STATE OF NEW YORK INSURANCE DEPARTMENT

REPORT ON EXAMINATION

OF THE

NEW YORK CITY POLICE DEPARTMENT,

SUBCHAPTER TWO PENSION FUND

AS OF

JUNE 30, 1999

DATE OF REPORT:	MARCH 16, 2001
EXAMINER:	EUGENE THUMMEL

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

March 16, 2001

Honorable Gregory V. Serio
Superintendent of Insurance
Albany, New York 12257

Sir:

In accordance with instructions contained in Appointment No. 21603, dated August 28, 2000, and annexed hereto, an examination has been made into the condition and affairs of the New York City Police Department Subchapter 2 Pension Fund, hereinafter referred to as "the Fund," at its home office located at One Police Plaza, New York, New York 10038. Various functions of this examination were performed at the Office of the Comptroller of the City of New York.

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

The Fund commenced business on March 29, 1940 as a pension fund established for members of the New York City Police Department.

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, 1999 filed annual statement. (See item 5 of this report)

The examiner recommends that the Fund update its Rules and Regulations to incorporate the changes that have been instituted since 1940. (See item 7 of this report)

The Fund did not publish reports showing the valuation of its assets and liabilities for the preceding years for any of the five years under examination as required by Section B-18-19.0 of the Administrative Code of the City of New York. The examiner recommends that the Fund comply with Section B-18-19.0 of the Administrative Code of the City of New York by annually publishing the requisite reports. (See item 9 of this report)

2. SCOPE OF EXAMINATION

The prior examination was conducted as of June 30, 1994. This examination covers the period from July 1, 1994 through June 30, 1999. As necessary, the examiner reviewed transactions occurring subsequent to June 30, 1999 but prior to the date of this report (i.e., the completion date of the examination).

The examination comprised a verification of assets and liabilities as of June 30, 1999 to determine whether the Fund's 1999 filed annual statement fairly presents its financial condition. The examiner reviewed the Fund's income and disbursements necessary to accomplish such verification and utilized such examination procedures, as deemed appropriate, in the review of the following matters:

Fund history
Administration
Accounts and records
Member benefits
Financial statements

The examiner reviewed the corrective actions taken by the Fund with respect to the recommendations and the comment contained in the prior report on examination. The results of the examiner's review are contained in item 10 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 Fund was incorporated on March 1, 1940 and commenced business on March 29, 1940. The Fund succeeded a pension fund established for the New York City police force prior to the establishment of the Article 2 Fund of 1940. On January 30, 1940, Title B of Chapter 18 (recodified as Title 13, Chapter 2) of the Administrative Code of the City of New York ("Administrative Code") was amended so that a new fund could operate on an actuarial basis covering persons appointed to the police force after June 1, 1940. The Fund then became subject to the supervision of the Department.

B. Management

Management of the Fund is vested in its board of trustees. Section 13-202 of the Administrative Code states that the board of trustees shall consist of representatives of: 1) the Police Commissioner, the Mayor, the City Comptroller and the Commissioner of Finance, each with one and one-half votes; 2) four specified officers of the Patrolmen's Benevolent Association each with one vote; and 3) four presidents of certain other police associations, each with one-half vote.

Actions of the board are by resolution. Actions are adopted by a vote of at least seven-twelfths of the number of votes authorized to be cast by all the board members.

Meetings are held every month. Special meetings may be called by the Chairman or by request of the members of the board with a combined vote of not less than five.

The following is a list of the 12 members of the board of trustees and the office or association represented, as of June 30, 1999:

Name	Representing the
Seth Cohen	Commissioner of Finance
John Driscoll	Captain's Endowment Association
Anthony Garvey	Lieutenants' Benevolent Association
Anthony C. Keller	Patrolmen's Benevolent Association

Name	Representing the
Jane Levine	Comptroller
Laurence Levy	Mayor of the City of New York
Bruce A. Robertson	Patrolmen's Benevolent Association
James Savage	Patrolmen's Benevolent Association
Thomas Scotto	Detectives Endowment Association
Joseph Toal	Sergeants' Benevolent Association
Thomas F. Walsh	Patrolmen's Benevolent Association
Joseph P. Wuensch	Police Commissioner

In July 1999, James Savage, Bruce A. Robertson, Thomas F. Walsh, and Anthony C. Keller retired from the board and were replaced by Patrick J. Lynch, John Puglisi, John Loud, and Daniel Tirelli, respectively.

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, 1999:

Name	Title
Howard Safir	Police Commissioner
Patrick J. Lynch	Secretary
Alan G. Hevesi	Treasurer
Robert C. North, Jr.	Actuary

In October 1999, Bernard B. Kerik replaced Howard Safir as Police Commissioner and Chairman of the board of trustees.

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 Fund's financial growth during the period under review:

	June 30, 1994	June 30,1999	Increase (Decrease)
Admitted assets	$8,138,314,508	$17,290,639,975	$9,152,325,467
Reserves	$8,135,803,390	$13,849,252,000	$5,713,448,610
Benefits due and unpaid	17,360,873	12,203,945	(5,156,928)
Other liabilities	29,815,273	339,495,128	309,679,855
Net reserves and all other liabilities	$8,182,979,536	$14,200,951,073	$6,017,971,537
Excess of admitted assets over total net reserves and all other liabilities*	(44,665,028)	3,089,688,902	3,134,353,930
Total	$8,138,314,508	$17,290,639,975	$9,152,325,467

The Fund's invested assets as of June 30, 1999, were mainly comprised of stocks (67.3%), bonds (26.3%) and member loans (2%).

*Because of the way pension plans are funded, these values, "Excess of admitted assets over total net reserves and all other liabilities," would generally be zero. They are not zero here primarily because of differences between admitted assets, as shown in the annual statement, and the actuarial valuation of assets, used for developing employer contribution. These differences are further discussed in Section V of the Report of the Examining Actuary.

Following is a condensed analysis of income and disbursements for the five-year period under review (in thousands of dollars):

	Fiscal Year Ended June 30,				
	1995	1996	1997	1998	1999
Income	$1,126,721	$2,201,900	$2,586,886	$2,508,408	$2,757,704
Disbursements	776,031	1,555,758	1,373,242	1,423,577	1,641,085
Excess	$ 350,690	$ 646,142	$1,213,644	$1,084,831	$1,116,619

The following table indicates the membership of the Fund as of the beginning and closing dates of this examination:

	July 1, 1995	June 30, 1999	Increase
Active members	31,059	39,107	8,048
Service pensioners	17,866	18,622	756
All other pensioners	13,108	16,117	3,009
Total	62,033	73,846	11,813

5. FINANCIAL STATEMENTS

The following is a comparative statement of assets, reserves, and other liabilities and a comparative statement of income and disbursements for the period July 1, 1994 through June 30, 1999, as contained in the June 30, 1999 filed annual statement. 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, 1999 filed annual statement.

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

	1995	1996	1997	1998	1999
Assets					
Ledger Assets					
Secured loans (repurchase agreements)	$ 129,750,000	$ 7,500,000	$ 0	$ 0	$ 0
Book value of bonds	3,957,714,664	3,320,487,785	3,663,277,111	4,044,256,194	4,553,197,906
Discount notes	0	855,874,063	0	0	0
Commercial paper	0	0	94,187,619	290,666,110	508,113,546
Short term investment funds	0	0	583,739,301	431,367,341	664,027,795
Treasury bills	0	0	0	33,670,000	58,600,000
Book value of stocks	3,280,978,453	4,103,840,980	4,753,995,023	3,792,186,198	3,847,726,330
International equity	0	0	0	1,650,490,460	1,795,115,524
Cash on deposit-not on interest	(21,520,816)	(354,923,714)	(14,199,861)	(28,652,549)	(43,256,589)
Accounts receivable	186,666,440	101,279,296	436,908,545	431,087,090	508,275,965
Member loans receivable	0	0	296,764,362	318,661,862	339,495,128
Accounts payable	(666,845,743)	(521,173,420)	(1,088,142,894)	(1,152,372,839)	(1,303,316,887)
Total ledger assets	$6,866,742,998	$7,512,884,990	$ 8,726,529,206	$ 9,811,359,867	$10,927,978,718

	1995	1996	1997	1998	1999
Non-Ledger Assets					
Interest due and accrued:					
Bonds	$ 43,846,354	$ 47,039,680	$ 47,327,675	$ 50,736,999	$ 55,721,411
Collateral loans	19,488	126,917	492,013	22,794	0
Commercial paper	0	0	0	0	59,371
Common stock dividends – declared but unpaid	8,979,106	8,998,250	8,621,531	8,807,857	9,182,205
Receivables from NYCERS due to merger	586,108,450	593,486	0	0	0
Receivables from Police Subscriber One	16,449,702	0	0	0	0
Receivables from budget appropriation	0	59,043	0	0	0
Accrued contribution from budget appropriation	0	13,911,985	0	0	0
Market value of stocks over book value	2,329,866,438	3,248,057,902	4,422,904,524	5,684,132,502	6,297,698,270
Employer contribution receivable:					
Long term Contingent Reserve Fund (CRF)	495,067,379	486,886,497	476,921,925	464,508,439	449,384,449
Long term Group Term Life Insurance (GTLI)	5,109,793	5,025,355	4,922,506	4,794,382	4,638,281
Total non-ledger assets	$ 3,485,446,710	$ 3,810,699,115	$ 4,961,190,174	$ 6,213,002,973	$ 6,816,683,987
Gross assets	$10,352,189,708	$11,323,584,105	$13,687,719,380	$16,024,362,840	$17,744,662,705

	1995	1996	1997	1998	1999
Deduct: Assets Not Admitted					
Employers contributions receivable:					
long term CRF	$ 495,067,379	$ 486,886,497	$ 476,921,925	$ 464,508,439	$ 449,384,449
long term GTLI	5,109,793	5,025,355	4,922,506	4,794,382	4,638,281
Total assets not admitted	$ 500,177,172	$ 491,911,852	$ 481,844,431	$ 469,302,821	$ 454,022,730
Total admitted assets	$9,852,012,536	$10,831,672,253	$13,205,874,949	$15,555,060,019	$17,290,639,975
Liabilities					
A. Accumulated contributions of members:	$ 583,192,388	$ 0	$ 0	$ 0	$ 0
Present value of benefits payable on account of beneficiaries now drawing allowances:					
Service retirement	$2,993,536,974	$ 3,222,974,802	$ 3,244,173,631	$ 3,301,671,222	$ 3,301,370,775
Ordinary disability retirement	644,813,797	697,960,067	688,111,928	683,884,728	668,639,173
Accidental disability retirement	2,243,854,379	2,546,935,821	2,606,035,299	2,675,659,110	2,699,881,044
Accidental death benefits	30,992,620	35,167,807	45,082,468	37,088,346	40,491,080
Beneficiaries of deceased persons under J & S options	27,319,336	32,385,373	26,777,819	36,527,248	43,387,769
Supplemental benefits	233,061,937	435,568,754	411,398,476	598,998,182	563,757,909
B. Subtotal	$6,173,579,043	$ 6,970,992,624	$ 7,021,579,621	$ 7,333,828,836	$ 7,317,527,750

	1995	1996	1997	1998	1999
Present value of benefits provided by employer for members now in active service:					
Service retirement	$2,619,151,565	$ 5,472,404,923	$ 5,556,748,253	$ 5,766,587,602	$ 6,668,668,287
Ordinary disability retirement	909,661,623	637,394,278	635,189,279	634,776,746	708,492,425
Accidental disability retirement	2,615,032,133	2,867,730,667	2,899,558,790	2,872,389,492	3,140,891,642
Ordinary death benefits	108,381,211	146,860,203	147,905,214	145,852,304	156,655,574
Accidental death benefits	14,039,445	23,688,832	23,893,075	23,313,905	25,277,559
ITHP benefits	558,564,005	0	0	0	0
Vesting benefits	164,653,777	88,710,640	94,050,168	96,643,413	114,369,996
Return of contributions	0	26,965,573	26,423,605	24,296,122	24,556,361
C. Subtotal	$6,989,483,759	$ 9,263,755,116	$ 9,383,768,384	$ 9,563,859,584	$10,838,911,844
Less present value of prospective regular contributions and appropriations payable on account of above benefits:					
Total unfunded actuarial accrued liability	$1,377,511,764	$ 1,505,844,510	$ 1,238,043,018	$ 1,414,667,445	$ 1,365,414,066
Present value of future EE contributions	0	721,755,981	736,723,941	701,735,243	758,509,372
All other ER contributions	2,978,664,038	4,416,416,394	3,961,434,173	3,075,565,530	3,049,260,968
D. Subtotal	$4,356,175,802	$ 6,644,016,885	$ 5,936,201,132	$ 5,191,968,218	$ 5,173,184,406
E. Net reserve for members in active service (C-D)	$2,633,307,957	$ 2,619,738,231	$ 3,447,567,252	$ 4,371,891,366	$ 5,665,727,438
F. Present value of skim on account of Variable Supplement Funds	$ 0	$ 755,807,145	$ 768,489,127	$ 692,071,798	$ 865,996,812
G. Total net reserves (A+B+E+F)	$9,390,079,388	$10,346,538,000	$11,237,636,000	$12,397,792,000	$13,849,252,000

	1995	1996	1997	1998	1999
Benefits due and unpaid	$ 15,492,651	$ 17,162,347	$ 16,851,631	$ 11,879,420	$ 12,203,945
Amount due and unpaid to POVSF and PSOVSF	271,792,745	381,847,673	42,316,185	0	0
Expenses due and accrued:	0	0	4,963,000	0	0
Amount in transit	4,060,031,376	5,109,830,874	7,359,347,808	9,174,618,526	10,519,206,782
Reserve which may be offset by amount in transit	(4,060,031,376)	(5,109,830,874)	(7,359,347,808)	(9,174,618,526)	(10,519,206,782)
Reserve on account of loans receivable	0	0	0	318,661,862	339,495,128
Deferred employer contribution	23,375,799	0	0	0	0
Net reserve and all other liabilities	$9,700,740,583	$10,745,548,020	$11,301,766,816	$12,728,333,282	$14,200,951,073
Excess of admitted assets over total net reserves and all other liabilities*	151,271,953	86,124,233	1,904,108,133	2,826,726,737	3,089,688,902
Total	$9,852,012,536	$10,831,672,253	$13,205,874,949	$15,555,060,019	$17,290,639,975

*Because of the way pension plans are funded, these values, "Excess of admitted assets over total net reserves and all other liabilities," would generally be zero. They are not zero here primarily because of differences between admitted assets, as shown in the annual statement, and the actuarial valuation of assets, used for developing employer contribution. These differences are further discussed in Section V of the Report of the Examining Actuary.

B. STATEMENT OF INCOME AND DISBURSEMENTS

FISCAL YEAR ENDED JUNE 30,

	1995	1996	1997	1998	1999
Income					
From Members					
Regular contributions or payments	$57,480,208	$63,495,192	$69,062,754	$75,356,113	$83,514,153
Loan repayments	53,058,654	58,610,947	63,750,235	69,559,488	77,089,987
Prior police service	1,244,380	6,181,827	1,384,719	2,036,791	465,878
Special contributions	262,667	402,302	2,703,751	317,723	382,028
Prepaid loans	1,031,012	1,215,616	1,182,342	1,417,515	1,290,106
Transfers to NYCERS due to merger	35,986,656	585,514,964	0	0	0
Refund of excess	0	0	0	43,377	28,029
From Employer					
Regular contributions	414,743,413	526,582,430	596,131,297	501,882,350	502,060,479
Budget adjustment FY97	0	0	0	42,316,185	0
Prior state service	438,905	973,121	321,562	593,069	240,448
City Supplements:					
Regular	33,095	39,780	48,931	60,433	88,401
Line of duty (L.O.D.)	6,657,401	7,293,877	7,634,839	8,105,753	8,677,389
Parity	749,413	872,498	712,953	671,496	634,016
Reserve for loans outstanding	0	0	296,764,362	318,661,862	339,495,128
Other assets- members contributions	0	0	0	723,483	968,404

	1995	1996	1997	1998	1999
From Interest					
Collateral loans	$ 755,498	$ 1,596,702	$ 1,785,955	$ 468,389	$ 107,975
Bonds	213,003,305	216,121,965	226,870,489	234,283,752	247,098,363
Stocks	110,158,194	123,283,086	124,852,100	123,846,072	127,203,810
Interest on money market	14,365	14,644	0	12,917	16,777
International fund	5,906,348	3,195,963	0	0	0
Commercial paper	3,468,822	4,550,467	5,413,682	12,971,631	2,706,970
Short term investment funds	25,947,091	32,860,231	35,880,584	38,016,629	34,711,069
Security lending	0	2,615,125	3,142,975	4,070,487	5,277,285
From budget appropriations	0	3,058,843	0	0	0
Interest reported by Subchapter 1	0	291,500	0	0	0
From Other Sources					
Money left on redeposit	742,025	990,161	904,161	1,166,235	3,489,590
Transfer from Subchapter 1	0	16,449,702	0	0	0
Forgery	1,691	0	0	0	0
Investment income	4,040,146	2,127,521	4,632,911	2,941,466	2,117,669
Miscellaneous income	0	1,764,441	0	0	0
Withholding tax refund foreign investment	39,973	34,661	23,786	0	0
Gross profit on sale or maturity of:					
Bonds	0	105,067,617	98,689,637	124,432,508	83,587,041
Stocks	170,420,951	419,904,002	780,551,109	878,759,206	1,183,363,496
International equity	0	1,228,950	0	51,937,629	38,051,909
Unallocated profit	0	0	250,412,601	0	0
Increase by adjustment in book value of bonds	20,537,091	15,561,780	14,028,046	13,755,433	15,037,922
Total income	$1,126,721,304	$2,201,899,915	$2,586,885,781	$2,508,407,992	$2,757,704,322
Increase by transfer of funds	1,012,791,003	1,040,173,701	1,194,759,923	1,247,554,259	1,386,811,971
Total income and increases	$2,139,512,307	$3,242,073,616	$3,781,645,704	$3,755,962,251	$4,144,516,293

	1995	1996	1997	1998	1999
Disbursements					
Payment on account of retirements:					
Annual or other periodic payments	$643,311,753	$691,136,100	$730,562,721	$750,235,905	$765,876,434
Lump sum payments on account of:					
death after retirement	1,510,000	3,528,346	6,160,806	4,102,902	8,277,501
line of duty deaths	5,388,097	458,992	3,650,116	3,912,781	8,199,009
Payments on account of death from ordinary causes	8,641,875	11,072,027	4,833,413	5,159,683	5,106,928
Payments on account of resignation and dismissal with cause	1,284,290	1,423,007	2,638,537	1,871,969	2,129,636
Payments on account of transfers of reserves	3,675,115	0	255,695	444,326	0
Payments on account of excess contributions	320,527	327,994	698,422	1,000,880	626,938
City Supplemental Chapter 390-398	27,178,251	26,478,016	42,306,806	58,470,356	84,901,296
City Supplemental-Line of duty widow	6,660,401	7,159,375	7,642,768	8,105,753	8,677,389
City Supplemental-parity	749,400	724,192	713,009	671,496	634,016
Member loans	59,697,196	81,165,700	103,401,560	110,976,360	120,651,910
Transfers to other systems	5,800,615	7,967,983	906,440	8,447,930	15,206,433
Withholding tax	0	0	0	158,764	22,595
Investment expense	12,941	94,928	6,905,517	13,171,039	13,878,501
Trustees expense	2,904	3,529	8,604	10,445	5,436
Foreign tax withheld	5,450	1,314	34,122	17,921	17,039
State insurance audit	0	0	115,915	4,449	0
Health insurance	0	0	581,480	70,411	96
EFT exchange	0	0	0	582	0
Distributions to variable supplement fund	0	0	381,847,673	0	0
Disbursements incurred by					

Subchapter 1	0	10,677,092	0	0	0

	1995	1996	1997	1998	1999
Skim disbursement	$ 0	$ 271,792,745	$ 0	$ 0	$ 0
Gross loss on sale or maturity of:					
Bonds	0	81,583,795	60,875,509	32,899,930	100,710,638
Stocks	0	0	10,538,293	116,110,544	172,816,966
Stocks, international equity	1,018,092	0	0	0	428,866
Unallocated loss	0	350,728,965	0	0	0
Decrease by adjustment in book value of bonds	10,773,963	9,433,823	8,564,159	10,968,543	14,255,982
Prior year members loans receivable	0	0	0	296,764,362	318,661,862
Total disbursements	$ 776,030,870	$1,555,757,923	$1,373,241,565	$1,423,577,331	$ 1,641,085,471
Decrease by transfer of funds	1,012,791,003	1,040,173,701	1,194,759,923	1,247,554,259	1,386,811,971
Total disbursements and decreases	$1,788,821,873	$2,595,931,624	$2,568,001,488	$2,671,131,590	$ 3,027,897,442
Total income over disbursements	$ 350,690,434	$ 646,141,992	$1,213,644,216	$1,084,830,661	$ 1,116,618,851
Ledger assets, prior year	6,516,052,564	6,866,742,998	7,512,884,990	8,726,529,206	9,811,359,867
Ledger assets, current year	$6,866,742,998	$7,512,884,990	$8,726,529,206	$9,811,359,867	$10,927,978,718

6. TREATMENT OF MEMBERS

The examiner reviewed a sample of various types of benefits to members and beneficiaries to determine whether members or beneficiaries were treated fairly and in accordance with the rules of the Fund. The examiner also reviewed the various controls involved, checked the accuracy of the computations and traced the accounting data to the books of account.

A. Disability Retirees

The Fund does not conduct annual physical examinations on disability retirees. The prior report on examination recommended that the Fund exercise its prerogative under the Administrative Code and conduct annual physical examinations. In response to the recommendation the Fund stated that the board of trustees believes that it would not be a productive use of the Fund's resources to conduct annual physical examinations of disability retirees. Prudent procedures and controls dictate that annual physical examinations on disability retirees be performed to determine continued eligibility.

It is again recommended that the Fund exercise its prerogative under the Administrative Code and conduct annual physical examinations of disability retirees.

7. RULES AND REGULATIONS

Section 13-216 of the New York City Charter and Administrative Code states, in part:

> "Board of trustees. A. The police fund shall be administered by a board of trustees which shall, subject to the provisions of law and to the prior approval of the board of estimate, from time to time, establish rules and regulations for the administration and transaction of the business of such fund and for the control and disposition thereof."

Section 13-217 of the New York City Charter and Administrative Code states:

> "Rules and Regulations. Each member shall be subject, until retirement, to all the provisions of this subchapter and to all the rules and regulations adopted by such board applying to members."

The Administrative Code of the City of New York was re-codified in 1985. The Rules and Regulations used by the Fund are based on the Administrative Code as reenacted in 1940, and therefore, make reference to provisions of the Administrative Code which are obsolete and no longer applicable. In addition, the Rules and Regulations do not reflect the current practices and procedures of the Fund. Some examples of obsolete rules and regulations include the following:

> "Article I
> *Rule 2.* The offices of the fund shall be located at Police Headquarters, No. 240 Centre Street, Borough of Manhattan, City, County and State of New York."

The Fund has been located at police headquarters, 1 Police Plaza, New York, New York since 1974.

> "*Rule 21.* Moneys of the Fund shall be invested only as provided by resolution of the board, and no investments shall be made except in obligations issued by the City of New York, the State of New York, or the United States of America."

The Fund has invested in a variety of corporate securities, including a substantial international portfolio, for many years.

> "Article II
> *Rule 17.* . . . At the time of becoming a member the applicant shall indicate on the form his election as to the basis on which he wishes to contribute, either:
> Retirement after 20 years of service
> Retirement after 25 years of service, or
> Retirement after attainment age 55
> The election so made shall be binding thereafter on the Board and the member, and shall not be subject to change . . . "

All police officers may retire after 20 years of allowable police service. No election as to the basis on which an officer wishes to contribute is required.

> "*Rule 24.* Loans to members . . . may be authorized by the Board upon application therefore . . . to an amount not exceeding forty (40) per cent of the total amount posted to his credit . . . "

Fund members routinely receive loans in excess of forty percent of contributions.

The previous report on examination recommended that the Fund update its "Rules and Regulations" to incorporate all the changes that have been instituted since 1940. That recommendation is repeated in this report. The Fund has advised that in response to the examiner's recommendation, it will begin to rewrite these rules and regulations.

8. PUBLICATION OF THE ANNUAL REPORT

Section B-18-19.0 of the Administrative Code of the City of New York states, in part:

> "Such board shall publish annually in the City Record a report for the preceding year showing a valuation of the assets and liabilities . . . cash and securities of the fund, etc."

The Fund did not publish reports showing the valuation of its assets and liabilities for the preceding years for any of the five years under examination. The Fund thereby violated Section B-18-19.0 of the Administrative Code. The examiner recommends that the Fund comply with the Administrative Code by annually publishing the requisite reports.

9. CUSTODIAL AFFIDAVIT

Citibank is the custodian of securities for the Fund. At the beginning of the examination, a request to confirm the Fund's securities was sent to the bank. The examiners did not receive a proper confirmation from Citibank. The Comptroller provided the examiners with an electronic inventory of securities held by Citibank on CD-ROM and Citibank separately confirmed that the CD-ROM we received from the Comptroller did in fact contain the inventory of securities held for the Fund. A proper confirmation should require the custodian to provide an inventory of all securities held by them, as well as, a notarized affidavit.

The examiner recommends that the Fund facilitate the Department in obtaining proper confirmations from its custodian.

10. PRIOR REPORT SUMMARY AND CONCLUSIONS

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

Item	Description
A	The examiner recommends that the Fund should prepare an inventory of members' contributions and that the inventory listing for members' contributions be reconciled to the general ledger amount. The Fund states that its computer system is obsolete and requires manual input of information for processing. The Fund is presently exploring the possibility of modernizing and improving its computer system, which would enable it to implement this recommendation. In addition, the Fund does have records of each individual's contribution.
B	The examiner recommends that the Fund should report the total outstanding member loans as an asset "loans receivable." A review of the Fund's annual statement workpapers for the period under examination revealed that total outstanding member loans were designated as the asset "member loans receivable" in the annual statement since 1997.
C	The examiner recommends that a reconciliation be done between the loan inventory and the general ledger on a monthly basis. The Fund advises that its Management Information System Division is updating and improving its database and computer system. The Fund anticipates this project will be completed by December 2001, at which time it will be able to comply with this recommendation. In addition, the Fund maintains records of each individual's loan.
D	The examiner recommends that interest due and accrued on member loans should be reported as a non-ledger asset. A review of the Fund's workpapers revealed that interest accrued on member loans has been included in the asset "member loans receivable" since 1997.

Item	Description
E	The examiner recommends that, for disability retirees, the board should exercise its prerogative under the Administrative Code and conduct annual physical examinations. The board of trustees believes that it would not be a productive use of the Fund's resources to conduct annual physical examinations of disability retirees.
F	The examiner recommends that, for resignations, a section should be added to the exit interview form indicating the member's choice of (a) leaving his accumulated contributions with the Fund earning interest for five years or (b) withdrawing his accumulated contributions. A review of the Fund's retiree files revealed that the Fund revised its exit interview form in February 1999, incorporating the following statement: "NOTE: members of the Department should contact their retirement systems for a refund of contributions. Contributions will earn interest for five years."
G	The examiner noted that the Fund has not performed full cash reconciliations between its accounts and the Comptroller's accounts for at least seven years and recommends that the Fund perform a reconciliation between its cash balances and the Comptroller's cash balances for all accounts, on a monthly basis. A review of the Fund's workpapers revealed that the Fund has been performing reconciliations between its cash balances and the Comptroller's cash balances for all accounts, on a monthly basis since 1997.
H	The examiner recommends that for annual statement presentation, profits and losses should be reported separately for stocks and bonds. The Fund has been reporting profits and losses for bonds and stocks separately on the annual statement since 1996.
I	The examiner recommends that the Fund update its Rules and Regulations to incorporate all of the changes that have been instituted since 1940. The Fund has not updated its Rules and Regulations to incorporate all the changes that have been instituted since 1940. The Fund has advised that it will begin to update and rewrite these rules and regulations, addressing a number of outdated provisions. (See item 7 of this report)

11. SUMMARY AND CONCLUSIONS

Following are the recommendations contained in this report:

Item	Description	Page No(s).
A	The examiner recommends that the Fund exercise its prerogative under the Administrative Code and conduct annual physical examinations of disability retirees. This is a repeat recommendation from the prior report on examination.	17
B	The examiner recommends that the Fund update its Rules and Regulations to incorporate the changes that have been instituted since 1940. This is a repeat recommendation from the prior report on examination.	18 – 19
C	The examiner recommends that the Fund comply with Section B-18-19.0 of the Administrative Code by annually publishing the requisite reports in the City Record.	20
D	The examiner recommends that the Fund facilitate the Department in obtaining proper confirmations from its custodian.	20

Respectfully submitted,

/s/
Eugene Thummel
Associate Examiner

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

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

/s/
Eugene Thummel

Subscribed and sworn to before me

this__________ day of ____________________2001.

APPOINTMENT NO. 21603

STATE OF NEW YORK

INSURANCE DEPARTMENT

I, NEIL D. LEVIN, Superintendent of Insurance of the State of New York, pursuant to the provisions of the Insurance Law, do hereby appoint:

EUGENE THUMMEL

as a proper person to examine into the affairs of the

NEW YORK CITY POLICE PENSION FUND, ARTICLE 2

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

FUND

with such other information as he 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 28th day of August ,2000

NEIL D. LEVIN
Superintendent of Insurance

by ***GREGORY V. SERIO***
First Deputy Superintendent

NEW YORK CITY
POLICE DEPARTMENT,
SUBCHAPTER TWO PENSION FUND

Report of the Examining Actuary

Michael J. Lambert, ASA, MAAA, EA

Condition as of: June 30, 1999

Table of Contents

I. Liabilities of the Fund

The liabilities of the Fund as reported in its annual statements to the New York State Insurance Department are summarized in the following table:

Valuation Date	(1) Accumulated Contributions of Members	(2) Present Value of Benefits Payable to Beneficiaries Now Drawing Allowances	(3) Present Value of Benefits Provided for Members Now in Active Service	(4) Unfunded Accrued Liability
6/30/94	$465,738,390	$5,832,455,849	$5,744,937,865	$1,303,490,866
6/30/95	583,192,388	6,173,579,043	6,989,483,759	1,377,511,764
6/30/96		6,970,992,624	9,263,755,116	1,505,844,510
6/30/97		7,021,579,621	9,383,768,384	1,238,043,018
6/30/98		7,333,828,836	9,882,521,446	1,414,667,445
6/30/99		7,317,527,750	11,178,406,972	1,365,414,066

Valuation Date	(5) Present Value of All Other Prospective Contributions	(6) Net Reserves (1)+ (2) + (3) – (4) – (5)	(7) Benefits, Expenses and Other Amounts Due and Unpaid	(8) Amounts Due Variable Supplements *Funds*
6/30/94	$2,603,837,848	$8,135,803,390	$47,176,146	$0
6/30/95	2,978,664,038	9,390,079,388	38,868,450	271,792,745
6/30/96	4,382,365,230	10,346,538,000	17,162,347	381,847,673
6/30/97	3,929,668,987	11,237,636,000	64,130,816	0
6/30/98	3,085,228,975	12,716,453,865	11,879,420	0
6/30/99	2,941,773,528	14,188,747,128	12,203,945	0

Valuation Date	(9) Net Reserves and All Other Liabilities (6)+(7)+(8)	(10) Admitted Assets	(11) Excess of Assets over Reserves and Liabilities (10) – (9)
6/30/94	$8,182,979,536	$8,138,314,508	($44,665,028)
6/30/95	9,700,740,583	9,852,012,536	151,271,953
6/30/96	10,745,548,020	10,831,672,253	86,124,233
6/30/97	11,301,766,816	13,205,874,949	1,904,108,133
6/30/98	12,728,333,285	15,555,060,019	2,826,726,734
6/30/99	14,200,951,073	17,290,639,975	3,089,688,902

[1] Beginning with the June 30, 1996 Annual Statement, the liabilities for active members include liabilities for benefits attributable to employee contributions; in prior years, the liabilities for active members excluded liabilities for benefits attributable to employee contributions, and the accumulated contributions of members was shown as a separate liability item.

[2] Beginning with the June 30, 1996 Annual Statement, this value has been reduced by the excess of the present value of future 'skim' over the present value of future employee contributions.

[3] Beginning with the June 30, 1998 Annual Statement, the liability corresponding to the asset item "Member Loan Receivable" was shown as a separate item; in prior year statements that liability was included in the total liability for active members.

Because of the way pension plans are funded, the values in Column (11), "Excess of Assets over Reserves and Liabilities", would, in general, be zero. They are not zero here primarily because of differences between Admitted Assets, as shown in the Annual Statement, and the Actuarial Value of Assets, used for developing the employer contribution. Those differences are discussed further in Section V of this report.

II. Actuarial Cost Method and Calculation of Employer Contributions

The actuarial cost method by which employer contributions to the System are computed is the Frozen Entry Age Actuarial Cost Method. A significant aspect of that method is that the present value of future normal contributions is a balancing item, calculated by subtracting the sum of the actuarial value of assets, the present value of future employee contributions and the unfunded actuarial accrued liability from the actuarial present value of future benefits as of the valuation date. Consequently, actuarial gains and losses are amortized implicitly over members' future working lifetimes as part of the employer's normal contribution.

Contributions are required of employees in both benefit tiers, reducing the amount the employer otherwise would have to contribute. The typical method for achieving the reduction in employer costs is to include the full formula benefit in the present value of future benefits and then deduct the present value of future employee contributions.

However, the contributions required of Fund members are not set at a uniform percentage of salary, but instead are targeted to provide a certain percentage of the total formula benefit. Any excess contributions at the time of retirement may be applied to increase the retirement allowance, and any deficiency in contributions will result in a reduction in the allowance. In addition, members are permitted to borrow against their contributions, and unpaid loan balances are liquidated at the time of retirement by reducing the member's total accumulated contributions.

As a result, the present value of future employee contributions is difficult to determine. So, for the June 30, 1994 (and prior) actuarial valuations, the Fund, based on past experience, derived a "P-factor," representing the employer's average share of total retirement benefit costs. In calculating the present value of future benefits for employees, the System used the P-factor to adjust the total formula benefit so that only the employer's share is reflected in the present value and hence in the normal contribution rate. The value of the P-factor was 82%.

Beginning with the June 30, 1995 actuarial valuation, the liability attributable to employee contributions was included in total active member liabilities, and the “P-factor” approach was no longer used. The annual statements reflect the above change in methodology as of June 30, 1996, since they were not changed retroactively.

The normal contribution rate for the Fund is computed so as to amount to a level percentage of payroll, as follows: the present value of prospective normal contributions (the aforementioned balancing item) is divided by the present value of projected future salaries of members on the payroll as of the valuation date. The employer normal contribution for the ensuing fiscal year is derived by multiplying the normal contribution rate by aggregate annual salaries. This results in a value that is appropriate for an employer contribution at the beginning of the fiscal year. To recognize the fact that the employer contribution is typically paid monthly throughout the year, the calculation of the present value of prospective normal contributions includes an interest adjustment. For the June 30, 1994 (and prior) valuations, the adjustment to reflect monthly contributions is made after the normal contribution rate is determined.

In addition to the normal contribution, the total employer contribution includes a contribution to amortize the unfunded actuarial accrued liability (UAL contribution) and, for the June 30, 1994 (and prior) valuation, a contribution for increased take home pay (ITHP contribution). The ITHP contribution represents the assumption by the employer of a portion of the contribution that otherwise would be required of members, and is computed as a percentage of the salaries of those members. Beginning with the June 30, 1995 valuation, the liability attributable to the ITHP contribution was included in the present value of future normal contributions, so there was no longer a separate cost component for ITHP.

The determination of employer contributions to be made for a fiscal year is based on values determined as of the last day of the immediately preceding fiscal year; e.g., values determined as of June 30, 1994 are used to determine the contribution required for the fiscal year ending June 30, 1995. Employer contributions were computed as follows: (dollar values are shown to the nearest thousand)

Fiscal Year Ending 6/30	(1) Actuarial Present Value of Benefits	(2) Actuarial Value of Assets	(3) Unfunded Accrued Liability	(4) Present Value of Future Employee Contributions
1994	$ 11,645,190	$ 7,670,065	$ 1,400,124	$ -
1995	16,171,615	9,632,930	1,322,920	709,975
1996	16,468,640	10,342,907	1,260,460	712,380
1997	17,173,837	11,237,636	1,238,043	736,724
1998	17,589,760	12,397,792	1,414,667	701,735
1999	19,769,191	16,877,765	0	752,490

Fiscal Year Ending 6/30	(5) Present Value of Future Normal Contributions (1) – (2) – (3) – (4)	(6) Present Value of Future Compensation	(7) Normal Contribution Rate (5) ÷ (6)	(8) Aggregate Annual Salaries
1994	$ 2,575,001	$ 13,651,098	18.863%	$ 1,478,485
1995	4,505,790	19,179,035	23.493%	1,844,885
1996	4,152,893	19,326,009	21.489%	1,919,993
1997	3,961,434	20,154,123	19.656%	2,036,450
1998	3,075,566	19,625,711	15.671%	2,091,063
1999	2,138,936	21,222,785	10.078%	2,331,957

Fiscal Year Ending 6/30	(9) Normal Contribution (7) x (8)	(10) UAL Contribution	(11) Gross Employer Contribution (9) + (10)	(12) Employer Payroll Rate (11) ÷ (8)
1994	$ 290,498 [1]	$ 135,962	$ 418,984 [2]	28.34%
1995	433,419	128,941	562,360	30.48%
1996	412,587	127,257	539,844	28.12%
1997	400,285	143,914	544,199	26.72%
1998	327,690	174,370	502,060	24.01%
1999	235,015	0	250,021 [3]	10.72%

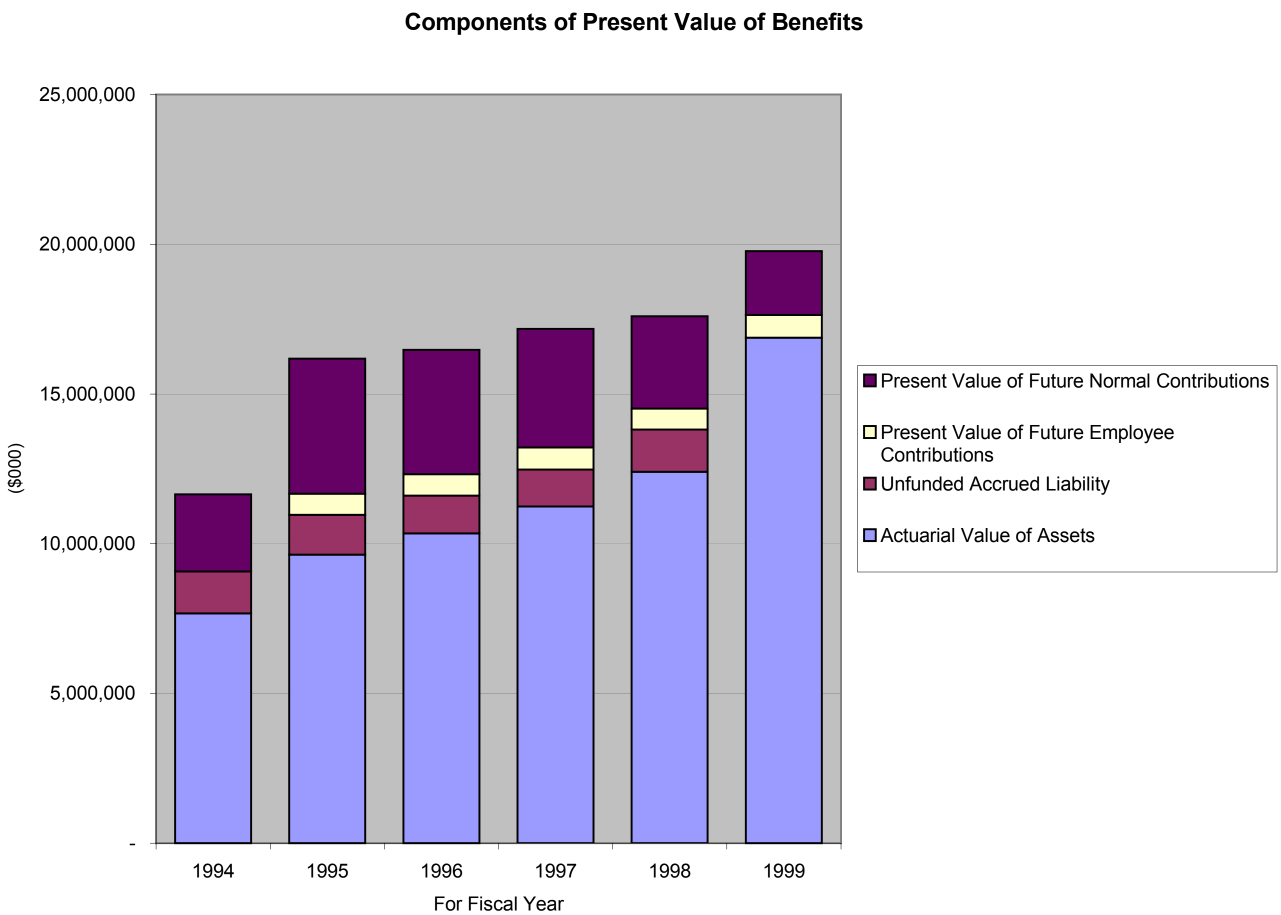
[1] Reflects multiplication by 1.041633 to account for monthly contribution by employer

[2] Reflects $30,038,000 in ITHP contribution and $37,515,000 in funds returned to the employer

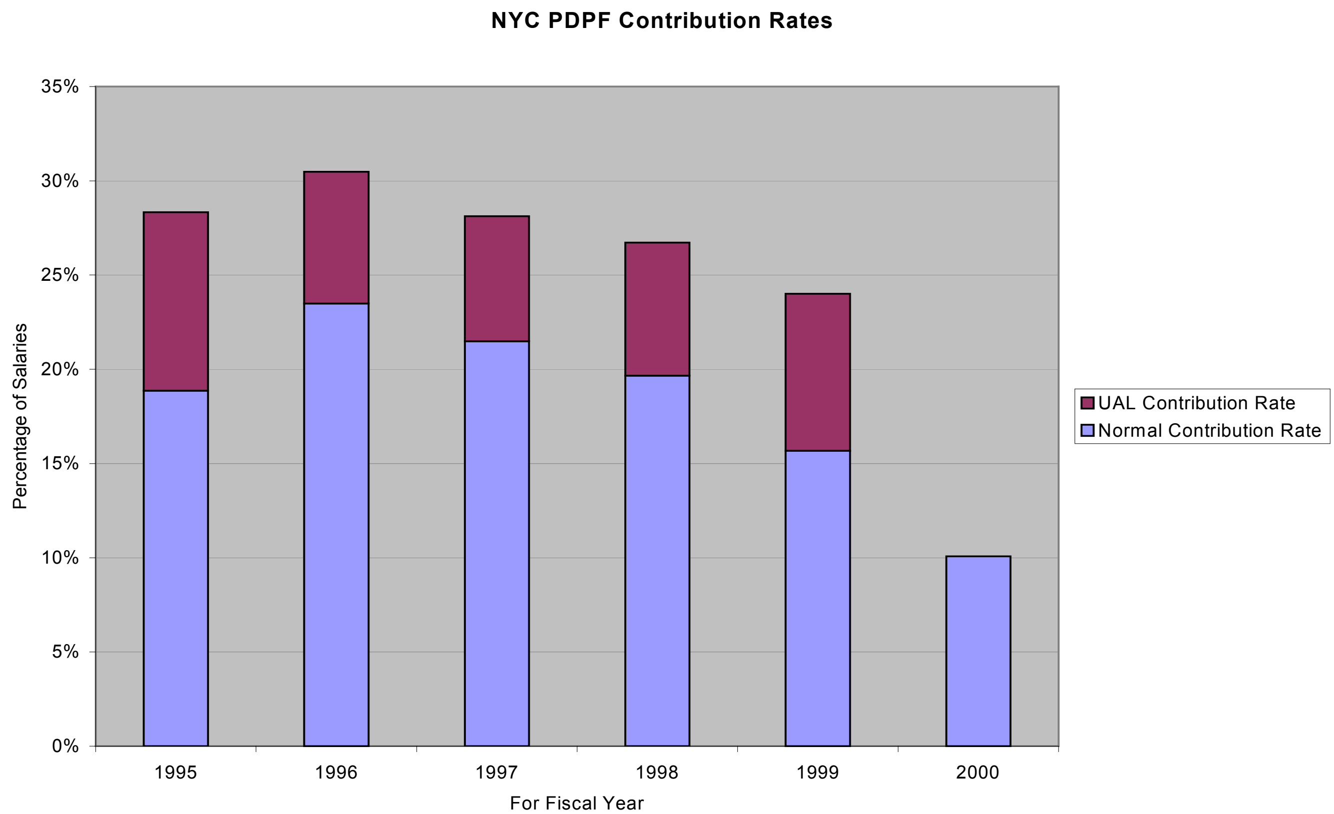
[3] Includes $15,007,000 investment expense

The figures shown above for the fiscal year ending June 30, 2000 (based on a valuation date of June 30, 1999) are based on assumptions and methods that were proposed by the System's actuary and adopted by the Board of Trustees. In order to become effective, certain assumptions and methods must be enacted into law; that was done with Chapter 85 of the Laws of 2000. The changes in assumptions were based, in part, on an experience study performed by the then current independent actuarial auditor. One of the method changes resulted in a higher actuarial asset value, and another method change resulted in the elimination (for this valuation) of the unfunded actuarial accrued liability. The net result of the changes was a reduction in employer contribution for the 2000 fiscal year from over 22% of salaries to less than 11% of salaries.

Below is a graph showing the major components of the total Actuarial Present Value of Benefits.



Shown below is a graph of the employer contribution rate, expressed as a percent of annual salaries. The contribution rate for each year is shown as composed of the two major components: the normal contribution and the UAL contribution (which includes the BSL contribution).



The valuation date for each fiscal year is the last day of the preceding fiscal year; e.g., the contributions to be made for the fiscal year ending June 30, 2000 are based on census and asset data as of June 30, 1999.

Two changes in calculation methodology, both effective with the June 30, 1995 valuation, are reflected above.

(1) For the June 30, 1994 (and prior) valuation, the Normal Contribution was calculated as of the first day of the fiscal year, then adjusted with interest to reflect monthly contributions throughout the year. Thus, the Normal Contribution for the 1995 fiscal year (based on a June 30, 1994 valuation date) is calculated first as the product of the Normal Contribution Rate and the Aggregate Annual Salaries; that result is then multiplied by 1.044031 (based on a 9% annual interest rate) to reflect monthly contributions by the employer. For the 1996 and subsequent fiscal years, the liabilities that are used to determine the Normal Contribution Rate already reflect the monthly adjustment, so that a subsequent multiplication by the monthly contribution factor is not necessary.

(2) For the 1995 (and prior) fiscal year, the employer contribution attributable to Increased-Take-Home-Pay benefits was determined as a separate item, and was then added to the sum of the Normal Contribution and the UAL Contribution to yield the total employer contribution. Beginning with the 1996 fiscal year, the liability arising from the ITHP benefit attributable to a fixed account is included in the Actuarial Present Value of Benefits.

Another change in methodology was effective with the June 30, 1999 valuation. Investment expenses had, in previous years, been paid from plan assets, but there was no actuarial assumption that explicitly addressed the anticipated expense. As a result, the determination of the true investment gain/(loss) (net of expenses) for a completed year was under/(over)stated. The investment expenses ended up being spread, as part of the gain/(loss), and funded as a portion of the normal contribution. As a result of the change in methodology, the amount of investment expenses paid during the 1999 fiscal year was determined and reimbursed to the fund as a separate component of cost, in addition to the normal contribution, for the 2000 fiscal year. The investment expense portion of the total fiscal year 2000 contribution is about $15,000,000, which represents less than .1% of the market value of assets as of the beginning of the fiscal year.

The foregoing figures reflect a number of events and trends during the five-year examination period. As can be noted above, the Normal Contribution Rate shows a general decreasing trend from the 1996 fiscal year forward.

One trend that was a major contributing factor in the reduction in Normal Contribution Rates was the investment results. For each of the five years, the investment yield was significantly greater than the actuarially assumed rate of return.

III. Employer Contributions and Annual Statement Liabilities

During the current examination period the liabilities reported in the System's annual statements to the New York Insurance Department generally were the same as those used in calculating employer contributions for the following fiscal year.

The present value of future benefits is presented somewhat differently in the System's annual statements compared to the employer contribution calculations. In the annual statements, the present value of the ITHP contribution to be paid in the following fiscal year, referred to as "future ITHP," is included in the present value of benefits provided for members now in active service and in the contra-liability, present value of prospective contributions.

For the June 30, 1994 (and prior) valuations, in computing employer contributions it has been the System's practice to deduct the balance in the Member Contribution Accumulation Fund from both liabilities and assets. The two deductions cancel one another; i.e., the effect on the normal contribution rate is the same as if no deduction had been made. Beginning with the June 30, 1995 valuation, employee contributions were recognized in both the liabilities and assets in determining the normal contribution rate. This change was made in accordance with Chapter 598, Laws of 1996.

IV. Unfunded Actuarial Accrued Liability

The unfunded actuarial accrued liability (UAL) of a pension plan refers to the present value of required employer contributions other than normal contributions (and, in the case of the System, other than certain ITHP contributions for fiscal years prior to 1995). The UAL usually relates to service rendered before the valuation date, so-called past service.

UAL should not be viewed as a measure of the overall funding status of a pension plan. One such measure is discussed in Section VII of this report under the caption, "Funding Ratios."

The specific items to be funded through UAL contributions, and the computation of the initial UAL balance, are determined 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 UAL balances is computed by the actuarial funding method known as Entry Age Normal.

The System's total UAL at any point in time comprises the aggregate present value of the remaining payments in amortization of all previously established UAL balances, together with the "balance sheet liability" (BSL). The BSL is the non-ledger and not-admitted asset described elsewhere in this Report on Examination as "Employer Contribution Receivable."

As of June 30, 1994, the day just prior to the examination period, the UAL consisted of two components: the "consolidated UAL" of around $894,000,000, and the BSL mentioned above, around $506,000,000. The total UAL was $1,400,000,000, and the annual payment for the 1995 fiscal year was $136,000,000.

Chapter 598 of the Laws of 1996 changed many actuarial assumptions, changed the asset valuation method, and re-established and consolidated the total UAL and the BSL as of June 30, 1995. The re-established UAL and BSL is to be amortized over a period of 15 years, where each annual payment after the first is to be 103% of the preceding annual payment.

Chapter 119 of the Laws of 1995 provided additional benefits to retirees. It produced an unfunded liability amount on June 30, 1996 of $205,000,000, which is to be amortized over 10 years with level payments.

Chapter 157 of the Laws of 1997 changed the actuarial interest rate effective June 30, 1996 from 8.50% to 8.75%. The result was an unfunded liability component of $(245,000,000), which is to be amortized over 14 years with payments after the first increasing by 3% per year.

Chapter 390 of the Laws of 1998 provided additional benefits to reflect cost-of-living increases for certain retirees. That legislation increased benefits for members who retired prior to 1993, and resulted in an initial UAL component of about $218,000,000 as of June 30, 1998, which was to be funded over a period of 10 years with level payments. The City Council, under the legislation, elected a second increase in benefits for members who retired after June 30, 1993 and before 1994; that increase resulted in an initial UAL component of about $9,000,000 as of June 30, 1999.

Chapter 85 of the Laws of 2000 changed actuarial assumptions, changed the asset valuation method, eliminated the BSL and reestablished the UAL as of June 30, 1999.

As a consequence of the changes in assumptions, the resulting UAL as of June 30, 1999 was $0.

The progression of the total UAL (including the BSL) and the total annual amortization payment is shown below. The amounts shown are based on the final calculation of pension cost, which, for some years, reflects changes that had not yet been incorporated in the Annual Statement.

Valuation Date June 30	Total UAL	Payment
1994	$1,400,000,000	$136,000,000
1995	1,323,000,000	129,000,000
1996	1,260,000,000	127,000,000
1997	1,238,000,000	144,000,000
1998	1,415,000,000	174,000,000
1999	0	0

V. Actuarial Asset Valuation Method

As already mentioned, the value of the System's assets as of a valuation date directly affects the amount of employer contributions for the following fiscal year (except for variable funds, where the experience is passed through to the members and has little effect on employer contributions). Market values of assets generally are considered too volatile to use directly in computing employer contributions, and, accordingly, the System applies an actuarial asset valuation (AAV) method to produce a smoother progression of asset values from year to year.

Beginning with the June 30, 1991 valuation the System adopted a new AAV method, under which the current year's market value was adjusted so as to recognize "unexpected return" over a five year period. "Unexpected return" was 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, was defined to be the valuation interest rate multiplied by the mean actuarial value of investable assets.

In conjunction with the actuarial assumption and method changes effective June 30, 1995 mentioned above, a "market value restart" was implemented. Thus, as of June 30, 1995 the actuarial value of investable assets was set equal to market value and the five year averaging of "unexpected return" was phased in with the valuations of June 30, 1996 through June 30, 1999.

One of the changes effective June 30, 1999 was, again, a "market value restart". The actuarial asset value for the June 30, 1999 valuation prior to the change was $13.8 billion. The actuarial asset value was reset to the market value of $16.9 billion.

The value of assets reported on the annual statement is different from the value used for pension funding purposes, for three primary reasons: (1) the asset value used for funding generally reflects "smoothing" of prior values, as discussed above, and (2) the asset value used for funding is based on the market value of bonds, while the asset value used for the annual statement is based on book value, and (3) the asset value reported on the annual statement includes some items which are not available for future benefits.

Shown below is a reconciliation between the asset values used for funding and the asset values reported on the annual statements.

	Fiscal Year ending June 30 ($000)				
	1995	1996	1997	1998	1999
Annual Statement Admitted Assets	9,852,013	10,831,672	13,205,875	15,555,060	17,290,640
Accrued Employee Contribution	1,766	2,791	3,343	4,066	5,035
BV – MV (sec. resell agreements)		325	0	0	0
Accrued Benefits Payable	(15,493)	(17,162)	(16,852)	(11,879)	(12,204)
Receivables from Police Sub One	(16,450)	0	0		
Due to NYC Police Dept VSF	(290,000)	(400,000)	0	0	0
Deferred Employer Contribution	(23,376)	0	(42,316)	0	0
Budget Appropriation Receivable		(59)	0		0
Member Loans Receivable			(296,764)	(318,662)	(339,495)
BV – MV on Bonds	89,817	70,845	133,767	128,031	(61,119)
Expenses Due and Accrued			(4963)	(5,808)	(5,092)
Smoothing Adjustment	0	(145,505)	(1,744,453)	(2,953,015)	0
Unreconciled Amount	34,653	0	(1)	(1)	0
Actuarial Value of Assets	9,632,930	10,342,907	11,237,636	12,397,792	16,877,765

VI. Interest Earned and Interest Required

Included in the System's annual statements to the Insurance Department are the total investment income actually earned during the year, including realized and unrealized changes in market values, before and after "transferable earnings", and the amount of interest required to maintain those funds. See Section IX for comments on Transferable Earnings. As indicated in column (5) below, the Transferable Earnings in the 1997, 1998 and 1999 fiscal years were zero.

Interest required to maintain funds is computed by multiplying the assumed valuation interest rate by 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 of interest required to maintain funds and the interest earned both before and after deduction of transferable earnings during the period under examination were as follows:

Fiscal Year Ending 6/30	(1) Interest Required	(2) Interest Earned before Transferable Earnings	(3) Excess (2) - (1)	(4) Ratio (2) ÷ (1)
1995	704,683,547	1,302,930,780	598,247,233	185%
1996	808,992,048	1,411,181,595	602,189,547	174%
1997	860,266,670	2,384,076,668	1,523,809,998	277%
1998	938,587,018	2,576,682,551	1,638,095,533	275%
1999	1,088,200,354	2,056,133,399	967,933,045	189%
Total	4,400,729,637	9,731,004,993	5,330,275,356	221%

Fiscal Year Ending 6/30	(5) Transferable Earnings Included	(6) Interest Earned after Transferable Earnings (2) – (5)	(7) Net Excess (6) - (1)	(8) Net Ratio (6) ÷ (1)
1995	271,792,745	1,031,138,035	326,454,488	146%
1996	381,847,673	1,029,333,922	220,341,874	127%
1997	0	2,384,076,668	1,523,809,998	277%
1998	0	2,576,682,551	1,638,095,533	275%
1999	0	2,056,133,399	967,933,045	189%
Total	653,640,418	9,077,364,575	4,676,634,938	206%

The table indicates that actual investment earnings significantly exceeded expected investment income for the five-year examination period as a whole, as indicated above in Section II.

VII. Funding Ratios

Attachment B of the System'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 involves members’ total anticipated service as of the date of retirement.) The PBO includes vested benefits for terminated members.

Pursuant to Statement No. 27 of the Government Accounting Standards Board (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 some members of the System, one element of the benefit formula may result in benefits accruing more rapidly in the later years of service. For such members the uniform prorate required by GASB 27 produces a higher PBO. Hence for the entire plan GASB 27 would generate a less favorable funding ratio than would be produced by allocating benefits to years of service strictly according to the benefit formula.

Assets available for active members are the System'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 the 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. Its weakness is that it is 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 are shown in the following table.

Valuation Date	(1) Assets Available for Active Members	(2) Projected Benefit Obligation	(3) Funding Ratio (1) divided by (2)
6/30/94	$ 1,757,970,875	$ 3,341,541,455	52.61 %
6/30/95	2,746,988,383	4,090,505,243	67.16
6/30/96	3,420,635,882	5,060,460,116	67.60
6/30/97	6,075,458,805	5,210,520,798	116.60
6/30/98	7,842,075,741	5,525,628,128	141.92
6/30/99	9,569,354,439	6,368,786,405	150.25

The increase in Funding Ratio shown above is due, in part, to the investment gains referred to earlier in this report.

It should be noted that the increase in Funding Ratio shown above does not reflect the change in funded status of the entire Plan. The Funding Ratio above is based on a comparison between the liabilities for active members and assets “available” for active members. The value of assets “available” for active members is the total plan assets reduced by the liability attributable to non-active members. Thus all plan investment gains or losses flow through to this funding ratio, which excludes non-active members. This “leveraging” effect magnifies the apparent change in funded status of the entire plan. This is particularly apparent when comparing the funding ratio as of 6/30/96 to that for the next year. The overall plan funding ratio, including all plan assets and all plan liabilities, was 66% as of 6/30/96 and 80% one year later. This increase in funding ratio for the entire plan is far less dramatic than the increase from 68% to 117% shown in the table above.

VIII. Actuarial Assumptions and Methods

During the prior examination period the System engaged a pension consulting organization (William M. Mercer, Inc.) to analyze System experience in relation to the actuarial assumptions used to determine employer contributions. The consulting organization issued a final report dated December 29, 1994 in which a number of changes in actuarial assumptions were recommended. Based in part on the consulting organization's recommendations, the System's own actuary (i.e., the City of New York Office of the Actuary) presented recommendations for changes in actuarial assumptions to the System's Board of Trustees. As a result, Chapter 598 of the Laws of 1996 effected a reduction in the assumed rates of increase in salaries and various adjustments in the rates of decrement to better reflect expected future experience.

The changes in actuarial assumptions due to the aforementioned legislation, effective with the June 30, 1995 valuation, were:

- The salary scale assumption consists of a general wage increase assumption with age-specific and sex-specific merit and promotion assumptions. The general wage increase component was 5½% for the June 30, 1994 valuation, and decreased to 4% for the June 30, 1995 and subsequent valuations.

- The mortality rates for service pensioners are age- and sex-specific, and were changed such that the new rates were lower than the former rates for younger ages (generally 70 or less) and higher for older ages.

- Assumptions for decrements from active service due to mortality, ordinary disability and accidental disability were changed.

- Assumptions for withdrawal from active service both before and after eligibility for service retirement were changed.

Effective with the June 30, 1995 valuation, the Unfunded Actuarial Accrued Liability was consolidated and reestablished, as described further in Section IV.

Also effective with the June 30, 1995 valuation, the actuarial value of assets was determined by a market value restart, where the actuarial value of assets was set equal to the market value of assets. For years prior to 1995, the actuarial value of assets was determined using a five year average of "unexpected investment returns". For years subsequent to 1995, a similar five year average approach was used, but the weights applied to the each of the five years were modified slightly from the prior approach.

Also effective with the 1995 valuation and enacted with Chapter 598 of the Laws of 1996:

- A change that eliminated the "p-factor" method of determining benefits attributable to employer contributions.
- The value of benefits attributable to employee contributions was included in the calculation of total plan liabilities and plan assets to determine the employer contribution.
- The methodology for determining the estimated value of assets that may become transferable from this fund to the Variable Supplements Funds was changed.

Chapter 157 of the Laws of 1997 provided that, effective with the June 30, 1996 valuation, the actuarial interest rate was 8.75%, up from the previous 8.50%.

Several changes in assumptions and methods were proposed by the Office of the Actuary for the June 30, 1999 valuation. 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 BSL was eliminated. The resulting UAL was $0.

- The actuarial asset value was reset to market value.

- The investment expenses were reimbursed to the Fund as a separately-identified contribution amount.

IX. Transferable Earnings

Associated with the Fund are two so-called variable supplements funds, the Police Officers Variable Supplements Fund (POVSF) and the Police Superior Officers Variable Supplements Fund (PSOVSF). As originally conceived, the POVSF and PSOVSF (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 POVSF 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 PSOVSF.

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 POVSF and the PSOVSF separately, and with accumulated negative earnings differentials, if any; and

- Computing ratios of weighted salaries of members of the POVSF and PSOVSF separately to salaries of members of both variable supplement funds in combination.

Transferable Earnings is limited so as not to cause the assets of the VSFs to exceed the Projected Benefit Obligation (PBO) of the VSFs. As a result of this limitation, the amount of Transferable Earnings was $0 during the fiscal years ending June 30, 1995, 1998 and 1999.

The amount of Transferable Earnings is determined as of the end of a fiscal year; the actual transfer takes place during the following fiscal year. Thus the years shown above during which the amount of Transferable Earnings is $0 are each one year after the years shown in Section VI for which the amount of Transferable Earnings is $0.

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 compute payments to the variable supplements funds in accordance with a recognized defined benefit actuarial funding method, such as the frozen entry age method used for computing contributions to the Fund.

X. Accuracy of Data Reported to Office of the Actuary

As part of the previous actuarial examination of the Fund, a sample of the data underlying the 1994 fiscal year end valuation was compared with members' personnel records. The sample included a number of active members who had previously served in other New York City agencies. Their past service in those agencies was eligible to be combined with their Police Department service for purposes of computing retirement benefits to be received from the Fund.

In each such case sampled, the member's past service had not been reported to the Office of the Actuary for valuation purposes.

The omissions appeared to have been confined to active members. There was no evidence that retired members' benefits were being valued or paid incorrectly.

A one-time project was undertaken by the Office of the Actuary, around 1998, to determine the previously unreported past service amounts. Those amounts have been used in subsequent valuations. There were approximately 2000 members whose past service had been previously unreported. Based on some admittedly arbitrary, but reasonable, assumptions, it is estimated by this reviewing actuary that the amount of liability that was omitted just prior to the June 30, 1998 valuation was around $25,000,000, or less than ¼% of all plan liability.

The Police Department is currently developing a new computer system to handle pension plan data. The data files that contain the unreported past service from other New York City agencies, as described above, will be included in that system. That system will then enable electronic transmission of that past service information to the Office of the Actuary where it can be included in actuarial valuations.

Until that system is completed, however, past service information will continue to be omitted from the data provided to the office of the actuary. The number of employees for whom past service data is omitted will grow, initially being only some employees hired in the first year after the one-time project described above, then increasing with subsequent year's new employees. When the next examination is performed (as of June 30, 2004), if the anticipated computer system is not in place, the extent of the past service omission should be estimated to determine if some adjustment to the calculated liabilities is appropriate, or if a new project, as above, should be undertaken to obtain the actual past service amounts.

XI. Recommendations

1. Fund the variable supplements funds on a recognized actuarial funding method, as described in Section IX.

2. As of the next examination, June 30, 2004, review the situation with respect to prior service data to determine if some adjustment is appropriate, as described in Section X.

3. The actuarial asset valuation method, as described in Section V, adjusts the current year market value to attempt to smooth the volatility normally encountered with equities. As described in Section VIII, the actuarial asset valuation method was changed with the June 30, 1995 valuation and again with the June 30, 1999 valuation. In each case, the change made was a "market value restart", where the actuarial asset value was set equal to the market value of assets. Also, in each case the market value of assets was higher than the actuarial value that would have otherwise been calculated, thus resulting in a lower contribution requirement.

   Even though, as mentioned above, this plan is not subject to the funding requirements promulgated by the Internal Revenue Service, we can look to the Code et al. for guidelines. The IRS permits actuarial asset valuation methods that smooth fluctuations, and even permits, with certain restrictions, changing from one method to another (e.g., from a method which smoothes assets fluctuations to a market value of assets; i.e., a market value restart) without prior IRS approval. The general intent of the IRS rules is to require that an actuarial asset valuation method be applied on a consistent basis. If changes in the actuarial asset valuation method are made, they should not produce results that are consistently above or below the fair market value.

   The Department has a concern that, in some years, the actuarial asset valuation method has been changed in order to reduce the contribution requirement. The result is that contributions that would otherwise be made in that year are deferred to future years. The ultimate cost of a pension plan is the plan benefits plus expenses less investment income. This deferral of contribution would therefore result primarily in less investment income, which means that the ultimate cost of the pension plan would be greater than it otherwise would be. In addition, changing the actuarial asset valuation method via the fresh-start method can result in contribution requirements that are not directly comparable to previous years, and may produce a misleading indication of the magnitude of future contribution requirements.

The Department recommends that the current actuarial asset valuation method be applied more consistently, and that changes in the actuarial asset valuation method not be made primarily in order to reduce contribution requirements.

XII. Comments

1. This comment considers a longer time frame than the five year period encompassed by this report.

The actuarial interest rate and the salary scale assumption are related, since they share a component: the assumed wage increase. A single measure that incorporates certain aspects of both the actuarial interest rate and the salary scale assumption is the *spread*, or excess of the interest rate over the salary scale assumption. The spread is often viewed as a measure of the degree of conservatism or liberalism inherent in the interest and salary scale assumptions. As the spread increases, the assumptions are considered to be more liberal (i.e., optimistic, or leading to lower employer contributions). Conversely, as the spread decreases, the assumptions are considered more conservative. The salary scale assumption of the New York Police Department Pension Fund is made up of a wage increase assumption, which is uniform for all ages, and a merit and productivity assumption, which varies by years of service. The merit and productivity assumption decreases from 5% in the first year to 1% in the fifth year. The spread, for the purposes of this comment, is considered to be the excess of the interest rate assumption over the wage increase assumption.

The table below shows the changes in the interest assumption and the salary increase assumption, and the resulting spread, over the last several years.

Effective Date June 30	Interest Assumption	Wage Increase	Spread
1984	8.00%	6.50%	1.50%
1985	8.00	5.50	2.50
1988	8.25	5.50	2.75
1990	8.50	5.50	3.00
1995	8.50	4.00	4.50
1996	8.75	4.00	4.75
1999	8.00	3.00	5.00

Over the last 15 years the spread has increased from 1.50% to 5.00%. Since about 60% of the total plan liability is due to the active population (for which a salary scale assumption is relevant), this increasing spread over the last several years reflects an increasingly liberal funding posture.

Each of the two primary assumptions, the interest rate and the wage increase, appear to be reasonable; therefore the resulting spread between the two would be reasonable. (The wage increase assumption appears reasonable considering that the total salary scale assumption is the sum of the wage increase assumption and the merit and productivity assumption, as described above.) However, the observation of the spread in subsequent year's valuations can provide a useful measure of a general trend in actuarial assumptions used for funding.

2. As noted in Section V, some of the components of the Unfunded Actuarial Liability (including the BSL) are amortized in a manner that does not produce level dollar amortization payments. Rather, the amortization payments after the first are 103% of the preceding payment.

This plan is not subject to the minimum funding standards of Internal Revenue Code section 412; however, we can look to the IRC for guidance on matters of funding. That section states that unfunded liabilities are to be amortized "… in equal annual installments …". Clearly, the method described above to amortize certain components of unfunded liability does not satisfy that standard.

Another source for guidance is the Governmental Accounting Standards Board. GASB 27 provides for two possible methods of amortizing unfunded actuarial liability: either as level dollar amounts or as a level percentage of projected payroll. The salary scale assumption for the June 30, 1999 valuation consisted of the wage increase assumption of 3% plus merit and productivity percentages that vary by age. The current amortization method does not conform to either of the two alternatives presented by GASB 27, but it produces amortization payments that lie between the two series of payments that would be produced by the two alternatives.

Respectfully submitted,

/s/
Michael J. Lambert
Principal Actuary

State of New York
County of New York } SS

MICHAEL J. LAMBERT, being duly sworn, deposes and says that the foregoing actuarial 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 _________, 2001.