



**STATE OF NEW YORK INSURANCE DEPARTMENT**

**REPORT ON EXAMINATION**

**OF THE**

**NEW YORK FIRE DEPARTMENT PENSION FUND**

**SUBCHAPTER 2**

**CONDITION:**

**JUNE 30, 2003**

**DATE OF REPORT:**

**JUNE 25, 2009**

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**EXAMINER:**

**ANNE FORDE**

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STATE OF NEW YORK  
INSURANCE DEPARTMENT  
25 BEAVER STREET  
NEW YORK, NEW YORK 10004

David A. Patterson  
Governor

Eric R. Dinallo  
Superintendent

June 25, 2009

Honorable Eric R. Dinallo  
Superintendent of Insurance  
New York, New York 10004

Sir:

In accordance with instructions contained in Appointment No. 22198, dated April 5, 2004 and annexed hereto, an examination has been made of the condition and affairs of the New York Fire Department Pension Fund, Subchapter 2, hereinafter also referred to as the "Fund", located at 9 MetroTech Center, Brooklyn, New York 11201.

Wherever "Department" appears in this report, it refers to the State of New York Insurance Department.

The report indicating the results of this examination is respectfully submitted.

## 1. EXECUTIVE SUMMARY

This examination covers the period from July 1, 1999 through June 30, 2003. The examination comprised a verification of assets and liabilities as of June 30, 2003 to determine whether the Fund's 2003 filed annual statement fairly presents its financial condition. This report on examination is confined to financial statements and comments on those matters which involve departure from laws, regulations or rules, or which require explanation or description.

The examination revealed the following key findings and recommendations:

1. Based on the examiner's review, it was revealed that during the period of examination the System did not have a comprehensive Investment Policy Statement that governed, controlled, and monitored its investment activities. However, subsequent to the examination period the System did develop a comprehensive Investment Policy Statement which the Department believes satisfies its concerns about proper governance of the System's investment activities. It is noted that the System and the Comptroller maintain that the System did have various policies and guidelines in place governing investment activities, and that in an effort to consolidate those guidelines an Investment Policy Statement was adopted starting in 2004. (See item 16 of this report)
2. With regard to loaned securities, it was noted that the board of trustees and the Comptroller's office did not give clear guidance to Citibank on how to deal with downgraded securities in the portfolio. This issue was also a concern raised in the Independent Fiduciary Services, Inc. Management Study and Operations Review report of the New York City Comptroller's Asset Management Function. Subsequent to the examination period, however, the Fund adopted an Investment Policy Statement which the Department believes has controls that should provide adequate oversight of the Fund's Securities Lending Program. (See item 7 of this report)

## 2. SCOPE OF EXAMINATION

The prior examination was conducted as of June 30, 1999. This examination covers the period from July 1, 1999 through June 30, 2003. As necessary, the examiner reviewed transactions occurring subsequent to June 30, 2003, but prior to the date of this report.

This examination comprised a verification of assets and liabilities as of June 30, 2003 to determine whether the Fund's 2003 filed annual statement fairly presents its financial condition. The examiner reviewed the Fund's income and disbursements necessary to accomplish such verification and utilized examination procedures, as deemed appropriate, in the review or audit of the following matters:

- History of the Fund
- Management and control
- Corporate governance
- Growth of the Fund
- Accounts and records
- Financial statements
- Member benefits

The examiner reviewed the corrective actions taken by the Fund with respect to the recommendations contained in the prior report on examination. The result of the examiner's review is contained in Item 17 of this report.

This report on examination is confined to financial statements and comments on those matters which involve departure from laws, regulations or rules, or which require explanation or description.

### 3. DESCRIPTION OF THE FUND

#### A. History

The New York Fire Department Pension Fund, Subchapter Two (formerly Article 1-B) was established pursuant to Local Law No. 53 enacted July 14, 1941. In accordance with this law, all participants that were covered under Article 1-A on that date, and those subsequently appointed to the Fire Department, were granted the option of membership in either Article 1-A or Subchapter Two. Effective July 1, 1980, the Article 1-A fund was terminated and its assets were transferred to the Subchapter Two fund.

The New York Fire Department Pension Fund, Subchapter Two operates pursuant to Title 13, Chapter 3, Subchapter 2 of the New York Administrative Code (“Administrative Code”). Under the Administrative Code, the Fund is subject to the supervision of the Department which may examine its affairs with the same powers and jurisdiction as are applicable to a life insurance company under Article 3 of the New York Insurance Law. The Fund is also subject to assessment for expenses pursuant to Section 313 of the New York Insurance Law.

New State laws, effective July 1, 1980, July 1, 1981 and July 1, 1982, amended the benefit provisions of the Fund by establishing a new plan known as the Improved Benefits Plan (“IBP”). The Original Plan (“OP”) was closed to new entrants on July 1, 1981. Membership in the IBP is mandatory for uniformed employees hired on or after that date. Members of the OP have the option to transfer to the IBP, which provides increased benefits and higher member and City contributions.

B. Management

The Fund is managed by a board of trustees. Such board consists of the Fire Commissioner who also serves as chairperson, the Comptroller of the City, a representative of the Mayor, the Commissioner of Finance, the President of the Uniformed Firefighters' Association of Greater New York, the Vice-President of the Uniformed Firefighters' Association of Greater New York, the Treasurer of the Uniformed Firefighters' Association of Greater New York, the Chairperson of the board of trustees of the Uniformed Firefighters' Association of Greater New York, three elected members of the executive board of the Uniformed Fire Officers' Association of the New York Fire Department (one is a rank above captain, another shall be a captain, another shall be a lieutenant), and the President of the Uniformed Pilots and Marine Engineers Association.

The twelve board members and their principal business affiliation, as of June 30, 2003, were as follows:

<u>Name</u>	<u>Principal Business Affiliation</u>
Michael R. Bloomberg	Mayor City of New York
Nicholas Scoppetta	Fire Commissioner & Chairperson of the Board
William C. Thompson, Jr.	Comptroller City of New York
Martha E. Stark	Commissioner, Department of Finance
Arthur J. Parrinello	Chief's Representative of the Uniformed Fire Officers' Association Second Vice Chairman
John B. Dunne	Captains' Representative of the Uniformed Fire Officers' Association Second Vice Chairman
Stephen J. Carbone	Lieutenants' Representative of the Uniformed Fire Officers' Association

<u>Name</u>	<u>Principal Business Affiliation</u>
Stephen Cassidy	President of the Uniformed Firefighters Association of Greater New York First Vice Chairman
Kevin McAdams	Treasurer of the Uniformed Firefighters Association of Greater New York
Robert Straub	Chairperson of the Board of Trustees of the Uniformed Firefighters Association of Greater New York
John Buhler	Representative of the Uniformed Pilots' and Marine Engineers' Association

In fiscal year 2004, the following members of the Board were replaced:

1. Nicholas Visconti replaced Arthur J. Parrinello
2. Peter L. Gorman replaced John B. Dunne
3. John Kelly replaced Robert Straub
4. Joseph Gagliardi replaced John Buhler

The examiner's review of the minutes of the meetings of the board of trustees and its committees indicated that meetings were well attended and that each trustee attended a majority of meetings.

The following is a listing of the principal officers of the Fund as of June 30, 2003:

<u>Name</u>	<u>Title</u>
Nicholas Scoppetta	Chairman
James Slevin	Secretary
William C. Thompson, Jr.	Treasurer
Robert C. North, Jr.	Actuary

#### 4. SIGNIFICANT OPERATING RESULTS

Indicated below is significant information concerning the operations of the Fund during the period under examination as extracted from its filed annual statements. Failure of items to add to the totals shown in any table in this report is due to rounding.

The following table indicates the financial growth (decline) during the period under review:

	<u>June 30,</u> <u>1999</u>	<u>June 30,</u> <u>2003</u>	<u>Increase</u> <u>(Decrease)</u>
Admitted assets	\$ <u>6,786,338,233</u>	\$ <u>5,267,049,394</u>	\$ <u>(1,519,288,839)</u>
Net reserves	\$5,050,007,000	\$ 6,441,534,000	\$ 1,391,527,000
Benefits due and unpaid	2,531,886	11,155,094	8,623,208
Other liabilities	<u>468,863,485</u>	<u>437,095,677</u>	<u>(31,767,808)</u>
Net reserves and other liabilities	\$5,521,402,371	\$ 6,889,784,771	\$ 1,368,382,400
Excess of admitted assets over total net reserves and all other liabilities	<u>\$1,264,935,862</u>	<u>\$(1,622,735,377)</u>	<u>\$(2,887,671,239)</u>
Total	<u>\$6,786,338,233</u>	<u>\$ 5,267,049,394</u>	<u>\$(1,519,288,839)</u>

As of June 30 2003, the Fund's admitted assets were mainly comprised of stocks (42.7%), bonds (23.1%), international investment funds (10.5%), and short-term investments (6.5%).

The following table indicates the membership of the Fund during the period of examination:

	<u>Fiscal Year Ending June 30,</u>				
	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Active members	11,477	11,492	11,333	11,271	10,860
Service pensioners	6,523	6,518	6,485	6,669	7,237
All other pensioners	<u>9,623</u>	<u>9,645</u>	<u>9,670</u>	<u>10,046</u>	<u>10,172</u>
Total	<u>27,623</u>	<u>27,655</u>	<u>27,488</u>	<u>27,986</u>	<u>28,269</u>

## 5. FINANCIAL STATEMENTS

The following statements show the assets and liabilities of the Fund as of June 30, 2003, as contained in its 2003 filed annual statement; and the comparative statements of income and disbursements for each of the fiscal years under review. The examiner's review of a sample of transactions did not reveal any differences which materially affected the Fund's financial condition as presented in its financial statements contained in the June 30, 2003 filed annual statement.

### A. STATEMENT OF ASSETS AND LIABILITIES FISCAL YEAR ENDED JUNE 30, 2003

#### Assets

##### Ledger Assets

Book value of bonds	\$1,214,391,257
Book value of stocks	2,250,658,332
Short term obligations	340,409,939
International investment funds	550,563,765
Cash on deposit	10,071,636
Member loans receivable	<u>95,673,622</u>
Total ledger assets	<u>\$4,461,768,551</u>

##### Non-Ledger Assets

Interest due and accrued on bonds	\$ 14,078,361
Interest due and accrued on collateral loans	3,231,628
Interest due and accrued on short term investments	2,532
Market value of stocks over book value	588,645,278
Due city payroll	1,900,445
Receivable for investment securities sold	<u>197,422,599</u>
Total non-ledger assets	<u>\$ 805,280,843</u>

Gross assets \$5,267,049,394

Total admitted assets \$5,267,049,394

Liabilities

Present value of benefits payable on account of beneficiaries now drawing allowances	\$ 6,159,223,202
Net reserves for benefits provided by the employer and employee for members now in active service	228,433,024
Present value of future skim A/C VSF	<u>53,877,774</u>
Total net reserves	\$ 6,441,534,000
Benefits due and unpaid	11,155,094
Payable for securities purchased	437,095,677
Amount in transit	72,380,256
Reserve to offset amount in transit	<u>(72,380,256)</u>
Net reserves and all other liabilities	\$ <u>6,889,784,771</u>
Excess of admitted assets over total net reserves and all other liabilities	\$ <u>(1,622,735,377)</u>
Total	\$ <u>5,267,049,394</u>

**B. STATEMENT OF INCOME AND DISBURSEMENTS**  
**FISCAL YEARS ENDED JUNE 30,**

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Amount of ledger assets, end of				
Previous year	<u>\$4,495,745,707</u>	<u>\$4,917,958,941</u>	<u>\$4,886,424,326</u>	<u>\$4,570,781,845</u>
<u>Income:</u>				
<u>From Members:</u>				
Regular contributions or payments	\$ 35,354,746	\$ 34,768,354	\$ 44,889,988	\$ 47,372,787
Transfers from other systems	311,472	0	148,696	85,396
Military service (buy back)	0	3,596,725	2,653,513	1,209,314
<u>From Employer:</u>				
Regular contributions or payments	222,865,555	241,310,517	302,317,855	316,967,240
Transfers NYSERS	258,519	454,199	274,669	218,884
Transfers NYCERS	0	220,467	285,529	170,252
Transfer employer cont. NYC				
Police	0	8,945,388	93,219	76,515
City supplement	9,469,151	8,461,379	19,089,257	20,104,526
<u>From Interest:</u>				
Bonds	105,025,115	111,962,291	109,383,285	74,889,327
Dividends on stocks	44,664,588	38,551,872	41,138,384	44,923,532
Member loans	3,060,902	3,376,110	3,749,062	3,782,913
Commercial paper and short term investment funds	11,845,325	14,156,852	10,299,210	4,040,136

FISCAL YEARS ENDED JUNE 30,

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
<u>From Other Sources:</u>				
Money left or re-deposited with the organization	\$ 256,067	\$ 315,324	\$ 328,073	\$ 840,296
Withholding tax and forgery	33,765,119	36,414,647	36,801,758	40,004,752
EFT and payroll exchange	413,780	468,263	581,463	254,304
Miscellaneous income	760,435	3,944,000	3,568,952	2,730,011
Health insurance , life insurance, and union dues	6,473,274	6,930,704	7,704,475	13,163,420
Gross profit on sale of bonds	12,668,131	39,357,990	36,176,946	50,146,280
Gross profit on sale of stocks	816,032,969	2,128,983,368	97,181,729	93,670,553
Profit on sale of mutual fund	0	0	0	18,882
Increase by adjustment in book value of bonds	12,201,681	14,565,724	12,082,790	11,478,559
Miscellaneous (accounting basis)	<u>94,067,585</u>	<u>0</u>	<u>0</u>	<u>154,482,468</u>
 Total income	 <u>\$1,409,494,413</u>	 <u>\$2,696,784,175</u>	 <u>\$ 728,748,853</u>	 <u>\$ 880,630,348</u>
 Amounts carried forward	 <u>\$5,905,240,120</u>	 <u>\$7,614,743,116</u>	 <u>\$5,615,173,179</u>	 <u>\$5,451,412,193</u>

FISCAL YEARS ENDED JUNE 30,

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
<u>Disbursements:</u>				
Payments on account of retirements:				
Annual or other periodic payments	\$425,432,654	\$446,782,173	\$485,813,255	\$552,219,691
Lump sum payments on account of death after retirement	2,122,835	777,952	4,595,319	2,572,136
Health insurance, life insurance, and union dues	6,482,861	6,930,214	7,953,325	12,972,417
Payment on account of death prior to retirement	1,151,340	1,413,220	905,977	628,943
Payments on account of excess Contributions	3,410,554	3,373,129	3,824,886	17,227,365
Other benefit payments	8,948	18,418	0	36,265
Payments on account of contributions made in error, EFT, payroll exchange and forgery	627,961	687,926	650,301	186,630
ITHP	313,059	104,356	9,568,623	168,398
Option 1 and option 4 death Benefits	17,100	829,036	235,004	70,000
Miscellaneous	0	0	18,153	0
City supplement widow parity	61,316,085	100,843,138	119,024,710	20,102,165
City supplement chapter 125/00	0	0	0	94,208,017
Withholding tax and forgery	33,734,727	36,419,626	37,313,010	40,052,883
Military buy back (refunds)	0	1,703,512	4,357	0
Loss on security lending expense	0	0	0	10,000,000
Investment expense	0	0	0	7,252,732
Gross loss on sale of bonds	37,966,456	33,659,414	54,041,694	79,733,776
Gross loss on sale of stocks	401,128,701	1,970,538,223	139,043,109	147,750,450

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Gross decrease by adjustment in book value of bonds	\$ 3,624,878	\$ 3,134,314	\$ 3,498,590	\$ 4,461,773
Error due to overpayment, last year budget appropriation	0	0	40,011,970	0
Miscellaneous (accounting basis)	0	112,279,545	128,915,233	0
Miscellaneous investment expenses	<u>9,943,021</u>	<u>8,824,595</u>	<u>8,973,818</u>	<u>0</u>
Total disbursements	\$ <u>987,281,179</u>	\$ <u>2,728,318,789</u>	\$ <u>1,044,391,334</u>	\$ <u>989,643,642</u>
Ledger assets at end of year	\$ <u>4,917,958,941</u>	\$ <u>4,886,424,326</u>	\$ <u>4,570,781,845</u>	\$ <u>4,461,768,551</u>

## 6. TREATMENT OF MEMBERS

The examiner reviewed a sample of various types of retirement benefits to members and beneficiaries. The examiner also reviewed the various controls involved, checked the accuracy of the computations and traced the accounting data to the books of account.

Based upon the sample reviewed, no significant findings were noted in the area of member treatment.

## 7. SECURITIES LENDING

### A. Board of Trustee Oversight

Pursuant to the Administrative Code, the Fund delegates to the New York City Comptroller certain responsibilities for the investment and management of the Fund's assets. The Comptroller retained Citibank, a unit of Citigroup, as custodial bank for the Fund and the other New York City pension funds, by agreement ("Custodian Agreement") dated January 1, 1998, between the Comptroller and Citibank. Pursuant to the Custodian Agreement, Citibank also established and provided a securities lending program for the New York City pension funds, ("Securities Lending Program"). The terms of the Securities Lending Program required that Citibank, acting as the securities lending agent, loan securities to qualified borrowers in exchange for cash collateral from the borrowers of such lent securities. Citibank was authorized to invest the cash collateral in certain securities, pursuant to certain written investment guidelines developed by the Comptroller.

Citibank, on behalf of the Fund, Teachers' Retirement System of the City of New York, New York City Police Pension Fund, and the New York City Employees Retirement System purchased an \$80 million principal amount of NPF XII, Inc., Series 2000-2 Class A Health Care Receivables Securitization Program Notes, in a private placement offering in October 2000 using \$80 million of cash collateral from the Securities Lending Program. NPF XII, Inc. is a special purpose entity and wholly-owned subsidiary of National Century Financial Enterprises, Inc. ("NCFE"). The Fund's portion of the total purchase was \$10 million. As a result of fraudulent conduct by NCFE and its officers, and a series of downgrades, NCFE declared bankruptcy in

November 2002. The New York City pension funds sustained a loss of \$80 million, with the Fund incurring \$10 million of the total loss.

The New York City Corporation Counsel informed Citibank that they were prepared to assert and pursue against Citibank causes of action arising from the \$80 million loss. At issue was the question of whether Citibank, as custodian, should have sold NCFE securities once the securities were downgraded. Although Citibank denied any responsibility for the loss, in order to avoid litigation concerning the dispute, the parties agreed to settle the dispute. The agreement involved an immediate payment by Citigroup of \$15 million and possible additional payments dependent upon amounts recovered from other parties involved in the transaction. The \$15 million was divided among all the NYC pension funds that participated in the NCFE transaction. The Fund has subsequently advised that recovery efforts continued after the examination period, and that total recoveries are expected to be at least \$50 million. Based on the examiner's review, it appears that Citibank was given authority by the New York City Comptroller to invest the cash collateral received from the Securities Lending Program.

It was also noted that the board of trustees and the Comptroller's office did not give clear guidance to Citibank on how to deal with downgraded securities in the portfolio. This issue was also a concern raised in the Independent Fiduciary Services, Inc. Management Study and Operations Review report of the New York City Comptroller's Asset Management Function. However, on July 25, 2007 the Fund adopted an Investment Policy Statement which states the following:

“Cash collateral received will be invested in a high-quality investment program that emphasizes the return of principal, maintains required daily liquidity, and ensures diversification across approved investment types.”

“Each agent bank is required to act as a fiduciary with respect to the Fund and to have systemic and procedural controls in place to ensure adherence to guidelines for operating the securities lending program on behalf of the Fund. The results of the securities lending program are reported to the Board on a regular basis.”

The Department believes that the above additional controls should provide adequate oversight of the Fund's Securities Lending Program.

## 8. ACTUARIAL COST METHOD AND EMPLOYER CONTRIBUTION

The actuarial cost method by which employer contributions to the Fund are computed is the Frozen Initial Liability Actuarial Cost Method. Under this method, the present value of future normal contributions is developed as a balancing item, calculated by subtracting the sum of the actuarial value of assets, the unfunded actuarial accrued liability and the actuarial present value of prospective required employee contributions from the actuarial present value of prospective benefits as of the valuation date. This can be written symbolically as:

$$PVFNC = PVB - (AVA + UAAL + PVFeeC)$$

Where

PVFNC = Present Value of Future Normal (Employer) Contributions

PVB = Present Value of Prospective Benefits

AVA = Actuarial Value of Assets

UAAL = Unfunded Actuarial Accrued Liability

PVFeeC = Present Value of Future Required Employee Contributions

For the June 30, 2003 valuation, the above values are (to the nearest million dollars):

PVB =	10,332	Present value of future benefits
AVA =	6,441	Assets on hand (actuarial value)
UAAL =	116	Portion of future employer contributions
PVFeeC =	66	Present value of employee contributions

The present value of future normal employer contributions is then

$$\begin{aligned} \text{PVFNC} &= 10,332 - (6,442 + 116 + 67) \\ &= 10,332 - 6,625 \\ &= 3,707 \end{aligned}$$

This calculation is displayed in more detail in the next table.

As a consequence of this method, actuarial gains and losses (deviations of actual experience from what was assumed) are reflected in the normal contribution rate, as opposed to being separately amortized.

The fiscal year runs from July 1 through June 30. The valuation date (date as of which Fund liabilities and assets are determined for the purpose of calculating the employer contribution) is the last day of each fiscal year, June 30. The values determined as of that date are used to calculate the amount of employer contribution due for the next succeeding fiscal year, beginning one day after the valuation date.

The New York City Office of the Actuary, which performs the actuarial valuation, sends an Estimated Appropriation letter to the Fund in May or June. This letter informs the Fund of the estimated amount to be contributed for the fiscal year beginning July 1. This estimated amount is determined by the Office of the Actuary based on current actuarial assumptions, projections of the census data from the prior actuarial valuation, and any known significant legislation. The Fund then begins making monthly contributions for the fiscal year beginning July 1 on the basis of the Estimated Appropriation letter.

Usually by the spring of the year, the Office of the Actuary has completed the valuation as of the preceding June 30. The Office of the Actuary then sends an Appropriations “True-Up” letter to the System informing it of the actual contribution due for the fiscal year ending on the next June 30. The System adjusts the monthly contributions it is making so that, by June 30, the total amount it has contributed during the fiscal year, including the estimated amounts commencing at the beginning of the fiscal year and the adjusted amounts contributed in the last few months of the fiscal year, is the amount specified by the Appropriations True-Up letter.

For example, for the fiscal year ending June 30, 2002, the events described above were as follows:

- June 20, 2001: Office of the Actuary (OA) sends Estimated Appropriation Letter to System stating that the estimated employer contribution for the 2002 fiscal year is \$291,479,000.
- July, 2001: Fund begins making monthly contributions for 2002 fiscal year based on the Estimated Appropriation Letter.
- July, 2001: OA begins work on actuarial valuation for 2002 fiscal year. This valuation is based on census and asset data as of June 30, 2001.
- May 9, 2002: OA sends “True-Up” Appropriation Letter to System stating that the employer contribution for the 2002 fiscal year is \$302,318,000. At that point, the System has probably one more monthly contribution to be made for the 2002 fiscal year, and the amount of that contribution is increased from \$24,290,000 to \$35,129,000 so that the sum of the previous eleven contributions and that final contribution is \$302,318,000.

The formula above shows the development of the Present Value of Future Normal Contributions as a balancing item. The normal contribution rate is calculated by dividing the present value of future normal contributions by the present value of projected future salaries of members on the payroll as of the valuation date. This contribution rate is calculated to be a level percentage of payroll in future years. The employer normal contribution for the ensuing fiscal year is derived by multiplying the normal contribution rate by aggregate annual salaries. The resulting normal contribution is appropriate for a value that is to be paid immediately on the valuation date; in fact, as mentioned above, the contribution is paid throughout the year. To adjust for the timing, the present value of projected future salaries reflects an interest adjustment, so that the resulting normal cost is appropriate for a mid-year contribution.

The total employer contribution is made up of several components. The normal contribution, described above, is generally the largest component. Other components are described below.

Amortization of unfunded actuarial accrued liability (UAAL contribution): This component is itself made up of one or more components, each one of which is a contribution to amortize a liability amount which is not being funded through the normal cost.

Investment Expenses: Beginning with the June 30, 1999 actuarial valuation, investment expenses were explicitly addressed in the calculation of the employer contribution; previously,

the amount of investment expenses had been implicitly recognized in the calculation of the normal cost. The investment expense included in the total employer contribution for a fiscal year is the actual investment expense for the preceding fiscal year increased by the assumed interest rate; i.e., multiplied by 1.08.

Group Term Life Insurance (GTLI) Premium: In addition to retirement benefits, the System provides death benefits for members. Internal Revenue Code section 79 states that the first \$50,000 of group life insurance benefits has no tax consequences to the employee or the employer; amounts of insurance in excess of \$50,000 are included in employee income. To accommodate that distinction, the first \$50,000 of life insurance benefit paid on account of death in active service in the Retirement System is paid from the funds of the Group Term Life Insurance Plan. The amount in excess of \$50,000 is paid from the funds of the Retirement System. The GTLI premium is the amount of the employer contribution necessary to fund the benefits to be paid from the Group Term Life Insurance Plan. The GTLI premium amount is not shown separately in the table below; it is included in the employer normal cost.

The report of the examining actuary covers the four fiscal years ending June 30, 2000 through June 30, 2003. The following table, and many of the subsequent tables, includes values for those four fiscal years, as well as values for the immediately preceding fiscal year, ending June 30, 1999. The values determined as of June 30, 1999, are used to determine the employer contribution to be made during the fiscal year ending June 30, 2000.

Employer contributions were computed as follows (dollar amounts shown to nearest thousand):

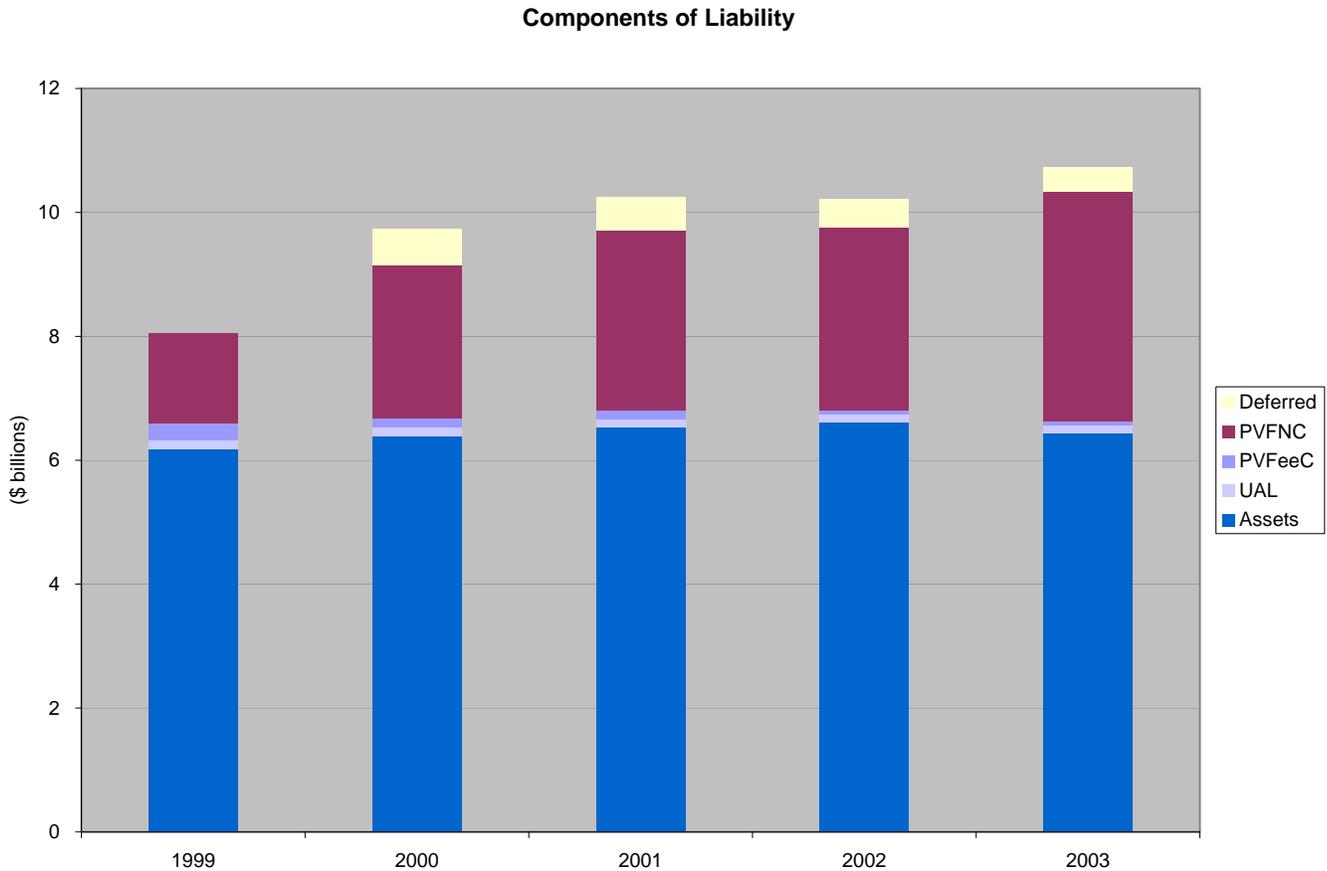
	<u>6/30/99</u>	<u>6/30/00</u>	<u>6/30/01</u>	<u>6/30/02</u>	<u>6/30/03</u>
<b>Liabilities</b>					
PV Benefits for beneficiaries	3,670,610	3,870,000	4,060,166	4,596,160	5,318,033
PV Supplemental Benefits	334,524	903,314	879,681	861,499	841,190
PV Benefits for Actives	4,040,741	4,366,640	4,767,432	4,766,068	4,515,641
PV Future Skim for VSF	0	0	0	1,195	53,878
Total	8,045,875	9,139,954	9,707,279	10,224,922	10,728,742
Deferred per 125/2000 <sup>1</sup>	-	592,222	535,119	465,852	396,652
Net Total	8,045,875	8,547,732	9,172,160	9,759,070	10,332,090
<b>Assets</b>					
Actuarial Asset Value	6,179,799	6,388,132	6,525,746	6,612,273	6,441,534
Prospective Assets					
PV Future UAL Contribs	148,911	142,500	135,026	126,388	116,476
PV Future Employee Contribs	263,743	141,196	149,648	58,813	66,698
Total	6,592,453	6,671,828	6,810,420	6,797,474	6,624,708
PV Future Normal Contribs	1,453,422	2,468,126	2,896,859	2,961,596	3,707,382
PV Future Salaries	6,702,410	6,778,206	7,281,076	7,507,051	7,605,081
Normal Rate	21.685%	36.413%	39.786%	39.451%	48.749%
Annual Salaries	729,726	741,487	799,232	789,694	748,763
<b>Components of Contribution</b>					
Normal Contribution	158,241	269,998	317,982	311,542	365,014
Contribution credit per 125/2000 <sup>1</sup>	-	(57,587)	(43,902)	(23,534)	0
UAL Contribution	17,632	18,161	18,706	19,267	19,846
Investment expenses	6,980	10,738	9,531	9,692	7,833
Total Pension Expense	182,853	241,310	302,317	316,967	392,693
City Rate	25.058%	32.544%	37.826%	46.343%	52.446%

<sup>1</sup> Sections 13-696.i and .j of the Administrative Code of the City of New York, as added by Chapter 125 of the Laws of 2000 and amended by Chapter 278 of the Laws of 2002, require that some of the funding for the additional liability attributable to the automatic cost-of-living adjustments provided by Chapter 125 of the Laws of 2000 be deferred. Chapter 125 required that the deferral be calculated as a percentage of the normal contribution; that results in the contribution credit for 6/30/2000 and 6/30/2001. Chapter 278 required that the deferral be determined by a percentage of the liability; that method was used for the 6/30/2002 and subsequent valuations. For 6/30/2000 and 6/30/2001, the grayed liability figures for "Deferred per 125/2000" show the amounts that would have been deferred by 278/2002, but were not because the valuations had already been completed.

The table above shows that the normal contribution, usually the largest single component of the total employer contribution, increased significantly during the last four years. The normal contribution had decreased in the late 1990's due to significant investment gains, as well as changes in actuarial assumptions and methodology. During the period this examination covers, investment results were significantly less than expected. In addition, significant benefit increases were provided. As a result, the normal contribution rate, as developed by the traditional actuarial process, has begun to increase.

However, a legislative change has delayed some of the effect of the actuarial increase in the employer normal contribution. Chapter 125 of the Laws of 2000 provided automatic cost-of-living allowances to retirees, reduced member contributions to certain members, and other benefit increases. That chapter also required that the funding for the additional liability created by the chapter be phased in over five years. Chapter 278 of the Laws of 2002 modified that phase-in period so that the additional liability created by Chapter 125 was phased in over a ten year period. Thus, for the June 30, 2000 valuation, 10% of the additional liability created by Chapter 125 was recognized.

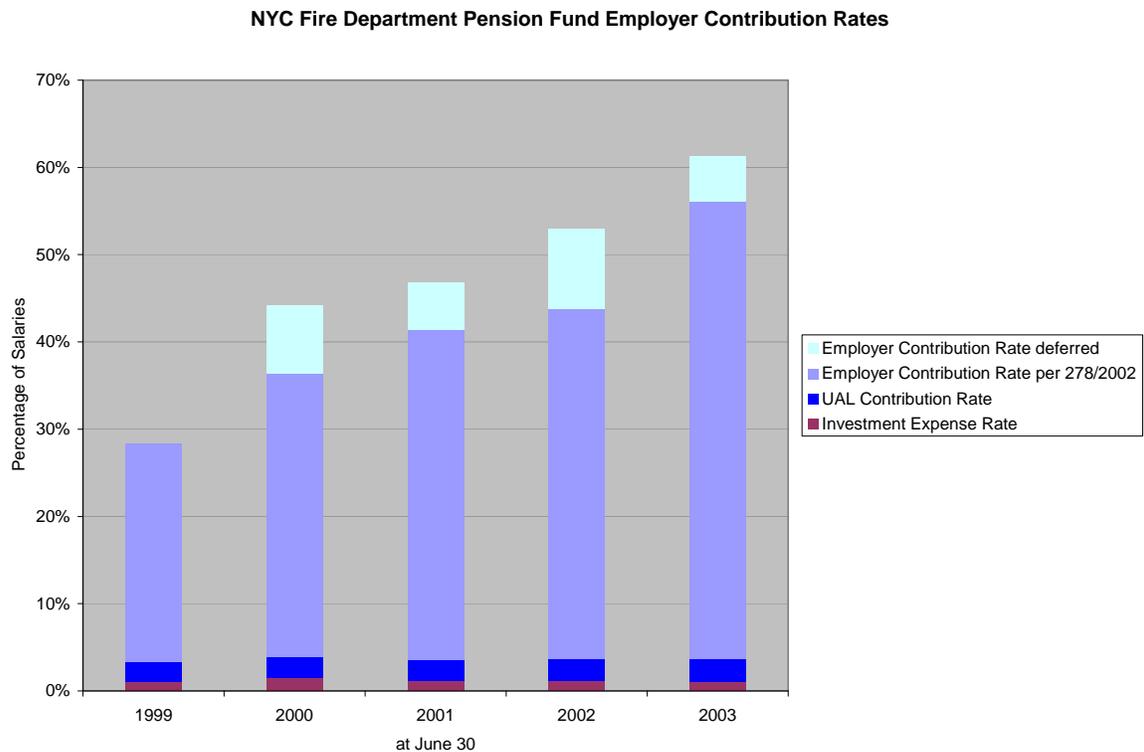
Shown below is a chart of the primary asset and liability components.



This chart illustrates the major components that were used to develop the employer contribution requirement. The total height of each bar represents the total liability, or present value of future benefits. The bottom section of each bar represents the actuarial value of assets. The next two smaller, lighter blue sections represent future expected income streams: one is the amortization payments for previously-granted benefit increases, the other is employee contributions. The top two sections (dark red and beige) are, together, the remaining portion of liability that is not covered by the existing assets and aforementioned income streams. That remaining portion is the responsibility of the employer, and leads to the required employer contribution. The top section (beige) of each bar represents the amount of required employer contribution that is deferred, pursuant to Chapter 278 of the Laws of 2002 (“278/2002”). The

graph shows that, while total liabilities have been increasing, the assets have been relatively flat, thus resulting in a significant increase in required employer contribution.

The following chart illustrates the components of employer costs shown as a percentage of salaries. The unfunded actuarial liability is the cost to fund a relatively small portion of the Retirement Fund benefits. The actuarially-determined employer normal contribution, which funds the remainder of the Retirement Fund benefits, is shown in two components. The deferred component is the portion of the total calculated rate that is required by Chapter 278 of the Laws of 2002 to be deferred to later years. The 278/2002 component is the remaining portion that is allowed to be contributed by the employer according to 278/2002. The total employer contribution, including expenses, unfunded actuarial liability, and the normal cost, has, since 1981, declined from over 50% of salaries to less than 30% of salaries in 1999. For the next few years, the employer contribution is expected to continue to increase.



**9. ACTUARIAL PRESENT VALUE OF BENEFITS AND ANNUAL STATEMENT**  
**LIABILITIES**

The liabilities of the Fund as reported in its annual statements to the New York State Insurance Department are summarized in the following table (dollar figures are shown to nearest thousand):

	(1)	(2)	(3)	(4)
Valuation <u>Date</u>	Present Value of Benefits Payable to Beneficiaries <u>Now Drawing Allowances</u>	Present Value of Benefits Provided for Members Now <u>in Active Service</u>	Unfunded Accrued <u>Liability</u>	Present Value of All Other Prospective <u>Contributions</u>
6/30/99	3,613,482	3,611,431	1,342,105	915,925
6/30/00	4,773,314	4,366,640	142,500	2,609,322
6/30/01	4,939,847	4,767,431	135,026	3,046,506
6/30/02	5,457,660	4,766,068	126,388	3,486,261
6/30/03	6,159,223	4,515,641	116,476	4,170,732
	(5)	(6)	(7)	(8)
Valuation <u>Date</u>	Present Value of <u>Future Skim a/c VSF</u>	Net Reserves (1) + (2) – (3) – (4) + (5)	Benefits, Expenses and Other Amounts <u>Due and Unpaid</u>	Net Reserves and All Other Liabilities <u>(6) + (7)</u>
6/30/99	83,124	5,050,007	471,395	5,521,402
6/30/00	0	6,388,132	706,257	7,094,389
6/30/01	0	6,525,746	427,403	6,953,149
6/30/02	1,195	6,612,274	421,913	7,034,187
6/30/03	53,878	6,441,534	448,251	6,889,785
	(9)	(10)		
Valuation <u>Date</u>	Admitted <u>Assets</u>	Excess of Assets over Reserves and Liabilities <u>(9) – (8)</u>		
6/30/99	6,786,338	1,264,936		
6/30/00	7,240,655	146,266		
6/30/01	6,239,996	(713,153)		
6/30/02	5,360,262	(1,673,925)		
6/30/03	5,267,049	(1,622,736)		

Funding calculations are generally completed after the Annual Statement is filed. Values in the Annual Statement may not reflect benefit changes and assumption and methodology changes that are then finalized and incorporated in the funding calculations. Therefore some of

the items in the table above may differ from the corresponding values shown in funding calculations.

#### 10. UNFUNDED ACTUARIAL ACCRUED LIABILITY

The unfunded actuarial accrued liability (UAAL) of a pension plan refers to the present value of required employer contributions other than normal contributions. UAAL is not a measure of the overall funding status of the pension plan. Such measures are discussed elsewhere in this report in the section titled Funding Ratios.

The items to be funded through UAAL contributions, and the computation of the initial UAAL balance, are affected by the choice of funding method. Under the System's funding method, new unfunded accrued liability balances generally are established in connection with improvements in member benefits attributable to past service and in connection with changes in actuarial assumptions. The amount of such new UAAL balances is computed by the Entry Age Normal Cost Method.

The System's total UAAL at any point in time is the aggregate present value of the remaining payments in amortization of all previously established UAAL balances.

As of June 30, 1999, just prior to the examination period, the UAAL was about \$149 million. This amount resulted from Chapter 85 of the Laws of 2000, which "reestablished" previously-existing UAAL components based on revised actuarial assumptions. That law also specified that the UAAL be amortized over a period of eleven years, where each annual payment is 103% of the preceding year's payment.

The progression of the total UAAL and the total annual amortization payment is shown below.

Valuation Date	<u>Total UAAL</u>	<u>Payment</u>
<u>June 30</u>		
1999	\$148,911,407	\$17,632,409
2000	142,500,183	18,161,381
2001	135,026,337	18,706,223
2002	126,388,367	19,267,409
2003	116,476,158	19,845,432

If no additional components of UAAL are generated (e.g., by benefit improvements), the total UAAL would be amortized (reach \$0) by June 30, 2010. The payment amounts shown above reflect an interest adjustment to mid-year to reflect the fact that the employer contributions are made monthly.

#### 11. ACTUARIAL ASSET VALUATION METHOD

Assets are reported in the Fund's annual statements at amortized value for bonds and market value for stocks. More than half of the Fund's total assets are invested in stocks, and their market value is considered too volatile to use directly in computing employer contributions. Accordingly, for purposes of computing employer contributions, market values are smoothed by the use of an actuarial asset valuation (AAV) method.

The AAV method (adopted with the June 30, 1991 valuation) adjusts the current year's market value to recognize "unexpected return" over a five year period. "Unexpected return" is defined as the excess of actual investment income, including realized and unrealized changes in market value, over expected investment income. Expected investment income, in turn, is defined to be the valuation interest rate multiplied by the mean actuarial value of investable assets.

Within a short period prior to this examination period, a "market value restart" was implemented two times, on June 30, 1995 and June 30, 1999. In a market value restart, the actuarial value of assets is set equal to the market value of assets. On both of those dates, prior

to the restart, the actuarial value of assets was less than the market value of assets. Therefore, as a result of the restarts, the new actuarial value of assets was higher than what it otherwise would have been. It is recognized that the change in actuarial asset valuation method is being made in conjunction with other changes in actuarial assumptions and methods. However, the actuarial standard of practice regarding actuarial asset valuation methods promulgated by the Actuarial Standards Board requires that the general effect of this recent change in the actuarial asset valuation method be disclosed. (This standard was discussed beginning in 2002, and has since become effective.) While the published reports on the 1995 and 1999 actuarial valuations stated that the actuarial asset valuation method was changed, there was no mention of the general effect of that change, as would be required by the actuarial standard of practice. In fact, the consequence of both changes was a reduction in current employer contribution requirements, and therefore an increase in later employer contribution requirements; i.e., a deferral of employer contribution requirements to later years. During this examination period there were no market value restarts.

In the annual statements filed by the Fund with the New York Insurance Department, the balance sheet entry, "Excess of admitted assets over total net reserves and all other liabilities," embodies the difference between admitted assets and the actuarial value of assets. To arrive at the actuarial asset value used in computing pension expense, it is necessary to deduct amounts not available for future benefits, such as benefits due and unpaid and mortgage escrow.

Until the June 30, 2002 valuation, it had been the Fund's practice to deduct member loans from both assets and liabilities in the pension expense computations. That practice was changed with the June 30, 2002 valuation: member loans were viewed as another form of investment for the fund, and were thus included in the determination of plan assets.

The table below shows the relationship between the actuarial value of assets for pension expense purposes and the assets in the annual statement:

	(\$000)			
	<u>June 30</u>			
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Assets Funding Calculations	6,419,614	5,690,807	4,878,408	4,859,552
Securities Payable	661,849	422,068	413,741	437,096
Member Loans Receivable	80,917	88,921	0	0
Accounts Payable	2,909	2,964	4,445	2,694
Benefits Payable	4,396	5,336	8,172	11,155
Receivable from Subchapter 1	6,917	0	0	0
BV – MV of Bonds	22,351	31,801	55,125	(54,556)
Due City Payroll	1,662	1,904	1,966	1,900
Deferred Employer Contribution	40,012			
Securities Lending				588,626
Collateral for Securities Lending	_____	_____	_____	<u>(578,626)</u>
Total	7,240,627	6,243,801	5,361,857	5,267,841
Assets Annual Statement	7,240,655	6,239,996	5,360,262	5,267,049
Unreconciled Difference	- 28	3,805	1,595	792
Diff. as % of Assets Funding Calculations	0.00%	0.07%	0.03%	0.02%

## 12. INTEREST EARNED AND INTEREST REQUIRED

Included in the Fund's annual statements to the Insurance Department are the amount of interest required to maintain funds and the total investment income actually earned during the year, including realized and unrealized changes in market values. Interest required to maintain funds is computed by applying the assumed valuation interest rate to the mean actuarial value of assets. Thus, the amount reported as interest required to maintain funds represents the expected investment income for the fiscal year. The amounts reported for the four years of the examination period, as well as the year immediately preceding, were as follows:

Fiscal Year ending 6/30	(1) <u>Interest Earned</u>	(2) <u>Interest Required</u>	(3) Excess <u>(1) - (2)</u>	(4) Ratio <u>(1) ÷ (2)</u>
1999	812,751,831	420,967,673	391,784,158	193%
2000	502,892,713	484,515,935	18,376,778	104%
2001	(549,181,534)	583,868,782	(1,133,050,316)	(94%)
2002	(450,147,037)	577,499,318	(1,027,646,355)	(78%)
2003	<u>24,580,391</u>	<u>555,975,639</u>	<u>(531,395,248)</u>	<u>4%</u>
TOTAL	340,896,364	2,622,827,347	(2,281,930,983)	13%

As the table indicates, actual investment earnings were almost twice the expected investment income during the 1999 fiscal year, then began a significant drop. The magnitude of the investment losses during each of the 2001 and 2002 fiscal years was almost as large as the expected investment earnings, but in the opposite direction. The interest earned during the 2003 fiscal year at least changed direction, even if the amount was not yet up to the amount of interest required.

### 13. FUNDING RATIOS

Attachment B of the Fund's annual statements to the Insurance Department provides, as a measure of funding adequacy, the ratio of assets available for active members to the projected benefit obligation (PBO) for active members.

The PBO is the present value of pension benefits resulting from employee service up to the date of the annual statement, based on salaries projected to the date of retirement. (PBO thus is different from the annual statement's "Present Value of Benefits for Members now in Active Service," which is based on members' total anticipated service as of the date of retirement.) The PBO includes vested benefits for terminated members.

The PBO was developed according to Statement No. 5 of the Government Accounting Standards Board (GASB 5), even though GASB 5 has been largely superseded by GASB 27.

However, according to both GASB 5 and GASB 27, where the actuarial cost method is the Frozen Entry Age, for purposes of computing the PBO, the member's total projected benefit at retirement is prorated uniformly over total anticipated service, even if the plan's benefit formula provides a non-uniform pattern of benefit accrual. For many members the Fund's benefits accrue more rapidly in the earlier years of a member's service than in the later years. For such members the uniform prorate required by GASB produces a lower PBO, and hence a more favorable funding ratio, than would be produced by prorating benefits strictly according to the benefit formula.

Assets available for active members are the Fund's admitted assets reduced by the following: present value of benefits to beneficiaries now drawing allowances, accumulated member contributions, benefits due and unpaid and other miscellaneous liabilities. Amounts relating to group life insurance benefits are excluded from assets as well as from the PBO.

A strength of this funding ratio as a measure of funding adequacy is that it is independent of the actuarial cost method used for determining contributions to the pension plan. However, it is still dependent on the actuarial assumptions used for determining those contributions. Actuarial assumptions that are more optimistic, lead to a lower level of future funding requirements and produce a more favorable funding ratio.

Funding ratios, as reported in Schedule B of the Annual Statement, are shown below:

Valuation <u>Date</u>	(1) Assets Available for <u>Active Members</u>	(2) Projected Benefit <u>Obligation</u>	(3) Funding Ratio <u>(1) ÷ (2)</u>
6/30/99	2,649,353,408	2,221,508,527	119%
6/30/00	1,706,418,646	2,664,124,336	64%
6/30/01	815,289,771	2,914,248,698	28%
6/30/02	(579,304,437)	2,854,180,427	-20%
6/30/03	(1,402,464,222)	2,564,113,562	-55%

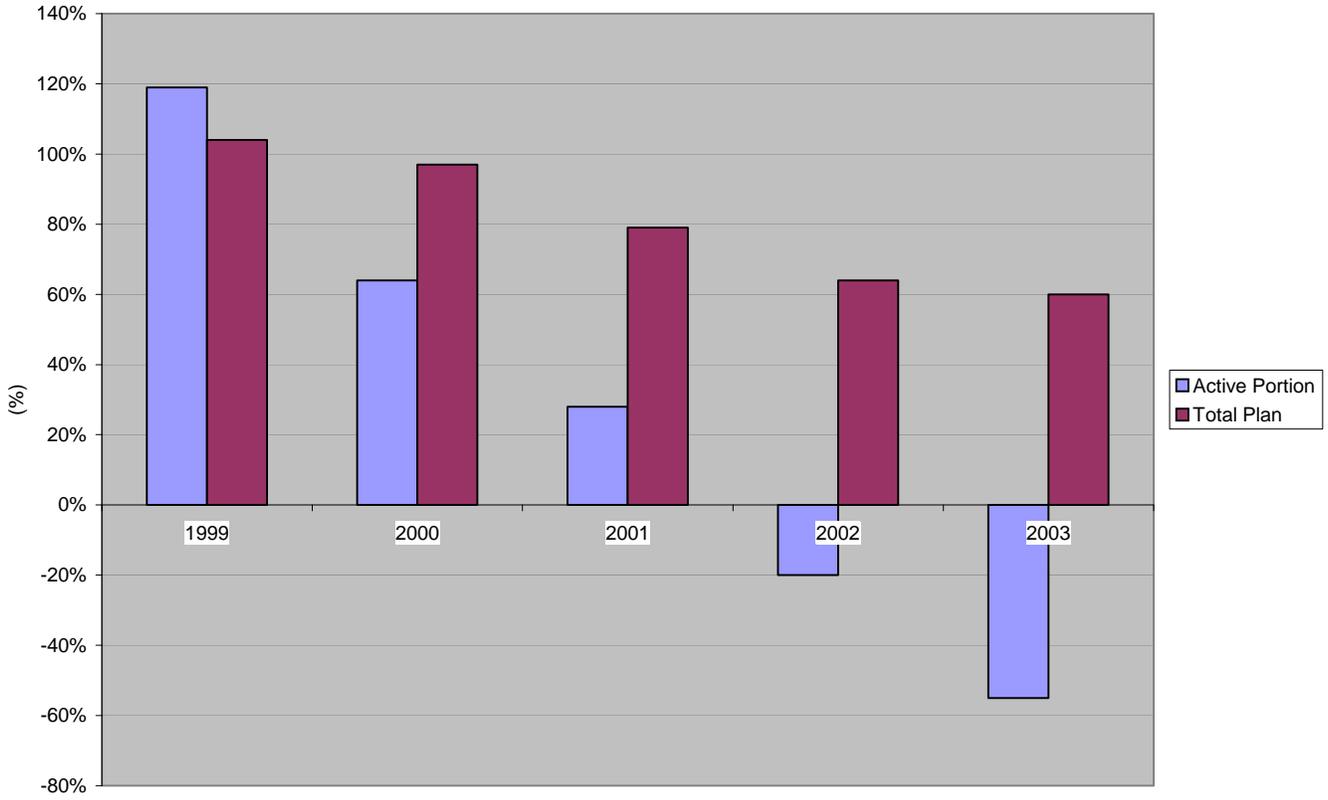
The decrease in Funding Ratio shown above is due primarily to the decrease in investment yield referred to earlier in this report.

The “Assets Available for Active Members” (Column (1)) above decreases significantly over the four years shown, even to a negative value as of June 30, 2002 and 2003. However, the total plan assets are not, in reality, segregated into different funds based on member status (e.g., one for active members and one for retirees). The procedure, described above, used to develop the Column (1) numbers will magnify the effect of any asset gain or loss. A more meaningful set of numbers to measure the funded status of the plan would include all plan assets and all plan liabilities, for both active and retired members of the plan. The table below shows the funding ratios for total plan assets and liabilities.

Valuation <u>Date</u>	(1) <u>Assets</u>	(2) Projected Benefit <u>Obligation</u>	(3) Funding Ratio <u>(1) ÷ (2)</u>
6/30/99	6,734,230,978	6,492,508,529	104%
6/30/00	7,185,989,188	7,437,438,161	97%
6/30/01	6,182,540,401	7,854,096,028	79%
6/30/02	5,300,268,790	8,311,840,052	64%
6/30/03	5,205,009,751	8,723,336,764	60%

The first table, reflecting only a portion of plan assets and liabilities, shows a decrease in funding ratio from 119% to -55%. The second table, reflecting all plan assets and liabilities, shows a somewhat less steep reduction, from 104% to 60%. This relationship can be seen in the chart below.

### Funding Ratios



#### 14. ACTUARIAL ASSUMPTIONS AND METHODS

Several changes in assumptions and methods were proposed by the Office of the Actuary for the June 30, 1999 valuation, just prior to the beginning of the four-year period this examination covers. These changes were implemented in Chapter 85 of the Laws of 2000, and included the following:

- The actuarial interest rate was changed from 8.75% to 8.00%.
- The General Wage Increase component of the salary scale assumption was changed from 4% to 3%.
- The assumed rates of mortality, withdrawal, retirement and disability were changed based on recent experience studies.
- The Unfunded Actuarial Accrued Liability was consolidated and reestablished using the Entry Age Actuarial Cost Method, and the Balance Sheet Liability (“BSL”) was eliminated.
- The actuarial asset value was reset to market value.
- The investment expenses were reimbursed to the Fund as a separately-identified contribution amount.

During the examination period the Fund engaged a pension consulting organization (Gabriel, Roeder, Smith & Company) to analyze System experience in relation to the actuarial assumptions. The study reviewed experience data from June 30, 1988 to June 30, 2001. The consulting organization issued a final report dated October, 2003 in which a number of changes in actuarial assumptions were recommended. Because the publication date of the report was a relatively short time before the completion of this examination, it would not be reasonable to expect that any of the changes recommended in the report would have been implemented by the completion of this examination. The recommendations in the consultant’s report included

making changes in the salary scale assumption, withdrawal assumption, and mortality assumption, among others.

The principal actuarial assumptions include an interest assumption (the assumed investment yield, which is also the rate at which liabilities are discounted), a salary scale assumption (the assumed percentage increase in salaries), and assumptions regarding the rate at which members leave active status according to reason: mortality, retirement, withdrawal or disability. A selected summary of the assumptions is shown below:

Interest: 8% per year

Salary Scale:

<u>Years of Service</u>	<u>Annual Percentage Increase</u>
0	8.00%
5	3.20
10	4.10
15	4.40
20	4.20

Withdrawal from active service (for other than service retirement):

<u>Age</u>	<u>Termination</u>	<u>Ordinary Disability Retirement</u>	<u>Accidental Disability Retirement</u>	<u>Ordinary Death M / F</u>	<u>Accidental Death</u>
25	.55%	.01%	.05%	.0432 / .0245 %	.02%
40	.25	.15	1.30	.1151 / .0645	.02
55	.00	1.00	5.00	.5702 / .2465	.15

Withdrawal from active service (for service retirement):

- - Years of service since eligibility - -

<u>Age</u>	<u>0-1</u>	<u>1-2</u>	<u>2+</u>
40	12%	5%	4%
45	12	5	4
50	15	10	5
55	25	10	10
60	25	10	10
63	100	100	100

Both the interest assumption and the salary scale assumption are made up of other, more fundamental, components. The interest assumption is composed of a price inflation assumption and a “real” interest rate; i.e., a rate of return in the absence of any price inflation. The salary scale assumption is composed of the price inflation assumption, a “real” wage increase (in the absence of any price inflation), and a merit/promotion increase. The merit/promotion increase assumption varies by age and service. The components of the interest assumption and the salary scale assumption can be illustrated as follows:

<u>Component</u>	<u>Investment Return</u>	<u>Salary Scale</u>
Price Inflation	2.5%	2.5%
Real interest rate	5.5	---
Real wage growth	---	.5
Merit/Promotion	---	varies by service
Total	8.0%	3.0% plus value that varies by service

Actuarial Standard of Practice No. 27 (ASOP 27), “Selection of Economic Assumptions for Measuring Pension Obligations”, provides professional actuarial guidelines for choosing an investment return assumption; generally, the discount rate, used in determining the present value of expected future plan payments, is the same as the investment return assumption. ASOP 27 states that, for the investment return assumption, the actuary should choose a single point that is within a “best-estimate range”, which is also developed by the actuary.

The prior report on examination (for the period July 1, 1994 to June 30, 1999) contained a comment related to the “spread”, or excess of the interest rate assumption over the wage growth assumption. The wage growth assumption is the sum of the price inflation and the real wage growth. The spread for the four-year period of this examination, based on the values shown in the table above, is  $8.0 - (2.5 + .5) = 8.0 - 3.0 = 5.0\%$ . The comment in the prior report noted that the spread had increased from 2.75% to 5% over the previous eleven years. An increasing spread results in decreasing employer contributions. The comment in the prior report was meant to raise awareness of the fact that the spread has been increasing, resulting in a less conservative funding approach. Although the spread did not increase further during the four years covered by this examination (July 1, 1999 to June 30, 2003), it still remains at a relatively high level compared to the spread for this system for much of its history. The spread is also higher than that of most other public retirement systems in this country during the same time period. As mentioned above, a higher spread results in lower current contributions, but also higher contributions in subsequent years; i.e., a deferral of a portion of the otherwise required employer contribution.

## 15. TRANSFERABLE EARNINGS

Associated with the Fund are two so-called variable supplements funds, the Firefighters’ Variable Supplements Fund (FVSF) and the Fire Officers’ Variable Supplements Fund (FOVSF). As originally conceived, the FVSF and FOVSF (VSFs) were to use favorable earnings from the Fund’s equity investments to provide supplemental benefits to retired members. The amounts to be transferred from the Fund into the VSFs in order to provide the supplemental benefits became known as “transferable earnings” or as “skim”.

Prior to 1988 the supplemental benefits to be paid each year were determined by the Boards of Trustees of the VSFs, consistent with the amount of transferable earnings received. Starting in 1988, pursuant to Chapter 247 of the Laws of 1988, the indeterminate benefits of the FVSF were replaced by a fixed, defined schedule of benefits. Likewise, in 1993, pursuant to

Chapter 479 of the Laws of 1993, a fixed, defined schedule of benefits was enacted for the FOVSF.

Although payment of the fixed supplemental benefit schedule is guaranteed by those chapters of law, the mechanism for funding both variable supplements funds continues to be transferable earnings. However, transferable earnings will not, other than by pure coincidence, equal the amount needed to fund the guaranteed benefits. In order to provide for any possible shortfall, the Office of the Actuary began including the present value of estimated future payments needed to fund the VSFs in the Fund's liabilities effective with the 1995-96 fiscal year, consistent with Section 2 of Chapter 598 of the Laws of 1996. The present value of estimated future payments was determined by subtracting the assets of the VSFs from the present value of future benefits provided by the VSFs.

The computation of transferable earnings is a multi-step process, involving:

- Determining actual earnings, including capital gains and losses, on the Fund's equity portfolio;
- Determining what those earnings would have amounted to had the assets been invested in grade Aa corporate utility bonds instead of equities ("hypothetical earnings");
- Keeping track of any negative differentials between actual and hypothetical earnings, including interest thereon;
- Comparing positive differentials between actual and hypothetical earnings with the Accumulated Benefit Obligation (ABO) of the FVSF and the FOVSF separately, and with accumulated negative earnings differentials, if any; and
- Computing ratios of weighted salaries of members of the FVSF and FOVSF separately to salaries of members of both variable supplement funds in combination.

In order to allow for funding of the benefits provided by the VSFs in a more actuarial manner, beginning with the June 30, 1995 valuation an amount called "present value of future skim" was added to the total present value of benefits. This "present value of future skim" was the Projected Benefit Obligation (PBO) of the VSFs reduced by the assets of the VSFs. The "present value of future skim" is not less than \$0, so that if the assets of the VSFs exceed the

PBO of the VSFs, no additional amount is added to the liability of the Pension Fund. This was the situation with the June 30, 1999 valuation, so that even if the Transferable Earnings for June 30, 1999, as described in the previous paragraph, were greater than \$0, no amount would have been added to the liability calculations for the Pension Fund.

The table below shows the calculation of the present value of future assets, or skim, (if any) that was to be transferred from the Fund to the VSFs. For each of the two VSFs, the first row shows the present value of benefits to be provided by the VSF. The second row shows the actuarial value of assets. The third row shows the resulting excess, if any, of the liabilities over the assets. The excess (almost \$54 million as of 6/30/03) is then added to the liability figure for the Fund. Amounts are shown to the nearest thousand.

	<u>6/30/99</u>	<u>6/30/00</u>	<u>6/30/01</u>	<u>6/30/02</u>	<u>6/30/03</u>
<b>Fire Officers</b>					
PV Benefits	263,753	248,137	253,788	344,254	370,547
Assets	<u>323,332</u>	<u>338,334</u>	<u>350,375</u>	<u>356,703</u>	<u>354,458</u>
PV Future Skim	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>16,089</u>
<b>Firefighters</b>					
PV Benefits	532,272	490,026	494,915	642,467	671,426
Assets	<u>594,605</u>	<u>616,892</u>	<u>633,099</u>	<u>641,272</u>	<u>633,637</u>
PV Future Skim	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,195</u>	<u>37,789</u>
<b>Total PV Skim</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,195</u>	<u>53,878</u>

The total liability of the VSFs, about \$1,042 million, is about 10% of the liability of the Fund.

Given that the benefits of the VSFs are now on a fixed, guaranteed schedule, are no longer linked to favorable earnings on the Fund's investments and are being funded within the Fund's liabilities, there no longer would appear to be any logical reason to continue the time-

consuming process of computing transferable earnings. It would be more desirable and straightforward to calculate contributions to the VSFs in accordance with a recognized defined benefit actuarial funding method, such as the frozen entry age method used for calculating contributions to the Fund. However, this would require a change in the law.

## 16. INVESTMENT MANAGEMENT OPERATIONS

The highest governing body at the Fund is its board of trustees. The trustees are fiduciaries of the Fund, its members and its retirees. The trustees delegate the Fund's investment functions to the New York City Comptroller, pursuant to Section 13-702 of the New York City Administrative Code. The investment powers transferred to the Comptroller are subject to written delegations which may not exceed one year. Although this authority is renewed annually, the System is not required to use the Comptroller for investment services. The investment services provided to the Fund by the Comptroller are provided through the Bureau of Asset Management (BAM), a division of the Comptroller's office. The delegated powers authorize the Comptroller of the City of New York to make any investment which the Fund trustees are authorized to make. Also, the Comptroller is authorized to hold, sell, assign, transfer, or dispose of any of the properties, securities or investments in which any of the funds of the System have been invested.

Section 136.2 of Department Regulation No. 85 states in part:

(b) "*Administrative head* shall mean,...the board of trustees of a retirement system, in their individual and collective capacities"

Section 136.6 of Department Regulation No. 85 states in part:

"(a) The administrative heads are fiduciaries and as such shall act solely in the interests of the members and beneficiaries of the systems they administer. They shall perform their responsibilities in a manner consistent with those of a reasonably prudent person exercising care, skill and caution. (b) The assets of a system shall at all times be under the control of the administrative head. (c) No investment or loan transaction shall be made by a system unless the same has been approved by the administrative head. The administrative head may delegate

its powers of investment to a committee or agent of the administrative head within well-defined established guidelines. Such committee or agent shall render timely written reports of its activities to the administrative head under a schedule to be established by the administrative head and shall render special reports whenever requested by the administrative head. (d) In respect to the delegation of investment powers, the administrative head shall periodically review: (1) the present holdings in the investment account; (2) any marked changes in the account during the preceding period; (3) the reasons for such changes and the results achieved thereby; (4) the investment activity in the account including the rate of turnover; and (5) any other factors the administrative head considers pertinent to an analysis of the financial performance and planning, consistent with its obligation as a fiduciary.”

As outlined in Department Regulation No. 85, the trustees are the fiduciaries of the System and as such must act solely in the interests of its members and beneficiaries. No board collectively, no trustee individually, nor any administrative head, can delegate their fiduciary obligations to others. They must perform their responsibilities in a manner consistent with those of a reasonably prudent person exercising care, skill and caution. The Regulation requires that the assets, at all times, be under the control of the trustees and that investments and loan transactions be approved by the trustees. Department Regulation No. 85 allows the trustees to delegate its investment powers within well-defined established guidelines and with the rendering of timely written reports of its activities to the trustees under a schedule established by the trustees. At a minimum, the Department believes that appropriate implementation of such guidelines requires a comprehensive Investment Policy Statement.

#### A. Investment Policy Statement

The examiner reviewed a sample of the transcripts of the meetings of the board of trustees for the period under examination, and made the following findings:

1. The sampled transcripts revealed instances where the trustees were concerned about the lack of an overall Investment Policy Statement.
2. The sampled transcripts show that the board began to formulate a comprehensive investment policy statement only toward the end of the period that is the subject of this review. The transcripts reveal no material substantive consideration of an investment policy statement’s specific contents or provisions before the end of that period.

Similarly, in the following areas, where the responsibility to establish standards belongs to the trustees, the board meeting transcripts reveal little board discussion:

1. The sampled transcripts reveal no board discussion of establishing an investment policy statement of sufficient detail to guide a third party when trying to implement the trustees' instructions.
2. The sampled transcripts do not reveal a clear definition of the duties and responsibilities of the investment committee, the Comptroller's office (either as custodian or as fund manager), the investment consultants, or the separate account managers.

Based on the examiner's review, it was revealed that during the period of examination the System did not have a comprehensive Investment Policy Statement that governed, controlled, and monitored its investment activities. However, subsequent to the examination period the System did develop a comprehensive Investment Policy Statement which the Department believes satisfies its concerns about proper governance of the System's investment activities. It is noted that the System and the Comptroller maintain that the System did have various policies and guidelines in place governing investment activities, and that in an effort to consolidate those guidelines an Investment Policy Statement was adopted starting in 2004.

## 17. PRIOR REPORT SUMMARY AND CONCLUSIONS

Following are the comment and recommendation contained in the prior report on examination and the subsequent actions taken by the Fund in response to each citation:

<u>Item</u>	<u>Description</u>
A	<p>The examiner recommends that the Fund report all resisted claims and corresponding dollar amounts in Schedule F.</p> <p>Due to the revision of the annual statement reporting process this issue will be reviewed on subsequent examinations.</p>
B	<p>The prior report commented on the fact that the actuarial value of assets was adjusted twice, as of June 30, 1995 and June 30, 1999, in such a way as to reduce the employer contribution each time. The report recommended that, if the System continued to make adjustments to the actuarial value of assets, it do so in such a way as to not consistently bias the level of contributions (in either direction).</p> <p>During the four years of this examination, the System has not made any similar asset adjustments.</p>

## 18. SUMMARY AND CONCLUSIONS

Following are the violations, comments and recommendations contained in this report:

<u>Item</u>	<u>Description</u>	<u>Page No</u>
A	With regard to loaned securities, it was noted that the board of trustees and the Comptroller's office did not give clear guidance to Citibank on how to deal with downgraded securities in the portfolio. This issue was also a concern raised in the Independent Fiduciary Services, Inc. Management Study and Operations Review report of the New York City Comptroller's Asset Management Function. Subsequent to the examination period, however, the System adopted an Investment Policy Statement which the Department believes has controls that should provide adequate oversight of the System's Securities Lending Program.	15
B	The examination noted that the "spread" which has increased over the years prior to the examination period still remains at a relatively high level compared to the spread for this system for much of its history.	36
C	Based on the examiner's review, it was revealed that during the period of examination the System did not have a comprehensive Investment Policy Statement that governed, controlled, and monitored its investment activities. However, subsequent to the examination period the System did develop a comprehensive Investment Policy Statement which the Department believes satisfies its concerns about proper governance of the System's investment activities. It is noted that the System and the Comptroller maintain that the System did have various policies and guidelines in place governing investment activities, and that in an effort to consolidate those guidelines an Investment Policy Statement was adopted starting in 2004.	41

Respectfully submitted,

\_\_\_\_\_/s/\_\_\_\_\_  
Anne Forde  
Principal Insurance Examiner

STATE OF NEW YORK     )  
  )SS:  
COUNTY OF NEW YORK    )

Anne Forde, being duly sworn, deposes and says that the foregoing report, subscribed by her, is true to the best of her knowledge and belief.

\_\_\_\_\_/s/\_\_\_\_\_  
Anne Forde

Subscribed and sworn to before me  
this \_\_\_\_\_ day of \_\_\_\_\_

Respectfully submitted,

\_\_\_\_\_/s/\_\_\_\_\_  
Michael J. Lambert  
Supervising Actuary

STATE OF NEW YORK     )  
  )SS:  
COUNTY OF NEW YORK    )

Michael J. Lambert, being duly sworn, deposes and says that the foregoing report, subscribed by him, is true to the best of his knowledge and belief.

\_\_\_\_\_/s/\_\_\_\_\_  
Michael J. Lambert

Subscribed and sworn to before me

this \_\_\_\_\_ day of \_\_\_\_\_ 2009

APPOINTMENT NO. 22198

**STATE OF NEW YORK**  
**INSURANCE DEPARTMENT**

I, GREGORY V. SERIO, Superintendent of Insurance of the State of New York, pursuant to the provisions of the Insurance Law, do hereby appoint:

**OLANIKE ATANDA-OGUNLEYE**

*as a proper person to examine into the affairs of the*

**CITY OF NEW YORK FIRE DEPARTMENT  
PENSION FUND, SUBCHAPTER 2**

*and to make a report to me in writing of the condition of the said*

**FUND**

*with such other information as she shall deem requisite.*

*In Witness Whereof, I have hereunto subscribed by name  
and affixed the official Seal of the Department  
at the City of New York*

*this 5th day of April, 2004*



**GREGORY V. SERIO**

Superintendent of Insurance

  
Superintendent