ANNUITY PROGRAM |  |  |
| Alliance Capital Management L.P. | Investment Manager | \$ 206,174 |
| Amalgamated Bank of New York | Investment Manager |  |
| Barclays Global Investors, N.A. - Int'. Alpha Tilts | Investment Manager | 1,614,150 |
| Barclays Global Investors, N.A. - Russell 3000 | Investment Manager | 50,607 |
| Barclays Global Investors, N.A. - Tactical Asset | Investment Manager | 300,117 |
| Brinson Partners -Non US | Investment Manager | 776,567 |
| Capital Guardian Trust Co. | Investment Manager | 597,224 |
| Cardinal Capital Mangement | Investment Manager | 69,635 |
| Fidelity Management Trust Company | Investment Manager | 418,937 |
| Freedom Capital Management Corporation | Investment Manager | 61,302 |
| Goldman Sachs Asset Management | Investment Manager | 813,184 |
| High Pointe Capital Management | Investment Manager | 17,180 |
| Enhanced Investment Technologies, Inc. (INTECH) | Investment Manager | 710,368 |
| Lynmar Capital Group | Investment Manager | 53,280 |
| Mellon Capital Management Corporation - Russell 3000 | Investment Manager | 48,613 |
| Mellon Capital Mgmt. Corp. - Enhanced Asset Allocation | Investment Manager | 600,549 |
| Mellon Capital (Short Term A - QPP \& TDA) | Investment Manager | 46 |
| New South Capital Management, Inc. | Investment Manager | 178,918 |
| PanAgora Asset Management, Inc. | Investment Manager | 255,690 |
| Profit Investment Management | Investment Manager | 54,039 |
| Sound Shore Management, Inc. | Investment Manager | 272,630 |
| Trust Company of the West (TCW) | Investment Manager | 123,602 |
| Mellon Trust Co. | Custodial Bank | 103,004 |
| Interactive Data | Financial Information | 58,699 |
| Consultant fees |  | 209,744 |
| TOTAL VARIABLE A ANNUITY PROGRAM |  | \$ 7,615,065 |
| VARIABLE B ANNUITY PROGRAM |  |  |
| Standish Mellon Asset Mgmt./NISA Investment Advisors | Funding Advisor | \$ 159,888 |
| Mellon Global Securities Services | Custodial Bank | 5,827 |
| Consultant fees |  | 68,612 |
| TOTAL VARIABLE B ANNUITY PROGRAM |  | \$ 234,327 |
| TOTAL INVESTMENT EXPENSES** |  | \$ 60,183,462 |
| See Notes of Financial Statements No. 7 for the Corpus | Expenses. |  |

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

|  | SCHEDULE 5: PROFESSIONAL FEES <br>  <br>  <br> Year Ended June 30, 2005 (Unaudited) |  |
| :--- | :--- | ---: |
| PROFESSIONAL |  |  |
| Alternative Accounts | NATURE OF SERVICE |  |
| Bank of New York | Consulting Services |  |
| Buck Consultants | Custody Service | $\$ 350,319$ |
| Interactive Data | Consulting | 33,553 |
| Mellon | Investment Service | 82,478 |
| Pacific Group | Custody Services | 58,699 |
| Rocaton Investment Advisors | Consulting Services | 108,831 |
| Townsend Real Estate | Investment Advisors | 702,130 |
| TOTAL | Consulting Services | 635,878 |

## SCHEDULE 6: ADMINISTRATIVE EXPENSES <br> Year Ended June 30, 2005 (Unaudited)

PERSONNEL SERVICES

Staff Salaries
Social Security
Insurance (Health)
Welfare Benefit Fund
TOTAL PERSONNEL SERVICES
PROFESSIONAL SERVICES
Data Processing and Contractual Services
Temporary and Consulting Services
Professional Service
TOTAL PROFESSIONAL SERVICES
COMMUNICATION
Telephone
Postage
Local Traveling Expenses*
Non-Local Traveling Expenses**
TOTAL COMMUNICATION
RENTALS
Office Space
Equipment Leasing
Relocation Expenses
TOTAL RENTALS
MISCELLANEOUS

| Utilities | 189,640 |
| :--- | ---: |
| Supplies and Materials | 67,920 |
| Maintenance, Repairs, and Services | 290,216 |
| Office Equipment and Furniture | 15,705 |
| Advertising Expenses | 50,453 |
| Storage | 558,347 |
| Printing | 93,901 |
| Training Program | 104,963 |
| Books | 10,063 |
| Miscellaneous | 34,172 |

340,844

$$
\begin{array}{r}
\$ 15,741,727 \\
854,030 \\
1,285,225 \\
595,930 \\
\hline
\end{array}
$$

3,120,605
2,151,848
383,332

340,844
363,988
35,394
28,920

4,041,578
326,403
2,875,581
\$18,475,912

5,655,785

769,146

7,243,562
\$ 1,415,380

* Includes $\$ 17,227$ for Local Travel Fare, $\$ 9,204$ for Courier Service, and $\$ 8,963$ for Meals and Refreshments.
${ }^{* *}$ Includes $\$ 14,170$ for Hotels and Meals, $\$ 9,075$ for Travel Fare, and $\$ 5,675$ for Conferences.
${ }^{* * *}$ Other administrative expenses of $\$ 3,594,477$ were paid on our behalf under Regulation 85 of the New York State Superintendent of Insurance Regulations.
See Notes of Financial Statements No. 7 for the Corpus Expenses.


3. Investment
Section

# Comprehensive Annual Financial Report Teachers' Retirement System of the City of New York 

Introduction to Report on Investment Activity<br>Prepared by Rocaton Investment Advisors, LLC, Investment Consultant to the Teachers' Retirement System of the City of New York

TRS offers three investment options: the Fixed Annuity Program, the Variable A Annuity Program, and the Variable B Annuity Program. The structure of each of these programs differs depending upon its investment objective. These three programs and their objectives are described below.

The Pension Fund includes a) all funds that Tiers I/II members invested in the Fixed Annuity Program and b) all Tiers III/IV QPP funds. The Fixed Annuity Program currently provides Tiers I/II participants with an $8.25 \%$ return. This rate is guaranteed through June 30,2005 , and may then be continued or reset based on action by the New York State Legislature. Tiers III/IV members are credited $5 \%$ in their QPP accounts. The Pension Fund totaled $\$ 29.120$ billion as of June 30, 2005 and earned a gross of fee return of $10.63 \%$ for the fiscal year. As of June 30, 2005, this Fund had $48 \%$ U.S. equity investments, $16 \%$ nonU.S. equity investments, $1 \%$ private equity investments, less than $1 \%$ in private real estate, $5 \%$ REITs, $28 \%$ fixed-income investments, and $1 \%$ in short-term investments. The Fund's long-term asset allocation policy is based on the Fund's long-term investment horizon of more than 20 years. The investment structure has a significant emphasis on risk control. For example, as of June 30, 2005, $95 \%$ of U.S. equity assets were invested in indexed or risk-controlled strategies. This emphasis on indexed and riskcontrolled strategies also enables the program to more effectively control costs. The Fund's fixed-income holdings are primarily very high-quality U.S. securities, with a smaller allocation to enhanced-yield securities (enhanced-yield securities represented $6 \%$ of plan assets as of June 30, 2005).

The Variable A Fund has as its objective to provide participants with a very diversified equity investment portfolio. As of June 30, 2005, Variable A had $\$ 6.633$ billion in assets and had a net of fee return of $9.12 \%$ for the fiscal year. This portfolio's target structure is a mixture of U.S. equities ( $70 \%$ ), non-U.S. equities ( $15 \%$ ), and tactical asset allocation strategies ( $15 \%$ ). The tactical asset allocation strategies shift allocations to stocks, bonds, and cash, depending upon the managers' analysis of market conditions. The diversification of this portfolio beyond U.S. equities is intended to protect participants against significant market downturns within a single asset class (i.e., U.S. stocks). Again, risk control and cost-effectiveness are a very important focus of the investment structure. For example, as of June 30, 2005, 94\% of the assets in U.S. Equity strategies within Variable A were invested in indexed and risk-controlled strategies.

The Variable B Fund is structured to preserve participants' capital and to provide current income with a low level of volatility. At June 30, 2005, Variable B's assets totaled $\$ 0.379$ billion and the Fund earned a net of fee return of $3.54 \%$ for the fiscal year. This Fund is diversified among high-quality bonds and investment contracts provided by insurance companies. The bonds are covered by insurance contracts, which ensure that participants will not receive less than book value or cost on any withdrawals from this Fund. As the Fund's investments mature or make principal payments, the proceeds are re-invested so as to ensure that the Fund maintains a level of current yield which tracks short-term interest rates.

In summary, all of the above investment programs are appropriately invested in well-diversified multimanager portfolios. These investment managers continue to receive regular monitoring to ensure that the investment policies and strategies are consistent with TRS' investment objectives.

## ECONOMIC REVIEW

Overall, the tone of the global economy was relatively optimistic during the one-year period ended June 30,2005 . While the market seemed poised for continued growth after the strong end to 2004, the first half of 2005 saw a stagnant market. Companies continued to report strong earnings growth, but the pace slowed as the rising price of energy was a concern. After raising short-term rates five times in 2004, the Federal Reserve raised the Federal Funds rate four times in the first half of 2005, with the Fed Funds rate at $3.25 \%$ as of June 30,2005 . While the Fed's influence is primarily on short-term interest rates, the overall fixed-income market outperformed stocks in the first half of 2005, with yields flattening off.

## U.S. MARKETS REVIEW

During the one-year period ended June 30, 2005, historically more volatile investments, such as small cap equities and enhanced-yield fixed income, outperformed the broader equity and fixed-income markets. Economic growth remained on track, with slowly rising interest rates seemingly keeping inflation at bay. For the year ended June 30, 2005, the Lehman Brothers Aggregate Bond Index, a broad index of U.S. investment-grade bonds, returned 6.8\%.

The Russell 3000 Index, a broad measure of the U.S. equity markets, increased $8.1 \%$ for the one-year period ended June 30,2005 . On a quarter-to-quarter comparison, the broad U.S. equity market posted a mixture of positive and negative returns during each quarter of this one-year period. The $4^{\text {th }}$ quarter of 2004 had the strongest gain with a return of $10.2 \%$, while the $1^{\text {st }}$ quarter of 2005 had the worst return of $-2.2 \%$, as measured by the Russell 3000 Index.

## INTERNATIONAL MARKETS REVIEW

The return for the MSCI EAFE Index, a measure of the developed international equity markets, was $14.1 \%$ in U.S. dollar terms for the one-year period ended June 30, 2005. Global markets were influenced by many factors, including energy prices, technology, and growth in China. After a period of strong returns, Japan was the weakest major market for the year ended June 30, 2005, with the MSCI Japan Index returning $-1.4 \%$ for that time period. As in the U.S., small cap stocks generally outperformed larger cap stocks in the international markets during this one-year period. A strong U.S. dollar also obscured trends in non-U.S. markets.

| INVESTMENT SUMMARY <br> As of June 30, 2005 |  |  |
| :---: | :---: | :---: |
| Type of Investment | Market Value In Thousands | Percent of Total Market Value |
| Fixed Income: |  |  |
| Government Bonds | \$ 3,458,760 | 10.99\% |
| Corporate Bonds | 2,732,075 | 8.68 |
| Foreign Bonds | 482,205 | 1.53 |
| Total Fixed Income | \$ 6,673,040 | 21.20\% |
| Common Stock: |  |  |
| Financial \& Utility | \$ 5,400,810 | 17.16\% |
| Basic Industry | 7,678,214 | 24.39 |
| Consumer \& Service | 3,322,857 | 10.55 |
| Technological | 1,904,019 | 6.05 |
| Total Common Stock | \$ 18,305,900 | 58.15\% |
| Alternative Investments: |  |  |
| Guaranteed Investment Contracts (GICs) | \$76,245 | 0.24\% |
| Managed Investment Contracts | 129,196 | 0.41 |
| International | 4,464,982 | 14.19 |
| Mutual Fund | 600,504 | 1.91 |
| Total Alternative Investments | \$ 5,270,927 | 16.75\% |
| Short-Term Investments: |  |  |
| Short-Term Investment | \$ 865,995 | 2.75\% |
| Commercial Paper | 360,456 | 1.15 |
| Total Short-Term Investments | \$ 1,226,451 | 3.90\% |
| Total | \$ 31,476,318* | 100.00\% |



[^0]


| ANNUALIZED INVESTMENT RESULTS* <br> As of June 30, 2005 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Current Year } \\ 2005 \end{gathered}$ | Annualized |  |
|  |  | 3 -Year | 5-Year |
| Total Portfolio (TRS) | 10.28\% | 9.92\% | 1.88\% |
| Benchmark A (Russell 3000) | 8.05 | 9.46 | -1.35 |
| Benchmark B (30-Year Treasury Notes) | 22.50 | 11.67 | 9.95 |
| Equity Segment (TRS) | 9.76\% | 9.97\% | -0.68\% |
| Benchmark A (Standard \& Poor's 500) | 6.32 | 8.28 | -2.37 |
| Benchmark B (Russell 3000) | 8.05 | 9.46 | -1.35 |
| Fixed-Income Segment (TRS) | 8.20\% | 7.44\% | 7.64\% |
| Benchmark A (5-Year Treasury Notes) | 4.14 | 4.64 | 6.65 |
| Benchmark B (30-Year Treasury Notes) | 22.50 | 11.67 | 9.95 |
| Guaranteed Investment Contracts (GICs) (TRS) | 3.54\% | 3.54\% | 4.39\% |
| Benchmark A (GICs -2-Year Treasury Notes) | 1.74 | 2.56 | 4.64 |
| Benchmark B | - | - | - |
| Cash-Equivalents Segment (TRS) | 2.28 | 1.75 | 3.46 |
| Benchmark A (30-Year Treasury Notes) | 22.50 | 11.67 | 9.95 |
| Benchmark B | - | - | - |

[^1]
## ANNUALIZED INVESTMENT RESULTS

As of June 30, 2005

Total Portfolio


| NUMBER OF YEARS | 1 | $\mathbf{3}$ | $\mathbf{5}$ |
| :--- | :---: | :---: | :---: |
| TRS | $10.28 \%$ | $9.92 \%$ | $1.88 \%$ |
| Benchmark A (Russell 3000) | $8.05 \%$ | $9.46 \%$ | $-1.35 \%$ |
| Benchmark B <br> (30-Year Treasury Notes) | $22.50 \%$ | $11.67 \%$ | $9.95 \%$ |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK ANNUALIZED INVESTMENT RESULTS (Continued)

As of June 30, 2005


Fixed-Income Segment


# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> ANNUALIZED INVESTMENT RESULTS (Continued) <br> As of June 30, 2005 

Guaranteed Investment Contracts (GICs)


NUMBER OF YEARS
1 3
5

| TRS | $3.54 \%$ | $3.54 \%$ | $4.39 \%$ |
| :--- | :--- | :--- | :--- |
| Benchmark A <br> (GICs-2-Year Treasury Notes) | $1.74 \%$ | $2.56 \%$ | $4.64 \%$ |



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

As of June 30, 2005

| Par Value |  | Interest Rate | Due Date | Market Value |
| :---: | :--- | :---: | :---: | ---: |
| $\$ 147,845,000$ | Federal Nat Mtg Assn \#T/B/A | $5.500 \%$ | $07 / 01 / 34$ | $\$ 149,831,667$ |
| $117,890,000$ | Federal Nat Mtg Assn \#T/B/A | 4.500 | $07 / 01 / 19$ | $117,337,391$ |
| $93,735,000$ | Federal Home Ln Mtg Corp Gold SFM \#T/B/A | 5.000 | $08 / 01 / 34$ | $93,529,955$ |
| 84,450,000 | Federal Home Ln Mtg Corp Gold SFM \#T/B/A | 5.000 | $07 / 01 / 34$ | $84,450,000$ |
| $64,105,000$ | United States Treasury Bonds | 6.375 | $08 / 15 / 27$ | $83,113,415$ |
| $72,277,281$ | Federal Nat Mtg Assn Pool \#725232 | 5.000 | $03 / 01 / 34$ | $72,378,470$ |
| $70,350,000$ | Federal Home Ln Mtg Corp Gold SFM \#T/B/A | 5.500 | $08 / 01 / 18$ | $72,086,766$ |
| $59,227,492$ | Federal Nat Mtg Assn Pool \#735227 | 5.500 | $02 / 01 / 35$ | $60,072,669$ |
| $57,100,000$ | Federal Nat Mtg Assn \#T/B/A | 5.000 | $08 / 01 / 19$ | $57,653,156$ |

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

As of June 30, 2005

| Shares | Equity | Market Value |
| ---: | :--- | ---: |
| $1,581,909$ | General Electric Co. | $\$ 54,813,147$ |
| $1,085,167$ | Bank America Corp. | $49,494,467$ |
| 579,679 | Johnson \& Johnson | $37,679,135$ |
| $1,349,445$ | Pfizer Inc. | $37,217,693$ |
| 624,209 | Exxon Mobil Corp. | $35,873,291$ |
| 649,296 | Citigroup Inc. | $30,016,954$ |
| $1,785,450$ | Time Warner Inc. | $29,834,870$ |
| 650,125 | Dell Inc. | $25,653,933$ |
| $1,026,537$ | Microsoft Corp. | $25,499,179$ |
| 508,899 | Wachovia Corp. 2nd | $25,241,390$ |
| 412,848 | Amgen Inc. | $24,960,790$ |
| 299,573 | Aetna US Healthcare | $24,810,636$ |
| 82,540 | Google Inc. | $24,279,141$ |
| 921,359 | Intel Corp. | $23,973,761$ |
| 385,568 | Merrill Lynch \& Co. | $21,210,096$ |
| 584,428 | JP Morgan Chase \& Co. | $20,641,997$ |
| 816,761 | Hewlett Packard Co. | $19,202,051$ |
| 324,677 | American International Group Inc. | $18,863,734$ |
| $1,844,600$ | Liberty Media Corp. | $18,796,474$ |
| 433,675 | Washington Mutual Inc. | $17,646,236$ |

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

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

## sCHEDULE OF INVESTMENT MANAGERS AND OTHER SERVICE FEES (BY CATEGORY)

For The Fiscal Year Ended June 30, 2005 (In Thousands)

|  | Assets Under Management | Fees | Percent of Fees Over Assets |
| :---: | :---: | :---: | :---: |
| INVESTMENT MANAGERS' FEES |  |  |  |
| Fixed Income Managers | \$6,673,040 | \$ 8,538 | 0.128\% |
| Equity Managers | 23,371,386 | 49,048 | 0.210\% |
| Other | 205,441 | 160 | 0.078\% |
| TOTAL INVESTMENT MANAGERS' FEES | \$30,249,867* | \$57,746 | 0.195\% |
| OTHER INVESTMENT SERVICE FEES |  |  |  |
| Custodian fees | \$31,476,318** | \$ 442 | 0.0014\% |
| Investment Consultant fees | 36,133,048 | 1,995 | 0.0055\% |
| TOTAL INVESTMENT SERVICE FEES |  | \$ 2,437 | 0.0067\% |

* Excludes \$1,226,451 in short-term and \$4,656,730 in securities lending.
** Excludes \$4,656,730 in securities lending.


## PARTICIPATING EMPLOYERS

Department of Education
Charter Schools
City University of New York

## SUMMARY OF INVESTMENT MANAGERS

## PENSION FUND INVESTMENT MANAGERS

## Equity

Aeltus Investment Mgmt., Inc
Ariel Capital Management, Inc.
Bank of Ireland Asset Management (U.S.) Limited
Barclays Global Investors, N.A
Capital Guardian Trust Company
Chicago Equity Partners, L.L.C.
Delaware International Advisors, Ltd.
GE Asset Management, Inc.
INVESCO Institutional N.A., Inc.
Mellon Capital Management Corporation
Putnam Advisory Company, L.L.C.
Schroder Investment Management N.A., Inc.
Sprucegrove Investment Management Ltd.
Westpeak Investment Advisors L.P.

## Enhanced Yield/Alternative

AFL-CIO Housing Investment
Allegra Capital Partners IV, L.P.
Apollo Investment Fund
ARES Corp. Opp Fund
Aurora Equity Capital Partners III
BDCM OPP Fund
The Blackstone Group
Canyon-Johnson Realty Advisors
The Carlyle Group
Coller Investment Management, Ltd.
Cypress Mech BK Partners II
FdG Capital Partners L.L.C.
Fairview Capital Partners
Freeman Spogli \& Co., Inc.
Landmark Equity Partners
Leeds Wells Equity Partners IV

Fixed Income
BlackRock Financial Management, Inc.
Citigroup Asset Management
Credit Suisse Asset Management, L.L.C.
Fischer, Francis, Trees \& Watts, Inc.
Lehman Brothers
Morgan Stanley Investment Partners, L.P.
Pacific Investment Management Company (PIMCO)
Security Capital Seix
Shenkman Capital
T. Rowe Price Associates, Inc.

Taplin, Canida \& Habacht
Targeted Investment
REITS
Lend Lease Rosen Real Estate Sec., L.L.C.
Morgan Stanley Investment Partners, L.P
Lincolnshire Management, Inc.
Loomis, Sayles \& Co., L.P.
Lumina Ventures
Markstone Capital Partners
New Mountain Investments
Oaktree Capital Management
Paladin Homeland Security
RRE Ventures
Ripplewood Holdings, L.L.C.
SCP Private Equity Partners
Silver Lake Partners II
Solera Capital, L.L.C.
Tishman Speyer
W.R. Huff Asset Management Co., L.L.C.

Yucaipa American Alliance Fund

## VARIABLE A INVESTMENT MANAGERS

Alliance Capital Management L.P.<br>Amalgamated Bank<br>Bank of Ireland Asset Management (U.S.) Limited<br>Barclays Global Investors, N.A.<br>Capital Guardian Trust Company<br>Cardinal Capital Management, L.L.C.<br>Enhanced Investment Technologies, Inc. (INTECH)<br>Goldman Sachs Asset Management<br>High Pointe Capital Management, L.L.C.<br>\section*{VARIABLE B INVESTMENT MANAGERS}<br>NISA Investment Advisors, L.L.C.<br>Standish Mellon Asset Management, L.L.C.

Lynmar Capital Group, Inc.
Mellon Capital Management Corporation
Pacific Investment Management Company (PIMCO)
PanAgora Asset Management, Inc.
Profit Investment Management
Sound Shore Management, Inc.
UBS Global Asset Management Trust Co.
Wellington Management Company, L.L.P.

## 4. Actuarial Section

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 



# OFFICE OF THE ACTUARY 

75 PARK PLACE - $9^{\text {m }}$ FLOOR
NEW YORK, NY 10007
(212) 442-5775 • FAX: (212) 442-5777

Robert C. North, Jr. CHIEF ACTUARY

December 2, 2005

```
Retirement Board
Teachers' Retirement System
    of New York City
5 5 \text { Water Street, 16 th Eloor}
New York, NY 10041
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Re: Actuarial Information for the Comprehensive Annual Financial Report ("CAFR") for the Fiscal Year ended June 30, 2005

Dear Members:
The financial objective of the Teachers' Retirement System of the City of New York - 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 payroll, 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 June 30 preceding each fiscal year to determine the employer contributions to be paid for that fiscal year.

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.

Retirement Board
Teachers' Retirement System
of New York City
December 2, 2005
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Statutory Contributions for Eiscal Year 2005 were less than the Annual Required Contributions as defined under Governmental Accounting Standards Board Statement Number 25 ("GASB 25"). This relationship occurs because Chapter 125 of the Laws of 2000 ("Chapter $125 / 00$ "), which provides eligible retirees and eligible beneficiaries with Supplementation benefits effective September 2001 and with automatic Cost-of-Living Adjustments ("COLA") beginning September 2001, also provides for a phase-in schedule, later modified by Chapter 278 of the Laws of 2002 ("Chapter $278 / 02^{\prime \prime}$ ), for funding the additional actuarial liabilities attributable to the benefits provided by Chapter 125/00.

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

Actuarial Assumptions and Methods
Provided in this Actuarial Section of the CAFR is a "Summary of Actuarial Assumptions and Methods in Effect as of June 30, 2004." These actuarial assumptions and methods were employed in the June 30, 2004 actuarial valuation that was used to determine Fiscal Year 2005 employer contributions to the Plan.

These actuarial assumptions and methods are generally the same as those employed in the June 30, 2003 actuarial valuation that was used to determine Fiscal Year 2004 employer contributions to the Plan.

After reviewing the results of an independent actuarial study dated October 2003 prepared by Gabriel, Roeder, Smith \& Company in accordance with Section 96 of the New York City Charter, the Actuary issued a 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 Teachers' Retirement System" dated August 31, 2005.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 

Retirement Board
Teachers' Retirement System
of New York City
December 2, 2005
Page 3

The Retirement Board of the Plan has adopted the Actuary's proposed changes in actuarial assumptions and methods that require Board approval. For those changes to the actuarial assumptions and methods that require legislation, such actions are anticipated during Fiscal Year 2006.

Benefits And Census Data
A summary of the benefits available under the Plan is shown later in this Actuarial Section of the CAFR.

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

A summary of the census data as of June 30, 2004 is included in this CAFR. A summary of the census data used in the June 30, 2003 actuarial valuation of the Plan is available in the June 30, 2004 CAFR.

## Funded Status

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

With respect to the funded status of the Plan, included in the Financial Section of the CAFR is a Schedule of Funding Progress (Schedule 1).

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

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 

Retirement Board
Teachers' Retirement System
of New York City
December 2, 2005
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In addition to the Schedule of Funding Progress and the Solvency Test, included in the Actuarial Section of the CAFR (following the Solvency Test) are two Other Measures of Funded Status which provide different comparisons of the Assets and Liabilities of the Plan.

## Presentation Style and Sources of Information

The actuarial information herein is being presented in a manner believed to be consistent with the requirements of the GFOA and, where applicable, with GASB 25 which was adopted for financial reporting purposes beginning Fiscal Year 1995.

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

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

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

- Summary of Actuarial Assumptions and Methods in Effect as of June 30, 2004.
- Active Member Valuation Data.
- Retirants and Beneficiaries Added to and Removed from Rolls.


# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 

Retirement Board Teachers' Retirement System of New York City
December 2, 2005
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- Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets - Solvency Test.
- Other Measures of Funded Status.
- Actual vs. Required Contributions.
- Chronology of Plan.
- Summary of Plan Provisions.

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

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


# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 

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Retirement Board
Teachers' Retirement System
    of New York City
December 2, }200
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If you have any questions about any of the information in this Actuarial Section or any of the actuarial information elsewhere in this CAFR, please do not hesitate to contact Mr. Martin A. Einhorn or me.
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Robert C. North, Jr., F.S.A. Chief Actuary

RCN/bs

```
cc: Mr. M.A. Einhorn
    Mr. J.R. Gibney
    Mr. N. Serrano
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## SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT AS OF JUNE 30, 2004

1. The investment rate of return assumption is $8.0 \%$ per annum ( $4.0 \%$ per annum for benefits payable under the Variable Annuity Programs).
2. 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.
3. 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 other than for Service Retirement and in Table 3 for members withdrawing from active service after eligibility for Service Retirement.
4. A Salary Scale is used to estimate salaries at termination, retirement or death. Sample percentage increases are shown in Table 4. The Salary Scale includes an assumed General Wage Increase ("GWI") rate of $3.0 \%$ per annum.
5. The economic assumptions (i.e., the assumed investment return rate, GWI rate and Cost-ofLiving Adjustments ("COLA") rate) were developed assuming a long-term Consumer Price Inflation assumption of $2.5 \%$ per annum. The COLA assumption is $1.3 \%$ per annum.
6. The valuation method assumes a closed group. Salaries of members on the valuation date are assumed to increase in accordance with the Salary Scale.
7. The Frozen Initial Liability Actuarial Cost Method is utilized by the Plan's Actuary to calculate the contribution from the employers. Under this Actuarial Cost Method, the Initial Liability was re-established by the Entry Age Actuarial Cost Method as of June 30, 1999, but with the Unfunded Actuarial Accrued Liability ("UAAL") not less than \$0.

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 the 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") re-established the UAAL and eliminated the Balance Sheet Liability ("BSL") for actuarial purposes as of June 30, 1999.

The schedule of payments toward the re-established 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.

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

However, the initial UAAL as of June 30, 1999 equaled $\$ 0$ and no amortization period was required. There is an amortization period for the UAAL established after that date.

Chapter 70 of the Laws of 1999 established the UAAL as of June 30, 2000 for an Early Retirement Incentive. This UAAL is being amortized on a level basis over a period of five years beginning Fiscal Year 2001.

Chapter 69 of the Laws of 2002 established the UAAL as of June 30, 2003 for an Early Retirement Incentive (Part A only). This UAAL is being amortized on a level basis over a period of five years beginning Fiscal Year 2004.
8. The Actuarial Asset Valuation Method ("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.

This AAVM recognizes expected investment returns immediately and phases in investment returns greater or less than expected (i.e., Unexpected Investment Returns ("UIR")) over a period of five years.

Under this AAVM, any UIR for Fiscal Years 2000 and later is phased into the AAV beginning the following June 30 at rates 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 Programs, current Market Value is used.
9. In a report dated October 1999 entitled Report on the Experience Study of the New York City Retirement Systems for the Four Years ended June 30, 1997, Watson Wyatt and Company, an the independent actuarial auditor, presented an actuarial experience study and made recommendations for changes in certain actuarial assumptions and methods. Based upon a review of that study, the Actuary, in a Report dated January 20, 2000, proposed changes to certain actuarial assumptions and methods to be used by the Plan for Fiscal Years beginning on and after July 1, 1999 (i.e., Fiscal Years beginning 2000).

Where required, the Retirement Board of the Plan adopted those changes to actuarial assumptions and methods that required Board approval, and the New York State Legislature and the Governor enacted Chapter $85 / 00$ to provide for those changes to the actuarial assumptions and methods that required legislation, including the investment rate of return assumption of $8.0 \%$ per annum.

The most recent actuarial experience study was published by Gabriel, Roeder, Smith \& Company ("GRS") dated October 2003 and analyzed experience for Fiscal Years 1998 through 2001. Based in part on the recommendations of GRS, the Actuary has reviewed this study and proposed changes to the actuarial assumptions and methods applicable to the determination of Fiscal Year 2006 employer contributions. Such proposed changes were issued in a Report dated August 31, 2005 entitled Changes in Actuarial Assumptions and

Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2005 , for the New York Teachers' Retirement System.

The Retirement Board of the Plan has adopted the Actuary's proposed changes in actuarial assumptions and methods that require Board approval. For those changes to the actuarial assumptions and methods that require legislation, such actions are anticipated during Fiscal Year 2006.
10. 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 Cost-of-Living Adjustments ("COLA") beginning September 2001.

Chapter 125/00 also provided for a five-year phase-in schedule for funding the additional actuarial liabilities created by the benefits provided by this law. Chapter 278 of the Laws of 2002 ("Chapter 278/02") required the Actuary to revise the methodology and timing for determining the Statutory Contributions on account of the additional actuarial liabilities attributable to the benefits provided under Chapter $125 / 00$ by extending the phase-in period for funding these liabilities from five years to ten years.

Specifically, in accordance with Chapter 125/00, the Actuary, in calculating the Statutory Contributions for Fiscal Years 2001 and 2002, included the following percentages of the increase in additional actuarial liabilities attributable to Chapter 125/00 COLA benefits:

| Fiscal Year | Phase-In Percent |
| :---: | :---: |
| 2001 | $20 \%$ |
| 2002 | $40 \%$ |

Chapter 278/02 revised the phase-in schedule for Fiscal Years 2003 and later.
Chapter 278/02 provided that, for the June 30, 2000 actuarial valuation, the Actuary is required to recognize, on a theoretical basis, only $10 \%$ of the additional actuarial liabilities attributable to the benefits provided by Chapter 125/00 for determining Fiscal Year 2001 employer contributions.

For each of the next eight June 30 actuarial valuations (i.e., June 30, 2001 to June 30, 2008), the Actuary is required to recognize progressively increasing percentages (i.e., $20 \%$ to $90 \%$ ) of the additional actuarial liabilities attributable to Chapter 125/00 for determining Fiscal Year 2002 to Fiscal Year 2009 employer contributions.

For the June 30, 2009 and later actuarial valuations, the Actuary is required to recognize the full amount of the additional actuarial liabilities attributable to Chapter 125/00 for determining Fiscal Years 2010 and later employer contributions.

# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT AS OF JUNE 30, 2004 

TABLE 1
Deaths among Service and Disability Pensioners
Percentage of Pensioners Dying within Next Year

## Service Pensioners

| Age | Males | Females | Males | Females |
| :---: | :---: | :---: | :---: | :---: |
|  | $.1151 \%$ |  |  |  |
| $\mathbf{4 0}$ | .2631 | $.0645 \%$ | $1.5101 \%$ | $2.9247 \%$ |
| $\mathbf{5 0}$ | .6163 | .1543 | 1.8462 | 2.5618 |
| $\mathbf{6 0}$ | 1.8461 | .3832 | 2.2326 | 1.4957 |
| $\mathbf{7 0}$ | 4.6919 | 1.0802 | 3.1342 | 1.9287 |
| $\mathbf{8 0}$ | 12.9028 | 10.0798 | 6.0619 | 4.8143 |
| $\mathbf{9 0}$ | 30.1977 | 28.6331 | 12.9554 | 11.4430 |
| $\mathbf{1 0 0}$ | 100.0000 | 100.000 | 30.1977 | 28.6331 |
| $\mathbf{1 1 0}$ |  |  | 100.0000 | 100.0000 |

TABLE 2
Withdrawals from Active Service (Other than for Service Retirement)
Percentage of Active Members Separating within Next Year

|  | Withdrawal* |  | Accidental Disability |  | Ordinary Disability |  | Death |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Males | Females | Males | Females | Males | Females | Males | Females |
| 20 | 2.40\% | 1.80\% | .00\% | .00\% | . $02 \%$ | . $01 \%$ | . $0351 \%$ | . $0183 \%$ |
| 25 | 2.30 | 1.80 | . 00 | . 00 | . 02 | . 01 | . 0432 | . 0245 |
| 30 | 2.20 | 1.80 | . 01 | . 00 | . 02 | . 01 | . 0565 | . 0332 |
| 35 | 2.00 | 1.80 | . 01 | . 01 | . 03 | . 02 | . 0800 | . 0462 |
| 40 | 1.80 | 1.80 | . 01 | . 01 | . 04 | . 06 | . 1151 | . 0645 |
| 45 | 1.40 | 1.40 | . 02 | . 01 | . 05 | . 09 | . 2030 | . 0980 |
| 50 | 1.00 | 1.00 | . 03 | . 02 | . 07 | . 10 | . 3635 | . 1598 |
| 55 | 1.00 | 1.00 | . 04 | . 02 | . 12 | . 13 | . 5702 | . 2465 |
| 60 | 1.00 | 1.00 | . 05 | . 03 | . 17 | . 15 | . 8517 | . 4114 |
| 65 | 1.00 | 1.00 | . 06 | . 04 | . 24 | . 17 | 1.4501 | . 6852 |
| 70 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

[^2]
# SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS <br> IN EFFECT AS OF JUNE 30, 2004 <br> (Continued) 

## TABLE 3

Withdrawals from Active Service (after Eligibility for Service Retirement)
Percentage of Eligible Active Members Retiring within Next Year

| Age | With Reduced Benefits | Males |  |  | Females |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | With Unreduced Benefits |  |  | Age | With <br> Reduced Benefits | With Unreduced Benefits |  |  |
|  |  | Years of Service Since First Elig. |  |  |  |  | Years of | vice Since | st Elig. |
|  |  | 0-1 | 1-2 | $2+$ |  |  | 0-1 | 1-2 | $2+$ |
| 50 | 2.00\% | 0.00\% | 0.00\% | 0.00\% | 50 | 2.00\% | 0.00\% | 0.00\% | 0.00\% |
| 55 | 2.00 | 12.00 | 0.00 | 0.00 | 55 | 2.00 | 10.00 | 0.00 | 0.00 |
| 60 | 5.00 | 12.00 | 10.00 | 10.00 | 60 | 5.00 | 10.00 | 8.00 | 8.00 |
| 65 | 0.00 | 30.00 | 30.00 | 30.00 | 65 | 0.00 | 30.00 | 30.00 | 30.00 |
| 70 | N/A | 100.00 | 100.00 | 100.00 | 70 | N/A | 100.00 | 100.00 | 100.00 |

TABLE 4
Salary Scale

| Salary Scale |  |
| :---: | :---: |
| Age | Assumed Annual Percentage <br> Increase Within Next Year* |
| $\mathbf{2 0}$ | $9.50 \%$ |
| $\mathbf{2 5}$ | 8.50 |
| $\mathbf{3 0}$ | 7.50 |
| $\mathbf{3 5}$ | 6.00 |
| $\mathbf{4 0}$ | 5.50 |
| $\mathbf{4 5}$ | 5.00 |
| $\mathbf{5 0}$ | 4.75 |
| $\mathbf{5 5}$ | 4.75 |
| $\mathbf{6 0}$ | 4.75 |

[^3]Active Member Valuation Data June 30, 1999 to June 30, 2004

| As of June 30 | $\frac{\text { Number }}{1999}$ | 86,682 | $\underline{\text { Annual Payroll }}$ | Percentage <br> Increase <br> (Decrease) in |
| :---: | :---: | :---: | :---: | :---: |
| 2000 | 91,494 | $\$ 4,217,560,016$ | Annual | Avage Salary <br> Average Salary |
| 2001 | 95,381 | $4,721,526,309$ | 51,605 | $5.4 \%$ |
| 2002 | 95,678 | $5,015,449,141$ | 52,583 | 6.1 |
| 2003 | 97,986 | $5,469,239,283$ | 57,163 | 1.9 |
| 2004 | 105,391 | $5,828,756,503$ | 59,486 | 8.7 |

Retirants and Beneficiaries Added to and Removed from Rolls Fiscal Years 1999-2004

| Fiscal <br> Year <br> Ended <br> June 30 | Added to Rolls |  | Removed from Rolls |  | Rolls End of Year |  | \% Increase <br> In Annual <br> Allowances | Average Annual Allowances |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Annual Allowances | Number | Annual Allowances | Number | Annual Allowances |  |  |
| 1999 | 1,794 | \$147,046,596 | 1,537 | \$ 36,719,223 | 50,525 | \$1,604,299,434 | 7.4\% | \$31,753 |
| 2000 | 1,989 | 97,255,275 | 1,545 | 41,436,595 | 50,969 | 1,660,118,114 | 3.5 | 32,571 |
| 2001 | 2,723 | 171,487,630 | 1,712 | 83,599,498 | 51,980 | 1,748,006,246 | 5.3 | 33,628 |
| 2002 | 4,309 | 194,808,813 | 1,727 | 120,082,520 | 54,562 | 1,822,732,539 | 4.3 | 33,407 |
| 2003 | 5,014 | 258,523,666 | 1,443 | 50,572,541 | 58,133 | 2,030,683,664 | 11.4 | 34,932 |
| 2004 | 6,264 | 415,127,840 | 1,669 | 53,234,112 | 62,728 | 2,392,577,392 | 17.8 | 38,142 |

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

## Solvency Test <br> (Amounts in Thousands)

Aggregate Accrued Liabilities for

| $\begin{gathered} \text { As of } \\ \text { June } 30 \end{gathered}$ | Aggregate Accrued Liabilities for |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Accumulated <br> Member <br> Contributions | Current <br> Retirants and Beneficiaries <br> (B) | Active Members' <br> Employer Financed Portion <br> (C) | Actuarial Value of Assets <br> (D) | Percentage of Actuarial Values Covered by Actuarial Value of Assets |  |  |
|  | (A) |  |  |  | (A) | (B) | (C) |
| 1999* | \$3,111,019 | \$15,748,859 | \$12,447,411** | \$34,626,062 | 100\% | 100\% | 100\% |
| 2000 | 3,354,746 | 17,446,520 | 14,340,434** | 36,142,435 | 100 | 100 | 100 |
| 2001 | 3,077,510 | 17,254,058 | 14,114,923** | 35,410,230 | 100 | 100 | 100 |
| 2002 | 2,931,464 | 18,189,124 | 13,623,528** | 34,177,750 | 100 | 100 | 96 |
| 2003 | 2,752,562 | 20,489,777 | 12,561,516 | $33,169,210$ | 100 | 100 | 79 |
| 2004 | 2,628,369 | 24,460,479 | 11,465,947 | 32,817,102 | 100 | 100 | 50 |

* As of June 30, 1999, economic and non-economic assumptions were revised due to experience review, and the Actuarial Value of Assets was reset to Market Value.

Also, see following "Solvency Test - Notes."
** Revised.

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK 

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

Solvency Test-Notes

The ultimate test of financial soundness in a retirement system is its ability to pay all of its promised benefits when due. The retirement system's progress in accumulating assets to pay all promised benefits can be measured by comparing the Valuation 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 credited projected benefits produced by the credited projected benefit attribution approach prorated on service. The Aggregate Accrued Liabilities were calculated in accordance with Governmental Accounting Standards Board Statement No. 5.

This comparative summary allocates assets as if they were priority groups, somewhat similar to (but not identical with) 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. 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. The economic assumptions used in the actuarial calculations are as follows:

| Valuation <br> Date <br> June 30 | Assumed Annual <br> Rate of Return <br> On Investments | Merit and Promotion Increases <br> Plus an Assumed General Wage <br> Increase Per Year of |
| :---: | :---: | :---: |
| 1999 | $8.00 \%$ | $3.0 \%$ |
| 2000 | 8.00 | 3.0 |
| 2001 | 8.00 | 3.0 |
| 2002 | 8.00 | 3.0 |
| 2003 | 8.00 | 3.0 |
| 2004 | 8.00 | 3.0 |

## Other Measures of Funded Status

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

Furthermore, there are multiple possible definitions of the Plan's Assets and Liabilities. For example, with respect to the Liabilities, the Projected Benefit Obligation ("PBO") is defined as the APV of all benefits attributed by the Plan's benefit formula to employee service rendered prior to the valuation date, assuming future salary levels calculated using the actuarial assumptions. The Accumulated Benefit Obligation ("ABO") is determined in the same manner as the PBO but without assuming future salary increases.

The following table presents two Other Measures of Funded Status comparing (1) the AAV with the PBO calculated using the actuarial assumptions in effect as of June 30, 2004 and (2) the Market Value of Assets ("MVA") with the Market Value Accumulated Benefit Obligation ("MVABO") calculated using the same actuarial assumptions in effect as of June 30, 2004 except for an investment rate of return assumption equal to the yields on U.S. Treasury securities where durations are consistent with those of the expected payments from the funds.

| Other Measures of Funded Status <br> (Dollar Amounts in Millions) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Valuation } \\ & \text { Date } \end{aligned}$ | Actuarial Asset Value <br> (AAV) | Market Value of Assets (MVA) | Projected Benefit Obligation (PBO)* | Market Value Accumulated Benefit Obligation (MVABO)** | AAV/PBO | MVA/MVABO |
| 6/30/99 | \$34,626.1 | \$34,626.1 | \$31,307.3 | \$31,733.3 | 111\% | 109\% |
| 6/30/00 | 36,142.4 | 36,751.2 | 35,141.7 | 35,337.0 | 103 | 104 |
| 6/30/01 | 35,410.2 | 31,593.0 | 34,446.5 | 36,711,7 | 103 | 86 |
| 6/30/02 | 34,177.8 | 27,025.9 | 34,744.1 | 38,255.1 | 98 | 71 |
| 6/30/03 | 33,169.2 | 26,078.0 | 35,776.9 | 44,949.2 | 93 | 58 |
| 6/30/04 | 32,817.1 | 28,975.4 | 38,554.8 | 45,308.9 | 85 | 64 |

[^4]
## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## Other Measures of Funded Status (Cont'd)

These Other Measures of Funded Status provide different relationships between the Assets and Liabilities of the Plan and are designed solely to offer additional insight into the Funded Status of the Plan that the Actuary believes may prove interesting to some readers.

In addition, it should be noted that any measures of Funded Status should generally be examined with more consideration of their trends over time than their values at any given point in time.

Note, the ratios of AAV to PBO present a comparable but somewhat different representation of the information shown in the Solvency Test.

The ratios of MVA to MVABO provide a measure of 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.

## Actual vs. Required Contributions

Fiscal Years 2000-2005

| Fiscal Year <br> Ended June 30 | Actual Employer <br> Contribution* | Annual Required <br> Contribution | Employer Rate of <br> Contribution** |
| :---: | :---: | :---: | :---: |
| 2000 | $\$ 181,769,965^{(1)}$ | $\$ 181,769,965$ | $4.310 \%$ |
| 2001 | $444,965,372^{(2)}$ | $571,955,543$ | 9.424 |
| 2002 | $509,931,588^{(3)}$ | $607,762,939$ | 10.167 |
| 2003 | $639,617,910^{(4)}$ | $805,782,222$ | 11.695 |
| 2004 | $920,264,167^{(5)}$ | $1,015,331,185$ | 15.788 |
| 2005 | $1,228,275,356^{(6)}$ | $1,304,032,623$ | 19.748 |

* Equals total employer contributions accrued for fiscal year.
** The employer rates of contribution equal the actual employer contributions as percentages of the salary of members who were on payroll as of the preceding June 30 th adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.
(1) Represents total employer contribution made during Fiscal Year 2000 net of $\$ 176,700,260$ deferred to Fiscal Year 2001.
(2) The statutory contribution of $\$ 444,965,372$ for Fiscal Year 2001 was computed in accordance with Chapter 125/00, which provides for a five-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.
(3) The statutory contribution of $\$ 509,931,588$ for Fiscal Year 2002 was computed in accordance with Chapter 125/00, which provides for a five-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.
(4) The statutory contribution of $\$ 639,617,910$ for Fiscal Year 2003 was computed in accordance with Chapter 125/00, which provides for a five-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00, and Chapter 278/02, which extended the phase-in period for funding these liabilities from five years to ten years.
(5) The statutory contribution of $\$ 920,264,167$ for Fiscal Year 2004 was computed in accordance with Chapter 278/02, which provides for a ten-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.
(6) The statutory contribution of $\$ 1,228,275,356$ for Fiscal Year 2005 was computed in accordance with Chapter 278/02, which provides for a ten-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.


## CHRONOLOGY OF PLAN

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

## SUMMARY OF KEY PLAN BENEFIT AND FUNDING CHANGES

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

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

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

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

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

Chapter 661 of the Laws of 2003 permits members to change their option up to 30 days after the initial date of payability of their retirement allowance (for disability, up to the later of 30 days after approval of the disability retirement or the date of such retirement).

2002 Chapter 69 of the Laws of 2002 authorizes an Early Retirement Incentive for certain members in eligible titles.

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

Chapter 106 of the Laws of 2002 expands and reopens provisions for certain substitute teacher tier reinstatements.

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

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

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

2001 Chapter 470 of the Laws of 2001 allows members who received service credit for seniority and length of service purposes while on layoff due to the New York City fiscal crisis of the $1970^{\prime}$ 's to also receive credit for such service for all pension purposes.

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

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

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

Chapter 86 of the Laws of 2000 authorizes an Early Retirement Incentive for certain members in eligible titles.

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

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

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

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

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

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

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

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

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

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

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

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

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

Chapter 646 of the Laws of 1999 provides 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 reduces the amount of service credit needed for Tiers III/IV vested members to receive benefits at age 55 to 5 years.

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

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

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

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

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

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

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

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

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

1996 Chapter 30 of the Laws of 1996 established an Early Retirement Incentive ("ERI") for certain members and was enacted by a Board Resolution.

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

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

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

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

1995 Chapter 12 of the Laws of 1995 established an Early Retirement Incentive ("ERI") for certain CUNY employees and was enacted by a resolution of CUNY's Board.

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

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

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

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

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

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

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

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

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

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

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1990 Chapter 210 became a law on June 6, 1990. This law provides for a retirement incentive for eligible employees of CUNY, effective September 1,1991.

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

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

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

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

Chapter 919 became a law on July 30, 1990, with an effective date of July 1, 1991. This law amended $\S \S 517$ and 613 of the Retirement and Social Security Law by permitting Tiers III/IV members to borrow up to $75 \%$ of their accumulated contributions.

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

1989 Chapter 580 of the Laws of 1989 amended the funding provisions of the pension systems effective June 30,1988 in relation to eliminating the deferred charge account.

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

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

Chapter 182 became a law on June 1998. This law amended $\S 13-582$ of the Administrative Code of the City of New York in relation to permitting deferral of the distribution of a member's TDA account to the latest date allowable by the Internal Revenue Code.

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

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

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

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

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

Chapter 768 became a law on December 26, 1988 to become effective January 1, 1990. This law amended the Retirement and Social Security Law to include a new Article 15-A

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( $\$ 620$ ), which provides that all TRS members and those who join TRS after this date will receive benefits payable subject to certain limitations of $\S 415$ of the Internal Revenue Code. The benefits payable will be subject to the greater of either [a] the limitations of $\S 415$ of the Internal Revenue Code, or [b] the accrued benefit of the member without regard to any benefit increases in accordance with Plan amendments adopted after October 14, 1987.

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

Chapter 782 became a law on December 29, 1988. This law amended $\S \S 517$ and 613 of the Retirement and Social Security Law in relation to the treatment of Tiers III/IV member contributions for income tax purposes under the provisions of the Internal Revenue Code.

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

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

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

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

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

1985 Chapter 910 of the Laws of 1985 made it possible for TRS to use modernized actuarial tables in computing pension benefits. The Teachers' Retirement Board approved a

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resolution adopting new mortality tables for the purpose of determining certain benefits. The implementation of such a resolution was contingent upon the enactment of State legislation increasing regular interest from $4 \%$ to $7 \%$. Chapter 910 was signed into law on August 19, 1985.

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

1984 Chapter 371 of the Laws of 1984 amended the Administrative Code of the City of New York in relation to the payment of supplemental retirement allowances to spouses of certain deceased retirees.
Chapter 658 of the Laws of 1984 amended §D49-40.0 of the Administrative Code of the City of New York, increasing the amount of Supplemental Retirement Allowance (SRA) payable to every eligible retiree from $3 \%$ of the retiree's maximum fixed retirement allowance (i.e., the "base amount") for post-1971 retirees to $42 \%$ for pre-1959 retirees. In addition, the retirement allowance ceiling on which SRA is based was raised from $\$ 8,000$ to $\$ 10,500$. These benefit increases began in September 1986, and the increase in percentages occurred over a two-year period.

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

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

1981 Chapter 422 of the Laws of 1981 provided new or additional supplemental pensions for certain pensioners and made the funding of these benefits the obligation of TRS.

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1977 Chapter 976 of the Laws of 1977 amended TRS' funding provisions, effective July 1, 1977.

1973 Chapter 1046 of the Laws of 1973 established Article 11 of the Retirement and Social Security Law, which imposed certain limitations on the benefits available to members joining TRS after June 30, 1973 and created Plans C and D, which are modifications of Plans A and B.

1970 Legislation in 1970 substantially revised TRS provisions. Chapter 274 established two new retirement plans effective July 1, 1970. Members who joined TRS on or after the effective date were required to choose either [1] The Twenty-Year Pension Plan (Plan A), or [2] The Age-55-Increased-Benefits Pension Plan (Plan B).

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

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

## SUMMARY OF PLAN PROVISIONS

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

## COORDINATED RETIREMENT PLAN

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

## SERVICE RETIREMENTS

## Normal Service Retirement

Eligibility: A member is eligible to retire at age 62 with immediate payability after five or more years of service, subsequent to the date of membership.

Benefits: $\quad\{1\}$ For a member with fewer than 20 years of service, the benefit is $1 / 60$ of FAS (see note below) multiplied by years of service.
\{2\} For a member with at least 20 but fewer than 30 years of service, the benefit is $1 / 50$ of FAS multiplied by years of service.
\{3\} For a member with 30 or more years of service, the benefit is $1 / 50$ of FAS for each of the first 30 years of service plus $3 / 200$ of FAS for each additional year.

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

## Early Service Retirement

Eligibility: A member is eligible to retire at age 55 or later with immediate payability, after five or more years of service, subsequent to the date of membership.

Benefits: The pension is calculated similarly to the pension of a Normal Service Retirement, but it is reduced as follows:
\{1\} For a member who retires prior to age 62 with less than 30 years of service, his/her pension for service is reduced by $0.5 \%$ for each of the first 24 months that the payability date precedes age 62 , and by $0.25 \%$ for each additional month.

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\{2\} A member with 30 or more years of service receives no reduction in benefits because of early retirement.

## Deferred Vested Benefit

Eligibility: A member who has five or more years of credited service upon termination of employment, is entitled to a deferred vested benefit payable at age 55 or later. A member who elects payability before age 62 will receive a reduced benefit.

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

## DISABILITY RETIREMENTS

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

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

## ORDINARY DEATH BENEFITS

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

## Death Benefit 1:

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

## Death Benefit 2:

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

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

* If death occurs in the first year after retirement, $50 \%$ of the benefit in force immediately before retirement.
* If death occurs in the second year following retirement, $25 \%$ of the benefit in force immediately before retirement.
* If death occurs subsequently, $10 \%$ of the benefit in force at age 60 or immediately before retirement if retirement was earlier than age 60 .

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

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

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

The Death Benefits under Article 14 are as Follows:

| If Death Occurs Before Age 60 and Service is: |  |  | Maximum Benefits Effective |  |
| :---: | :---: | :---: | :---: | :---: |
| At Least | But Not More Than | Lump-Sum Benefit | 4/01/04-3/31/05 | 4/01/05-03/31/06 |
| 1 Year | 2 Years | One x Final Rate of Pay, But Not in Excess of: | \$ 40,600 | \$ 41,900 |
| 2 Years | 3 Years | Two x Final Rate of Pay, But Not in Excess of: | \$ 81,200 | \$ 83,700 |
| 3 Years | Or More | Three x Final Rate of Pay, But Not in Excess of: | \$101,000 | \$104,600 |

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

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

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

## ACCIDENTAL DEATH BENEFITS

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

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

Other Provisions:
$\{1\}$ If the eligible beneficiary becomes ineligible to continue to receive the benefits, they shall be continued for all other members of the next eligible class of beneficiaries, and if none, to each successive class.
\{2\} If the benefits paid do not exceed the amount of the ordinary lump-sum death benefit because of the absence of eligible beneficiaries, the difference is to be paid to the last eligible beneficiary, or if none, to the member's estate.

Beneficiaries: Beneficiaries are prescribed in the following order:
\{1\} A surviving spouse who has not renounced survivorship rights in a separation agreement, or has not remarried;
\{2\} Surviving children until age 25;
\{3\} Dependent parents whose eligibility shall be determined in accordance with regulations promulgated by the Teachers' Retirement Board;
\{4\} Any other person who qualifies as a dependent on the final income tax return the member filed in the year preceding his/her year of death, until such person reaches 21 years of age.

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

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

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

See page 4.37 for definitions of terms used in these plan descriptions.

## SERVICE RETIREMENT

## Twenty-Year Pension Plan

Eligibility: $\{1\}$ A member who joined TRS prior to July 1, 1973 and who elects the Twenty-Year Pension Plan is eligible to retire after having completed 20 years of service, with benefits to begin on the payability date. Regardless of the number of years of service, such a member who has elected the TwentyYear Pension Plan and who is at least 55 years of age may retire with benefits payable immediately by canceling his/her election of the TwentyYear Pension Plan, thereby becoming eligible for the benefits under the Age-55-Increased-Benefits Pension Plan.
\{2\} A member who joined TRS after June 30, 1973 must also have rendered five years of continuous service immediately prior to retiring and must have attained age 55 .

Benefits: The service retirement allowance for a member who joined prior to July 1, 1973, is the sum of the following:
$\{1\} 50 \%$ of the average salary, reduced by an annuity which is the actuarial equivalent of the minimum accumulation;
$\{2\}$ an annuity which is the actuarial equivalent of the accumulated deductions; and
\{3\} for service in excess of 20 years, (a) a pension for Increased-Take-HomePay which is the actuarial equivalent of the Reserve for Increased-Take-Home-Pay credited in such years, and (b) $1.2 \%$ of the average salary for each such year prior to July 1,1970 and $1.7 \%$ of the average salary for each such year beginning on that date.

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

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## Age-55-Increased-Benefits Pension Plan

Eligibility: \{1\} A member who joined TRS prior to July 1, 1973 and who either elects the Age-55-Increased-Benefits Pension Plan or who cancels his/her election of the Twenty-Year Pension Plan may retire after having attained age 55 with benefits payable immediately upon retirement.
\{2\} A member who joined TRS after June 30, 1973 must also have rendered five years of continuous service immediately prior to retiring and must have attained age 55 .

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

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

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

## ORDINARY DISABILITY RETIREMENT

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

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

## ACCIDENT DISABILITY RETIREMENT

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

Benefits: The retirement allowance will consist of a pension equal to three-fourths of the average salary in the last five years, 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 pensions are subject to reduction because of Workers' Compensation benefits granted on account of the accident.

## VESTED DEFERRED RETIREMENT ALLOWANCE

Eligibility: A member who either resigns or is dismissed from service would receive a benefit equal to his/her accumulated deductions. However, a member who is eligible for benefits under the Age-55-Increased-Benefits Pension Plan and who has at least five years of service immediately preceding resignation may instead elect to receive a vested allowance.

Benefits: This allowance is computed in the same manner as the retirement allowance for service retirement under the Age-55-Increased-Benefits Pension Plan, except that the allowance is deferred to age 55. Should a member who elected to receive a vested deferred retirement allowance and who had 10 years of service die before the attainment of age 55, the death benefit is $1 / 2$ of the Ordinary Death Benefit in force on the last day of service.

## ORDINARY DEATH BENEFITS

Benefits: Upon the death of a member in active service, a benefit is paid to his/her estate or to such person(s) as (s)he shall have nominated.

Members who joined TRS before July 1, 1973

* If a member completed less than 10 years of City Service, the benefit is equal to the compensation earnable by the member in the six months immediately preceding death.
* If the total number of years of City Service is greater than 10, but less than 20 , the benefit is equal to the compensation earnable by the member during the 12 months immediately preceding death.
* If the total number of years of City Service exceeds 20, the benefit is equal to twice the compensation earnable by the member during the 12 months immediately preceding death.
* In addition, the member's accumulated deductions and the Reserve for Increased-Take-Home-Pay are paid to the member's estate or to the designated beneficiary.

The benefits payable on account of such a member who, at the time of his/her death, would have been eligible for service retirement is either the benefit described above or an amount equal to the reserve on the retirement allowance which would have been payable had the member retired on the day before his/her death, whichever is larger.

Members who joined TRS between July 1, 1973 and July 27, 1976 must choose between the two following death benefits so that, upon the member's death, benefits are paid pursuant to the member's election:

Death Benefit 1: This benefit provides one month's salary for each year of service, up to a maximum of three years' salary. In addition, the member's accumulated deductions are payable. If the member would have been eligible to receive an unreduced retirement allowance at the time of his/her death, the benefits are the reserve on the retirement allowance which would have been payable had the member retired on the day before his/her death, if greater.

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

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

* If death occurs in the first year after retirement, $50 \%$ of the benefit in force immediately before retirement.
* If death occurs in the second year following retirement, $25 \%$ of the benefit in force immediately before retirement.
* If death occurs subsequently, $10 \%$ of the benefit in force at age 60 or immediately before retirement if retirement was earlier than age 60 .

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

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

## ACCIDENTAL DEATHBENEFITS

Eligibility: A member is entitled to accidental death benefits upon the occurrence of death caused by an accident in the actual performance of duty.

Benefits: The accidental death benefits are (a) a lump sum equal to the Reserve for Increased-Take-Home-Pay and (b) a pension equal to one-half of the average salary in the last five years payable annually to the widow until remarriage or death, or if there is no widow, to a child or children until the attainment of age 18 of the youngest child, or if there is no widow, or child, to the dependent parents, and (c) a lump sum equal to the member's accumulated deductions and Reserve for Increased-Take-Home-Pay payable to the member's estate or to the designated beneficiary. Alternatively, if the member joined TRS prior to July 1, 1973, the beneficiary may elect to receive the reserve on the retirement allowance that would have been payable if the member had retired on the day before the member's death, provided that the death occurred after the member became eligible to retire for service. The pension is subject to reduction because of Workers' Compensation benefits granted on account of the accidental death.

## AUTOMATIC COST-OF-LIVING ADJUSTMENTS ("COLA")

Eligibility: COLA are payable to members who are either at (1) 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 five or more years and beneficiaries receiving accidental death benefits who have been receiving them for at least five years.

Benefits: Starting with benefits for September 2001, COLA are 50\% of the increase in the CPI-U based on the year ending March 31, rounded to the next higher . $1 \%$, not less than $1 \%$ nor greater than $3 \%$ of the first $\$ 18,000$ of the maximum retirement allowance.

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.

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

## DEFINITIONS

Accumulated Deductions-The total contributions the member made to his/her Annuity Savings Account, with regular and special interest thereon.

Average Salary - $\{1\}$ For a member who joined prior to July 1,1973 , salary earnable in the last year of the most recent three-year period during which (s)he held no more than one position, or the average annual salary earnable in any five consecutive years designated by the member.
\{2\} For a member who joined after June 30, 1973, the average salary earned during any three consecutive years that provides the highest average salary. However, if the salary earned during any year included in this three-year period exceeds the average of the previous two years by more than $20 \%$, the amount in excess of $20 \%$ is excluded from the computation.

City Service-All service as an employee of the City.
Minimum Accumulation-The difference between: $\{1\}$ the amount of normal contributions during the member's first 20 years of City Service accumulated with interest to the member's payability date, and $\{2\}$ the amount of the Reserve for Increased-Take-Home-Pay on the date such period of 20 years is completed.

New Entrant-With minor exceptions, a teacher appointed to the public schools after August 1, 1917.

Payability Date-For members who elected the Twenty-Year Pension Plan, the date on which the Service Retirement allowance begins, which is the latest of $\{1\}$ the date when the member retires, or $\{2\}$ the date when (s)he attains age 55 , or $\{3\}$ the date when the member could have completed 25 years of City Service had (s)he remained active. For all other members, the retirement allowance begins on the date of retirement.

Present Teacher-A teacher in the public schools on August 1, 1917 and certain other specified school and college members.

Prior Service-All City Service and all teaching and supervisory service in schools maintained by the City prior to September 16,1917 , for the present teachers and, in the case of a New Entrant, prior to the date of appointment.

Reserve For Increased-Take-Home-Pay-A reserve of $2.5 \%, 5 \%$, or $8 \%$ of the member's salary pursuant to the provisions of §13-546 of the Administrative Code of the City of New York, accumulated with regular and additional interest.

## OPTIONS ON RETIREMENT OR DEATH

A member, upon retirement, may receive his/her basic retirement allowance in monthly installments throughout life with all payments ending at death, or may elect to receive the actuarial equivalent in the following optional forms.

## Members who joined prior to July 27, 1976:

$\{1\}$ For members who joined prior to July 1, 1973, a cash refund allowance under which reduced payments will be made during life with a provision that, in case of death before such payments have equaled the present value of the retirement allowance at the date of retirement, the balance shall be paid to the designated beneficiary or estate in a lump sum. For members who joined after June 30, 1973, this option is only available with regard to the annuity.

A ten-year or five-year certain and life allowance under which reduced payments will be made during life with a provision that in case of death within ten or five years of retirement, the balance that would have been payable had the member survived for ten or five years shall continue to be paid to the designated beneficiary or estate.
\{3\} A joint-and-survivor allowance under which reduced payments will be made during life with a provision that upon the member's death, the same payments or one-half of such payments shall be continued throughout the life of such other person(s) as the member shall have designated.
\{4\} Such other actuarial equivalent optional forms as may be certified by the Actuary and approved by the Teachers' Retirement Board. By resolution, the Teachers' Retirement Board has approved an option under which reduced payments will be made during life with a provision that, upon the member's death, a sum specified by the member at the time of retirement shall be paid to the designated beneficiary or estate.

Upon a member's death, the beneficiary may elect to receive the actuarial equivalent of the lump-sum otherwise payable in one of the following forms: 1) An annual amount payable for life in monthly installments, all payments ending at death; or 2) A cash refund allowance under which reduced payments will be made during life, with a provision that, in case of death before such payments have equaled the lump-sum payable upon the member's death, the balance shall be paid to the designated beneficiary or estate. This is only available to the beneficiary of a member who joined prior to July 1, 1973.

## Members who joined on or after July 27, 1976:

(1) The same five-year or ten-year certain and life allowance as described in \#2 above.
\{2\} A joint-and-survivor allowance under which reduced payments will be made during life with a provision that upon the member's death, $100 \%, 75 \%, 50 \%$, or $25 \%$ of such
payments shall be continued throughout the life of such other person(s) as the member shall have designated.

## CONTRIBUTIONS

TRS benefits are financed by employee and employer contributions and from earnings on TRS' invested funds.

## MEMBER CONTRIBUTIONS

## Coordinated Retirement Plan (Article 15):

A member of this Plan is mandated to contribute $3 \%$ of annual wages during all the years of coverage. If a member resigns or is otherwise terminated from City Service prior to eligibility for a benefit, all of his/her contributions with $5 \%$ interest will be refunded upon request.

Beginning October 1, 2000, Tiers III and IV members will not be required to make basic required contributions after the $10^{\text {th }}$ anniversary of their membership date or completion of ten years of City Service, whichever is earlier.

## Twenty-Year Pension Plan:

A member of this Plan is required to contribute a percentage of salary that, if paid from the date of entry until the date of completion of 20 years of City Service, would provide at the payability date, an annuity of approximately $1 / 8$ of the member's final salary as of the completion of 20 years of City Service.

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

A member of this Plan is required to contribute a percentage of salary that, if paid to the age for service retirement under the law in effect prior to July 1, 1970, would provide an annuity equal to approximately $1 \%$ of the average annual compensation during the last five years of service multiplied by years of service.

Member contributions are accumulated with interest in individually maintained accounts. Except under Article 15, upon retirement, the amount to the member's credit (i.e., Accumulated Deductions) is used to purchase his/her annuity on the basis of the tables adopted by the Teachers' Retirement Board. Upon death in service, the death benefits, including the Accumulated Deductions, are paid to the beneficiary and, on termination of employment other than by death or retirement, the Accumulated Deductions are returned to the member.

Loans: Subject to certain limitations, a member not covered under Article 15 may borrow an amount not exceeding $75 \%$ of the member's Accumulated Deductions. Effective July 1, 1991, subject to certain limitations, a member covered under Article 15 may borrow an amount not exceeding $75 \%$ of the member's Accumulated Deductions, provided it can be repaid with interest within five years by payroll deductions. Beginning 30 days after the inception of the loan, the amount of the unpaid portion of the loan is insured in full. Should the borrower subject to Article 15 retire before the
loan is repaid, the actuarial equivalent of the outstanding loan is deducted from his/her retirement allowance.

ITHP: In general, the retirement and death benefits payable to or on account of members are supplemented by the Reserve For Increased-Take-Home-Pay, accumulated from City contributions at a rate equal to the Increased-Take-Home-Pay factor times salary. In general, the total benefit is equal to the benefit that would have been paid if the members' rates of contributions had not been reduced by the Increased-Take-HomePay rate. However, the Reserve For Increased-Take-Home-Pay is not payable upon the death of a member who joined after June 30, 1973.

Beginning July 1, 1960, on a year-to-year basis, the required contributions of members were reduced by an Increased-Take-Home-Pay factor initially equal to $2.5 \%$ of salary. The following table shows effective periods and Increased-Take-HomePay factors.

## PERIOD

07/01/60-06/30/61
07/01/61-08/31/67
09/01/67-08/31/68

09/01/67-08/31/68

INCREASED-TAKE-HOME-PAY FACTOR
Board of Education Employees
2.5\%
5.0\%
8.0\%

Board of Higher Education Employees
5.0\%

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

$$
09 / 01 / 68-06 / 30 / 70
$$

$$
8.0 \%
$$

$$
07 / 01 / 70-12 / 31 / 75
$$

$$
5.0 \%
$$

$$
01 / 01 / 76-06 / 30 / 05
$$

$$
2.5 \%
$$

## Article $\mathbf{1 5}$ Members

01/01/76-06/30/05
$0.0 \%$

## EMPLOYER CONTRIBUTIONS

The Frozen Initial Liability Actuarial Cost Method is utilized by the Plan's Actuary to calculate the contributions from the employers.

The Statutory Contributions are accrued by the Plan and are funded by the employers on a current basis. The Statutory Contributions amounted to $\$ 1,228,275,356$ for the Fiscal Year ended June 30, 2005.

In addition to the Statutory Contributions, the employers make payments for the benefit of certain members of the Plan who have attained the maximum grade of their salary schedule, in accordance with amendments to the Administrative Code of the City of New York. Teachers at maximum grade have $\$ 400$ per annum credited on a monthly basis to their accounts, while $\$ 550$

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

per annum is credited on a monthly basis to the accounts of supervisory personnel at maximum grade.

## VARIABLE ANNUITY PROGRAMS

Variable A: Beginning January 1, 1968, members were given the option to participate in a variable annuity program now known as the Variable A 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 A Annuity payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments which are almost entirely in common stocks.

On January 1, 1968, the effective date of the Variable A Annuity 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. Since January 1, 1968, the value of the Variable A unit varied between a high of $\$ 76.533$ during April 2000 and a low of $\$ 5.453$ during October 1974. The monthly value of the Variable A unit was $\$ 59.684$ during July 2005.

Variable B: Beginning July 1, 1983, members were given the option to participate in a second variable annuity program, designated the Variable B Annuity Program. Variable B is income-oriented and is intended to be less volatile than Variable A. Variable B is aimed at positive returns with a minimum of fluctuation. The monthly Variable B payment is a fixed number of units, the value of which varies each month to reflect the financial experience of the investments, which may include guaranteed investment contracts with insurance companies, long-term bonds, money market instruments, etc.

On July 1, 1983, the effective date of the Variable B Annuity Program, a unit was assigned an arbitrary value of $\$ 10$. Each month thereafter, the unit value changed, reflecting the investment experience of the changes in market value and income received from the investments in the fund during the preceding month. Since July 1,1983 , the value of the Variable B unit varied between a high of $\$ 19.750$ during September 2002 and the low of $\$ 10$ at inception on July 1, 1983. The monthly value of the Variable B unit was $\$ 19.478$ during July 2005.

A member may elect to place part or all of his/her contributions and the City's contributions for Increased-Take-Home-Pay in either variable annuity program. The normal pension for service that is provided by the City will be paid in fixed dollars. Subject to certain prescribed limitations, a member may periodically elect either to participate in the variable annuity programs or to revoke a previous election.

Individual accounts of the members' own contributions are maintained in each variable annuity savings fund. Individual accounts, based on the City's contribution for Increased-Take-Home-

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

Pay, are maintained in the Variable Pension Accumulation Funds. Deposits in these accounts are credited in terms of units, the values of which are determined at the beginning of each month and remains unchanged during that month.

# 5. Statistical Section 



Note: Member contributions are shown net of loans to members.

* 1996 to 2005 are calculated using active members' salaries on the preceding June 30th.
** Including TDA interest charges of \$307,353 for 2004, \$375,114 for 2005, and provision for expenses of \$4,162 for 2005.


| SCHEDULE OF PARTICIPATING EMPLOYERS <br> As of June 30, 2004 |  |  |
| :---: | :---: | :---: |
| Employer | Number of In-Service Members | Annual Payroll |
| NYC Dept. of Education and City University of New York | 105,297 | \$ 6,214,260,786 |
| Charter Schools** |  |  |
| Beginning with Children | $34 \quad \$ 1,8$ |  |
| Kipp Academy | 7 - |  |
| Renaissance | 39 2,2 |  |
| Wildcat | 14 |  |
| SUBTOTAL | $\underline{94}$ | \$ 5,547,715 |
| TOTAL | 105,391* | \$ 6,219,808,501 |
| * Includes only current in-service members receiving salary as of each June 30th. <br> **Kipp Academy, Renaissance, and Wildcat Charter Schools became participating employers in 2001. Beginning with Children Charter School became a participating employer in 2002. International High School, Middle College, and Reach Charter Schools were principal participating employers only in Fiscal Year 2001. |  |  |


| AVERAGE SALARIES OF IN-SERVICE MEMBERS <br> As of June 30, 2004 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MEN |  |  | WOMEN |  |  |
| Age | Number of In-Service Members | Average Salaries | Age | Number of In-Service Members | Average Salaries |
| 24 \& under | 538 | \$ 41,314 | 24 \& under | 2,339 | \$ 41,468 |
| 25-29 | 2,578 | 45,632 | 25-29 | 10,075 | 45,770 |
| 30-34 | 2,975 | 53,013 | 30-34 | 9,582 | 51,806 |
| 35-39 | 2,826 | 58,454 | 35-39 | 7,834 | 54,184 |
| 40-44 | 2,740 | 62,541 | 40-44 | 8,453 | 56,052 |
| 45-49 | 3,068 | 66,681 | 45-49 | 10,477 | 58,423 |
| 50-54 | 3,850 | 72,713 | 50-54 | 13,336 | 65,162 |
| 55-59 | 3,787 | 76,928 | 55-59 | 11,405 | 67,706 |
| 60-64 | 1,436 | 71,096 | 60-64 | 5,092 | 62,352 |
| 65-69 | 501 | 67,842 | 65-69 | 1,561 | 59,343 |
| 70 \& over | 249 | 71,155 | 70 \& over | 689 | 57,765 |
| TOTAL | 24,548* | \$ 63,703 | TOTAL | 80,843* | \$ 57,593 |
| TOTALANNUAL SALARIES \$ 1,563,781,721 TOTAL ANNUAL SALARIES \$ 4,656,026,780 <br> * The member count and the annual payroll include only those who were on the June 30th payroll. |  |  |  |  |  |
|  |  |  |  |  |  |

IN-SERVICE MEMBERS ON PAYROLL—DISTRIBUTION BY AGE
As of June 30, 2004


| In Thousands |  |  | PE |
| :---: | :---: | :---: | :---: |
| Year Ended June 30 | Retirement Benefits | Non-Retirement Benefits | Total Benefit Payments |
| 1999 | \$ 1,604,299 | \$ 175,311 | \$ 1,779,610 |
| 2000 | 1,660,118 | 219,698 | 1,879,816* |
| 2001 | 1,748,006 | 130,754 | 1,878,760* |
| 2002 | 1,822,733 | 272,399 | 2,095,132* |
| 2003 | 2,030,684 | 403,299 | 2,433,983* |
| 2004 | 2,392,577 | 230,163 | 2,622,740* |
| *Total Benefit Payment does n | e BSL of \$838 |  |  |


|  |  | SCHEDULE OF AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| SCHEDULE OF AVERAGE YEARS OF SERVICE OF NEW RETIREES <br> As of June 30, 2004 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men and Women | Total Number of Retirees |
| 1995 | 28.6 | 23.4 | 25.3 | 1,690 |
| 1996 | 29.9 | 25.8 | 27.1 | 4,832 |
| 1997 | 29.2 | 25.4 | 26.7 | 4,600 |
| 1998 | 25.0 | 20.5 | 22.0 | 1,483 |
| 1999 | 28.4 | 23.5 | 25.0 | 1,794 |
| 2000 | 27.8 | 23.8 | 25.0 | 1,989 |
| 2001 | 29.8 | 25.1 | 26.8 | 2,723 |
| 2002 | 32.2 | 27.8 | 29.4 | 4,309 |
| 2003 | 33.4 | 29.0 | 30.6 | 5,014 |
| 2004 | 32.8 | 29.0 | 30.3 | 6,264 |

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

| SERVICE RETIREMENT ALLOWANCES <br> As of June 30, 2004 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MEN |  |  | WOMEN |  |  |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | - | under 30 | 0 | - |
| 30-34 | 0 | - | 30-34 | 0 | - |
| 35-39 | 0 | - | 35-39 | 0 | - |
| 40-44 | 0 | - | 40-44 | 0 | - |
| 45-49 | 0 | - | 45-49 | 0 | - |
| 50-54 | 7 | \$50,297 | 50-54 | 8 | \$41,852 |
| 55-59 | 3,738 | 58,394 | 55-59 | 4,336 | 52,317 |
| 60-64 | 3,921 | 53,633 | 60-64 | 6,372 | 43,655 |
| 65-69 | 3,162 | 47,814 | 65-69 | 6,257 | 34,724 |
| 70-74 | 2,901 | 45,348 | 70-74 | 6,172 | 31,841 |
| 75-79 | 2,567 | 41,756 | 75-79 | 5,668 | 30,077 |
| 80-84 | 1,682 | 38,896 | 80-84 | 4,108 | 27,828 |
| 85-89 | 784 | 35,658 | 85-89 | 2,583 | 25,872 |
| 90 \& over | 543 | 39,237 | 90 \& over | 2,224 | 27,942 |
| TOTAL | 19,305 | \$48,357 | TOTAL | 37,728 | \$35,329 |
| TOTAL ANNU | LOWANCES P | \$933,535,118 | total annual | LOWANCES P | \$1,332,903,460 |

ORDINARY DISABILITY RETIREMENT ALLOWANCES
As of June 30, 2004

| MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | - | under 30 | 0 | - |
| 30-34 | 0 | - | 30-34 | 0 | - |
| 35-39 | 0 | - | 35-39 | 5 | \$16,383 |
| 40-44 | 1 | \$11,303 | 40-44 | 16 | 15,014 |
| 45-49 | 19 | 15,649 | 45-49 | 58 | 15,220 |
| 50-54 | 41 | 22,847 | 50-54 | 119 | 19,121 |
| 55-59 | 123 | 23,868 | 55-59 | 256 | 21,089 |
| 60-64 | 86 | 22,229 | 60-64 | 235 | 16,312 |
| 65-69 | 51 | 17,510 | 65-69 | 145 | 14,211 |
| 70-74 | 30 | 20,301 | 70-74 | 112 | 13,435 |
| 75-79 | 35 | 18,275 | 75-79 | 79 | 14,669 |
| 80-84 | 26 | 26,930 | 80-84 | 93 | 16,588 |
| 85-89 | 28 | 26,109 | 85-89 | 113 | 19,020 |
| 90 \& over | 20 | 39,427 | 90 \& over | 110 | 18,685 |
| TOTAL | 460 | \$22,727 | TOTAL | 1,341 | \$17,288 |
| TOTAL ANN | OWANCES P | \$10,454,248 | TOTAL ANN | LOWANCES P | \$23,183,498 |


| ACCIDENT DISABILITY RETIREMENT ALLOWANCES <br> As of June 30, 2004 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MEN |  |  | WOMEN |  |  |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | - | under 30 | 0 | - |
| 30-34 | 0 | - | 30-34 | 0 | - |
| 35-39 | 0 | - | 35-39 | 0 | - |
| 40-44 | 2 | \$11,892 | 40-44 | 2 | \$23,631 |
| 45-49 | 0 | - | 45-49 | 7 | 16,148 |
| 50-54 | 6 | 23,408 | 50-54 | 23 | 29,811 |
| 55-59 | 57 | 36,556 | 55-59 | 62 | 35,535 |
| 60-64 | 36 | 41,516 | 60-64 | 55 | 35,975 |
| 65-69 | 12 | 37,638 | 65-69 | 41 | 29,201 |
| 70-74 | 17 | 35,290 | 70-74 | 40 | 29,929 |
| 75-79 | 14 | 37,759 | 75-79 | 25 | 33,788 |
| 80-84 | 5 | 33,659 | 80-84 | 28 | 31,999 |
| 85-89 | 5 | 36,616 | 85-89 | 17 | 35,514 |
| 90 \& over | 2 | 34,831 | 90 \& over | 3 | 31,814 |
| TOTAL | 156 | \$36,819 | TOTAL | 303 | \$32,548 |
| TOTAL ANN | LOWANCES PAID | \$5,743,768 | total ani | LOWANCES P | \$9,862,025 |

## DEATH BENEFITS-QPP

As of June 30, 2004

| Age | MEN <br> Number <br> of Beneficiaries | Average <br> Annual Benefit | Age | Number <br> of Beneficiaries | Average <br> Annual Benefit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| under 30 | 16 | $\$ 17,879$ | under 30 | 8 | $\$ 24,212$ |
| $30-34$ | 2 | 13,343 | $30-34$ | 2 | 26,131 |
| $35-39$ | 6 | 7,203 | $35-39$ | 8 | 14,204 |
| $40-44$ | 13 | 10,424 | $40-44$ | 21 | 11,004 |
| $45-49$ | 10 | 15,786 | $45-49$ | 26 | 11,819 |
| $50-54$ | 28 | 14,477 | $50-54$ | 38 | 20,394 |
| $55-59$ | 42 | 14,443 | $55-59$ | 92 | 27,018 |
| $60-64$ | 53 | 24,739 | $60-64$ | 169 | 29,931 |
| $65-69$ | 73 | 19,796 | $65-69$ | 176 | 31,361 |
| $70-74$ | 80 | 20,360 | $70-74$ | 276 | 28,079 |
| $75-79$ | 127 | 19,976 | $75-79$ | 403 | 23,652 |
| $80-84$ | 158 | 19,124 | $80-84$ | 457 | 22,401 |
| $85-89$ | 134 | 15,936 | $85-89$ | 423 | 21,740 |
| 90 \& over | 178 | 15,978 | $90 \&$ over | 415 | 21,301 |
| TOTAL | $\mathbf{9 2 0}$ | $\$ 18,027$ | TOTAL | $\mathbf{2 , 5 1 4}$ | $\$ 23,982$ |
| TOTAL ANNUAL BENEFITS PAID | $\mathbf{\$ 1 6 , 5 8 4 , 6 0 8}$ | TOTAL ANNUAL BENEFITS PAID | $\$ 60,291,214$ |  |  |

## PENSION FUND Performance Highlights

Fiscal Year 2005

Return: 10.63\%
Total Investments: \$29.120 Billion
During Fiscal Year 2005, the Pension Fund's portfolio, consisting primarily of equities and fixed-income instruments, yielded a return of $10.63 \%$ after fees and expenses. This was a decrease from the $15.87 \%$ return for Fiscal Year 2004.

The Pension Fund includes all Fixed Annuity Program funds in the Qualified Pension Plan
(QPP) and all Tiers III/IV QPP funds. The Fixed Annuity Program, which is available to Tier I and Tier II members for their QPP funds, currently provides participants with an $8.25 \%$ return. This rate is guaranteed through June 30,2006 ; the rate is guaranteed not to fall below $7 \%$.
The Comptroller of the City of New York invests the Pension Fund's holdings in a diversified portfolio, as authorized by the Teachers' Retirement Board. This portfolio consists almost entirely of U.S. and international equities and bonds.


* After expenses


# VARIABLE A FUND <br> Performance Highlights 

## Return: 9.12\%

Total Investments: $\$ 6.633$ Billion
For the fiscal year ending June 30, 2005, Variable A returned $9.12 \%$ after fees and expenses. Because Variable A is invested in a diversified blend of investments that historically have made it less volatile than the overall U.S. equity market, Variable A slightly underperformed the composite benchmark's return of $9.42 \%$. The composite benchmark, which includes no fees, provides a passive reflection of Variable A's actual asset allocation among domestic stocks, domestic fixed-income securities, and international equities.

As of June 30, 2005, approximately $83.9 \%$ of Variable A's portfolio was invested in the U.S. common stock market. Variable A's portfolio also contained approximately $15.8 \%$ in international stocks and approximately $0.3 \%$ in fixed-income securities, which contribute to portfolio diversification.

- The Passive Core sector returned $8.14 \%$, slightly overperforming the Russell 3000 Index's return of $8.05 \%$.
- The Active Domestic Equity sector returned $8.30 \%$, outperforming the Russell 3000 Index by 25 basis points ( $0.25 \%$ ). This sector is predominately allocated to the risk-controlled composite, which returned $8.78 \%$. A smaller allocation to the eclectic composite returned 6.29\%.
- The Tactical Asset Allocation sector earned $10.20 \%$, underperforming the sector's benchmark ( $60 \%$ S\&P 500/40\% Lehman Brothers Long Treasury Bond Index), which returned $10.59 \%$. While relative performance in this sector lagged its respective benchmark, the absolute returns generated by this sector helped overall Variable A performance for the fiscal year.
- The International Equity sector returned $13.42 \%$, underperforming this sector's benchmark by 71 basis points ( $-0.71 \%$ ). While international equity's performance was not as compelling as that of U.S. equity over this short time period, international equity is included in the portfolio to diversify the overall mix within Variable A.

* After expenses


# VARIABLE B FUND <br> Performance Highlights 

Fiscal Year 2005

Return: 3.54\%
Total Investments: \$0.379 Billion
Variable B's portfolio earned $3.54 \%$ after fees and expenses for the fiscal year ending June 30, 2005. Variable B's return outperformed the Ryan Three-Year GIC Index, which yielded a return of $3.23 \%$. This index measures the average of monthly yields for three-year Guaranteed Investment Contracts (GICs) issued by highquality insurance companies. Likewise, Variable B, which is valued at cost or book value, overperformed a market-valued benchmark, the Merrill Lynch 1-3 Year Treasury Index. This index posted a $1.87 \%$ annual return.

Consistent with its objectives, Variable B's assets are invested in a well-diversified portfolio of stable-value investments, such as conventional and synthetic GICs. Conventional GICs are securities, issued by high-quality life insurance companies, which usually carry a fixed rate of interest for a stated time.

Synthetic GICs are also stable-value investments, but they consist of a single high-quality bond, or a portfolio of high-quality bonds, combined with a "wrapper." A wrapper is an insurance contract, issued by a high-quality financial institution, which ensures that participants can withdraw their money at book value (principal plus interest).


* After expenses


[^0]:    * Excludes \$4,656,730 in securities lending.

[^1]:    * The calculations were prepared using a time-weighted rate of return based on the market rate of return in accordance with the Association for Investment Management \& Research's (AIMR's) Performance Presentation Standards.

[^2]:    * These probabilities are utilized until active member becomes eligible for a Service Retirement benefit.

[^3]:    * Salary Scale includes an assumed General Wage Increase rate of 3.0\% per annum.

[^4]:    * Calculated based on actuarial assumptions used for determining employer contributions.
    ** Calculated based on actuarial assumptions used for determining employer contributions except that projected benefit payments are discounted using the expected yields on U.S. Treasury securities of like duration (estimated average yields of approximately $6.0 \%, 6.1 \%, 5.6 \%, 5.3 \%, 4.1 \%$, and $5.0 \%$ for June $30,1999,2000,2001,2002,2003$, and 2004, respectively).

