



**Fiscal Year 2018**  
**GASB 67/68 Report**  
For  
**The City of New York**  
And  
**The New York City**  
**Retirement Systems**

prepared by the  
**New York City**  
**Office of the Actuary**

**2018**



## OFFICE OF THE ACTUARY

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**SHERRY S. CHAN**  
CHIEF ACTUARY

September 28, 2018

Honorable Scott M. Stringer  
Comptroller  
The City of New York  
Municipal Building, Room 530  
One Centre Street  
New York, NY 10007

Re: GASB67/68 Report for Fiscal Year Ended June 30, 2018

Dear Comptroller Stringer:

This GASB67/68 Report is for the City of New York and the New York City Retirement Systems<sup>1</sup> (NYCRS) for Fiscal Year Ended June 30, 2018 (Report).

### **Executive Summary**

1. This Report presents information intended for use by the City of New York for accounting and financial reporting under Governmental Accounting Standards Board (GASB) Statement No. 68, as amended by GASB Statement No. 71 (GASB71), GASB Statement No. 73 (GASB73), GASB Statement No. 78 (GASB78), GASB Statement No. 82 (GASB 82), and GASB Statement No. 85 (GASB85) for Fiscal Year 2018.
2. This Report also presents information intended for use by each System for accounting and financial reporting under GASB Statement No. 67, as amended by GASB73, GASB82, and GASB85 for Fiscal Year 2018.

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<sup>1</sup> New York City Employees' Retirement System (NYCERS)  
New York City Teachers' Retirement System (TRS)  
New York City Board of Education Retirement System (BERS)  
New York City Police Pension Fund (POLICE)  
New York City Fire Pension Fund (FIRE)

- The following Table provides a summary of the principal GASB67/68 results for Fiscal Year 2018 by System and in total. Detailed results including results for participating employers (Obligors), if applicable, are provided in Appendices A-E.

SUMMARY OF PRINCIPAL GASB67/68 RESULTS FOR FISCAL YEAR 2018						
QUALIFIED PENSION PLAN ONLY UNLESS OTHERWISE STATED						
(\$ Millions)						
	NYCERS*	TRS	BERS	POLICE*	FIRE*	TOTAL
Total Pension Liability (TPL)	\$ 83,299.8	\$ 73,243.9	\$ 5,174.3	\$ 54,155.6	\$ 21,991.9	\$ 237,865.5
Plan Fiduciary Net Position (PFNP)	\$ 65,662.1	\$ 54,532.5	\$ 4,672.9	\$ 42,798.9	\$ 14,173.3	\$ 181,839.7
Net Pension Liability (NPL)	\$ 17,637.7	\$ 18,711.4	\$ 501.4	\$ 11,356.7	\$ 7,818.6	\$ 56,025.8
PFNP as a % of TPL	78.8%	74.5%	90.3%	79.0%	64.4%	76.4%
Pension Expense	\$ 2,293.5	\$ 3,278.7	\$ 6.6	\$ 1,590.7	\$ 973.7	\$ 8,143.2

\*Includes Variable Supplements Funds (VSFs)

- The New York City Off-Track Betting Corporation (OTB) is shown herein as an Obligor. It is unclear at this time whether OTB's pension costs, liabilities and allocated assets are to be reported by the City.
- Some of the Obligors operate on a fiscal year that is different from the City's fiscal year. Those Obligors should consult with their auditors to determine how to apply the results shown in this Report in their individual financial statements.
- The results contained herein are based upon the Office of the Actuary's (OA) interpretation of GASB67, GASB68, GASB71, GASB73, GASB78, GASB82, and GASB85 in consultation with the New York City Office of the Comptroller (OC) and Grant Thornton, LLP and Marks Paneth, LLP, the City's auditors. The results are based upon an actuarial valuation date of June 30, 2016 and a Measurement Date of June 30, 2018 for Fiscal Year 2018. A Measurement Date of June 30, 2017 was used for Fiscal Year 2017 items.

7. The Fiscal Year 2018 results reflect the following changes since the prior year:
- The new Special Accidental Death Benefit (SADB) for Sanitation members of NYCERS.
  - Revisions to the probabilities of Accidental Disability for Tier VI Sanitation and Corrections members of NYCERS using a more empirical methodology.
  - The new disability benefit provisions for Tier III and Tier III Revised members of POLICE, and Tier III and Tier III Modified members of FIRE.
  - The handling of the VSF offset due to escalation for Tier VI Corrections members of NYCERS, Tier III and Tier III Revised members of POLICE, and Tier III and Tier III Modified members of FIRE. Beginning this year, a future escalation is no longer an offset to VSF payments.
  - The liability associated with the cost of the ASAF benefit is now being recognized for certain TRS members.
  - The Beginning with Children Charter School (BWC) closed in 2016. The results for BWC have been included with the results for the Department of Education for TRS and BERS.
8. The results contained herein are for accounting and financial reporting purposes only. Therefore, these results are not to be relied upon for other purposes, including but not limited to, funding of the NYCERS, investment decisions, and plan design.

## **Conclusion**

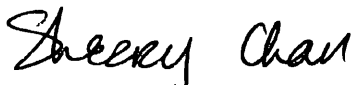
This Report is intended to present the accounting and financial reporting information required under GASB67 and GASB68 as of the Measurement Date of June 30, 2018 and the Reporting Date of June 30, 2018 for the City of New York, for certain Obligors, and for the New York City Retirement Systems. This Report also presents some Fiscal Year 2017 results.

All costs, liabilities and actuarial present values have been determined in accordance with generally accepted actuarial principles and procedures.

The Table of Contents, which immediately follows, outlines in more detail the contents of this report.

I, Sherry S. Chan, am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am a Fellow of the Society of Actuaries, an Enrolled Actuary under the Employee Retirement Income and Security Act of 1974 (ERISA), a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, the results contained herein have been prepared in accordance with generally accepted actuarial principles and procedures and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Best Regards,



Sherry S. Chan, FSA, EA, FCA, MAAA  
Chief Actuary

SSC/eh

cc: **New York City Office of the Actuary**

Mr. Frankie Chen  
Ms. Marlene Markoe-Boyd  
Mr. Sam Rumley  
Mr. Michael Samet  
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**Component Units**

Mr. Robert Balducci – Water Finance Authority  
Mr. Dan Frydberg – New York City Housing Authority  
Ms. Mary John – Housing Development Corporation  
Mr. Raymond Orlando – New York City Department of Education  
Mr. Kenneth Tirino – City University of New York  
Mr. Aaron Stern – New York City Transit Authority  
Ms. Yi-Wen Wang – School Construction Authority  
Mr. Jay Weinman – New York City Health and Hospitals Corporation

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Mr. Michael Goldson – New York City Employees' Retirement System  
Ms. Chun Gong – New York City Employees' Retirement System  
Mr. Kevin Holloran – New York City Police Pension Fund  
Mr. Paul Raucci – New York City Teachers' Retirement System  
Ms. Patricia Reilly – New York City Teachers' Retirement System  
Mr. Sanford Rich – New York City Board of Education Retirement System  
Mr. Stanley Thomas – New York City Police Pension Fund  
Ms. Melanie Whinnery – New York City Employees' Retirement System

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## SECTION I: CENSUS DATA

The census data used in the development of the GASB67/68 results contained herein is the census data used in the June 30, 2016 (Lag) actuarial valuations of the New York City Retirement Systems<sup>1</sup> (NYCRS or Systems) to determine the final Fiscal Year 2018 employer pension contributions.

The Office of the Actuary (OA) and Buck performed tests on this data and, on the basis of these tests, the Chief Actuary of the New York City Retirement Systems (the Actuary) believes the data is sufficiently complete and appropriate for developing the GASB67/68 results contained in this Report.

The following Table I-1 presents a summary of the census data used in the June 30, 2016 (Lag) actuarial valuations to determine the final Fiscal Year 2018 employer pension contributions. Further detail can be found in the Comprehensive Annual Financial Report (CAFR) for each System.

<b>Table I-1</b>						
<b>SUMMARY OF CENSUS DATA USED IN THE JUNE 30, 2016 (LAG) ACTUARIAL VALUATIONS</b>						
<b>GROUP</b>	<b>NYCERS</b>	<b>TRS</b>	<b>BERS</b>	<b>POLICE</b>	<b>FIRE</b>	<b>TOTAL</b>
Active	185,481	118,201	25,864	35,961	10,951	376,458
Active/Inactive	17,989	7,401	2,629	1,659	21	29,699
Deferred Vested	8,895	14,393	851	574	58	24,771
Retired	147,514	84,093	16,937	49,151	16,647	314,342
<b>Total</b>	<b>359,879</b>	<b>224,088</b>	<b>46,281</b>	<b>87,345</b>	<b>27,677</b>	<b>745,270</b>

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<sup>1</sup> New York City Employees' Retirement System (NYCERS)  
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 New York City Police Pension Fund (POLICE)  
 New York City Fire Pension Fund (FIRE)



The following Table I-2 presents the salaries of the active members shown in Table I-1 at June 30, 2016, projected to June 30, 2017 and projected to December 31, 2017. The employer contributions for Fiscal Year 2018 were based on projected covered payroll at December 31, 2017.

<b>Table I-2</b>			
<b>SALARIES OF ACTIVE MEMBERS</b>			
<b>System</b>	<b>June 30, 2016</b>	<b>June 30, 2017</b>	<b>December 31, 2017</b>
NYCERS	13,216,539,355	12,834,129,514	12,715,736,327
TRS	9,224,267,647	9,200,179,606	9,221,537,012
BERS	1,149,019,892	1,102,183,933	1,088,371,487
POLICE	3,717,425,239	3,673,054,287	3,650,356,859
FIRE	1,180,226,281	1,164,528,195	1,161,264,531
Total	28,487,478,414	27,974,075,535	27,837,266,216

The census data used in the June 30, 2016 (Lag) actuarial valuations contains either the negotiated retroactive wage increases or an estimate of any anticipated settlements (pattern bargaining).

## SECTION II: ASSETS

Asset values for each NYCRS, for the Variable Supplements Funds (VSFs), and for the Tax-Deferred Annuity (TDA) Programs are prepared by the Chief Accountants of each System on the basis of information provided by the investment managers of the respective System and by the Office of the Comptroller of the City of New York (the Comptroller or the OC).

The Board of Trustees of each System establishes an overall Investment Policy and has ultimate authority for the assets of the System.

By statute, the Comptroller is the custodian for each System's investments and also serves as an Investment Advisor to each System's Board of Trustees.

For purposes of developing the results contained in this Report, asset information was provided to the OA by the Office of the Comptroller and the Systems. For all Systems, the Plan Fiduciary Net Positions at June 30, 2018, as well as income items and cash flow items, have been given clearance by Marks Paneth. However, certain categories of assets are subject to revision.

The Chief Actuary for the NYCRS (the Actuary) provides to the Boards of Trustees of NYCERS, POLICE, and FIRE information related to the transfer of SKIM from each System's Qualified Pension Plan (QPP) to its respective Variable Supplements Fund(s) (VSF). A memorandum dated September 7, 2018 to Ms. Jacqueline Thompson summarizes these estimates of Fiscal Year 2018 SKIM.

These transfers reduce the Market Value of Assets (MVA) of each System's QPP and increase the MVA of the VSFs as of June 30, 2018.

The SKIM amounts were estimated by the Actuary based on information provided by the Office of the Comptroller as of June 30, 2018 and on calculations performed by the Actuary for Fiscal Year 2018.

### SECTION III: ACTUARIAL ASSUMPTIONS AND METHODS

With the exception of those described in item 7. of the Executive Summary, all actuarial assumptions and methods used to value the NYCRS are unchanged from those used in the prior valuation and are provided in the following five reports (the Silver Books), dated February 10, 2012:

- Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and after July 1, 2011 for the New York City Employees' Retirement System.
- Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and after July 1, 2011 for the New York City Teachers' Retirement System.
- Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and after July 1, 2011 for the New York City Board of Education Retirement System.
- Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Year Beginning on and after July 1, 2011 for the New York City Police Pension Fund.
- Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and after July 1, 2011 for the New York City Fire Department Pension Fund.

Electronic versions of the Silver Books are available on the OA website ([www.nyc.gov/actuary](http://www.nyc.gov/actuary)) under the Reports tab.

Those assumptions requiring Board approval were adopted by each Board of Trustees. The New York State Legislature and Governor enacted those Silver Book assumptions and methods requiring State legislation as Chapter 3 of the Laws of 2013 (Chapter 3/13), with revisions to the post-retirement mortality tables proposed by the Actuary and adopted by each NYCRS' Board of Trustees in Fiscal Year 2016.

## **Actuarial Asset Valuation Method**

The Plan Fiduciary Net Positions are based on the Market Values of Assets at the Measurement Dates with certain adjustments made to reflect the Actuary's understanding of the accruals within and the transfers between the QPP and the VSFs for NYCERS, POLICE and FIRE.

## **Actuarial Cost Method**

The Entry Age Normal cost method, as set forth in Paragraph 46 of GASB67 and Paragraph 32 of GASB68, is used to determine the results contained in this Report.

## **Discount Rate**

The discount rate used to measure the Total Pension Liability (TPL) was 7.0% per annum. The projection of cash flows used to determine the discount rate assumed that each participating employer (Obligor) would contribute the actuarially-determined contribution each year. On this basis, the Plan Fiduciary Net Position (PFNP) of each System was projected to be sufficient to pay all benefits when due.

For all of the VSFs, liabilities are also discounted at 7.0% per annum, consistent with the assumptions and methodology used to determine employer contributions.

Additionally, in TRS and in BERS, Variable Fund liabilities have been developed consistent with Variable Fund investment earnings for Fiscal Years 2017 and 2018.

## **Long-Term Expected Rate of Return**

The Long-Term Expected Rate of Return (LTEROR) on the investments of the NYCERS was determined using a Building-Block method as described in each respective System's Silver Book.

The Building-Block methodology develops total investment return by combining expected future inflation with an expected future Real Rate of Return (RROR) on plan assets.

For purposes of GASB67/68, the target asset allocation and estimates of arithmetic RROR for each major asset class were provided by the Comptroller and are summarized in the Appendix for each respective System.

## **Liability Loads**

In developing the results of the June 30, 2016 (Lag) actuarial valuations of the NYCERS, the Actuary included adjustments for liabilities and benefit payments related to the benefits provided by the World Trade Center laws and for certain other benefits payable to members of each System, if any.

The following Table III provides a brief description of the significant assumptions used in the June 30, 2016 (Lag) actuarial valuation to determine the Final Fiscal Year 2018 employer contributions:

<b>Table III</b>	
<b>ACTUARIAL ASSUMPTIONS USED FOR DETERMINING FINAL FISCAL YEAR 2018 EMPLOYER CONTRIBUTIONS</b>	
<b>ITEM</b>	<b>FINAL FISCAL YEAR 2018 EMPLOYER CONTRIBUTIONS<sup>1</sup></b>
Valuation Date	June 30, 2016 (Lag).
Assumed Rate of Return on Investments <sup>2</sup>	7.0% per annum, net of Investment Expenses (4.0% per annum for benefits payable under the Variable Annuity Programs of TRS and BERS).
Post-Retirement Mortality	Tables adopted by the Boards of Trustees during Fiscal Year 2016 <sup>3</sup> .
Active Service: Withdrawal, Death, Disability <sup>4</sup>	Tables adopted by the Boards of Trustees during Fiscal Year 2012 <sup>5</sup> .
Retirement	Tables adopted by the Boards of Trustees during Fiscal Year 2012 <sup>5</sup> .
World Trade Center Benefits	Estimates of Certain Obligations.
Salary Increases <sup>2</sup>	Tables adopted by the Boards of Trustees during Fiscal Year 2012 <sup>5</sup> . In general, Merit and Promotion Increases plus assumed General Wage Increase of 3.0% per year.
Assumed Cost-of-Living Adjustments <sup>2</sup>	1.5% per year for Tier I, Tier II, Tier IV, and certain Tier III and Tier VI retirees. 2.5% per year for certain Tier III and Tier VI retirees.
Liability Loads	Estimates of Certain Obligations.
<p><sup>1</sup> Based on actuarial assumptions and methods proposed by the Actuary during Fiscal Year 2012, adopted by the Boards of Trustees and enacted into law as Chapter 3/13 with revisions proposed by the Actuary and adopted by the Boards of Trustees in Fiscal Year 2016.</p> <p><sup>2</sup> Developed using a long-term Consumer Price Inflation (CPI) assumption of 2.5% per year.</p> <p><sup>3</sup> See December 2015 memoranda to the Boards of Trustees.</p> <p><sup>4</sup> The Accidental Disability rates for Tier VI Sanitation and Corrections members were revised as a result of the change in the disability provisions to be equal to the Tier IV assumptions of their respective group.</p> <p>The Accidental Disability rates for Tier III/VI POLICE and FIRE members were revised as a result of the change in the disability provisions to be equal to the Tier II assumptions of their respective group.</p> <p><sup>5</sup> See the Reports entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2011" dated February 10, 2012 (the Silver Books).</p>	

## **SECTION IV: SUMMARY OF PLAN PROVISIONS**

A summary of the benefits is contained in the June 30, 2016 and the June 30, 2017 Comprehensive Annual Financial Reports of each NYCRS.

## SECTION V: ROLL-FORWARD METHODOLOGY

In accordance with Paragraph 22 of GASB68, the Total Pension Liability (TPL) should be determined by:

- (a) an actuarial valuation as of the Measurement Date (i.e. June 30, 2018), or
- (b) the use of update procedures to roll forward to the Measurement Date amounts from an actuarial valuation as of a date no more than 30 months and 1 day earlier than the employer's fiscal year-end.

Actuarial valuations of the NYCERS are performed annually using a June 30, XX-2 actuarial valuation date to determine Fiscal Year XX employer contributions (e.g. June 30, 2016 (Lag) actuarial valuations are used to determine Fiscal Year 2018 employer contributions). This is referred to as One-Year Lag Methodology (OYLM).

Due to the time needed to prepare June 30, 2018 actuarial valuations, primarily related to the collection of census data, the Actuary has developed the TPL at June 30, 2018 by rolling-forward certain results of the June 30, 2016 actuarial valuations of the NYCERS that were used to determine the Final Fiscal Year 2018 employer contributions.

Entry Age Accrued Liabilities and Total Normal Costs are beginning-of-year amounts. Actual Benefit Payments are assumed to be made mid-year. The June 30, 2017 Normal Costs are projected from June 30, 2016 on an expected basis. Except for the Variable Funds of TRS and BERS, all roll-forward amounts assume compound interest at 7.0% per annum.

For TRS and BERS, all Fixed Fund liabilities were determined consistent with the methodology used for the other NYCERS. For TRS and BERS, Variable Fund liabilities were rolled forward using actual Variable Fund asset earnings.

The development of the TPL under the methodology described herein is shown for each System in the Appendices.

## SECTION VI: ALLOCATION METHODOLOGY

Three of the NYCRS (i.e. NYCERS, TRS, and BERS) are cost-sharing, multiple-employer public employee retirement systems. For these Systems, all GASB67/68 results were first determined in total as of the Measurement Date.

For each Obligor, a proportionate share of the Net Pension Liability, Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources (the Collective Pension Amounts) were determined in accordance with GASB68 Paragraphs 48-55 and in accordance with a February 2014 whitepaper published by the State and Local Government Expert Panel (SLGEP) of the American Institute of Certified Public Accountants (AICPA).

The Collective Pension Amounts were allocated consistent with the manner in which total employer contributions to each System were determined. Each respective System's Appendix contains the development of the allocation percentage for each Obligor. This percentage is based on Fiscal Year 20XX employer contributions which, under OYLM, is based on a June 30, 20XX-2 actuarial valuation date (see Paragraph 50 of GASB68).

The components of Pension Expense were allocated ratably for each Obligor. Although these component allocations produce results for some Obligors that appear illogical (e.g. a Service Cost for OTB and for the VSFs of HP and TP despite there being no active members), it is the understanding of the Actuary that this methodology is permitted for purposes of determining GASB68 results and that the components (as opposed to the total) are relatively unimportant for developing the key financial reporting results.



## **SECTION VII: SUBSEQUENT EVENTS**

The Fiscal Year 2018 GASB67/68 results contained herein are based on June 30, 2016 actuarial valuations of each of the New York City Retirement Systems used to develop Final Fiscal Year 2018 employer contributions under the One-Year Lag Methodology (OYLM). As described in Section V, these June 30, 2016 actuarial valuation results have been rolled-forward to the Measurement Date of June 30, 2018.

## SECTION VIII: SENSITIVITY ANALYSIS

The following Table VIII presents the Net Pension Liability of each System, calculated as of the Measurement Date of June 30, 2018, using the Discount Rate of 7.0% per annum (the Current Rate). The Table also shows what each System's Net Pension Liability would be if it were calculated using a Discount Rate that is 1-percentage-point lower (i.e. 6.0% per annum) or 1-percentage-point higher (i.e. 8.0% per annum) than the Current Rate.

<b>Table VIII</b>			
<b>SENSITIVITY ANALYSIS</b>			
<b>NET PENSION LIABILITY AS OF JUNE 30, 2018</b>			
<b>System</b>	<b>1% Decrease (6.0%)</b>	<b>Current Discount Rate (7.0%)</b>	<b>1% Increase (8.0%)</b>
NYCERS	\$ 27,037,068,918	\$ 17,637,695,517	\$ 9,707,675,163
TRS	\$ 27,250,530,887	\$ 18,711,455,341	\$ 11,480,117,633
BERS	\$ 1,142,065,768	\$ 501,383,700	\$ (43,967,879)
POLICE	\$ 17,376,068,314	\$ 11,356,779,365	\$ 6,369,667,313
FIRE	\$ 10,021,365,073	\$ 7,818,650,180	\$ 5,930,135,504
Total	\$ 82,827,098,960	\$ 56,025,964,103	\$ 33,443,627,734

# Appendix A

## APPENDIX A

### NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

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Page 15a	-	Schedule of Pension Amounts by Employer - June 30, 2017
15b	-	Schedule of Pension Amounts by Employer - June 30, 2018
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## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Statement of Fiduciary Net Position

June 30, 2018 and June 30, 2017

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 19,139	\$ 163,875
Receivables:		
Investment securities sold	494,566	687,047
Member loans	1,129,906	1,102,986
Accrued interest and dividends	326,006	301,680
Other receivables	0	0
Receivables due from NYCERS	0	0
Total receivables	\$ 1,950,478	\$ 2,091,713
Investments - at fair value		
Short-term investments:		
U.S. treasury bills and agencies	40,216	37,090
Commercial paper	644,809	422,635
Short-term investment fund	612,219	442,599
Discount notes	71,958	188,544
Short-term hedge fund	0	0
Debt securities:		
U.S. Government and agency	11,612,008	7,261,949
Corporate and other	6,082,292	6,254,038
Promissory notes	0	0
Equity securities	17,979,085	18,956,882
Alternative investments	10,176,771	9,258,954
Collective trust funds:		
International equity	13,315,724	13,655,017
Domestic equity	0	0
Mortgage debt securities	704,148	640,950
Treasury inflation protected securities	2,858,313	2,531,110
Fixed income	1,139,185	1,091,294
Collateral from securities lending	9,918,700	7,034,093
Total investments	\$ 75,155,428	\$ 67,775,155
Other assets	109,895	93,948
Total assets	<u>\$ 77,234,940</u>	<u>\$ 70,124,691</u>
<b>LIABILITIES</b>		
Accounts payable	468,665	209,206
Payables for investment securities purchased	1,023,260	955,572
Accrued benefits payable	377,156	321,457
Amount due to Variable Supplements Funds	4,995	5,493
Transferrable earnings due from QPP to COVSF	234,000	281,000
Due to other retirement systems	1,412	1,088
Securities lending	9,918,700	7,034,093
Total liabilities	<u>\$ 12,028,188</u>	<u>\$ 8,807,909</u>
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS</b>	<u>\$ 65,206,752</u>	<u>\$ 61,316,782</u>

**NEW YORK CITY CORRECTION OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ASSETS</b>		
Cash	\$ 1,917	\$ 8,106
Receivables:		
Accrued interest	365	37
Transferable earnings due from QPP to VSFs	234,000	281,000
Other receivables	<u>11</u>	<u>12</u>
Total receivables	\$ 234,376	\$ 281,049
Investments - at fair value:		
Short-term investment fund	\$ 213,478	\$ 43,529
Accrued Transfer from QPP	\$ 0	\$ 0
Total assets	<u>\$ 449,771</u>	<u>\$ 332,684</u>
<b>LIABILITIES</b>		
Accounts Payable	\$ 47,529	\$ 44,519
Total Liabilities	<u>\$ 47,529</u>	<u>\$ 44,519</u>
<b>Plan Net Position held in Trust for Benefits</b>	<u>\$ 402,242</u>	<u>\$ 288,165</u>

**NEW YORK CITY HOUSING POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 134	\$ 69
Receivable - due from NYCERS	<u>812</u>	<u>901</u>
Total assets	<u><u>\$ 946</u></u>	<u><u>\$ 970</u></u>
<b>LIABILITIES</b>		
Accrued benefits payable	\$ 946	\$ 970
Total Liabilities	<u><u>\$ 946</u></u>	<u><u>\$ 970</u></u>
<b>Plan Net Position held in Trust for Benefits</b>	<u><u>\$ 0</u></u>	<u><u>\$ 0</u></u>

**NEW YORK CITY  
HOUSING POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ASSETS</b>		
Cash	\$ 121	\$ 58
Receivables:		
Receivable - due from NYCERS	1,202	1,274
Total assets	<u>\$ 1,323</u>	<u>\$ 1,332</u>
<b>LIABILITIES</b>		
Accrued benefits payable	\$ 1,323	\$ 1,332
Total Liabilities	<u>\$ 1,323</u>	<u>\$ 1,332</u>
<b>Plan Net Position held in Trust for Benefits</b>	<u>\$ 0</u>	<u>\$ 0</u>



**NEW YORK CITY TRANSIT POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 171	\$ 45
Receivables:		
Receivable - due from NYCERS	1,657	1,886
Total assets	<u>\$ 1,828</u>	<u>\$ 1,931</u>
<b>LIABILITIES</b>		
Accounts payable	\$ 22	\$ 21
Accrued benefits payable	<u>1,806</u>	<u>1,910</u>
Total Liabilities	<u>\$ 1,828</u>	<u>\$ 1,931</u>
<b>Plan Net Position held in Trust for Benefits</b>	<u>\$ 0</u>	<u>\$ 0</u>

**NEW YORK CITY  
TRANSIT POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ASSETS</b>		
Cash	\$ 139	\$ 70
Receivable - due from NYCERS	<u>1,324</u>	<u>1,432</u>
Total assets	<u>\$ 1,463</u>	<u>\$ 1,502</u>
<b>LIABILITIES</b>		
Accrued benefits payable	\$ 1,463	\$ 1,502
Total Liabilities	<u>\$ 1,463</u>	<u>\$ 1,502</u>
<b>Plan Net Position held in Trust for Benefits</b>	<u>\$ 0</u>	<u>\$ 0</u>

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Statement of Changes in Fiduciary Net Position

June 30, 2018 and June 30, 2017

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 523,535	\$ 513,514
Employer Contributions	<u>3,377,024</u>	<u>3,328,193</u>
<i>Total contributions</i>	\$ 3,900,559	\$ 3,841,707
Investment income:		
Interest income	878,598	753,789
Dividend income	897,873	931,480
Net appreciation (depreciation) in fair value	<u>3,591,521</u>	<u>5,489,457</u>
Total investment income	\$ 5,367,992	\$ 7,174,726
Less:		
Investment expenses	241,818	223,756
Net income	5,126,174	6,950,970
Securities lending transactions:		
Securities lending income	30,089	33,703
Securities lending fees	<u>3,009</u>	<u>2,369</u>
Net securities lending income	27,080	31,334
<i>Net investment income</i>	5,153,254	6,982,304
Other:		
<i>Other Income</i>	3,410	3,266
Total additions	<u>\$ 9,057,223</u>	<u>\$ 10,827,277</u>
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	4,882,612	4,635,020
Payments to other retirement systems	9,055	8,087
Amount transferred to Variable Supplements Funds	10,897	11,297
Transferrable earnings due from QPP to COVSF	205,000	285,924
Administrative expenses	<u>59,689</u>	<u>59,671</u>
Total deductions	<u>\$ 5,167,253</u>	<u>\$ 4,999,999</u>
<b>INCREASE IN PLAN NET POSITION</b>	3,889,970	5,827,278
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 61,316,782	\$ 55,489,504
End of year	\$ 65,206,752	\$ 61,316,782

**NEW YORK CITY CORRECTION OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Investment income:		
Interest income	\$ 2,265	\$ 300
Net appreciation (depreciation) in fair value	0	(452)
<i>Total investment income</i>	<u>\$ 2,265</u>	<u>\$ (152)</u>
<i>Reimbursement of benefit payments from QPP</i>	0	0
<i>Transferrable earnings due from QPP to COVSF</i>	205,000	285,924
<i>Other Income</i>	12	0
Total additions	<u>\$ 207,277</u>	<u>\$ 285,772</u>
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	93,200	2,624
Total deductions	<u>\$ 93,200</u>	<u>\$ 2,624</u>
<b>INCREASE IN PLAN NET POSITION</b>	114,077	283,148
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 288,165	\$ 5,017
End of year	\$ 402,242	\$ 288,165

**NEW YORK CITY HOUSING POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Investment income:		
Interest income	\$ 0	\$ 0
<i>Total investment income</i>	<u>\$ 0</u>	<u>\$ 0</u>
<i>Reimbursement of benefit payments from QPP</i>	1,825	1,889
Total additions	<u>\$ 1,825</u>	<u>\$ 1,889</u>
<b>DEDUCTIONS</b>		
Benefit payments	1,825	1,889
Total deductions	<u>\$ 1,825</u>	<u>\$ 1,889</u>
<b>INCREASE IN PLAN NET POSITION</b>	0	0
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	0	0
End of year	0	0

**NEW YORK CITY  
HOUSING POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ADDITIONS</b>		
Investment income:		
Interest income	\$ 0	\$ 0
<i>Total investment income</i>	<u>\$ 0</u>	<u>\$ 0</u>
<i>Reimbursement of benefit payments from NYCERS</i>	2,573	2,595
Total additions	<u>\$ 2,573</u>	<u>\$ 2,595</u>
<b>DEDUCTIONS</b>		
Benefit payments	2,573	2,595
Total deductions	<u>\$ 2,573</u>	<u>\$ 2,595</u>
<b>INCREASE IN PLAN NET POSITION</b>	0	0
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	0	0
End of year	0	0

**NEW YORK CITY TRANSIT POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Investment income:		
Interest income	\$ 0	\$ 0
<i>Total investment income</i>	<u>\$ 0</u>	<u>\$ 0</u>
<i>Reimbursement of benefit payments from QPP</i>	3,612	3,830
Total additions	<u>\$ 3,612</u>	<u>\$ 3,830</u>
<b>DEDUCTIONS</b>		
Benefit payments	3,612	3,830
Total deductions	<u>\$ 3,612</u>	<u>\$ 3,830</u>
<b>INCREASE IN PLAN NET POSITION</b>	0	0
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	0	0
End of year	0	0

**NEW YORK CITY  
TRANSIT POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ADDITIONS</b>		
Investment income:		
Interest income	\$ 0	\$ 0
<i>Total investment income</i>	<u>\$ 0</u>	<u>\$ 0</u>
<i>Reimbursement of benefit payments from QPP</i>	2,887	2,983
Total additions	<u>\$ 2,887</u>	<u>\$ 2,983</u>
<b>DEDUCTIONS</b>		
Benefit payments	2,887	2,983
Total deductions	<u>\$ 2,887</u>	<u>\$ 2,983</u>
<b>INCREASE IN PLAN NET POSITION</b>	0	0
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	0	0
End of year	0	0



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Market Values of Assets

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Total
<b>1. Plan Net Position @ 6/30/2016</b>	\$ 55,436,780,000	\$ 99,666,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 55,536,446,000
<b>2. Net Accrued Benefits Payable</b>	5,724,000	0	30,000	44,000	29,000	40,000	5,867,000
<b>3. Accrued Transfers from NYCERS to COVSF</b>	52,724,000	(52,724,000)	0	0	0	0	0
<b>4. Adjusted Market Value @ 6/30/2016</b>	\$ 55,495,228,000	\$ 46,942,000	\$ 30,000	\$ 44,000	\$ 29,000	\$ 40,000	\$ 55,542,313,000
<b>5. Changes for the year:</b>							
a. ER Contributions	3,328,193,000	0	0	0	0	0	3,328,193,000
b. EE Contributions	513,514,000	0	0	0	0	0	513,514,000
c. Net Investment Income	6,982,304,000	(152,000)	0	0	0	0	6,982,152,000
d. Benefit Payments <sup>1</sup>	(4,635,251,000)	(30,000)	(1,850,000)	(2,581,000)	(3,814,000)	(2,953,000)	(4,646,479,000)
e. Payments to Other Retirement Systems	(8,087,000)	0	0	0	0	0	(8,087,000)
f. Transfers to Variable Supplements Funds	(11,297,000)	0	1,889,000	2,595,000	3,830,000	2,983,000	0
g. Administrative Expenses	(59,671,000)	0	0	0	0	0	(59,671,000)
h. Other	3,266,000	0	0	0	0	0	3,266,000
i. Net Changes	\$ 6,112,971,000	\$ (182,000)	\$ 39,000	\$ 14,000	\$ 16,000	\$ 30,000	\$ 6,112,888,000
<b>6. Plan Net Position @ 6/30/2017</b>	\$ 61,602,706,000	\$ 46,760,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 61,649,466,000
<b>7. Net Accrued Benefits Payable</b>	5,493,000	0	69,000	58,000	45,000	70,000	5,735,000
<b>8. Accrued Transfers from NYCERS to COVSF</b>	(285,924,000)	285,924,000	0	0	0	0	0
<b>9. Adjusted Market Value @ 6/30/2017</b>	\$ 61,322,275,000	\$ 332,684,000	\$ 69,000	\$ 58,000	\$ 45,000	\$ 70,000	\$ 61,655,201,000
<b>10. Changes for the year:</b>							
a. ER Contributions	3,377,024,000	0	0	0	0	0	3,377,024,000
b. EE Contributions	523,535,000	0	0	0	0	0	523,535,000
c. Net Investment Income	5,153,254,000	2,265,000	0	0	0	0	5,155,519,000
d. Benefit Payments <sup>2</sup>	(4,883,110,000)	(90,190,000)	(1,760,000)	(2,510,000)	(3,486,000)	(2,818,000)	(4,983,874,000)
e. Payments to Other Retirement Systems	(9,055,000)	0	0	0	0	0	(9,055,000)
f. Transfers to Variable Supplements Funds	(10,897,000)	0	1,825,000	2,573,000	3,612,000	2,887,000	0
g. Administrative Expenses	(59,689,000)	0	0	0	0	0	(59,689,000)
h. Other	3,410,000	12,000	0	0	0	0	3,422,000
i. Net Changes	\$ 4,094,472,000	\$ (87,913,000)	\$ 65,000	\$ 63,000	\$ 126,000	\$ 69,000	\$ 4,006,882,000
<b>11. Plan Net Position @ 6/30/2018</b>	\$ 65,411,752,000	\$ 244,771,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 65,656,523,000
<b>12. Net Accrued Benefits Payable</b>	4,995,000	0	134,000	121,000	171,000	139,000	5,560,000
<b>13. Accrued Transfers from NYCERS to COVSF</b>	(205,000,000)	205,000,000	0	0	0	0	0
<b>14. Adjusted Market Value @ 6/30/2018</b>	\$ 65,211,747,000	\$ 449,771,000	\$ 134,000	\$ 121,000	\$ 171,000	\$ 139,000	\$ 65,662,083,000

<sup>1</sup> Includes Net Accrued Benefits Payable of \$(231,000) for QPP, \$2,594,000 for COVSF, \$39,000 for HPOVSF, \$14,000 for HPSOVSF, \$16,000 for TPOVSF and \$30,000 for TPSOVSF.

<sup>2</sup> Includes Net Accrued Benefits Payable of \$(498,000) for QPP, \$3,010,000 for COVSF, \$65,000 for HPOVSF, \$63,000 for HPSOVSF, \$126,000 for TPOVSF and \$69,000 for TPSOVSF.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Long-Term Expected Rate of Return

The Long-Term Expected Rate of Return (LTEROR) assumption on pension fund investments was determined using a Building-Block Method in which best-estimate ranges of Expected Real Rates of Return (i.e. Expected Returns, net of pension fund investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the LTEROR by weighting the Expected Real Rates of Return (RROR) by the Target Asset Allocation percentage and by adding Expected Inflation. The Target Asset Allocation, and best estimates of Arithmetic Real Rates of Return are presented in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rates of Return</u>
U.S. Public Market Equities	29%	6.3%
International Public Market Equities	13%	7.0%
Emerging Public Market Equities	7%	9.5%
Private Market Equities	7%	10.4%
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	33%	2.2%
Alternatives (Real Assets, Hedge Funds)	<u>11%</u>	5.5%
Total	100%	

The Discount Rate used to measure the Total Pension Liability was 7.0% per annum. The projection of Cash Flows used to determine the Discount Rate assumes that employee contributions will be made at the rates applicable to the current Tier for each member and that employer contributions will be made at rates as determined by the Actuary. Based on those assumptions, the pension fund's Fiduciary Net Position is projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the Long-Term Expected Rate of Return on pension fund investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss  
June 30, 2017**

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Total
<b>1. Assets</b>							
a. Market Value 6/30/2016*	\$ 55,442,504,000	\$ 99,666,000	\$ 30,000	\$ 44,000	\$ 29,000	\$ 40,000	\$ 55,542,313,000
b. 2016 Accrued Transfers from NYCERS to COVSF	52,724,000	(52,724,000)	0	0	0	0	0
c. Adjusted Market Value @6/30/2016	55,495,228,000	46,942,000	30,000	44,000	29,000	40,000	55,542,313,000
d. Market Value 6/30/2017**	61,608,199,000	46,760,000	69,000	58,000	45,000	70,000	61,655,201,000
e. 2017 Accrued Transfers from NYCERS to COVSF	(285,924,000)	285,924,000	0	0	0	0	0
f. Adjusted Market Value @6/30/2017	61,322,275,000	332,684,000	69,000	58,000	45,000	70,000	61,655,201,000
<b>2. Net Investment Income</b>	6,982,304,000	(152,000)	0	0	0	0	6,982,152,000
<b>3. Cash Flow</b> (1.d. - 1.a. - 2.)	(816,609,000)	(52,754,000)	39,000	14,000	16,000	30,000	(869,264,000)
<b>4. Expected Earnings</b> (7% * 1.a. + 3.441% * 3.)	3,852,875,764	5,161,355	3,442	3,562	2,581	3,832	3,858,050,536
<b>5. (Gain) / Loss</b> (4. - 2.)	(3,129,428,236)	5,313,355	3,442	3,562	2,581	3,832	(3,124,101,464)
<b>6. Recognition Period</b>	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years
<b>7. Amount Recognized in Pension Expense</b> (5. / 6.)	(625,885,647)	1,062,671	688	712	516	766	(624,820,294)
<b>8. Deferred (Inflow) / Outflow of Resources</b> (5. - 7.)	\$ (2,503,542,589)	\$ 4,250,684	\$ 2,754	\$ 2,850	\$ 2,065	\$ 3,066	\$ (2,499,281,170)

\* Before Reflecting 2016 Accrued Transfers to VSFs.

\*\* Before Reflecting 2017 Accrued Transfers to VSFs.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Development of Asset (Gain) / Loss  
June 30, 2018

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Total
<b>1. Assets</b>							
a. Market Value 6/30/2017*	\$ 61,608,199,000	\$ 46,760,000	\$ 69,000	\$ 58,000	\$ 45,000	\$ 70,000	\$ 61,655,201,000
b. 2017 Accrued Transfers from NYCERS to COVSF	(285,924,000)	285,924,000	0	0	0	0	0
c. Adjusted Market Value @6/30/2017	61,322,275,000	332,684,000	69,000	58,000	45,000	70,000	61,655,201,000
d. Market Value 6/30/2018**	65,416,747,000	244,771,000	134,000	121,000	171,000	139,000	65,662,083,000
e. 2018 Accrued Transfers from NYCERS to COVSF	(205,000,000)	205,000,000	0	0	0	0	0
f. Adjusted Market Value @6/30/2018	65,211,747,000	449,771,000	134,000	121,000	171,000	139,000	65,662,083,000
<b>2. Net Investment Income</b>	5,153,254,000	2,265,000	0	0	0	0	5,155,519,000
<b>3. Cash Flow</b> (1.d. - 1.a. - 2.)	(1,344,706,000)	195,746,000	65,000	63,000	126,000	69,000	(1,148,637,000)
<b>4. Expected Earnings</b> (7% * 1.a. + 3.441% * 3.)	4,266,302,597	10,008,820	7,067	6,228	7,486	7,274	4,276,339,472
<b>5. (Gain) / Loss</b> (4. - 2.)	(886,951,403)	7,743,820	7,067	6,228	7,486	7,274	(879,179,528)
<b>6. Recognition Period</b>	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years
<b>7. Amount Recognized in Pension Expense</b> (5. / 6.)	(177,390,281)	1,548,764	1,413	1,246	1,497	1,455	(175,835,906)
<b>8. Deferred (Inflow) / Outflow of Resources</b> (5. - 7.)	\$ (709,561,122)	\$ 6,195,056	\$ 5,654	\$ 4,982	\$ 5,989	\$ 5,819	\$ (703,343,622)

\* Before Reflecting 2017 Accrued Transfers to VSFs.

\*\* Before Reflecting 2018 Accrued Transfers to VSFs.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Roll-Forward of Entry Age Actuarial Accrued Liabilities<sup>1</sup>**

	<b>QPP</b>	<b>COVSF</b>	<b>HPOVSF</b>	<b>HPSOVSF</b>	<b>TPOVSF</b>	<b>TPSOVSF</b>	<b>Total</b>
1. Entry Age Accrued Liability (EAAL) at 6/30/2016	\$ 76,631,777,580	\$ 1,258,249,431	\$ 16,005,793	\$ 22,300,558	\$ 32,689,073	\$ 24,874,470	\$ 77,985,896,905
2. Entry Age Normal Cost at 6/30/2016	1,865,432,425	22,766,600	0	0	0	0	1,888,199,025
3. Benefit Payments-FY2017	4,635,251,000	30,000	1,850,000	2,581,000	3,814,000	2,953,000	4,646,479,000
4. Interest	5,335,305,713	89,670,090	1,056,747	1,472,227	2,156,995	1,639,600	5,431,301,372
5. Roll-Forward EAAL at 6/30/2017	\$ 79,197,264,718	\$ 1,370,656,121	\$ 15,212,540	\$ 21,191,785	\$ 31,032,068	\$ 23,561,070	\$ 80,658,918,302
6. Changes of Benefit Terms at 6/30/2017	42,500,914	1,497,838	0	0	0	0	43,998,752
7. Changes of Assumptions at 6/30/2017	17,938,871	(206,057)	0	0	0	0	17,732,814
8. Adjusted EAAL at 6/30/2017	\$ 79,257,704,503	\$ 1,371,947,902	\$ 15,212,540	\$ 21,191,785	\$ 31,032,068	\$ 23,561,070	\$ 80,720,649,868
9. Entry Age Normal Cost at 6/30/2017 <sup>2</sup>	1,923,683,472	24,028,922	0	0	0	0	1,947,712,394
10. Benefit Payments-FY2018	4,883,110,000	90,190,000	1,760,000	2,510,000	3,486,000	2,818,000	4,983,874,000
11. Interest	5,514,669,343	94,614,940	1,004,316	1,397,056	2,052,292	1,552,308	5,615,290,255
12. Roll-Forward EAAL at 6/30/2018	\$ 81,812,947,318	\$ 1,400,401,764	\$ 14,456,856	\$ 20,078,841	\$ 29,598,360	\$ 22,295,378	\$ 83,299,778,517

<sup>1</sup> VSFs liabilities are discounted at 7.0% per annum, consistent with the Assumptions and Methodology used to determine employer contributions.

<sup>2</sup> Includes normal cost attributable to "Changes of Benefit Terms at 6/30/2017" and "Changes of Assumptions at 6/30/2017" of \$2,288,074 for QPP and \$579,324 for COVSF.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Allocations  
June 30, 2017**

<b>Employer</b>	<b>2017 Actual Employer Contributions</b>	<b>Employer Allocation Percentage</b>
Transit Operating	\$ 607,175,982	18.243%
Transit Non-Operating	125,143,356	3.760%
Transit Authority Transit Police	23,178,270	0.696%
Transit Authority CP Engineers	26,125,101	0.785%
Housing Authority Regular	155,920,897	4.685%
Housing Authority Housing Police	9,571,892	0.288%
Health and Hospitals Corporation	492,160,878	14.788%
Off-Track Betting	18,519,306	0.556%
Housing Development Corporation / REMIC	1,778,800	0.053%
State Courts	1,208,594	0.036%
School Construction Authority	1,321,372	0.040%
Water Finance Authority	136,110	0.004%
Senior Colleges	38,838,696	1.167%
Triborough Bridge and Tunnel Authority	43,546,055	1.308%
City	1,783,567,273	53.591%
Total	\$ 3,328,192,582	100.000%

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 79,839,134,898	\$ 55,542,313,000	\$ 24,296,821,898
<b>2. Changes for the Year:</b>			
a. Service Cost	1,920,457,666	0	1,920,457,666
b. Interest	5,546,608,362	0	5,546,608,362
c. Differences b/t Expected and Actual Experience	(238,253,928)	0	(238,253,928)
d. Changes of Assumptions	0	0	0
e. Contributions - Employer	0	3,328,193,000	(3,328,193,000)
f. Contributions - Employee	0	513,514,000	(513,514,000)
g. Net Investment Income	0	6,982,152,000	(6,982,152,000)
h. Benefit Payments	(4,646,479,000)	(4,646,479,000)	0
i. Payments to Other Retirement Systems	0	(8,087,000)	8,087,000
j. Transfers to Variable Supplements Funds	0	0	0
k. Administrative Expenses	0	(59,671,000)	59,671,000
l. Other Changes	0	3,266,000	(3,266,000)
<b>Net Changes</b>	<b>\$ 2,582,333,100</b>	<b>\$ 6,112,888,000</b>	<b>\$ (3,530,554,900)</b>
<b>3. Balances at June 30, 2017</b>	<b>\$ 82,421,467,998</b>	<b>\$ 61,655,201,000</b>	<b>\$ 20,766,266,998</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Transit Operating  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>18.312%</b>	<b>\$ 14,620,142,385</b>	<b>\$ 10,170,908,357</b>	<b>\$ 4,449,234,028</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		350,349,092	0	350,349,092
b. Interest		1,011,867,763	0	1,011,867,763
c. Differences b/t Expected and Actual Experience		(43,464,664)	0	(43,464,664)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	607,175,982	(607,175,982)
f. Contributions - Employee		0	93,680,359	(93,680,359)
g. Net Investment Income		0	1,273,753,989	(1,273,753,989)
h. Benefit Payments		(847,657,164)	(847,657,164)	0
i. Payments to Other Retirement Systems		0	(1,475,311)	1,475,311
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(10,885,781)	10,885,781
l. Other Changes		0	595,816	(595,816)
<b>Net Changes</b>		<b>\$ 471,095,027</b>	<b>\$ 1,115,187,890</b>	<b>\$ (644,092,863)</b>
<b>3. SubTotal</b>		<b>\$ 15,091,237,412</b>	<b>\$ 11,286,096,247</b>	<b>\$ 3,805,141,165</b>
<b>4. Changes in Proportionate Share</b>		<b>(55,089,005)</b>	<b>(38,324,198)</b>	<b>(16,764,807)</b>
<b>5. Balances at June 30, 2017</b>	<b>18.243%</b>	<b>\$ 15,036,148,407</b>	<b>\$ 11,247,772,049</b>	<b>\$ 3,788,376,358</b>



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Transit Non-Operating  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>3.179%</b>	<b>\$ 2,538,086,099</b>	<b>\$ 1,765,690,130</b>	<b>\$ 772,395,969</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		72,209,208	0	72,209,208
b. Interest		208,552,474	0	208,552,474
c. Differences b/t Expected and Actual Experience		(8,958,348)	0	(8,958,348)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	125,143,356	(125,143,356)
f. Contributions - Employee		0	19,308,126	(19,308,126)
g. Net Investment Income		0	262,528,915	(262,528,915)
h. Benefit Payments		(174,707,610)	(174,707,610)	0
i. Payments to Other Retirement Systems		0	(304,071)	304,071
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(2,243,630)	2,243,630
l. Other Changes		0	122,802	(122,802)
<b>Net Changes</b>		<b>\$ 97,095,724</b>	<b>\$ 229,847,888</b>	<b>\$ (132,752,164)</b>
<b>3. SubTotal</b>		<b>\$ 2,635,181,823</b>	<b>\$ 1,995,538,018</b>	<b>\$ 639,643,805</b>
<b>4. Changes in Proportionate Share</b>		<b>463,865,374</b>	<b>322,700,839</b>	<b>141,164,535</b>
<b>5. Balances at June 30, 2017</b>	<b>3.760%</b>	<b>\$ 3,099,047,197</b>	<b>\$ 2,318,238,857</b>	<b>\$ 780,808,340</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**TA TP**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.672%</b>	<b>\$ 536,518,986</b>	<b>\$ 373,244,343</b>	<b>\$ 163,274,643</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		13,366,385	0	13,366,385
b. Interest		38,604,394	0	38,604,394
c. Differences b/t Expected and Actual Experience		(1,658,247)	0	(1,658,247)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	23,178,270	(23,178,270)
f. Contributions - Employee		0	3,574,057	(3,574,057)
g. Net Investment Income		0	48,595,778	(48,595,778)
h. Benefit Payments		(32,339,494)	(32,339,494)	0
i. Payments to Other Retirement Systems		0	(56,286)	56,286
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(415,310)	415,310
l. Other Changes		0	22,731	(22,731)
<b>Net Changes</b>		<b>\$ 17,973,038</b>	<b>\$ 42,559,746</b>	<b>\$ (24,586,708)</b>
<b>3. SubTotal</b>		<b>\$ 554,492,024</b>	<b>\$ 415,804,089</b>	<b>\$ 138,687,935</b>
<b>4. Changes in Proportionate Share</b>		<b>19,161,393</b>	<b>13,330,156</b>	<b>5,831,237</b>
<b>5. Balances at June 30, 2017</b>	<b>0.696%</b>	<b>\$ 573,653,417</b>	<b>\$ 429,134,245</b>	<b>\$ 144,519,172</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
TA CP Engineers  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.736%</b>	<b>\$ 587,616,033</b>	<b>\$ 408,791,424</b>	<b>\$ 178,824,609</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		15,075,593	0	15,075,593
b. Interest		43,540,876	0	43,540,876
c. Differences b/t Expected and Actual Experience		(1,870,293)	0	(1,870,293)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	26,125,101	(26,125,101)
f. Contributions - Employee		0	4,031,085	(4,031,085)
g. Net Investment Income		0	54,809,893	(54,809,893)
h. Benefit Payments		(36,474,860)	(36,474,860)	0
i. Payments to Other Retirement Systems		0	(63,483)	63,483
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(468,417)	468,417
l. Other Changes		0	25,638	(25,638)
<b>Net Changes</b>		<b>\$ 20,271,316</b>	<b>\$ 47,984,957</b>	<b>\$ (27,713,641)</b>
<b>3. SubTotal</b>		<b>\$ 607,887,349</b>	<b>\$ 456,776,381</b>	<b>\$ 151,110,968</b>
<b>4. Changes in Proportionate Share</b>		<b>39,121,175</b>	<b>27,215,732</b>	<b>11,905,443</b>
<b>5. Balances at June 30, 2017</b>	<b>0.785%</b>	<b>\$ 647,008,524</b>	<b>\$ 483,992,113</b>	<b>\$ 163,016,411</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HA Regular**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>4.703%</b>	<b>\$ 3,754,834,513</b>	<b>\$ 2,612,154,980</b>	<b>\$ 1,142,679,533</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		89,973,442	0	89,973,442
b. Interest		259,858,602	0	259,858,602
c. Differences b/t Expected and Actual Experience		(11,162,197)	0	(11,162,197)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	155,920,897	(155,920,897)
f. Contributions - Employee		0	24,058,131	(24,058,131)
g. Net Investment Income		0	327,113,821	(327,113,821)
h. Benefit Payments		(217,687,541)	(217,687,541)	0
i. Payments to Other Retirement Systems		0	(378,876)	378,876
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(2,795,586)	2,795,586
l. Other Changes		0	153,012	(153,012)
<b>Net Changes</b>		<b>\$ 120,982,306</b>	<b>\$ 286,383,858</b>	<b>\$ (165,401,552)</b>
<b>3. SubTotal</b>		<b>\$ 3,875,816,819</b>	<b>\$ 2,898,538,838</b>	<b>\$ 977,277,981</b>
<b>4. Changes in Proportionate Share</b>		<b>(14,371,043)</b>	<b>(9,997,615)</b>	<b>(4,373,428)</b>
<b>5. Balances at June 30, 2017</b>	<b>4.685%</b>	<b>\$ 3,861,445,776</b>	<b>\$ 2,888,541,223</b>	<b>\$ 972,904,553</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HA HP**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.294%</b>	<b>\$ 234,727,057</b>	<b>\$ 163,294,401</b>	<b>\$ 71,432,656</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		5,530,918	0	5,530,918
b. Interest		15,974,232	0	15,974,232
c. Differences b/t Expected and Actual Experience		(686,171)	0	(686,171)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	9,571,892	(9,571,892)
f. Contributions - Employee		0	1,478,920	(1,478,920)
g. Net Investment Income		0	20,108,598	(20,108,598)
h. Benefit Payments		(13,381,860)	(13,381,860)	0
i. Payments to Other Retirement Systems		0	(23,291)	23,291
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(171,852)	171,852
l. Other Changes		0	9,406	(9,406)
<b>Net Changes</b>		<b>\$ 7,437,119</b>	<b>\$ 17,591,813</b>	<b>\$ (10,154,694)</b>
<b>3. SubTotal</b>		<b>\$ 242,164,176</b>	<b>\$ 180,886,214</b>	<b>\$ 61,277,962</b>
<b>4. Changes in Proportionate Share</b>		<b>(4,790,348)</b>	<b>(3,332,539)</b>	<b>(1,457,809)</b>
<b>5. Balances at June 30, 2017</b>	<b>0.288%</b>	<b>\$ 237,373,828</b>	<b>\$ 177,553,675</b>	<b>\$ 59,820,153</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source

HHC

Balances at June 30, 2017

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	<b>14.789%</b>	<b>\$ 11,807,409,661</b>	<b>\$ 8,214,152,670</b>	<b>\$ 3,593,256,991</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		283,997,280	0	283,997,280
b. Interest		820,232,445	0	820,232,445
c. Differences b/t Expected and Actual Experience		(35,232,991)	0	(35,232,991)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	492,160,878	(492,160,878)
f. Contributions - Employee		0	75,938,450	(75,938,450)
g. Net Investment Income		0	1,032,520,638	(1,032,520,638)
h. Benefit Payments		(687,121,315)	(687,121,315)	0
i. Payments to Other Retirement Systems		0	(1,195,906)	1,195,906
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(8,824,147)	8,824,147
l. Other Changes		0	482,976	(482,976)
<b>Net Changes</b>		<b>\$ 381,875,419</b>	<b>\$ 903,961,574</b>	<b>\$ (522,086,155)</b>
<b>3. SubTotal</b>		<b>\$ 12,189,285,080</b>	<b>\$ 9,118,114,244</b>	<b>\$ 3,071,170,836</b>
<b>4. Changes in Proportionate Share</b>		<b>(798,392)</b>	<b>(555,424)</b>	<b>(242,968)</b>
<b>5. Balances at June 30, 2017</b>	<b>14.788%</b>	<b>\$ 12,188,486,688</b>	<b>\$ 9,117,558,820</b>	<b>\$ 3,070,927,868</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**OTB**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.613%</b>	<b>\$ 489,413,896</b>	<b>\$ 340,474,379</b>	<b>\$ 148,939,517</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		10,677,745	0	10,677,745
b. Interest		30,839,142	0	30,839,142
c. Differences b/t Expected and Actual Experience		(1,324,692)	0	(1,324,692)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	18,519,306	(18,519,306)
f. Contributions - Employee		0	2,855,138	(2,855,138)
g. Net Investment Income		0	38,820,765	(38,820,765)
h. Benefit Payments		(25,834,423)	(25,834,423)	0
i. Payments to Other Retirement Systems		0	(44,964)	44,964
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(331,771)	331,771
l. Other Changes		0	18,159	(18,159)
<b>Net Changes</b>		<b>\$ 14,357,772</b>	<b>\$ 34,002,210</b>	<b>\$ (19,644,438)</b>
<b>3. SubTotal</b>		<b>\$ 503,771,668</b>	<b>\$ 374,476,589</b>	<b>\$ 129,295,079</b>
<b>4. Changes in Proportionate Share</b>		<b>(45,508,306)</b>	<b>(31,659,118)</b>	<b>(13,849,188)</b>
<b>5. Balances at June 30, 2017</b>	<b>0.556%</b>	<b>\$ 458,263,362</b>	<b>\$ 342,817,471</b>	<b>\$ 115,445,891</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HDC/REMIC**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.053%</b>	<b>\$ 42,314,741</b>	<b>\$ 29,437,426</b>	<b>\$ 12,877,315</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		1,017,843	0	1,017,843
b. Interest		2,939,702	0	2,939,702
c. Differences b/t Expected and Actual Experience		(126,275)	0	(126,275)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	1,778,800	(1,778,800)
f. Contributions - Employee		0	272,162	(272,162)
g. Net Investment Income		0	3,700,541	(3,700,541)
h. Benefit Payments		(2,462,633)	(2,462,633)	0
i. Payments to Other Retirement Systems		0	(4,286)	4,286
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(31,626)	31,626
l. Other Changes		0	1,731	(1,731)
<b>Net Changes</b>		<b>\$ 1,368,637</b>	<b>\$ 3,254,689</b>	<b>\$ (1,886,052)</b>
<b>3. SubTotal</b>		<b>\$ 43,683,378</b>	<b>\$ 32,692,115</b>	<b>\$ 10,991,263</b>
<b>4. Changes in Proportionate Share</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>5. Balances at June 30, 2017</b>	<b>0.053%</b>	<b>\$ 43,683,378</b>	<b>\$ 32,692,115</b>	<b>\$ 10,991,263</b>



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**State Courts**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.031%</b>	<b>\$ 24,750,131</b>	<b>\$ 17,218,117</b>	<b>\$ 7,532,014</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		691,365	0	691,365
b. Interest		1,996,779	0	1,996,779
c. Differences b/t Expected and Actual Experience		(85,771)	0	(85,771)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	1,208,594	(1,208,594)
f. Contributions - Employee		0	184,865	(184,865)
g. Net Investment Income		0	2,513,575	(2,513,575)
h. Benefit Payments		(1,672,732)	(1,672,732)	0
i. Payments to Other Retirement Systems		0	(2,911)	2,911
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(21,482)	21,482
l. Other Changes		0	1,176	(1,176)
<b>Net Changes</b>		<b>\$ 929,641</b>	<b>\$ 2,211,085</b>	<b>\$ (1,281,444)</b>
<b>3. SubTotal</b>		<b>\$ 25,679,772</b>	<b>\$ 19,429,202</b>	<b>\$ 6,250,570</b>
<b>4. Changes in Proportionate Share</b>		<b>3,991,956</b>	<b>2,777,115</b>	<b>1,214,841</b>
<b>5. Balances at June 30, 2017</b>	<b>0.036%</b>	<b>\$ 29,671,728</b>	<b>\$ 22,206,317</b>	<b>\$ 7,465,411</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

SCA

Balances at June 30, 2017

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.055%</b>	<b>\$ 43,911,526</b>	<b>\$ 30,548,272</b>	<b>\$ 13,363,254</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		768,183	0	768,183
b. Interest		2,218,643	0	2,218,643
c. Differences b/t Expected and Actual Experience		(95,302)	0	(95,302)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	1,321,372	(1,321,372)
f. Contributions - Employee		0	205,406	(205,406)
g. Net Investment Income		0	2,792,861	(2,792,861)
h. Benefit Payments		(1,858,592)	(1,858,592)	0
i. Payments to Other Retirement Systems		0	(3,235)	3,235
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(23,868)	23,868
l. Other Changes		0	1,306	(1,306)
<b>Net Changes</b>		<b>\$ 1,032,932</b>	<b>\$ 2,435,250</b>	<b>\$ (1,402,318)</b>
<b>3. SubTotal</b>		<b>\$ 44,944,458</b>	<b>\$ 32,983,522</b>	<b>\$ 11,960,936</b>
<b>4. Changes in Proportionate Share</b>		<b>(11,975,871)</b>	<b>(8,331,348)</b>	<b>(3,644,523)</b>
<b>5. Balances at June 30, 2017</b>	<b>0.040%</b>	<b>\$ 32,968,587</b>	<b>\$ 24,652,174</b>	<b>\$ 8,316,413</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

WFA

Balances at June 30, 2017

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.005%</b>	<b>\$ 3,991,958</b>	<b>\$ 2,777,116</b>	<b>\$ 1,214,842</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		76,818	0	76,818
b. Interest		221,864	0	221,864
c. Differences b/t Expected and Actual Experience		(9,530)	0	(9,530)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	136,110	(136,110)
f. Contributions - Employee		0	20,541	(20,541)
g. Net Investment Income		0	279,286	(279,286)
h. Benefit Payments		(185,859)	(185,859)	0
i. Payments to Other Retirement Systems		0	(323)	323
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(2,387)	2,387
l. Other Changes		0	131	(131)
<b>Net Changes</b>		<b>\$ 103,293</b>	<b>\$ 247,499</b>	<b>\$ (144,206)</b>
<b>3. SubTotal</b>		<b>\$ 4,095,251</b>	<b>\$ 3,024,615</b>	<b>\$ 1,070,636</b>
<b>4. Changes in Proportionate Share</b>		<b>(798,392)</b>	<b>(555,424)</b>	<b>(242,968)</b>
<b>5. Balances at June 30, 2017</b>	<b>0.004%</b>	<b>\$ 3,296,859</b>	<b>\$ 2,469,191</b>	<b>\$ 827,668</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Senior Colleges  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>1.247%</b>	<b>\$ 995,594,012</b>	<b>\$ 692,612,643</b>	<b>\$ 302,981,369</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		22,411,741	0	22,411,741
b. Interest		64,728,920	0	64,728,920
c. Differences b/t Expected and Actual Experience		(2,780,423)	0	(2,780,423)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	38,838,696	(38,838,696)
f. Contributions - Employee		0	5,992,708	(5,992,708)
g. Net Investment Income		0	81,481,714	(81,481,714)
h. Benefit Payments		(54,224,410)	(54,224,410)	0
i. Payments to Other Retirement Systems		0	(94,375)	94,375
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(696,361)	696,361
l. Other Changes		0	38,114	(38,114)
<b>Net Changes</b>		<b>\$ 30,135,828</b>	<b>\$ 71,336,086</b>	<b>\$ (41,200,258)</b>
<b>3. SubTotal</b>		<b>\$ 1,025,729,840</b>	<b>\$ 763,948,729</b>	<b>\$ 261,781,111</b>
<b>4. Changes in Proportionate Share</b>		<b>(63,871,308)</b>	<b>(44,433,851)</b>	<b>(19,437,457)</b>
<b>5. Balances at June 30, 2017</b>	<b>1.167%</b>	<b>\$ 961,858,532</b>	<b>\$ 719,514,878</b>	<b>\$ 242,343,654</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**TBTA**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>1.266%</b>	<b>\$ 1,010,763,449</b>	<b>\$ 703,165,683</b>	<b>\$ 307,597,766</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		25,119,586	0	25,119,586
b. Interest		72,549,637	0	72,549,637
c. Differences b/t Expected and Actual Experience		(3,116,361)	0	(3,116,361)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	43,546,055	(43,546,055)
f. Contributions - Employee		0	6,716,763	(6,716,763)
g. Net Investment Income		0	91,326,548	(91,326,548)
h. Benefit Payments		(60,775,945)	(60,775,945)	0
i. Payments to Other Retirement Systems		0	(105,778)	105,778
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(780,497)	780,497
l. Other Changes		0	42,719	(42,719)
<b>Net Changes</b>		<b>\$ 33,776,917</b>	<b>\$ 79,969,865</b>	<b>\$ (46,192,948)</b>
<b>3. SubTotal</b>		<b>\$ 1,044,540,366</b>	<b>\$ 783,135,548</b>	<b>\$ 261,404,818</b>
<b>4. Changes in Proportionate Share</b>		<b>33,532,435</b>	<b>23,327,770</b>	<b>10,204,665</b>
<b>5. Balances at June 30, 2017</b>	<b>1.308%</b>	<b>\$ 1,078,072,801</b>	<b>\$ 806,463,318</b>	<b>\$ 271,609,483</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**City Total**

**Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>54.045%</b>	<b>\$ 43,149,060,451</b>	<b>\$ 30,017,843,059</b>	<b>\$ 13,131,217,392</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		1,029,192,467	0	1,029,192,467
b. Interest		2,972,482,889	0	2,972,482,889
c. Differences b/t Expected and Actual Experience		(127,682,663)	0	(127,682,663)
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	1,783,567,691	(1,783,567,691)
f. Contributions - Employee		0	275,197,289	(275,197,289)
g. Net Investment Income		0	3,741,805,078	(3,741,805,078)
h. Benefit Payments		(2,490,094,562)	(2,490,094,562)	0
i. Payments to Other Retirement Systems		0	(4,333,904)	4,333,904
j. Transfers to Variable Supplements Funds		0	0	0
k. Administrative Expenses		0	(31,978,285)	31,978,285
l. Other Changes		0	1,750,283	(1,750,283)
<b>Net Changes</b>		<b>\$ 1,383,898,131</b>	<b>\$ 3,275,913,590</b>	<b>\$ (1,892,015,459)</b>
<b>3. SubTotal</b>		<b>\$ 44,532,958,582</b>	<b>\$ 33,293,756,649</b>	<b>\$ 11,239,201,933</b>
<b>4. Changes in Proportionate Share</b>		<b>(362,469,668)</b>	<b>(252,162,095)</b>	<b>(110,307,573)</b>
<b>5. Balances at June 30, 2017</b>	<b>53.591%</b>	<b>\$ 44,170,488,914</b>	<b>\$ 33,041,594,554</b>	<b>\$ 11,128,894,360</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source - By Obligor

Total Pension Liability

	Transit Operating	TA Non- Operating	TA TP	TA CP Engineers	HA Regular	HA HP	HHC	OTB	HDC/REMIC	State Courts	SCA	WFA	Senior Colleges	TBTA	City Total	Total
Balances at June 30, 2016	\$ 14,620,142,385	\$ 2,538,086,099	\$ 536,518,986	\$ 587,616,033	\$ 3,754,834,513	\$ 234,727,057	\$ 11,807,409,661	\$ 489,413,896	\$ 42,314,741	\$ 24,750,131	\$ 43,911,526	\$ 3,991,958	\$ 995,594,012	\$ 1,010,763,449	\$ 43,149,060,451	\$ 79,839,134,898
<b>Changes for the Year:</b>																
Service Cost	350,349,092	72,209,208	13,366,385	15,075,593	89,973,442	5,530,918	283,997,280	10,677,745	1,017,843	691,365	768,183	76,818	22,411,741	25,119,586	1,029,192,467	1,920,457,666
Interest	1,011,867,763	208,552,474	38,604,394	43,540,876	259,858,602	15,974,232	820,232,445	30,839,142	2,939,702	1,996,779	2,218,643	221,864	64,728,920	72,549,637	2,972,482,889	5,546,608,362
Differences b/ Expected and Actual Experience	(43,464,664)	(8,958,348)	(1,658,247)	(1,870,293)	(11,162,197)	(686,171)	(35,232,991)	(1,324,692)	(126,275)	(85,771)	(95,302)	(9,530)	(2,780,423)	(3,116,361)	(127,682,663)	(238,253,928)
Changes of Assumptions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benefit Payments	(847,657,164)	(174,707,610)	(32,339,494)	(36,474,860)	(217,687,541)	(13,381,860)	(687,121,315)	(25,834,423)	(2,462,633)	(1,672,732)	(1,858,592)	(185,859)	(54,224,410)	(60,775,945)	(2,490,094,562)	(4,646,479,000)
Net Changes	\$ 471,095,027	\$ 97,095,724	\$ 17,973,038	\$ 20,271,316	\$ 120,982,306	\$ 7,437,119	\$ 381,875,419	\$ 14,357,772	\$ 1,368,637	\$ 929,641	\$ 1,032,932	\$ 103,293	\$ 30,135,828	\$ 33,776,917	\$ 1,383,898,131	\$ 2,582,333,100
SubTotal	\$ 15,091,237,412	\$ 2,635,181,823	\$ 554,492,024	\$ 607,887,349	\$ 3,875,816,819	\$ 242,164,176	\$ 12,189,285,080	\$ 503,771,668	\$ 43,683,378	\$ 25,679,772	\$ 44,944,458	\$ 4,095,251	\$ 1,025,729,840	\$ 1,044,540,366	\$ 44,532,958,582	\$ 82,421,467,998
Changes in Proportionate Share	(55,089,005)	463,865,374	19,161,393	39,121,175	(14,371,043)	(4,790,348)	(798,392)	(45,508,306)	0	3,991,956	(11,975,871)	(798,392)	(63,871,308)	33,532,435	(362,469,668)	0
Balances at June 30, 2017	\$ 15,036,148,407	\$ 3,099,047,197	\$ 573,653,417	\$ 647,008,524	\$ 3,861,445,776	\$ 237,373,828	\$ 12,188,486,688	\$ 458,263,362	\$ 43,683,378	\$ 29,671,728	\$ 32,968,587	\$ 3,296,859	\$ 961,858,532	\$ 1,078,072,801	\$ 44,170,488,914	\$ 82,421,467,998

Plan Fiduciary Net Position<sup>1</sup>

	Transit Operating	TA Non- Operating	TA TP	TA CP Engineers	HA Regular	HA HP	HHC	OTB	HDC/REMIC	State Courts	SCA	WFA	Senior Colleges	TBTA	City Total	Total
Balances at June 30, 2016	\$ 10,170,908,357	\$ 1,765,690,130	\$ 373,244,343	\$ 408,791,424	\$ 2,612,154,980	\$ 163,294,401	\$ 8,214,152,670	\$ 340,474,379	\$ 29,437,426	\$ 17,218,117	\$ 30,548,272	\$ 2,777,116	\$ 692,612,643	\$ 703,166,683	\$ 30,017,843,059	\$ 55,542,313,000
<b>Changes for the Year:</b>																
Contributions - Employer	607,175,982	125,143,356	23,178,270	26,125,101	155,920,897	9,571,892	492,160,878	18,519,306	1,778,800	1,208,594	1,321,372	136,110	38,838,696	43,546,055	1,783,567,691	3,328,193,000
Contributions - Employee	93,680,359	19,308,126	3,574,057	4,031,085	75,938,450	24,058,131	1,478,920	2,855,138	272,162	184,865	205,406	20,541	5,992,708	6,716,763	275,197,289	513,514,000
Net Investment Income	1,273,753,989	262,528,915	48,595,778	54,809,893	327,113,821	20,108,598	1,032,520,638	38,820,765	3,700,541	2,513,575	2,792,861	279,286	81,481,714	91,326,548	3,741,805,078	6,982,152,000
Benefit Payments	(847,657,164)	(174,707,610)	(32,339,494)	(36,474,860)	(217,687,541)	(13,381,860)	(687,121,315)	(25,834,423)	(2,462,633)	(1,672,732)	(1,858,592)	(185,859)	(54,224,410)	(60,775,945)	(2,490,094,562)	(4,646,479,000)
Payments to Other Retirement Systems	(1,475,311)	(304,071)	(56,286)	(63,483)	(378,876)	(23,291)	(1,195,906)	(44,964)	(4,286)	(2,911)	(3,235)	(323)	(94,375)	(105,778)	(4,333,904)	(8,087,000)
Transfers to Variable Supplemental Funds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Expenses	(10,885,781)	(2,243,630)	(415,310)	(468,417)	(2,795,586)	(171,852)	(8,824,147)	(331,771)	(31,626)	(21,482)	(23,868)	(2,387)	(696,361)	(780,497)	(31,978,285)	(59,671,000)
Other Changes <sup>2</sup>	595,816	122,802	22,731	25,638	153,012	9,406	(482,976)	18,159	1,731	1,176	1,306	131	38,114	42,719	1,750,283	3,266,000
Net Changes	\$ 1,115,187,890	\$ 229,847,888	\$ 42,559,746	\$ 47,984,957	\$ 286,383,858	\$ 17,991,813	\$ 903,961,574	\$ 34,002,210	\$ 3,254,689	\$ 2,211,085	\$ 2,435,250	\$ 247,499	\$ 71,369,865	\$ 79,969,865	\$ 3,275,913,590	\$ 6,112,888,000
SubTotal	\$ 11,286,096,247	\$ 1,995,538,018	\$ 415,804,089	\$ 456,776,381	\$ 2,898,538,838	\$ 180,886,214	\$ 9,118,114,244	\$ 374,476,589	\$ 32,692,115	\$ 19,429,202	\$ 32,983,522	\$ 3,024,615	\$ 763,948,729	\$ 783,135,548	\$ 33,293,756,649	\$ 61,655,201,000
Changes in Proportionate Share	(38,324,198)	322,700,839	13,330,156	27,215,732	(9,997,615)	(3,332,539)	(555,424)	(31,659,118)	0	2,777,115	(8,331,348)	(555,424)	(44,433,851)	23,327,770	(252,162,095)	0
Balances at June 30, 2017	\$ 11,247,772,049	\$ 2,318,238,857	\$ 429,134,245	\$ 483,992,113	\$ 2,888,541,223	\$ 177,553,675	\$ 9,117,558,820	\$ 342,817,471	\$ 32,692,115	\$ 22,206,317	\$ 24,652,174	\$ 2,469,191	\$ 719,514,878	\$ 806,463,318	\$ 33,041,594,554	\$ 61,655,201,000

Net Pension Liability

	Transit Operating	TA Non- Operating	TA TP	TA CP Engineers	HA Regular	HA HP	HHC	OTB	HDC/REMIC	State Courts	SCA	WFA	Senior Colleges	TBTA	City Total	Total
Balances at June 30, 2016	\$ 4,449,234,028	\$ 772,395,969	\$ 163,274,643	\$ 178,824,609	\$ 1,142,679,533	\$ 71,432,656	\$ 3,593,256,991	\$ 148,939,517	\$ 12,877,315	\$ 7,532,014	\$ 13,363,254	\$ 1,214,842	\$ 302,981,369	\$ 307,597,766	\$ 13,131,217,392	\$ 24,296,821,898
<b>Changes for the Year:</b>																
Service Cost	350,349,092	72,209,208	13,366,385	15,075,593	89,973,442	5,530,918	283,997,280	10,677,745	1,017,843	691,365	768,183	76,818	22,411,741	25,119,586	1,029,192,467	1,920,457,666
Interest	1,011,867,763	208,552,474	38,604,394	43,540,876	259,858,602	15,974,232	820,232,445	30,839,142	2,939,702	1,996,779	2,218,643	221,864	64,728,920	72,549,637	2,972,482,889	5,546,608,362
Differences b/ Expected and Actual Experience	(43,464,664)	(8,958,348)	(1,658,247)	(1,870,293)	(11,162,197)	(686,171)	(35,232,991)	(1,324,692)	(126,275)	(85,771)	(95,302)	(9,530)	(2,780,423)	(3,116,361)	(127,682,663)	(238,253,928)
Changes of Assumptions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benefit Payments	(847,657,164)	(174,707,610)	(32,339,494)	(36,474,860)	(217,687,541)	(13,381,860)	(687,121,315)	(25,834,423)	(2,462,633)	(1,672,732)	(1,858,592)	(185,859)	(54,224,410)	(60,775,945)	(2,490,094,562)	(4,646,479,000)
Payments to Other Retirement Systems	(1,475,311)	(304,071)	(56,286)	(63,483)	(378,876)	(23,291)	(1,195,906)	(44,964)	(4,286)	(2,911)	(3,235)	(323)	(94,375)	(105,778)	(4,333,904)	(8,087,000)
Transfers to Variable Supplemental Funds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Expenses	(10,885,781)	(2,243,630)	(415,310)	(468,417)	(2,795,586)	(171,852)	(8,824,147)	(331,771)	(31,626)	(21,482)	(23,868)	(2,387)	(696,361)	(780,497)	(31,978,285)	(59,671,000)
Other Changes <sup>2</sup>	595,816	122,802	22,731	25,638	153,012	9,406	(482,976)	18,159	1,731	1,176	1,306	131	38,114	42,719	1,750,283	3,266,000
Net Changes	\$ (644,922,863)	\$ (132,752,164)	\$ (24,586,708)	\$ (27,713,641)	\$ (165,401,552)	\$ (10,154,694)	\$ (522,086,155)	\$ (19,644,438)	\$ (1,886,052)	\$ (1,281,444)	\$ (1,402,318)	\$ (144,206)	\$ (41,200,258)	\$ (46,192,948)	\$ (1,892,015,459)	\$ (3,530,554,900)
SubTotal	\$ 3,805,141,165	\$ 639,643,805	\$ 138,687,935	\$ 151,110,968	\$ 977,277,981	\$ 61,277,962	\$ 3,071,170,836	\$ 129,295,079	\$ 10,991,263	\$ 6,250,570	\$ 11,960,936	\$ 1,070,636	\$ 261,781,111	\$ 261,404,818	\$ 11,239,201,933	\$ 20,766,266,998
Changes in Proportionate Share	(16,764,807)	141,164,535	5,831,237	11,905,443	(4,373,428)	(1,457,809)	(242,968)	(13,849,188)	0	1,214,841	(3,644,523)	(242,968)	(19,437,457)	10,204,665	(110,307,573)	0
Balances at June 30, 2017	\$ 3,788,376,358	\$ 780,808,340	\$ 144,519,172	\$ 163,016,411	\$ 972,904,553	\$ 59,820,153	\$ 3,070,927,868	\$ 115,445,891	\$ 10,991,263	\$ 7,465,411	\$ 8,316,413	\$ 827,668	\$ 242,343,654	\$ 271,609,483	\$ 11,128,894,360	\$ 20,766,266,998

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Allocations  
June 30, 2018**

<b>Employer</b>	<b>2018 Actual Employer Contributions</b>	<b>Employer Allocation Percentage</b>
Transit Operating	\$ 579,615,712	17.164%
Transit Non-Operating	153,689,581	4.551%
Transit Authority Transit Police	25,366,149	0.751%
Transit Authority CP Engineers	27,432,045	0.812%
Housing Authority Regular	154,409,873	4.572%
Housing Authority Housing Police	10,577,579	0.313%
Health and Hospitals Corporation	507,335,245	15.023%
Off-Track Betting	18,369,307	0.544%
Housing Development Corporation / REMIC	1,724,250	0.051%
State Courts	1,379,089	0.041%
School Construction Authority	1,682,329	0.050%
Water Finance Authority	111,490	0.003%
Senior Colleges	44,827,576	1.327%
Triborough Bridge and Tunnel Authority	38,998,208	1.155%
City	1,811,505,740	53.643%
Total	\$ 3,377,024,173	100.000%



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 82,421,467,998	\$ 61,655,201,000	\$ 20,766,266,998
<b>2. Changes for the Year:</b>			
a. Service Cost	1,947,712,394	0	1,947,712,394
b. Interest	5,615,290,255	0	5,615,290,255
c. Changes of Benefit Terms	43,998,752	0	43,998,752
d. Differences b/t Expected and Actual Experience	(1,762,549,696)	0	(1,762,549,696)
e. Changes of Assumptions	17,732,814	0	17,732,814
f. Contributions - Employer	0	3,377,024,000	(3,377,024,000)
g. Contributions - Employee	0	523,535,000	(523,535,000)
h. Net Investment Income	0	5,155,519,000	(5,155,519,000)
i. Benefit Payments	(4,983,874,000)	(4,983,874,000)	0
j. Payments to Other Retirement Systems	0	(9,055,000)	9,055,000
k. Transfers to Variable Supplements Funds	0	0	0
l. Administrative Expenses	0	(59,689,000)	59,689,000
m. Other Changes	0	3,422,000	(3,422,000)
<b>Net Changes</b>	<b>\$ 878,310,519</b>	<b>\$ 4,006,882,000</b>	<b>\$ (3,128,571,481)</b>
<b>3. Balances at June 30, 2018</b>	<b>\$ 83,299,778,517</b>	<b>\$ 65,662,083,000</b>	<b>\$ 17,637,695,517</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Transit Operating  
Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>18.243%</b>	<b>\$ 15,036,148,407</b>	<b>\$ 11,247,772,049</b>	<b>\$ 3,788,376,358</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		334,305,355	0	334,305,355
b. Interest		963,808,419	0	963,808,419
c. Changes of Benefit Terms		7,551,946	0	7,551,946
d. Differences b/t Expected and Actual Experience		(302,524,030)	0	(302,524,030)
e. Changes of Assumptions		3,043,660	0	3,043,660
f. Contributions - Employer		0	579,615,712	(579,615,712)
g. Contributions - Employee		0	89,859,547	(89,859,547)
h. Net Investment Income		0	884,893,281	(884,893,281)
i. Benefit Payments		(855,432,133)	(855,432,133)	0
j. Payments to Other Retirement Systems		0	(1,554,200)	1,554,200
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(10,245,020)	10,245,020
m. Other Changes		0	587,352	(587,352)
<b>Net Changes</b>		<b>\$ 150,753,217</b>	<b>\$ 687,724,539</b>	<b>\$ (536,971,322)</b>
<b>3. SubTotal</b>		<b>\$ 15,186,901,624</b>	<b>\$ 11,935,496,588</b>	<b>\$ 3,251,405,036</b>
<b>4. Changes in Proportionate Share</b>		<b>(889,327,639)</b>	<b>(665,259,619)</b>	<b>(224,068,020)</b>
<b>5. Balances at June 30, 2018</b>	<b>17.164%</b>	<b>\$ 14,297,573,985</b>	<b>\$ 11,270,236,969</b>	<b>\$ 3,027,337,016</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Transit Non-Operating  
Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>3.760%</b>	<b>\$ 3,099,047,197</b>	<b>\$ 2,318,238,857</b>	<b>\$ 780,808,340</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		88,640,391	0	88,640,391
b. Interest		255,551,860	0	255,551,860
c. Changes of Benefit Terms		2,002,383	0	2,002,383
d. Differences b/t Expected and Actual Experience		(80,213,637)	0	(80,213,637)
e. Changes of Assumptions		807,020	0	807,020
f. Contributions - Employer		0	153,689,581	(153,689,581)
g. Contributions - Employee		0	23,826,078	(23,826,078)
h. Net Investment Income		0	234,627,670	(234,627,670)
i. Benefit Payments		(226,816,106)	(226,816,106)	0
j. Payments to Other Retirement Systems		0	(412,093)	412,093
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(2,716,446)	2,716,446
m. Other Changes		0	155,735	(155,735)
<b>Net Changes</b>		<b>\$ 39,971,911</b>	<b>\$ 182,354,419</b>	<b>\$ (142,382,508)</b>
<b>3. SubTotal</b>		<b>\$ 3,139,019,108</b>	<b>\$ 2,500,593,276</b>	<b>\$ 638,425,832</b>
<b>4. Changes in Proportionate Share</b>		<b>651,953,812</b>	<b>487,692,640</b>	<b>164,261,172</b>
<b>5. Balances at June 30, 2018</b>	<b>4.551%</b>	<b>\$ 3,790,972,920</b>	<b>\$ 2,988,285,916</b>	<b>\$ 802,687,004</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**TA TP**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.696%</b>	<b>\$ 573,653,417</b>	<b>\$ 429,134,245</b>	<b>\$ 144,519,172</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		14,627,320	0	14,627,320
b. Interest		42,170,830	0	42,170,830
c. Changes of Benefit Terms		330,431	0	330,431
d. Differences b/t Expected and Actual Experience		(13,236,748)	0	(13,236,748)
e. Changes of Assumptions		133,173	0	133,173
f. Contributions - Employer		0	25,366,149	(25,366,149)
g. Contributions - Employee		0	3,931,748	(3,931,748)
h. Net Investment Income		0	38,717,948	(38,717,948)
i. Benefit Payments		(37,428,894)	(37,428,894)	0
j. Payments to Other Retirement Systems		0	(68,003)	68,003
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(448,264)	448,264
m. Other Changes		0	25,699	(25,699)
<b>Net Changes</b>		<b>\$ 6,596,112</b>	<b>\$ 30,096,383</b>	<b>\$ (23,500,271)</b>
<b>3. SubTotal</b>		<b>\$ 580,249,529</b>	<b>\$ 459,230,628</b>	<b>\$ 121,018,901</b>
<b>4. Changes in Proportionate Share</b>		<b>45,331,808</b>	<b>33,910,361</b>	<b>11,421,447</b>
<b>5. Balances at June 30, 2018</b>	<b>0.751%</b>	<b>\$ 625,581,337</b>	<b>\$ 493,140,989</b>	<b>\$ 132,440,348</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**TA CP Engineers**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.785%</b>	<b>\$ 647,008,524</b>	<b>\$ 483,992,113</b>	<b>\$ 163,016,411</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		15,815,425	0	15,815,425
b. Interest		45,596,157	0	45,596,157
c. Changes of Benefit Terms		357,270	0	357,270
d. Differences b/t Expected and Actual Experience		(14,311,904)	0	(14,311,904)
e. Changes of Assumptions		143,990	0	143,990
f. Contributions - Employer		0	27,432,045	(27,432,045)
g. Contributions - Employee		0	4,251,104	(4,251,104)
h. Net Investment Income		0	41,862,814	(41,862,814)
i. Benefit Payments		(40,469,057)	(40,469,057)	0
j. Payments to Other Retirement Systems		0	(73,527)	73,527
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(484,675)	484,675
m. Other Changes		0	27,787	(27,787)
<b>Net Changes</b>		<b>\$ 7,131,881</b>	<b>\$ 32,546,491</b>	<b>\$ (25,414,610)</b>
<b>3. SubTotal</b>		<b>\$ 654,140,405</b>	<b>\$ 516,538,604</b>	<b>\$ 137,601,801</b>
<b>4. Changes in Proportionate Share</b>		<b>22,253,797</b>	<b>16,646,905</b>	<b>5,606,892</b>
<b>5. Balances at June 30, 2018</b>	<b>0.812%</b>	<b>\$ 676,394,202</b>	<b>\$ 533,185,509</b>	<b>\$ 143,208,693</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HA Regular**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>4.685%</b>	<b>\$ 3,861,445,776</b>	<b>\$ 2,888,541,223</b>	<b>\$ 972,904,553</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		89,049,411	0	89,049,411
b. Interest		256,731,070	0	256,731,070
c. Changes of Benefit Terms		2,011,623	0	2,011,623
d. Differences b/t Expected and Actual Experience		(80,583,772)	0	(80,583,772)
e. Changes of Assumptions		810,744	0	810,744
f. Contributions - Employer		0	154,409,873	(154,409,873)
g. Contributions - Employee		0	23,936,020	(23,936,020)
h. Net Investment Income		0	235,710,329	(235,710,329)
i. Benefit Payments		(227,862,719)	(227,862,719)	0
j. Payments to Other Retirement Systems		0	(413,995)	413,995
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(2,728,981)	2,728,981
m. Other Changes		0	156,454	(156,454)
<b>Net Changes</b>		<b>\$ 40,156,357</b>	<b>\$ 183,206,981</b>	<b>\$ (143,050,624)</b>
<b>3. SubTotal</b>		<b>\$ 3,901,602,133</b>	<b>\$ 3,071,748,204</b>	<b>\$ 829,853,929</b>
<b>4. Changes in Proportionate Share</b>		<b>(93,136,259)</b>	<b>(69,670,377)</b>	<b>(23,465,882)</b>
<b>5. Balances at June 30, 2018</b>	<b>4.572%</b>	<b>\$ 3,808,465,874</b>	<b>\$ 3,002,077,827</b>	<b>\$ 806,388,047</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HA HP**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.288%</b>	<b>\$ 237,373,828</b>	<b>\$ 177,553,675</b>	<b>\$ 59,820,153</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		6,096,340	0	6,096,340
b. Interest		17,575,858	0	17,575,858
c. Changes of Benefit Terms		137,716	0	137,716
d. Differences b/t Expected and Actual Experience		(5,516,781)	0	(5,516,781)
e. Changes of Assumptions		55,504	0	55,504
f. Contributions - Employer		0	10,577,579	(10,577,579)
g. Contributions - Employee		0	1,638,665	(1,638,665)
h. Net Investment Income		0	16,136,774	(16,136,774)
i. Benefit Payments		(15,599,526)	(15,599,526)	0
j. Payments to Other Retirement Systems		0	(28,342)	28,342
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(186,827)	186,827
m. Other Changes		0	10,711	(10,711)
<b>Net Changes</b>		<b>\$ 2,749,111</b>	<b>\$ 12,549,034</b>	<b>\$ (9,799,923)</b>
<b>3. SubTotal</b>		<b>\$ 240,122,939</b>	<b>\$ 190,102,709</b>	<b>\$ 50,020,230</b>
<b>4. Changes in Proportionate Share</b>		<b>20,605,368</b>	<b>15,413,801</b>	<b>5,191,567</b>
<b>5. Balances at June 30, 2018</b>	<b>0.313%</b>	<b>\$ 260,728,307</b>	<b>\$ 205,516,510</b>	<b>\$ 55,211,797</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HHC**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>14.788%</b>	<b>\$ 12,188,486,688</b>	<b>\$ 9,117,558,820</b>	<b>\$ 3,070,927,868</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		292,604,833	0	292,604,833
b. Interest		843,585,055	0	843,585,055
c. Changes of Benefit Terms		6,609,933	0	6,609,933
d. Differences b/t Expected and Actual Experience		(264,787,841)	0	(264,787,841)
e. Changes of Assumptions		2,664,001	0	2,664,001
f. Contributions - Employer		0	507,335,245	(507,335,245)
g. Contributions - Employee		0	78,650,663	(78,650,663)
h. Net Investment Income		0	774,513,619	(774,513,619)
i. Benefit Payments		(748,727,391)	(748,727,391)	0
j. Payments to Other Retirement Systems		0	(1,360,333)	1,360,333
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(8,967,078)	8,967,078
m. Other Changes		0	514,087	(514,087)
<b>Net Changes</b>		<b>\$ 131,948,590</b>	<b>\$ 601,958,812</b>	<b>\$ (470,010,222)</b>
<b>3. SubTotal</b>		<b>\$ 12,320,435,278</b>	<b>\$ 9,719,517,632</b>	<b>\$ 2,600,917,646</b>
<b>4. Changes in Proportionate Share</b>		<b>193,690,449</b>	<b>144,889,722</b>	<b>48,800,727</b>
<b>5. Balances at June 30, 2018</b>	<b>15.023%</b>	<b>\$ 12,514,125,727</b>	<b>\$ 9,864,407,354</b>	<b>\$ 2,649,718,373</b>



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**OTB**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.556%</b>	<b>\$ 458,263,362</b>	<b>\$ 342,817,471</b>	<b>\$ 115,445,891</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		10,595,555	0	10,595,555
b. Interest		30,547,179	0	30,547,179
c. Changes of Benefit Terms		239,353	0	239,353
d. Differences b/t Expected and Actual Experience		(9,588,270)	0	(9,588,270)
e. Changes of Assumptions		96,467	0	96,467
f. Contributions - Employer		0	18,369,307	(18,369,307)
g. Contributions - Employee		0	2,848,030	(2,848,030)
h. Net Investment Income		0	28,046,023	(28,046,023)
i. Benefit Payments		(27,112,275)	(27,112,275)	0
j. Payments to Other Retirement Systems		0	(49,259)	49,259
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(324,708)	324,708
m. Other Changes		0	18,616	(18,616)
<b>Net Changes</b>		<b>\$ 4,778,009</b>	<b>\$ 21,795,734</b>	<b>\$ (17,017,725)</b>
<b>3. SubTotal</b>		<b>\$ 463,041,371</b>	<b>\$ 364,613,205</b>	<b>\$ 98,428,166</b>
<b>4. Changes in Proportionate Share</b>		<b>(9,890,576)</b>	<b>(7,398,623)</b>	<b>(2,491,953)</b>
<b>5. Balances at June 30, 2018</b>	<b>0.544%</b>	<b>\$ 453,150,795</b>	<b>\$ 357,214,582</b>	<b>\$ 95,936,213</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**HDC/REMIC**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.053%</b>	<b>\$ 43,683,378</b>	<b>\$ 32,692,115</b>	<b>\$ 10,991,263</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		993,333	0	993,333
b. Interest		2,863,798	0	2,863,798
c. Changes of Benefit Terms		22,439	0	22,439
d. Differences b/t Expected and Actual Experience		(898,900)	0	(898,900)
e. Changes of Assumptions		9,044	0	9,044
f. Contributions - Employer		0	1,724,250	(1,724,250)
g. Contributions - Employee		0	267,003	(267,003)
h. Net Investment Income		0	2,629,315	(2,629,315)
i. Benefit Payments		(2,541,776)	(2,541,776)	0
j. Payments to Other Retirement Systems		0	(4,618)	4,618
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(30,441)	30,441
m. Other Changes		0	1,745	(1,745)
<b>Net Changes</b>		<b>\$ 447,938</b>	<b>\$ 2,045,478</b>	<b>\$ (1,597,540)</b>
<b>3. SubTotal</b>		<b>\$ 44,131,316</b>	<b>\$ 34,737,593</b>	<b>\$ 9,393,723</b>
<b>4. Changes in Proportionate Share</b>		<b>(1,648,429)</b>	<b>(1,233,103)</b>	<b>(415,326)</b>
<b>5. Balances at June 30, 2018</b>	<b>0.051%</b>	<b>\$ 42,482,887</b>	<b>\$ 33,504,490</b>	<b>\$ 8,978,397</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**State Courts**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.036%</b>	<b>\$ 29,671,728</b>	<b>\$ 22,206,317</b>	<b>\$ 7,465,411</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		798,562	0	798,562
b. Interest		2,302,269	0	2,302,269
c. Changes of Benefit Terms		18,039	0	18,039
d. Differences b/t Expected and Actual Experience		(722,645)	0	(722,645)
e. Changes of Assumptions		7,270	0	7,270
f. Contributions - Employer		0	1,379,089	(1,379,089)
g. Contributions - Employee		0	214,649	(214,649)
h. Net Investment Income		0	2,113,763	(2,113,763)
i. Benefit Payments		(2,043,388)	(2,043,388)	0
j. Payments to Other Retirement Systems		0	(3,713)	3,713
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(24,472)	24,472
m. Other Changes		0	1,403	(1,403)
<b>Net Changes</b>		<b>\$ 360,107</b>	<b>\$ 1,637,331</b>	<b>\$ (1,277,224)</b>
<b>3. SubTotal</b>		<b>\$ 30,031,835</b>	<b>\$ 23,843,648</b>	<b>\$ 6,188,187</b>
<b>4. Changes in Proportionate Share</b>		<b>4,121,074</b>	<b>3,082,761</b>	<b>1,038,313</b>
<b>5. Balances at June 30, 2018</b>	<b>0.041%</b>	<b>\$ 34,152,909</b>	<b>\$ 26,926,409</b>	<b>\$ 7,226,500</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**SCA**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>0.040%</b>	<b>\$ 32,968,587</b>	<b>\$ 24,652,174</b>	<b>\$ 8,316,413</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		973,856	0	973,856
b. Interest		2,807,645	0	2,807,645
c. Changes of Benefit Terms		21,999	0	21,999
d. Differences b/t Expected and Actual Experience		(881,275)	0	(881,275)
e. Changes of Assumptions		8,866	0	8,866
f. Contributions - Employer		0	1,682,329	(1,682,329)
g. Contributions - Employee		0	261,768	(261,768)
h. Net Investment Income		0	2,577,760	(2,577,760)
i. Benefit Payments		(2,491,937)	(2,491,937)	0
j. Payments to Other Retirement Systems		0	(4,528)	4,528
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(29,845)	29,845
m. Other Changes		0	1,711	(1,711)
<b>Net Changes</b>		<b>\$ 439,154</b>	<b>\$ 1,997,258</b>	<b>\$ (1,558,104)</b>
<b>3. SubTotal</b>		<b>\$ 33,407,741</b>	<b>\$ 26,649,432</b>	<b>\$ 6,758,309</b>
<b>4. Changes in Proportionate Share</b>		<b>8,242,148</b>	<b>6,165,522</b>	<b>2,076,626</b>
<b>5. Balances at June 30, 2018</b>	<b>0.050%</b>	<b>\$ 41,649,889</b>	<b>\$ 32,814,954</b>	<b>\$ 8,834,935</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

WFA

Balances at June 30, 2018

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>0.004%</b>	\$ 3,296,859	\$ 2,469,191	\$ 827,668
<b>2. Changes for the Year:</b>				
a. Service Cost		58,431	0	58,431
b. Interest		168,459	0	168,459
c. Changes of Benefit Terms		1,320	0	1,320
d. Differences b/t Expected and Actual Experience		(52,876)	0	(52,876)
e. Changes of Assumptions		532	0	532
f. Contributions - Employer		0	111,490	(111,490)
g. Contributions - Employee		0	15,706	(15,706)
h. Net Investment Income		0	154,666	(154,666)
i. Benefit Payments		(149,516)	(149,516)	0
j. Payments to Other Retirement Systems		0	(272)	272
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(1,791)	1,791
m. Other Changes		0	103	(103)
<b>Net Changes</b>		<b>\$ 26,350</b>	<b>\$ 130,386</b>	<b>\$ (104,036)</b>
<b>3. SubTotal</b>		<b>\$ 3,323,209</b>	<b>\$ 2,599,577</b>	<b>\$ 723,632</b>
<b>4. Changes in Proportionate Share</b>		<b>(824,216)</b>	<b>(616,553)</b>	<b>(207,663)</b>
<b>5. Balances at June 30, 2018</b>	<b>0.003%</b>	<b>\$ 2,498,993</b>	<b>\$ 1,983,024</b>	<b>\$ 515,969</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**Senior Colleges**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>1.167%</b>	<b>\$ 961,858,532</b>	<b>\$ 719,514,878</b>	<b>\$ 242,343,654</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		25,846,143	0	25,846,143
b. Interest		74,514,902	0	74,514,902
c. Changes of Benefit Terms		583,863	0	583,863
d. Differences b/t Expected and Actual Experience		(23,389,034)	0	(23,389,034)
e. Changes of Assumptions		235,314	0	235,314
f. Contributions - Employer		0	44,827,576	(44,827,576)
g. Contributions - Employee		0	6,947,309	(6,947,309)
h. Net Investment Income		0	68,413,737	(68,413,737)
i. Benefit Payments		(66,136,008)	(66,136,008)	0
j. Payments to Other Retirement Systems		0	(120,160)	120,160
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(792,073)	792,073
m. Other Changes		0	45,410	(45,410)
<b>Net Changes</b>		<b>\$ 11,655,180</b>	<b>\$ 53,185,791</b>	<b>\$ (41,530,611)</b>
<b>3. SubTotal</b>		<b>\$ 973,513,712</b>	<b>\$ 772,700,669</b>	<b>\$ 200,813,043</b>
<b>4. Changes in Proportionate Share</b>		<b>131,874,349</b>	<b>98,648,322</b>	<b>33,226,027</b>
<b>5. Balances at June 30, 2018</b>	<b>1.327%</b>	<b>\$ 1,105,388,061</b>	<b>\$ 871,348,991</b>	<b>\$ 234,039,070</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**TBTA**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>1.308%</b>	<b>\$ 1,078,072,801</b>	<b>\$ 806,463,318</b>	<b>\$ 271,609,483</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		22,496,078	0	22,496,078
b. Interest		64,856,602	0	64,856,602
c. Changes of Benefit Terms		508,186	0	508,186
d. Differences b/t Expected and Actual Experience		(20,357,449)	0	(20,357,449)
e. Changes of Assumptions		204,814	0	204,814
f. Contributions - Employer		0	38,998,208	(38,998,208)
g. Contributions - Employee		0	6,046,829	(6,046,829)
h. Net Investment Income		0	59,546,244	(59,546,244)
i. Benefit Payments		(57,563,745)	(57,563,745)	0
j. Payments to Other Retirement Systems		0	(104,585)	104,585
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(689,408)	689,408
m. Other Changes		0	39,524	(39,524)
<b>Net Changes</b>		<b>\$ 10,144,486</b>	<b>\$ 46,273,067</b>	<b>\$ (36,128,581)</b>
<b>3. SubTotal</b>		<b>\$ 1,088,217,287</b>	<b>\$ 852,736,385</b>	<b>\$ 235,480,902</b>
<b>4. Changes in Proportionate Share</b>		<b>(126,104,845)</b>	<b>(94,332,457)</b>	<b>(31,772,388)</b>
<b>5. Balances at June 30, 2018</b>	<b>1.155%</b>	<b>\$ 962,112,442</b>	<b>\$ 758,403,928</b>	<b>\$ 203,708,514</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source**

**City Total**

**Balances at June 30, 2018**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2017</b>	<b>53.591%</b>	<b>\$ 44,170,488,914</b>	<b>\$ 33,041,594,554</b>	<b>\$ 11,128,894,360</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		1,044,811,361	0	1,044,811,361
b. Interest		3,012,210,152	0	3,012,210,152
c. Changes of Benefit Terms		23,602,251	0	23,602,251
d. Differences b/t Expected and Actual Experience		(945,484,534)	0	(945,484,534)
e. Changes of Assumptions		9,512,415	0	9,512,415
f. Contributions - Employer		0	1,811,505,567	(1,811,505,567)
g. Contributions - Employee		0	280,839,881	(280,839,881)
h. Net Investment Income		0	2,765,575,057	(2,765,575,057)
i. Benefit Payments		(2,673,499,529)	(2,673,499,529)	0
j. Payments to Other Retirement Systems		0	(4,857,372)	4,857,372
k. Transfers to Variable Supplements Funds		0	0	0
l. Administrative Expenses		0	(32,018,971)	32,018,971
m. Other Changes		0	1,835,663	(1,835,663)
<b>Net Changes</b>		<b>\$ 471,152,116</b>	<b>\$ 2,149,380,296</b>	<b>\$ (1,678,228,180)</b>
<b>3. SubTotal</b>		<b>\$ 44,641,641,030</b>	<b>\$ 35,190,974,850</b>	<b>\$ 9,450,666,180</b>
<b>4. Changes in Proportionate Share</b>		<b>42,859,159</b>	<b>32,060,698</b>	<b>10,798,461</b>
<b>5. Balances at June 30, 2018</b>	<b>53.643%</b>	<b>\$ 44,684,500,189</b>	<b>\$ 35,223,035,548</b>	<b>\$ 9,461,464,641</b>



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source - By Obligor

**Total Pension Liability**

	TRANSIT OPERATING	TA NON- OPERATING	TA TP	TA CP Employees	HA Regular	HA HP	HHC	OTB	HDC/REMIC	State Courts	SCA	WFA	Senior Collectors	TBTA	City Total	TOTAL
Balances at June 30, 2017	\$ 15,036,148,407	\$ 3,099,047,197	\$ 573,653,417	\$ 647,006,524	\$ 3,861,445,776	\$ 237,373,828	\$ 12,188,486,688	\$ 458,263,362	\$ 43,683,378	\$ 29,671,728	\$ 32,968,587	\$ 3,296,859	\$ 961,858,532	\$ 1,078,072,801	\$ 44,170,488,914	\$ 82,421,467,998
<b>Changes for the Year:</b>																
Service Cost	334,305,355	88,640,391	14,627,320	15,815,425	89,049,411	6,096,340	292,404,833	10,595,555	993,333	798,562	973,856	58,431	25,846,143	22,496,078	1,044,811,361	1,947,712,394
Interest	963,808,419	255,551,860	42,170,830	45,596,157	256,731,070	17,575,858	843,585,055	30,547,179	2,863,798	2,302,269	2,807,645	168,459	74,514,902	64,856,602	3,012,210,152	5,615,290,255
Changes of Benefit Terms	7,551,946	2,002,383	330,431	357,270	2,011,623	137,716	6,609,933	239,353	22,439	18,039	21,999	1,320	583,863	508,186	23,602,251	43,998,752
Differences b1 Expected and Actual Experience	(302,524,030)	(80,213,637)	(13,236,748)	(14,311,904)	(80,583,772)	(5,516,781)	(264,787,841)	(9,588,270)	(898,900)	(722,645)	(881,275)	(52,876)	(23,389,034)	(20,357,449)	(945,484,534)	(1,762,549,696)
Changes of Assumptions	3,043,660	807,020	133,173	143,990	810,744	55,504	2,664,001	96,467	9,044	7,270	8,866	532	235,314	204,814	9,512,415	17,732,814
Benefit Payments	(855,432,133)	(226,816,106)	(37,428,894)	(40,469,057)	(227,862,719)	(15,599,526)	(748,727,391)	(27,112,275)	(2,541,776)	(2,043,388)	(2,491,937)	(149,516)	(66,136,008)	(57,563,745)	(2,673,499,529)	(4,983,874,000)
<b>Net Changes</b>	\$ 159,753,217	\$ 39,971,911	\$ 6,596,112	\$ 7,131,881	\$ 40,156,357	\$ 2,749,111	\$ 131,948,590	\$ 4,778,009	\$ 447,938	\$ 360,107	\$ 439,154	\$ 26,350	\$ 11,655,180	\$ 10,144,486	\$ 471,152,116	\$ 878,310,519
<b>SubTotal</b>	\$ 15,186,901,624	\$ 3,139,019,108	\$ 580,249,529	\$ 654,140,405	\$ 3,901,602,133	\$ 240,122,939	\$ 12,320,435,278	\$ 463,041,371	\$ 44,131,316	\$ 30,031,835	\$ 33,407,741	\$ 3,323,209	\$ 973,513,712	\$ 1,088,217,287	\$ 44,641,641,030	\$ 83,299,778,517
<b>Changes in Proportionate Share</b>	(889,327,639)	651,953,812	45,331,808	22,253,797	(93,136,259)	20,605,368	193,690,449	(9,890,576)	(1,648,429)	4,121,074	8,242,148	(824,216)	131,874,349	(126,104,845)	42,859,159	0
Balances at June 30, 2018	\$ 14,297,573,985	\$ 3,790,972,920	\$ 625,581,337	\$ 676,394,202	\$ 3,808,465,874	\$ 260,728,307	\$ 12,514,125,727	\$ 453,150,795	\$ 42,482,887	\$ 34,152,909	\$ 41,649,889	\$ 2,498,993	\$ 1,105,388,661	\$ 962,112,442	\$ 44,684,500,189	\$ 83,299,778,517

**Plan Fiduciary Net Position<sup>1</sup>**

	TRANSIT OPERATING	TA NON- OPERATING	TA TP	TA CP Employees	HA Regular	HA HP	HHC	OTB	HDC/REMIC	State Courts	SCA	WFA	Senior Collectors	TBTA	City Total	TOTAL
Balances at June 30, 2017	\$ 11,247,772,049	\$ 2,318,238,857	\$ 429,134,245	\$ 483,992,113	\$ 2,888,542,223	\$ 177,553,675	\$ 9,117,558,820	\$ 342,817,471	\$ 32,692,115	\$ 22,206,317	\$ 24,652,174	\$ 2,469,191	\$ 719,514,878	\$ 806,463,318	\$ 33,041,594,554	\$ 61,655,201,000
<b>Changes for the Year:</b>																
Contributions - Employer	579,615,712	153,689,581	25,366,149	27,432,045	154,409,873	10,577,579	507,335,245	18,369,307	1,724,250	1,379,089	1,682,329	111,490	44,827,576	38,998,208	1,811,505,567	3,377,024,000
Contributions - Employee	89,859,547	23,826,078	3,931,748	4,251,104	23,936,603	1,638,665	78,650,663	2,607,003	2,848,300	6,947,309	2,807,645	15,706	6,947,309	6,046,829	280,839,881	523,535,000
Net Investment Income	884,893,281	234,627,670	38,717,948	41,862,814	235,710,329	16,136,774	774,513,619	28,046,023	2,629,315	2,113,763	2,577,760	154,666	68,413,737	59,546,244	2,765,575,057	5,155,519,000
Benefit Payments	(855,432,133)	(226,816,106)	(37,428,894)	(40,469,057)	(227,862,719)	(15,599,526)	(748,727,391)	(27,112,275)	(2,541,776)	(2,491,937)	(149,516)	(66,136,008)	(57,563,745)	(2,673,499,529)	(4,983,874,000)	
Payments to Other Retirement Systems	(1,554,200)	(412,093)	(68,003)	(73,527)	(413,995)	(28,342)	(1,360,333)	(49,259)	(4,618)	(3,713)	(4,528)	(272)	(120,160)	(104,585)	(4,857,372)	(9,055,000)
Transfers to Variable Supplements Funds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Expenses	(10,245,020)	(2,716,446)	(448,264)	(484,675)	(2,728,981)	(186,827)	(8,967,078)	(324,708)	(30,441)	(24,472)	(29,845)	(1,791)	792,073	689,408	32,018,971	59,689,000
Other Changes	587,352	155,735	25,699	27,787	156,454	10,711	(514,087)	18,616	1,745	1,403	1,711	103	45,410	39,524	1,835,663	3,422,000
<b>Net Changes</b>	\$ 687,724,539	\$ 182,354,419	\$ 30,096,383	\$ 32,546,491	\$ 183,206,971	\$ 12,549,034	\$ 601,958,812	\$ 21,795,734	\$ 2,045,478	\$ 1,637,331	\$ 1,997,258	\$ 130,386	\$ 53,185,791	\$ 46,273,607	\$ 2,149,380,296	\$ 4,066,882,000
<b>SubTotal</b>	\$ 11,935,496,588	\$ 2,500,593,276	\$ 459,230,628	\$ 516,538,604	\$ 3,071,748,204	\$ 190,102,709	\$ 9,719,517,632	\$ 364,613,205	\$ 34,737,593	\$ 23,843,648	\$ 26,649,432	\$ 2,599,577	\$ 772,700,669	\$ 852,736,285	\$ 35,190,974,850	\$ 65,662,083,000
<b>Changes in Proportionate Share</b>	(665,259,619)	487,692,640	33,910,361	16,646,905	(69,670,377)	15,413,801	144,889,722	(7,398,623)	(1,233,103)	3,082,761	6,165,522	(616,553)	98,648,322	(94,332,457)	32,060,698	0
Balances at June 30, 2018	\$ 11,270,236,969	\$ 2,988,285,916	\$ 493,140,989	\$ 533,185,509	\$ 3,002,077,827	\$ 205,516,510	\$ 9,864,407,354	\$ 357,214,582	\$ 33,504,490	\$ 26,926,409	\$ 32,814,954	\$ 1,983,024	\$ 871,348,991	\$ 758,403,928	\$ 35,223,035,548	\$ 65,662,083,000

**Net Pension Liability**

	TRANSIT OPERATING	TA NON- OPERATING	TA TP	TA CP Employees	HA Regular	HA HP	HHC	OTB	HDC/REMIC	State Courts	SCA	WFA	Senior Collectors	TBTA	City Total	TOTAL
Balances at June 30, 2017	\$ 3,788,376,358	\$ 780,808,340	\$ 144,519,172	\$ 163,016,411	\$ 972,904,553	\$ 59,820,153	\$ 3,070,927,868	\$ 115,445,891	\$ 10,991,263	\$ 7,465,411	\$ 8,316,413	\$ 827,668	\$ 242,343,654	\$ 271,609,483	\$ 11,128,894,360	\$ 20,766,266,998
<b>Changes for the Year:</b>																
Service Cost	334,305,355	88,640,391	14,627,320	15,815,425	89,049,411	6,096,340	292,404,833	10,595,555	993,333	798,562	973,856	58,431	25,846,143	22,496,078	1,044,811,361	1,947,712,394
Interest	963,808,419	255,551,860	42,170,830	45,596,157	256,731,070	17,575,858	843,585,055	30,547,179	2,863,798	2,302,269	2,807,645	168,459	74,514,902	64,856,602	3,012,210,152	5,615,290,255
Changes of Benefit Terms	7,551,946	2,002,383	330,431	357,270	2,011,623	137,716	6,609,933	239,353	22,439	18,039	21,999	1,320	583,863	508,186	23,602,251	43,998,752
Differences b1 Expected and Actual experience	(302,524,030)	(80,213,637)	(13,236,748)	(14,311,904)	(80,583,772)	(5,516,781)	(264,787,841)	(9,588,270)	(898,900)	(722,645)	(881,275)	(52,876)	(23,389,034)	(20,357,449)	(945,484,534)	(1,762,549,696)
Changes of Assumptions	3,043,660	807,020	133,173	143,990	810,744	55,504	2,664,001	96,467	9,044	7,270	8,866	532	235,314	204,814	9,512,415	17,732,814
Contributions - Employer	(579,615,712)	(153,689,581)	(25,366,149)	(27,432,045)	(154,409,873)	(10,577,579)	(507,335,245)	(18,369,307)	(1,724,250)	(1,379,089)	(1,682,329)	(111,490)	(44,827,576)	(38,998,208)	(1,811,505,567)	(3,377,024,000)
Contributions - Employee	(89,859,547)	(23,826,078)	(3,931,748)	(4,251,104)	(23,936,603)	(1,638,665)	(78,650,663)	(2,607,003)	(2,848,300)	(6,947,309)	(2,807,645)	(15,706)	(6,947,309)	(6,046,829)	(280,839,881)	(523,535,000)
Net Investment Income	884,893,281	234,627,670	38,717,948	41,862,814	235,710,329	16,136,774	774,513,619	28,046,023	2,629,315	2,113,763	2,577,760	154,666	68,413,737	59,546,244	2,765,575,057	5,155,519,000
Benefit Payments	(855,432,133)	(226,816,106)	(37,428,894)	(40,469,057)	(227,862,719)	(15,599,526)	(748,727,391)	(27,112,275)	(2,541,776)	(2,491,937)	(149,516)	(66,136,008)	(57,563,745)	(2,673,499,529)	(4,983,874,000)	
Payments to Other Retirement Systems	(1,554,200)	(412,093)	(68,003)	(73,527)	(413,995)	(28,342)	(1,360,333)	(49,259)	(4,618)	(3,713)	(4,528)	(272)	(120,160)	(104,585)	(4,857,372)	(9,055,000)
Transfers to Variable Supplements Funds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administrative Expenses	(10,245,020)	(2,716,446)	(448,264)	(484,675)	(2,728,981)	(186,827)	(8,967,078)	(324,708)	(30,441)	(24,472)	(29,845)	(1,791)	792,073	689,408	32,018,971	59,689,000
Other Changes	(587,352)	(155,735)	(25,699)	(27,787)	(156,454)	(10,711)	(514,087)	18,616	1,745	(1,403)	(1,711)	(103)	(45,410)	(39,524)	(1,835,663)	(3,422,000)
<b>Net Changes</b>	\$ (536,971,322)	\$ (142,382,508)	\$ (23,500,271)	\$ (25,414,610)	\$ (143,050,624)	\$ (9,799,923)	\$ (470,010,222)	\$ (17,017,725)	\$ (1,597,540)	\$ (1,277,224)	\$ (1,558,104)	\$ (104,036)	\$ (41,530,611)	\$ (36,128,581)	\$ (1,678,228,180)	\$ (3,128,571,481)
<b>SubTotal</b>	\$ 3,251,405,036	\$ 638,425,832	\$ 121,018,901	\$ 137,601,801	\$ 829,853,929	\$ 50,200,230	\$ 2,600,917,646	\$ 98,428,166	\$ 9,393,723	\$ 6,188,187	\$ 6,758,309	\$ 723,632	\$ 200,813,043	\$ 235,480,902	\$ 9,450,666,180	\$ 17,637,695,517
<b>Changes in Proportionate Share</b>	(224,068,020)	164,261,172	11,421,447	5,606,892	(23,465,882)	5,191,567	48,800,727	(2,491,953)	(415,326)	1,038,313	2,076,626	(207,663)	33,226,027	(31,772,388)	10,798,461	0
Balances at June 30, 2018	\$ 3,027,337,016	\$ 802,687,004	\$ 132,440,348	\$ 143,208,693	\$ 806,388,047	\$ 55,211,797	\$ 2,649,718,373	\$ 95,936,213	\$ 8,978,397	\$ 7,226,500	\$ 8,834,935	\$ 515,969	\$ 234,039,970	\$ 203,708,514	\$ 9,461,464,641	\$ 17,637,695,517

<sup>1</sup>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Changes in Net Pension Liability and Related Ratios**

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
<b>1. Total Pension Liability</b>						
a. Service Cost	\$ 1,947,712,394	\$ 1,920,457,666	\$ 1,899,994,413	\$ 1,832,487,270	\$ 1,807,063,169	\$ 1,754,430,261
b. Interest	5,615,290,255	5,546,608,362	5,372,603,831	5,071,014,309	4,910,458,886	4,728,226,227
c. Changes of Benefit Terms	43,998,752	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	(1,762,549,696)	(238,253,928)	(817,971,278)	(288,598,641)	0	0
e. Changes of Assumptions	17,732,814	0	2,563,091,847	0	0	0
f. Benefit Payments	(4,983,874,000)	(4,646,479,000)	(4,494,146,000)	(4,324,135,000)	(4,002,681,000)	(3,863,595,000)
<b>g. Net Changes in Total Pension Liability</b>	<b>\$ 878,310,519</b>	<b>\$ 2,582,333,100</b>	<b>\$ 4,523,572,813</b>	<b>\$ 2,290,767,938</b>	<b>\$ 2,714,841,055</b>	<b>\$ 2,619,061,488</b>
<b>2. Total Pension Liability - Beginning</b>	<b>\$ 82,421,467,998</b>	<b>\$ 79,839,134,898</b>	<b>\$ 75,315,562,085</b>	<b>\$ 73,024,794,147</b>	<b>\$ 70,309,953,092</b>	<b>\$ 67,690,891,604</b>
<b>3. Total Pension Liability - Ending</b>	<b>\$ 83,299,778,517</b>	<b>\$ 82,421,467,998</b>	<b>\$ 79,839,134,898</b>	<b>\$ 75,315,562,085</b>	<b>\$ 73,024,794,147</b>	<b>\$ 70,309,953,092</b>
<b>4. Plan Fiduciary Net Position</b>						
a. Contributions - Employer	\$ 3,377,024,000	\$ 3,328,193,000	\$ 3,365,454,000	\$ 3,160,258,000	\$ 3,114,068,000	\$ 3,046,845,000
b. Contributions - Employee	523,535,000	513,514,000	485,508,000	467,129,000	447,689,000	437,775,000
c. Net Investment Income	5,155,519,000	6,982,152,000	1,171,904,000	1,175,109,000	8,262,487,000	4,967,056,000
d. Benefit Payments	(4,983,874,000)	(4,646,479,000)	(4,494,146,000)	(4,324,135,000)	(4,002,681,000)	(3,863,595,000)
e. Payments to Other Retirement Systems	(9,055,000)	(8,087,000)	(7,440,000)	(7,142,000)	(7,228,000)	(5,250,000)
f. Transfers to Variable Supplements Fund	0	0	0	0	0	0
g. Administrative Expenses	(59,689,000)	(59,671,000)	(56,683,000)	(54,635,000)	(50,431,000)	(48,666,000)
h. Other Changes	3,422,000	3,266,000	2,928,000	(347,323,000)	4,881,000	5,072,000
<b>i. Net Changes in Fiduciary Net Position</b>	<b>\$ 4,006,882,000</b>	<b>\$ 6,112,888,000</b>	<b>\$ 467,525,000</b>	<b>\$ 69,261,000</b>	<b>\$ 7,768,785,000</b>	<b>\$ 4,539,237,000</b>
<b>5. Plan Fiduciary Net Position - Beginning</b>	<b>\$ 61,655,201,000</b>	<b>\$ 55,542,313,000</b>	<b>\$ 55,074,788,000</b>	<b>\$ 55,005,527,000</b>	<b>\$ 47,236,742,000</b>	<b>\$ 42,697,505,000</b>
<b>6. Plan Fiduciary Net Position - Ending</b>	<b>\$ 65,662,083,000</b>	<b>\$ 61,655,201,000</b>	<b>\$ 55,542,313,000</b>	<b>\$ 55,074,788,000</b>	<b>\$ 55,005,527,000</b>	<b>\$ 47,236,742,000</b>
<b>7. NYCERS' Net Pension Liability</b>	<b>\$ 17,637,695,517</b>	<b>\$ 20,766,266,998</b>	<b>\$ 24,296,821,898</b>	<b>\$ 20,240,774,085</b>	<b>\$ 18,019,267,147</b>	<b>\$ 23,073,211,092</b>
<b>8. Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>78.8%</b>	<b>74.8%</b>	<b>69.6%</b>	<b>73.1%</b>	<b>75.3%</b>	<b>67.2%</b>
<b>9. Covered Employee Payroll<sup>1</sup></b>	<b>\$ 12,834,129,514</b>	<b>\$ 12,555,241,827</b>	<b>\$ 12,336,979,280</b>	<b>\$ 12,314,958,283</b>	<b>\$ 12,183,010,903</b>	<b>\$ 11,955,093,092</b>
<b>10. NYCERS' Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>137.4%</b>	<b>165.4%</b>	<b>196.9%</b>	<b>164.4%</b>	<b>147.9%</b>	<b>193.0%</b>

<sup>1</sup> Projected Employee Payroll at Time 1.0 under One-Year Lag Methodology.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Contributions (\$ in thousands)**

<b>Fiscal Year Ended June 30</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Actuarially Determined Contribution	\$ 3,377,024	\$ 3,328,193	\$ 3,365,454	\$ 3,160,258	\$ 3,114,068	\$ 3,046,845	\$ 3,017,004	\$ 2,387,216	\$ 2,197,717	\$ 2,150,438
Contributions in relation to the Actuarially Determined Contribution	<u>\$ 3,377,024</u>	<u>\$ 3,328,193</u>	<u>\$ 3,365,454</u>	<u>\$ 3,160,258</u>	<u>\$ 3,114,068</u>	<u>\$ 3,046,845</u>	<u>\$ 3,017,004</u>	<u>\$ 2,387,216</u>	<u>\$ 2,197,717</u>	<u>\$ 2,150,438</u>
Contribution Deficiency (Excess)	0	0	0	0	0	0	0	0	0	0
Contributions as a percentage of Covered employee payroll <sup>1</sup>	26.313%	26.508%	27.279%	25.662%	25.561%	25.486%	25.540%	20.820%	20.020%	20.570%

<sup>1</sup> The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 increased to reflect overtime earnings and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Average Expected Remaining Service Lives**

<u>Group</u>	<u># Count</u>	Average Expected Remaining Service Life <u>@ 6/30/2017</u>
Active	185,481	11.66
Active/Inactive	17,989	0
Terminated Vested	8,895	0
Retired	<u>147,514</u>	<u>0</u>
Total	<b>359,879</b>	<b>6.01</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Expected and Actual Experience**

<b>Year</b>	<b>Differences between Expected and Actual Experience</b>	<b>Recognition Period (Years)</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
2015	\$ (288,598,641)	3.37	(85,637,579)	(85,637,579)	(85,637,579)	(31,685,904)						
2016	\$ (817,971,278)	3.33		(245,637,020)	(245,637,020)	(245,637,020)	(81,060,218)					
2017	\$ (238,253,928)	5.60			(42,545,344)	(42,545,344)	(42,545,344)	(42,545,344)	(42,545,344)	(25,527,208)		
2018	\$ (1,762,549,696)	6.01				(293,269,500)	(293,269,500)	(293,269,500)	(293,269,500)	(293,269,500)	(293,269,500)	(2,932,696)
Net increase (decrease) in Pension Expense			\$ (85,637,579)	\$ (331,274,599)	\$ (373,819,943)	\$ (613,137,768)	\$ (416,875,062)	\$ (335,814,844)	\$ (335,814,844)	\$ (318,796,708)	\$ (293,269,500)	\$ (2,932,696)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

**Increase (Decrease) in Pension Expense Arising from the Recognition of  
Changes in Assumptions**

<b>Year</b>	<b>Changes in Assumptions</b>	<b>Recognition Period (Years)</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
2016	\$ 2,563,091,847	3.33	769,697,251	769,697,251	769,697,251	254,000,094					
2017	0	0.00		0	0	0					
2018	17,732,814	6.01			2,950,551	2,950,551	2,950,551	2,950,551	2,950,551	2,950,551	29,508
Net increase (decrease) in Pension Expense			\$ 769,697,251	\$ 769,697,251	\$ 772,647,802	\$ 256,950,645	\$ 2,950,551	\$ 2,950,551	\$ 2,950,551	\$ 2,950,551	\$ 29,508

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Projected and Actual Earnings on Pension Plan Investments**

<b>Year</b>	<b>Differences between Projected and Actual Earnings on Pension Plan Investments</b>	<b>Recognition Period (Years)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
2013	\$ (1,992,951,901)	5	(398,590,379)	(398,590,379)	(398,590,379)	(398,590,379)	(398,590,385)					
2014	\$ (4,972,903,346)	5		(994,580,670)	(994,580,670)	(994,580,670)	(994,580,670)	(994,580,666)				
2015	\$ 2,624,717,092	5			524,943,419	524,943,419	524,943,419	524,943,419	524,943,416			
2016	\$ 2,659,093,478	5				531,818,694	531,818,694	531,818,694	531,818,694	531,818,702		
2017	\$ (3,124,101,464)	5					(624,820,294)	(624,820,294)	(624,820,294)	(624,820,294)	(624,820,288)	
2018	(879,179,528)	5						(175,835,906)	(175,835,906)	(175,835,906)	(175,835,906)	(175,835,904)
Net increase (decrease) in Pension Expense			<b>\$ (398,590,379)</b>	<b>\$ (1,393,171,049)</b>	<b>\$ (868,227,630)</b>	<b>\$ (336,408,936)</b>	<b>\$ (961,229,236)</b>	<b>\$ (738,474,753)</b>	<b>\$ 256,105,910</b>	<b>\$ (268,837,498)</b>	<b>\$ (800,656,194)</b>	<b>\$ (175,835,904)</b>

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2015

Transit Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 19.501%	Proportionate Share at 6/30/2015 18.840%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(1,009,000,036)	(974,799,275)	34,200,761	3.37	10,148,594	10,148,594	10,148,594	3,754,979
Net Pension Liability	(18,019,267,147)	(3,513,937,286)	(3,394,829,930)	119,107,356	3.37	35,343,429	35,343,429	35,343,429	13,077,069
<b>Total</b>	(23,193,360,966)	(4,522,937,322)	(4,369,629,205)	153,308,117		45,492,023	45,492,023	45,492,023	16,832,048
TA Non-Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 2.497%	Proportionate Share at 6/30/2015 2.812%	Change in Proportionate Share	2015		2016	2017	2018	
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(129,197,123)	(145,495,518)	(16,298,395)	3.37	(4,836,319)	(4,836,319)	(4,836,319)	(1,789,438)
Net Pension Liability	(18,019,267,147)	(449,941,101)	(506,701,792)	(56,760,691)	3.37	(16,842,935)	(16,842,935)	(16,842,935)	(6,231,886)
<b>Total</b>	(23,193,360,966)	(579,138,224)	(652,197,310)	(73,059,086)		(21,679,254)	(21,679,254)	(21,679,254)	(8,021,324)
TA TP	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.645%	Proportionate Share at 6/30/2015 0.660%	Change in Proportionate Share	2015		2016	2017	2018	
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(33,372,905)	(34,149,019)	(776,114)	3.37	(230,301)	(230,301)	(230,301)	(85,211)
Net Pension Liability	(18,019,267,147)	(116,224,273)	(118,927,163)	(2,702,890)	3.37	(802,045)	(802,045)	(802,045)	(296,755)
<b>Total</b>	(23,193,360,966)	(149,597,178)	(153,076,182)	(3,479,004)		(1,032,346)	(1,032,346)	(1,032,346)	(381,966)
TA CP Engineers	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.770%	Proportionate Share at 6/30/2015 0.728%	Change in Proportionate Share	2015		2016	2017	2018	
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(39,840,522)	(37,667,403)	2,173,119	3.37	644,842	644,842	644,842	238,593
Net Pension Liability	(18,019,267,147)	(138,748,357)	(131,180,265)	7,568,092	3.37	2,245,725	2,245,725	2,245,725	830,917
<b>Total</b>	(23,193,360,966)	(178,588,879)	(168,847,668)	9,741,211		2,890,567	2,890,567	2,890,567	1,069,510



## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2015

HA Regular	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 4.714%	Proportionate Share at 6/30/2015 4.770%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(243,906,783)	(246,804,275)	(2,897,492)	3.37	(859,790)	(859,790)	(859,790)	(318,122)
Net Pension Liability	(18,019,267,147)	(849,428,253)	(859,519,043)	(10,090,790)	3.37	(2,994,300)	(2,994,300)	(2,994,300)	(1,107,890)
<b>Total</b>	(23,193,360,966)	(1,093,335,036)	(1,106,323,318)	(12,988,282)		(3,854,090)	(3,854,090)	(3,854,090)	(1,426,012)
HA HP	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.307%	Proportionate Share at 6/30/2015 0.302%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(15,884,468)	(15,625,763)	258,705	3.37	76,767	76,767	76,767	28,404
Net Pension Liability	(18,019,267,147)	(55,319,150)	(54,418,187)	900,963	3.37	267,348	267,348	267,348	98,919
<b>Total</b>	(23,193,360,966)	(71,203,618)	(70,043,950)	1,159,668		344,115	344,115	344,115	127,323
HHC	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 13.991%	Proportionate Share at 6/30/2015 14.030%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(723,907,466)	(725,925,363)	(2,017,897)	3.37	(598,782)	(598,782)	(598,782)	(221,551)
Net Pension Liability	(18,019,267,147)	(2,521,075,667)	(2,528,103,181)	(7,027,514)	3.37	(2,085,316)	(2,085,316)	(2,085,316)	(771,566)
<b>Total</b>	(23,193,360,966)	(3,244,983,133)	(3,254,028,544)	(9,045,411)		(2,684,098)	(2,684,098)	(2,684,098)	(993,117)
OTB	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.344%	Proportionate Share at 6/30/2015 0.362%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(17,798,883)	(18,730,220)	(931,337)	3.37	(276,361)	(276,361)	(276,361)	(102,254)
Net Pension Liability	(18,019,267,147)	(61,986,279)	(65,229,747)	(3,243,468)	3.37	(962,453)	(962,453)	(962,453)	(356,109)
<b>Total</b>	(23,193,360,966)	(79,785,162)	(83,959,967)	(4,174,805)		(1,238,814)	(1,238,814)	(1,238,814)	(458,363)

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2015

HDC/REMIC	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.054%	Proportionate Share at 6/30/2015 0.053%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(2,794,011)	(2,742,270)	51,741	3.37	15,353	15,353	15,353	5,682
Net Pension Liability	(18,019,267,147)	(9,730,404)	(9,550,212)	180,192	3.37	53,469	53,469	53,469	19,785
<b>Total</b>	<b>(23,193,360,966)</b>	<b>(12,524,415)</b>	<b>(12,292,482)</b>	<b>231,933</b>		<b>68,822</b>	<b>68,822</b>	<b>68,822</b>	<b>25,467</b>
State Courts	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.034%	Proportionate Share at 6/30/2015 0.032%	Change in Proportionate Share	Recognition Period (Years)	2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(1,759,192)	(1,655,710)	103,482	3.37	30,707	30,707	30,707	11,361
Net Pension Liability	(18,019,267,147)	(6,126,551)	(5,766,165)	360,386	3.37	106,939	106,939	106,939	39,569
<b>Total</b>	<b>(23,193,360,966)</b>	<b>(7,885,743)</b>	<b>(7,421,875)</b>	<b>463,868</b>		<b>137,646</b>	<b>137,646</b>	<b>137,646</b>	<b>50,930</b>
SCA	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.048%	Proportionate Share at 6/30/2015 0.042%	Change in Proportionate Share	Recognition Period (Years)	2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(2,483,565)	(2,173,119)	310,446	3.37	92,120	92,120	92,120	34,086
Net Pension Liability	(18,019,267,147)	(8,649,248)	(7,568,092)	1,081,156	3.37	320,818	320,818	320,818	118,702
<b>Total</b>	<b>(23,193,360,966)</b>	<b>(11,132,813)</b>	<b>(9,741,211)</b>	<b>1,391,602</b>		<b>412,938</b>	<b>412,938</b>	<b>412,938</b>	<b>152,788</b>
WFA	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.005%	Proportionate Share at 6/30/2015 0.005%	Change in Proportionate Share	Recognition Period (Years)	2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(258,705)	(258,705)	0	3.37	0	0	0	0
Net Pension Liability	(18,019,267,147)	(900,963)	(900,963)	0	3.37	0	0	0	0
<b>Total</b>	<b>(23,193,360,966)</b>	<b>(1,159,668)</b>	<b>(1,159,668)</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2015

Senior College	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 1.151%	Proportionate Share at 6/30/2015 1.221%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(59,553,820)	(63,175,686)	(3,621,866)	3.37	(1,074,738)	(1,074,738)	(1,074,738)	(397,652)
Net Pension Liability	(18,019,267,147)	(207,401,765)	(220,015,252)	(12,613,487)	3.37	(3,742,874)	(3,742,874)	(3,742,874)	(1,384,865)
<b>Total</b>	(23,193,360,966)	(266,955,585)	(283,190,938)	(16,235,353)		(4,817,612)	(4,817,612)	(4,817,612)	(1,782,517)
TBTA	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 1.090%	Proportionate Share at 6/30/2015 1.205%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(56,397,623)	(62,347,831)	(5,950,208)	3.37	(1,765,640)	(1,765,640)	(1,765,640)	(653,288)
Net Pension Liability	(18,019,267,147)	(196,410,012)	(217,132,169)	(20,722,157)	3.37	(6,149,008)	(6,149,008)	(6,149,008)	(2,275,133)
<b>Total</b>	(23,193,360,966)	(252,807,635)	(279,480,000)	(26,672,365)		(7,914,648)	(7,914,648)	(7,914,648)	(2,928,421)
City	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 54.849%	Proportionate Share at 6/30/2015 54.938%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.37	0	0	0	0
Deferred Inflows of Resources	(5,174,093,819)	(2,837,938,718)	(2,842,543,663)	(4,604,945)	3.37	(1,366,452)	(1,366,452)	(1,366,452)	(505,589)
Net Pension Liability	(18,019,267,147)	(9,883,387,837)	(9,899,424,985)	(16,037,148)	3.37	(4,758,797)	(4,758,797)	(4,758,797)	(1,760,757)
<b>Total</b>	(23,193,360,966)	(12,721,326,555)	(12,741,968,648)	(20,642,093)		(6,125,249)	(6,125,249)	(6,125,249)	(2,266,346)

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2016

Transit Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 18.840%	Proportionate Share at 6/30/2016 18.312%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	395,597,360	384,510,555	(11,086,805)	3.33	(3,329,371)	(3,329,371)	(3,329,371)	(1,098,692)
Deferred Inflows of Resources	(3,983,883,832)	(750,563,714)	(729,528,807)	21,034,907	3.33	6,316,789	6,316,789	6,316,789	2,084,540
Net Pension Liability	(20,240,774,085)	(3,813,361,838)	(3,706,490,550)	106,871,288	3.33	32,093,480	32,093,480	32,093,480	10,590,848
<b>Total</b>	(22,124,884,244)	(4,168,328,192)	(4,051,508,802)	116,819,390		35,080,898	35,080,898	35,080,898	11,576,696
TA Non-Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 2.812%	Proportionate Share at 6/30/2016 3.179%	Change in Proportionate Share	2016		2017	2018	2019	
Deferred Outflows of Resources	2,099,773,673	59,045,636	66,751,805	7,706,169	3.33	2,314,165	2,314,165	2,314,165	763,674
Deferred Inflows of Resources	(3,983,883,832)	(112,026,813)	(126,647,667)	(14,620,854)	3.33	(4,390,647)	(4,390,647)	(4,390,647)	(1,448,913)
Net Pension Liability	(20,240,774,085)	(569,170,567)	(643,454,208)	(74,283,641)	3.33	(22,307,400)	(22,307,400)	(22,307,400)	(7,361,441)
<b>Total</b>	(22,124,884,244)	(622,151,744)	(703,350,070)	(81,198,326)		(24,383,882)	(24,383,882)	(24,383,882)	(8,046,680)
TA TP	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.660%	Proportionate Share at 6/30/2016 0.672%	Change in Proportionate Share	2016		2017	2018	2019	
Deferred Outflows of Resources	2,099,773,673	13,858,506	14,110,479	251,973	3.33	75,668	75,668	75,668	24,969
Deferred Inflows of Resources	(3,983,883,832)	(26,293,633)	(26,771,699)	(478,066)	3.33	(143,563)	(143,563)	(143,563)	(47,377)
Net Pension Liability	(20,240,774,085)	(133,589,109)	(136,018,002)	(2,428,893)	3.33	(729,397)	(729,397)	(729,397)	(240,702)
<b>Total</b>	(22,124,884,244)	(146,024,236)	(148,679,222)	(2,654,986)		(797,292)	(797,292)	(797,292)	(263,110)
TA CP Engineers	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.728%	Proportionate Share at 6/30/2016 0.736%	Change in Proportionate Share	2016		2017	2018	2019	
Deferred Outflows of Resources	2,099,773,673	15,286,352	15,454,334	167,982	3.33	50,445	50,445	50,445	16,647
Deferred Inflows of Resources	(3,983,883,832)	(29,002,674)	(29,321,385)	(318,711)	3.33	(95,709)	(95,709)	(95,709)	(31,584)
Net Pension Liability	(20,240,774,085)	(147,352,835)	(148,972,097)	(1,619,262)	3.33	(486,265)	(486,265)	(486,265)	(160,467)
<b>Total</b>	(22,124,884,244)	(161,069,157)	(162,839,148)	(1,769,991)		(531,529)	(531,529)	(531,529)	(175,404)

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2016

HA Regular	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 4.770%	Proportionate Share at 6/30/2016 4.703%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	100,159,204	98,752,356	(1,406,848)	3.33	(422,477)	(422,477)	(422,477)	(139,417)
Deferred Inflows of Resources	(3,983,883,832)	(190,031,259)	(187,362,057)	2,669,202	3.33	801,562	801,562	801,562	264,516
Net Pension Liability	(20,240,774,085)	(965,484,924)	(951,923,605)	13,561,319	3.33	4,072,468	4,072,468	4,072,468	1,343,915
<b>Total</b>	(22,124,884,244)	(1,055,356,979)	(1,040,533,306)	14,823,673		4,451,553	4,451,553	4,451,553	1,469,014
HA HP	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.302%	Proportionate Share at 6/30/2016 0.294%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	6,341,316	6,173,335	(167,981)	3.33	(50,445)	(50,445)	(50,445)	(16,646)
Deferred Inflows of Resources	(3,983,883,832)	(12,031,329)	(11,712,618)	318,711	3.33	95,709	95,709	95,709	31,584
Net Pension Liability	(20,240,774,085)	(61,127,138)	(59,507,876)	1,619,262	3.33	486,265	486,265	486,265	160,467
<b>Total</b>	(22,124,884,244)	(66,817,151)	(65,047,159)	1,769,992		531,529	531,529	531,529	175,405
HHC	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 14.030%	Proportionate Share at 6/30/2016 14.789%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	294,598,246	310,535,528	15,937,282	3.33	4,785,971	4,785,971	4,785,971	1,579,369
Deferred Inflows of Resources	(3,983,883,832)	(558,938,902)	(589,176,580)	(30,237,678)	3.33	(9,080,384)	(9,080,384)	(9,080,384)	(2,996,526)
Net Pension Liability	(20,240,774,085)	(2,839,780,604)	(2,993,408,079)	(153,627,475)	3.33	(46,134,377)	(46,134,377)	(46,134,377)	(15,224,344)
<b>Total</b>	(22,124,884,244)	(3,104,121,260)	(3,272,049,131)	(167,927,871)		(50,428,790)	(50,428,790)	(50,428,790)	(16,641,501)
OTB	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.362%	Proportionate Share at 6/30/2016 0.613%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	7,601,181	12,871,613	5,270,432	3.33	1,582,712	1,582,712	1,582,712	522,296
Deferred Inflows of Resources	(3,983,883,832)	(14,421,659)	(24,421,208)	(9,999,549)	3.33	(3,002,868)	(3,002,868)	(3,002,868)	(990,945)
Net Pension Liability	(20,240,774,085)	(73,271,602)	(124,075,945)	(50,804,343)	3.33	(15,256,559)	(15,256,559)	(15,256,559)	(5,034,666)
<b>Total</b>	(22,124,884,244)	(80,092,080)	(135,625,540)	(55,533,460)		(16,676,715)	(16,676,715)	(16,676,715)	(5,503,315)

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2016

HDC/REMIC	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.053%	Proportionate Share at 6/30/2016 0.053%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	1,112,880	1,112,880	0	3.33	0	0	0	0
Deferred Inflows of Resources	(3,983,883,832)	(2,111,458)	(2,111,458)	0	3.33	0	0	0	0
Net Pension Liability	(20,240,774,085)	(10,727,610)	(10,727,610)	0	3.33	0	0	0	0
<b>Total</b>	<b>(22,124,884,244)</b>	<b>(11,726,188)</b>	<b>(11,726,188)</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
State Courts	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.032%	Proportionate Share at 6/30/2016 0.031%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	671,928	650,930	(20,998)	3.33	(6,306)	(6,306)	(6,306)	(2,080)
Deferred Inflows of Resources	(3,983,883,832)	(1,274,843)	(1,235,004)	39,839	3.33	11,964	11,964	11,964	3,947
Net Pension Liability	(20,240,774,085)	(6,477,048)	(6,274,640)	202,408	3.33	60,783	60,783	60,783	20,059
<b>Total</b>	<b>(22,124,884,244)</b>	<b>(7,079,963)</b>	<b>(6,858,714)</b>	<b>221,249</b>		<b>66,441</b>	<b>66,441</b>	<b>66,441</b>	<b>21,926</b>
SCA	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.042%	Proportionate Share at 6/30/2016 0.055%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	881,905	1,154,876	272,971	3.33	81,973	81,973	81,973	27,052
Deferred Inflows of Resources	(3,983,883,832)	(1,673,231)	(2,191,136)	(517,905)	3.33	(155,527)	(155,527)	(155,527)	(51,324)
Net Pension Liability	(20,240,774,085)	(8,501,125)	(11,132,426)	(2,631,301)	3.33	(790,180)	(790,180)	(790,180)	(260,761)
<b>Total</b>	<b>(22,124,884,244)</b>	<b>(9,292,451)</b>	<b>(12,168,686)</b>	<b>(2,876,235)</b>		<b>(863,734)</b>	<b>(863,734)</b>	<b>(863,734)</b>	<b>(285,033)</b>
WFA	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.005%	Proportionate Share at 6/30/2016 0.005%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	104,989	104,989	0	3.33	0	0	0	0
Deferred Inflows of Resources	(3,983,883,832)	(199,194)	(199,194)	0	3.33	0	0	0	0
Net Pension Liability	(20,240,774,085)	(1,012,039)	(1,012,039)	0	3.33	0	0	0	0
<b>Total</b>	<b>(22,124,884,244)</b>	<b>(1,106,244)</b>	<b>(1,106,244)</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2016

Senior College	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 1.221%	Proportionate Share at 6/30/2016 1.247%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	25,638,237	26,184,178	545,941	3.33	163,946	163,946	163,946	54,103
Deferred Inflows of Resources	(3,983,883,832)	(48,643,222)	(49,679,031)	(1,035,809)	3.33	(311,054)	(311,054)	(311,054)	(102,647)
Net Pension Liability	(20,240,774,085)	(247,139,852)	(252,402,453)	(5,262,601)	3.33	(1,580,361)	(1,580,361)	(1,580,361)	(521,518)
<b>Total</b>	(22,124,884,244)	(270,144,837)	(275,897,306)	(5,752,469)		(1,727,469)	(1,727,469)	(1,727,469)	(570,062)
TBTA	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 1.205%	Proportionate Share at 6/30/2016 1.266%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	25,302,273	26,583,135	1,280,862	3.33	384,643	384,643	384,643	126,933
Deferred Inflows of Resources	(3,983,883,832)	(48,005,800)	(50,435,969)	(2,430,169)	3.33	(729,780)	(729,780)	(729,780)	(240,829)
Net Pension Liability	(20,240,774,085)	(243,901,328)	(256,248,200)	(12,346,872)	3.33	(3,707,769)	(3,707,769)	(3,707,769)	(1,223,565)
<b>Total</b>	(22,124,884,244)	(266,604,855)	(280,101,034)	(13,496,179)		(4,052,906)	(4,052,906)	(4,052,906)	(1,337,461)
City	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 54.938%	Proportionate Share at 6/30/2016 54.045%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	2,099,773,673	1,153,573,660	1,134,822,680	(18,750,980)	3.33	(5,630,924)	(5,630,924)	(5,630,924)	(1,858,208)
Deferred Inflows of Resources	(3,983,883,832)	(2,188,666,100)	(2,153,090,018)	35,576,082	3.33	10,683,508	10,683,508	10,683,508	3,525,558
Net Pension Liability	(20,240,774,085)	(11,119,876,467)	(10,939,126,356)	180,750,111	3.33	54,279,312	54,279,312	54,279,312	17,912,175
<b>Total</b>	(22,124,884,244)	(12,154,968,907)	(11,957,393,694)	197,575,213		59,331,896	59,331,896	59,331,896	19,579,525

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2017**

Transit Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 18.312%	Proportionate Share at 6/30/2017 18.243%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	1,006,335,893	1,002,543,998	(3,791,895)	5.60	(677,124)	(677,124)	(677,124)	(677,124)	(677,124)	(406,275)
Deferred Inflows of Resources	(3,077,409,462)	(563,535,221)	(561,411,808)	2,123,413	5.60	379,181	379,181	379,181	379,181	379,181	227,508
Net Pension Liability	(24,296,821,898)	(4,449,234,026)	(4,432,469,219)	16,764,807	5.60	2,993,716	2,993,716	2,993,716	2,993,716	2,993,716	1,796,227
<b>Total</b>	(21,878,731,726)	(4,006,433,354)	(3,991,337,029)	15,096,325		2,695,773	2,695,773	2,695,773	2,695,773	2,695,773	1,617,460
TA Non-Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 3.179%	Proportionate Share at 6/30/2017 3.760%	Change in Proportionate Share	2017		2018	2019	2020	2021	2022	
Deferred Outflows of Resources	5,495,499,634	174,701,933	206,630,786	31,928,853	5.60	5,701,581	5,701,581	5,701,581	5,701,581	5,701,581	3,420,948
Deferred Inflows of Resources	(3,077,409,462)	(97,830,847)	(115,710,596)	(17,879,749)	5.60	(3,192,812)	(3,192,812)	(3,192,812)	(3,192,812)	(3,192,812)	(1,915,689)
Net Pension Liability	(24,296,821,898)	(772,395,968)	(913,560,503)	(141,164,535)	5.60	(25,207,953)	(25,207,953)	(25,207,953)	(25,207,953)	(25,207,953)	(15,124,770)
<b>Total</b>	(21,878,731,726)	(695,524,882)	(822,640,313)	(127,115,431)		(22,699,184)	(22,699,184)	(22,699,184)	(22,699,184)	(22,699,184)	(13,619,511)
TA TP	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.672%	Proportionate Share at 6/30/2017 0.696%	Change in Proportionate Share	2017		2018	2019	2020	2021	2022	
Deferred Outflows of Resources	5,495,499,634	36,929,758	38,248,677	1,318,919	5.60	235,521	235,521	235,521	235,521	235,521	141,314
Deferred Inflows of Resources	(3,077,409,462)	(20,680,192)	(21,418,770)	(738,578)	5.60	(131,889)	(131,889)	(131,889)	(131,889)	(131,889)	(79,133)
Net Pension Liability	(24,296,821,898)	(163,274,643)	(169,105,880)	(5,831,237)	5.60	(1,041,292)	(1,041,292)	(1,041,292)	(1,041,292)	(1,041,292)	(624,777)
<b>Total</b>	(21,878,731,726)	(147,025,077)	(152,275,973)	(5,250,896)		(937,660)	(937,660)	(937,660)	(937,660)	(937,660)	(562,596)
TA CP Engineers	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.736%	Proportionate Share at 6/30/2017 0.785%	Change in Proportionate Share	2017		2018	2019	2020	2021	2022	
Deferred Outflows of Resources	5,495,499,634	40,446,877	43,139,672	2,692,795	5.60	480,856	480,856	480,856	480,856	480,856	288,515
Deferred Inflows of Resources	(3,077,409,462)	(22,649,734)	(24,157,664)	(1,507,930)	5.60	(269,273)	(269,273)	(269,273)	(269,273)	(269,273)	(161,565)
Net Pension Liability	(24,296,821,898)	(178,824,609)	(190,730,052)	(11,905,443)	5.60	(2,125,972)	(2,125,972)	(2,125,972)	(2,125,972)	(2,125,972)	(1,275,583)
<b>Total</b>	(21,878,731,726)	(161,027,466)	(171,748,044)	(10,720,578)		(1,914,389)	(1,914,389)	(1,914,389)	(1,914,389)	(1,914,389)	(1,148,633)



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2017**

HA Regular	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 4.703%	Proportionate Share at 6/30/2017 4.685%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	258,453,348	257,464,158	(989,190)	5.60	(176,641)	(176,641)	(176,641)	(176,641)	(176,641)	(105,985)
Deferred Inflows of Resources	(3,077,409,462)	(144,730,567)	(144,176,633)	553,934	5.60	98,917	98,917	98,917	98,917	98,917	59,349
Net Pension Liability	(24,296,821,898)	(1,142,679,534)	(1,138,306,106)	4,373,428	5.60	780,969	780,969	780,969	780,969	780,969	468,583
<b>Total</b>	(21,878,731,726)	(1,028,956,753)	(1,025,018,581)	3,938,172		703,245	703,245	703,245	703,245	703,245	421,947
<b>HA HP</b>	(1)	(2)	(3)	(3) - (2)		<b>Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30</b>					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.294%	Proportionate Share at 6/30/2017 0.288%	Change in Proportionate Share	Recognition Period (Years)	2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	16,156,769	15,827,039	(329,730)	5.60	(58,880)	(58,880)	(58,880)	(58,880)	(58,880)	(35,330)
Deferred Inflows of Resources	(3,077,409,462)	(9,047,584)	(8,862,939)	184,645	5.60	32,972	32,972	32,972	32,972	32,972	19,785
Net Pension Liability	(24,296,821,898)	(71,432,656)	(69,974,847)	1,457,809	5.60	260,323	260,323	260,323	260,323	260,323	156,194
<b>Total</b>	(21,878,731,726)	(64,323,471)	(63,010,747)	1,312,724		234,415	234,415	234,415	234,415	234,415	140,649
<b>HHC</b>	(1)	(2)	(3)	(3) - (2)		<b>Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30</b>					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 14.789%	Proportionate Share at 6/30/2017 14.788%	Change in Proportionate Share	Recognition Period (Years)	2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	812,729,441	812,674,486	(54,955)	5.60	(9,813)	(9,813)	(9,813)	(9,813)	(9,813)	(5,890)
Deferred Inflows of Resources	(3,077,409,462)	(455,118,085)	(455,087,311)	30,774	5.60	5,495	5,495	5,495	5,495	5,495	3,299
Net Pension Liability	(24,296,821,898)	(3,593,256,990)	(3,593,014,022)	242,968	5.60	43,387	43,387	43,387	43,387	43,387	26,033
<b>Total</b>	(21,878,731,726)	(3,235,645,634)	(3,235,426,847)	218,787		39,069	39,069	39,069	39,069	39,069	23,442
<b>OTB</b>	(1)	(2)	(3)	(3) - (2)		<b>Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30</b>					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.613%	Proportionate Share at 6/30/2017 0.556%	Change in Proportionate Share	Recognition Period (Years)	2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	33,687,413	30,554,978	(3,132,435)	5.60	(559,363)	(559,363)	(559,363)	(559,363)	(559,363)	(335,620)
Deferred Inflows of Resources	(3,077,409,462)	(18,864,520)	(17,110,397)	1,754,123	5.60	313,236	313,236	313,236	313,236	313,236	187,943
Net Pension Liability	(24,296,821,898)	(148,939,518)	(135,090,330)	13,849,188	5.60	2,473,069	2,473,069	2,473,069	2,473,069	2,473,069	1,483,843
<b>Total</b>	(21,878,731,726)	(134,116,625)	(121,645,749)	12,470,876		2,226,942	2,226,942	2,226,942	2,226,942	2,226,942	1,336,166

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2017**

HDC/REMIC	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.053%	Proportionate Share at 6/30/2017 0.053%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	2,912,615	2,912,615	0	5.60	0	0	0	0	0	0
Deferred Inflows of Resources	(3,077,409,462)	(1,631,027)	(1,631,027)	0	5.60	0	0	0	0	0	0
Net Pension Liability	(24,296,821,898)	(12,877,316)	(12,877,316)	0	5.60	0	0	0	0	0	0
<b>Total</b>	<b>(21,878,731,726)</b>	<b>(11,595,728)</b>	<b>(11,595,728)</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
State Courts	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.031%	Proportionate Share at 6/30/2017 0.036%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	1,703,605	1,978,380	274,775	5.60	49,067	49,067	49,067	49,067	49,067	29,440
Deferred Inflows of Resources	(3,077,409,462)	(953,997)	(1,107,867)	(153,870)	5.60	(27,477)	(27,477)	(27,477)	(27,477)	(27,477)	(16,485)
Net Pension Liability	(24,296,821,898)	(7,532,015)	(8,746,856)	(1,214,841)	5.60	(216,936)	(216,936)	(216,936)	(216,936)	(216,936)	(130,161)
<b>Total</b>	<b>(21,878,731,726)</b>	<b>(6,782,407)</b>	<b>(7,876,343)</b>	<b>(1,093,936)</b>		<b>(195,346)</b>	<b>(195,346)</b>	<b>(195,346)</b>	<b>(195,346)</b>	<b>(195,346)</b>	<b>(117,206)</b>
SCA	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.055%	Proportionate Share at 6/30/2017 0.040%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	3,022,525	2,198,200	(824,325)	5.60	(147,201)	(147,201)	(147,201)	(147,201)	(147,201)	(88,320)
Deferred Inflows of Resources	(3,077,409,462)	(1,692,575)	(1,230,964)	461,611	5.60	82,431	82,431	82,431	82,431	82,431	49,456
Net Pension Liability	(24,296,821,898)	(13,363,252)	(9,718,729)	3,644,523	5.60	650,808	650,808	650,808	650,808	650,808	390,483
<b>Total</b>	<b>(21,878,731,726)</b>	<b>(12,033,302)</b>	<b>(8,751,493)</b>	<b>3,281,809</b>		<b>586,038</b>	<b>586,038</b>	<b>586,038</b>	<b>586,038</b>	<b>586,038</b>	<b>351,619</b>
WFA	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.005%	Proportionate Share at 6/30/2017 0.004%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
Deferred Outflows of Resources	5,495,499,634	274,775	219,820	(54,955)	5.60	(9,813)	(9,813)	(9,813)	(9,813)	(9,813)	(5,890)
Deferred Inflows of Resources	(3,077,409,462)	(153,870)	(123,096)	30,774	5.60	5,495	5,495	5,495	5,495	5,495	3,299
Net Pension Liability	(24,296,821,898)	(1,214,841)	(971,873)	242,968	5.60	43,387	43,387	43,387	43,387	43,387	26,033
<b>Total</b>	<b>(21,878,731,726)</b>	<b>(1,093,936)</b>	<b>(875,149)</b>	<b>218,787</b>		<b>39,069</b>	<b>39,069</b>	<b>39,069</b>	<b>39,069</b>	<b>39,069</b>	<b>23,442</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2017**

Senior College	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 1.247%	Proportionate Share at 6/30/2017 1.167%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
<b>Deferred Outflows of Resources</b>	5,495,499,634	68,528,880	64,132,481	(4,396,399)	5.60	(785,071)	(785,071)	(785,071)	(785,071)	(785,071)	(471,044)
<b>Deferred Inflows of Resources</b>	(3,077,409,462)	(38,375,296)	(35,913,368)	2,461,928	5.60	439,630	439,630	439,630	439,630	439,630	263,778
<b>Net Pension Liability</b>	(24,296,821,898)	(302,981,369)	(283,543,912)	19,437,457	5.60	3,470,974	3,470,974	3,470,974	3,470,974	3,470,974	2,082,587
<b>Total</b>	(21,878,731,726)	(272,827,785)	(255,324,799)	17,502,986		3,125,533	3,125,533	3,125,533	3,125,533	3,125,533	1,875,321
<b>TBTA</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 1.266%	Proportionate Share at 6/30/2017 1.308%	Change in Proportionate Share	Recognition Period (Years)	2017	2018	2019	2020	2021	2022
<b>Deferred Outflows of Resources</b>	5,495,499,634	69,573,025	71,881,135	2,308,110	5.60	412,163	412,163	412,163	412,163	412,163	247,295
<b>Deferred Inflows of Resources</b>	(3,077,409,462)	(38,960,004)	(40,252,516)	(1,292,512)	5.60	(230,806)	(230,806)	(230,806)	(230,806)	(230,806)	(138,482)
<b>Net Pension Liability</b>	(24,296,821,898)	(307,597,765)	(317,802,430)	(10,204,665)	5.60	(1,822,262)	(1,822,262)	(1,822,262)	(1,822,262)	(1,822,262)	(1,093,355)
<b>Total</b>	(21,878,731,726)	(276,984,744)	(286,173,811)	(9,189,067)		(1,640,905)	(1,640,905)	(1,640,905)	(1,640,905)	(1,640,905)	(984,542)
<b>City</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 54.045%	Proportionate Share at 6/30/2017 53.591%	Change in Proportionate Share	Recognition Period (Years)	2017	2018	2019	2020	2021	2022
<b>Deferred Outflows of Resources</b>	5,495,499,634	2,970,042,777	2,945,093,209	(24,949,568)	5.60	(4,455,282)	(4,455,282)	(4,455,282)	(4,455,282)	(4,455,282)	(2,673,158)
<b>Deferred Inflows of Resources</b>	(3,077,409,462)	(1,663,185,944)	(1,649,214,505)	13,971,437	5.60	2,494,900	2,494,900	2,494,900	2,494,900	2,494,900	1,496,937
<b>Net Pension Liability</b>	(24,296,821,898)	(13,131,217,395)	(13,020,909,823)	110,307,573	5.60	19,697,782	19,697,782	19,697,782	19,697,782	19,697,782	11,818,663
<b>Total</b>	(21,878,731,726)	(11,824,360,562)	(11,725,031,119)	99,329,442		17,737,400	17,737,400	17,737,400	17,737,400	17,737,400	10,642,442

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2018**

Transit Operating	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 18.243%	Proportionate Share at 6/30/2018 17.164%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	186,753,107	175,707,412	(11,045,695)	6.01	(1,837,886)	(1,837,886)	(1,837,886)	(1,837,886)	(1,837,886)	(1,837,886)	(18,379)
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(255,878,259)	(240,744,090)	15,134,169	6.01	2,518,165	2,518,165	2,518,165	2,518,165	2,518,165	2,518,165	25,179
<b>Net Pension Liability</b>	(20,766,266,998)	(3,788,390,088)	(3,564,322,068)	224,068,020	6.01	37,282,532	37,282,532	37,282,532	37,282,532	37,282,532	37,282,532	372,828
<b>Total</b>	(21,145,180,290)	(3,857,515,240)	(3,629,358,746)	228,156,494		37,962,811	37,962,811	37,962,811	37,962,811	37,962,811	37,962,811	379,628
<b>TA Non-Operating</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 3.760%	Proportionate Share at 6/30/2018 4.551%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	38,491,020	46,588,466	8,097,446	6.01	1,347,329	1,347,329	1,347,329	1,347,329	1,347,329	1,347,329	13,472
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(52,738,160)	(63,832,810)	(11,094,650)	6.01	(1,846,032)	(1,846,032)	(1,846,032)	(1,846,032)	(1,846,032)	(1,846,032)	(18,458)
<b>Net Pension Liability</b>	(20,766,266,998)	(780,811,639)	(945,072,811)	(164,261,172)	6.01	(27,331,310)	(27,331,310)	(27,331,310)	(27,331,310)	(27,331,310)	(27,331,310)	(273,312)
<b>Total</b>	(21,145,180,290)	(795,058,779)	(962,317,155)	(167,258,376)		(27,830,013)	(27,830,013)	(27,830,013)	(27,830,013)	(27,830,013)	(27,830,013)	(278,298)
<b>TA TP</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.696%	Proportionate Share at 6/30/2018 0.751%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	7,124,934	7,687,967	563,033	6.01	93,683	93,683	93,683	93,683	93,683	93,683	935
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(9,762,170)	(10,533,606)	(771,436)	6.01	(128,359)	(128,359)	(128,359)	(128,359)	(128,359)	(128,359)	(1,282)
<b>Net Pension Liability</b>	(20,766,266,998)	(144,533,218)	(155,954,665)	(11,421,447)	6.01	(1,900,407)	(1,900,407)	(1,900,407)	(1,900,407)	(1,900,407)	(1,900,407)	(19,005)
<b>Total</b>	(21,145,180,290)	(147,170,454)	(158,800,304)	(11,629,850)		(1,935,083)	(1,935,083)	(1,935,083)	(1,935,083)	(1,935,083)	(1,935,083)	(19,352)
<b>TA CP Engineers</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.785%	Proportionate Share at 6/30/2018 0.812%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	8,036,024	8,312,422	276,398	6.01	45,990	45,990	45,990	45,990	45,990	45,990	458
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(11,010,494)	(11,389,198)	(378,704)	6.01	(63,012)	(63,012)	(63,012)	(63,012)	(63,012)	(63,012)	(632)
<b>Net Pension Liability</b>	(20,766,266,998)	(163,015,196)	(168,622,088)	(5,606,892)	6.01	(932,927)	(932,927)	(932,927)	(932,927)	(932,927)	(932,927)	(9,330)
<b>Total</b>	(21,145,180,290)	(165,989,666)	(171,698,864)	(5,709,198)		(949,949)	(949,949)	(949,949)	(949,949)	(949,949)	(949,949)	(9,504)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2018**

HA Regular	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 4.685%	Proportionate Share at 6/30/2018 4.572%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	47,960,221	46,803,443	(1,156,778)	6.01	(192,476)	(192,476)	(192,476)	(192,476)	(192,476)	(192,476)	(1,922)
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(65,712,308)	(64,127,358)	1,584,950	6.01	263,719	263,719	263,719	263,719	263,719	263,719	2,636
<b>Net Pension Liability</b>	(20,766,266,998)	(972,899,609)	(949,433,727)	23,465,882	6.01	3,904,473	3,904,473	3,904,473	3,904,473	3,904,473	3,904,473	39,044
<b>Total</b>	(21,145,180,290)	(990,651,696)	(966,757,642)	23,894,054		3,975,716	3,975,716	3,975,716	3,975,716	3,975,716	3,975,716	39,758
<b>HA HP</b>	(1)	(2)	(3)	(3) - (2)								
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.288%	Proportionate Share at 6/30/2018 0.313%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	2,948,248	3,204,173	255,925	6.01	42,583	42,583	42,583	42,583	42,583	42,583	427
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(4,039,519)	(4,390,171)	(350,652)	6.01	(58,345)	(58,345)	(58,345)	(58,345)	(58,345)	(58,345)	(582)
<b>Net Pension Liability</b>	(20,766,266,998)	(59,806,849)	(64,998,416)	(5,191,567)	6.01	(863,821)	(863,821)	(863,821)	(863,821)	(863,821)	(863,821)	(8,641)
<b>Total</b>	(21,145,180,290)	(60,898,120)	(66,184,414)	(5,286,294)		(879,583)	(879,583)	(879,583)	(879,583)	(879,583)	(879,583)	(8,796)
<b>HHC</b>	(1)	(2)	(3)	(3) - (2)								
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 14.788%	Proportionate Share at 6/30/2018 15.023%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	151,384,363	153,790,052	2,405,689	6.01	400,281	400,281	400,281	400,281	400,281	400,281	4,003
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(207,418,061)	(210,714,196)	(3,296,135)	6.01	(548,442)	(548,442)	(548,442)	(548,442)	(548,442)	(548,442)	(5,483)
<b>Net Pension Liability</b>	(20,766,266,998)	(3,070,915,564)	(3,119,716,291)	(48,800,727)	6.01	(8,119,921)	(8,119,921)	(8,119,921)	(8,119,921)	(8,119,921)	(8,119,921)	(81,201)
<b>Total</b>	(21,145,180,290)	(3,126,949,262)	(3,176,640,435)	(49,691,173)		(8,268,082)	(8,268,082)	(8,268,082)	(8,268,082)	(8,268,082)	(8,268,082)	(82,681)
<b>OTB</b>	(1)	(2)	(3)	(3) - (2)								
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.556%	Proportionate Share at 6/30/2018 0.544%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	5,691,757	5,568,914	(122,843)	6.01	(20,440)	(20,440)	(20,440)	(20,440)	(20,440)	(20,440)	(203)
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(7,798,515)	(7,630,202)	168,313	6.01	28,005	28,005	28,005	28,005	28,005	28,005	283
<b>Net Pension Liability</b>	(20,766,266,998)	(115,460,445)	(112,968,492)	2,491,953	6.01	414,634	414,634	414,634	414,634	414,634	414,634	4,149
<b>Total</b>	(21,145,180,290)	(117,567,203)	(115,029,780)	2,537,423		422,199	422,199	422,199	422,199	422,199	422,199	4,229

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Changes in Proportionate Share at 6/30/2018

HDC/REMIC	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.053%	Proportionate Share at 6/30/2018 0.051%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	542,560	522,086	(20,474)	6.01	(3,407)	(3,407)	(3,407)	(3,407)	(3,407)	(3,407)	(32)
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(743,384)	(715,331)	28,053	6.01	4,668	4,668	4,668	4,668	4,668	4,668	45
<b>Net Pension Liability</b>	(20,766,266,998)	(11,006,122)	(10,590,796)	415,326	6.01	69,106	69,106	69,106	69,106	69,106	69,106	690
<b>Total</b>	(21,145,180,290)	(11,206,946)	(10,784,041)	422,905		70,367	70,367	70,367	70,367	70,367	70,367	703
<b>State Courts</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.036%	Proportionate Share at 6/30/2018 0.041%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	368,531	419,716	51,185	6.01	8,517	8,517	8,517	8,517	8,517	8,517	83
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(504,940)	(575,070)	(70,130)	6.01	(11,669)	(11,669)	(11,669)	(11,669)	(11,669)	(11,669)	(116)
<b>Net Pension Liability</b>	(20,766,266,998)	(7,475,856)	(8,514,169)	(1,038,313)	6.01	(172,764)	(172,764)	(172,764)	(172,764)	(172,764)	(172,764)	(1,729)
<b>Total</b>	(21,145,180,290)	(7,612,265)	(8,669,523)	(1,057,258)		(175,916)	(175,916)	(175,916)	(175,916)	(175,916)	(175,916)	(1,762)
<b>SCA</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.040%	Proportionate Share at 6/30/2018 0.050%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	409,479	511,849	102,370	6.01	17,033	17,033	17,033	17,033	17,033	17,033	172
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(561,044)	(701,305)	(140,261)	6.01	(23,338)	(23,338)	(23,338)	(23,338)	(23,338)	(23,338)	(233)
<b>Net Pension Liability</b>	(20,766,266,998)	(8,306,507)	(10,383,133)	(2,076,626)	6.01	(345,528)	(345,528)	(345,528)	(345,528)	(345,528)	(345,528)	(3,458)
<b>Total</b>	(21,145,180,290)	(8,458,072)	(10,572,589)	(2,114,517)		(351,833)	(351,833)	(351,833)	(351,833)	(351,833)	(351,833)	(3,519)
<b>WFA</b>	(1)	(2)	(3)	(3) - (2)		Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.004%	Proportionate Share at 6/30/2018 0.003%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	40,948	30,711	(10,237)	6.01	(1,703)	(1,703)	(1,703)	(1,703)	(1,703)	(1,703)	(19)
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(56,104)	(42,078)	14,026	6.01	2,334	2,334	2,334	2,334	2,334	2,334	22
<b>Net Pension Liability</b>	(20,766,266,998)	(830,651)	(622,988)	207,663	6.01	34,553	34,553	34,553	34,553	34,553	34,553	345
<b>Total</b>	(21,145,180,290)	(845,807)	(634,355)	211,452		35,184	35,184	35,184	35,184	35,184	35,184	348

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2018**

Senior College	(1)	(2)	(3)	(3) - (2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30						
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 1.167%	Proportionate Share at 6/30/2018 1.327%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	11,946,548	13,584,464	1,637,916	6.01	272,532	272,532	272,532	272,532	272,532	272,532	2,724
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(16,368,466)	(18,612,643)	(2,244,177)	6.01	(373,407)	(373,407)	(373,407)	(373,407)	(373,407)	(373,407)	(3,735)
<b>Net Pension Liability</b>	(20,766,266,998)	(242,342,336)	(275,568,363)	(33,226,027)	6.01	(5,528,457)	(5,528,457)	(5,528,457)	(5,528,457)	(5,528,457)	(5,528,457)	(55,285)
<b>Total</b>	(21,145,180,290)	(246,764,254)	(280,596,542)	(33,832,288)		(5,629,332)	(5,629,332)	(5,629,332)	(5,629,332)	(5,629,332)	(5,629,332)	(56,296)
<b>TBTA</b>	(1)	(2)	(3)	(3) - (2)								
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 1.308%	Proportionate Share at 6/30/2018 1.155%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	13,389,961	11,823,704	(1,566,257)	6.01	(260,608)	(260,608)	(260,608)	(260,608)	(260,608)	(260,608)	(2,609)
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(18,346,147)	(16,200,153)	2,145,994	6.01	357,071	357,071	357,071	357,071	357,071	357,071	3,568
<b>Net Pension Liability</b>	(20,766,266,998)	(271,622,772)	(239,850,384)	31,772,388	6.01	5,286,587	5,286,587	5,286,587	5,286,587	5,286,587	5,286,587	52,866
<b>Total</b>	(21,145,180,290)	(276,578,958)	(244,226,833)	32,352,125		5,383,050	5,383,050	5,383,050	5,383,050	5,383,050	5,383,050	53,825
<b>City</b>	(1)	(2)	(3)	(3) - (2)								
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 53.591%	Proportionate Share at 6/30/2018 53.643%	Change in Proportionate Share	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	1,023,697,345	548,609,644	549,141,966	532,322	6.01	88,572	88,572	88,572	88,572	88,572	88,572	890
<b>Deferred Inflows of Resources</b>	(1,402,610,637)	(751,673,066)	(752,402,426)	(729,360)	6.01	(121,358)	(121,358)	(121,358)	(121,358)	(121,358)	(121,358)	(1,212)
<b>Net Pension Liability</b>	(20,766,266,998)	(11,128,850,147)	(11,139,648,608)	(10,798,461)	6.01	(1,796,750)	(1,796,750)	(1,796,750)	(1,796,750)	(1,796,750)	(1,796,750)	(17,961)
<b>Total</b>	(21,145,180,290)	(11,331,913,569)	(11,342,909,068)	(10,995,499)		(1,829,536)	(1,829,536)	(1,829,536)	(1,829,536)	(1,829,536)	(1,829,536)	(18,283)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017**

<b><u>Component</u></b>	<b><u>Amount</u></b>
a. Service Cost	\$ 1,920,457,666
b. Interest on the Total Pension Liability	5,546,608,362
c. Differences between Expected and Actual Experience	(373,819,943)
d. Changes of Assumptions	769,697,251
e. Employee Contributions	(513,514,000)
f. Projected Earnings on Pension Plan Investments	(3,858,050,536)
g. Differences between Projected and Actual Earnings on Plan Investments	(961,229,236)
h. Pension Plan Administrative Expenses	59,671,000
i. Other Changes in Fiduciary Net Position*	4,821,000
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 2,594,641,564</b>

\* Includes Payments to Other Retirement Systems.



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Transit Operating

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 350,349,092
b. Interest on the Total Pension Liability	1,011,867,763
c. Differences between Expected and Actual Experience	(68,195,972)
d. Changes of Assumptions	140,415,869
e. Employee Contributions	(93,680,359)
f. Projected Earnings on Pension Plan Investments	(703,824,159)
g. Differences between Projected and Actual Earnings on Plan Investments	(175,357,050)
h. Pension Plan Administrative Expenses	10,885,781
i. Other Changes in Fiduciary Net Position	879,495
	<hr/>
SubTotal	\$ 473,340,460
	<hr/>
j. Changes in Proportionate Share	(83,268,694)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 390,071,766</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Transit Non-Operating

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 72,209,208
b. Interest on the Total Pension Liability	208,552,474
c. Differences between Expected and Actual Experience	(14,055,630)
d. Changes of Assumptions	28,940,617
e. Employee Contributions	(19,308,126)
f. Projected Earnings on Pension Plan Investments	(145,062,700)
g. Differences between Projected and Actual Earnings on Plan Investments	(36,142,219)
h. Pension Plan Administrative Expenses	2,243,630
i. Other Changes in Fiduciary Net Position	181,270
	<hr/>
SubTotal	\$ 97,558,524
	<hr/>
j. Changes in Proportionate Share	68,762,320
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 166,320,844</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017**

TA TP

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 13,366,385
b. Interest on the Total Pension Liability	38,604,394
c. Differences between Expected and Actual Experience	(2,601,787)
d. Changes of Assumptions	5,357,093
e. Employee Contributions	(3,574,057)
f. Projected Earnings on Pension Plan Investments	(26,852,032)
g. Differences between Projected and Actual Earnings on Plan Investments	(6,690,155)
h. Pension Plan Administrative Expenses	415,310
i. Other Changes in Fiduciary Net Position	33,554
	<hr/>
SubTotal	\$ 18,058,705
j. Changes in Proportionate Share	2,767,298
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 20,826,003</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
TA CP Engineers

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 15,075,593
b. Interest on the Total Pension Liability	43,540,876
c. Differences between Expected and Actual Experience	(2,934,487)
d. Changes of Assumptions	6,042,123
e. Employee Contributions	(4,031,085)
f. Projected Earnings on Pension Plan Investments	(30,285,697)
g. Differences between Projected and Actual Earnings on Plan Investments	(7,545,650)
h. Pension Plan Administrative Expenses	468,417
i. Other Changes in Fiduciary Net Position	37,845
	<hr/>
SubTotal	\$ 20,367,935
j. Changes in Proportionate Share	(444,649)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 19,923,286</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
HA Regular

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 89,973,442
b. Interest on the Total Pension Liability	259,858,602
c. Differences between Expected and Actual Experience	(17,513,464)
d. Changes of Assumptions	36,060,316
e. Employee Contributions	(24,058,131)
f. Projected Earnings on Pension Plan Investments	(180,749,668)
g. Differences between Projected and Actual Earnings on Plan Investments	(45,033,590)
h. Pension Plan Administrative Expenses	2,795,586
i. Other Changes in Fiduciary Net Position	225,864
	<hr/>
SubTotal	\$ 121,558,957
j. Changes in Proportionate Share	(1,300,708)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 120,258,249</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
HA HP**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 5,530,918
b. Interest on the Total Pension Liability	15,974,232
c. Differences between Expected and Actual Experience	(1,076,601)
d. Changes of Assumptions	2,216,728
e. Employee Contributions	(1,478,920)
f. Projected Earnings on Pension Plan Investments	(11,111,186)
g. Differences between Projected and Actual Earnings on Plan Investments	(2,768,340)
h. Pension Plan Administrative Expenses	171,852
i. Other Changes in Fiduciary Net Position	13,884
	<hr/>
SubTotal	\$ 7,472,567
j. Changes in Proportionate Share	(1,110,059)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 6,362,508</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
HHC

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 283,997,280
b. Interest on the Total Pension Liability	820,232,445
c. Differences between Expected and Actual Experience	(55,280,493)
d. Changes of Assumptions	113,822,829
e. Employee Contributions	(75,938,450)
f. Projected Earnings on Pension Plan Investments	(570,528,513)
g. Differences between Projected and Actual Earnings on Plan Investments	(142,146,579)
h. Pension Plan Administrative Expenses	8,824,147
i. Other Changes in Fiduciary Net Position	712,929
	<hr/>
SubTotal	\$ 383,695,595
j. Changes in Proportionate Share	53,073,819
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 436,769,414</b>

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
OTB**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 10,677,745
b. Interest on the Total Pension Liability	30,839,142
c. Differences between Expected and Actual Experience	(2,078,439)
d. Changes of Assumptions	4,279,517
e. Employee Contributions	(2,855,138)
f. Projected Earnings on Pension Plan Investments	(21,450,761)
g. Differences between Projected and Actual Earnings on Plan Investments	(5,344,435)
h. Pension Plan Administrative Expenses	331,771
i. Other Changes in Fiduciary Net Position	26,805
	<hr/>
SubTotal	\$ 14,426,207
j. Changes in Proportionate Share	15,688,587
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 30,114,794</b>



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
HDC/REMIC

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 1,017,843
b. Interest on the Total Pension Liability	2,939,702
c. Differences between Expected and Actual Experience	(198,125)
d. Changes of Assumptions	407,940
e. Employee Contributions	(272,162)
f. Projected Earnings on Pension Plan Investments	(2,044,767)
g. Differences between Projected and Actual Earnings on Plan Investments	(509,451)
h. Pension Plan Administrative Expenses	31,626
i. Other Changes in Fiduciary Net Position	2,555
	<hr/>
SubTotal	\$ 1,375,161
	<hr/>
j. Changes in Proportionate Share	(68,822)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,306,339</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
State Courts

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	691,365
b. Interest on the Total Pension Liability		1,996,779
c. Differences between Expected and Actual Experience		(134,575)
d. Changes of Assumptions		277,091
e. Employee Contributions		(184,865)
f. Projected Earnings on Pension Plan Investments		(1,388,898)
g. Differences between Projected and Actual Earnings on Plan Investments		(346,043)
h. Pension Plan Administrative Expenses		21,482
i. Other Changes in Fiduciary Net Position		1,736
		<hr/>
SubTotal	\$	934,072
j. Changes in Proportionate Share		(8,741)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>925,331</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017

SCA

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	768,183
b. Interest on the Total Pension Liability		2,218,643
c. Differences between Expected and Actual Experience		(149,528)
d. Changes of Assumptions		307,879
e. Employee Contributions		(205,406)
f. Projected Earnings on Pension Plan Investments		(1,543,220)
g. Differences between Projected and Actual Earnings on Plan Investments		(384,492)
h. Pension Plan Administrative Expenses		23,868
i. Other Changes in Fiduciary Net Position		1,928
		<hr/>
SubTotal	\$	1,037,855
j. Changes in Proportionate Share		(135,242)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>902,613</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017

WFA

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	76,818
b. Interest on the Total Pension Liability		221,864
c. Differences between Expected and Actual Experience		(14,953)
d. Changes of Assumptions		30,788
e. Employee Contributions		(20,541)
f. Projected Earnings on Pension Plan Investments		(154,322)
g. Differences between Projected and Actual Earnings on Plan Investments		(38,449)
h. Pension Plan Administrative Expenses		2,387
i. Other Changes in Fiduciary Net Position		193
		<hr/>
SubTotal	\$	103,785
j. Changes in Proportionate Share		(39,069)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>64,716</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Senior Colleges

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 22,411,741
b. Interest on the Total Pension Liability	64,728,920
c. Differences between Expected and Actual Experience	(4,362,479)
d. Changes of Assumptions	8,982,367
e. Employee Contributions	(5,992,708)
f. Projected Earnings on Pension Plan Investments	(45,023,450)
g. Differences between Projected and Actual Earnings on Plan Investments	(11,217,545)
h. Pension Plan Administrative Expenses	696,361
i. Other Changes in Fiduciary Net Position	56,261
	<hr/>
SubTotal	\$ 30,279,468
j. Changes in Proportionate Share	3,419,548
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 33,699,016</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
TBTA

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 25,119,586
b. Interest on the Total Pension Liability	72,549,637
c. Differences between Expected and Actual Experience	(4,889,565)
d. Changes of Assumptions	10,067,640
e. Employee Contributions	(6,716,763)
f. Projected Earnings on Pension Plan Investments	(50,463,301)
g. Differences between Projected and Actual Earnings on Plan Investments	(12,572,878)
h. Pension Plan Administrative Expenses	780,497
i. Other Changes in Fiduciary Net Position	63,059
	<hr/>
SubTotal	\$ 33,937,912
j. Changes in Proportionate Share	13,608,459
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 47,546,371</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
City Total

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 1,029,192,467
b. Interest on the Total Pension Liability	2,972,482,889
c. Differences between Expected and Actual Experience	(200,333,845)
d. Changes of Assumptions	412,488,454
e. Employee Contributions	(275,197,289)
f. Projected Earnings on Pension Plan Investments	(2,067,567,862)
g. Differences between Projected and Actual Earnings on Plan Investments	(515,132,360)
h. Pension Plan Administrative Expenses	31,978,285
i. Other Changes in Fiduciary Net Position	2,583,622
	<hr/>
SubTotal	\$ 1,390,494,361
j. Changes in Proportionate Share	(70,944,047)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,319,550,314</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2017 - By Obligor

<u>Component</u>	<u>Transit Operating</u>	<u>TA Non- Operating</u>	<u>TA TP</u>	<u>TA CP Engineers</u>	<u>HA Regular</u>	<u>HA HP</u>
a. Service Cost	\$ 350,349,092	\$ 72,209,208	\$ 13,366,385	\$ 15,075,593	\$ 89,973,442	\$ 5,530,918
b. Interest on the Total Pension Liability	1,011,867,763	208,552,474	38,604,394	43,540,876	259,858,602	15,974,232
c. Differences between Expected and Actual Experience	(68,195,972)	(14,055,630)	(2,601,787)	(2,934,487)	(17,513,464)	(1,076,601)
d. Changes of Assumptions	140,415,869	28,940,617	5,357,093	6,042,123	36,060,316	2,216,728
e. Employee Contributions	(93,680,359)	(19,308,126)	(3,574,057)	(4,031,085)	(24,058,131)	(1,478,920)
f. Projected Earnings on Pension Plan Investments	(703,824,159)	(145,062,700)	(26,852,032)	(30,285,697)	(180,749,668)	(11,111,186)
g. Differences between Projected and Actual Earnings on Plan Investments	(175,357,050)	(36,142,219)	(6,690,155)	(7,545,650)	(45,033,590)	(2,768,340)
h. Pension Plan Administrative Expenses	10,885,781	2,243,630	415,310	468,417	2,795,586	171,852
i. Other Changes in Fiduciary Net Position*	879,495	181,270	33,554	37,845	225,864	13,884
j. Changes in Proportionate Share	(83,268,694)	68,762,320	2,767,298	(444,649)	(1,300,708)	(1,110,059)
<b>Total Pension Expense</b>	<b>\$ 390,071,766</b>	<b>\$ 166,320,844</b>	<b>\$ 20,826,003</b>	<b>\$ 19,923,286</b>	<b>\$ 120,258,249</b>	<b>\$ 6,362,508</b>

<u>Component</u>	<u>HHC</u>	<u>OTB</u>	<u>HDC/REMIC</u>	<u>State Courts</u>	<u>SCA</u>	<u>WFA</u>
a. Service Cost	\$ 283,997,280	\$ 10,677,745	\$ 1,017,843	\$ 691,365	\$ 768,183	\$ 76,818
b. Interest on the Total Pension Liability	820,232,445	30,839,142	2,939,702	1,996,779	2,218,643	221,864
c. Differences between Expected and Actual Experience	(55,280,493)	(2,078,439)	(198,125)	(134,575)	(149,528)	(14,953)
d. Changes of Assumptions	113,822,829	4,279,517	407,940	277,091	307,879	30,788
e. Employee Contributions	(75,938,450)	(2,855,138)	(272,162)	(184,865)	(205,406)	(20,541)
f. Projected Earnings on Pension Plan Investments	(570,528,513)	(21,450,761)	(2,044,767)	(1,388,898)	(1,543,220)	(154,322)
g. Differences between Projected and Actual Earnings on Plan Investments	(142,146,579)	(5,344,435)	(509,451)	(346,043)	(384,492)	(38,449)
h. Pension Plan Administrative Expenses	8,824,147	331,771	31,626	21,482	23,868	2,387
i. Other Changes in Fiduciary Net Position*	712,929	26,805	2,555	1,736	1,928	193
j. Changes in Proportionate Share	53,073,819	15,688,587	(68,822)	(8,741)	(135,242)	(39,069)
<b>Total Pension Expense</b>	<b>\$ 436,769,414</b>	<b>\$ 30,114,794</b>	<b>\$ 1,306,339</b>	<b>\$ 925,331</b>	<b>\$ 902,613</b>	<b>\$ 64,716</b>

<u>Component</u>	<u>Senior Colleges</u>	<u>TBTA</u>	<u>City Total</u>	<u>Total</u>
a. Service Cost	\$ 22,411,741	\$ 25,119,586	\$ 1,029,192,467	\$ 1,920,457,666
b. Interest on the Total Pension Liability	64,728,920	72,549,637	2,972,482,889	5,546,608,362
c. Differences between Expected and Actual Experience	(4,362,479)	(4,889,565)	(200,333,845)	(373,819,943)
d. Changes of Assumptions	8,982,367	10,067,640	412,488,454	769,697,251
e. Employee Contributions	(5,992,708)	(6,716,763)	(275,197,289)	(513,514,000)
f. Projected Earnings on Pension Plan Investments	(45,023,450)	(50,463,301)	(2,067,567,862)	(3,858,050,536)
g. Differences between Projected and Actual Earnings on Plan Investments	(11,217,545)	(12,572,878)	(515,132,360)	(961,229,236)
h. Pension Plan Administrative Expenses	696,361	780,497	31,978,285	59,671,000
i. Other Changes in Fiduciary Net Position*	56,261	63,059	2,583,622	4,821,000
j. Changes in Proportionate Share	3,419,548	13,608,459	(70,944,047)	0
<b>Total Pension Expense</b>	<b>\$ 33,699,016</b>	<b>\$ 47,546,371</b>	<b>\$ 1,319,550,314</b>	<b>\$ 2,594,641,564</b>

\* Includes Payments to Other Retirement Systems.



**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018**

<b><u>Component</u></b>	<b><u>Amount</u></b>
a. Service Cost	\$ 1,947,712,394
b. Interest on the Total Pension Liability	5,615,290,255
c. Changes of Benefit Terms	43,998,752
d. Differences between Expected and Actual Experience	(613,137,768)
e. Changes of Assumptions	772,647,802
f. Employee Contributions	(523,535,000)
g. Projected Earnings on Pension Plan Investments	(4,276,339,472)
h. Differences between Projected and Actual Earnings on Plan Investments	(738,474,753)
i. Pension Plan Administrative Expenses	59,689,000
j. Other Changes in Fiduciary Net Position*	5,633,000
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 2,293,484,210</b>

\* Includes Payments to Other Retirement Systems.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Transit Operating

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 334,305,355
b. Interest on the Total Pension Liability	963,808,419
c. Changes of Benefit Terms	7,551,946
d. Differences between Expected and Actual Experience	(105,238,966)
e. Changes of Assumptions	132,617,269
f. Employee Contributions	(89,859,547)
g. Projected Earnings on Pension Plan Investments	(733,990,907)
h. Differences between Projected and Actual Earnings on Plan Investments	(126,751,807)
i. Pension Plan Administrative Expenses	10,245,020
j. Other Changes in Fiduciary Net Position	966,848
	<hr/>
SubTotal	\$ 393,653,630
	<hr/>
k. Changes in Proportionate Share	(92,571,530)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 301,082,100</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Transit Non-Operating

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 88,640,391
b. Interest on the Total Pension Liability	255,551,860
c. Changes of Benefit Terms	2,002,383
d. Differences between Expected and Actual Experience	(27,903,900)
e. Changes of Assumptions	35,163,201
f. Employee Contributions	(23,826,078)
g. Projected Earnings on Pension Plan Investments	(194,616,209)
h. Differences between Projected and Actual Earnings on Plan Investments	(33,607,986)
i. Pension Plan Administrative Expenses	2,716,446
j. Other Changes in Fiduciary Net Position	256,358
	<hr/>
SubTotal	\$ 104,376,466
	 <hr/>
k. Changes in Proportionate Share	82,934,403
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 187,310,869</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018

TA TP

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 14,627,320
b. Interest on the Total Pension Liability	42,170,830
c. Changes of Benefit Terms	330,431
d. Differences between Expected and Actual Experience	(4,604,665)
e. Changes of Assumptions	5,802,585
f. Employee Contributions	(3,931,748)
g. Projected Earnings on Pension Plan Investments	(32,115,309)
h. Differences between Projected and Actual Earnings on Plan Investments	(5,545,945)
i. Pension Plan Administrative Expenses	448,264
j. Other Changes in Fiduciary Net Position	42,304
	<hr/>
SubTotal	\$ 17,224,067
k. Changes in Proportionate Share	4,052,001
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 21,276,068</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
TA CP Engineers

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 15,815,425
b. Interest on the Total Pension Liability	45,596,157
c. Changes of Benefit Terms	357,270
d. Differences between Expected and Actual Experience	(4,978,679)
e. Changes of Assumptions	6,273,900
f. Employee Contributions	(4,251,104)
g. Projected Earnings on Pension Plan Investments	(34,723,877)
h. Differences between Projected and Actual Earnings on Plan Investments	(5,996,415)
i. Pension Plan Administrative Expenses	484,675
j. Other Changes in Fiduciary Net Position	45,740
	<hr/>
SubTotal	\$ 18,623,092
k. Changes in Proportionate Share	2,326,357
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 20,949,449</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
HA Regular

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 89,049,411
b. Interest on the Total Pension Liability	256,731,070
c. Changes of Benefit Terms	2,011,623
d. Differences between Expected and Actual Experience	(28,032,659)
e. Changes of Assumptions	35,325,458
f. Employee Contributions	(23,936,020)
g. Projected Earnings on Pension Plan Investments	(195,514,241)
h. Differences between Projected and Actual Earnings on Plan Investments	(33,763,066)
i. Pension Plan Administrative Expenses	2,728,981
j. Other Changes in Fiduciary Net Position	257,541
	<hr/>
SubTotal	\$ 104,858,098
k. Changes in Proportionate Share	(7,704,502)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 97,153,596</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
HA HP

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	6,096,340
b. Interest on the Total Pension Liability		17,575,858
c. Changes of Benefit Terms		137,716
d. Differences between Expected and Actual Experience		(1,919,121)
e. Changes of Assumptions		2,418,388
f. Employee Contributions		(1,638,665)
g. Projected Earnings on Pension Plan Investments		(13,384,943)
h. Differences between Projected and Actual Earnings on Plan Investments		(2,311,426)
i. Pension Plan Administrative Expenses		186,827
j. Other Changes in Fiduciary Net Position		17,631
		<hr/>
SubTotal	\$	7,178,605
k. Changes in Proportionate Share		(13,684)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>7,164,921</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018

HHC

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 292,604,833
b. Interest on the Total Pension Liability	843,585,055
c. Changes of Benefit Terms	6,609,933
d. Differences between Expected and Actual Experience	(92,111,687)
e. Changes of Assumptions	116,074,879
f. Employee Contributions	(78,650,663)
g. Projected Earnings on Pension Plan Investments	(642,434,479)
h. Differences between Projected and Actual Earnings on Plan Investments	(110,941,062)
i. Pension Plan Administrative Expenses	8,967,078
j. Other Changes in Fiduciary Net Position	846,246
	<hr/>
SubTotal	\$ 344,550,133
	<hr/>
k. Changes in Proportionate Share	59,650,920
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 404,201,053</b>



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
OTB

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	10,595,555
b. Interest on the Total Pension Liability		30,547,179
c. Changes of Benefit Terms		239,353
d. Differences between Expected and Actual Experience		(3,335,469)
e. Changes of Assumptions		4,203,204
f. Employee Contributions		(2,848,030)
g. Projected Earnings on Pension Plan Investments		(23,263,287)
h. Differences between Projected and Actual Earnings on Plan Investments		(4,017,303)
i. Pension Plan Administrative Expenses		324,708
j. Other Changes in Fiduciary Net Position		30,644
		<hr/>
SubTotal	\$	12,476,554
k. Changes in Proportionate Share		14,485,937
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>26,962,491</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
HDC/REMIC

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	993,333
b. Interest on the Total Pension Liability		2,863,798
c. Changes of Benefit Terms		22,439
d. Differences between Expected and Actual Experience		(312,700)
e. Changes of Assumptions		394,050
f. Employee Contributions		(267,003)
g. Projected Earnings on Pension Plan Investments		(2,180,933)
h. Differences between Projected and Actual Earnings on Plan Investments		(376,622)
i. Pension Plan Administrative Expenses		30,441
j. Other Changes in Fiduciary Net Position		2,873
		<hr/>
SubTotal	\$	1,169,676
		<hr/>
k. Changes in Proportionate Share		(95,834)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>1,073,842</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
State Courts

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	798,562
b. Interest on the Total Pension Liability		2,302,269
c. Changes of Benefit Terms		18,039
d. Differences between Expected and Actual Experience		(251,386)
e. Changes of Assumptions		316,786
f. Employee Contributions		(214,649)
g. Projected Earnings on Pension Plan Investments		(1,753,299)
h. Differences between Projected and Actual Earnings on Plan Investments		(302,775)
i. Pension Plan Administrative Expenses		24,472
j. Other Changes in Fiduciary Net Position		2,310
		<hr/>
SubTotal	\$	940,329
k. Changes in Proportionate Share		253,891
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>1,194,220</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
SCA

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	973,856
b. Interest on the Total Pension Liability		2,807,645
c. Changes of Benefit Terms		21,999
d. Differences between Expected and Actual Experience		(306,569)
e. Changes of Assumptions		386,324
f. Employee Contributions		(261,768)
g. Projected Earnings on Pension Plan Investments		(2,138,170)
h. Differences between Projected and Actual Earnings on Plan Investments		(369,237)
i. Pension Plan Administrative Expenses		29,845
j. Other Changes in Fiduciary Net Position		2,817
		<hr/>
SubTotal	\$	1,146,742
k. Changes in Proportionate Share		476,741
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>1,623,483</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018

WFA

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	58,431
b. Interest on the Total Pension Liability		168,459
c. Changes of Benefit Terms		1,320
d. Differences between Expected and Actual Experience		(18,394)
e. Changes of Assumptions		23,179
f. Employee Contributions		(15,706)
g. Projected Earnings on Pension Plan Investments		(128,290)
h. Differences between Projected and Actual Earnings on Plan Investments		(22,154)
i. Pension Plan Administrative Expenses		1,791
j. Other Changes in Fiduciary Net Position		169
		<hr/>
SubTotal	\$	68,805
k. Changes in Proportionate Share		(74,253)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>(5,448)</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Senior Colleges

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	25,846,143
b. Interest on the Total Pension Liability		74,514,902
c. Changes of Benefit Terms		583,863
d. Differences between Expected and Actual Experience		(8,136,338)
e. Changes of Assumptions		10,253,036
f. Employee Contributions		(6,947,309)
g. Projected Earnings on Pension Plan Investments		(56,747,025)
h. Differences between Projected and Actual Earnings on Plan Investments		(9,799,560)
i. Pension Plan Administrative Expenses		792,073
j. Other Changes in Fiduciary Net Position		74,750
		<hr/>
SubTotal	\$	30,434,535
k. Changes in Proportionate Share		6,013,785
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>36,448,320</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
TBTA

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	22,496,078
b. Interest on the Total Pension Liability		64,856,602
c. Changes of Benefit Terms		508,186
d. Differences between Expected and Actual Experience		(7,081,741)
e. Changes of Assumptions		8,924,082
f. Employee Contributions		(6,046,829)
g. Projected Earnings on Pension Plan Investments		(49,391,721)
h. Differences between Projected and Actual Earnings on Plan Investments		(8,529,383)
i. Pension Plan Administrative Expenses		689,408
j. Other Changes in Fiduciary Net Position		65,061
		<hr/>
SubTotal	\$	26,489,743
k. Changes in Proportionate Share		3,239,182
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>29,728,925</b>

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
City Total

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 1,044,811,361
b. Interest on the Total Pension Liability	3,012,210,152
c. Changes of Benefit Terms	23,602,251
d. Differences between Expected and Actual Experience	(328,905,494)
e. Changes of Assumptions	414,471,461
f. Employee Contributions	(280,839,881)
g. Projected Earnings on Pension Plan Investments	(2,293,956,782)
h. Differences between Projected and Actual Earnings on Plan Investments	(396,140,012)
i. Pension Plan Administrative Expenses	32,018,971
j. Other Changes in Fiduciary Net Position	3,021,708
	<hr/>
SubTotal	\$ 1,230,293,735
k. Changes in Proportionate Share	(72,973,414)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,157,320,321</b>



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Components of Pension Expense for the Fiscal Year Ended June 30, 2018 - By Obligor

<u>Component</u>	<u>Transit Operating</u>	<u>TA Non- Operating</u>	<u>TA TP</u>	<u>TA CP Engineers</u>	<u>HA Regular</u>	<u>HA HP</u>
a. Service Cost	\$ 334,305,355	\$ 88,640,391	\$ 14,627,320	\$ 15,815,425	\$ 89,049,411	\$ 6,096,340
b. Interest on the Total Pension Liability	963,808,419	255,551,860	42,170,830	45,596,157	256,731,070	17,575,858
c. Changes of Benefit Terms	7,551,946	2,002,383	330,431	357,270	2,011,623	137,716
d. Differences between Expected and Actual Experience	(105,238,966)	(27,903,900)	(4,604,665)	(4,978,679)	(28,032,659)	(1,919,121)
e. Changes of Assumptions	132,617,269	35,163,201	5,802,585	6,273,900	35,325,458	2,418,388
f. Employee Contributions	(89,859,547)	(23,826,078)	(3,931,748)	(4,251,104)	(23,936,020)	(1,638,665)
g. Projected Earnings on Pension Plan Investments	(733,990,907)	(194,616,209)	(32,115,309)	(34,723,877)	(195,514,241)	(13,384,943)
h. Differences between Projected and Actual Earnings on Plan Investments	(126,751,807)	(33,607,986)	(5,545,945)	(5,996,415)	(33,763,066)	(2,311,426)
i. Pension Plan Administrative Expenses	10,245,020	2,716,446	448,264	484,675	2,728,981	186,827
j. Other Changes in Fiduciary Net Position*	966,848	256,358	42,304	45,740	257,541	17,631
k. Changes in Proportionate Share	(92,571,530)	82,934,403	4,052,001	2,326,357	(7,704,502)	(13,684)
<b>Total Pension Expense</b>	<b>\$ 301,082,100</b>	<b>\$ 187,310,869</b>	<b>\$ 21,276,068</b>	<b>\$ 20,949,449</b>	<b>\$ 97,153,596</b>	<b>\$ 7,164,921</b>

<u>Component</u>	<u>HHC</u>	<u>OTB</u>	<u>HDC/REMIC</u>	<u>State Courts</u>	<u>SCA</u>	<u>WEA</u>
a. Service Cost	\$ 292,604,833	\$ 10,595,555	\$ 993,333	\$ 798,562	\$ 973,856	\$ 58,431
b. Interest on the Total Pension Liability	843,585,055	30,547,179	2,863,798	2,302,269	2,807,645	168,459
c. Changes of Benefit Terms	6,609,933	239,353	22,439	18,039	21,999	1,320
d. Differences between Expected and Actual Experience	(92,111,687)	(3,335,469)	(312,700)	(251,386)	(306,569)	(18,394)
e. Changes of Assumptions	116,074,879	4,203,204	394,050	316,786	386,324	23,179
f. Employee Contributions	(78,650,663)	(2,848,030)	(267,003)	(214,649)	(261,768)	(15,706)
g. Projected Earnings on Pension Plan Investments	(642,434,479)	(23,263,287)	(2,180,933)	(1,753,299)	(2,138,170)	(128,290)
h. Differences between Projected and Actual Earnings on Plan Investments	(110,941,062)	(4,017,303)	(376,622)	(302,775)	(369,237)	(22,154)
i. Pension Plan Administrative Expenses	8,967,078	324,708	30,441	24,472	29,845	1,791
j. Other Changes in Fiduciary Net Position*	846,246	30,644	2,873	2,310	2,817	169
k. Changes in Proportionate Share	59,650,920	14,485,937	(95,834)	253,891	476,741	(74,253)
<b>Total Pension Expense</b>	<b>\$ 404,201,053</b>	<b>\$ 26,962,491</b>	<b>\$ 1,073,842</b>	<b>\$ 1,194,220</b>	<b>\$ 1,623,483</b>	<b>\$ (5,448)</b>

<u>Component</u>	<u>Senior Colleges</u>	<u>TBTA</u>	<u>City Total</u>	<u>Total</u>
a. Service Cost	\$ 25,846,143	\$ 22,496,078	\$ 1,044,811,361	\$ 1,947,712,394
b. Interest on the Total Pension Liability	74,514,902	64,856,602	3,012,210,152	5,615,290,255
c. Changes of Benefit Terms	583,863	508,186	23,602,251	43,998,752
d. Differences between Expected and Actual Experience	(8,136,338)	(7,081,741)	(328,905,494)	(613,137,768)
e. Changes of Assumptions	10,253,036	8,924,082	414,471,461	772,647,802
f. Employee Contributions	(6,947,309)	(6,046,829)	(280,839,881)	(523,535,000)
g. Projected Earnings on Pension Plan Investments	(56,747,025)	(49,391,721)	(2,293,956,782)	(4,276,339,472)
h. Differences between Projected and Actual Earnings on Plan Investments	(9,799,560)	(8,529,383)	(396,140,012)	(738,474,753)
i. Pension Plan Administrative Expenses	792,073	689,408	32,018,971	59,689,000
j. Other Changes in Fiduciary Net Position*	74,750	65,061	3,021,708	5,633,000
k. Changes in Proportionate Share	6,013,785	3,239,182	(72,973,414)	0
<b>Total Pension Expense</b>	<b>\$ 36,448,320</b>	<b>\$ 29,728,925</b>	<b>\$ 1,157,320,321</b>	<b>\$ 2,293,484,210</b>

\* Includes Payments to Other Retirement Systems.

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2013, the Obligors recognized Pension Expense for NYCERS of \$2,721,031,010.

At June 30, 2013, the Obligors reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	0	1,594,361,522
Total	\$ 0	\$ 1,594,361,522

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2013	\$ (398,590,379)
2014	(398,590,379)
2015	(398,590,379)
2016	(398,590,379)
2017	(398,590,385)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2014, the Obligors recognized Pension Expense for NYCERS of \$1,639,856,352.

For June 30, 2014, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>3,978,322,676</u>
Total	\$ 0	\$ 3,978,322,676

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2014	\$ (994,580,670)
2015	(994,580,670)
2016	(994,580,670)
2017	(994,580,670)
2018	(994,580,666)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2015, the Obligors recognized Pension Expense for NYCERS of \$2,091,781,278.

For June 30, 2015, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 202,961,062
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>2,099,773,673</u>	<u>0</u>
Total	\$ 2,099,773,673	\$ 202,961,062

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2015	\$ 439,305,840
2016	439,305,840
2017	439,305,840
2018	493,257,515
2019	524,943,416

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2016, the Obligors recognized Pension Expense for NYCERS of \$3,119,301,482.

For June 30, 2016, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 572,334,258
Changes of Assumptions	1,793,394,596	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>2,127,274,784</u>	<u>0</u>
Total	\$ 3,920,669,380	\$ 572,334,258

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2016	\$ 1,055,878,925
2017	1,055,878,925
2018	1,055,878,925
2019	704,758,570
2020	531,818,702

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2017, the Obligors recognized Pension Expense for NYCERS of \$2,594,641,564.

For June 30, 2017, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 195,708,584
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>2,499,281,170</u>
Total	\$ 0	\$ 2,694,989,754

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2017	\$ (667,365,638)
2018	(667,365,638)
2019	(667,365,638)
2020	(667,365,638)
2021	(667,365,632)
Thereafter	(25,527,208)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2018, the Obligors recognized Pension Expense for NYCERS of \$2,293,484,210.

For June 30, 2018, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 1,469,280,196
Changes of Assumptions	14,782,263	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>703,343,622</u>
Total	\$ 14,782,263	\$ 2,172,623,818

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (466,154,855)
2019	(466,154,855)
2020	(466,154,855)
2021	(466,154,855)
2022	(466,154,853)
Thereafter	(293,222,137)

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2018, the Obligors recognized Pension Expense for NYCERS of \$2,293,484,210.

At June 30, 2018, the Obligors reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for NYCERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 1,703,503,654
Changes of Assumptions	268,782,357	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>989,223,686</u>
Total	\$ 268,782,357	\$ 2,692,727,340

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for NYCERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (578,964,719)
2019	96,181,493
2020	(601,701,791)
2021	(1,133,520,487)
2022	(491,682,061)
Thereafter	(293,222,137)



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Schedule of Pension Amounts by Employer  
As of and for the year ended June 30, 2017

Entity*	Deferred Outflows of Resources				Deferred Inflows of Resources				Pension Expense					
	Net Pension Liability	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
Transit Operating	\$ 3,788,376,358	\$ 0	\$ 186,753,107	\$ 0	\$ (83,433,028)	\$ 103,320,079	\$ 101,082,954	\$ 0	\$ 154,795,305	\$ (7,542,834)	\$ 248,335,425	\$ 473,340,460	\$ (83,268,694)	\$ 390,071,766
TA Non-Operating	780,808,340	0	38,491,020	0	174,173,244	212,664,264	20,833,849	0	31,904,311	29,305,111	82,043,271	97,558,524	68,762,320	166,320,844
TA TP	144,519,172	0	7,124,934	0	6,939,639	14,064,573	3,856,478	0	5,905,692	1,184,035	10,946,205	18,058,705	2,767,298	20,826,003
TA CP Engineers	163,016,411	0	8,036,024	0	10,722,643	18,758,667	4,349,620	0	6,660,873	2,279,031	13,289,524	20,367,935	(444,649)	19,923,286
HA Regular	972,904,553	0	47,960,221	0	(9,103,925)	38,856,296	25,959,197	0	39,753,111	(1,374,443)	64,337,865	121,558,957	(1,300,708)	120,258,249
HA HP	59,820,153	0	2,948,248	0	(2,250,507)	697,741	1,595,784	0	2,443,734	(337,941)	3,701,577	7,472,567	(1,110,059)	6,362,508
HHC	3,070,927,868	0	151,384,363	0	74,203,888	225,588,251	81,939,084	0	125,478,977	6,320,198	213,738,259	383,695,595	53,073,819	436,769,414
OTB	115,445,891	0	5,691,757	0	11,926,395	17,618,152	3,080,750	0	4,717,765	(468,064)	7,330,451	14,426,207	15,688,587	30,114,794
HDC/REMIC	10,991,263	0	542,560	0	(25,467)	517,093	293,669	0	449,715	0	743,384	1,375,161	(68,822)	1,306,339
State Courts	7,465,411	0	368,531	0	976,615	1,345,146	199,473	0	305,467	217,322	722,262	934,072	(8,741)	925,331
SCA	8,316,413	0	409,479	0	(2,267,891)	(1,858,412)	221,637	0	339,408	(568,099)	(7,054)	1,037,855	(135,242)	902,613
WFA	827,668	0	40,948	0	(224,860)	(183,912)	22,164	0	33,941	(45,142)	10,963	103,785	(39,069)	64,716
Senior Colleges	242,343,654	0	11,946,548	0	(13,690,684)	(1,744,136)	6,466,250	0	9,902,216	(3,393,279)	12,975,187	30,279,468	3,419,548	33,699,016
TBTA	271,609,483	0	13,389,961	0	18,274,473	31,664,434	7,247,520	0	11,098,627	2,407,523	20,753,670	33,937,912	13,608,459	47,546,371
City	11,128,894,360	0	548,609,644	0	(186,220,535)	362,389,109	296,943,297	0	454,729,769	(27,983,418)	723,689,648	1,390,494,361	(70,944,047)	1,319,550,314
Total	\$ 20,766,266,998	\$ 0	\$ 1,023,697,345	\$ 0	\$ 0	\$ 1,023,697,345	\$ 554,091,726	\$ 0	\$ 848,518,911	\$ 0	\$ 1,402,610,637	\$ 2,594,641,564	\$ 0	\$ 2,594,641,564

\* Transit Operating - Transit Authority Operating  
 TA Non-Operating - Transit Authority Non-Operating  
 TA TP - Transit Authority / Transit Police  
 TA CP Engineers - Transit Authority Capital Project Engineers  
 HA Regular - Housing Authority Regular  
 HA HP - Housing Authority / Housing Police  
 HHC - Health and Hospitals Corporation  
 OTB - Off-Track Betting  
 HDC/REMIC - Housing Development Corporation / REMIC  
 State Courts - State Courts  
 SCA - School Construction Authority  
 WFA - Water Finance Authority  
 Senior Colleges - Senior Colleges  
 TBTA - Triborough Bridge and Tunnel Authority  
 City - City of New York

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Schedule of Pension Amounts by Employer  
As of and for the year ended June 30, 2018

Entity*	Deferred Outflows of Resources				Deferred Inflows of Resources				Pension Expense					
	Net Pension Liability	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Outflows of Resources	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Plan Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Employer Pension Expense
Transit Operating	\$ 3,027,337,016	\$ 0	\$ 46,133,804	\$ 0	\$ (224,219,306)	\$ (178,085,502)	\$ 292,389,367	\$ 0	\$ 169,790,353	\$(12,744,148)	\$ 449,435,572	\$ 393,653,630	\$(92,571,530)	\$ 301,082,100
TA Non-Operating	802,687,004	0	12,232,285	0	257,231,588	269,463,873	77,526,451	0	45,019,570	28,039,482	150,585,503	104,376,466	82,934,403	187,310,869
TA TP	132,440,348	0	2,018,556	0	14,675,649	16,694,205	12,793,312	0	7,429,070	1,342,196	21,564,578	17,224,067	4,052,001	21,276,068
TA CP Engineers	143,208,693	0	2,182,513	0	13,804,591	15,987,104	13,832,450	0	8,032,496	1,978,138	23,843,084	18,623,092	2,326,357	20,949,449
HA Regular	806,388,047	0	12,288,729	0	(25,658,661)	(13,369,932)	77,884,187	0	45,227,307	(1,739,627)	121,371,867	104,858,098	(7,704,502)	97,153,596
HA HP	55,211,797	0	841,289	0	3,372,138	4,213,427	5,331,966	0	3,096,270	(15,274)	8,412,962	7,178,605	(13,684)	7,164,921
HHC	2,649,718,373	0	40,379,173	0	61,473,391	101,852,564	255,917,354	0	148,611,074	3,549,448	408,077,876	344,550,133	59,650,920	404,201,053
OTB	95,936,213	0	1,462,176	0	(6,222,717)	(4,760,541)	9,267,060	0	5,381,377	(1,593,816)	13,054,621	12,476,554	14,485,937	26,962,491
HDC/REMIC	8,978,397	0	137,079	0	(369,605)	(232,526)	868,787	0	504,504	(17,067)	1,356,224	1,169,676	(95,834)	1,073,842
State Courts	7,226,500	0	110,201	0	1,779,889	1,890,090	698,436	0	405,582	217,229	1,321,247	940,329	253,891	1,194,220
SCA	8,834,935	0	134,391	0	(479,550)	(345,159)	851,752	0	494,612	(417,534)	928,830	1,146,742	476,741	1,623,483
WFA	515,969	0	8,063	0	(360,780)	(352,717)	51,105	0	29,677	(43,863)	36,919	68,805	(74,253)	(5,448)
Senior Colleges	234,039,070	0	3,566,742	0	16,114,328	19,681,070	22,605,493	0	13,126,998	(1,406,770)	34,325,721	30,434,535	6,013,785	36,448,320
TBTA	203,708,514	0	3,104,436	0	(19,419,289)	(16,314,853)	19,675,467	0	11,425,534	305,068	31,406,069	26,489,743	3,239,182	29,728,925
City	9,461,464,641	0	144,182,920	0	(91,721,666)	52,461,254	913,810,467	0	530,649,262	(17,453,462)	1,427,006,267	1,230,293,735	(72,973,414)	1,157,320,321
<b>Total</b>	<b>\$ 17,637,695,517</b>	<b>\$ 0</b>	<b>\$ 268,782,357</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 268,782,357</b>	<b>\$ 1,703,503,654</b>	<b>\$ 0</b>	<b>\$ 989,223,686</b>	<b>\$ 0</b>	<b>\$ 2,692,727,340</b>	<b>\$ 2,293,484,210</b>	<b>\$ 0</b>	<b>\$ 2,293,484,210</b>

\* Transit Operating - Transit Authority Operating  
 TA Non-Operating - Transit Authority Non-Operating  
 TA TP - Transit Authority / Transit Police  
 TA CP Engineers - Transit Authority Capital Project Engineers  
 HA Regular - Housing Authority Regular  
 HA HP - Housing Authority / Housing Police  
 HHC - Health and Hospitals Corporation  
 OTB - Off-Track Betting  
 HDC/REMIC - Housing Development Corporation / REMIC  
 State Courts - State Courts  
 SCA - School Construction Authority  
 WFA - Water Finance Authority  
 Senior Colleges - Senior Colleges  
 TBTA - Triborough Bridge and Tunnel Authority  
 City - City of New York

**NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Collective Pension Amounts  
As of and for the year ended June 30, 2018**

<u>Deferred Outflows of Resources</u>				<u>Deferred Inflows of Resources</u>					
<u>Net Pension Liability</u>	<u>Differences Between Expected and Actual Experience</u>	<u>Change of Assumptions</u>	<u>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</u>	<u>Total Deferred Outflows of Resources Excluding Employer Specific Amounts</u>	<u>Differences Between Expected and Actual Experience</u>	<u>Change of Assumptions</u>	<u>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</u>	<u>Total Deferred Inflows of Resources Excluding Employer Specific Amounts</u>	<u>Plan Pension Expense</u>
\$ 17,637,695,517	\$ 0	\$ 268,782,357	\$ 0	\$ 268,782,357	\$ 1,703,503,654	\$ 0	\$ 989,223,686	\$ 2,692,727,340	\$ 2,293,484,210

# Appendix B

## APPENDIX B

### NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

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**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position - QPP Only**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ASSETS</b>		
Cash	\$ 75,847	\$ 101,499
Receivables:		
Investment securities sold	839,544	989,725
Member loans	312,219	298,146
Accrued interest and dividends	273,387	164,163
Other	0	0
Total receivables	<u>\$ 1,425,150</u>	<u>\$ 1,452,034</u>
Investments - at fair value		
Pooled NYC Pension Fund Assets (Fixed-Return Fund):		
Short-term investments:		
Short-term investment fund	1,578,263	557,945
Commercial paper	6,487	230,093
Discount notes	111,733	282,248
U.S. Treasury bills and agencies	0	0
Debt securities:		
U.S. Government	13,288,993	7,947,669
Corporate	7,016,574	7,753,224
Yankee bonds	0	0
Foreign	0	0
Equities:		
Domestic	20,536,514	21,086,002
Private equity	8,926,759	7,523,885
Private equity real estate	0	0
Mutual Funds:		
International equity	15,436,970	15,734,149
Fixed investment	1,848,081	1,791,033
Domestic equity	0	0
Mortgage debt security	555,508	495,540
Treasury inflation protected securities	3,106,109	2,682,432
Promissory Notes	0	0
Diversified Equity Funds:		
Short-term investments	135,558	65,825
Equity Securities	6,125,780	6,031,258
Corporate Bonds	127,150	106,307
Bond Funds:		
Short-term investments	849	3,576
Corporate Bonds	0	83,333
Equity Securities	70,562	0
Internation Equity Funds:		
Short-term investments	80	53
Equity Securities	12,076	12,436
Inflation Protection Funds:		
Short-term investments	3	23
Equity Securities	4,596	4,761
Socially Responsive Equity Funds:		
Short-term investments	453	662
Equity Securities	11,654	11,320
International - equity	716	516
Collateral from securities lending (Fixed and Variable-Return Funds)	<u>1,117,593</u>	<u>1,610,321</u>
Total Investments	<u>\$ 80,019,061</u>	<u>\$ 74,014,611</u>
Other assets	62,852	38,932
Total assets	<u>\$ 81,582,910</u>	<u>\$ 75,607,076</u>
<b>LIABILITIES</b>		
Accounts payable	643,567	529,059
Payables for investment securities purchased	1,568,064	1,353,803
Accrued benefits payable	13,858	13,987
Due to TDA Program	23,707,352	22,004,183
Securities lending	1,117,593	1,610,321
Total liabilities	<u>\$ 27,050,434</u>	<u>\$ 25,511,353</u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u>\$ 54,532,476</u>	<u>\$ 50,095,723</u>

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Statement of Changes in Fiduciary Net Position - QPP Only

June 30, 2018 and June 30, 2017

(Dollar amounts in thousands)

	June 30, 2018		June 30, 2017	
	Fixed	Variable	Fixed	Variable
<b>ADDITIONS</b>				
Contributions:				
Member Contributions	\$ 194,921	\$ 320	\$ 179,753	\$ 323
Employer Contributions	3,889,710	0	3,888,399	0
Other Employer Contributions <sup>1</sup>	59,957	22	57,340	29
<i>Total contributions</i>	<u>\$ 4,144,588</u>	<u>\$ 342</u>	<u>\$ 4,125,492</u>	<u>\$ 352</u>
Investment income:				
Interest income	1,325,827	4,182	929,307	2,862
Dividend income	946,672	109,964	912,665	68,422
Net appreciation (depreciation) in fair value	3,603,325	620,488	5,780,008	736,372
<i>Total investment income</i>	<u>\$ 5,875,824</u>	<u>\$ 734,634</u>	<u>\$ 7,621,980</u>	<u>\$ 807,656</u>
Less:				
Investment expenses	348,905	1,763	310,246	3,555
<i>Net income</i>	<u>5,526,919</u>	<u>732,871</u>	<u>7,311,734</u>	<u>804,101</u>
Securities lending transactions:				
Securities lending income	15,416	1,238	17,308	1,498
Securities lending fees	(1,202)	(127)	(1,202)	(158)
<i>Net securities lending income</i>	<u>14,214</u>	<u>1,111</u>	<u>16,106</u>	<u>1,340</u>
<i>Net investment income</i>	<u>5,541,133</u>	<u>733,982</u>	<u>7,327,840</u>	<u>805,440</u>
Other:				
Net receipts from other retirement systems	(3,534)	0	(2,291)	0
Transfers between Funds	(83,387)	83,387	(3,757,118)	3,757,118
Litigation income	0	0	0	0
<i>Total Other</i>	<u>(86,921)</u>	<u>83,387</u>	<u>(3,759,409)</u>	<u>3,757,118</u>
<i>Total additions</i>	<u>\$ 9,598,800</u>	<u>\$ 817,711</u>	<u>\$ 7,693,923</u>	<u>\$ 4,562,910</u>
<b>DEDUCTIONS</b>				
Benefit payments and withdrawals	3,734,320	617,604	3,652,613	566,699
Interest to TDA Fixed Funds	1,595,462	0	1,466,615	0
TDA Rebalance	(32,704)	0	43,938	0
Administrative expenses	49,260	15,816	50,874	9,916
<i>Total deductions</i>	<u>\$ 5,346,338</u>	<u>\$ 633,420</u>	<u>\$ 5,214,040</u>	<u>\$ 576,615</u>
<b>INCREASE IN PLAN NET POSITION</b>	<b>4,252,462</b>	<b>184,291</b>	<b>2,479,883</b>	<b>3,986,295</b>
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>				
Beginning of year	\$ 43,920,339	\$ 6,175,384	\$ 41,440,456	\$ 2,189,089
End of year	\$ 48,172,801	\$ 6,359,675	\$ 43,920,339	\$ 6,175,384

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Market Values of Assets - QPP Only**

	<b>Fixed</b>	<b>Variable</b>	<b>Total</b>
<b>1. Plan Net Position @ 6/30/2016</b>	\$ 41,440,456,000	\$ 2,189,089,000	\$ 43,629,545,000
<b>2. Changes for the year:</b>			
a. ER Contributions	3,888,399,000	0	3,888,399,000
b. Other Employer Contributions <sup>1</sup>	57,340,000	29,000	57,369,000
c. EE Contributions	179,753,000	323,000	180,076,000
d. Net Investment Income	7,327,840,000	805,440,000	8,133,280,000
e. Benefit Payments	(3,652,613,000)	(566,699,000)	(4,219,312,000)
f. Payment of Interest on TDA Fixed Funds	(1,466,615,000)	0	(1,466,615,000)
g. Administrative Expenses	(50,874,000)	(9,916,000)	(60,790,000)
h. Other	(3,803,347,000)	3,757,118,000	(46,229,000)
i. Net Changes	<u>2,479,883,000</u>	<u>3,986,295,000</u>	<u>6,466,178,000</u>
<b>3. Plan Net Position @ 6/30/2017</b>	<u>\$ 43,920,339,000</u>	<u>\$ 6,175,384,000</u>	<u>\$ 50,095,723,000</u>
<b>4. Changes for the year:</b>			
a. ER Contributions	3,889,710,000	0	3,889,710,000
b. Other Employer Contributions <sup>1</sup>	59,957,000	22,000	59,979,000
c. EE Contributions	194,921,000	320,000	195,241,000
d. Net Investment Income	5,541,133,000	733,982,000	6,275,115,000
e. Benefit Payments	(3,734,320,000)	(617,604,000)	(4,351,924,000)
f. Payment of Interest on TDA Fixed Funds	(1,595,462,000)	0	(1,595,462,000)
g. Administrative Expenses	(49,260,000)	(15,816,000)	(65,076,000)
h. Other <sup>2</sup>	(54,217,000)	83,387,000	29,170,000
i. Net Changes	<u>\$ 4,252,462,000</u>	<u>\$ 184,291,000</u>	<u>\$ 4,436,753,000</u>
<b>5. Plan Net Position @ 6/30/2018</b>	<u>\$ 48,172,801,000</u>	<u>\$ 6,359,675,000</u>	<u>\$ 54,532,476,000</u>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

<sup>2</sup> Includes TDA rebalance amount of (\$32,704,000).



## NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Long-Term Expected Rate of Return

The Long-Term Expected Rate of Return (LTEROR) assumption on pension fund investments was determined using a Building-Block Method in which best-estimate ranges of Expected Real Rates of Return (i.e. Expected Returns, net of pension fund investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the LTEROR by weighting the Expected Real Rates of Return (RROR) by the Target Asset Allocation percentage and by adding Expected Inflation. The Target Asset Allocation and best estimates of Arithmetic Real Rates of Return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Public Market Equities	29%	6.3%
International Public Market Equities	12%	7.0%
Emerging Public Market Equities	9%	9.5%
Private Market Equities	6%	10.4%
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	33%	2.2%
Alternatives (Real Assets, Hedge Funds)	<u>11%</u>	5.5%
Total	100%	

The Discount Rate used to measure the Total Pension Liability was 7.0% per annum. The projection of Cash Flows used to determine the Discount Rate assumes that employee contributions will be made at the rates applicable to the current Tier for each member and that employer contributions will be made at rates as determined by the Actuary. Based on those assumptions, the pension fund's Fiduciary Net Position is projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the Long-Term Expected Rate of Return on pension fund investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss - QPP Only  
June 30, 2017**

	Fixed	Variable	Total
<b>1. Market Value 6/30/2016</b>	\$ 41,440,456,000	\$ 2,189,089,000	\$ 43,629,545,000
<b>2. Market Value 6/30/2017</b>	43,920,339,000	6,175,384,000	50,095,723,000
<b>3. Net Investment Income</b>	7,327,840,000	805,440,000	8,133,280,000
<b>4. Cash Flow (2. - 1. - 3.)</b>	(4,847,957,000)	3,180,855,000	(1,667,102,000)
<b>5. Projected Earnings<sup>1</sup> (7% * 1. + 3.441% * 4.)</b>	2,734,013,720	805,440,000	3,539,453,720
<b>6. (Gain) / Loss (5. - 3.)</b>	(4,593,826,280)	0	(4,593,826,280)
<b>7. Recognition Period</b>	5 Years	5 Years	5 Years
<b>8. Amount Recognized in Pension Expense (6. / 7.)</b>	(918,765,256)	0	(918,765,256)
<b>9. Deferred (Inflow) / Outflow of Resources (6. - 8.)</b>	\$ (3,675,061,024)	\$ 0	\$ (3,675,061,024)

<sup>1</sup> Variable Funds Projected Earnings set equal to Variable Funds Net Investment Income.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss - QPP Only  
June 30, 2018**

	Fixed	Variable	Total
<b>1. Market Value 6/30/2017</b>	\$ 43,920,339,000	\$ 6,175,384,000	\$ 50,095,723,000
<b>2. Market Value 6/30/2018</b>	48,172,801,000	6,359,675,000	54,532,476,000
<b>3. Net Investment Income</b>	5,541,133,000	733,982,000	6,275,115,000
<b>4. Cash Flow (2. - 1. - 3.)</b>	(1,288,671,000)	(549,691,000)	(1,838,362,000)
<b>5. Projected Earnings<sup>1</sup> (7% * 1. + 3.441% * 4.)</b>	3,030,080,561	733,982,000	3,764,062,561
<b>6. (Gain) / Loss (5. - 3.)</b>	(2,511,052,439)	0	(2,511,052,439)
<b>7. Recognition Period</b>	5 Years	5 Years	5 Years
<b>8. Amount Recognized in Pension Expense (6. / 7.)</b>	(502,210,488)	0	(502,210,488)
<b>9. Deferred (Inflow) / Outflow of Resources (6. - 8.)</b>	\$ (2,008,841,951)	\$ 0	\$ (2,008,841,951)

<sup>1</sup> Variable Funds Projected Earnings set equal to Variable Funds Net Investment Income.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Roll-Forward of Entry Age Actuarial Accrued Liabilities to June 30, 2018**

	<b>Fixed</b>	<b>Variable</b>	<b>Total</b>
1. Entry Age Accrued Liability (EAAL) at 6/30/2016	\$ 60,423,580,721	\$ 8,485,678,733	\$ 68,909,259,454
2. Entry Age Normal Cost at 6/30/2016	1,391,033,620	0	1,391,033,620
3. Benefit Payments-FY2017	3,652,613,000	566,699,000	4,219,312,000
4. Interest <sup>1</sup>	4,201,336,591	805,440,000	5,006,776,591
5. Roll-Forward EAAL at 6/30/2017	\$ 62,363,337,932	\$ 8,724,419,733	\$ 71,087,757,665
6. Entry Age Normal Cost at 6/30/2017	1,436,616,796	0	1,436,616,796
7. Benefit Payments-FY2018	3,734,320,000	617,604,000	4,351,924,000
8. Interest <sup>1</sup>	4,337,498,880	733,982,000	5,071,480,880
9. Roll-Forward EAAL at 6/30/2018	\$ 64,403,133,608	\$ 8,840,797,733	\$ 73,243,931,341

<sup>1</sup> Interest on Variable Funds set equal to Variable Funds Net Investment Income.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Allocations  
June 30, 2017**

<b>Employer</b>	<b>2017 Actual Employer Contributions</b>	<b>Employer Allocation Percentage</b>
Department of Education	\$ 3,757,187,310	96.627%
CUNY Senior Colleges	84,575,367	2.175%
CUNY Community Colleges	38,469,761	0.989%
Charter Schools	8,167,032	0.209%
Total	\$ 3,888,399,470	100.000%

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017**

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 70,000,777,108	\$ 43,629,545,000	\$ 26,371,232,108
<b>2. Changes for the Year:</b>			
a. Service Cost	1,386,673,964	0	1,386,673,964
b. Interest	5,147,042,567	0	5,147,042,567
c. Differences b/t expected and actual experience	1,008,248,813	0	1,008,248,813
d. Change of Assumptions	0	0	0
e. Contributions - employer	0	3,888,399,000	(3,888,399,000)
f. Contributions - other employer <sup>1</sup>	0	57,369,000	(57,369,000)
g. Contributions - employee	0	180,076,000	(180,076,000)
h. Net Investment Income	0	8,133,280,000	(8,133,280,000)
i. Benefit payments	(4,219,312,000)	(4,219,312,000)	0
j. Payment of Interest on TDA Fixed Funds	0	(1,466,615,000)	1,466,615,000
k. Administrative expenses	0	(60,790,000)	60,790,000
l. Other changes	0	(46,229,000)	46,229,000
<b>m. Net Changes</b>	<b>\$ 3,322,653,344</b>	<b>\$ 6,466,178,000</b>	<b>\$ (3,143,524,656)</b>
<b>3. Balances at June 30, 2017</b>	<b>\$ 73,323,430,452</b>	<b>\$ 50,095,723,000</b>	<b>\$ 23,227,707,452</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Department of Education  
Balances at June 30, 2017**

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	<b>96.019%</b>	<b>\$ 67,214,046,167</b>	<b>\$ 41,892,652,813</b>	<b>\$ 25,321,393,354</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		1,339,901,449	0	1,339,901,449
b. Interest		4,973,432,821	0	4,973,432,821
c. Differences b/t expected and actual experience		974,240,580	0	974,240,580
d. Change of Assumptions		0	0	0
e. Contributions - employer		0	3,757,186,840	(3,757,186,840)
f. Contributions - other employer <sup>1</sup>		0	55,433,945	(55,433,945)
g. Contributions - employee		0	174,002,037	(174,002,037)
h. Net Investment Income		0	7,858,944,466	(7,858,944,466)
i. Benefit payments		(4,076,994,606)	(4,076,994,606)	0
j. Payment of Interest on TDA Fixed Funds		0	(1,417,146,076)	1,417,146,076
k. Administrative expenses		0	(58,739,551)	58,739,551
l. Other changes		0	(44,669,697)	44,669,697
<b>m. Net Changes</b>		<b>\$ 3,210,580,244</b>	<b>\$ 6,248,017,358</b>	<b>\$ (3,037,437,114)</b>
<b>3. SubTotal</b>		<b>\$ 70,424,626,411</b>	<b>\$ 48,140,670,171</b>	<b>\$ 22,283,956,240</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ 425,604,726</b>	<b>\$ 265,267,635</b>	<b>\$ 160,337,091</b>
<b>5. Balances at June 30, 2017</b>	<b>96.627%</b>	<b>\$ 70,850,231,137</b>	<b>\$ 48,405,937,806</b>	<b>\$ 22,444,293,331</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
CUNY Senior Colleges  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>2.779%</b>	<b>\$ 1,945,321,596</b>	<b>\$ 1,212,465,056</b>	<b>\$ 732,856,540</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		30,160,159	0	30,160,159
b. Interest		111,948,176	0	111,948,176
c. Differences b/t expected and actual experience		21,929,412	0	21,929,412
d. Change of Assumptions		0	0	0
e. Contributions - employer		0	84,575,367	(84,575,367)
f. Contributions - other employer <sup>1</sup>		0	1,247,776	(1,247,776)
g. Contributions - employee		0	3,916,653	(3,916,653)
h. Net Investment Income		0	176,898,840	(176,898,840)
i. Benefit payments		(91,770,036)	(91,770,036)	0
j. Payment of Interest on TDA Fixed Funds		0	(31,898,876)	31,898,876
k. Administrative expenses		0	(1,322,183)	1,322,183
l. Other changes		0	(1,005,481)	1,005,481
<b>m. Net Changes</b>		<b>\$ 72,267,711</b>	<b>\$ 140,642,060</b>	<b>\$ (68,374,349)</b>
<b>3. SubTotal</b>		<b>\$ 2,017,589,307</b>	<b>\$ 1,353,107,116</b>	<b>\$ 664,482,191</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ (422,804,695)</b>	<b>\$ (263,522,453)</b>	<b>\$ (159,282,242)</b>
<b>5. Balances at June 30, 2017</b>	<b>2.175%</b>	<b>\$ 1,594,784,612</b>	<b>\$ 1,089,584,663</b>	<b>\$ 505,199,949</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.



**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
CUNY Community Colleges  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>1.056%</b>	\$ 739,208,206	\$ 460,727,995	\$ 278,480,211
<b>2. Changes for the Year:</b>				
a. Service Cost		13,714,206	0	13,714,206
b. Interest		50,904,251	0	50,904,251
c. Differences b/t expected and actual experience		9,971,581	0	9,971,581
d. Change of Assumptions		0	0	0
e. Contributions - employer		0	38,469,761	(38,469,761)
f. Contributions - other employer <sup>1</sup>		0	567,379	(567,379)
g. Contributions - employee		0	1,780,952	(1,780,952)
h. Net Investment Income		0	80,438,139	(80,438,139)
i. Benefit payments		(41,728,996)	(41,728,996)	0
j. Payment of Interest on TDA Fixed Funds		0	(14,504,822)	14,504,822
k. Administrative expenses		0	(601,213)	601,213
l. Other changes		0	(457,205)	457,205
<b>m. Net Changes</b>		<b>\$ 32,861,042</b>	<b>\$ 63,963,995</b>	<b>\$ (31,102,953)</b>
<b>3. SubTotal</b>		<b>\$ 772,069,248</b>	<b>\$ 524,691,990</b>	<b>\$ 247,377,258</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ (46,900,521)</b>	<b>\$ (29,231,796)</b>	<b>\$ (17,668,725)</b>
<b>5. Balances at June 30, 2017</b>	<b>0.989%</b>	<b>\$ 725,168,727</b>	<b>\$ 495,460,194</b>	<b>\$ 229,708,533</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Charter Schools  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.146%</b>	<b>\$ 102,201,139</b>	<b>\$ 63,699,136</b>	<b>\$ 38,502,003</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		2,898,150	0	2,898,150
b. Interest		10,757,319	0	10,757,319
c. Differences b/t expected and actual experience		2,107,240	0	2,107,240
d. Change of Assumptions		0	0	0
e. Contributions - employer		0	8,167,032	(8,167,032)
f. Contributions - other employer <sup>1</sup>		0	119,900	(119,900)
g. Contributions - employee		0	376,358	(376,358)
h. Net Investment Income		0	16,998,555	(16,998,555)
i. Benefit payments		(8,818,362)	(8,818,362)	0
j. Payment of Interest on TDA Fixed Funds		0	(3,065,226)	3,065,226
k. Administrative expenses		0	(127,053)	127,053
l. Other changes		0	(96,617)	96,617
<b>m. Net Changes</b>		<b>\$ 6,944,347</b>	<b>\$ 13,554,587</b>	<b>\$ (6,610,240)</b>
<b>3. SubTotal</b>		<b>\$ 109,145,486</b>	<b>\$ 77,253,723</b>	<b>\$ 31,891,763</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ 44,100,490</b>	<b>\$ 27,486,614</b>	<b>\$ 16,613,876</b>
<b>5. Balances at June 30, 2017</b>	<b>0.209%</b>	<b>\$ 153,245,976</b>	<b>\$ 104,740,337</b>	<b>\$ 48,505,639</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source - by Obligor  
Balances at June 30, 2017

**Total Pension Liability**

	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>TOTAL</u>
<b>1. Balances at June 30, 2016</b>	\$ 67,214,046,167	\$ 1,945,321,596	\$ 739,208,206	\$ 102,201,139	\$ 70,000,777,108
<b>2. Changes for the Year:</b>					
a. Service Cost	1,339,901,449	30,160,159	13,714,206	2,898,150	1,386,673,964
b. Interest	4,973,432,821	111,948,176	50,904,251	10,757,319	5,147,042,567
c. Differences b/t Expected and Actual Experience	974,240,580	21,929,412	9,971,581	2,107,240	1,008,248,813
d. Changes of Assumptions	0	0	0	0	0
e. Benefit Payments	(4,076,994,606)	(91,770,036)	(41,728,996)	(8,818,362)	(4,219,312,000)
<b>f. Net Changes</b>	\$ 3,210,580,244	\$ 72,267,711	\$ 32,861,042	\$ 6,944,347	\$ 3,322,653,344
<b>3. SubTotal</b>	\$ 70,424,626,411	\$ 2,017,589,307	\$ 772,069,248	\$ 109,145,486	\$ 73,323,430,452
<b>4. Changes in Proportionate Share</b>	\$ 425,604,726	\$ (422,804,695)	\$ (46,900,521)	\$ 44,100,490	\$ -
<b>5. Balances at June 30, 2017</b>	\$ 70,850,231,137	\$ 1,594,784,612	\$ 725,168,727	\$ 153,245,976	\$ 73,323,430,452

**Plan Fiduciary Net Position**

	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>TOTAL</u>
<b>1. Balances at June 30, 2016</b>	\$ 41,892,652,813	\$ 1,212,465,056	\$ 460,727,995	\$ 63,699,136	\$ 43,629,545,000
<b>2. Changes for the Year:</b>					
a. Contributions - Employer	3,757,186,840	84,575,367	38,469,761	8,167,032	3,888,399,000
b. Contributions - Other Employer <sup>1</sup>	55,433,945	1,247,776	567,379	119,900	57,369,000
c. Contributions - Employee	174,002,037	3,916,653	1,780,952	376,358	180,076,000
d. Net Investment Income	7,858,944,466	176,898,840	80,438,139	16,998,555	8,133,280,000
e. Benefit Payments	(4,076,994,606)	(91,770,036)	(41,728,996)	(8,818,362)	(4,219,312,000)
f. Payment of Interest on TDA Fixed Funds	(1,417,146,076)	(31,898,876)	(14,504,822)	(3,065,226)	(1,466,615,000)
g. Administrative Expenses	(58,739,551)	(1,322,183)	(601,213)	(127,053)	(60,790,000)
h. Other Changes	(44,669,697)	(1,005,481)	(457,205)	(96,617)	(46,229,000)
<b>i. Net Changes</b>	\$ 6,248,017,358	\$ 140,642,060	\$ 63,963,995	\$ 13,554,587	\$ 6,466,178,000
<b>3. SubTotal</b>	\$ 48,140,670,171	\$ 1,353,107,116	\$ 524,691,990	\$ 77,253,723	\$ 50,095,723,000
<b>4. Changes in Proportionate Share</b>	\$ 265,267,635	\$ (263,522,453)	\$ (29,231,796)	\$ 27,486,614	\$ -
<b>5. Balances at June 30, 2017</b>	\$ 48,405,937,806	\$ 1,089,584,663	\$ 495,460,194	\$ 104,740,337	\$ 50,095,723,000

**Net Pension Liability**

	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>TOTAL</u>
<b>1. Balances at June 30, 2016</b>	\$ 25,321,393,354	\$ 732,856,540	\$ 278,480,211	\$ 38,502,003	\$ 26,371,232,108
<b>2. Changes for the Year:</b>					
a. Service Cost	1,339,901,449	30,160,159	13,714,206	2,898,150	1,386,673,964
b. Interest	4,973,432,821	111,948,176	50,904,251	10,757,319	5,147,042,567
c. Differences b/t Expected and Actual Experience	974,240,580	21,929,412	9,971,581	2,107,240	1,008,248,813
d. Changes of Assumptions	0	0	0	0	0
e. Contributions - Employer	(3,757,186,840)	(84,575,367)	(38,469,761)	(8,167,032)	(3,888,399,000)
f. Contributions - Other Employer	(55,433,945)	(1,247,776)	(567,379)	(119,900)	(57,369,000)
g. Contributions - Employee	(174,002,037)	(3,916,653)	(1,780,952)	(376,358)	(180,076,000)
h. Net Investment Income	(7,858,944,466)	(176,898,840)	(80,438,139)	(16,998,555)	(8,133,280,000)
i. Benefit Payments	0	0	0	0	0
j. Payment of Interest on TDA Fixed Funds	1,417,146,076	31,898,876	14,504,822	3,065,226	1,466,615,000
k. Administrative Expenses	58,739,551	1,322,183	601,213	127,053	60,790,000
l. Other Changes	44,669,697	1,005,481	457,205	96,617	46,229,000
<b>m. Net Changes</b>	\$ (3,037,437,114)	\$ (68,374,349)	\$ (31,102,953)	\$ (6,610,240)	\$ (3,143,524,656)
<b>3. SubTotal</b>	\$ 22,283,956,240	\$ 664,482,191	\$ 247,377,258	\$ 31,891,763	\$ 23,227,707,452
<b>4. Changes in Proportionate Share</b>	\$ 160,337,091	\$ (159,282,242)	\$ (17,668,725)	\$ 16,613,876	\$ -
<b>5. Balances at June 30, 2017</b>	\$ 22,444,293,331	\$ 505,199,949	\$ 229,708,533	\$ 48,505,639	\$ 23,227,707,452

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Allocations  
June 30, 2018**

<b>Employer</b>	<b>2018 Actual Employer Contributions</b>	<b>Employer Allocation Percentage</b>
Department of Education <sup>1</sup>	\$ 3,734,445,107	96.009%
CUNY Senior Colleges	102,115,218	2.625%
CUNY Community Colleges	45,787,386	1.177%
Charter Schools	7,362,216	0.189%
Total	\$ 3,889,709,927	100.000%

<sup>1</sup> The Beginning with Children Charter School (BWC) closed in 2016. The employer contribution for BWC of \$594,701 has been included with the results for the Department of Education.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018**

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 73,323,430,452	\$ 50,095,723,000	\$ 23,227,707,452
<b>2. Changes for the Year:</b>			
a. Service Cost	1,436,616,796	0	1,436,616,796
b. Interest	5,071,480,880	0	5,071,480,880
c. Changes of Benefit Terms	0	0	0
d. Differences b/t expected and actual experience	(2,235,672,787)	0	(2,235,672,787)
e. Change of Assumptions	0	0	0
f. Contributions - employer	0	3,889,710,000	(3,889,710,000)
g. Contributions - other employer <sup>1</sup>	0	59,979,000	(59,979,000)
h. Contributions - employee	0	195,241,000	(195,241,000)
i. Net Investment Income	0	6,275,115,000	(6,275,115,000)
j. Benefit payments	(4,351,924,000)	(4,351,924,000)	0
k. Payment of Interest on TDA Fixed Funds	0	(1,595,462,000)	1,595,462,000
l. Administrative expenses	0	(65,076,000)	65,076,000
m. Other changes	0	29,170,000	(29,170,000)
<b>n. Net Changes</b>	<b>\$ (79,499,111)</b>	<b>\$ 4,436,753,000</b>	<b>\$ (4,516,252,111)</b>
<b>3. Balances at June 30, 2018</b>	<b>\$ 73,243,931,341</b>	<b>\$ 54,532,476,000</b>	<b>\$ 18,711,455,341</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source  
Department of Education  
Balances at June 30, 2018

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>96.627%</b>	<b>\$ 70,850,231,137</b>	<b>\$ 48,405,937,806</b>	<b>\$ 22,444,293,331</b>
Adjustment for Beginning with Children <sup>1</sup>	0.015%	10,998,516	7,501,090	3,497,426
<b>Balances at June 30, 2017 (Revised)</b>	<b>96.642%</b>	<b>\$ 70,861,229,653</b>	<b>\$ 48,413,438,896</b>	<b>\$ 22,447,790,757</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		1,379,281,419	0	1,379,281,419
b. Interest		4,869,078,078	0	4,869,078,078
c. Changes of Benefit Terms		0	0	0
d. Differences b/t expected and actual experience		(2,146,447,085)	0	(2,146,447,085)
e. Change of Assumptions		0	0	0
f. Contributions - employer		0	3,734,445,180	(3,734,445,180)
g. Contributions - other employer <sup>2</sup>		0	57,585,238	(57,585,238)
h. Contributions - employee		0	187,448,932	(187,448,932)
i. Net Investment Income		0	6,024,675,160	(6,024,675,160)
j. Benefit payments		(4,178,238,714)	(4,178,238,714)	0
k. Payment of Interest on TDA Fixed Funds		0	(1,531,787,111)	1,531,787,111
l. Administrative expenses		0	(62,478,816)	62,478,816
m. Other changes		0	28,005,825	(28,005,825)
<b>n. Net Changes</b>		<b>\$ (76,326,302)</b>	<b>\$ 4,259,655,694</b>	<b>\$ (4,335,981,996)</b>
<b>3. SubTotal</b>		<b>\$ 70,784,903,351</b>	<b>\$ 52,673,094,590</b>	<b>\$ 18,111,808,761</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ (464,137,310)</b>	<b>\$ (317,009,707)</b>	<b>\$ (147,127,603)</b>
<b>5. Balances at June 30, 2018</b>	<b>96.009%</b>	<b>\$ 70,320,766,041</b>	<b>\$ 52,356,084,883</b>	<b>\$ 17,964,681,158</b>

<sup>1</sup> The Beginning with Children Charter School (BWC) closed in 2016. Balances for BWC have been included with the results for the Department of Education.

<sup>2</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
CUNY Senior Colleges  
Balances at June 30, 2018**

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>2.175%</b>	\$ 1,594,784,612	\$ 1,089,584,663	\$ 505,199,949
<b>2. Changes for the Year:</b>				
a. Service Cost		37,711,191	0	37,711,191
b. Interest		133,126,373	0	133,126,373
c. Changes of Benefit Terms		0	0	0
d. Differences b/t expected and actual experience		(58,686,411)	0	(58,686,411)
e. Change of Assumptions		0	0	0
f. Contributions - employer		0	102,115,218	(102,115,218)
g. Contributions - other employer <sup>1</sup>		0	1,574,449	(1,574,449)
h. Contributions - employee		0	5,125,076	(5,125,076)
i. Net Investment Income		0	164,721,769	(164,721,769)
j. Benefit payments		(114,238,005)	(114,238,005)	0
k. Payment of Interest on TDA Fixed Funds		0	(41,880,878)	41,880,878
l. Administrative expenses		0	(1,708,245)	1,708,245
m. Other changes		0	765,713	(765,713)
<b>n. Net Changes</b>		<b>\$ (2,086,852)</b>	<b>\$ 116,475,097</b>	<b>\$ (118,561,949)</b>
<b>3. SubTotal</b>		<b>\$ 1,592,697,760</b>	<b>\$ 1,206,059,760</b>	<b>\$ 386,638,000</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ 329,955,438</b>	<b>\$ 225,417,735</b>	<b>\$ 104,537,703</b>
<b>5. Balances at June 30, 2018</b>	<b>2.625%</b>	<b>\$ 1,922,653,198</b>	<b>\$ 1,431,477,495</b>	<b>\$ 491,175,703</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
CUNY Community Colleges  
Balances at June 30, 2018**

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>0.989%</b>	\$ 725,168,727	\$ 495,460,194	\$ 229,708,533
<b>2. Changes for the Year:</b>				
a. Service Cost		16,908,980	0	16,908,980
b. Interest		59,691,330	0	59,691,330
c. Changes of Benefit Terms		0	0	0
d. Differences b/t expected and actual experience		(26,313,869)	0	(26,313,869)
e. Change of Assumptions		0	0	0
f. Contributions - employer		0	45,787,386	(45,787,386)
g. Contributions - other employer <sup>1</sup>		0	705,953	(705,953)
h. Contributions - employee		0	2,297,987	(2,297,987)
i. Net Investment Income		0	73,858,104	(73,858,104)
j. Benefit payments		(51,222,145)	(51,222,145)	0
k. Payment of Interest on TDA Fixed Funds		0	(18,778,588)	18,778,588
l. Administrative expenses		0	(765,945)	765,945
m. Other changes		0	343,331	(343,331)
<b>n. Net Changes</b>		<b>\$ (935,704)</b>	<b>\$ 52,226,083</b>	<b>\$ (53,161,787)</b>
<b>3. SubTotal</b>		<b>\$ 724,233,023</b>	<b>\$ 547,686,277</b>	<b>\$ 176,546,746</b>
<b>4. Changes in Proportionate Share</b>		<b>\$ 137,848,049</b>	<b>\$ 94,160,966</b>	<b>\$ 43,687,083</b>
<b>5. Balances at June 30, 2018</b>	<b>1.177%</b>	<b>\$ 862,081,072</b>	<b>\$ 641,847,243</b>	<b>\$ 220,233,829</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.



NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source  
Charter Schools  
Balances at June 30, 2018

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>0.209%</b>	\$ 153,245,976	\$ 104,740,337	\$ 48,505,639
Adjustment for Beginning with Children <sup>1</sup>	(0.015%)	(10,998,516)	(7,501,090)	(3,497,426)
<b>Balances at June 30, 2017 (Revised)</b>	<b>0.194%</b>	\$ 142,247,460	\$ 97,239,247	\$ 45,008,213
<b>2. Changes for the Year:</b>				
a. Service Cost		2,715,206	0	2,715,206
b. Interest		9,585,099	0	9,585,099
c. Changes of Benefit Terms		0	0	0
d. Differences b/t expected and actual experience		(4,225,422)	0	(4,225,422)
e. Change of Assumptions		0	0	0
f. Contributions - employer		0	7,362,216	(7,362,216)
g. Contributions - other employer <sup>2</sup>		0	113,360	(113,360)
h. Contributions - employee		0	369,005	(369,005)
i. Net Investment Income		0	11,859,967	(11,859,967)
j. Benefit payments		(8,225,136)	(8,225,136)	0
k. Payment of Interest on TDA Fixed Funds		0	(3,015,423)	3,015,423
l. Administrative expenses		0	(122,994)	122,994
m. Other changes		0	55,131	(55,131)
<b>n. Net Changes</b>		\$ (150,253)	\$ 8,396,126	\$ (8,546,379)
<b>3. SubTotal</b>		\$ 142,097,207	\$ 105,635,373	\$ 36,461,834
<b>4. Changes in Proportionate Share</b>		\$ (3,666,177)	\$ (2,568,994)	\$ (1,097,183)
<b>5. Balances at June 30, 2018</b>	<b>0.189%</b>	\$ 138,431,030	\$ 103,066,379	\$ 35,364,651

<sup>1</sup> The Beginning with Children Charter School (BWC) closed in 2016. Balances for BWC have been included with the results for the Department of Education.

<sup>2</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source - by Obligor  
Balances at June 30, 2018

**Total Pension Liability**

	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>TOTAL</u>
<b>1. Balances at June 30, 2017</b>	\$ 70,850,231,137	\$ 1,594,784,612	\$ 725,168,727	\$ 153,245,976	\$ 73,323,430,452
Adjustment for Beginning with Children <sup>1</sup>	10,998,516	0	0	(10,998,516)	0
<b>Balances at June 30, 2017 (Revised)</b>	\$ 70,861,229,653	\$ 1,594,784,612	\$ 725,168,727	\$ 142,247,460	\$ 73,323,430,452
<b>2. Changes for the Year:</b>					
a. Service Cost	1,379,281,419	37,711,191	16,908,980	2,715,206	1,436,616,796
b. Interest	4,869,078,078	133,126,373	59,691,330	9,585,099	5,071,480,880
c. Changes of Benefit Terms	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	(2,146,447,085)	(58,686,411)	(26,313,869)	(4,225,422)	(2,235,672,787)
e. Changes of Assumptions	0	0	0	0	0
f. Benefit Payments	(4,178,238,714)	(114,238,005)	(51,222,145)	(8,225,136)	(4,351,924,000)
<b>g. Net Changes</b>	\$ (76,326,302)	\$ (2,086,852)	\$ (935,704)	\$ (150,253)	\$ (79,499,111)
<b>3. SubTotal</b>	\$ 70,784,903,351	\$ 1,592,697,760	\$ 724,233,023	\$ 142,097,207	\$ 73,243,931,341
<b>4. Changes in Proportionate Share</b>	\$ (464,137,310)	\$ 329,955,438	\$ 137,848,049	\$ (3,666,177)	\$ -
<b>5. Balances at June 30, 2018</b>	\$ 70,320,766,041	\$ 1,922,653,198	\$ 862,081,072	\$ 138,431,030	\$ 73,243,931,341

**Plan Fiduciary Net Position**

	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>TOTAL</u>
<b>1. Balances at June 30, 2017</b>	\$ 48,405,937,806	\$ 1,089,584,663	\$ 495,460,194	\$ 104,740,337	\$ 50,095,723,000
Adjustment for Beginning with Children <sup>1</sup>	7,501,090	0	0	(7,501,090)	0
<b>Balances at June 30, 2017 (Revised)</b>	\$ 48,413,438,896	\$ 1,089,584,663	\$ 495,460,194	\$ 97,239,247	\$ 50,095,723,000
<b>2. Changes for the Year:</b>					
a. Contributions - Employer	3,734,445,180	102,115,218	45,787,386	7,362,216	3,889,710,000
b. Contributions - Other Employer <sup>2</sup>	57,585,238	1,574,449	705,953	113,360	59,979,000
c. Contributions - Employee	187,448,932	5,125,076	2,297,987	369,005	195,241,000
d. Net Investment Income	6,024,675,160	164,721,769	73,858,104	11,859,967	6,275,115,000
e. Benefit Payments	(4,178,238,714)	(114,238,005)	(51,222,145)	(8,225,136)	(4,351,924,000)
f. Payment of Interest on TDA Fixed Funds	(1,531,787,111)	(41,880,878)	(18,778,588)	(3,015,423)	(1,595,462,000)
g. Administrative Expenses	(62,478,816)	(1,708,245)	(765,945)	(122,994)	(65,076,000)
h. Other Changes	28,005,825	765,713	343,331	55,131	29,170,000
<b>i. Net Changes</b>	\$ 4,259,655,694	\$ 116,475,097	\$ 52,226,083	\$ 8,396,126	\$ 4,436,753,000
<b>3. SubTotal</b>	\$ 52,673,094,590	\$ 1,206,059,760	\$ 547,686,277	\$ 105,635,373	\$ 54,532,476,000
<b>4. Changes in Proportionate Share</b>	\$ (317,009,707)	\$ 225,417,735	\$ 94,160,966	\$ (2,568,994)	\$ -
<b>5. Balances at June 30, 2018</b>	\$ 52,356,084,883	\$ 1,431,477,495	\$ 641,847,243	\$ 103,066,379	\$ 54,532,476,000

**Net Pension Liability**

	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>TOTAL</u>
<b>1. Balances at June 30, 2017</b>	\$ 22,444,293,331	\$ 505,199,949	\$ 229,708,533	\$ 48,505,639	\$ 23,227,707,452
Adjustment for Beginning with Children <sup>1</sup>	3,497,426	0	0	(3,497,426)	0
<b>Balances at June 30, 2017 (Revised)</b>	\$ 22,447,790,757	\$ 505,199,949	\$ 229,708,533	\$ 45,008,213	\$ 23,227,707,452
<b>2. Changes for the Year:</b>					
a. Service Cost	1,379,281,419	37,711,191	16,908,980	2,715,206	1,436,616,796
b. Interest	4,869,078,078	133,126,373	59,691,330	9,585,099	5,071,480,880
c. Changes of Benefit Terms	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	(2,146,447,085)	(58,686,411)	(26,313,869)	(4,225,422)	(2,235,672,787)
e. Changes of Assumptions	0	0	0	0	0
f. Contributions - Employer	(3,734,445,180)	(102,115,218)	(45,787,386)	(7,362,216)	(3,889,710,000)
g. Contributions - Other Employer	(57,585,238)	(1,574,449)	(705,953)	(113,360)	(59,979,000)
h. Contributions - Employee	(187,448,932)	(5,125,076)	(2,297,987)	(369,005)	(195,241,000)
i. Net Investment Income	(6,024,675,160)	(164,721,769)	(73,858,104)	(11,859,967)	(6,275,115,000)
j. Benefit Payments	0	0	0	0	0
k. Payment of Interest on TDA Fixed Funds	1,531,787,111	41,880,878	18,778,588	3,015,423	1,595,462,000
l. Administrative Expenses	62,478,816	1,708,245	765,945	122,994	65,076,000
m. Other Changes	(28,005,825)	(765,713)	(343,331)	(55,131)	(29,170,000)
<b>n. Net Changes</b>	\$ (4,335,981,996)	\$ (118,561,949)	\$ (53,161,787)	\$ (8,546,379)	\$ (4,516,252,111)
<b>3. SubTotal</b>	\$ 18,111,808,761	\$ 386,638,000	\$ 176,546,746	\$ 36,461,834	\$ 18,711,455,341
<b>4. Changes in Proportionate Share</b>	\$ (147,127,603)	\$ 104,537,703	\$ 43,687,083	\$ (1,097,183)	\$ -
<b>5. Balances at June 30, 2018</b>	\$ 17,964,681,158	\$ 491,175,703	\$ 220,233,829	\$ 35,364,651	\$ 18,711,455,341

<sup>1</sup> The Beginning with Children Charter School (BWC) closed in 2016. Balances for BWC have been included with the results for the Department of Education.

<sup>2</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Changes in Net Pension Liability and Related Ratios**

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
<b>1. Total Pension Liability</b>						
a. Service Cost	\$ 1,436,616,796	\$ 1,386,673,964	\$ 1,274,307,859	\$ 1,223,157,877	\$ 1,205,662,452	\$ 1,170,546,070
b. Interest	\$ 5,071,480,880	\$ 5,147,042,567	\$ 4,131,176,953	\$ 4,027,138,338	\$ 4,407,702,189	\$ 4,176,571,397
c. Changes of Benefit Terms	0	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	\$ (2,235,672,787)	\$ 1,008,248,813	\$ 1,229,501,602	\$ 1,507,964,351	0	0
e. Changes of Assumptions	0	0	2,432,878,017	0	0	0
f. Benefit Payments	\$ (4,351,924,000)	\$ (4,219,312,000)	\$ (4,107,455,000)	\$ (4,024,272,000)	\$ (3,818,248,000)	\$ (3,619,254,000)
<b>g. Net Changes in Total Pension Liability</b>	<b>\$ (79,499,111)</b>	<b>\$ 3,322,653,344</b>	<b>\$ 4,960,409,431</b>	<b>\$ 2,733,988,566</b>	<b>\$ 1,795,116,641</b>	<b>\$ 1,727,863,467</b>
<b>2. Total Pension Liability - Beginning</b>	<b>\$ 73,323,430,452</b>	<b>\$ 70,000,777,108</b>	<b>\$ 65,040,367,677</b>	<b>\$ 62,306,379,111</b>	<b>\$ 60,511,262,470</b>	<b>\$ 58,783,399,003</b>
<b>3. Total Pension Liability - Ending</b>	<b>\$ 73,243,931,341</b>	<b>\$ 73,323,430,452</b>	<b>\$ 70,000,777,108</b>	<b>\$ 65,040,367,677</b>	<b>\$ 62,306,379,111</b>	<b>\$ 60,511,262,470</b>
<b>4. Plan Fiduciary Net Position</b>						
a. Contributions - Employer	\$ 3,889,710,000	\$ 3,888,399,000	\$ 3,760,714,000	\$ 3,325,528,000	\$ 3,054,424,000	\$ 2,912,844,000
b. Contributions - Other Employer <sup>1</sup>	\$ 59,979,000	\$ 57,369,000	n/a	n/a	n/a	n/a
c. Contributions - Employee	\$ 195,241,000	\$ 180,076,000	\$ 173,696,000	\$ 158,590,000	\$ 154,962,000	\$ 154,698,000
d. Net Investment Income	\$ 6,275,115,000	\$ 8,133,280,000	\$ 960,267,000	\$ 1,611,929,000	\$ 9,435,906,000	\$ 5,721,112,000
e. Benefit Payments	\$ (4,351,924,000)	\$ (4,219,312,000)	\$ (4,107,455,000)	\$ (4,024,272,000)	\$ (3,818,248,000)	\$ (3,619,254,000)
f. Payment of Interest on TDA Fixed Funds	\$ (1,595,462,000)	\$ (1,466,615,000)	\$ (1,354,207,000)	\$ (1,248,988,000)	\$ (1,147,923,000)	\$ (1,047,979,000)
g. Administrative Expenses	\$ (65,076,000)	\$ (60,790,000)	\$ (59,367,000)	\$ (58,391,000)	\$ (46,042,000)	\$ (39,682,000)
h. Other Changes	\$ 29,170,000	\$ (46,229,000)	\$ 1,233,000	\$ 329,000	\$ 404,000	\$ (44,000)
<b>i. Net Changes in Fiduciary Net Position</b>	<b>\$ 4,436,753,000</b>	<b>\$ 6,466,178,000</b>	<b>\$ (625,119,000)</b>	<b>\$ (235,275,000)</b>	<b>\$ 7,633,483,000</b>	<b>\$ 4,081,695,000</b>
<b>5. Plan Fiduciary Net Position - Beginning</b>	<b>\$ 50,095,723,000</b>	<b>\$ 43,629,545,000</b>	<b>\$ 44,254,664,000</b>	<b>\$ 44,489,939,000</b>	<b>\$ 36,856,456,000</b>	<b>\$ 32,774,761,000</b>
<b>6. Plan Fiduciary Net Position - Ending</b>	<b>\$ 54,532,476,000</b>	<b>\$ 50,095,723,000</b>	<b>\$ 43,629,545,000</b>	<b>\$ 44,254,664,000</b>	<b>\$ 44,489,939,000</b>	<b>\$ 36,856,456,000</b>
<b>7. TRS' Net Pension Liability</b>	<b>\$ 18,711,455,341</b>	<b>\$ 23,227,707,452</b>	<b>\$ 26,371,232,108</b>	<b>\$ 20,785,703,677</b>	<b>\$ 17,816,440,111</b>	<b>\$ 23,654,806,470</b>
<b>8. Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>74.5%</b>	<b>68.3%</b>	<b>62.3%</b>	<b>68.0%</b>	<b>71.4%</b>	<b>60.9%</b>
<b>9. Covered Employee Payroll<sup>2</sup></b>	<b>\$ 9,200,179,606</b>	<b>\$ 8,818,536,927</b>	<b>\$ 8,256,100,227</b>	<b>\$ 8,074,522,271</b>	<b>\$ 7,996,941,545</b>	<b>\$ 7,964,148,973</b>
<b>10. TRS' Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>203.4%</b>	<b>263.4%</b>	<b>319.4%</b>	<b>257.4%</b>	<b>222.8%</b>	<b>297.0%</b>

<sup>1</sup> Includes amounts for member's portion of Additional Member Contributions and supplemental contributions for the ASAF and ASF Funds.

<sup>2</sup> Projected Employee Payroll at Time 1.0 under One-Year Lag Methodology.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Contributions (\$ in thousands)**

<b>Fiscal Year Ended June 30</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Actuarially Determined Contribution	\$ 3,889,710	\$ 3,888,399	\$ 3,702,569	\$ 3,270,007	\$ 2,998,694	\$ 2,855,640	\$ 2,673,078	\$ 2,468,973	\$ 2,484,074	\$ 2,223,644
Contributions in relation to the Actuarially Determined Contribution	<u>\$ 3,889,710</u>	<u>\$ 3,888,399</u>	<u>\$ 3,702,569</u>	<u>\$ 3,270,007</u>	<u>\$ 2,998,694</u>	<u>\$ 2,855,640</u>	<u>\$ 2,673,078</u>	<u>\$ 2,468,973</u>	<u>\$ 2,484,074</u>	<u>\$ 2,223,644</u>
Contribution Deficiency (Excess)	0	0	0	0	0	0	0	0	0	0
Contributions as a percentage of Covered employee payroll <sup>1</sup>	42.279%	44.093%	44.846%	40.498%	37.652%	36.455%	33.747%	31.114%	31.604%	30.792%

<sup>1</sup> The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Average Expected Remaining Service Lives**

<u>Group</u>	<u>Count</u>	Average Expected Remaining Service Life <u>@ 6/30/2017</u>
Active	118,201	14.80
Active/Inactive	7,401	0.00
Term Vested	14,393	0.00
Retired	<u>84,093</u>	<u>0.00</u>
Total	224,088	7.81

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Expected and Actual Experience**

<b>Year</b>	<b>Differences between Expected and Actual Experience</b>	<b>Recognition Period (Years)</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
2015	\$ 1,507,964,351	3.88	388,650,606	388,650,606	388,650,606	342,012,533	0	0	0	0	0	0	0
2016	\$ 1,229,501,602	3.84		320,182,709	320,182,709	320,182,709	268,953,475	0	0	0	0	0	0
2017	\$ 1,008,248,813	7.20			140,034,557	140,034,557	140,034,557	140,034,557	140,034,557	140,034,557	140,034,557	28,006,914	
2018	\$ (2,235,672,787)	7.81				(286,257,719)	(286,257,719)	(286,257,719)	(286,257,719)	(286,257,719)	(286,257,719)	(286,257,719)	(231,868,754)
Net increase (decrease) in Pension Expense			<b>\$ 388,650,606</b>	<b>\$ 708,833,315</b>	<b>\$ 848,867,872</b>	<b>\$ 515,972,080</b>	<b>\$ 122,730,313</b>	<b>\$ (146,223,162)</b>	<b>\$ (146,223,162)</b>	<b>\$ (146,223,162)</b>	<b>\$ (146,223,162)</b>	<b>\$ (258,250,805)</b>	<b>\$ (231,868,754)</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of  
Changes in Assumptions**

<b>Year</b>	<b>Differences between Expected and Actual Experience</b>	<b>Recognition Period (Years)</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
2016	\$ 2,432,878,017	3.84	633,561,984	633,561,984	633,561,984	532,192,065	-
2017							
2018							
Net increase (decrease) in Pension Expense			<b>\$ 633,561,984</b>	<b>\$ 633,561,984</b>	<b>\$ 633,561,984</b>	<b>\$ 532,192,065</b>	<b>\$ -</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Projected and Actual Earnings on Pension Plan Investments**

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2013	\$ (3,103,533,986)	5	(620,706,797)	(620,706,797)	(620,706,797)	(620,706,797)	(620,706,798)					
2014	\$ (6,422,090,406)	5		(1,284,418,081)	(1,284,418,081)	(1,284,418,081)	(1,284,418,081)	(1,284,418,082)				
2015	\$ 1,385,375,562	5			277,075,112	277,075,112	277,075,112	277,075,112	277,075,114			
2016	\$ 1,886,427,168	5				377,285,434	377,285,434	377,285,434	377,285,434	377,285,432		
2017	\$ (4,593,826,280)	5					(918,765,256)	(918,765,256)	(918,765,256)	(918,765,256)	(918,765,256)	
2018	\$ (2,511,052,439)	5					(502,210,488)	(502,210,488)	(502,210,488)	(502,210,488)	(502,210,488)	(502,210,487)
Net increase (decrease) in Pension Expense			\$ (620,706,797)	\$ (1,905,124,878)	\$ (1,628,049,766)	\$ (1,250,764,332)	\$ (2,169,529,589)	\$ (2,051,033,280)	\$ (766,615,196)	\$ (1,043,690,312)	\$ (1,420,975,744)	\$ (502,210,487)



**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share  
Changes in Proportionate Share at 6/30/2015**

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 96.354%	Proportionate Share at 6/30/2015 96.346%	Change in Proportionate Share		2015	2016	2017	2018
<b>Deferred Outflows of Resources</b>	0	0	0	0	3.88	0	0	0	0
<b>Deferred Inflows of Resources</b>	(6,999,792,717)	(6,744,580,274)	(6,744,020,291)	559,983	3.88	144,326	144,326	144,326	127,005
<b>Net Pension Liability</b>	(17,816,440,111)	(17,166,852,703)	(17,165,427,389)	1,425,314	3.88	367,349	367,349	367,349	323,267
<b>Total</b>	(24,816,232,828)	(23,911,432,977)	(23,909,447,680)	1,985,297		511,675	511,675	511,675	450,272
<b>CUNY Senior Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 2.502%	Proportionate Share at 6/30/2015 2.540%	Change in Proportionate Share		2015	2016	2017	2018
<b>Deferred Outflows of Resources</b>	0	0	0	0	3.88	0	0	0	0
<b>Deferred Inflows of Resources</b>	(6,999,792,717)	(175,134,814)	(177,794,735)	(2,659,921)	3.88	(685,547)	(685,547)	(685,547)	(603,280)
<b>Net Pension Liability</b>	(17,816,440,111)	(445,767,332)	(452,537,579)	(6,770,247)	3.88	(1,744,909)	(1,744,909)	(1,744,909)	(1,535,520)
<b>Total</b>	(24,816,232,828)	(620,902,146)	(630,332,314)	(9,430,168)		(2,430,456)	(2,430,456)	(2,430,456)	(2,138,800)
<b>CUNY Community Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.921%	Proportionate Share at 6/30/2015 0.928%	Change in Proportionate Share		2015	2016	2017	2018
<b>Deferred Outflows of Resources</b>	0	0	0	0	3.88	0	0	0	0
<b>Deferred Inflows of Resources</b>	(6,999,792,717)	(64,468,091)	(64,958,076)	(489,985)	3.88	(126,285)	(126,285)	(126,285)	(111,130)
<b>Net Pension Liability</b>	(17,816,440,111)	(164,089,413)	(165,336,564)	(1,247,151)	3.88	(321,431)	(321,431)	(321,431)	(282,858)
<b>Total</b>	(24,816,232,828)	(228,557,504)	(230,294,640)	(1,737,136)		(447,716)	(447,716)	(447,716)	(393,988)
<b>Charter Schools</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.223%	Proportionate Share at 6/30/2015 0.186%	Change in Proportionate Share		2015	2016	2017	2018
<b>Deferred Outflows of Resources</b>	0	0	0	0	3.88	0	0	0	0
<b>Deferred Inflows of Resources</b>	(6,999,792,717)	(15,609,538)	(13,019,615)	2,589,923	3.88	667,506	667,506	667,506	587,405
<b>Net Pension Liability</b>	(17,816,440,111)	(39,730,662)	(33,138,578)	6,592,084	3.88	1,698,991	1,698,991	1,698,991	1,495,111
<b>Total</b>	(24,816,232,828)	(55,340,200)	(46,158,193)	9,182,007		2,366,497	2,366,497	2,366,497	2,082,516

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share  
Changes in Proportionate Share at 6/30/2016**

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 96.346%	Proportionate Share at 6/30/2016 96.019%	Change in Proportionate Share		2016	2017	2018	2019
<b>Deferred Outflows of Resources</b>	2,227,614,195	2,146,217,172	2,138,932,874	(7,284,298)	3.84	(1,896,953)	(1,896,953)	(1,896,953)	(1,593,439)
<b>Deferred Inflows of Resources</b>	(5,094,667,839)	(4,908,508,675)	(4,891,849,112)	16,659,563	3.84	4,338,427	4,338,427	4,338,427	3,644,282
<b>Net Pension Liability</b>	(20,785,703,677)	(20,026,194,063)	(19,958,224,814)	67,969,249	3.84	17,700,324	17,700,324	17,700,324	14,868,277
<b>Total</b>	(23,652,757,321)	(22,788,485,566)	(22,711,141,052)	77,344,514		20,141,798	20,141,798	20,141,798	16,919,120
<b>CUNY Senior Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 2.540%	Proportionate Share at 6/30/2016 2.779%	Change in Proportionate Share		2016	2017	2018	2019
<b>Deferred Outflows of Resources</b>	2,227,614,195	56,581,401	61,905,398	5,323,997	3.84	1,386,458	1,386,458	1,386,458	1,164,623
<b>Deferred Inflows of Resources</b>	(5,094,667,839)	(129,404,563)	(141,580,819)	(12,176,256)	3.84	(3,170,900)	(3,170,900)	(3,170,900)	(2,663,556)
<b>Net Pension Liability</b>	(20,785,703,677)	(527,956,873)	(577,634,705)	(49,677,832)	3.84	(12,936,935)	(12,936,935)	(12,936,935)	(10,867,027)
<b>Total</b>	(23,652,757,321)	(600,780,035)	(657,310,126)	(56,530,091)		(14,721,377)	(14,721,377)	(14,721,377)	(12,365,960)
<b>CUNY Community Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.928%	Proportionate Share at 6/30/2016 1.056%	Change in Proportionate Share		2016	2017	2018	2019
<b>Deferred Outflows of Resources</b>	2,227,614,195	20,672,260	23,523,606	2,851,346	3.84	742,538	742,538	742,538	623,732
<b>Deferred Inflows of Resources</b>	(5,094,667,839)	(47,278,518)	(53,799,692)	(6,521,174)	3.84	(1,698,222)	(1,698,222)	(1,698,222)	(1,426,508)
<b>Net Pension Liability</b>	(20,785,703,677)	(192,891,330)	(219,497,031)	(26,605,701)	3.84	(6,928,568)	(6,928,568)	(6,928,568)	(5,819,997)
<b>Total</b>	(23,652,757,321)	(219,497,588)	(249,773,117)	(30,275,529)		(7,884,252)	(7,884,252)	(7,884,252)	(6,622,773)
<b>Charter Schools</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.186%	Proportionate Share at 6/30/2016 0.146%	Change in Proportionate Share		2016	2017	2018	2019
<b>Deferred Outflows of Resources</b>	2,227,614,195	4,143,361	3,252,316	(891,045)	3.84	(232,043)	(232,043)	(232,043)	(194,916)
<b>Deferred Inflows of Resources</b>	(5,094,667,839)	(9,476,083)	(7,438,215)	2,037,868	3.84	530,696	530,696	530,696	445,780
<b>Net Pension Liability</b>	(20,785,703,677)	(38,661,409)	(30,347,126)	8,314,283	3.84	2,165,178	2,165,178	2,165,178	1,818,749
<b>Total</b>	(23,652,757,321)	(43,994,131)	(34,533,025)	9,461,106		2,463,831	2,463,831	2,463,831	2,069,613

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Proportionate Share  
Changes in Proportionate Share at 6/30/2017

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 96.019%	Proportionate Share at 6/30/2017 96.627%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	5,779,665,137	5,549,576,668	5,584,717,032	35,140,364	7.20	4,880,607	4,880,607	4,880,607	4,880,607	4,880,607	4,880,607	4,880,607	976,116
<b>Deferred Inflows of Resources</b>	(3,189,542,961)	(3,062,567,255)	(3,081,959,677)	(19,392,422)	7.20	(2,693,393)	(2,693,393)	(2,693,393)	(2,693,393)	(2,693,393)	(2,693,393)	(2,693,393)	(538,670)
<b>Net Pension Liability</b>	(26,371,232,108)	(25,321,393,356)	(25,481,730,449)	(160,337,093)	7.20	(22,269,041)	(22,269,041)	(22,269,041)	(22,269,041)	(22,269,041)	(22,269,041)	(22,269,041)	(4,453,804)
<b>Total</b>	(23,781,109,932)	(22,834,383,943)	(22,978,973,094)	(144,589,147)		(20,081,827)	(20,081,827)	(20,081,827)	(20,081,827)	(20,081,827)	(20,081,827)	(20,081,827)	(4,016,358)
<b>CUNY Senior Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 2.779%	Proportionate Share at 6/30/2017 2.175%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	5,779,665,137	160,616,894	125,707,717	(34,909,177)	7.20	(4,848,497)	(4,848,497)	(4,848,497)	(4,848,497)	(4,848,497)	(4,848,497)	(4,848,497)	(969,698)
<b>Deferred Inflows of Resources</b>	(3,189,542,961)	(88,637,399)	(69,372,559)	19,264,840	7.20	2,675,672	2,675,672	2,675,672	2,675,672	2,675,672	2,675,672	2,675,672	535,136
<b>Net Pension Liability</b>	(26,371,232,108)	(732,856,540)	(573,574,298)	159,282,242	7.20	22,122,534	22,122,534	22,122,534	22,122,534	22,122,534	22,122,534	22,122,534	4,424,504
<b>Total</b>	(23,781,109,932)	(660,877,045)	(517,239,140)	143,637,905		19,949,709	19,949,709	19,949,709	19,949,709	19,949,709	19,949,709	19,949,709	3,989,942
<b>CUNY Community Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 1.056%	Proportionate Share at 6/30/2017 0.989%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	5,779,665,137	61,033,264	57,160,888	(3,872,376)	7.20	(537,830)	(537,830)	(537,830)	(537,830)	(537,830)	(537,830)	(537,830)	(107,566)
<b>Deferred Inflows of Resources</b>	(3,189,542,961)	(33,681,574)	(31,544,580)	2,136,994	7.20	296,805	296,805	296,805	296,805	296,805	296,805	296,805	59,359
<b>Net Pension Liability</b>	(26,371,232,108)	(278,480,211)	(260,811,486)	17,668,725	7.20	2,453,990	2,453,990	2,453,990	2,453,990	2,453,990	2,453,990	2,453,990	490,795
<b>Total</b>	(23,781,109,932)	(251,128,521)	(235,195,178)	15,933,343		2,212,965	2,212,965	2,212,965	2,212,965	2,212,965	2,212,965	2,212,965	442,588
<b>Charter Schools</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.146%	Proportionate Share at 6/30/2017 0.209%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022	2023	2024
<b>Deferred Outflows of Resources</b>	5,779,665,137	8,438,313	12,079,501	3,641,188	7.20	505,720	505,720	505,720	505,720	505,720	505,720	505,720	101,148
<b>Deferred Inflows of Resources</b>	(3,189,542,961)	(4,656,731)	(6,666,144)	(2,009,413)	7.20	(279,084)	(279,084)	(279,084)	(279,084)	(279,084)	(279,084)	(279,084)	(55,825)
<b>Net Pension Liability</b>	(26,371,232,108)	(38,501,999)	(55,115,875)	(16,613,876)	7.20	(2,307,483)	(2,307,483)	(2,307,483)	(2,307,483)	(2,307,483)	(2,307,483)	(2,307,483)	(461,495)
<b>Total</b>	(23,781,109,932)	(34,720,417)	(49,702,518)	(14,982,101)		(2,080,847)	(2,080,847)	(2,080,847)	(2,080,847)	(2,080,847)	(2,080,847)	(2,080,847)	(416,172)

NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Proportionate Share  
Changes in Proportionate Share at 6/30/2018

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 96.642%	Proportionate Share at 6/30/2018 96.009%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024	2025
<b>Deferred Outflows of Resources</b>	2,965,117,022	2,865,548,392	2,846,779,202	(18,769,190)	7.81	(2,403,225)	(2,403,225)	(2,403,225)	(2,403,225)	(2,403,225)	(2,403,225)	(2,403,225)	(1,946,616)
<b>Deferred Inflows of Resources</b>	(3,273,472,580)	(3,163,549,369)	(3,142,828,289)	20,721,080	7.81	2,653,148	2,653,148	2,653,148	2,653,148	2,653,148	2,653,148	2,653,148	2,149,044
<b>Net Pension Liability</b>	(23,227,707,452)	(22,447,721,036)	(22,300,689,648)	147,031,388	7.81	18,826,042	18,826,042	18,826,042	18,826,042	18,826,042	18,826,042	18,826,042	15,249,095
<b>Total</b>	(23,536,063,010)	(22,745,722,013)	(22,596,738,735)	148,983,278		19,075,965	19,075,965	19,075,965	19,075,965	19,075,965	19,075,965	19,075,965	15,451,523
<b>CUNY Senior Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 2.175%	Proportionate Share at 6/30/2018 2.625%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024	2025
<b>Deferred Outflows of Resources</b>	2,965,117,022	64,491,295	77,834,322	13,343,027	7.81	1,708,454	1,708,454	1,708,454	1,708,454	1,708,454	1,708,454	1,708,454	1,383,849
<b>Deferred Inflows of Resources</b>	(3,273,472,580)	(71,198,029)	(85,928,655)	(14,730,626)	7.81	(1,886,124)	(1,886,124)	(1,886,124)	(1,886,124)	(1,886,124)	(1,886,124)	(1,886,124)	(1,527,758)
<b>Net Pension Liability</b>	(23,227,707,452)	(505,202,637)	(609,727,321)	(104,524,684)	7.81	(13,383,442)	(13,383,442)	(13,383,442)	(13,383,442)	(13,383,442)	(13,383,442)	(13,383,442)	(10,840,590)
<b>Total</b>	(23,536,063,010)	(511,909,371)	(617,821,654)	(105,912,283)		(13,561,112)	(13,561,112)	(13,561,112)	(13,561,112)	(13,561,112)	(13,561,112)	(13,561,112)	(10,984,499)
<b>CUNY Community Colleges</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.989%	Proportionate Share at 6/30/2018 1.177%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024	2025
<b>Deferred Outflows of Resources</b>	2,965,117,022	29,325,007	34,899,427	5,574,420	7.81	713,754	713,754	713,754	713,754	713,754	713,754	713,754	578,142
<b>Deferred Inflows of Resources</b>	(3,273,472,580)	(32,374,644)	(38,528,772)	(6,154,128)	7.81	(787,981)	(787,981)	(787,981)	(787,981)	(787,981)	(787,981)	(787,981)	(638,261)
<b>Net Pension Liability</b>	(23,227,707,452)	(229,722,027)	(273,390,117)	(43,668,090)	7.81	(5,591,305)	(5,591,305)	(5,591,305)	(5,591,305)	(5,591,305)	(5,591,305)	(5,591,305)	(4,528,955)
<b>Total</b>	(23,536,063,010)	(232,771,664)	(277,019,462)	(44,247,798)		(5,665,532)	(5,665,532)	(5,665,532)	(5,665,532)	(5,665,532)	(5,665,532)	(5,665,532)	(4,589,074)
<b>Charter Schools</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30							
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.194%	Proportionate Share at 6/30/2018 0.189%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023	2024	2025
<b>Deferred Outflows of Resources</b>	2,965,117,022	5,752,327	5,604,071	(148,256)	7.81	(18,983)	(18,983)	(18,983)	(18,983)	(18,983)	(18,983)	(18,983)	(15,375)
<b>Deferred Inflows of Resources</b>	(3,273,472,580)	(6,350,537)	(6,186,863)	163,674	7.81	20,957	20,957	20,957	20,957	20,957	20,957	20,957	16,975
<b>Net Pension Liability</b>	(23,227,707,452)	(45,061,752)	(43,900,367)	1,161,385	7.81	148,705	148,705	148,705	148,705	148,705	148,705	148,705	120,450
<b>Total</b>	(23,536,063,010)	(45,659,962)	(44,483,159)	1,176,803		150,679	150,679	150,679	150,679	150,679	150,679	150,679	122,050

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	1,386,673,964
b. Interest on the Total Pension Liability		5,147,042,567
c. Differences between Expected and Actual Experience		848,867,872
d. Changes of Assumptions		633,561,984
e. Employee Contributions		(180,076,000)
f. Projected Earnings on Pension Plan Investments		(3,539,453,720)
g. Differences between Projected and Actual Earnings on Plan Investments		(2,169,529,589)
h. Pension Plan Administrative Expenses		60,790,000
i. Payment of Interest on TDA Fixed Funds		1,466,615,000
j. Other Changes in Fiduciary Net Position		46,229,000
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>3,700,721,078</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Department of Education**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	1,339,901,449
b. Interest on the Total Pension Liability		4,973,432,821
c. Differences between Expected and Actual Experience		820,235,559
d. Changes of Assumptions		612,191,939
e. Employee Contributions		(174,002,037)
f. Projected Earnings on Pension Plan Investments		(3,420,067,947)
g. Differences between Projected and Actual Earnings on Plan Investments		(2,096,351,356)
h. Pension Plan Administrative Expenses		58,739,551
i. Payment of Interest on TDA Fixed Funds		1,417,146,076
j. Other Changes in Fiduciary Net Position		44,669,697
		<hr/>
Subtotal		3,575,895,752
k. Changes in Proportionate Share		(571,646)
<b>Total Pension Expense</b>	<b>\$</b>	<b>3,575,324,106</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
CUNY Senior Colleges**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	30,160,159
b. Interest on the Total Pension Liability		111,948,176
c. Differences between Expected and Actual Experience		18,462,876
d. Changes of Assumptions		13,779,973
e. Employee Contributions		(3,916,653)
f. Projected Earnings on Pension Plan Investments		(76,983,118)
g. Differences between Projected and Actual Earnings on Plan Investments		(47,187,269)
h. Pension Plan Administrative Expenses		1,322,183
i. Payment of Interest on TDA Fixed Funds		31,898,876
j. Other Changes in Fiduciary Net Position		1,005,481
		<hr/>
Subtotal		80,490,684
k. Changes in Proportionate Share		(2,797,876)
<b>Total Pension Expense</b>	<b>\$</b>	<b>77,692,808</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
CUNY Community Colleges**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	13,714,206
b. Interest on the Total Pension Liability		50,904,251
c. Differences between Expected and Actual Experience		8,395,303
d. Changes of Assumptions		6,265,928
e. Employee Contributions		(1,780,952)
f. Projected Earnings on Pension Plan Investments		(35,005,197)
g. Differences between Projected and Actual Earnings on Plan Investments		(21,456,648)
h. Pension Plan Administrative Expenses		601,213
i. Payment of Interest on TDA Fixed Funds		14,504,822
j. Other Changes in Fiduciary Net Position		457,205
		<hr/>
Subtotal		36,600,131
k. Changes in Proportionate Share		6,119,003
<b>Total Pension Expense</b>	<b>\$</b>	<b>42,719,134</b>



**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Charter Schools**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	2,898,150
b. Interest on the Total Pension Liability		10,757,319
c. Differences between Expected and Actual Experience		1,774,134
d. Changes of Assumptions		1,324,144
e. Employee Contributions		(376,358)
f. Projected Earnings on Pension Plan Investments		(7,397,458)
g. Differences between Projected and Actual Earnings on Plan Investments		(4,534,316)
h. Pension Plan Administrative Expenses		127,053
i. Payment of Interest on TDA Fixed Funds		3,065,226
j. Other Changes in Fiduciary Net Position		96,617
		<hr/>
Subtotal		7,734,511
k. Changes in Proportionate Share		(2,749,481)
<b>Total Pension Expense</b>	<b>\$</b>	<b>4,985,030</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017 - By Obligor**

<u>Component</u>	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>Total</u>
a. Service Cost	\$ 1,339,901,449	\$ 30,160,159	\$ 13,714,206	\$ 2,898,150	1,386,673,964
b. Interest on the Total Pension Liability	4,973,432,821	111,948,176	50,904,251	10,757,319	5,147,042,567
c. Differences between Expected and Actual Experience	820,235,559	18,462,876	8,395,303	1,774,134	848,867,872
d. Changes of Assumptions	612,191,939	13,779,973	6,265,928	1,324,144	633,561,984
e. Employee Contributions	(174,002,037)	(3,916,653)	(1,780,952)	(376,358)	(180,076,000)
f. Projected Earnings on Pension Plan Investments	(3,420,067,947)	(76,983,118)	(35,005,197)	(7,397,458)	(3,539,453,720)
g. Differences between Projected and Actual Earnings on Plan Investments	(2,096,351,356)	(47,187,269)	(21,456,648)	(4,534,316)	(2,169,529,589)
h. Pension Plan Administrative Expenses	58,739,551	1,322,183	601,213	127,053	60,790,000
i. Payment of Interest on TDA Fixed Funds	1,417,146,076	31,898,876	14,504,822	3,065,226	1,466,615,000
j. Other Changes in Fiduciary Net Position	44,669,697	1,005,481	457,205	96,617	46,229,000
k. Changes in Proportionate Share	(571,646)	(2,797,876)	6,119,003	(2,749,481)	0
<b>Total Pension Expense</b>	<b>\$ 3,575,324,106</b>	<b>\$ 77,692,808</b>	<b>\$ 42,719,134</b>	<b>\$ 4,985,030</b>	<b>3,700,721,078</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	1,436,616,796
b. Interest on the Total Pension Liability		5,071,480,880
c. Differences between Expected and Actual Experience		515,972,080
d. Changes of Assumptions		633,561,984
e. Employee Contributions		(195,241,000)
f. Projected Earnings on Pension Plan Investments		(3,764,062,561)
g. Differences between Projected and Actual Earnings on Plan Investments		(2,051,033,280)
h. Pension Plan Administrative Expenses		65,076,000
i. Payment of Interest on TDA Fixed Funds		1,595,462,000
j. Other Changes in Fiduciary Net Position		(29,170,000)
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>3,278,662,899</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Department of Education**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 1,379,281,419
b. Interest on the Total Pension Liability	4,869,078,078
c. Differences between Expected and Actual Experience	495,379,635
d. Changes of Assumptions	608,276,525
e. Employee Contributions	(187,448,932)
f. Projected Earnings on Pension Plan Investments	(3,613,838,825)
g. Differences between Projected and Actual Earnings on Plan Investments	(1,969,176,541)
h. Pension Plan Administrative Expenses	62,478,816
i. Payment of Interest on TDA Fixed Funds	1,531,787,111
j. Other Changes in Fiduciary Net Position	<u>(28,005,825)</u>
Subtotal	3,147,811,461
k. Changes in Proportionate Share	(19,965,647)
<b>Total Pension Expense</b>	<b>\$ 3,127,845,814</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
CUNY Senior Colleges**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	37,711,191
b. Interest on the Total Pension Liability		133,126,373
c. Differences between Expected and Actual Experience		13,544,267
d. Changes of Assumptions		16,631,002
e. Employee Contributions		(5,125,076)
f. Projected Earnings on Pension Plan Investments		(98,806,642)
g. Differences between Projected and Actual Earnings on Plan Investments		(53,839,624)
h. Pension Plan Administrative Expenses		1,708,245
i. Payment of Interest on TDA Fixed Funds		41,880,878
j. Other Changes in Fiduciary Net Position		(765,713)
		<hr/>
Subtotal		86,064,901
k. Changes in Proportionate Share		10,471,580
<b>Total Pension Expense</b>	<b>\$</b>	<b>96,536,481</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
CUNY Community Colleges**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	16,908,980
b. Interest on the Total Pension Liability		59,691,330
c. Differences between Expected and Actual Experience		6,072,991
d. Changes of Assumptions		7,457,025
e. Employee Contributions		(2,297,987)
f. Projected Earnings on Pension Plan Investments		(44,303,016)
g. Differences between Projected and Actual Earnings on Plan Investments		(24,140,662)
h. Pension Plan Administrative Expenses		765,945
i. Payment of Interest on TDA Fixed Funds		18,778,588
j. Other Changes in Fiduciary Net Position		(343,331)
		<hr/>
Subtotal		38,589,863
k. Changes in Proportionate Share		11,730,807
<b>Total Pension Expense</b>	<b>\$</b>	<b>50,320,670</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Charter Schools**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	2,715,206
b. Interest on the Total Pension Liability		9,585,099
c. Differences between Expected and Actual Experience		975,187
d. Changes of Assumptions		1,197,432
e. Employee Contributions		(369,005)
f. Projected Earnings on Pension Plan Investments		(7,114,078)
g. Differences between Projected and Actual Earnings on Plan Investments		(3,876,453)
h. Pension Plan Administrative Expenses		122,994
i. Payment of Interest on TDA Fixed Funds		3,015,423
j. Other Changes in Fiduciary Net Position		(55,131)
		<hr/>
Subtotal		6,196,674
k. Changes in Proportionate Share		(2,236,740)
<b>Total Pension Expense</b>	<b>\$</b>	<b>3,959,934</b>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018 - By Obligor**

<u>Component</u>	<u>DEPT. OF ED.</u>	<u>SENIOR COLL.</u>	<u>COMM. COLL.</u>	<u>Charter Schools</u>	<u>Total</u>
a. Service Cost	\$ 1,379,281,419	\$ 37,711,191	\$ 16,908,980	\$ 2,715,206	1,436,616,796
b. Interest on the Total Pension Liability	4,869,078,078	133,126,373	59,691,330	9,585,099	5,071,480,880
c. Differences between Expected and Actual Experience	495,379,635	13,544,267	6,072,991	975,187	515,972,080
d. Changes of Assumptions	608,276,525	16,631,002	7,457,025	1,197,432	633,561,984
e. Employee Contributions	(187,448,932)	(5,125,076)	(2,297,987)	(369,005)	(195,241,000)
f. Projected Earnings on Pension Plan Investments	(3,613,838,825)	(98,806,642)	(44,303,016)	(7,114,078)	(3,764,062,561)
g. Differences between Projected and Actual Earnings on Plan Investments	(1,969,176,541)	(53,839,624)	(24,140,662)	(3,876,453)	(2,051,033,280)
h. Pension Plan Administrative Expenses	62,478,816	1,708,245	765,945	122,994	65,076,000
i. Payment of Interest on TDA Fixed Funds	1,531,787,111	41,880,878	18,778,588	3,015,423	1,595,462,000
j. Other Changes in Fiduciary Net Position	(28,005,825)	(765,713)	(343,331)	(55,131)	(29,170,000)
k. Changes in Proportionate Share	(19,965,647)	10,471,580	11,730,807	(2,236,740)	0
<b>Total Pension Expense</b>	<b>\$ 3,127,845,814</b>	<b>\$ 96,536,481</b>	<b>\$ 50,320,670</b>	<b>\$ 3,959,934</b>	<b>3,278,662,899</b>



**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2013, the Obligors recognized Pension Expense for TRS of \$3,041,839,656.

At June 30, 2013, the Obligors reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	0	2,482,827,189
Total	\$ 0	\$ 2,482,827,189

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2013	\$ (620,706,797)
2014	(620,706,797)
2015	(620,706,797)
2016	(620,706,797)
2017	(620,706,798)

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2014, the Obligors recognized Pension Expense for TRS of \$1,733,023,169.

For June 30, 2014, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>5,137,672,325</u>
Total	\$ 0	\$ 5,137,672,325

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2014	\$ (1,284,418,081)
2015	(1,284,418,081)
2016	(1,284,418,081)
2017	(1,284,418,081)
2018	(1,284,418,082)

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2015, the Obligors recognized Pension Expense for TRS of \$2,162,052,493

For June 30, 2015, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 1,119,313,745	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>1,108,300,450</u>	<u>0</u>
Total	\$ 2,227,614,195	\$ 0

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2015	\$ 665,725,718
2016	\$ 665,725,718
2017	\$ 665,725,718
2018	\$ 619,087,645
2019	\$ 277,075,114

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2016, the Obligors recognized Pension Expense for TRS of \$3,889,066,611.

For June 30, 2016, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 909,318,893	\$ 0
Changes of Assumptions	1,799,316,033	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>1,509,141,734</u>	<u>0</u>
Total	\$ 4,217,776,660	\$ 0

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2016	\$ 1,331,030,127
2017	\$ 1,331,030,127
2018	\$ 1,331,030,127
2019	\$ 1,178,430,974
2020	\$ 377,285,432

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2017, the Obligors recognized Pension Expense for TRS of \$3,700,721,078.

For June 30, 2017, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 868,214,256	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>3,675,061,024</u>
Total	\$ 868,214,256	\$ 3,675,061,024

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2017	\$ (778,730,699)
2018	\$ (778,730,699)
2019	\$ (778,730,699)
2020	\$ (778,730,699)
2021	\$ (778,730,699)
Thereafter	\$ 308,076,028

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2018, the Obligors recognized Pension Expense for TRS of \$3,278,662,899.

For June 30, 2018, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 1,949,415,068
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	0	2,008,841,951
Total	\$ 0	\$ 3,958,257,019

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (788,468,207)
2019	\$ (788,468,207)
2020	\$ (788,468,207)
2021	\$ (788,468,207)
2022	\$ (788,468,206)
Thereafter	\$ (804,384,192)

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2018, the Obligors recognized Pension Expense for TRS of \$3,278,662,899.

At June 30, 2018, the Obligors reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for TRS from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 997,133,174	\$ 1,949,415,068
Changes of Assumptions	\$ 532,192,065	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>\$ 0</u>	<u>3,733,491,739</u>
Total	\$ 1,529,325,239	\$ 5,682,906,807

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for TRS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (901,499,216)
2019	\$ (111,692,818)
2020	\$ (1,189,913,474)
2021	\$ (1,567,198,906)
2022	\$ (648,433,649)
Thereafter	\$ (636,342,721)

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Pension Amounts by Employer  
As of and for the year ended June 30, 2017**

**Deferred Outflows of Resources**

<u>Entity</u>	<u>Net Pension Liability</u>	<u>Differences Between Expected and Actual Experience</u>	<u>Change of Assumptions</u>	<u>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</u>	<u>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</u>	<u>Total Deferred Outflows of Resources</u>
Department of Education	\$ 22,444,293,331	\$ 1,738,670,459	\$ 1,126,433,165	\$ 0	\$ 113,765,496	\$ 2,978,869,120
CUNY Senior Colleges	505,199,949	39,136,145	25,355,151	0	(121,971,658)	(57,480,362)
CUNY Community Colleges	229,708,533	17,795,700	11,529,308	0	(787,641)	28,537,367
Charter Schools	<u>48,505,639</u>	<u>3,760,669</u>	<u>2,436,425</u>	<u>0</u>	<u>8,993,803</u>	<u>15,190,897</u>
Total	<u>\$ 23,227,707,452</u>	<u>\$ 1,799,362,973</u>	<u>\$ 1,165,754,049</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 2,965,117,022</u>

**Deferred Inflows of Resources**

<u>Entity</u>	<u>Differences Between Expected and Actual Experience</u>	<u>Change of Assumptions</u>	<u>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</u>	<u>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</u>	<u>Total Deferred Inflows of Resources</u>
Department of Education	\$ 0	\$ 0	\$ 3,163,058,350	\$ 26,769,366	\$ 3,189,827,716
CUNY Senior Colleges	0	0	71,198,029	(27,509,599)	43,688,430
CUNY Community Colleges	0	0	32,374,644	(1,968,276)	30,406,368
Charter Schools	<u>0</u>	<u>0</u>	<u>6,841,557</u>	<u>2,708,509</u>	<u>9,550,066</u>
Total	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 3,273,472,580</u>	<u>\$ 0</u>	<u>\$ 3,273,472,580</u>

**Pension Expense**

<u>Entity</u>	<u>Proportionate Share of Plan Pension Expense</u>	<u>Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</u>	<u>Total Employer Pension Expense</u>
Department of Education	\$ 3,575,895,752	\$ (571,646)	\$ 3,575,324,106
CUNY Senior Colleges	80,490,684	(2,797,876)	77,692,808
CUNY Community Colleges	36,600,131	6,119,003	42,719,134
Charter Schools	<u>7,734,511</u>	<u>(2,749,481)</u>	<u>4,985,030</u>
Total	<u>\$ 3,700,721,078</u>	<u>\$ 0</u>	<u>\$ 3,700,721,078</u>



**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Pension Amounts by Employer  
As of and for the year ended June 30, 2018**

**Deferred Outflows of Resources**

<u>Entity</u>	<u>Net Pension Liability</u>	<u>Differences Between Expected and Actual Experience</u>	<u>Change of Assumptions</u>	<u>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</u>	<u>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</u>	<u>Total Deferred Outflows of Resources</u>
Department of Education	\$ 17,964,681,158	\$ 957,337,589	\$ 510,952,279	\$ 0	\$ (33,996,251)	\$ 1,434,293,617
CUNY Senior Colleges	491,175,703	26,174,746	13,970,042	0	(11,434,343)	28,710,445
CUNY Community Colleges	220,233,829	11,736,257	6,263,901	0	36,385,308	54,385,466
Charter Schools	<u>35,364,651</u>	<u>1,884,582</u>	<u>1,005,843</u>	<u>0</u>	<u>9,045,286</u>	<u>11,935,711</u>
Total	<u>\$ 18,711,455,341</u>	<u>\$ 997,133,174</u>	<u>\$ 532,192,065</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 1,529,325,239</u>

**Deferred Inflows of Resources**

<u>Entity</u>	<u>Differences Between Expected and Actual Experience</u>	<u>Change of Assumptions</u>	<u>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</u>	<u>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</u>	<u>Total Deferred Inflows of Resources</u>
Department of Education	\$ 1,871,613,913	\$ 0	\$ 3,584,488,084	\$ 7,668,086	\$ 5,463,770,083
CUNY Senior Colleges	51,172,146	0	98,004,158	(12,412,987)	136,763,317
CUNY Community Colleges	22,944,615	0	43,943,198	2,687,682	69,575,495
Charter Schools	<u>3,684,394</u>	<u>0</u>	<u>7,056,299</u>	<u>2,057,219</u>	<u>12,797,912</u>
Total	<u>\$ 1,949,415,068</u>	<u>\$ 0</u>	<u>\$ 3,733,491,739</u>	<u>\$ 0</u>	<u>\$ 5,682,906,807</u>

**Pension Expense**

<u>Entity</u>	<u>Proportionate Share of Plan Pension Expense</u>	<u>Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</u>	<u>Total Employer Pension Expense</u>
Department of Education	\$ 3,147,811,461	\$ (19,965,647)	\$ 3,127,845,814
CUNY Senior Colleges	86,064,901	10,471,580	96,536,481
CUNY Community Colleges	38,589,863	11,730,807	50,320,670
Charter Schools	<u>6,196,674</u>	<u>(2,236,740)</u>	<u>3,959,934</u>
Total	<u>\$ 3,278,662,899</u>	<u>\$ 0</u>	<u>\$ 3,278,662,899</u>

**NEW YORK CITY TEACHERS' RETIREMENT SYSTEM (TRS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Collective Pension Amounts  
As of and for the year ended June 30, 2018**

Net Pension Liability	Deferred Outflows of Resources				Deferred Inflows of Resources				Plan Pension Expense
	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Total Deferred Outflows of Resources Excluding Employer Specific Amounts	Differences Between Expected and Actual Experience	Change of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Total Deferred Inflows of Resources Excluding Employer Specific Amounts	
\$ 18,711,455,341	\$ 997,133,174	\$ 532,192,065	\$ 0	\$ 1,529,325,239	\$ 1,949,415,068	\$ 0	\$ 3,733,491,739	\$ 5,682,906,807	\$ 3,278,662,899

# Appendix C

## APPENDIX C

### NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

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**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position - QPP Only**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 2,106	\$ 3,232
Receivables:		
Investment securities sold	84,962	98,675
Member loans	50,038	47,935
Accrued interest and dividends	13,273	9,080
Other	<u>794</u>	<u>60</u>
Total receivables	\$ 149,067	\$ 155,750
Investments - at fair value		
Fixed Return Funds:		
Short-term investments:		
Commercial paper	69,031	21,496
Short-term investment fund	56,088	30,587
Discount notes	9,331	0
Debt securities	1,531,460	1,103,180
Equity securities	1,687,635	145,431
Alternative investments	765,549	612,677
Collective Trust Funds:		
International equity	1,167,563	1,251,628
Domestic equity	152,372	1,738,135
Mortgage debt security	34,966	30,925
Treasury inflation protected securities	283,241	236,943
Fixed income	256,554	113,962
Collateral from securities lending	389,554	374,326
Variable Return Funds:		
Short-term investments	495	513
Debt securities	1,076	828
Equities	51,828	46,309
Collateral from securities lending	<u>586</u>	<u>617</u>
Total Investments	6,457,329	\$ 5,707,557
Other assets	206,757	160,453
Total assets	<u>6,815,259</u>	<u>\$ 6,026,992</u>
<b>LIABILITIES</b>		
Accounts payable	34,454	13,884
Payables for investment securities purchased	115,140	92,173
Accrued benefits payable	9,747	9,943
Due to TDA Program from the System	1,592,875	1,436,478
Securities lending	390,140	374,943
Total liabilities	<u>2,142,356</u>	<u>\$ 1,927,421</u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u>4,672,903</u>	<u>\$ 4,099,571</u>

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Statement of Changes in Fiduciary Net Position - QPP Only  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)

	June 30, 2018		June 30, 2017	
	Fixed	Variable	Fixed	Variable
<b>ADDITIONS</b>				
Contributions:				
Member Contributions	\$ 40,846	\$ 0	\$ 39,804	\$ 17
Employer Contributions	318,643	0	288,233	0
<i>Total contributions</i>	\$ 359,489	\$ 0	\$ 328,037	\$ 17
Investment income:				
Interest income	75,332	30	54,905	60
Dividend income	78,935	694	69,098	1,513
Net appreciation (depreciation) in fair value	421,135	5,180	754,163	6,097
<i>Total investment income</i>	\$ 575,402	\$ 5,904	\$ 878,166	\$ 7,670
Less:				
Investment expenses	19,384	45	29,204	0
<i>Net income</i>	556,018	5,859	848,962	7,670
Securities lending transactions:				
Securities lending income	3,995	0	6,118	0
Securities lending fees	(295)	0	(240)	0
<i>Net securities lending income</i>	3,700	0	5,878	0
<i>Net investment income</i>	559,718	5,859	854,840	7,670
Other:				
Net receipts from other retirement systems	51,058	(34)	(122,954)	0
Litigation income	0	0	0	0
<i>Total additions</i>	\$ 970,265	\$ 5,825	\$ 1,059,923	\$ 7,687
<b>DEDUCTIONS</b>				
Benefit payments and withdrawals	261,574	0	259,827	2,605
Payment of Interest on TDA Fixed Funds	127,972	0	106,554	0
Administrative expenses	13,212	0	15,486	0
<i>Total deductions</i>	\$ 402,758	\$ 0	\$ 381,867	\$ 2,605
<b>INCREASE IN PLAN NET POSITION</b>	567,507	5,825	678,056	5,082
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>				
<b>Beginning of year</b>	\$ 4,051,902	\$ 47,669	\$ 3,373,846	\$ 42,587
<b>End of year</b>	\$ 4,619,409	\$ 53,494	\$ 4,051,902	\$ 47,669

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Market Values of Assets - QPP Only**

	<b>Fixed</b>	<b>Variable</b>	<b>Total</b>
<b>1. Plan Net Position @ 6/30/2016</b>	\$ 3,373,846,000	\$ 42,587,000	\$ 3,416,433,000
<b>2. Changes for the year:</b>			
a. ER Contributions	288,233,000	0	288,233,000
b. EE Contributions	39,804,000	17,000	39,821,000
c. Net Investment Income	854,840,000	7,670,000	862,510,000
d. Benefit Payments	(259,827,000)	(2,605,000)	(262,432,000)
e. Payment of Interest on TDA Fixed Funds	(106,554,000)	0	(106,554,000)
f. Administrative Expenses	(15,486,000)	0	(15,486,000)
g. Other	(122,954,000)	0	(122,954,000)
h. Net Changes	<u>\$ 678,056,000</u>	<u>\$ 5,082,000</u>	<u>\$ 683,138,000</u>
<b>3. Plan Net Position @ 6/30/2017</b>	<u>\$ 4,051,902,000</u>	<u>\$ 47,669,000</u>	<u>\$ 4,099,571,000</u>
<b>4. Changes for the year:</b>			
a. ER Contributions	318,643,000	0	318,643,000
b. EE Contributions	40,846,000	0	40,846,000
c. Net Investment Income	559,718,000	5,859,000	565,577,000
d. Benefit Payments	(261,574,000)	0	(261,574,000)
e. Payment of Interest on TDA Fixed Funds	(127,972,000)	0	(127,972,000)
f. Administrative Expenses	(13,212,000)	0	(13,212,000)
g. Other	51,058,000	(34,000)	51,024,000
h. Net Changes	<u>\$ 567,507,000</u>	<u>\$ 5,825,000</u>	<u>\$ 573,332,000</u>
<b>5. Plan Net Position @ 6/30/2018</b>	<u>\$ 4,619,409,000</u>	<u>\$ 53,494,000</u>	<u>\$ 4,672,903,000</u>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Long-Term Expected Rate of Return**

The Long-Term Expected Rate of Return (LTEROR) assumption on pension fund investments was determined using a Building-Block Method in which best-estimate ranges of Expected Real Rates of Return (i.e. Expected Returns, net of pension fund investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the LTEROR by weighting the Expected Real Rates of Return (RROR) by the Target Asset Allocation percentage and by adding Expected Inflation. The Target Asset Allocation and best estimates of Arithmetic Real Rates of Return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Public Market Equities	30%	6.3%
International Public Market Equities	13%	7.0%
Emerging Public Market Equities	7%	9.5%
Private Market Equities	9%	10.4%
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	28%	2.2%
Alternatives (Real Assets, Hedge Funds)	<u>13%</u>	5.5%
Total	100%	

The Discount Rate used to measure the Total Pension Liability was 7.0% per annum. The projection of Cash Flows used to determine the Discount Rate assumes that employee contributions will be made at the rates applicable to the current Tier for each member and that employer contributions will be made at rates as determined by the Actuary. Based on those assumptions, the pension fund's Fiduciary Net Position is projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the Long-Term Expected Rate of Return on pension fund investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.



**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss - QPP Only  
June 30, 2017**

	Fixed	Variable	Total
<b>1. Market Value 6/30/2016</b>	\$ 3,373,846,000	\$ 42,587,000	\$ 3,416,433,000
<b>2. Market Value 6/30/2017</b>	4,051,902,000	47,669,000	4,099,571,000
<b>3. Net Investment Income</b>	854,840,000	7,670,000	862,510,000
<b>4. Cash Flow (2. - 1. - 3.)</b>	(176,784,000)	(2,588,000)	(179,372,000)
<b>5. Projected Earnings<sup>1</sup> (7% * 1. + 3.441% * 4.)</b>	230,086,083	7,670,000	237,756,083
<b>6. (Gain) / Loss (5. - 3.)</b>	(624,753,917)	0	(624,753,917)
<b>7. Recognition Period</b>	5 Years	5 Years	5 Years
<b>8. Amount Recognized in Pension Expense (6. / 7.)</b>	(124,950,783)	0	(124,950,783)
<b>9. Deferred (Inflow) / Outflow of Resources (6. - 8.)</b>	\$ (499,803,134)	\$ 0	\$ (499,803,134)

<sup>1</sup>Variable Funds Projected Earnings set equal to Variable Funds Net Investment Income.

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss - QPP Only  
June 30, 2018**

	Fixed	Variable	Total
<b>1. Market Value 6/30/2017</b>	\$ 4,051,902,000	\$ 47,669,000	\$ 4,099,571,000
<b>2. Market Value 6/30/2018</b>	4,619,409,000	53,494,000	4,672,903,000
<b>3. Net Investment Income</b>	559,718,000	5,859,000	565,577,000
<b>4. Cash Flow (2. - 1. - 3.)</b>	7,789,000	(34,000)	7,755,000
<b>5. Projected Earnings<sup>1</sup> (7% * 1. + 3.441% * 4.)</b>	283,901,159	5,859,000	289,760,159
<b>6. (Gain) / Loss (5. - 3.)</b>	(275,816,841)	0	(275,816,841)
<b>7. Recognition Period</b>	5 Years	5 Years	5 Years
<b>8. Amount Recognized in Pension Expense (6. / 7.)</b>	(55,163,368)	0	(55,163,368)
<b>9. Deferred (Inflow) / Outflow of Resources (6. - 8.)</b>	\$ (220,653,473)	\$ 0	\$ (220,653,473)

<sup>1</sup>Variable Funds Projected Earnings set equal to Variable Funds Net Investment Income.

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Roll-Forward of Entry Age Actuarial Accrued Liabilities to June 30, 2018**

	<b>Fixed</b>		<b>Variable</b>		<b>Total</b>
1. Entry Age Accrued Liability (EAAL) at 6/30/2016	\$	4,644,728,608	\$	20,637,885	\$ 4,665,366,493
2. Entry Age Normal Cost at 6/30/2016		170,053,074		0	170,053,074
3. Benefit Payments-FY2017		259,827,000		2,605,000	262,432,000
4. Interest <sup>1</sup>		328,094,071		7,670,000	335,764,071
5. Roll-Forward EAAL at 6/30/2017	\$	4,883,048,753	\$	25,702,885	\$ 4,908,751,638
6. Entry Age Normal Cost at 6/30/2017		176,109,730		0	176,109,730
7. Benefit Payments-FY2018		261,574,000		0	261,574,000
8. Interest <sup>1</sup>		345,140,332		5,859,000	350,999,332
9. Roll-Forward EAAL at 6/30/2018	\$	5,142,724,815	\$	31,561,885	\$ 5,174,286,700

<sup>1</sup>Interest on Variable Funds set equal to Variable Funds Net Investment Income.

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Allocations  
June 30, 2017**

<b>Employer</b>	<b>2017 Actual Employer Contributions</b>	<b>Employer Allocation Percentage</b>
Department of Education (DOE)	\$ 274,613,972	95.2749%
School Construction Authority (SCA)	13,502,320	4.6845%
Charter Schools	116,925	0.0406%
Total	\$ 288,233,217	100.0000%

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017**

	<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	\$ 4,800,698,288	\$ 3,416,433,000	\$ 1,384,265,288
<b>2. Changes for the Year:</b>			
a. Service Cost	168,625,048	0	168,625,048
b. Interest	346,508,926	0	346,508,926
c. Differences b/t Expected and Actual Experience	19,938,359	0	19,938,359
d. Changes of Assumptions	0	0	0
e. Contributions - Employer	0	288,233,000	(288,233,000)
f. Contributions - Employee	0	39,821,000	(39,821,000)
g. Net Investment Income	0	862,510,000	(862,510,000)
h. Benefit Payments	(262,432,000)	(262,432,000)	0
i. Administrative Expenses	0	(15,486,000)	15,486,000
j. Payment of Interest on TDA Fixed Funds	0	(106,554,000)	106,554,000
k. Other Changes	0	(122,954,000)	122,954,000
<b>l. Net Changes</b>	<b>\$ 272,640,333</b>	<b>\$ 683,138,000</b>	<b>\$ (410,497,667)</b>
<b>3. Balances at June 30, 2017</b>	<b>\$ 5,073,338,621</b>	<b>\$ 4,099,571,000</b>	<b>\$ 973,767,621</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Department of Education  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>96.8080%</b>	<b>\$ 4,647,460,002</b>	<b>\$ 3,307,380,460</b>	<b>\$ 1,340,079,542</b>
<b>2. Changes for the Year:</b>				
a.		160,657,347	0	160,657,347
b. Interest		330,136,033	0	330,136,033
c. Differences b/t Expected and Actual Experience		18,996,252	0	18,996,252
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	274,613,755	(274,613,755)
f. Contributions - Employee		0	37,939,417	(37,939,417)
g. Net Investment Income		0	821,755,539	(821,755,539)
h. Benefit Payments		(250,031,825)	(250,031,825)	0
i. Administrative Expenses		0	(14,754,271)	14,754,271
j. Payment of Interest on TDA Fixed Funds		0	(101,519,217)	101,519,217
k. Other Changes		0	(117,144,300)	117,144,300
<b>l. Net Changes</b>		<b>\$ 259,757,807</b>	<b>\$ 650,859,098</b>	<b>\$ (391,101,291)</b>
<b>3. SubTotal</b>		<b>\$ 4,907,217,809</b>	<b>\$ 3,958,239,558</b>	<b>\$ 948,978,251</b>
<b>4. Changes in Proportionate Share</b>		<b>(73,599,509)</b>	<b>(52,377,338)</b>	<b>(21,222,171)</b>
<b>5. Balances at June 30, 2017</b>	<b>95.2749%</b>	<b>\$ 4,833,618,300</b>	<b>\$ 3,905,862,220</b>	<b>\$ 927,756,080</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
School Construction Authority  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>3.1787%</b>	<b>\$ 152,599,797</b>	<b>\$ 108,598,155</b>	<b>\$ 44,001,642</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		7,899,240	0	7,899,240
b. Interest		16,232,211	0	16,232,211
c. Differences b/t Expected and Actual Experience		934,012	0	934,012
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	13,502,320	(13,502,320)
f. Contributions - Employee		0	1,865,415	(1,865,415)
g. Net Investment Income		0	40,404,281	(40,404,281)
h. Benefit Payments		(12,293,627)	(12,293,627)	0
i. Administrative Expenses		0	(725,442)	725,442
j. Payment of Interest on TDA Fixed Funds		0	(4,991,522)	4,991,522
k. Other Changes		0	(5,759,780)	5,759,780
<b>l. Net Changes</b>		<b>\$ 12,771,836</b>	<b>\$ 32,001,645</b>	<b>(19,229,809)</b>
<b>3. SubTotal</b>		<b>\$ 165,371,633</b>	<b>\$ 140,599,800</b>	<b>24,771,833</b>
<b>4. Changes in Proportionate Share</b>		<b>72,288,915</b>	<b>51,444,649</b>	<b>20,844,266</b>
<b>5. Balances at June 30, 2017</b>	<b>4.6845%</b>	<b>\$ 237,660,548</b>	<b>\$ 192,044,449</b>	<b>45,616,099</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Charter Schools  
Balances at June 30, 2017**

		<b>Total Pension Liability (a)</b>	<b>Plan Fiduciary Net Position (b)</b>	<b>Net Pension Liability (a) - (b)</b>
<b>1. Balances at June 30, 2016</b>	<b>0.0133%</b>	<b>\$ 638,489</b>	<b>\$ 454,385</b>	<b>\$ 184,104</b>
<b>2. Changes for the Year:</b>				
a. Service Cost		68,461	0	68,461
b. Interest		140,682	0	140,682
c. Differences b/t Expected and Actual Experience		8,095	0	8,095
d. Changes of Assumptions		0	0	0
e. Contributions - Employer		0	116,925	(116,925)
f. Contributions - Employee		0	16,168	(16,168)
g. Net Investment Income		0	350,180	(350,180)
h. Benefit Payments		(106,548)	(106,548)	0
i. Administrative Expenses		0	(6,287)	6,287
j. Payment of Interest on TDA Fixed Funds		0	(43,261)	43,261
k. Other Changes		0	(49,920)	49,920
<b>l. Net Changes</b>		<b>\$ 110,690</b>	<b>\$ 277,257</b>	<b>\$ (166,567)</b>
<b>3. SubTotal</b>		<b>\$ 749,179</b>	<b>\$ 731,642</b>	<b>\$ 17,537</b>
<b>4. Changes in Proportionate Share</b>		<b>1,310,594</b>	<b>932,689</b>	<b>377,905</b>
<b>5. Balances at June 30, 2017</b>	<b>0.0406%</b>	<b>\$ 2,059,773</b>	<b>\$ 1,664,331</b>	<b>\$ 395,442</b>



NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source - By Obligor  
Balances as of June 30, 2017

	Total Pension Liability			
	DOE	SCA	Charter Schools	TOTAL
<b>1. Balances at June 30, 2016</b>	\$ 4,647,460,002	\$ 152,599,797	\$ 638,489	\$ 4,800,698,288
<b>2. Changes for the Year:</b>				
a. Service Cost	160,657,347	7,899,240	68,461	168,625,048
b. Interest	330,136,033	16,232,211	140,682	346,508,926
c. Differences b/t Expected and Actual Experience	18,996,252	934,012	8,095	19,938,359
d. Changes of Assumptions	0	0	0	0
e. Benefit Payments	(250,031,825)	(12,293,627)	(106,548)	(262,432,000)
<b>f. Net Changes</b>	<b>\$ 259,757,807</b>	<b>\$ 12,771,836</b>	<b>\$ 110,690</b>	<b>\$ 272,640,333</b>
<b>3. SubTotal</b>	<b>\$ 4,907,217,809</b>	<b>\$ 165,371,633</b>	<b>\$ 749,179</b>	<b>\$ 5,073,338,621</b>
<b>4. Changes in Proportionate Share</b>	<b>\$ (73,599,509)</b>	<b>\$ 72,288,915</b>	<b>\$ 1,310,594</b>	<b>\$ 0</b>
<b>5. Balances at June 30, 2017</b>	<b>\$ 4,833,618,300</b>	<b>\$ 237,660,548</b>	<b>\$ 2,059,773</b>	<b>\$ 5,073,338,621</b>
	Plan Fiduciary Net Position			
	DOE	SCA	Charter Schools	TOTAL
<b>6. Balances at June 30, 2016</b>	\$ 3,307,380,460	\$ 108,598,155	\$ 454,385	\$ 3,416,433,000
<b>7. Changes for the Year:</b>				
a. Contributions - Employer	274,613,755	13,502,320	116,925	288,233,000
b. Contributions - Employee	37,939,417	1,865,415	16,168	39,821,000
c. Net Investment Income	821,755,539	40,404,281	350,180	862,510,000
d. Benefit Payments	(250,031,825)	(12,293,627)	(106,548)	(262,432,000)
e. Administrative Expenses	(14,754,271)	(725,442)	(6,287)	(15,486,000)
f. Payment of Interest on TDA Fixed Funds	(101,519,217)	(4,991,522)	(43,261)	(106,554,000)
g. Other Changes	(117,144,300)	(5,759,780)	(49,920)	(122,954,000)
<b>h. Net Changes</b>	<b>\$ 650,859,098</b>	<b>\$ 32,001,645</b>	<b>\$ 277,257</b>	<b>\$ 683,138,000</b>
<b>8. SubTotal</b>	<b>\$ 3,958,239,558</b>	<b>\$ 140,599,800</b>	<b>\$ 731,642</b>	<b>\$ 4,099,571,000</b>
<b>9. Changes in Proportionate Share</b>	<b>\$ (52,377,338)</b>	<b>\$ 51,444,649</b>	<b>\$ 932,689</b>	<b>\$ 0</b>
<b>10. Balances at June 30, 2017</b>	<b>\$ 3,905,862,220</b>	<b>\$ 192,044,449</b>	<b>\$ 1,664,331</b>	<b>\$ 4,099,571,000</b>
	Net Pension Liability			
	DOE	SCA	Charter Schools	TOTAL
<b>11. Balances at June 30, 2016</b>	\$ 1,340,079,542	\$ 44,001,642	\$ 184,104	\$ 1,384,265,288
<b>12. Changes for the Year:</b>				
a. Service Cost	160,657,347	7,899,240	68,461	168,625,048
b. Interest	330,136,033	16,232,211	140,682	346,508,926
c. Differences b/t Expected and Actual Experience	18,996,252	934,012	8,095	19,938,359
d. Changes of Assumptions	0	0	0	0
e. Contributions - Employer	(274,613,755)	(13,502,320)	(116,925)	(288,233,000)
f. Contributions - Employee	(37,939,417)	(1,865,415)	(16,168)	(39,821,000)
g. Net Investment Income	(821,755,539)	(40,404,281)	(350,180)	(862,510,000)
h. Benefit Payments	0	0	0	0
i. Administrative Expenses	14,754,271	725,442	6,287	15,486,000
j. Payment of Interest on TDA Fixed Funds	101,519,217	4,991,522	43,261	106,554,000
k. Other Changes	117,144,300	5,759,780	49,920	122,954,000
<b>l. Net Changes</b>	<b>\$ (391,101,291)</b>	<b>\$ (19,229,809)</b>	<b>\$ (166,567)</b>	<b>\$ (410,497,667)</b>
<b>13. SubTotal</b>	<b>\$ 948,978,251</b>	<b>\$ 24,771,833</b>	<b>\$ 17,537</b>	<b>\$ 973,767,621</b>
<b>14. Changes in Proportionate Share</b>	<b>\$ (21,222,171)</b>	<b>\$ 20,844,266</b>	<b>\$ 377,905</b>	<b>\$ 0</b>
<b>15. Balances at June 30, 2017</b>	<b>\$ 927,756,080</b>	<b>\$ 45,616,099</b>	<b>\$ 395,442</b>	<b>\$ 973,767,621</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Allocations  
June 30, 2018**

<u>Employer</u>	<u>2018 Actual Employer Contributions</u>	<u>Employer Allocation Percentage</u>
Department of Education (DOE) <sup>1</sup>	\$ 304,936,987	95.698%
School Construction Authority (SCA)	13,618,620	4.274%
Charter Schools	<u>87,727</u>	<u>0.028%</u>
Total	\$ 318,643,334	100.000%

<sup>1</sup>The Beginning with Children Charter School (BWC) closed in 2016. The employer contribution for BWC of \$15,180 has been included with the results for the Department of Education.

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018**

	Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 5,073,338,621	\$	4,099,571,000	\$	973,767,621
<b>2. Changes for the Year:</b>					
a. Service Cost	176,109,730		0		176,109,730
b. Interest	350,999,332		0		350,999,332
c. Changes of Benefit Terms	0		0		0
d. Differences b/t Expected and Actual Experience	(164,586,983)		0		(164,586,983)
e. Changes of Assumptions	0		0		0
f. Contributions - Employer	0		318,643,000		(318,643,000)
g. Contributions - Employee	0		40,846,000		(40,846,000)
h. Net Investment Income	0		565,577,000		(565,577,000)
i. Benefit Payments	(261,574,000)		(261,574,000)		0
j. Administrative Expenses	0		(13,212,000)		13,212,000
k. Payment of Interest on TDA Fixed Funds	0		(127,972,000)		127,972,000
l. Other Changes	0		51,024,000		(51,024,000)
<b>m. Net Changes</b>	<b>\$ 100,948,079</b>	<b>\$</b>	<b>573,332,000</b>	<b>\$</b>	<b>(472,383,921)</b>
<b>3. Balances at June 30, 2018</b>	<b>\$ 5,174,286,700</b>	<b>\$</b>	<b>4,672,903,000</b>	<b>\$</b>	<b>501,383,700</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Department of Education  
Balances at June 30, 2018**

		Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>95.2749%</b>	\$ 4,833,618,300	\$ 3,905,862,220	\$ 927,756,080
Adjustment for Beginning with Children <sup>1</sup>	0.0050%	253,667	204,919	48,748
<b>Balances at June 30, 2017 (Revised)</b>	<b>95.2799%</b>	\$ 4,833,871,967	\$ 3,906,067,139	\$ 927,804,828
<b>2. Changes for the Year:</b>				
a. Service Cost		168,533,489	0	168,533,489
b. Interest		335,899,341	0	335,899,341
c. Changes of Benefit Terms		0	0	0
d. Differences b/t Expected and Actual Experience		(157,506,451)	0	(157,506,451)
e. Changes of Assumptions		0	0	0
f. Contributions - Employer		0	304,936,653	(304,936,653)
g. Contributions - Employee		0	39,088,805	(39,088,805)
h. Net Investment Income		0	541,245,877	(541,245,877)
i. Benefit Payments		(250,321,086)	(250,321,086)	0
j. Administrative Expenses		0	(12,643,620)	12,643,620
k. Payment of Interest on TDA Fixed Funds		0	(122,466,645)	122,466,645
l. Other Changes		0	48,828,947	(48,828,947)
<b>m. Net Changes</b>		\$ 96,605,293	\$ 548,668,931	\$ (452,063,638)
<b>3. SubTotal</b>		\$ 4,930,477,260	\$ 4,454,736,070	\$ 475,741,190
<b>4. Changes in Proportionate Share</b>		21,211,626	17,138,643	4,072,983
<b>5. Balances at June 30, 2018</b>	<b>95.698%</b>	\$ 4,951,688,886	\$ 4,471,874,713	\$ 479,814,173

<sup>1</sup>The Beginning with Children Charter School (BWC) closed in 2016. Balances for BWC have been included with the results for the Department of Education.

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
School Construction Authority  
Balances at June 30, 2018**

		Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>4.6845%</b>	\$ 237,660,548	\$	192,044,449	\$	45,616,099
<b>2. Changes for the Year:</b>						
a. Service Cost		7,526,930		0		7,526,930
b. Interest		15,001,711		0		15,001,711
c. Changes of Benefit Terms		0		0		0
d. Differences b/t Expected and Actual Experience		(7,034,448)		0		(7,034,448)
e. Changes of Assumptions		0		0		0
f. Contributions - Employer		0		13,618,620		(13,618,620)
g. Contributions - Employee		0		1,745,758		(1,745,758)
h. Net Investment Income		0		24,172,761		(24,172,761)
i. Benefit Payments		(11,179,673)		(11,179,673)		0
j. Administrative Expenses		0		(564,681)		564,681
k. Payment of Interest on TDA Fixed Funds		0		(5,469,523)		5,469,523
l. Other Changes		0		2,180,766		(2,180,766)
<b>m. Net Changes</b>		<b>4,314,520</b>	<b>\$</b>	<b>24,504,028</b>	<b>\$</b>	<b>(20,189,508)</b>
<b>3. SubTotal</b>		<b>241,975,068</b>	<b>\$</b>	<b>216,548,477</b>		<b>25,426,591</b>
<b>4. Changes in Proportionate Share</b>		<b>(20,826,054)</b>		<b>(16,828,603)</b>		<b>(3,997,451)</b>
<b>5. Balances at June 30, 2018</b>	<b>4.274%</b>	<b>221,149,014</b>	<b>\$</b>	<b>199,719,874</b>	<b>\$</b>	<b>21,429,140</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Charter Schools  
Balances at June 30, 2018**

		Total Pension Liability (a)		Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	<b>0.0406%</b>	\$ 2,059,773	\$	1,664,331	\$	395,442
Adjustment for Beginning with Children <sup>1</sup>	(0.005%)	(253,667)		(204,919)		(48,748)
<b>Balances at June 30, 2017</b>	<b>0.0356%</b>	\$ 1,806,106	\$	1,459,412	\$	346,694
<b>2. Changes for the Year:</b>						
a. Service Cost		49,311		0		49,311
b. Interest		98,280		0		98,280
c. Changes of Benefit Terms		0		0		0
d. Differences b/t Expected and Actual Experience		(46,084)		0		(46,084)
e. Changes of Assumptions		0		0		0
f. Contributions - Employer		0		87,727		(87,727)
g. Contributions - Employee		0		11,437		(11,437)
h. Net Investment Income		0		158,362		(158,362)
i. Benefit Payments		(73,241)		(73,241)		0
j. Administrative Expenses		0		(3,699)		3,699
k. Payment of Interest on TDA Fixed Funds		0		(35,832)		35,832
l. Other Changes		0		14,287		(14,287)
<b>m. Net Changes</b>		\$ 28,266	\$	159,041	\$	(130,775)
<b>3. SubTotal</b>		\$ 1,834,372	\$	1,618,453	\$	215,919
<b>4. Changes in Proportionate Share</b>		(385,572)		(310,040)		(75,532)
<b>5. Balances at June 30, 2018</b>	<b>0.028%</b>	\$ 1,448,800	\$	1,308,413	\$	140,387

<sup>1</sup>The Beginning with Children Charter School (BWC) closed in 2016. Balances for BWC have been included with the results for the Department of Education.



NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Schedule of Changes in Net Pension Liability and Related Ratios

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015 (Revised)</u>	<u>2014</u>	<u>2013</u>
<b>1. Total Pension Liability</b>						
a. Service Cost	\$ 176,109,730	\$ 168,625,048	\$ 153,106,995	\$ 147,898,591	\$ 142,686,386	\$ 138,530,472
b. Interest	350,999,332	346,508,926	320,315,152	299,591,999	288,162,040	271,737,317
c. Changes of Benefit Terms	0	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	(164,586,983)	19,938,359	(75,906,864)	50,147,724	0	0
e. Changes of Assumptions	0	0	183,677,129	0	0	0
f. Benefit Payments	(261,574,000)	(262,432,000)	(240,727,000)	(223,244,000)	(214,315,000)	(204,093,000)
<b>g. Net Changes in Total Pension Liability</b>	<b>\$ 100,948,079</b>	<b>\$ 272,640,333</b>	<b>\$ 340,465,412</b>	<b>\$ 274,394,314</b>	<b>\$ 216,533,426</b>	<b>\$ 206,174,789</b>
<b>2. Total Pension Liability - Beginning</b>	<b>\$ 5,073,338,621</b>	<b>\$ 4,800,698,288</b>	<b>\$ 4,460,232,876</b>	<b>\$ 4,185,838,562</b>	<b>\$ 3,969,305,136</b>	<b>\$ 3,763,130,347</b>
<b>3. Total Pension Liability - Ending</b>	<b>\$ 5,174,286,700</b>	<b>\$ 5,073,338,621</b>	<b>\$ 4,800,698,288</b>	<b>\$ 4,460,232,876</b>	<b>\$ 4,185,838,562</b>	<b>\$ 3,969,305,136</b>
<b>4. Plan Fiduciary Net Position</b>						
a. Contributions - Employer	\$ 318,643,000	\$ 288,233,000	\$ 265,532,000	\$ 258,099,000	\$ 214,590,000	\$ 196,246,000
b. Contributions - Employee	40,846,000	39,821,000	38,581,000	39,564,000	37,193,000	39,056,000
c. Net Investment Income	565,577,000	862,510,000	164,144,000	177,166,000	875,453,000	660,827,000
d. Benefit Payments	(261,574,000)	(262,432,000)	(240,727,000)	(223,244,000)	(214,315,000)	(204,093,000)
e. Administrative Expenses	(13,212,000)	(15,486,000)	(12,818,000)	(10,956,000)	(9,776,000)	(8,927,000)
f. Payment of Interest on TDA Fixed Funds	(127,972,000)	(106,554,000)	(94,789,000)	(85,104,000)	(206,615,000)	(163,756,000)
g. Other Changes	51,024,000	(122,954,000)	(157,499,000)	(52,021,000)	(70,916,000)	(176,301,000)
<b>h. Net Changes in Fiduciary Net Position</b>	<b>\$ 573,332,000</b>	<b>\$ 683,138,000</b>	<b>\$ (37,576,000)</b>	<b>\$ 103,504,000</b>	<b>\$ 625,614,000</b>	<b>\$ 343,052,000</b>
<b>5. Plan Fiduciary Net Position - Beginning</b>	<b>\$ 4,099,571,000</b>	<b>\$ 3,416,433,000</b>	<b>\$ 3,454,009,000</b>	<b>\$ 3,350,505,000</b>	<b>\$ 2,653,651,000</b>	<b>\$ 2,310,599,000</b>
<b>6. Plan Fiduciary Net Position - Ending</b>	<b>\$ 4,672,903,000</b>	<b>\$ 4,099,571,000</b>	<b>\$ 3,416,433,000</b>	<b>\$ 3,454,009,000</b>	<b>\$ 3,279,265,000</b>	<b>\$ 2,653,651,000</b>
<b>7. BERS' Net Pension Liability</b>	<b>\$ 501,383,700</b>	<b>\$ 973,767,621</b>	<b>\$ 1,384,265,288</b>	<b>\$ 1,006,223,876</b>	<b>\$ 906,573,562</b>	<b>\$ 1,315,654,136</b>
<b>8. Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>90.3%</b>	<b>80.8%</b>	<b>71.2%</b>	<b>77.4%</b>	<b>78.3%</b>	<b>66.9%</b>
<b>9. Covered Employee Payroll<sup>1</sup></b>	<b>\$ 1,102,183,933</b>	<b>\$ 1,052,171,260</b>	<b>\$ 1,008,055,944</b>	<b>\$ 1,016,822,150</b>	<b>\$ 989,160,097</b>	<b>\$ 886,178,191</b>
<b>10. BERS' Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>45.5%</b>	<b>92.5%</b>	<b>137.3%</b>	<b>99.0%</b>	<b>91.7%</b>	<b>148.5%</b>

<sup>1</sup> Projected Employee Payroll at Time 1.0 under One-Year Lag Methodology.



**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Contributions (\$ in thousands)**

<b>Fiscal Year Ended June 30</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Actuarially Determined Contribution	\$ 318,643	\$ 288,233	\$ 265,532	\$ 258,099	\$ 214,590	\$ 196,246	\$ 213,651	\$ 180,191	\$ 147,349	\$ 134,225
Contributions in relation to the Actuarially Determined Contribution	<u>\$ 318,643</u>	<u>\$ 288,233</u>	<u>\$ 265,532</u>	<u>\$ 258,099</u>	<u>\$ 214,590</u>	<u>\$ 196,246</u>	<u>\$ 213,651</u>	<u>\$ 180,191</u>	<u>\$ 147,349</u>	<u>\$ 134,225</u>
Contribution Deficiency (Excess)	0	0	0	0	0	0	0	0	0	0
Contributions as a percentage of Covered Employee Payroll <sup>1</sup>	28.910%	27.394%	26.341%	25.383%	21.694%	22.145%	24.293%	20.461%	17.822%	17.766%

<sup>1</sup> The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 adjust applicable, to be consistent with collective bargaining agreements estimated to be achieved.

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Average Expected Remaining Service Lives**

<u>Group</u>	<u>Count</u>	Average Expected Remaining Service Life <u>@ 6/30/2017</u>
Active	25,864	10.47
Active/Inactive	2,629	0
Term Vested	851	0
Retired	<u>16,937</u>	<u>0</u>
Total	46,281	5.85

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Expected and Actual Experience**

<b>Year</b>	<b>Differences between Expected and Actual Experience</b>	<b>Recognition Period (Years)</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
2015	\$ 50,147,724	3.30	15,196,280	15,196,280	15,196,280	4,558,884	0	0	0	0	0
2016	\$ (75,906,864)	3.19		(23,795,255)	(23,795,255)	(23,795,255)	(4,521,099)	0	0	0	0
2017	\$ 19,938,359	5.17			3,856,549	3,856,549	3,856,549	3,856,549	3,856,549	655,614	0
2018	\$ (164,586,983)	5.85				(28,134,527)	(28,134,527)	(28,134,527)	(28,134,527)	(28,134,527)	(23,914,348)
Net increase (decrease) in Pension Expense			<b>\$ 15,196,280</b>	<b>\$ (8,598,975)</b>	<b>\$ (4,742,426)</b>	<b>\$ (43,514,349)</b>	<b>\$ (28,799,077)</b>	<b>\$ (24,277,978)</b>	<b>\$ (24,277,978)</b>	<b>\$ (27,478,913)</b>	<b>\$ (23,914,348)</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of  
Changes in Assumptions**

<b>Year</b>	<b>Changes in Assumptions</b>	<b>Recognition Period (Years)</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
2016	\$ 183,677,129	3.19	57,579,037	57,579,037	57,579,037	10,940,018	0
2017							
2018							
Net increase (decrease) in Pension Expense			\$ 57,579,037	\$ 57,579,037	\$ 57,579,037	\$ 10,940,018	\$ 0

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Projected and Actual Earnings on Pension Plan Investments**

<b>Year</b>	<b>Differences between Projected and Actual Earnings on Pension Plan Investments</b>	<b>Recognition Period (Years)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
2013	\$ (505,387,204)	5	(101,077,441)	(101,077,441)	(101,077,441)	(101,077,441)	(101,077,440)					
2014	\$ (691,610,182)	5		(138,322,036)	(138,322,036)	(138,322,036)	(138,322,036)	(138,322,038)				
2015	\$ 54,021,526	5			10,804,305	10,804,305	10,804,305	10,804,305	10,804,306			
2016	\$ 67,373,543	5				13,474,709	13,474,709	13,474,709	13,474,709	13,474,707		
2017	\$ (624,753,917)	5					(124,950,783)	(124,950,783)	(124,950,783)	(124,950,783)	(124,950,785)	
2018	\$ (275,816,841)	5						(55,163,368)	(55,163,368)	(55,163,368)	(55,163,368)	(55,163,369)
Net increase (decrease) in Pension Expense			<b>\$ (101,077,441)</b>	<b>\$ (239,399,477)</b>	<b>\$ (228,595,172)</b>	<b>\$ (215,120,463)</b>	<b>\$ (340,071,245)</b>	<b>\$ (294,157,175)</b>	<b>\$ (155,835,136)</b>	<b>\$ (166,639,444)</b>	<b>\$ (180,114,153)</b>	<b>\$ (55,163,369)</b>

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Proportionate Share at 6/30/2015

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 95.9638%	Proportionate Share at 6/30/2015 96.5724%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.30	0	0	0	0
Deferred Inflows of Resources	(856,520,468)	(821,949,589)	(827,162,372)	(5,212,783)	3.30	(1,579,631)	(1,579,631)	(1,579,631)	(473,890)
Net Pension Liability	(835,333,562)	(801,617,829)	(806,701,669)	(5,083,840)	3.30	(1,540,557)	(1,540,557)	(1,540,557)	(462,169)
<b>Total</b>	<b>(1,691,854,030)</b>	<b>(1,623,567,418)</b>	<b>(1,633,864,041)</b>	<b>(10,296,623)</b>		<b>(3,120,188)</b>	<b>(3,120,188)</b>	<b>(3,120,188)</b>	<b>(936,059)</b>

School Construction Authority	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 4.0287%	Proportionate Share at 6/30/2015 3.4105%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.30	0	0	0	0
Deferred Inflows of Resources	(856,520,468)	(34,506,640)	(29,211,631)	5,295,009	3.30	1,604,548	1,604,548	1,604,548	481,365
Net Pension Liability	(835,333,562)	(33,653,083)	(28,489,051)	5,164,032	3.30	1,564,858	1,564,858	1,564,858	469,458
<b>Total</b>	<b>(1,691,854,030)</b>	<b>(68,159,723)</b>	<b>(57,700,682)</b>	<b>10,459,041</b>		<b>3,169,406</b>	<b>3,169,406</b>	<b>3,169,406</b>	<b>950,823</b>

Charter Schools	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2014	Proportionate Share at 6/30/2014 0.0075%	Proportionate Share at 6/30/2015 0.0171%	Change in Proportionate Share		2015	2016	2017	2018
Deferred Outflows of Resources	0	0	0	0	3.30	0	0	0	0
Deferred Inflows of Resources	(856,520,468)	(64,239)	(146,465)	(82,226)	3.30	(24,917)	(24,917)	(24,917)	(7,475)
Net Pension Liability	(835,333,562)	(62,650)	(142,842)	(80,192)	3.30	(24,301)	(24,301)	(24,301)	(7,289)
<b>Total</b>	<b>(1,691,854,030)</b>	<b>(126,889)</b>	<b>(289,307)</b>	<b>(162,418)</b>		<b>(49,218)</b>	<b>(49,218)</b>	<b>(49,218)</b>	<b>(14,764)</b>

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Proportionate Share at 6/30/2016

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 96.5724%	Proportionate Share at 6/30/2016 96.8080%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	78,168,665	75,489,357	75,673,522	184,165	3.19	57,732	57,732	57,732	10,969
Deferred Inflows of Resources	(617,120,991)	(595,968,552)	(597,422,488)	(1,453,936)	3.19	(455,779)	(455,779)	(455,779)	(86,599)
Net Pension Liability	(1,006,223,876)	(971,734,546)	(974,105,211)	(2,370,665)	3.19	(743,155)	(743,155)	(743,155)	(141,200)
<b>Total</b>	(1,545,176,202)	(1,492,213,741)	(1,495,854,177)	(3,640,436)		(1,141,202)	(1,141,202)	(1,141,202)	(216,830)

School Construction Authority	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 3.4105%	Proportionate Share at 6/30/2016 3.1787%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	78,168,665	2,665,942	2,484,747	(181,195)	3.19	(56,801)	(56,801)	(56,801)	(10,792)
Deferred Inflows of Resources	(617,120,991)	(21,046,911)	(19,616,425)	1,430,486	3.19	448,428	448,428	448,428	85,202
Net Pension Liability	(1,006,223,876)	(34,317,265)	(31,984,838)	2,332,427	3.19	731,168	731,168	731,168	138,923
<b>Total</b>	(1,545,176,202)	(52,698,234)	(49,116,516)	3,581,718		1,122,795	1,122,795	1,122,795	213,333

Charter Schools	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30			
	Collective Amount at 6/30/2015	Proportionate Share at 6/30/2015 0.0171%	Proportionate Share at 6/30/2016 0.0133%	Change in Proportionate Share		2016	2017	2018	2019
Deferred Outflows of Resources	78,168,665	13,366	10,396	(2,970)	3.19	(931)	(931)	(931)	(177)
Deferred Inflows of Resources	(617,120,991)	(105,528)	(82,078)	23,450	3.19	7,351	7,351	7,351	1,397
Net Pension Liability	(1,006,223,876)	(172,065)	(133,827)	38,238	3.19	11,987	11,987	11,987	2,277
<b>Total</b>	(1,545,176,202)	(264,227)	(205,509)	58,718		18,407	18,407	18,407	3,497

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**  
**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Proportionate Share at 6/30/2017**

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 96.8080%	Proportionate Share at 6/30/2017 95.2749%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
<b>Deferred Outflows of Resources</b>	232,165,006	224,754,299	221,194,978	(3,559,321)	5.17	(688,456)	(688,456)	(688,456)	(688,456)	(688,456)	(117,041)
<b>Deferred Inflows of Resources</b>	(429,833,123)	(416,112,850)	(409,523,077)	6,589,773	5.17	1,274,618	1,274,618	1,274,618	1,274,618	1,274,618	216,683
<b>Net Pension Liability</b>	(1,384,265,288)	(1,340,079,540)	(1,318,857,369)	21,222,171	5.17	4,104,869	4,104,869	4,104,869	4,104,869	4,104,869	697,826
<b>Total</b>	(1,581,933,405)	(1,531,438,091)	(1,507,185,468)	24,252,623		4,691,031	4,691,031	4,691,031	4,691,031	4,691,031	797,468
<b>School Construction Authority</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 3.1787%	Proportionate Share at 6/30/2017 4.6845%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
<b>Deferred Outflows of Resources</b>	232,165,006	7,379,829	10,875,770	3,495,941	5.17	676,197	676,197	676,197	676,197	676,197	114,956
<b>Deferred Inflows of Resources</b>	(429,833,123)	(13,663,105)	(20,135,533)	(6,472,428)	5.17	(1,251,920)	(1,251,920)	(1,251,920)	(1,251,920)	(1,251,920)	(212,828)
<b>Net Pension Liability</b>	(1,384,265,288)	(44,001,641)	(64,845,907)	(20,844,266)	5.17	(4,031,773)	(4,031,773)	(4,031,773)	(4,031,773)	(4,031,773)	(685,401)
<b>Total</b>	(1,581,933,405)	(50,284,917)	(74,105,670)	(23,820,753)		(4,607,496)	(4,607,496)	(4,607,496)	(4,607,496)	(4,607,496)	(783,273)
<b>Charter Schools</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2016	Proportionate Share at 6/30/2016 0.0133%	Proportionate Share at 6/30/2017 0.0406%	Change in Proportionate Share		2017	2018	2019	2020	2021	2022
<b>Deferred Outflows of Resources</b>	232,165,006	30,878	94,258	63,380	5.17	12,259	12,259	12,259	12,259	12,259	2,085
<b>Deferred Inflows of Resources</b>	(429,833,123)	(57,168)	(174,513)	(117,345)	5.17	(22,698)	(22,698)	(22,698)	(22,698)	(22,698)	(3,855)
<b>Net Pension Liability</b>	(1,384,265,288)	(184,107)	(562,012)	(377,905)	5.17	(73,096)	(73,096)	(73,096)	(73,096)	(73,096)	(12,425)
<b>Total</b>	(1,581,933,405)	(210,397)	(642,267)	(431,870)		(83,535)	(83,535)	(83,535)	(83,535)	(83,535)	(14,195)



NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Proportionate Share at 6/30/2018

Department of Education	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 95.2799%	Proportionate Share at 6/30/2018 95.698%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023
<b>Deferred Outflows of Resources</b>	89,159,749	84,951,320	85,324,096	372,776	5.85	63,722	63,722	63,722	63,722	63,722	54,166
<b>Deferred Inflows of Resources</b>	(604,408,790)	(575,880,090)	(578,407,124)	(2,527,034)	5.85	(431,971)	(431,971)	(431,971)	(431,971)	(431,971)	(367,179)
<b>Net Pension Liability</b>	(973,767,621)	(927,804,816)	(931,876,138)	(4,071,322)	5.85	(695,953)	(695,953)	(695,953)	(695,953)	(695,953)	(591,557)
<b>Total</b>	(1,489,016,662)	(1,418,733,586)	(1,424,959,166)	(6,225,580)		(1,064,202)	(1,064,202)	(1,064,202)	(1,064,202)	(1,064,202)	(904,570)
<b>School Construction Authority</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 4.6845%	Proportionate Share at 6/30/2018 4.274%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023
<b>Deferred Outflows of Resources</b>	89,159,749	4,176,688	3,810,688	(366,000)	5.85	(62,564)	(62,564)	(62,564)	(62,564)	(62,564)	(53,180)
<b>Deferred Inflows of Resources</b>	(604,408,790)	(28,313,530)	(25,832,432)	2,481,098	5.85	424,119	424,119	424,119	424,119	424,119	360,503
<b>Net Pension Liability</b>	(973,767,621)	(45,616,144)	(41,618,828)	3,997,316	5.85	683,302	683,302	683,302	683,302	683,302	580,806
<b>Total</b>	(1,489,016,662)	(69,752,986)	(63,640,572)	6,112,414		1,044,857	1,044,857	1,044,857	1,044,857	1,044,857	888,129
<b>Charter Schools</b>	(1)	(2)	(3)	(3)-(2)	Recognition Period (Years)	Amount to Recognize in Pension Expense For the Fiscal Year Ended June 30					
	Collective Amount at 6/30/2017	Proportionate Share at 6/30/2017 0.0356%	Proportionate Share at 6/30/2018 0.028%	Change in Proportionate Share		2018	2019	2020	2021	2022	2023
<b>Deferred Outflows of Resources</b>	89,159,749	31,741	24,965	(6,776)	5.85	(1,158)	(1,158)	(1,158)	(1,158)	(1,158)	(986)
<b>Deferred Inflows of Resources</b>	(604,408,790)	(215,170)	(169,234)	45,936	5.85	7,852	7,852	7,852	7,852	7,852	6,676
<b>Net Pension Liability</b>	(973,767,621)	(346,661)	(272,655)	74,006	5.85	12,651	12,651	12,651	12,651	12,651	10,751
<b>Total</b>	(1,489,016,662)	(530,090)	(416,924)	113,166		19,345	19,345	19,345	19,345	19,345	16,441

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017**

<b><u>Component</u></b>	<b><u>Amount</u></b>
a. Service Cost	\$ 168,625,048
b. Interest on the Total Pension Liability	346,508,926
c. Differences between Expected and Actual Experience	(4,742,426)
d. Changes of Assumptions	57,579,037
e. Employee Contributions	(39,821,000)
f. Projected Earnings on Pension Plan Investments	(237,756,083)
g. Differences between Projected and Actual Earnings on Plan Investments	(340,071,245)
h. Pension Plan Administrative Expenses	15,486,000
i. Payment of Interest on TDA Fixed Funds	106,554,000
j. Other Changes in Fiduciary Net Position	122,954,000
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 195,316,257</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Department of Education**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 160,657,347
b. Interest on the Total Pension Liability	330,136,033
c. Differences between Expected and Actual Experience	(4,518,342)
d. Changes of Assumptions	54,858,370
e. Employee Contributions	(37,939,417)
f. Projected Earnings on Pension Plan Investments	(226,521,869)
g. Differences between Projected and Actual Earnings on Plan Investments	(324,002,539)
h. Pension Plan Administrative Expenses	14,754,271
i. Payment of Interest on TDA Fixed Funds	101,519,217
j. Other Changes in Fiduciary Net Position	117,144,300
	<hr/>
SubTotal	\$ 186,087,371
k. Changes in Proportionate Share	(429,641)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 185,657,730</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
School Construction Authority**

<b><u>Component</u></b>	<b><u>Amount</u></b>
a. Service Cost	\$ 7,899,240
b. Interest on the Total Pension Liability	16,232,211
c. Differences between Expected and Actual Experience	(222,159)
d. Changes of Assumptions	2,697,290
e. Employee Contributions	(1,865,415)
f. Projected Earnings on Pension Plan Investments	(11,137,684)
g. Differences between Projected and Actual Earnings on Plan Investments	(15,930,637)
h. Pension Plan Administrative Expenses	725,442
i. Payment of Interest on TDA Fixed Funds	4,991,522
j. Other Changes in Fiduciary Net Position	5,759,780
	<hr/>
SubTotal	\$ 9,149,590
k. Changes in Proportionate Share	315,295
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 9,464,885</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017  
Charter Schools**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	68,461
b. Interest on the Total Pension Liability		140,682
c. Differences between Expected and Actual Experience		(1,925)
d. Changes of Assumptions		23,377
e. Employee Contributions		(16,168)
f. Projected Earnings on Pension Plan Investments		(96,530)
g. Differences between Projected and Actual Earnings on Plan Investments		(138,069)
h. Pension Plan Administrative Expenses		6,287
i. Payment of Interest on TDA Fixed Funds		43,261
j. Other Changes in Fiduciary Net Position		49,920
		<hr/>
SubTotal	\$	79,296
		<hr/>
k. Changes in Proportionate Share		114,346
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>193,642</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017 - By Obligor**

<u>Component</u>	<u>DOE</u>	<u>SCA</u>	<u>Charter Schools</u>	<u>Total</u>
a. Service Cost	\$ 160,657,347	\$ 7,899,240	\$ 68,461	\$ 168,625,048
b. Interest on the Total Pension Liability	330,136,033	16,232,211	140,682	346,508,926
c. Differences between Expected and Actual Experience	(4,518,342)	(222,159)	(1,925)	(4,742,426)
d. Changes of Assumptions	54,858,370	2,697,290	23,377	57,579,037
e. Employee Contributions	(37,939,417)	(1,865,415)	(16,168)	(39,821,000)
f. Projected Earnings on Pension Plan Investments	(226,521,869)	(11,137,684)	(96,530)	(237,756,083)
g. Differences between Projected and Actual Earnings on Plan Investments	(324,002,539)	(15,930,637)	(138,069)	(340,071,245)
h. Pension Plan Administrative Expenses	14,754,271	725,442	6,287	15,486,000
i. Payment of Interest on TDA Fixed Funds	101,519,217	4,991,522	43,261	106,554,000
j. Other Changes in Fiduciary Net Position	117,144,300	5,759,780	49,920	122,954,000
k. Changes in Proportionate Share	(429,641)	315,295	114,346	0
<b>Total Pension Expense</b>	<b>\$ 185,657,730</b>	<b>\$ 9,464,885</b>	<b>\$ 193,642</b>	<b>\$ 195,316,257</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018**

<b><u>Component</u></b>	<b><u>Amount</u></b>
a. Service Cost	\$ 176,109,730
b. Interest on the Total Pension Liability	350,999,332
c. Differences between Expected and Actual Experience	(43,514,349)
d. Changes of Assumptions	57,579,037
e. Employee Contributions	(40,846,000)
f. Projected Earnings on Pension Plan Investments	(289,760,159)
g. Differences between Projected and Actual Earnings on Plan Investments	(294,157,175)
h. Pension Plan Administrative Expenses	13,212,000
i. Payment of Interest on TDA Fixed Funds	127,972,000
j. Other Changes in Fiduciary Net Position	(51,024,000)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 6,570,416</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Department of Education**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 168,533,489
b. Interest on the Total Pension Liability	335,899,341
c. Differences between Expected and Actual Experience	(41,642,362)
d. Changes of Assumptions	55,101,987
e. Employee Contributions	(39,088,805)
f. Projected Earnings on Pension Plan Investments	(277,294,677)
g. Differences between Projected and Actual Earnings on Plan Investments	(281,502,533)
h. Pension Plan Administrative Expenses	12,643,620
i. Payment of Interest on TDA Fixed Funds	122,466,645
j. Other Changes in Fiduciary Net Position	(48,828,947)
	<hr/>
SubTotal	\$ 6,287,758
k. Changes in Proportionate Share	(1,558,611)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 4,729,147</b>



**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
School Construction Authority**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 7,526,930
b. Interest on the Total Pension Liability	15,001,711
c. Differences between Expected and Actual Experience	(1,859,803)
d. Changes of Assumptions	2,460,928
e. Employee Contributions	(1,745,758)
f. Projected Earnings on Pension Plan Investments	(12,384,349)
g. Differences between Projected and Actual Earnings on Plan Investments	(12,572,278)
h. Pension Plan Administrative Expenses	564,681
i. Payment of Interest on TDA Fixed Funds	5,469,523
j. Other Changes in Fiduciary Net Position	(2,180,766)
	<hr/>
SubTotal	\$ 280,819
	 <hr/>
k. Changes in Proportionate Share	1,489,021
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,769,840</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018  
Charter Schools**

<u>Component</u>		<u>Amount</u>
a. Service Cost	\$	49,311
b. Interest on the Total Pension Liability		98,280
c. Differences between Expected and Actual Experience		(12,184)
d. Changes of Assumptions		16,122
e. Employee Contributions		(11,437)
f. Projected Earnings on Pension Plan Investments		(81,133)
g. Differences between Projected and Actual Earnings on Plan Investments		(82,364)
h. Pension Plan Administrative Expenses		3,699
i. Payment of Interest on TDA Fixed Funds		35,832
j. Other Changes in Fiduciary Net Position		(14,287)
		<hr/>
SubTotal	\$	1,839
		<hr/>
k. Changes in Proportionate Share		69,590
		<hr/>
<b>Total Pension Expense</b>	<b>\$</b>	<b>71,429</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018 - By Obligor**

<u>Component</u>	<u>DOE</u>	<u>SCA</u>	<u>Charter Schools</u>	<u>Total</u>
a. Service Cost	\$ 168,533,489	\$ 7,526,930	\$ 49,311	\$ 176,109,730
b. Interest on the Total Pension Liability	335,899,341	15,001,711	98,280	350,999,332
c. Differences between Expected and Actual Experience	(41,642,362)	(1,859,803)	(12,184)	(43,514,349)
d. Changes of Assumptions	55,101,987	2,460,928	16,122	57,579,037
e. Employee Contributions	(39,088,805)	(1,745,758)	(11,437)	(40,846,000)
f. Projected Earnings on Pension Plan Investments	(277,294,677)	(12,384,349)	(81,133)	(289,760,159)
g. Differences between Projected and Actual Earnings on Plan Investments	(281,502,533)	(12,572,278)	(82,364)	(294,157,175)
h. Pension Plan Administrative Expenses	12,643,620	564,681	3,699	13,212,000
i. Payment of Interest on TDA Fixed Funds	122,466,645	5,469,523	35,832	127,972,000
j. Other Changes in Fiduciary Net Position	(48,828,947)	(2,180,766)	(14,287)	(51,024,000)
k. Changes in Proportionate Share	(1,558,611)	1,489,021	69,590	0
<b>Total Pension Expense</b>	<b>\$ 4,729,147</b>	<b>\$ 1,769,840</b>	<b>\$ 71,429</b>	<b>\$ 6,570,416</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2013, the Obligors recognized Pension Expense for BERS of \$463,678,552.

At June 30, 2013, the Obligors reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>404,309,763</u>
Total	\$ 0	\$ 404,309,763

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2013	\$ (101,077,441)
2014	(101,077,441)
2015	(101,077,441)
2016	(101,077,441)
2017	(101,077,440)

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2014, the Obligors recognized Pension Expense for BERS of \$257,720,131.

For June 30, 2014, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>553,288,146</u>
Total	\$ 0	\$ 553,288,146

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2014	\$ (138,322,036)
2015	(138,322,036)
2016	(138,322,036)
2017	(138,322,036)
2018	(138,322,038)

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**  
**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

**For the Fiscal Year ended June 30, 2015, the Obligors recognized Pension Expense for BERS of \$111,421,172.**

**For June 30, 2015, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:**

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 34,951,444	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>43,217,221</u>	<u>0</u>
Total	\$ 78,168,665	\$ 0

**Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:**

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2015	\$ 26,000,585
2016	26,000,585
2017	26,000,585
2018	15,363,189
2019	10,804,306

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2016, the Obligors recognized Pension Expense for BERS of \$302,289,203.

For June 30, 2016, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 52,111,609
Changes of Assumptions	126,098,092	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>53,898,834</u>	<u>0</u>
Total	\$ 179,996,926	\$ 52,111,609

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2016	\$ 47,258,491
2017	47,258,491
2018	47,258,491
2019	19,893,628
2020	13,474,707

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2017, the Obligors recognized Pension Expense for BERS of \$195,316,257.

For June 30, 2017, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 16,081,810	\$ 0
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>499,803,134</u>
Total	\$ 16,081,810	\$ 499,803,134

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2017	\$ (121,094,234)
2018	(121,094,234)
2019	(121,094,234)
2020	(121,094,234)
2021	(121,094,236)
2022	655,614



**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2018, the Obligors recognized Pension Expense for BERS of \$6,570,416.

For June 30, 2018, the Obligors determined Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 136,452,456
Changes of Assumptions	0	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>220,653,473</u>
Total	\$ 0	\$ 357,105,929

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (83,297,895)
2019	(83,297,895)
2020	(83,297,895)
2021	(83,297,895)
2022	(83,297,896)
2023	(23,914,348)

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources**

For the Fiscal Year ended June 30, 2018, the Obligors recognized Pension Expense for BERS of \$6,570,416.

At June 30, 2018, the Obligors reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions for BERS from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 12,225,261	\$ 140,973,555
Changes of Assumptions	10,940,018	0
Net Difference between Projected and Actual Earnings on Pension Plan Investments	<u>0</u>	<u>557,752,102</u>
Total	\$ 23,165,279	\$ 698,725,657

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for BERS will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (280,092,487)
2019	(173,694,195)
2020	(190,917,422)
2021	(204,392,131)
2022	(82,642,282)
2023	(23,914,348)

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Pension Amounts by Employer  
As of and for the year ended June 30, 2017**

<b>Deferred Outflows of Resources</b>						
<b>Entity</b>	<b>Net Pension Liability</b>	<b>Differences Between Expected and Actual Experience</b>	<b>Changes of Assumptions</b>	<b>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</b>	<b>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</b>	<b>Total Deferred Outflows of Resources</b>
Department of Education	\$ 927,756,080	\$ 19,665,401	\$ 65,281,461	\$ 0	\$ (20,069,665)	\$ 64,877,197
School Construction Authority	45,616,099	966,913	3,209,775	0	\$ 19,678,457	23,855,145
Charter Schools	395,442	8,380	27,819	0	\$ 391,208	427,407
<b>Total</b>	<b>\$ 973,767,621</b>	<b>\$ 20,640,694</b>	<b>\$ 68,519,055</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 89,159,749</b>

<b>Deferred Inflows of Resources</b>						
<b>Entity</b>	<b>Differences Between Expected and Actual Experience</b>	<b>Changes of Assumptions</b>	<b>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</b>	<b>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</b>	<b>Total Deferred Inflows of Resources</b>	
Department of Education	\$ 26,978,377	\$ 0	\$ 548,871,492	\$ (2,802,164)	\$ 573,047,705	
School Construction Authority	1,326,480	0	26,987,050	2,752,151	31,065,681	
Charter Schools	11,497	0	233,894	50,013	295,404	
<b>Total</b>	<b>\$ 28,316,354</b>	<b>\$ 0</b>	<b>\$ 576,092,436</b>	<b>\$ 0</b>	<b>\$ 604,408,790</b>	

<b>Pension Expense</b>			
<b>Entity</b>	<b>Proportionate Share of Plan Pension Expense</b>	<b>Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</b>	<b>Total Employer Pension Expense</b>
Department of Education	\$ 186,087,371	\$ (429,641)	\$ 185,657,730
School Construction Authority	9,149,590	315,295	9,464,885
Charter Schools	79,296	114,346	193,642
<b>Total</b>	<b>\$ 195,316,257</b>	<b>\$ 0</b>	<b>\$ 195,316,257</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Pension Amounts by Employer  
As of and for the year ended June 30, 2018**

<b>Deferred Outflows of Resources</b>						
<b>Entity</b>	<b>Net Pension Liability</b>	<b>Differences Between Expected and Actual Experience</b>	<b>Changes of Assumptions</b>	<b>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</b>	<b>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</b>	<b>Total Deferred Outflows of Resources</b>
Department of Education	\$ 479,814,173	\$ 11,699,330	\$ 10,469,379	\$ 0	\$ (11,381,001)	\$ 10,787,708
School Construction Authority	21,429,140	522,508	467,576	0	\$ 11,154,190	12,144,274
Charter Schools	140,387	3,423	3,063	0	\$ 226,811	233,297
<b>Total</b>	<b>\$ 501,383,700</b>	<b>\$ 12,225,261</b>	<b>\$ 10,940,018</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 23,165,279</b>

<b>Deferred Inflows of Resources</b>						
<b>Entity</b>	<b>Differences Between Expected and Actual Experience</b>	<b>Changes of Assumptions</b>	<b>Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments</b>	<b>Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</b>	<b>Total Deferred Inflows of Resources</b>	
Department of Education	\$ 134,908,872	\$ 0	\$ 533,757,606	\$ (1,865,694)	\$ 666,800,784	
School Construction Authority	6,025,210	0	23,838,325	1,829,319	31,692,854	
Charter Schools	39,473	0	156,171	36,375	232,019	
<b>Total</b>	<b>\$ 140,973,555</b>	<b>\$ 0</b>	<b>\$ 557,752,102</b>	<b>\$ 0</b>	<b>\$ 698,725,657</b>	

<b>Pension Expense</b>			
<b>Entity</b>	<b>Proportionate Share of Plan Pension Expense</b>	<b>Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions</b>	<b>Total Employer Pension Expense</b>
Department of Education	\$ 6,287,758	\$ (1,558,611)	\$ 4,729,147
School Construction Authority	280,819	1,489,021	1,769,840
Charter Schools	1,839	69,590	71,429
<b>Total</b>	<b>\$ 6,570,416</b>	<b>\$ 0</b>	<b>\$ 6,570,416</b>

**NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM (BERS)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Collective Pension Amounts  
As of and for the year ended June 30, 2018**

	Deferred Outflows of Resources				Deferred Inflows of Resources				Plan Pension Expense
	Differences Between Expected and Actual Experience	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Total Deferred Outflows of Resources Excluding Employer Specific Amounts	Differences Between Expected and Actual Experience	Changes of Assumptions	Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	Total Deferred Inflows of Resources Excluding Employer Specific Amounts	
<b>Net Pension Liability</b>									
\$ 501,383,700	\$ 12,225,261	\$ 10,940,018	\$ 0	\$ 23,165,279	\$ 140,973,555	\$ 0	\$ 557,752,102	\$ 698,725,657	\$ 6,570,416

# Appendix D

## APPENDIX D

### NEW YORK CITY POLICE PENSION FUND (POLICE)

Page 1a	-	Statement of Fiduciary Net Position - POLICE
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**NEW YORK CITY POLICE PENSION FUND (POLICE)****Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)****Statement of Fiduciary Net Position****June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 4,789	\$ 107,908
Receivables:		
Investment securities sold	546,611	694,085
Member loans	232,882	234,570
Transferrable earnings due from VSFs	0	326,195
Accrued interest and dividends	5,754	3,238
Total receivables	<u>\$ 785,247</u>	<u>\$ 1,258,088</u>
Investments - at fair value		
Short-term investments:		
Commercial paper	0	0
Short-term investment fund	708,871	465,204
U.S. treasury bills and agencies	0	0
Discount notes	0	0
Debt securities:		
U.S. government and agency	9,951,525	7,702,198
Corporate and other	0	0
Equity securities	11,946,234	6,518,200
Alternative Investments	7,976,474	7,209,973
Collective trust funds:		
Fixed income	759,814	695,704
Domestic equity	124,872	6,785,844
International equity	6,273,065	6,588,906
Mortgage debt security	186,862	308,817
Treasury inflation protected securities	1,744,591	1,592,909
Promissory notes	0	0
Collateral from securities lending	4,832,615	3,853,421
Total Investments	<u>\$ 44,504,923</u>	<u>\$ 41,721,176</u>
Other assets	6,583	17,667
Total assets	<u><u>\$ 45,301,542</u></u>	<u><u>\$ 43,104,839</u></u>
<b>LIABILITIES</b>		
Accounts payable	302,529	468,980
Payables for investment securities purchased	629,892	556,363
Accrued benefits payable	91,639	84,111
Accrued Transfers to VSFs	1,486,000	2,718,439
Securities lending	4,832,615	3,853,421
Total liabilities	<u><u>\$ 7,342,675</u></u>	<u><u>\$ 7,681,314</u></u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u><u>\$ 37,958,867</u></u>	<u><u>\$ 35,423,525</u></u>



**NEW YORK CITY POLICE DEPARTMENT  
POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND (POVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 2,509	\$ 1,880
Receivables:		
Investment securities sold	516	100,709
Accrued Transfers from QPP	194,000	1,038,637
Accrued interest and dividends	839	199
Total receivables	<u>\$ 195,355</u>	<u>\$ 1,139,545</u>
Investments - at fair value		
Short term investments:		
Commercial paper	0	0
Short-term investments fund	1,675	8,551
U.S. treasury bills and agencies	0	0
Discount notes	0	0
Debt securities:		
U.S. government and agency	0	15
Corporate and other	0	0
Equities Securities	0	0
Collective trust funds:		
Fixed income	663,025	452,707
Domestic equity	648,654	444,732
International equity	558,172	404,825
Collateral from securities lending	56,506	53,248
Total Investments	<u>\$ 1,928,032</u>	<u>\$ 1,364,078</u>
Other assets	0	0
Total assets	<u><u>\$ 2,125,896</u></u>	<u><u>\$ 2,505,503</u></u>
<b>LIABILITIES</b>		
Accounts payable	149	290
Payables for investment securities purchased	459	100,608
Transferrable earnings due to QPP	0	250,751
Accrued benefits payable	76,906	75,739
Securities lending	56,506	53,248
Total liabilities	<u><u>\$ 134,020</u></u>	<u><u>\$ 480,636</u></u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u><u>\$ 1,991,876</u></u>	<u><u>\$ 2,024,867</u></u>

**NEW YORK CITY POLICE DEPARTMENT  
POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND (PSOVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 804	\$ 584
Receivables:		
Investment securities sold	3,807	17,802
Accrued Transfers from QPP	1,292,000	1,679,802
Accrued interest and dividends	507	26
Total receivables	<u>\$ 1,296,314</u>	<u>\$ 1,697,630</u>
Investments - at fair value		
Short-term investments:		
Commercial paper	0	0
Short-term investment fund	58	4,755
U.S. treasury bills and agencies	0	0
Debt securities:		
U.S. government and agency	0	0
Corporate and other	0	0
Collective trust funds:		
Fixed income	523,775	77,417
Domestic equity	516,598	79,630
International equity	437,593	73,055
Collateral from securities lending	38,372	9,556
Total Investments	<u>\$ 1,516,396</u>	<u>\$ 244,413</u>
Other assets	0	0
Total assets	<u><u>\$ 2,813,514</u></u>	<u><u>\$ 1,942,627</u></u>
<b>LIABILITIES</b>		
Accounts payable & accrued liabilities	186	64
Payables for investment securities purchased	3,746	17,795
Transferrable earnings due to QPP	0	75,444
Accrued benefits payable	115,640	112,389
Securities lending	38,372	9,556
Total liabilities	<u><u>\$ 157,944</u></u>	<u><u>\$ 215,248</u></u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u><u>\$ 2,655,570</u></u>	<u><u>\$ 1,727,379</u></u>

**NEW YORK CITY POLICE PENSION FUND (POLICE)****Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)****Statement of Changes in Fiduciary Net Position****June 30, 2018 and June 30, 2017****(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 267,031	\$ 276,301
Employer Contributions	2,415,153	2,293,840
	<hr/>	<hr/>
<i>Total contributions</i>	\$ 2,682,184	\$ 2,570,141
Investment income:		
Interest income	517,469	400,562
Dividend income	485,726	485,237
Net appreciation (depreciation) in fair value	3,190,498	3,418,739
	<hr/>	<hr/>
<i>Total investment income</i>	\$ 4,193,693	\$ 4,304,538
Less:		
Investment expenses	285,243	245,288
	<hr/>	<hr/>
<i>Net income</i>	3,908,450	4,059,250
Securities lending transactions:		
Securities lending income	18,703	22,034
Securities lending fees	(1,870)	(1,537)
	<hr/>	<hr/>
<i>Net securities lending income</i>	\$ 16,833	\$ 20,497
	<hr/>	<hr/>
<i>Net investment income</i>	\$ 3,925,283	\$ 4,079,747
<i>Transferrable earnings due from VSFs</i>	0	25,562
Other:		
Net receipts from other retirement systems	1,627	2,450
Litigation income	1,781	7,931
	<hr/>	<hr/>
<i>Other total</i>	3,408	10,381
	<hr/>	<hr/>
<i>Total additions</i>	\$ 6,610,875	\$ 6,685,831
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	2,774,387	2,571,999
Accrued Transfers to VSFs	1,280,000	2,154,000
Administrative expenses	21,146	18,917
	<hr/>	<hr/>
<i>Total deductions</i>	\$ 4,075,533	\$ 4,744,916
<b>INCREASE IN PLAN NET POSITION</b>	<b>2,535,342</b>	<b>1,940,915</b>
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 35,423,525	\$ 33,482,610
End of year	\$ 37,958,867	\$ 35,423,525

**NEW YORK CITY POLICE DEPARTMENT  
POLICE OFFICERS' VARIABLE SUPPLEMENTS FUND (POVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 0	\$ 0
Employer Contributions	0	0
	0	0
<i>Total contributions</i>	\$ 0	\$ 0
Investment income:		
Interest income	14,619	7,892
Dividend income	26,532	24,359
Net appreciation (depreciation) in fair value	(40,510)	134,327
	641	166,578
<i>Total investment income</i>	\$ 641	\$ 166,578
Less:		
Investment expenses	1,126	561
	(485)	166,017
<i>Net income</i>	(485)	166,017
Securities lending transactions:		
Securities lending income	866	792
Securities lending fees	(87)	(54)
	779	738
<i>Net securities lending income</i>	\$ 779	\$ 738
<i>Net investment income</i>	294	166,755
Other:		
<i>Litigation income</i>	31	74
<i>Accrued Transfer from QPP</i>	130,000	738,000
<i>Total additions</i>	130,325	904,829
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	163,316	158,216
Transferrable earnings due to QPP	0	29,364
	163,316	187,580
<i>Total deductions</i>	163,316	187,580
<b>INCREASE IN PLAN NET POSITION</b>	(32,991)	717,249
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 2,024,867	\$ 1,307,618
End of year	\$ 1,991,876	\$ 2,024,867

**NEW YORK CITY POLICE DEPARTMENT  
POLICE SUPERIOR OFFICERS' VARIABLE SUPPLEMENTS FUND (PSOVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 0	\$ 0
Employer Contributions	0	0
	<hr/>	<hr/>
<i>Total contributions</i>	\$ 0	\$ 0
Investment income:		
Interest income	7,682	1,878
Dividend income	15,955	6,129
Net appreciation (depreciation) in fair value	14,903	32,328
	<hr/>	<hr/>
Total investment income	\$ 38,540	\$ 40,335
Less:		
Investment expenses	579	145
Net income	37,961	40,190
Securities lending transactions:		
Securities lending income	525	216
Securities lending fees	(53)	(14)
	<hr/>	<hr/>
Net securities lending income	\$ 472	\$ 202
<i>Net investment income</i>	38,433	40,392
Other:		
<i>Litigation income</i>	26	52
<i>Accrued Transfer from QPP</i>	1,150,000	1,419,802
Total additions	<hr/> <hr/>	<hr/> <hr/>
	1,188,459	1,460,246
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	260,268	254,618
Transferrable earnings due to QPP	0	0
Total deductions	<hr/> <hr/>	<hr/> <hr/>
	260,268	254,618
<b>INCREASE IN PLAN NET POSITION</b>	928,191	1,205,628
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 1,727,379	\$ 521,751
End of year	\$ 2,655,570	\$ 1,727,379

## NEW YORK CITY POLICE PENSION FUND (POLICE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Market Values of Assets

	QPP	POVSF	PSOVSF	Total
<b>1. Plan Net Position @ 6/30/2016</b>	\$ 33,156,415,000	\$ 1,558,369,000	\$ 597,195,000	\$ 35,311,979,000
<b>2. Accrued Benefits Payable</b>	0	76,586,000	113,709,000	190,295,000
<b>3. Transferrable Earnings due from QPP to VSFs</b>	326,195,000	(250,751,000)	(75,444,000)	0
<b>4. Adjusted Market Value @ 6/30/2016</b>	33,482,610,000	1,384,204,000	635,460,000	35,502,274,000
<b>5. Changes for the year:</b>				
a. ER Contributions	2,293,840,000	0	0	2,293,840,000
b. EE Contributions	276,301,000	0	0	276,301,000
c. Net Investment Income	4,079,747,000	166,755,000	40,392,000	4,286,894,000
d. Benefit Payments <sup>1</sup>	(2,571,999,000)	(159,063,000)	(255,938,000)	(2,987,000,000)
e. Administrative Expenses	(18,917,000)	0	0	(18,917,000)
f. Other	10,381,000	74,000	52,000	10,507,000
g. Net Changes	\$ 4,069,353,000	\$ 7,766,000	\$ (215,494,000)	\$ 3,861,625,000
<b>6. Plan Net Position @ 6/30/2017</b>	\$ 37,551,963,000	\$ 1,316,231,000	\$ 307,577,000	\$ 39,175,771,000
<b>7. Accrued Benefits Payable</b>	0	75,739,000	112,389,000	188,128,000
<b>8. Transferrable Earnings due from VSFs to QPP</b>	(2,128,438,000)	708,636,000	1,419,802,000	0
<b>9. Adjusted Market Value @ 6/30/2017</b>	\$ 35,423,525,000	\$ 2,100,606,000	\$ 1,839,768,000	\$ 39,363,899,000
<b>10. Changes for the year:</b>				
a. ER Contributions	2,415,153,000	0	0	2,415,153,000
b. EE Contributions	267,031,000	0	0	267,031,000
c. Net Investment Income	3,925,283,000	294,000	38,433,000	3,964,010,000
d. Benefit Payments <sup>2</sup>	(2,774,387,000)	(162,149,000)	(257,017,000)	(3,193,553,000)
e. Administrative Expenses	(21,146,000)	0	0	(21,146,000)
f. Other	3,408,000	31,000	26,000	3,465,000
g. Net Changes	\$ 3,815,342,000	\$ (161,824,000)	\$ (218,558,000)	\$ 3,434,960,000
<b>11. Plan Net Position @ 6/30/2018</b>	\$ 39,238,867,000	\$ 1,861,876,000	\$ 1,505,570,000	\$ 42,606,313,000
<b>12. Accrued Benefits Payable</b>	0	76,906,000	115,640,000	192,546,000
<b>13. Transferrable Earnings due from QPP to VSFs</b>	(1,280,000,000)	130,000,000	1,150,000,000	0
<b>14. Adjusted Market Value @ 6/30/2018</b>	\$ 37,958,867,000	\$ 2,068,782,000	\$ 2,771,210,000	\$ 42,798,859,000

<sup>1</sup> Includes Net Accrued Benefits Payable of -\$847,000 for POVSF and -\$1,320,000 for PSOVSF.<sup>2</sup> Includes Net Accrued Benefits Payable of \$1,167,000 for POVSF and \$3,251,000 for PSOVSF.

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Long-Term Expected Rate of Return

The Long-Term Expected Rate of Return (LTEROR) assumption on pension fund investments was determined using a Building-Block Method in which best-estimate ranges of Expected Real Rates of Return (i.e. Expected Returns, net of pension fund investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the LTEROR by weighting the Expected Real Rates of Return (RROR) by the Target Asset Allocation percentage and by adding Expected Inflation. The Target Asset Allocation and best estimates of Arithmetic Real Rates of Return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Public Market Equities	31%	6.3%
International Public Market Equities	9%	7.0%
Emerging Public Market Equities	6%	9.5%
Private Market Equities	7%	10.4%
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	31%	2.2%
Alternatives (Real Assets, Hedge Funds)	<u>16%</u>	<u>5.5%</u>
Total	100%	

The Discount Rate used to measure the Total Pension Liability was 7.0% per annum. The projection of Cash Flows used to determine the Discount Rate assumes that employee contributions will be made at the rates applicable to the current Tier for each member and that employer contributions will be made at rates as determined by the Actuary. Based on those assumptions, the pension fund's Fiduciary Net Position is projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the Long-Term Expected Rate of Return on pension fund investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

## NEW YORK CITY POLICE PENSION FUND (POLICE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Development of Asset (Gain) / Loss  
June 30, 2017

	QPP	POVSF	PSOVSF	Total
<b>1. Assets</b>				
a. Market Value 6/30/2016*	\$ 33,156,415,000	\$ 1,634,955,000	\$ 710,904,000	\$ 35,502,274,000
b. 2016 Transferrable Earnings due from VSFs to QPP	326,195,000	(250,751,000)	(75,444,000)	0
c. Adjusted Market Value @6/30/2016	33,482,610,000	1,384,204,000	635,460,000	35,502,274,000
d. Market Value 6/30/2017**	37,551,963,000	1,391,970,000	419,966,000	39,363,899,000
e. 2017 Transferrable Earnings due from QPP to VSFs	(2,128,438,000)	708,636,000	1,419,802,000	0
f. Adjusted Market Value @6/30/2017	35,423,525,000	2,100,606,000	1,839,768,000	39,363,899,000
<b>2. Net Investment Income</b>	4,079,747,000	166,755,000	40,392,000	4,286,894,000
<b>3. Cash Flow</b> (1.d. - 1.a. - 2.)	315,801,000	(409,740,000)	(331,330,000)	(425,269,000)
<b>4. Projected Earnings</b> (7% * 1.a. + 3.441% * 3.)	2,331,815,762	100,347,697	38,362,215	2,470,525,674
<b>5. (Gain) / Loss</b> (4. - 2.)	(1,747,931,238)	(66,407,303)	(2,029,785)	(1,816,368,326)
<b>6. Recognition Period</b>	5 Years	5 Years	5 Years	5 Years
<b>7. Amount Recognized in Pension Expense</b> (5. / 6.)	(349,586,248)	(13,281,461)	(405,957)	(363,273,666)
<b>8. Deferred (Inflow) / Outflow of Resources</b> (5. - 7.)	\$ (1,398,344,990)	\$ (53,125,842)	\$ (1,623,828)	\$ (1,453,094,660)

\* Before Reflecting 2016 Transferrable Earnings to QPP.

\*\* Before Reflecting 2017 Transferrable Earnings to VSFs.



**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss  
June 30, 2018**

	<b>QPP</b>	<b>POVSF</b>	<b>PSOVSF</b>	<b>Total</b>
<b>1. Assets</b>				
a. Market Value 6/30/2017*	\$ 37,551,963,000	\$ 1,391,970,000	\$ 419,966,000	\$ 39,363,899,000
b. 2017 Transferrable Earnings due from QPP to VSFs	(2,128,438,000)	708,636,000	1,419,802,000	0
c. Adjusted Market Value @6/30/2017	35,423,525,000	2,100,606,000	1,839,768,000	39,363,899,000
d. Market Value 6/30/2018**	39,238,867,000	1,938,782,000	1,621,210,000	42,798,859,000
e. 2018 Transferrable Earnings due from QPP to VSFs	(1,280,000,000)	130,000,000	1,150,000,000	0
f. Adjusted Market Value @6/30/2018	37,958,867,000	2,068,782,000	2,771,210,000	42,798,859,000
<b>2. Net Investment Income</b>	3,925,283,000	294,000	38,433,000	3,964,010,000
<b>3. Cash Flow</b> (1.d. - 1.a. - 2.)	(2,238,379,000)	546,518,000	1,162,811,000	(529,050,000)
<b>4. Projected Earnings</b> (7% * 1.a. + 3.441% * 3.)	2,551,614,789	116,243,584	69,409,947	2,737,268,320
<b>5. (Gain) / Loss</b> (4. - 2.)	(1,373,668,211)	115,949,584	30,976,947	(1,226,741,680)
<b>6. Recognition Period</b>	5 Years	5 Years	5 Years	5 Years
<b>7. Amount Recognized in Pension Expense</b> (5. / 6.)	(274,733,642)	23,189,917	6,195,389	(245,348,336)
<b>8. Deferred (Inflow) / Outflow of Resources</b> (5. - 7.)	\$ (1,098,934,569)	\$ 92,759,667	\$ 24,781,558	\$ (981,393,344)

\* Before Reflecting 2017 Transferrable Earnings to VSFs.

\*\* Before Reflecting 2018 Transferrable Earnings to VSFs.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Roll-Forward of Entry Age Actuarial Accrued Liabilities to June 30, 2018**

		<b>QPP</b>		<b>POVSF</b>		<b>PSOVSF</b>		<b>Total</b>
1. EA Accrued Liability at 6/30/2016	\$	44,744,562,849	\$	1,950,543,796	\$	3,665,772,974	\$	50,360,879,619
2. EA Normal Cost at 6/30/2016		1,222,635,377		52,378,583		45,329,629		1,320,343,589
3. Benefit Payments-FY2017		2,571,999,000		159,063,000		255,938,000		2,987,000,000
4. Interest		3,129,201,390		134,731,209		250,970,356		3,514,902,955
5. Roll-Forward EAAL at 6/30/2017	\$	46,524,400,616	\$	1,978,590,588	\$	3,706,134,959	\$	52,209,126,163
6. Changes of Benefit Terms in FY2017		90,362,746		10,230,978		4,077,370		104,671,094
7. Adjusted EAAL at 6/30/2017	\$	46,614,763,362	\$	1,988,821,566	\$	3,710,212,329	\$	52,313,797,257
8. EA Normal Cost at 6/30/2017*		1,281,545,193		57,874,880		46,858,861		1,386,278,934
9. Benefit Payments-FY2018		2,774,387,000		162,149,000		257,017,000		3,193,553,000
10. Interest		3,257,274,942		137,689,204		254,151,028		3,649,115,174
11. Roll-Forward EAAL at 6/30/2018	\$	48,379,196,497	\$	2,022,236,650	\$	3,754,205,218	\$	54,155,638,365

\*Includes normal cost attributable to "Changes of Benefit Terms at 6/30/2017" of \$22,230,755 for QPP, \$3,924,940 for POVSF and \$169,343 for PSOVSF.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
Total**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 51,140,746,394	\$ 35,502,274,000	\$ 15,638,472,394
<b>2. Changes for the Year:</b>			
a. Service Cost	1,320,416,462	0	1,320,416,462
b. Interest	3,524,331,362	0	3,524,331,362
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	(645,248,116)	0	(645,248,116)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	2,293,840,000	(2,293,840,000)
g. Contributions - Employee	0	276,301,000	(276,301,000)
h. Net Investment Income	0	4,286,894,000	(4,286,894,000)
i. Benefit Payments	(2,987,000,000)	(2,987,000,000)	0
j. Administrative Expenses	0	(18,917,000)	18,917,000
k. Other Changes	0	10,507,000	(10,507,000)
<b>l. Net Changes</b>	<b>\$ 1,212,499,708</b>	<b>\$ 3,861,625,000</b>	<b>\$ (2,649,125,292)</b>
<b>3. Balances at June 30, 2017</b>	<b>\$ 52,353,246,102</b>	<b>\$ 39,363,899,000</b>	<b>\$ 12,989,347,102</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

## NEW YORK CITY POLICE PENSION FUND (POLICE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
QPP

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 45,507,890,037	\$ 33,482,610,000	\$ 12,025,280,037
<b>2. Changes for the Year:</b>			
a. Service Cost	1,221,506,234	0	1,221,506,234
b. Interest	3,138,262,665	0	3,138,262,665
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	(632,751,258)	0	(632,751,258)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	2,293,840,000	(2,293,840,000)
g. Contributions - Employee	0	276,301,000	(276,301,000)
h. Net Investment Income	0	4,079,747,000	(4,079,747,000)
i. Benefit Payments	(2,571,999,000)	(2,571,999,000)	0
j. Administrative Expenses	0	(18,917,000)	18,917,000
k. Other Changes	0	10,381,000	(10,381,000)
<b>l. Net Changes</b>	<b>\$ 1,155,018,641</b>	<b>\$ 4,069,353,000</b>	<b>\$ (2,914,334,359)</b>
<b>3. Transferrable Earnings due from QPP to VSFs</b>	<b>0</b>	<b>(2,128,438,000)</b>	<b>2,128,438,000</b>
<b>4. Balances at June 30, 2017</b>	<b>\$ 46,662,908,678</b>	<b>\$ 35,423,525,000</b>	<b>\$ 11,239,383,678</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
POVSF**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 2,008,699,299	\$ 1,384,204,000	\$ 624,495,299
<b>2. Changes for the Year:</b>			
a. Service Cost	52,847,981	0	52,847,981
b. Interest	137,696,499	0	137,696,499
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	(16,263,612)	0	(16,263,612)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	166,755,000	(166,755,000)
i. Benefit Payments	(159,063,000)	(159,063,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	74,000	(74,000)
<b>l. Net Changes</b>	<b>\$ 15,217,868</b>	<b>\$ 7,766,000</b>	<b>\$ 7,451,868</b>
<b>3. Transferrable Earnings due from QPP to POVSF</b>	<b>0</b>	<b>708,636,000</b>	<b>(708,636,000)</b>
<b>4. Balances at June 30, 2017</b>	<b>\$ 2,023,917,167</b>	<b>\$ 2,100,606,000</b>	<b>\$ (76,688,833)</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Changes in Net Pension Liability (NPL) by Source Balances at June 30, 2017 PSOVSF

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 3,624,157,058	\$ 635,460,000	\$ 2,988,697,058
<b>2. Changes for the Year:</b>			
a. Service Cost	46,062,247	0	46,062,247
b. Interest	248,372,198	0	248,372,198
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	3,766,754	0	3,766,754
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	40,392,000	(40,392,000)
i. Benefit Payments	(255,938,000)	(255,938,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	52,000	(52,000)
<b>l. Net Changes</b>	<b>\$ 42,263,199</b>	<b>\$ (215,494,000)</b>	<b>\$ 257,757,199</b>
<b>3. Transferrable Earnings due from QPP to PSOVSF</b>	<b>0</b>	<b>1,419,802,000</b>	<b>(1,419,802,000)</b>
<b>4. Balances at June 30, 2017</b>	<b>\$ 3,666,420,257</b>	<b>\$ 1,839,768,000</b>	<b>\$ 1,826,652,257</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

NEW YORK CITY POLICE PENSION FUND (POLICE)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017

	Total Pension Liability			
	OPP	POVSF	PSOVSF	TOTAL
<b>1. Balances at June 30, 2016</b>	\$ 45,507,890,037	\$ 2,008,699,299	\$ 3,624,157,058	\$ 51,140,746,394
<b>2. Changes for the Year:</b>				
a. Service Cost	1,221,506,234	52,847,981	46,062,247	1,320,416,462
b. Interest	3,138,262,665	137,696,499	248,372,198	3,524,331,362
c. Changes of Benefit Terms	0	0	0	0
d. Differences b/t Expected and Actual Experience	(632,751,258)	(16,263,612)	3,766,754	(645,248,116)
e. Changes of Assumptions	0	0	0	0
f. Benefit Payments	(2,571,999,000)	(159,063,000)	(255,938,000)	(2,987,000,000)
g. Net Changes	\$ 1,155,018,641	\$ 15,217,868	\$ 42,263,199	\$ 1,212,499,708
<b>3. Balances at June 30, 2017</b>	\$ 46,662,908,678	\$ 2,023,917,167	\$ 3,666,420,257	\$ 52,353,246,102
	Plan Fiduciary Net Position <sup>1</sup>			
	OPP	POVSF	PSOVSF	TOTAL
<b>4. Balances at June 30, 2016</b>	\$ 33,482,610,000	\$ 1,384,204,000	\$ 635,460,000	\$ 35,502,274,000
<b>5. Changes for the Year:</b>				
a. Contributions - Employer	2,293,840,000	0	0	2,293,840,000
b. Contributions - Employee	276,301,000	0	0	276,301,000
c. Net Investment Income	4,079,747,000	166,755,000	40,392,000	4,286,894,000
d. Benefit Payments	(2,571,999,000)	(159,063,000)	(255,938,000)	(2,987,000,000)
e. Administrative Expenses	(18,917,000)	0	0	(18,917,000)
f. Other Changes	10,381,000	74,000	52,000	10,507,000
g. Net Changes	\$ 4,069,353,000	\$ 7,766,000	\$ (215,494,000)	\$ 3,861,625,000
<b>6. Transferrable Earnings due from QPP to VSFs</b>	(2,128,438,000)	708,636,000	1,419,802,000	0
<b>7. Balances at June 30, 2017</b>	\$ 35,423,525,000	\$ 2,100,606,000	\$ 1,839,768,000	\$ 39,363,899,000
	Net Pension Liability			
	OPP	POVSF	PSOVSF	TOTAL
<b>8. Balances at June 30, 2016</b>	\$ 12,025,280,037	\$ 624,495,299	\$ 2,988,697,058	\$ 15,638,472,394
<b>9. Changes for the Year:</b>				
a. Service Cost	1,221,506,234	52,847,981	46,062,247	1,320,416,462
b. Interest	3,138,262,665	137,696,499	248,372,198	3,524,331,362
c. Changes of Benefit Terms	0	0	0	0
d. Differences b/t Expected and Actual Experience	(632,751,258)	(16,263,612)	3,766,754	(645,248,116)
e. Changes of Assumptions	0	0	0	0
f. Contributions - Employer	(2,293,840,000)	0	0	(2,293,840,000)
g. Contributions - Employee	(276,301,000)	0	0	(276,301,000)
h. Net Investment Income	(4,079,747,000)	(166,755,000)	(40,392,000)	(4,286,894,000)
i. Benefit Payments	0	0	0	0
j. Administrative Expenses	18,917,000	0	0	18,917,000
k. Other Changes	(10,381,000)	(74,000)	(52,000)	(10,507,000)
l. Net Changes	\$ (2,914,334,359)	\$ 7,451,868	\$ 257,757,199	\$ (2,649,125,292)
<b>10. Transferrable Earnings due from QPP to VSFs</b>	2,128,438,000	(708,636,000)	(1,419,802,000)	0
<b>11. Balances at June 30, 2017</b>	\$ 11,239,383,678	\$ (76,688,833)	\$ 1,826,652,257	\$ 12,989,347,102

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
Total**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 52,353,246,102	\$ 39,363,899,000	\$ 12,989,347,102
<b>2. Changes for the Year:</b>			
a. Service Cost	1,386,278,934	0	1,386,278,934
b. Interest	3,649,115,174	0	3,649,115,174
c. Changes of Benefit Terms	104,671,094	0	104,671,094
d. Differences b/t Expected and Actual Experience	(144,119,939)	0	(144,119,939)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	2,415,153,000	(2,415,153,000)
g. Contributions - Employee	0	267,031,000	(267,031,000)
h. Net Investment Income	0	3,964,010,000	(3,964,010,000)
i. Benefit Payments	(3,193,553,000)	(3,193,553,000)	0
j. Administrative Expenses	0	(21,146,000)	21,146,000
k. Other Changes	0	3,465,000	(3,465,000)
<b>l. Net Changes</b>	<b>\$ 1,802,392,263</b>	<b>\$ 3,434,960,000</b>	<b>\$ (1,632,567,737)</b>
<b>3. Balances at June 30, 2018</b>	<b>\$ 54,155,638,365</b>	<b>\$ 42,798,859,000</b>	<b>\$ 11,356,779,365</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.



**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
QPP**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 46,662,908,678	\$ 35,423,525,000	\$ 11,239,383,678
<b>2. Changes for the Year:</b>			
a. Service Cost	1,281,545,193	0	1,281,545,193
b. Interest	3,257,274,942	0	3,257,274,942
c. Changes of Benefit Terms	90,362,746	0	90,362,746
d. Differences b/t Expected and Actual Experience	(138,508,062)	0	(138,508,062)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	2,415,153,000	(2,415,153,000)
g. Contributions - Employee	0	267,031,000	(267,031,000)
h. Net Investment Income	0	3,925,283,000	(3,925,283,000)
i. Benefit Payments	(2,774,387,000)	(2,774,387,000)	0
j. Administrative Expenses	0	(21,146,000)	21,146,000
k. Other Changes	0	3,408,000	(3,408,000)
<b>l. Net Changes</b>	<b>\$ 1,716,287,819</b>	<b>\$ 3,815,342,000</b>	<b>\$ (2,099,054,181)</b>
<b>3. Transferrable Earnings due from QPP to VSFs</b>	<b>0</b>	<b>(1,280,000,000)</b>	<b>1,280,000,000</b>
<b>4. Balances at June 30, 2018</b>	<b>\$ 48,379,196,497</b>	<b>\$ 37,958,867,000</b>	<b>\$ 10,420,329,497</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

## NEW YORK CITY POLICE PENSION FUND (POLICE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
POVSF

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 2,023,917,167	\$ 2,100,606,000	\$ (76,688,833)
<b>2. Changes for the Year:</b>			
a. Service Cost	57,874,880	0	57,874,880
b. Interest	137,689,204	0	137,689,204
c. Changes of Benefit Terms	10,230,978	0	10,230,978
d. Differences b/t Expected and Actual Experience	(45,326,579)	0	(45,326,579)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	294,000	(294,000)
i. Benefit Payments	(162,149,000)	(162,149,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	31,000	(31,000)
<b>l. Net Changes</b>	<b>\$ (1,680,517)</b>	<b>\$ (161,824,000)</b>	<b>\$ 160,143,483</b>
<b>3. Transferrable Earnings due from QPP to POVSF</b>	<b>0</b>	<b>130,000,000</b>	<b>(130,000,000)</b>
<b>4. Balances at June 30, 2018</b>	<b>\$ 2,022,236,650</b>	<b>\$ 2,068,782,000</b>	<b>\$ (46,545,350)</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
PSOVSF**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 3,666,420,257	\$ 1,839,768,000	\$ 1,826,652,257
<b>2. Changes for the Year:</b>			
a. Service Cost	46,858,861	0	46,858,861
b. Interest	254,151,028	0	254,151,028
c. Changes of Benefit Terms	4,077,370	0	4,077,370
d. Differences b/t Expected and Actual Experience	39,714,702	0	39,714,702
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	38,433,000	(38,433,000)
i. Benefit Payments	(257,017,000)	(257,017,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	26,000	(26,000)
<b>l. Net Changes</b>	<b>\$ 87,784,961</b>	<b>\$ (218,558,000)</b>	<b>\$ 306,342,961</b>
<b>3. Transferrable Earnings due from QPP to PSOVSF</b>	<b>0</b>	<b>1,150,000,000</b>	<b>(1,150,000,000)</b>
<b>4. Balances at June 30, 2018</b>	<b>\$ 3,754,205,218</b>	<b>\$ 2,771,210,000</b>	<b>\$ 982,995,218</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

NEW YORK CITY POLICE PENSION FUND (POLICE)

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018

	Total Pension Liability			
	OPP	POVSF	PSOVSF	TOTAL
<b>1. Balances at June 30, 2017</b>	\$ 46,662,908,678	\$ 2,023,917,167	\$ 3,666,420,257	\$ 52,353,246,102
<b>2. Changes for the Year:</b>				
a. Service Cost	1,281,545,193	57,874,880	46,858,861	1,386,278,934
b. Interest	3,257,274,942	137,689,204	254,151,028	3,649,115,174
c. Changes of Benefit Terms	90,362,746	10,230,978	4,077,370	104,671,094
d. Differences b/t Expected and Actual Experience	(138,508,062)	(45,326,579)	39,714,702	(144,119,939)
e. Changes of Assumptions	0	0	0	0
f. Benefit Payments	(2,774,387,000)	(162,149,000)	(257,017,000)	(3,193,553,000)
g. Net Changes	\$ 1,716,287,819	\$ (1,680,517)	\$ 87,784,961	\$ 1,802,392,263
<b>3. Balances at June 30, 2018</b>	\$ 48,379,196,497	\$ 2,022,236,650	\$ 3,754,205,218	\$ 54,155,638,365
	Plan Fiduciary Net Position <sup>1</sup>			
	OPP	POVSF	PSOVSF	TOTAL
<b>4. Balances at June 30, 2017</b>	\$ 35,423,525,000	\$ 2,100,606,000	\$ 1,839,768,000	\$ 39,363,899,000
<b>5. Changes for the Year:</b>				
a. Contributions - Employer	2,415,153,000	0	0	2,415,153,000
b. Contributions - Employee	267,031,000	0	0	267,031,000
c. Net Investment Income	3,925,283,000	294,000	38,433,000	3,964,010,000
d. Benefit Payments	(2,774,387,000)	(162,149,000)	(257,017,000)	(3,193,553,000)
e. Administrative Expenses	(21,146,000)	0	0	(21,146,000)
f. Other Changes	3,408,000	31,000	26,000	3,465,000
g. Net Changes	\$ 3,815,342,000	\$ (161,824,000)	\$ (218,558,000)	\$ 3,434,960,000
<b>6. Transferrable Earnings due from QPP to VSFs</b>	(1,280,000,000)	130,000,000	1,150,000,000	0
<b>7. Balances at June 30, 2018</b>	\$ 37,958,867,000	\$ 2,068,782,000	\$ 2,771,210,000	\$ 42,798,859,000
	Net Pension Liability			
	OPP	POVSF	PSOVSF	TOTAL
<b>8. Balances at June 30, 2017</b>	\$ 11,239,383,678	\$ (76,688,833)	\$ 1,826,652,257	\$ 12,989,347,102
<b>9. Changes for the Year:</b>				
a. Service Cost	1,281,545,193	57,874,880	46,858,861	1,386,278,934
b. Interest	3,257,274,942	137,689,204	254,151,028	3,649,115,174
c. Changes of Benefit Terms	90,362,746	10,230,978	4,077,370	104,671,094
d. Differences b/t Expected and Actual Experience	(138,508,062)	(45,326,579)	39,714,702	(144,119,939)
e. Changes of Assumptions	0	0	0	0
f. Contributions - Employer	(2,415,153,000)	0	0	(2,415,153,000)
g. Contributions - Employee	(267,031,000)	0	0	(267,031,000)
h. Net Investment Income	(3,925,283,000)	(294,000)	(38,433,000)	(3,964,010,000)
i. Benefit Payments	0	0	0	0
j. Administrative Expenses	21,146,000	0	0	21,146,000
k. Other Changes	(3,408,000)	(31,000)	(26,000)	(3,465,000)
l. Net Changes	\$ (2,099,054,181)	\$ 160,143,483	\$ 306,342,961	\$ (1,632,567,737)
<b>10. Transferrable Earnings due from QPP to VSFs</b>	1,280,000,000	(130,000,000)	(1,150,000,000)	0
<b>11. Balances at June 30, 2018</b>	\$ 10,420,329,497	\$ (46,545,350)	\$ 982,995,218	\$ 11,356,779,365

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Changes in Net Pension Liability and Related Ratios**

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015 (Revised)<sup>1</sup></u>	<u>2014</u>	<u>2013</u>
<b>1. Total Pension Liability</b>						
a. Service Cost	\$ 1,386,278,934	\$ 1,320,416,462	\$ 1,340,614,909	\$ 1,325,807,839	\$ 1,301,753,171	\$ 1,263,838,030
b. Interest	3,649,115,174	3,524,331,362	3,441,398,429	3,245,225,246	3,117,317,330	2,998,478,091
c. Changes of Benefit Terms	104,671,094	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	(144,119,939)	(645,248,116)	233,461,664	(215,417,691)	0	0
e. Change of Assumptions	0	0	794,679,950	0	0	0
f. Benefit Payments	(3,193,553,000)	(2,987,000,000)	(2,878,451,000)	(2,746,784,000)	(2,682,223,000)	(2,525,475,000)
<b>g. Net Changes</b>	<b>\$ 1,802,392,263</b>	<b>\$ 1,212,499,708</b>	<b>\$ 2,931,703,952</b>	<b>\$ 1,608,831,394</b>	<b>\$ 1,736,847,501</b>	<b>\$ 1,736,841,121</b>
<b>2. Total Pension Liability - Beginning</b>	<b>\$ 52,353,246,102</b>	<b>\$ 51,140,746,394</b>	<b>\$ 48,209,042,442</b>	<b>\$ 46,600,211,048</b>	<b>\$ 44,549,855,738</b>	<b>\$ 42,813,014,617</b>
<b>3. Total Pension Liability - Ending</b>	<b>\$ 54,155,638,365</b>	<b>\$ 52,353,246,102</b>	<b>\$ 51,140,746,394</b>	<b>\$ 48,209,042,442</b>	<b>\$ 46,286,703,239</b>	<b>\$ 44,549,855,738</b>
<b>4. Plan Fiduciary Net Position</b>						
a. Contributions - Employer	\$ 2,415,153,000	\$ 2,293,840,000	\$ 2,393,940,000	\$ 2,309,619,000	\$ 2,320,910,000	\$ 2,424,690,000
b. Contributions - Employee	267,031,000	276,301,000	249,921,000	241,102,000	228,783,000	229,675,000
c. Net Investment Income	3,964,010,000	4,286,894,000	403,534,000	1,098,220,000	5,147,483,000	3,101,564,000
d. Benefit Payments	(3,193,553,000)	(2,987,000,000)	(2,878,451,000)	(2,746,784,000)	(2,682,223,000)	(2,525,475,000)
e. Administrative Expenses	(21,146,000)	(18,917,000)	(18,478,000)	(17,903,000)	(17,450,000)	(17,548,000)
f. Other Changes	3,465,000	10,507,000	6,756,000	4,616,000	6,911,000	6,118,000
<b>g. Net Changes</b>	<b>\$ 3,434,960,000</b>	<b>\$ 3,861,625,000</b>	<b>\$ 157,222,000</b>	<b>\$ 888,870,000</b>	<b>\$ 5,004,414,000</b>	<b>\$ 3,219,024,000</b>
<b>5. Plan Fiduciary Net Position - Beginning</b>	<b>\$ 39,363,899,000</b>	<b>\$ 35,502,274,000</b>	<b>\$ 35,345,052,000</b>	<b>\$ 34,456,182,000</b>	<b>\$ 29,451,768,000</b>	<b>\$ 26,232,744,000</b>
<b>6. Plan Fiduciary Net Position - Ending</b>	<b>\$ 42,798,859,000</b>	<b>\$ 39,363,899,000</b>	<b>\$ 35,502,274,000</b>	<b>\$ 35,345,052,000</b>	<b>\$ 34,456,182,000</b>	<b>\$ 29,451,768,000</b>
<b>7. POLICE Net Pension Liability</b>	<b>\$ 11,356,779,365</b>	<b>\$ 12,989,347,102</b>	<b>\$ 15,638,472,394</b>	<b>\$ 12,863,990,442</b>	<b>\$ 11,830,521,239</b>	<b>\$ 15,098,087,738</b>
<b>8. Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>79.0%</b>	<b>75.2%</b>	<b>69.4%</b>	<b>73.3%</b>	<b>74.4%</b>	<b>66.1%</b>
<b>9. Covered Employee Payroll <sup>2</sup></b>	<b>\$ 3,673,054,287</b>	<b>\$ 3,509,985,075</b>	<b>\$ 3,540,326,198</b>	<b>\$ 3,512,777,844</b>	<b>\$ 3,420,312,390</b>	<b>\$ 3,459,871,779</b>
<b>10. POLICE Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>309.2%</b>	<b>370.1%</b>	<b>441.7%</b>	<b>366.2%</b>	<b>345.9%</b>	<b>436.4%</b>

<sup>1</sup> Special Accidental Death Benefits pursuant to Section 208-f of the General Municipal Law.

<sup>2</sup> Projected Employee Payroll at Time 1.0 under One-Year Lag Methodology.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Contributions (\$ in thousands)**

<b>Fiscal Year Ended June 30</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
1. Actuarially Determined Contribution	\$ 2,415,153	\$ 2,293,840	\$ 2,393,940	\$ 2,309,619	\$ 2,320,910	\$ 2,424,690	\$ 2,385,731	\$ 2,083,633	\$ 1,980,996	\$ 1,932,150
2. Contributions in relation to the Actuarially Determined Contribution	<u>\$ 2,415,153</u>	<u>\$ 2,293,840</u>	<u>\$ 2,393,940</u>	<u>\$ 2,309,619</u>	<u>\$ 2,320,910</u>	<u>\$ 2,424,690</u>	<u>\$ 2,385,731</u>	<u>\$ 2,083,633</u>	<u>\$ 1,980,996</u>	<u>\$ 1,932,150</u>
3. Contribution Deficiency (Excess)	0	0	0	0	0	0	0	0	0	0
4. Contributions as a percentage of Covered Employee Payroll*	65.753%	65.352%	67.619%	65.749%	67.857%	70.080%	69.176%	64.058%	63.955%	65.570%

\* The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 increased to reflect overtime earnings and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Average Expected Remaining Service Lives**

<u>Group</u>	<u># Count</u>	Average Expected Remaining Service Life <u>@ 6/30/2017</u>
Active	35,961	10.71
Active/Inactive	1,659	0
Terminated Vested	574	0
Retired	<u>49,151</u>	<u>0</u>
Total	87,345	4.41

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Expected and Actual Experience**

<b>Year</b>	<b>Differences between Expected and Actual Experience</b>	<b>Recognition Period (Years)</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
2015	\$ (215,417,691)	2.45	\$ (87,925,588)	\$ (87,925,588)	\$ (39,566,515)					
2016	\$ 233,461,664	2.45	\$	\$ 95,290,475	\$ 95,290,475	\$ 42,880,714				
2017	\$ (645,248,116)	3.89		\$	\$ (165,873,552)	\$ (165,873,552)	\$ (165,873,552)	\$ (147,627,460)		
2018	\$ (144,119,939)	4.41			\$	\$ (32,680,258)	\$ (32,680,258)	\$ (32,680,258)	\$ (32,680,258)	\$ (13,398,907)
Net increase (decrease) in Pension Expense			<b>\$ (87,925,588)</b>	<b>\$ 7,364,887</b>	<b>\$ (110,149,592)</b>	<b>\$ (155,673,096)</b>	<b>\$ (198,553,810)</b>	<b>\$ (180,307,718)</b>	<b>\$ (32,680,258)</b>	<b>\$ (13,398,907)</b>



**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of  
Changes in Assumptions**

<b>Year</b>	<b>Changes in Assumptions</b>	<b>Recognition Period (Years)</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
2016	\$ 794,679,950	2.45	\$ 324,359,163	\$ 324,359,163	\$ 145,961,624				
2017	0	0		0	0				
2018	0	0			0				
Net increase (decrease) in Pension Expense			<b>\$ 324,359,163</b>	<b>\$ 324,359,163</b>	<b>\$ 145,961,624</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Projected and Actual Earnings on Pension Plan Investments**

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)													
			2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
2013	\$ (1,261,230,122)	5	\$ (252,246,024)	\$ (252,246,024)	\$ (252,246,024)	\$ (252,246,024)	\$ (252,246,026)								
2014	\$ (3,090,782,244)	5		\$ (618,156,449)	\$ (618,156,449)	\$ (618,156,449)	\$ (618,156,449)	\$ (618,156,448)							
2015	\$ 1,306,509,007	5			\$ 261,301,801	\$ 261,301,801	\$ 261,301,801	\$ 261,301,801	\$ 261,301,803						
2016	\$ 2,062,144,044	5				\$ 412,428,809	\$ 412,428,809	\$ 412,428,809	\$ 412,428,809	\$ 412,428,808					
2017	\$ (1,816,368,326)	5					\$ (363,273,666)	\$ (363,273,666)	\$ (363,273,666)	\$ (363,273,666)	\$ (363,273,666)				
2018	\$ (1,226,741,680)	5						\$ (245,348,336)	\$ (245,348,336)	\$ (245,348,336)	\$ (245,348,336)	\$ (245,348,336)	\$ (245,348,336)	\$ (245,348,336)	\$ (245,348,336)
Net increase (decrease) in Pension Expense			<b>\$ (252,246,024)</b>	<b>\$ (870,402,473)</b>	<b>\$ (609,100,672)</b>	<b>\$ (196,671,863)</b>	<b>\$ (559,945,531)</b>	<b>\$ (553,047,840)</b>	<b>\$ 65,108,610</b>	<b>\$ (196,193,194)</b>	<b>\$ (608,621,998)</b>	<b>\$ (608,621,998)</b>	<b>\$ (608,621,998)</b>	<b>\$ (245,348,336)</b>	<b>\$ (245,348,336)</b>

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 1,320,416,462
b. Interest on the Total Pension Liability	3,524,331,362
c. Changes of Benefit Terms	0
d. Differences between Expected and Actual Experience	(110,149,592)
e. Changes of Assumptions	324,359,163
f. Employee Contributions	(276,301,000)
g. Projected Earnings on Pension Plan Investments	(2,470,525,674)
h. Differences between Projected and Actual Earnings on Plan Investments	(559,945,531)
i. Pension Plan Administrative Expenses	18,917,000
j. Other Changes in Fiduciary Net Position	(10,507,000)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,760,595,190</b>

**NEW YORK CITY POLICE PENSION FUND (POLICE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 1,386,278,934
b. Interest on the Total Pension Liability	3,649,115,174
c. Changes of Benefit Terms	104,671,094
d. Differences between Expected and Actual Experience	(155,673,096)
e. Changes of Assumptions	145,961,624
f. Employee Contributions	(267,031,000)
g. Projected Earnings on Pension Plan Investments	(2,737,268,320)
h. Differences between Projected and Actual Earnings on Plan Investments	(553,047,840)
i. Pension Plan Administrative Expenses	21,146,000
j. Other Changes in Fiduciary Net Position	(3,465,000)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,590,687,570</b>

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2013, the City recognized Pension Expense for POLICE of \$1,951,491,219.

At June 30, 2013, the City reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	1,008,984,098
Total	\$ 0	\$ 1,008,984,098

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2013	\$ (252,246,024)
2014	(252,246,024)
2015	(252,246,024)
2016	(252,246,024)
2017	(252,246,026)

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2014, the City recognized Pension Expense for POLICE of \$1,273,723,272.

For June 30, 2014, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	2,472,625,795
Total	\$ 0	\$ 2,472,625,795

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2014	\$ (618,156,449)
2015	(618,156,449)
2016	(618,156,449)
2017	(618,156,449)
2018	(618,156,448)

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2015, the City recognized Pension Expense for POLICE of \$1,241,462,818.

For June 30, 2015, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between Expected and Actual Experience	\$ 0	\$ 127,492,103
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	1,045,207,206	0
Total	\$ 1,045,207,206	\$ 127,492,103

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2015	\$ 173,376,213
2016	173,376,213
2017	221,735,286
2018	261,301,801
2019	261,301,803

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2016, the City recognized Pension Expense for POLICE of \$2,213,188,481.

For June 30, 2016, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 138,171,189	\$ 0
Changes of Assumptions	470,320,787	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	1,649,715,235	0
Total	\$ 2,258,207,211	\$ 0

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2016	\$ 832,078,447
2017	832,078,447
2018	601,271,147
2019	412,428,809
2020	412,428,808



## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2017, the City recognized Pension Expense for POLICE of \$1,760,595,190.

For June 30, 2017, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 479,374,564
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	1,453,094,660
Total	\$ 0	\$ 1,932,469,224

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2017	\$ (529,147,218)
2018	(529,147,218)
2019	(529,147,218)
2020	(510,901,126)
2021	(363,273,662)

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2018, the City recognized Pension Expense for POLICE of \$1,590,687,570.

For June 30, 2018, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 111,439,681
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	981,393,344
Total	\$ 0	\$ 1,092,833,025

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (278,028,594)
2019	(278,028,594)
2020	(278,028,594)
2021	(278,028,594)
2022	(258,747,243)

## NEW YORK CITY POLICE PENSION FUND (POLICE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2018, the City recognized Pension Expense for POLICE of \$1,590,687,570.

At June 30, 2018, the City reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 424,940,693
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	985,054,918
Total	\$ 0	\$ 1,409,995,611

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for POLICE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (562,759,312)
2019	\$ (133,445,200)
2020	\$ (376,500,912)
2021	\$ (641,302,256)
2022	\$ (258,747,243)

# Appendix E

## APPENDIX E

### NEW YORK CITY FIRE PENSION FUND (FIRE)

Page 1a	-	Statement of Fiduciary Net Position - FIRE
1b	-	Statement of Fiduciary Net Position - FFVSF
1c	-	Statement of Fiduciary Net Position - FOVSF
Page 2a	-	Statement of Changes in Fiduciary Net Position - FIRE
2b	-	Statement of Changes in Fiduciary Net Position - FFVSF
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Page 12a	-	Components of Pension Expense - June 30, 2017
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13b	-	Pension Expense, Deferred Inflows/Outflows of Resources for June 30, 2014
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13g	-	Pension Expense, Total Deferred Inflows/Outflows of Resources at June 30, 2018

## NEW YORK CITY FIRE PENSION FUND (FIRE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Statement of Fiduciary Net Position

June 30, 2018 and June 30, 2017

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 2,883	\$ 37,035
Receivables:		
Investment securities sold	143,921	138,400
Member loans	25,248	26,951
Accrued interest and dividends	25,777	23,004
Accounts Receivables	129	178
Total receivables	<u>\$ 195,075</u>	<u>\$ 188,533</u>
Investments - at fair value		
Short-term investments:		
Commercial paper	237,589	136,416
Short-term investment fund	105,484	91,493
U.S. Treasury bills and agencies	0	0
Debt securities:		
U.S. Government and agencies	3,029,091	2,219,638
Corporate and other	0	0
Equity Securities:	3,848,728	1,878,641
Alternative Investments:	2,607,718	2,391,376
Collective Trust Funds:		
International equity	2,264,395	2,232,054
Fixed income	1,206,636	575,442
Domestic equity	88,801	2,149,785
Mortgage debt security	99,102	89,229
Treasury inflation protected securities	0	543,317
Collateral from securities lending	<u>1,140,436</u>	<u>1,080,020</u>
Total Investments	<u>\$ 14,627,980</u>	<u>\$ 13,387,411</u>
Other assets	2,899	2,508
Total assets	<u><u>\$ 14,828,837</u></u>	<u><u>\$ 13,615,487</u></u>
<b>LIABILITIES</b>		
Accounts payable	177,540	147,979
Payables for investment securities purchased	203,986	147,296
Accrued benefits payable	10,832	15,680
Transferrable Earnings due from QPP to VSFs	29,000	134,616
Securities lending	1,140,436	1,080,020
Total liabilities	<u><u>\$ 1,561,794</u></u>	<u><u>\$ 1,525,591</u></u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u><u>\$ 13,267,043</u></u>	<u><u>\$ 12,089,896</u></u>

**NEW YORK CITY FIRE DEPARTMENT  
FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND (FFVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ASSETS</b>		
Cash	\$ 1,467	\$ 1,391
Receivables:		
Investment securities sold	0	33,517
Accrued interest and dividends	199	631
Accounts Receivables	0	0
Transferrable Earnings Due from QPP	29,000	83,653
Total receivables	\$ 29,199	\$ 117,801
Investments - at fair value		
Short-term investments:		
Commercial paper	503	0
Short-term investment fund	21	6,971
U.S. Treasury bills and agencies	0	0
Discount Notes	0	0
Debt securities:		
U.S. Government and agencies	0	0
Corporate and other	0	0
Equity securities:	0	0
Alternative investments:	0	0
Collective trust funds:		
International equity	156,502	142,644
Fixed income	183,616	154,461
Domestic equity	179,243	156,098
Treasury inflation protected securities	0	1,316
Collateral from securities lending	16,842	18,539
Total Investments	\$ 536,727	\$ 480,029
Other assets	0	0
Total assets	\$ 567,393	\$ 599,221
<b>LIABILITIES</b>		
Accounts payable	44	96
Payables for investment securities purchased	0	33,509
Accrued benefits payable	20,427	20,831
Securities lending	16,842	18,539
Total liabilities	\$ 37,313	\$ 72,975
<b>Plan Net Position Held in Trust for Benefits</b>	<b>\$ 530,080</b>	<b>\$ 526,246</b>

**NEW YORK CITY FIRE DEPARTMENT  
FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND (FOVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Fiduciary Net Position**

**June 30, 2018 and June 30, 2017**

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ASSETS</b>		
Cash	\$ 1,085	\$ 906
Receivables:		
Investment securities sold	0	24,791
Accrued interest and dividends	245	432
Accounts Receivables	33	33
Transferrable Earnings Due from QPP	0	50,963
Total receivables	<u>\$ 278</u>	<u>\$ 76,219</u>
Investments - at fair value		
Short-term investments:		
Commercial paper	1,903	0
Short-term investment fund	118	2,637
U.S. Treasury bills and agencies	0	0
Discount Notes	0	0
Debt securities:		
U.S. Government and agencies	0	1,263
Corporate and other	0	0
Equity securities:	111,494	0
Alternative investments:	0	0
Collective trust funds:		
International equity	106,597	93,185
Fixed income	124,324	100,957
Domestic equity	10,050	102,508
Treasury inflation protected securities	0	1,544
Collateral from securities lending	<u>12,008</u>	<u>12,294</u>
Total Investments	<u>\$ 366,494</u>	<u>\$ 314,388</u>
Other assets	0	0
Total assets	<u><u>\$ 367,857</u></u>	<u><u>\$ 391,513</u></u>
<b>LIABILITIES</b>		
Accounts payable	50	92
Payables for investment securities purchased	87	24,790
Accrued benefits payable	9,079	9,121
Securities lending	12,008	12,294
Total liabilities	<u><u>\$ 21,224</u></u>	<u><u>\$ 46,297</u></u>
<b>Plan Net Position Held in Trust for Benefits</b>	<u><u>\$ 346,633</u></u>	<u><u>\$ 345,216</u></u>



## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Statement of Changes in Fiduciary Net Position

June 30, 2018 and June 30, 2017

(Dollar amounts in thousands)

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 108,338	\$ 108,368
Employer Contributions	1,200,417	1,061,170
<i>Total contributions</i>	\$ 1,308,755	\$ 1,169,538
Investment income:		
Interest income	168,451	135,642
Dividend income	159,918	159,972
Net appreciation (depreciation) in fair value	952,687	1,067,973
Total investment income	\$ 1,281,056	\$ 1,363,587
Less:		
Investment expenses	96,936	84,438
Net income	1,184,120	1,279,149
Securities lending transactions:		
Securities lending income	5,267	6,150
Securities lending fees	(527)	(428)
Net securities lending income	\$ 4,740	\$ 5,722
<i>Net investment income</i>	1,188,860	1,284,871
Other:		
Net receipts from other retirement systems	8,697	44,999
Litigation income	714	2,285
<i>Other total</i>	9,411	47,284
Total additions	2,507,026	2,501,693
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	1,308,467	1,265,817
Transferrable Earnings due from QPP to VSFs	15,000	45,743
Administrative expenses	6,412	0
Total deductions	1,329,879	1,311,560
<b>INCREASE IN PLAN NET POSITION</b>	1,177,147	1,190,133
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 12,089,896	\$ 10,899,763
End of year	\$ 13,267,043	\$ 12,089,896

**NEW YORK CITY FIRE DEPARTMENT  
FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND (FFVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	<b>June 30, 2018</b>	<b>June 30, 2017</b>
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 0	\$ 0
Employer Contributions	0	0
	0	0
<i>Total contributions</i>	\$ 0	\$ 0
Investment income:		
Interest income	4,584	4,600
Dividend income	8,123	7,504
Net appreciation (depreciation) in fair value	22,865	34,802
	22,865	34,802
Total investment income	\$ 35,572	\$ 46,906
Less:		
Investment expenses	404	439
	35,168	46,467
Net income	35,168	46,467
Securities lending transactions:		
Securities lending income	265	309
Securities lending fees	(27)	(21)
	238	288
Net securities lending income	\$ 238	\$ 288
<i>Net investment income</i>	35,406	46,755
Other:		
Net receipts from other retirement systems	0	0
Litigation income	0	0
Transferrable Earnings due from QPP to FFVSF	15,000	23,914
Total additions	50,406	70,669
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	46,572	47,273
Total deductions	46,572	47,273
<b>INCREASE IN PLAN NET POSITION</b>	3,834	23,396
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 526,246	\$ 502,850
End of year	\$ 530,080	\$ 526,246

**NEW YORK CITY FIRE DEPARTMENT  
FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND (FOVSF)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Statement of Changes in Fiduciary Net Position  
June 30, 2018 and June 30, 2017  
(Dollar amounts in thousands)**

	June 30, 2018	June 30, 2017
<b>ADDITIONS</b>		
Contributions:		
Member Contributions	\$ 0	\$ 0
Employer Contributions	0	0
	<hr/>	<hr/>
<i>Total contributions</i>	\$ 0	\$ 0
Investment income:		
Interest income	3,103	3,107
Dividend income	5,448	4,135
Net appreciation (depreciation) in fair value	17,000	32,860
	<hr/>	<hr/>
Total investment income	\$ 25,551	\$ 40,102
Less:		
Investment expenses	248	247
Net income	25,303	39,855
Securities lending transactions:		
Securities lending income	180	257
Securities lending fees	(18)	(17)
	<hr/>	<hr/>
Net securities lending income	\$ 162	\$ 240
<i>Net investment income</i>	25,465	40,095
Other:		
Net receipts from other retirement systems	0	0
Litigation income	0	0
Transferrable Earnings due from QPP to FOVSF	0	21,829
Total additions	<hr/> <hr/>	<hr/> <hr/>
	25,465	61,924
<b>DEDUCTIONS</b>		
Benefit payments and withdrawals	24,048	21,717
Total deductions	<hr/> <hr/>	<hr/> <hr/>
	24,048	21,717
<b>INCREASE IN PLAN NET POSITION</b>	1,417	40,207
<b>PLAN NET POSITION HELD IN TRUST FOR BENEFITS:</b>		
Beginning of year	\$ 345,216	\$ 305,009
End of year	\$ 346,633	\$ 345,216

## NEW YORK CITY FIRE PENSION FUND (FIRE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

## Market Values of Assets

	QPP	FFVSF	FOVSF	Total
<b>1. Plan Net Position @ 6/30/2016</b>	\$ 10,936,636,000	\$ 484,111,000	\$ 286,875,000	11,707,622,000
<b>2. Accrued Benefits Payable</b>	0	21,225,000	9,263,000	30,488,000
<b>3. Transferrable Earnings due from QPP to VSFs</b>	(36,873,000)	18,739,000	18,134,000	0
<b>4. Adjusted Market Value @ 6/30/2016</b>	10,899,763,000	524,075,000	314,272,000	11,738,110,000
<b>5. Changes for the year:</b>				
a. ER Contributions	1,061,170,000	0	0	1,061,170,000
b. EE Contributions	108,368,000	0	0	108,368,000
c. Net Investment Income	1,284,871,000	46,755,000	40,095,000	1,371,721,000
d. Benefit Payments <sup>1</sup>	(1,265,817,000)	(47,667,000)	(21,859,000)	(1,335,343,000)
e. Administrative Expenses	0	0	0	0
f. Other	47,284,000	0	0	47,284,000
g. Net Changes	\$ 1,235,876,000	\$ (912,000)	\$ 18,236,000	\$ 1,253,200,000
<b>6. Plan Net Position @ 6/30/2017</b>	\$ 12,135,639,000	\$ 502,332,000	\$ 323,387,000	\$ 12,961,358,000
<b>7. Accrued Benefits Payable</b>	0	20,831,000	9,121,000	29,952,000
<b>8. Transferrable Earnings due from QPP to VSFs</b>	(45,743,000)	23,914,000	21,829,000	0
<b>9. Adjusted Market Value @ 6/30/2017</b>	\$ 12,089,896,000	\$ 547,077,000	\$ 354,337,000	\$ 12,991,310,000
<b>10. Changes for the year:</b>				
a. ER Contributions	1,200,417,000	0	0	1,200,417,000
b. EE Contributions	108,338,000	0	0	108,338,000
c. Net Investment Income	1,188,860,000	35,406,000	25,465,000	1,249,731,000
d. Benefit Payments <sup>2</sup>	(1,308,467,000)	(46,976,000)	(24,090,000)	(1,379,533,000)
e. Administrative Expenses	(6,412,000)	0	0	(6,412,000)
f. Other	9,411,000	0	0	9,411,000
g. Net Changes	\$ 1,192,147,000	\$ (11,570,000)	\$ 1,375,000	\$ 1,181,952,000
<b>11. Plan Net Position @ 6/30/2018</b>	\$ 13,282,043,000	\$ 515,080,000	\$ 346,633,000	\$ 14,143,756,000
<b>12. Accrued Benefits Payable</b>	0	20,427,000	9,079,000	29,506,000
<b>13. Transferrable Earnings due from QPP to VSFs</b>	(15,000,000)	15,000,000	0	0
<b>14. Adjusted Market Value @ 6/30/2018</b>	\$ 13,267,043,000	\$ 550,507,000	\$ 355,712,000	\$ 14,173,262,000

<sup>1</sup> Includes Net Accrued Benefits Payable of -\$394,000 for FFVSF and -\$142,000 for FOVSF.

<sup>2</sup> Includes Net Accrued Benefits Payable of -\$404,000 for FFVSF and -\$42,000 for FOVSF.

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Long-Term Expected Rate of Return

The Long-Term Expected Rate of Return (LTEROR) assumption on pension fund investments was determined using a Building-Block Method in which best-estimate ranges of Expected Real Rates of Return (i.e. Expected Returns, net of pension fund investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the LTEROR by weighting the Expected Real Rates of Return (RROR) by the Target Asset Allocation percentage and by adding Expected Inflation. The Target Asset Allocation and best estimates of Arithmetic Real Rates of Return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Public Market Equities	31%	6.3%
International Public Market Equities	9%	7.0%
Emerging Public Market Equities	6%	9.5%
Private Market Equities	7%	10.4%
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	31%	2.2%
Alternatives (Real Assets, Hedge Funds)	<u>16%</u>	5.5%
Total	100%	

The Discount Rate used to measure the Total Pension Liability was 7.0% per annum. The projection of Cash Flows used to determine the Discount Rate assumes that employee contributions will be made at the rates applicable to the current Tier for each member and that employer contributions will be made at rates as determined by the Actuary. Based on those assumptions, the pension fund's Fiduciary Net Position is projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the Long-Term Expected Rate of Return on pension fund investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

## NEW YORK CITY FIRE PENSION FUND (FIRE)

## Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

Development of Asset (Gain) / Loss  
June 30, 2017

	QPP	FFVSF	FOVSF	Total
<b>1. Assets</b>				
<b>a. Market Value 6/30/2016*</b>	\$ 10,936,636,000	\$ 505,336,000	\$ 296,138,000	\$ 11,738,110,000
<b>b. 2016 Transferrable Earnings due from QPP to VSFs</b>	(36,873,000)	18,739,000	18,134,000	0
<b>c. Adjusted Market Value @6/30/2016</b>	10,899,763,000	524,075,000	314,272,000	11,738,110,000
<b>d. Market Value 6/30/2017**</b>	12,135,639,000	523,163,000	332,508,000	12,991,310,000
<b>e. 2017 Transferrable Earnings due from QPP to VSFs</b>	(45,743,000)	23,914,000	21,829,000	0
<b>f. Adjusted Market Value @6/30/2017</b>	12,089,896,000	547,077,000	354,337,000	12,991,310,000
<b>2. Net Investment Income</b>	1,284,871,000	46,755,000	40,095,000	1,371,721,000
<b>3. Cash Flow</b> (1.d. - 1.a. - 2.)	(85,868,000)	(28,928,000)	(3,725,000)	(118,521,000)
<b>4. Projected Earnings</b> (7% * 1.a. + 3.441% * 3.)	762,609,802	34,378,108	20,601,483	817,589,393
<b>5. (Gain) / Loss</b> (4. - 2.)	(522,261,198)	(12,376,892)	(19,493,517)	(554,131,607)
<b>6. Recognition Period</b>	5 Years	5 Years	5 Years	5 Years
<b>7. Amount Recognized in Pension Expense</b> (5. / 6.)	(104,452,240)	(2,475,378)	(3,898,703)	(110,826,321)
<b>8. Deferred (Inflow) / Outflow of Resources</b> (5. - 7.)	\$ (417,808,958)	\$ (9,901,514)	\$ (15,594,814)	\$ (443,305,286)

\* Before Reflecting 2016 Transferrable Earnings due from QPP to VSFs.

\*\* Before Reflecting 2017 Transferrable Earnings due from QPP to VSFs.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Development of Asset (Gain) / Loss  
June 30, 2018**

	<b>QPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>1. Assets</b>				
<b>a. Market Value 6/30/2017*</b>	\$ 12,135,639,000	\$ 523,163,000	\$ 332,508,000	\$ 12,991,310,000
<b>b. 2017 Transferrable Earnings due from QPP to VSFs</b>	(45,743,000)	23,914,000	21,829,000	0
<b>c. Adjusted Market Value @6/30/2017</b>	12,089,896,000	547,077,000	354,337,000	12,991,310,000
<b>d. Market Value 6/30/2018**</b>	13,282,043,000	535,507,000	355,712,000	14,173,262,000
<b>e. 2018 Transferrable Earnings due from QPP to VSFs</b>	(15,000,000)	15,000,000	0	0
<b>f. Adjusted Market Value @6/30/2018</b>	13,267,043,000	550,507,000	355,712,000	14,173,262,000
<b>2. Net Investment Income</b>	1,188,860,000	35,406,000	25,465,000	1,249,731,000
<b>3. Cash Flow</b> (1.d. - 1.a. - 2.)	(42,456,000)	(23,062,000)	(2,261,000)	(67,779,000)
<b>4. Projected Earnings</b> (7% * 1.a. + 3.441% * 3.)	848,033,819	35,827,847	23,197,759	907,059,425
<b>5. (Gain) / Loss</b> (4. - 2.)	(340,826,181)	421,847	(2,267,241)	(342,671,575)
<b>6. Recognition Period</b>	5 Years	5 Years	5 Years	5 Years
<b>7. Amount Recognized in Pension Expense</b> (5. / 6.)	(68,165,236)	84,369	(453,448)	(68,534,315)
<b>8. Deferred (Inflow) / Outflow of Resources</b> (5. - 7.)	\$ (272,660,945)	\$ 337,478	\$ (1,813,793)	\$ (274,137,260)

\* Before Reflecting 2017 Transferrable Earnings due from QPP to VSFs.

\*\* Before Reflecting 2018 Transferrable Earnings due from QPP to VSFs.

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Roll-Forward of Entry Age Actuarial Accrued Liabilities to June 30, 2018

		<b>QPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
1. EA Accrued Liability at 6/30/2016	\$	20,007,620,740	\$ 542,122,071	\$ 359,458,763	\$ 20,909,201,574
2. EA Normal Cost at 6/30/2016		399,750,511	13,304,794	4,993,021	418,048,326
3. Benefit Payments-FY2017		1,265,817,000	47,667,000	21,859,000	1,335,343,000
4. Interest		1,384,959,225	37,239,659	24,759,457	1,446,958,341
5. Roll-Forward EAAL at 6/30/2017	\$	20,526,513,476	\$ 544,999,524	\$ 367,352,241	\$ 21,438,865,241
6. Changes of Benefit Terms at 6/30/2017		14,335,161	(2,415,542)	(317,197)	11,602,422
7. Adjusted EAAL at 6/30/2017	\$	20,540,848,637	\$ 542,583,982	\$ 367,035,044	\$ 21,450,467,663
8. EA Normal Cost at 6/30/2017*		419,209,126	12,234,129	4,925,447	436,368,702
9. Benefit Payments-FY2018		1,308,467,000	46,976,000	24,090,000	1,379,533,000
10. Interest		1,422,179,694	37,220,824	25,208,297	1,484,608,815
11. Roll-Forward EAAL at 6/30/2018	\$	21,073,770,457	\$ 545,062,935	\$ 373,078,788	\$ 21,991,912,180

\*Includes normal cost attributable to "Changes of Benefit Terms at 6/30/2017" of \$7,466,100 for QPP, -\$1,469,809 for FFVSF and -\$217,365 for FOVSF.



**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
Total**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 20,643,807,528	\$ 11,738,110,000	\$ 8,905,697,528
<b>2. Changes for the Year:</b>			
a. Service Cost	432,482,302	0	432,482,302
b. Interest	1,438,804,602	0	1,438,804,602
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	134,478,099	0	134,478,099
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	1,061,170,000	(1,061,170,000)
g. Contributions - Employee	0	108,368,000	(108,368,000)
h. Net Investment Income	0	1,371,721,000	(1,371,721,000)
i. Benefit Payments	(1,335,343,000)	(1,335,343,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	47,284,000	(47,284,000)
<b>l. Net Changes</b>	<b>\$ 670,422,003</b>	<b>\$ 1,253,200,000</b>	<b>\$ (582,777,997)</b>
<b>3. Balances at June 30, 2017</b>	<b>\$ 21,314,229,531</b>	<b>\$ 12,991,310,000</b>	<b>\$ 8,322,919,531</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
QPP**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 19,711,495,267	\$ 10,899,763,000	\$ 8,811,732,267
<b>2. Changes for the Year:</b>			
a. Service Cost	415,220,727	0	415,220,727
b. Interest	1,375,676,590	0	1,375,676,590
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	148,046,196	0	148,046,196
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	1,061,170,000	(1,061,170,000)
g. Contributions - Employee	0	108,368,000	(108,368,000)
h. Net Investment Income	0	1,284,871,000	(1,284,871,000)
i. Benefit Payments	(1,265,817,000)	(1,265,817,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	47,284,000	(47,284,000)
<b>l. Net Changes</b>	<b>\$ 673,126,513</b>	<b>\$ 1,235,876,000</b>	<b>\$ (562,749,487)</b>
<b>3. Transferrable Earnings due from QPP to VSFs</b>	<b>0</b>	<b>(45,743,000)</b>	<b>45,743,000</b>
<b>4. Balances at June 30, 2017</b>	<b>\$ 20,384,621,780</b>	<b>\$ 12,089,896,000</b>	<b>\$ 8,294,725,780</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
FFVSF**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 568,212,891	\$ 524,075,000	\$ 44,137,891
<b>2. Changes for the Year:</b>			
a. Service Cost	12,180,176	0	12,180,176
b. Interest	38,029,487	0	38,029,487
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	(13,682,950)	0	(13,682,950)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	46,755,000	(46,755,000)
i. Benefit Payments	(47,667,000)	(47,667,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	0	0
<b>l. Net Changes</b>	<b>\$ (11,140,287)</b>	<b>\$ (912,000)</b>	<b>\$ (10,228,287)</b>
<b>3. Transferrable Earnings due from QPP to FFVSF</b>	<b>0</b>	<b>23,914,000</b>	<b>(23,914,000)</b>
<b>4. Balances at June 30, 2017</b>	<b>\$ 557,072,604</b>	<b>\$ 547,077,000</b>	<b>\$ 9,995,604</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017  
FOVSF**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2016</b>	\$ 364,099,370	\$ 314,272,000	\$ 49,827,370
<b>2. Changes for the Year:</b>			
a. Service Cost	5,081,399	0	5,081,399
b. Interest	25,098,525	0	25,098,525
c. Changes of Benefit Terms	0	0	0
d. Differences b/t Expected and Actual Experience	114,853	0	114,853
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	40,095,000	(40,095,000)
i. Benefit Payments	(21,859,000)	(21,859,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	0	0
<b>l. Net Changes</b>	<b>\$ 8,435,777</b>	<b>\$ 18,236,000</b>	<b>\$ (9,800,223)</b>
<b>3. Transferrable Earnings due from QPP to FOVSF</b>	<b>0</b>	<b>21,829,000</b>	<b>(21,829,000)</b>
<b>4. Balances at June 30, 2017</b>	<b>\$ 372,535,147</b>	<b>\$ 354,337,000</b>	<b>\$ 18,198,147</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2017**

	<b>Total Pension Liability</b>			
	<b>OPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>1. Balances at June 30, 2016</b>	\$ 19,711,495,267	\$ 568,212,891	\$ 364,099,370	\$ 20,643,807,528
<b>2. Changes for the Year:</b>				
a. Service Cost	415,220,727	12,180,176	5,081,399	432,482,302
b. Interest	1,375,676,590	38,029,487	25,098,525	1,438,804,602
c. Changes of Benefit Terms	0	0	0	0
d. Differences b/t Expected and Actual Experience	148,046,196	(13,682,950)	114,853	134,478,099
e. Changes of Assumptions	0	0	0	0
f. Benefit Payments	(1,265,817,000)	(47,667,000)	(21,859,000)	(1,335,343,000)
<b>g. Net Changes</b>	<b>\$ 673,126,513</b>	<b>\$ (11,140,287)</b>	<b>\$ 8,435,777</b>	<b>\$ 670,422,003</b>
<b>3. Balances at June 30, 2017</b>	<b>\$ 20,384,621,780</b>	<b>\$ 557,072,604</b>	<b>\$ 372,535,147</b>	<b>\$ 21,314,229,531</b>

	<b>Plan Fiduciary Net Position<sup>1</sup></b>			
	<b>OPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>4. Balances at June 30, 2016</b>	\$ 10,899,763,000	\$ 524,075,000	\$ 314,272,000	\$ 11,738,110,000
<b>5. Changes for the Year:</b>				
a. Contributions - Employer	1,061,170,000	0	0	1,061,170,000
b. Contributions - Employee	108,368,000	0	0	108,368,000
c. Net Investment Income	1,284,871,000	46,755,000	40,095,000	1,371,721,000
d. Benefit Payments	(1,265,817,000)	(47,667,000)	(21,859,000)	(1,335,343,000)
e. Administrative Expenses	0	0	0	0
f. Other Changes	47,284,000	0	0	47,284,000
<b>g. Net Changes</b>	<b>\$ 1,235,876,000</b>	<b>\$ (912,000)</b>	<b>\$ 18,236,000</b>	<b>\$ 1,253,200,000</b>
<b>6. Transferrable Earnings due from QPP to VSFs</b>	<b>(45,743,000)</b>	<b>23,914,000</b>	<b>21,829,000</b>	<b>0</b>
<b>7. Balances at June 30, 2017</b>	<b>\$ 12,089,896,000</b>	<b>\$ 547,077,000</b>	<b>\$ 354,337,000</b>	<b>\$ 12,991,310,000</b>

	<b>Net Pension Liability</b>			
	<b>OPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>8. Balances at June 30, 2016</b>	\$ 8,811,732,267	\$ 44,137,891	\$ 49,827,370	\$ 8,905,697,528
<b>9. Changes for the Year:</b>				
a. Service Cost	415,220,727	12,180,176	5,081,399	432,482,302
b. Interest	1,375,676,590	38,029,487	25,098,525	1,438,804,602
c. Changes of Benefit Terms	0	0	0	0
d. Differences b/t Expected and Actual Experience	148,046,196	(13,682,950)	114,853	134,478,099
e. Changes of Assumptions	0	0	0	0
f. Contributions - Employer	(1,061,170,000)	0	0	(1,061,170,000)
g. Contributions - Employee	(108,368,000)	0	0	(108,368,000)
h. Net Investment Income	(1,284,871,000)	(46,755,000)	(40,095,000)	(1,371,721,000)
i. Benefit Payments	0	0	0	0
j. Administrative Expenses	0	0	0	0
k. Other Changes	(47,284,000)	0	0	(47,284,000)
<b>l. Net Changes</b>	<b>\$ (562,749,487)</b>	<b>\$ (10,228,287)</b>	<b>\$ (9,800,223)</b>	<b>\$ (582,777,997)</b>
<b>10. Transferrable Earnings due from QPP to VSFs</b>	<b>45,743,000</b>	<b>(23,914,000)</b>	<b>(21,829,000)</b>	<b>0</b>
<b>11. Balances at June 30, 2017</b>	<b>\$ 8,294,725,780</b>	<b>\$ 9,995,604</b>	<b>\$ 18,198,147</b>	<b>\$ 8,322,919,531</b>

<sup>1</sup> Balances at 6/30/2016 and 6/30/2017 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
Total**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 21,314,229,531	\$ 12,991,310,000	\$ 8,322,919,531
<b>2. Changes for the Year:</b>			
a. Service Cost	436,368,702	0	436,368,702
b. Interest	1,484,608,815	0	1,484,608,815
c. Changes of Benefit Terms	11,602,422	0	11,602,422
d. Differences b/t Expected and Actual Experience	124,635,710	0	124,635,710
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	1,200,417,000	(1,200,417,000)
g. Contributions - Employee	0	108,338,000	(108,338,000)
h. Net Investment Income	0	1,249,731,000	(1,249,731,000)
i. Benefit Payments	(1,379,533,000)	(1,379,533,000)	0
j. Administrative Expenses	0	(6,412,000)	6,412,000
k. Other Changes	0	9,411,000	(9,411,000)
<b>l. Net Changes</b>	<b>\$ 677,682,649</b>	<b>\$ 1,181,952,000</b>	<b>\$ (504,269,351)</b>
<b>3. Balances at June 30, 2018</b>	<b>\$ 21,991,912,180</b>	<b>\$ 14,173,262,000</b>	<b>\$ 7,818,650,180</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
QPP**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 20,384,621,780	\$ 12,089,896,000	\$ 8,294,725,780
<b>2. Changes for the Year:</b>			
a. Service Cost	419,209,126	0	419,209,126
b. Interest	1,422,179,694	0	1,422,179,694
c. Changes of Benefit Terms	14,335,161	0	14,335,161
d. Differences b/t Expected and Actual Experience	141,891,696	0	141,891,696
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	1,200,417,000	(1,200,417,000)
g. Contributions - Employee	0	108,338,000	(108,338,000)
h. Net Investment Income	0	1,188,860,000	(1,188,860,000)
i. Benefit Payments	(1,308,467,000)	(1,308,467,000)	0
j. Administrative Expenses	0	(6,412,000)	6,412,000
k. Other Changes	0	9,411,000	(9,411,000)
<b>l. Net Changes</b>	<b>\$ 689,148,677</b>	<b>\$ 1,192,147,000</b>	<b>\$ (502,998,323)</b>
<b>3. Transferrable Earnings due from QPP to VSFs</b>	<b>0</b>	<b>(15,000,000)</b>	<b>15,000,000</b>
<b>4. Balances at June 30, 2018</b>	<b>\$ 21,073,770,457</b>	<b>\$ 13,267,043,000</b>	<b>\$ 7,806,727,457</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
FFVSF**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 557,072,604	\$ 547,077,000	\$ 9,995,604
<b>2. Changes for the Year:</b>			
a. Service Cost	12,234,129	0	12,234,129
b. Interest	37,220,824	0	37,220,824
c. Changes of Benefit Terms	(2,415,542)	0	(2,415,542)
d. Differences b/t Expected and Actual Experience	(12,073,080)	0	(12,073,080)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	35,406,000	(35,406,000)
i. Benefit Payments	(46,976,000)	(46,976,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	0	0
<b>l. Net Changes</b>	<b>\$ (12,009,669)</b>	<b>\$ (11,570,000)</b>	<b>\$ (439,669)</b>
<b>3. Transferrable Earnings due from QPP to FFVSF</b>	<b>0</b>	<b>15,000,000</b>	<b>(15,000,000)</b>
<b>4. Balances at June 30, 2018</b>	<b>\$ 545,062,935</b>	<b>\$ 550,507,000</b>	<b>\$ (5,444,065)</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.



**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018  
FOVSF**

	Total Pension Liability (a)	Plan Fiduciary Net Position <sup>1</sup> (b)	Net Pension Liability (a) - (b)
<b>1. Balances at June 30, 2017</b>	\$ 372,535,147	\$ 354,337,000	\$ 18,198,147
<b>2. Changes for the Year:</b>			
a. Service Cost	4,925,447	0	4,925,447
b. Interest	25,208,297	0	25,208,297
c. Changes of Benefit Terms	(317,197)	0	(317,197)
d. Differences b/t Expected and Actual Experience	(5,182,906)	0	(5,182,906)
e. Changes of Assumptions	0	0	0
f. Contributions - Employer	0	0	0
g. Contributions - Employee	0	0	0
h. Net Investment Income	0	25,465,000	(25,465,000)
i. Benefit Payments	(24,090,000)	(24,090,000)	0
j. Administrative Expenses	0	0	0
k. Other Changes	0	0	0
<b>l. Net Changes</b>	<b>\$ 543,641</b>	<b>\$ 1,375,000</b>	<b>\$ (831,359)</b>
<b>3. Transferrable Earnings due from QPP to FOVSF</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>4. Balances at June 30, 2018</b>	<b>\$ 373,078,788</b>	<b>\$ 355,712,000</b>	<b>\$ 17,366,788</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Changes in Net Pension Liability (NPL) by Source  
Balances at June 30, 2018**

	<b>Total Pension Liability</b>			
	<b>OPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>1. Balances at June 30, 2017</b>	\$ 20,384,621,780	\$ 557,072,604	\$ 372,535,147	\$ 21,314,229,531
<b>2. Changes for the Year:</b>				
a. Service Cost	419,209,126	12,234,129	4,925,447	436,368,702
b. Interest	1,422,179,694	37,220,824	25,208,297	1,484,608,815
c. Changes of Benefit Terms	14,335,161	(2,415,542)	(317,197)	11,602,422
d. Differences b/t Expected and Actual Experience	141,891,696	(12,073,080)	(5,182,906)	124,635,710
e. Changes of Assumptions	0	0	0	0
f. Benefit Payments	(1,308,467,000)	(46,976,000)	(24,090,000)	(1,379,533,000)
<b>g. Net Changes</b>	<b>\$ 689,148,677</b>	<b>\$ (12,009,669)</b>	<b>\$ 543,641</b>	<b>\$ 677,682,649</b>
<b>3. Balances at June 30, 2018</b>	<b>\$ 21,073,770,457</b>	<b>\$ 545,062,935</b>	<b>\$ 373,078,788</b>	<b>\$ 21,991,912,180</b>

	<b>Plan Fiduciary Net Position<sup>1</sup></b>			
	<b>OPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>4. Balances at June 30, 2017</b>	\$ 12,089,896,000	\$ 547,077,000	\$ 354,337,000	\$ 12,991,310,000
<b>5. Changes for the Year:</b>				
a. Contributions - Employer	1,200,417,000	0	0	1,200,417,000
b. Contributions - Employee	108,338,000	0	0	108,338,000
c. Net Investment Income	1,188,860,000	35,406,000	25,465,000	1,249,731,000
d. Benefit Payments	(1,308,467,000)	(46,976,000)	(24,090,000)	(1,379,533,000)
e. Administrative Expenses	(6,412,000)	0	0	(6,412,000)
f. Other Changes	9,411,000	0	0	9,411,000
<b>g. Net Changes</b>	<b>\$ 1,192,147,000</b>	<b>\$ (11,570,000)</b>	<b>\$ 1,375,000</b>	<b>\$ 1,181,952,000</b>
<b>6. Transferrable Earnings due from QPP to VSFs</b>	<b>(15,000,000)</b>	<b>15,000,000</b>	<b>0</b>	<b>0</b>
<b>7. Balances at June 30, 2018</b>	<b>\$ 13,267,043,000</b>	<b>\$ 550,507,000</b>	<b>\$ 355,712,000</b>	<b>\$ 14,173,262,000</b>

	<b>Net Pension Liability</b>			
	<b>OPP</b>	<b>FFVSF</b>	<b>FOVSF</b>	<b>Total</b>
<b>8. Balances at June 30, 2017</b>	\$ 8,294,725,780	\$ 9,995,604	\$ 18,198,147	\$ 8,322,919,531
<b>9. Changes for the Year:</b>				
a. Service Cost	419,209,126	12,234,129	4,925,447	436,368,702
b. Interest	1,422,179,694	37,220,824	25,208,297	1,484,608,815
c. Changes of Benefit Terms	14,335,161	(2,415,542)	(317,197)	11,602,422
d. Differences b/t Expected and Actual Experience	141,891,696	(12,073,080)	(5,182,906)	124,635,710
e. Changes of Assumptions	0	0	0	0
f. Contributions - Employer	(1,200,417,000)	0	0	(1,200,417,000)
g. Contributions - Employee	(108,338,000)	0	0	(108,338,000)
h. Net Investment Income	(1,188,860,000)	(35,406,000)	(25,465,000)	(1,249,731,000)
i. Benefit Payments	0	0	0	0
j. Administrative Expenses	6,412,000	0	0	6,412,000
k. Other Changes	(9,411,000)	0	0	(9,411,000)
<b>l. Net Changes</b>	<b>\$ (502,998,323)</b>	<b>\$ (439,669)</b>	<b>\$ (831,359)</b>	<b>\$ (504,269,351)</b>
<b>10. Transferrable Earnings due from QPP to VSFs</b>	<b>15,000,000</b>	<b>(15,000,000)</b>	<b>0</b>	<b>0</b>
<b>11. Balances at June 30, 2018</b>	<b>\$ 7,806,727,457</b>	<b>\$ (5,444,065)</b>	<b>\$ 17,366,788</b>	<b>\$ 7,818,650,180</b>

<sup>1</sup> Balances at 6/30/2017 and 6/30/2018 are Adjusted Market Values - See Page 3.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Changes in Net Pension Liability and Related Ratios**

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015 (Revised)</u> <sup>1</sup>	<u>2014</u>	<u>2013</u>
<b>1. Total Pension Liability</b>						
a. Service Cost	\$ 436,368,702	\$ 432,482,302	\$ 431,267,723	\$ 419,575,546	\$ 412,911,205	\$ 400,884,665
b. Interest	1,484,608,815	1,438,804,602	1,395,735,250	1,312,813,977	1,215,276,517	1,184,217,313
c. Changes of Benefit Terms	11,602,422	0	0	0	0	0
d. Differences b/t Expected and Actual Experience	124,635,710	134,478,099	323,609,267	171,347,136	0	0
e. Change of Assumptions	0	0	405,497,988	0	0	0
f. Benefit Payments	(1,379,533,000)	(1,335,343,000)	(1,359,095,000)	(1,220,441,000)	(1,171,998,000)	(1,135,469,000)
<b>g. Net Changes</b>	<b>\$ 677,682,649</b>	<b>\$ 670,422,003</b>	<b>\$ 1,197,015,228</b>	<b>\$ 683,295,659</b>	<b>\$ 456,189,722</b>	<b>\$ 449,632,978</b>
<b>2. Total Pension Liability - Beginning</b>	<b>\$ 21,314,229,531</b>	<b>\$ 20,643,807,528</b>	<b>\$ 19,446,792,300</b>	<b>\$ 18,763,496,641</b>	<b>\$ 17,524,302,616</b>	<b>\$ 17,074,669,638</b>
<b>3. Total Pension Liability - Ending</b>	<b>\$ 21,991,912,180</b>	<b>\$ 21,314,229,531</b>	<b>\$ 20,643,807,528</b>	<b>\$ 19,446,792,300</b>	<b>\$ 17,980,492,338</b>	<b>\$ 17,524,302,616</b>
<b>4. Plan Fiduciary Net Position</b>						
a. Contributions - Employer	\$ 1,200,417,000	\$ 1,061,170,000	\$ 1,054,478,000	\$ 988,784,000	\$ 969,956,000	\$ 962,173,000
b. Contributions - Employee	108,338,000	108,368,000	116,619,000	108,582,000	108,859,000	104,816,000
c. Net Investment Income	1,249,731,000	1,371,721,000	203,104,000	302,567,000	1,689,485,000	1,042,431,000
d. Benefit Payments	(1,379,533,000)	(1,335,343,000)	(1,359,095,000)	(1,220,441,000)	(1,171,998,000)	(1,135,469,000)
e. Administrative Expenses	(6,412,000)	0	0	0	0	0
f. Other Changes	9,411,000	47,284,000	43,673,000	41,201,000	39,980,000	38,965,000
<b>g. Net Changes</b>	<b>\$ 1,181,952,000</b>	<b>\$ 1,253,200,000</b>	<b>\$ 58,779,000</b>	<b>\$ 220,693,000</b>	<b>\$ 1,636,282,000</b>	<b>\$ 1,012,916,000</b>
<b>5. Plan Fiduciary Net Position - Beginning</b>	<b>\$ 12,991,310,000</b>	<b>\$ 11,738,110,000</b>	<b>\$ 11,679,331,000</b>	<b>\$ 11,458,638,000</b>	<b>\$ 9,822,356,000</b>	<b>\$ 8,809,440,000</b>
<b>6. Plan Fiduciary Net Position - Ending</b>	<b>\$ 14,173,262,000</b>	<b>\$ 12,991,310,000</b>	<b>\$ 11,738,110,000</b>	<b>\$ 11,679,331,000</b>	<b>\$ 11,458,638,000</b>	<b>\$ 9,822,356,000</b>
<b>7. FIRE Net Pension Liability</b>	<b>\$ 7,818,650,180</b>	<b>\$ 8,322,919,531</b>	<b>\$ 8,905,697,528</b>	<b>\$ 7,767,461,300</b>	<b>\$ 6,521,854,338</b>	<b>\$ 7,701,946,616</b>
<b>8. Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	<b>64.4%</b>	<b>61.0%</b>	<b>56.9%</b>	<b>60.1%</b>	<b>63.7%</b>	<b>56.0%</b>
<b>9. Covered Employee Payroll</b> <sup>2</sup>	<b>\$ 1,164,528,195</b>	<b>\$ 1,145,919,396</b>	<b>\$ 1,129,469,957</b>	<b>\$ 1,111,744,091</b>	<b>\$ 1,102,396,453</b>	<b>\$ 1,129,926,037</b>
<b>10. FIRE Net Pension Liability as a Percentage of Covered Employee Payroll</b>	<b>671.4%</b>	<b>726.3%</b>	<b>788.5%</b>	<b>698.7%</b>	<b>591.6%</b>	<b>681.6%</b>

<sup>1</sup> Special Accidental Death Benefits pursuant to Section 208-f of the General Municipal Law.

<sup>2</sup> Projected Employee Payroll at Time 1.0 under One-Year Lag Methodology.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Schedule of Employer Contributions (\$ in thousands)**

<b>Fiscal Year Ended June 30</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
1. Actuarially Determined Contribution	\$ 1,200,417	\$ 1,061,170	\$ 1,054,478	\$ 988,784	\$ 969,956	\$ 962,173	\$ 976,895	\$ 890,706	\$ 874,331	\$ 843,751
2. Contributions in relation to the Actuarially Determined Contribution	<u>\$ 1,200,417</u>	<u>\$ 1,061,170</u>	<u>\$ 1,054,478</u>	<u>\$ 988,784</u>	<u>\$ 969,956</u>	<u>\$ 962,173</u>	<u>\$ 976,895</u>	<u>\$ 890,706</u>	<u>\$ 874,331</u>	<u>\$ 843,751</u>
3. Contribution Deficiency (Excess)	0	0	0	0	0	0	0	0	0	0
4. Contributions as a percentage of Covered Employee Payroll*	103.082%	92.604%	93.360%	88.940%	87.986%	85.154%	84.990%	82.248%	82.491%	83.238%

\* The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 increased to reflect overtime earnings and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Average Expected Remaining Service Lives**

<u>Group</u>	<u># Count</u>	Average Expected Remaining Service Life <u>@ 6/30/2017</u>
Active	10,951	12.49
Active/Inactive	21	0
Terminated Vested	58	0
Retired	<u>16,647</u>	<u>0</u>
Total	27,677	4.94

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Expected and Actual Experience**

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	2015		2016		2017		2018		2019		2020		2021		2022		
			\$		\$		\$		\$		\$		\$		\$		\$		\$
2015	\$ 171,347,136	2.55	\$ 67,194,955	\$ 67,194,955	\$ 36,957,226														
2016	323,609,267	2.58		\$ 125,429,948	\$ 125,429,948	\$ 72,749,371													
2017	134,478,099	4.60			\$ 29,234,369	\$ 29,234,369	\$ 29,234,369	\$ 29,234,369	\$ 29,234,369	\$ 29,234,369	\$ 17,540,623								
2018	124,635,710	4.94				\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 25,229,901	\$ 23,716,106
Net increase (decrease) in Pension Expense			<b>\$ 67,194,955</b>	<b>\$ 192,624,903</b>	<b>\$ 191,621,543</b>	<b>\$ 127,213,641</b>	<b>\$ 54,464,270</b>	<b>\$ 54,464,270</b>	<b>\$ 42,770,524</b>	<b>\$ 23,716,106</b>									

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of  
Changes in Assumptions**

<b>Year</b>	<b>Changes in Assumptions</b>	<b>Recognition Period (Years)</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
2016	\$ 405,497,988	2.58	\$ 157,169,763	\$ 157,169,763	\$ 91,158,462		
2017	0	0		0	0		
2018	0	0			0		
Net increase (decrease) in Pension Expense			<b>\$ 157,169,763</b>	<b>\$ 157,169,763</b>	<b>\$ 91,158,462</b>	<b>\$ 0</b>	<b>\$ 0</b>

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences  
between Projected and Actual Earnings on Pension Plan Investments**

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)													
			2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
2013	\$ (426,785,812)	5	\$ (85,357,162)	\$ (85,357,162)	\$ (85,357,162)	\$ (85,357,162)	\$ (85,357,164)								
2014	(1,003,750,795)	5		\$ (200,750,159)	\$ (200,750,159)	\$ (200,750,159)	\$ (200,750,159)	\$ (200,750,159)	\$ (200,750,159)						
2015	496,720,375	5		\$	99,344,076	\$ 99,344,076	\$ 99,344,076	\$ 99,344,076	\$ 99,344,076	\$ 99,344,071					
2016	609,482,946	5			\$	121,896,589	\$ 121,896,589	\$ 121,896,589	\$ 121,896,589	\$ 121,896,589	\$ 121,896,590				
2017	(554,131,607)	5				\$	(110,826,321)	\$ (110,826,321)	\$ (110,826,321)	\$ (110,826,321)	\$ (110,826,321)	\$ (110,826,321)	\$ (110,826,323)		
2018	(342,671,575)	5						\$	(68,534,315)	\$ (68,534,315)	\$ (68,534,315)	\$ (68,534,315)	\$ (68,534,315)	\$ (68,534,315)	\$ (68,534,315)
Net increase (decrease) in Pension Expense			\$	(85,357,162)	\$ (286,107,321)	\$ (186,763,245)	\$ (64,866,656)	\$ (175,692,979)	\$ (158,870,130)	\$ 41,880,024	\$ (57,464,046)	\$ (179,360,638)	\$ (68,534,315)		



**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2017**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 432,482,302
b. Interest on the Total Pension Liability	1,438,804,602
c. Changes of Benefit Terms	0
d. Differences between Expected and Actual Experience	191,621,543
e. Changes of Assumptions	157,169,763
f. Employee Contributions	(108,368,000)
g. Projected Earnings on Pension Plan Investments	(817,589,393)
h. Differences between Projected and Actual Earnings on Plan Investments	(175,692,979)
i. Pension Plan Administrative Expenses	0
j. Other Changes in Fiduciary Net Position	(47,284,000)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 1,071,143,838</b>

**NEW YORK CITY FIRE PENSION FUND (FIRE)**

**Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)**

**Components of Pension Expense for the Fiscal Year Ended June 30, 2018**

<u>Component</u>	<u>Amount</u>
a. Service Cost	\$ 436,368,702
b. Interest on the Total Pension Liability	1,484,608,815
c. Changes of Benefit Terms	11,602,422
d. Differences between Expected and Actual Experience	127,213,641
e. Changes of Assumptions	91,158,462
f. Employee Contributions	(108,338,000)
g. Projected Earnings on Pension Plan Investments	(907,059,425)
h. Differences between Projected and Actual Earnings on Plan Investments	(158,870,130)
i. Pension Plan Administrative Expenses	6,412,000
j. Other Changes in Fiduciary Net Position	(9,411,000)
	<hr/>
<b>Total Pension Expense</b>	<b>\$ 973,685,487</b>

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2013, the City recognized Pension Expense for FIRE of \$740,318,628.

At June 30, 2013, the City reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	341,428,650
Total	\$ 0	\$ 341,428,650

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2013	\$ (85,357,162)
2014	(85,357,162)
2015	(85,357,162)
2016	(85,357,162)
2017	(85,357,164)

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2014, the City recognized Pension Expense for FIRE of \$507,507,195.

For June 30, 2014, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 0	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	803,000,636
Total	\$ 0	\$ 803,000,636

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2014	\$ (200,750,159)
2015	(200,750,159)
2016	(200,750,159)
2017	(200,750,159)
2018	(200,750,159)

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2015, the City recognized Pension Expense for FIRE of \$663,750,858.

For June 30, 2015, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 104,152,181	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	397,376,299	0
Total	\$ 501,528,480	\$ 0

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2015	\$ 166,539,031
2016	166,539,031
2017	136,301,302
2018	99,344,076
2019	99,344,071

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2016, the City recognized Pension Expense for FIRE of \$1,139,052,037.

For June 30, 2016, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 198,179,319	\$ 0
Changes of Assumptions	248,328,225	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	487,586,357	0
Total	\$ 934,093,901	\$ 0

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2016	\$ 404,496,300
2017	404,496,300
2018	285,804,422
2019	121,896,589
2020	121,896,590

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2017, the City recognized Pension Expense for FIRE of \$1,071,143,838.

For June 30, 2017, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 105,243,730	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	443,305,286
Total	\$ 105,243,730	\$ 443,305,286

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2017	\$ (81,591,952)
2018	(81,591,952)
2019	(81,591,952)
2020	(81,591,952)
2021	(93,285,700)

## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2018, the City recognized Pension Expense for FIRE of \$973,685,487.

For June 30, 2018, the City determined Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 99,405,809	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	274,137,260
Total	\$ 99,405,809	\$ 274,137,260

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ (43,304,414)
2019	(43,304,414)
2020	(43,304,414)
2021	(43,304,414)
2022	(44,818,209)



## NEW YORK CITY FIRE PENSION FUND (FIRE)

### Governmental Accounting Standards Board Statements No. 67 and No. 68 (GASB 67/68)

#### Pension Expense, Deferred Outflows of Resources, Deferred Inflows of Resources

For the Fiscal Year ended June 30, 2018, the City recognized Pension Expense for FIRE of \$973,685,487.

At June 30, 2018, the City reported total Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	\$ 175,415,170	\$ 0
Changes of Assumptions	0	0
Net difference between Projected and Actual Earnings on Pension Plan Investments	0	263,478,975
Total	\$ 175,415,170	\$ 263,478,975

Amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to Pensions for FIRE will be recognized in Pension Expense as follows:

Fiscal Year Ended <u>June 30</u>	<u>Amount</u>
2018	\$ 59,501,973
2019	96,344,294
2020	(2,999,776)
2021	(136,590,114)
2022	(44,818,209)