

## **OFFICE OF THE ACTUARY**

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SHERRY S. CHAN
CHIEF ACTUARY

# Tenth Annual Actuarial Valuation Of Other Postemployment Benefits Provided under the New York City Health Benefits Program

For Fiscal Year Ended June 30, 2015

Prepared as of June 30, 2014

### OFFICE OF THE ACTUARY



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SHERRY S. CHAN
CHIEF ACTUARY

September 17, 2015

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

Re: GASB43/45 Actuarial Valuation Report

Dear Comptroller Stringer:

This Report presents the results of the June 30, 2014 actuarial valuation of the Other Postemployment Benefits (OPEB) provided under the New York City Health Benefits Program (Program). These results are intended to form the basis for accounting and financial reporting under Governmental Accounting Standards Board (GASB) Statement No. 45 (GASB45) for Fiscal Year 2015 (i.e., July 1, 2014 to June 30, 2015) for the City of New York (City) and certain non-City entities (Component Units).

These results also form the basis for financial reporting under GASB Statement No. 43 (GASB43) for the New York City Other Postemployment Benefits Plan (OPEB Plan or Plan). Where these results are applicable under both GASB43 and GASB45, the term GASB43/45 is used.

The results shown herein are based upon:

- The Office of the Actuary's (OA) interpretation of GASB43 and GASB45.
- The OA's understanding of the benefits provided to eligible retirees and beneficiaries.

- Census data used in the June 30, 2014 actuarial valuations of the New York City Retirement Systems (NYCRS)<sup>1</sup> to produce Preliminary Fiscal Year 2016 Employer Contributions, supplemental data provided to the OA by the New York City Office of Labor Relations (OLR) and by the Educational Construction Fund (ECF) and data provided to Buck Consultants, LLC (Buck) by the City University of New York (CUNY) for participants in the Teachers Insurance Annuity Association College Retirement Equities Fund (TIAA-CREF or CUNY TIAA).
- Health insurance premium rates and related financial information for Fiscal Year 2015 provided to the OA by OLR.
- Welfare Fund contribution rates as of June 30, 2014, June 30, 2013 and June 30, 2012, as well as information about negotiated increases, lump-sum and retroactive payments made on behalf of retirees to Welfare Funds for Fiscal Years 2015, 2014 and 2013, provided to the OA by OLR.
- Certain Actuarial Assumptions<sup>2</sup> used in the actuarial valuations of the NYCRS that were adopted by the Boards of Trustees during Fiscal Year 2012 (i.e., the Silver Books) for purposes of measuring pension obligations.
- Additional OPEB-specific Actuarial Assumptions, as described in Section V and Appendix D of this Report.
- An Actuarial Cost Method (ACM), as described in Section V of this Report.
- Financial information provided by the Office of Management and Budget (OMB) for City entities and by the administrative offices of the Component Units.
- Information on the Stabilization Fund provided by OLR and OMB.

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 Fire Department Pension Fund (FIRE)

<sup>&</sup>lt;sup>2</sup> See Appendix D – Details of Actuarial Assumptions and Certain Methods.

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The results presented in this Report continue to take into account the current understanding of the Chief Actuary of the NYCRS (the Actuary) of National Health Care Reform (NHCR) (i.e., the Patient Protection and Affordable Care Act (PPACA) signed into law on March 23, 2010 and the Health Care and Education Reconciliation Act (HCERA) signed into law on March 30, 2010).

This Report <u>does not</u> include results for the New York City Off-Track Betting Corporation (OTB). It is the understanding of the Actuary that, effective May 26, 2011, neither the City nor the Plan has any OPEB obligation for current or future OTB retirees.

The results contained in this Report are not meant for other purposes. In particular, the analysis in this Report is not to be relied upon by employers, retirees or any retiree representatives (such as unions) for any decisions regarding benefit design. Use of this Report for any other purpose or by anyone other than the City, the Component Units or their auditors may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies or inapplicability of the Report for that purpose. This Report should not be provided except in its entirety. No one other than the City, Component Units or their auditors may make any representations or warranties based on any statements or conclusions contained in this Report without the written consent of OA.

This Report is intended to present the OPEB obligations of the New York City Health Benefits Program as of the valuation date.

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

An Actuarial Certification is included in Section VIII.

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

Best Regards,

Sherry S. Chan Chief Actuary

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Ms. Robin Simon

Ms. Claire Wolkoff

### **Component Units**

Mr. Robert Balducci - WFA

Mr. Dan Frydberg - New York City Housing Authority

Mr. John Hepburn - School Construction Authority

Mr. Julian John - New York City Health and Hospitals Corporation

Mr. Jeffrey Pagelson - New York City Housing Authority

Ms. Cynthia Wong - ECF

Mr. Len Zinnanti - City University of New York

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# Tenth Annual Actuarial Valuation Of Other Postemployment Benefits Provided under the New York City Health Benefits Program

For Fiscal Year Ended June 30, 2015

Prepared as of June 30, 2014

### **SECTION I**

### **EXECUTIVE SUMMARY**

1. This actuarial report was prepared as of June 30, 2014 and presents the results of an actuarial valuation of the Other Postemployment Benefits (OPEB) provided by the City of New York (City) and certain entities (Component Units) to eligible retirees and beneficiaries through the New York City Health Benefits Program (Program).

A comparison with the June 30, 2013 OPEB actuarial valuation results is also provided. For information on the June 30, 2013 OPEB actuarial valuation, see "Report on the Ninth Annual Actuarial Valuation of Other Postemployment Benefits Provided under the New York City Health Benefits Program," dated September 24, 2014 (Ninth Annual OPEB Report).

The OPEB for which the City has financial responsibility are referred to as the OPEB Plan (Plan). The Plan is distinguished from the Program based on which entity has financial responsibility for the OPEB.

The purpose of this OPEB actuarial valuation is to determine the Annual Required Contribution (ARC) and measure the Annual OPEB Cost (AOC) for the Plan and certain entities for Fiscal Year 2015 (i.e., July 1, 2014 to June 30, 2015) in accordance with Governmental Accounting Standards Board (GASB) Statement No. 45 (GASB45). This OPEB actuarial valuation also measures the funded status of the Plan and determines the ARC for Fiscal Year 2015 in accordance with GASB Statement No. 43 (GASB43).

2. This OPEB actuarial valuation measures only the total Actuarial Present Value of Benefits, the Actuarial Accrued Liability and the Normal Cost for the New York City Housing Authority (NYCHA) as of June 30, 2014. NYCHA's financial results are presented on a fiscal year differing from that of the City.

3. For the New York City Off-Track Betting Corporation (OTB), it is the understanding of the Actuary that neither the City nor the Plan has any OPEB obligation for current or future OTB retirees. This understanding is based, in part, on a unanimous Appellate Division decision (Roberts v. Paterson, Filed as Index No. 116602/10, 2011 NY Slip Op 04380 [84 AD3d 655]) rendered on May 26, 2011, that precluded the City from assuming the legal obligation to pay OTB retirees' health insurance benefits. The decision was upheld by the Court of Appeals on June 28, 2012 (2012 NY Slip Op 05197).

The Actuary further understands that approximately \$8 million in OPEB paid on behalf of OTB retirees remains unreimbursed.

4. The results contained in this Report continue to take into account the current understanding of the Actuary of National Health Care Reform (NHCR) (i.e., the Patient Protection and Affordable Care Act (PPACA) signed into law on March 23, 2010 and the Health Care and Education Reconciliation Act (HCERA) signed into law on March 30, 2010) and its impact on certain benefits and on certain OPEB-specific actuarial assumptions.

In light of the decisions of the U.S. Supreme Court in June 2012 and June 2015 to uphold major parts of the law, the decision of the Obama administration in July 2013 to delay implementation of certain provisions of NHCR, and continuing additional legal and legislative challenges, the Actuary reviewed the OPEB actuarial assumptions employed to estimate the impact of NHCR on OPEB measured in this valuation. The Actuary believes that no changes in the approach to measuring the impact of NHCR are required at this time.

5. Presented in the following Table I-1 are the principal GASB45 results of the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations:

TABLE I-1										
SUMMARY OF PRINCIPAL GASB45 RESULTS OF THE OPEB ACTUARIAL VALUATIONS <sup>1</sup> AS OF JUNE 30, 2014 AND JUNE 30, 2013										
(\$ Millions)										
Valuation Date		June 30, 2014 June 30, 2013								
Fiscal Year		2015			2014					
Entity	City	Component Units <sup>2</sup>	Total	City	Total					
Actuarial Present Value of Benefits (APVB)	\$ 116,944.9	\$ 9,778.8	\$ 126,723.7	\$ 120,172.5	\$ 10,203.5	\$ 130,376.0				
Actuarial Accrued Liability (AAL) <sup>3</sup>	\$ 70,363.3	\$ 5,736.4	\$ 76,099.7	\$ <b>71</b> ,319.1	\$ 5,842.6	\$ 77,161.7				
Actuarial Asset Value (AAV) <sup>4</sup>	\$ 2,378.1	\$ 0.0	\$ 2,378.1	\$ 1,363.1	\$ 0.0	\$ 1,363.1				
Unfunded Actuarial Accrued Liability (UAAL)	\$ 67,985.2	\$ 5,736.4	\$ 73,7216	\$ 69,956.0	\$ 5,842.6	\$ 75,798.6				
Normal Cost (EANC) <sup>3</sup>	\$ 3,454.1	\$ 322.7	\$ 3,776.8	\$ 3,633.7	\$ 343.0	\$ 3,976.7				
Annual Required Contribution (ARC) <sup>5</sup>	\$ 88,594.1	\$ 4,824.3	\$ 93,418.4	\$ 92,571.1	\$ 4,974.9	\$ 97,546.0				
Net OPEB Obligation at End of Fiscal Year <sup>5</sup>	\$ 85,458.2	\$ 4,703.9	\$ 90,162.1	\$ 89,456.7	\$ 4,854.1	\$ 94,310.8				

<sup>&</sup>lt;sup>1</sup> For GASB43 results, see Section VI.

<sup>&</sup>lt;sup>2</sup> Includes ECF, HHC, NYCHA, SCA and WFA.

<sup>&</sup>lt;sup>3</sup> Based on Entry Age Actuarial Cost Method.

<sup>&</sup>lt;sup>4</sup> Reflects Revised Net Position at June 30, 2014 as noted in Appendix A.

<sup>&</sup>lt;sup>5</sup> Excludes NYCHA.

- 6. Section II of this Report provides a summary of the census data used to prepare the June 30, 2014 OPEB actuarial valuation.
- 7. Section III of this Report provides an overview of the assets and other financial information used to prepare the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations and used in the determination of the Net OPEB Obligation (NOO) under GASB45 as of June 30, 2015 and June 30, 2014.
- 8. Section IV of this Report summarizes the OPEB provisions used in the June 30, 2014 OPEB actuarial valuation. The OPEB provisions as of June 30, 2014 remain unchanged from the provisions reflected in the prior actuarial valuation. The June 30, 2014 OPEB actuarial valuation continues to include the assumption that the OPEB provisions will comply with any legislative mandates under NHCR.
- 9. Section V of this Report describes the actuarial assumptions and methods employed in the June 30, 2014 OPEB actuarial valuation, including any changes in assumptions and methods since the June 30, 2013 OPEB actuarial valuation.
- 10. Section VI of this Report presents the results of the June 30, 2014 OPEB actuarial valuation and the development of the Fiscal Year 2015 Annual Required Contribution (ARC) in accordance with GASB43. Section VI also provides a comparison with Fiscal Year 2014 results.
- 11. Section VII of this Report presents the results of the June 30, 2014 OPEB actuarial valuation and the development of the Fiscal Year 2015 ARC and the Annual OPEB Cost (AOC) in accordance with GASB45 for the City and certain Component Units. Section VII also provides a comparison with Fiscal Year 2014 results.
- 12. Section VIII of this Report presents the Actuarial Certification. The Certification is signed by the Chief Actuary of the New York City Office of the Actuary (Actuary) who serves as the Actuary for the New York City Retirement Systems (NYCRS)<sup>1</sup>. The Actuarial Certification is also signed by (1) the Division Head of the OA Valuation Services Division (VSD) and (2) the Chief Actuary, Health Practice, for Buck Consultants, LLC (Buck).

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 Fire Department Pension Fund (FIRE)

This Report, and the information contained herein, was prepared by the staff of the VSD under the direction of its Division Head with assistance from and in coordination with the staff of Buck. Buck also served as consultant and advisor to the OA, developed the OPEB actuarial valuation programming and reviewed the results and the contents of this Report.

- 13. Appendix A of this Report presents a Statement of Net Assets and a Statement of Changes in Net Assets for the New York City Other Postemployment Benefits Plan for the Fiscal Years ended June 30, 2015 and June 30, 2014.
- 14. Appendix B of this Report presents detailed census data information.
- 15. Appendix C of this Report presents detailed results, including Required Supplementary Information (RSI), of the June 30, 2014 OPEB actuarial valuation under GASB45 for the City and certain Component Units. Appendix C also presents detailed GASB43 results for the OPEB Plan.
- 16. Appendix D of this Report provides details of the actuarial assumptions and methods used in the June 30, 2014 OPEB actuarial valuation with comparisons to the actuarial assumptions and methods used in the June 30, 2013 OPEB actuarial valuation, where different.

The actuarial assumptions used in the OPEB actuarial valuations are classified as those used in the NYCRS pension actuarial valuations and those specific to the OPEB actuarial valuations.

The OPEB-specific actuarial assumptions used in the June 30, 2014 OPEB actuarial valuation are generally the same as those used in the June 30, 2013 OPEB actuarial valuation with the following exceptions. See Section V and Appendix D for details.

- Per capita claims costs have been updated to reflect more recent experience, and adjusted to reflect changes announced by the De Blasio administration.
- Welfare Fund contributions have been updated to reflect recent and negotiated future contribution rates.
- The factors used to adjust the premiums for HIP HMO Medicare-eligible retirees were updated to reflect actual Calendar Year 2015 HIP premiums.
- Medicare Part B Premium reimbursement amounts have been updated to reflect actual premium rates announced for calendar years through 2015. The Income-Related Medicare Part B Premium Increase factors have been adjusted to reflect legislated changes under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA).

- The cost of the benefits assumed to be provided by the Stabilization Fund has been updated to reflect more recent experience. The Stabilization Fund load was reduced to .6% from .7%.
- Aging For the June 30, 2014 OPEB actuarial valuation, the age adjustment for the non-Medicare GHI/EBCBS premium reflects a 5% reduction in the GHI portion of the premium and a 3% reduction in the EBCBS portion of the premium for the estimated margin anticipated to be returned. For the June 30, 2013 valuation, there was no reduction made for estimated margin.

The assumptions from the NYCRS pension actuarial valuations were unchanged from the assumptions used in the June 30, 2013 OPEB actuarial valuation. Those demographic assumptions requiring Board approval for determining pension obligations were adopted by each NYCRS Board of Trustees during Fiscal Year 2012.

The Actuarial Asset Valuation Method (Market Value) is unchanged from the prior valuation.

The Actuarial Cost Method (Entry Age Actuarial Cost Method) is unchanged from the prior valuation.

- 17. Appendix E of this Report presents information on the actuarial assumptions and methods used in the June 30, 2014 OPEB actuarial valuation for the New York City Educational Construction Fund (ECF), including references to a June 2015 report entitled "New York State/SUNY GASB 45 Valuation—Development of Recommended Actuarial Assumptions Participating Agency Version" that has been used as a basis for those actuarial assumptions. The assumptions used in the June 30, 2013 OPEB actuarial valuation had their basis in a December 27, 2012 report entitled "Development of Recommended Actuarial Assumptions for New York State/SUNY GASB 45 Valuations Participating Agency Version."
- 18. Appendix F of this Report presents information on the actuarial assumptions and methods used in the June 30, 2014 OPEB actuarial valuation for CUNY TIAA employees. A comparison to the assumptions used in the June 30, 2013 OPEB actuarial valuation is shown, where different.
- 19. Appendix G of this Report acknowledges those who assisted in the development of these results and the production of this Report.

### **SECTION II**

### CENSUS DATA

In general, the census data used in the June 30, 2014 OPEB actuarial valuation is based upon the census data used in the June 30, 2014 (Lag) pension actuarial valuations of the NYCRS to determine Preliminary Fiscal Year 2016 employer contributions.

This census data was supplemented by information provided to the OA by the New York City Office of Labor Relations (OLR) relating to eligible retirees and other eligible beneficiaries covered by the Program. The census data does not generally include employees who are not yet participants in the NYCRS.

The census data was also supplemented by information provided directly to Buck by the City University of New York (CUNY) on individuals who elect to be covered under alternate retirement benefits provided through the Teachers Insurance Annuity Association – College Retirement Equities Fund (TIAA-CREF or CUNY TIAA) rather than through the NYCRS.

In addition to the participants of NYCRS and CUNY TIAA, the OPEB actuarial valuation also includes 15 active CUNY employees and 3 active/inactive CUNY employees covered under the Cultural Institutions Retirement System (CIRS), who were assumed to ultimately be eligible for certain OPEB outlined in this Report.

The OA and Buck performed tests on this census data for reasonability and, on the basis of these tests, the Actuary believes the data is sufficiently complete and appropriate for determining the OPEB obligations in total for the City and for the OPEB Plan.

Effective with the June 30, 2007 OPEB actuarial valuation, the City has been recognized as responsible for payment of Welfare Fund benefits to certain non-pedagogical CUNY Senior College retirees of the NYCRS. The data for current retirees identified which individuals were non-pedagogical retirees (Welfare Funds other than 275, 276 and 277). Since a Union Welfare Fund code is not available in the active, active/inactive and deferred vested data, it was not possible to directly segregate pedagogical and non-pedagogical CUNY Senior College staff in these populations. Beginning with the June 30, 2007 OPEB actuarial valuation, an adjustment has been made to estimate these populations' Welfare Fund liabilities for the City. For the three Systems (NYCERS, TRS and BERS) with CUNY Senior College non-retiree participants, the CUNY Senior College Welfare Fund liability was allocated between CUNY and the City based on the ratio of each System's actual non-pedagogical retiree headcounts to total CUNY Senior College retiree headcounts. All CUNY TIAA participants are assumed to be pedagogical.

It was discovered during the first (i.e., June 30, 2005) OPEB actuarial valuation that the NYCRS retiree data did not always accurately incorporate Component Unit codes. For certain Component Units, some retirees were identified and valued as City retirees. For the June 30, 2006 OPEB actuarial valuation, OLR provided more detailed information about which entity was responsible for payment of benefits of each covered retiree. The overall census counts were provided to each Component Unit with a request for verification by the administrative staff of each Component Unit.

This issue also potentially applies to active/inactive and deferred vested members. However, active census information includes payroll location. The OA has more recently been capturing location information from the last payroll of formerly active employees. Thus, the number of individuals potentially impacted by this issue is declining over time.

Beginning with the June 30, 2007 OPEB actuarial valuation, each Component Unit is provided with a reconciliation of their data, by employee group, to be used in the valuation. Additionally, each Component Unit is provided with overall census counts. This is followed by a request for verification of the data to be used in the OPEB actuarial valuation by the staff of each Component Unit. This does not apply to ECF since ECF provides census data directly to the OA.

For the June 30, 2014 and June 30, 2013 OPEB actuarial valuations, HHC and WFA confirmed the number of participants used in the valuation for the purposes of measuring OPEB costs.

The following Table II-1 indicates the number of participants noted by NYCHA compared to the number of participants reflected in the June 30, 2008 through June 30, 2014 OPEB actuarial valuations. NYCHA did not confirm the counts of the participants provided by the OA for the June 30, 2007 valuation.

TABLE II-1 COMPARISON OF NYCHA CENSUS DATA USED IN OPEB ACTUARIAL VALUATIONS WITH NUMBER CONFIRMED BY NYCHA								
		Total			Active			
OPEB Actuarial Valuation Date	NYCHA Census Count Used	Number Confirmed by NYCHA	Percent Difference	NYCHA Census Count Used	Percent Difference			
6/30/2008	21,323	21,154	-0.8%	11,192	11,192	0.0%		
6/30/2009	20,980	21,055	0.4%	10,770	10,828	0.5%		
6/30/2010	20,622	20,749	0.6%	10,623	10,696	0.7%		
6/30/2011	20,565	20,993	2.1%	10,455	10,810	3.4%		
6/30/2012	20,896	21,094	0.9%	10,675	10,706	0.3%		
6/30/2013	20,942	21,252	1.5%	10,748	10,852	1.0%		
6/30/2014	20,690	21,020	1.6%	10,371	10,486	1.1%		

The OA researched the June 30, 2014 data discrepancies based on data provided to the OA for use in the NYCRS pension actuarial valuations.

The OA found that the active members added by NYCHA were either non-vested terminations, active elsewhere in the OPEB actuarial valuation or not reported to the OA as a NYCRS participant.

The OA also found that the inactive members added by NYCHA were either non-vested terminations or inactive elsewhere in the OPEB actuarial valuation.

Based on these confirmations, the Actuary concluded that the valuation data was reasonable for the purpose of measuring OPEB costs.

For the June 30, 2009 OPEB actuarial valuation, employer contribution (Pay-As-You-Go (PAYG)) information provided to the OA by SCA indicated that the number of SCA retirees identified in the OA census data as in receipt of Welfare Fund benefits is less than the estimated number of retirees for whom SCA is paying OLR.

Similar discrepancies also occurred for the June 30, 2010 and the subsequent OPEB actuarial valuations, with the following Table II-2 providing a comparison of the OA census data with the number of retirees implied by the monthly PAYG reported amounts.

TABLE II-2 COMPARISON OF SCA RETIREE CENSUS DATA USED IN OPEB ACTUARIAL VALUATIONS WITH ESTIMATED NUMBER FOR WHOM CONTRIBUTIONS ARE BEING MADE								
OPEB Actuarial Valuation Date								
6/30/2009	140	170						
6/30/2010	151	187						
6/30/2011	173	192						
6/30/2012	176	207						
6/30/2013	204*	223						
6/30/2014	229**	245						

<sup>\* 206</sup> SCA retirees were identified on the OA census data, of which two had only OPEB benefits provided by the City and were not eligible for Welfare Fund contributions that would have been the responsibility of SCA.

These discrepancies remain under investigation.

The overall impact of these discrepancies is modest relative to the overall results for SCA, apparently less than 5% of total Actuarial Present Value of Benefits (APVB), if the problem is limited to current retirees. It should be noted that the impact could be greater, perhaps 20% to 25% of total APVB, if data issues of similar magnitude as historic discrepancies affect the identification of future as well as current retirees. However, it appears that many of the retirees in question are being valued elsewhere in the OPEB actuarial valuation and are being charged to the City. Moreover, as a percentage, the discrepancy seems to be decreasing over time. Since SCA is a Blended Component Unit of the City, the impact on the City results appears to be negligible.

<sup>\*\* 231</sup> SCA retirees were identified on the OA census data, of which two had only OPEB benefits provided by the City and were not eligible for Welfare Fund contributions that would have been the responsibility of SCA.

PAYG amounts for Fiscal Years 2010 through 2015 and the Net OPEB Obligation as of June 30, 2010 and subsequent years include the amounts actually paid by SCA.

In preparing the June 30, 2008 OPEB actuarial valuation, it was discovered that the issues of identifying location affected certain former employees who are participants in the NYCRS but who should not have been included in the June 30, 2008 OPEB actuarial valuation, either as a City participant or as a participant in one of the Component Units. For example, if the location code was missing for an individual who had last worked as a Transit employee but was now coded as active/inactive or deferred vested, the valuation includes the individual in measuring the obligation of the City. Since, as noted above, the OA has recently been capturing location information from the last payroll of formerly active employees, the number of individuals potentially impacted by this issue is *de minimis* and declining over time.

Overall, even taking into account the preceding comments, the Actuary believes the data as prepared for the June 30, 2014 OPEB actuarial valuation is sufficient for determining the OPEB obligations presented in this Report for the Component Units.

There are certain retirees who worked part-time and are entitled to full retiree medical benefits (pre-Medicare and Medicare Basic Coverage as well as reimbursement of the Medicare Part B Premium), but only a fractional portion of the Welfare Fund contributions available to retirees who were full-time active employees. Based on information provided by OLR, there were a total of 700 such part-time retirees as of June 30, 2011, 700 such part-time retirees as of June 30, 2012, 740 such part-time retirees as of June 30, 2013 and 755 such part-time retirees as of June 30, 2014. The data did not provide any individual information on these retirees such as age, gender or identification of their employers. The calculations herein do not reflect the reduced Welfare Fund contributions that would be paid on behalf of such retirees. It is estimated that the reduction in total APVB, had detailed information been available, would be less than \$15 million for each of the valuations.

The census data is broken into the following major classifications as used in the NYCRS pension actuarial valuations:

- Actives (in payroll status as of the valuation date).
- Active/Inactives (generally, still a NYCRS member but off payroll as of the valuation date).
- Deferred Vesteds and Deferred Retirees (separated from service, eligible for a pension benefit but not yet in receipt).
- Retirees and other Eligible Beneficiaries (in receipt).

In addition, census data was provided for the following groups not part of the NYCRS:

- Active employees of CUNY who participate in TIAA-CREF or CIRS.
- Retired employees of CUNY who participate in TIAA-CREF and have been participating in the New York City Health Benefits Program.
- Line-of-Duty Survivors who are currently receiving continued lifetime medical coverage and Medicare Part B Premium reimbursements.

Certain individuals who were classified as retired in the NYCRS pension actuarial valuation were not included in the census files provided by OLR that indicated medical plan elections and dependent coverage. Those individuals were assumed to have single coverage electing the GHI option, and were assumed to be on Medicare if over age 65. Approximately 8,400 individuals were valued using this assumption.

Census data was not available for individuals on COBRA continuation, including those surviving spouses of POLICE, FIRE, Corrections or Sanitation members who are entitled to lifetime COBRA-like continuation coverage, as this benefit is administered directly by the insurance carriers.

Effective with the June 30, 2010 OPEB actuarial valuation, the number and obligation for the surviving spouses with lifetime coverage were estimated based on current census of POLICE and FIRE retirees and projected number of deaths that would have occurred since the inception of this benefit on November 13, 2001.

Effective with the June 30, 2012 OPEB actuarial valuation, the number and obligation for the surviving spouses with lifetime coverage were estimated based on current census of retirees of the Departments of Correction and Sanitation and projected number of deaths that would have occurred since the inception of this benefit on August 31, 2010.

Complete census data was not available for terminated CUNY employees who had participated in TIAA-CREF and who have a deferred vested right to receive Medicare Part B Premium reimbursements (and medical and Welfare Fund benefits if employed by a Community College) when they retire under certain conditions. The number and obligation for this vested group was estimated based on census information for CUNY TIAA employees who terminated within the last 12 years.

Effective with the June 30, 2007 OPEB actuarial valuation, the City is responsible for the payment of medical benefits and Welfare Fund contributions for CUNY TIAA Community College retirees. The data for current active employees identified which individuals were Senior College versus Community College employees. Prior to the June 30, 2013 OPEB actuarial valuation, a Senior College versus a Community College code was not available in the retiree data provided to the OA by OLR. Thus, it was not possible to directly segregate these populations.

An adjustment was made in prior valuations allocating retiree and deferred vested liabilities between CUNY and the City based on the historic ratio of CUNY Senior College and Community College employees in TIAA-CREF<sup>2</sup>.

The data provided by CUNY for the June 30, 2010 OPEB actuarial valuation came from its new human resources recordkeeping system, with the exception of information on the Retirement Plan code.

CUNY has enhanced its human resources recordkeeping system. Based on discussions between CUNY and Buck, the date of hire reported by CUNY for the June 30, 2011 OPEB actuarial valuation was based on date of first full-time position instead of original date of hire. It was agreed that this was a better measure of eligibility for OPEB benefits.

CUNY had been working to identify the Senior/Community College indicator and gender for the CUNY TIAA retirees. This information was not available on either the June 30, 2011 or the June 30, 2012 data on CUNY TIAA retirees provided by OLR to the OA. Thus, the allocation of benefit costs between CUNY and the City reflected in these calculations continued to reflect an estimate of the proportion that represents Community College retirees.

The data provided by OLR to the OA for the June 30, 2013 OPEB actuarial valuation for CUNY TIAA retirees included the Senior/Community College indicator and gender for the vast majority of these retirees. Of the 2,542 retirees, 11 were missing the Senior/Community College indicator and 59 were missing the gender indicator. Consistent with the assumption used for missing data in the June 30, 2012 OPEB actuarial valuation, it has been assumed that 75% of the 11 retirees were Senior College retirees and 25% were Community College retirees and that all 59 retirees missing the gender indicator are female. All of the records provided for the CUNY TIAA retirees as of June 30, 2014 contained both a Senior/Community College and a gender indicator.

The data provided to the OA by OLR for the June 30, 2013 OPEB actuarial valuation appeared to be missing information on covered child dependents of eligible retirees participating in NYCRS. The proportion of retirees reported with spouse and children covered was significantly lower than previously reported. The problem appeared to continue with the data provided for the June 30, 2014 OPEB actuarial valuation for retirees in TRS and BERS only. The valuation results include an adjustment that loaded the liability and benefit payments projected for pre-Medicare retiree costs so that the overall proportion of child beneficiary cost by each retirement system represents the same proportion that had been measured in the June 30, 2012 OPEB actuarial valuation. Adjustments were made for all five systems for the June 30, 2013 OPEB actuarial valuation and for TRS and BERS only for the June 30, 2014 OPEB actuarial valuation. Data did not appear to be missing from eligible retirees who were not receiving NYCRS benefits (e.g., TIAA and LOD retirees), so no adjustments were made to those results in either valuation.

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Source: Statistics published by the CUNY Office of Institutional Research and Assessment.

Attached in Appendix B are the following tables that set forth the census data used in this Report:

• Tables 1a-1g Plan Participation.

<sup>1</sup> Includes ECF, HHC, NYCHA, SCA and WFA.

• Tables 2a-2e Welfare Fund Contributions.

Except for ECF, generally all of the census data for the Component Units is included in the NYCRS census data. The majority of those participants in the Component Units who are included in the NYCRS census data participate in NYCERS.

Census data for ECF was supplied separately and directly to the OA by staff at ECF.

Census data for CUNY TIAA active and active/inactive participants was supplied separately and directly to Buck by CUNY.

The following Table II-3 presents a summary of the census data used in the June 30, 2014 and June 30, 2013 OPEB actuarial valuations:

TABLE II-3 SUMMARY OF CENSUS DATA USED IN THE JUNE 30, 2014 AND JUNE 30, 2013 OPEB ACTUARIAL VALUATIONS									
Valuation Date									
Fiscal Year		2015		2014					
Group	City	Component Units <sup>1</sup>	Total	Component Units <sup>1</sup> To					
Active	277,682	43,643	321,325	280,354	44,492	324,846			
Active/Inactive	22,830	22,830 4,774 27,604 20,886 4,604 25,4							
Deferred Vested	14,674	14,674 2,519 17,193 14,296 2,645 16,9							
Retired	221,789	<u>221,789</u> <u>28,910</u> <u>250,699</u> <u>216,471</u> <u>27,174</u> <u>243,64</u>							
Total	536,975	79,846	616,821	532,007	78,915	610,922			

### **SECTION III**

### **ASSETS**

The New York City Retiree Health Benefits Trust (NYCRHBT) was legally established on June 12, 2006 and first funded as of June 21, 2006. The Trust was established to fund OPEB provided under the New York City Health Benefits Program for the exclusive benefit of retirees and their eligible beneficiaries for whom the City is directly obligated.

Wells Fargo Bank, N.A. is the Trustee and Custodian. The City represents the Grantor of the Trust.

Beginning with the June 30, 2008 OPEB actuarial valuation, the Statement of Net Assets represents assets of the Plan instead of assets of the NYCRHBT. This reflects the interpretation by the OA, Buck and the City of Question and Answer (Q&A) 8.81.4 of the GASB Comprehensive Implementation Guide.

Appendix A includes two tables showing the detailed financial position of the Plan as of June 30, 2015 and June 30, 2014.

Appendix A - Table 1 sets forth the assets of the Plan. Plan assets equal NYCRHBT assets.

Appendix A - Table 2 sets forth the changes in net assets and includes non-trust activity for Fiscal Years 2015 and 2014.

All amounts are assumed to be determined on an accrual basis.

Financial information reflected in this valuation for the City and the Plan was provided by OMB and confirmed by the OA on August 21, 2015. Financial information was also supplied by the administrative staff of each Component Unit. None of the Component Units have separately identified OPEB assets as of June 30, 2015 or June 30, 2014.

A summary of the Net Assets Available for Benefits is set forth in the following Table III-1:

# TABLE III-1 NEW YORK CITY OTHER POSTEMPLOYMENT BENEFITS PLAN NET ASSETS AVAILABLE FOR BENEFITS¹

(\$ Millions)

FYE June 30	2015		2014		2013		2012	
Assets	\$	3,921.3	\$	2,937.8	\$	1,834.1	\$	2,556.1
Liabilities	\$	<u>524.8</u>	\$	<u>559.7²</u>	\$	471.0	\$	440.3
Net Assets	\$	3,396.5	\$	2,378.12	\$	1,363.1	\$	2,115.8

<sup>&</sup>lt;sup>1</sup> Source: Wells Fargo Statements and information from OMB.

<sup>&</sup>lt;sup>2</sup> Reflects Post-Publication Adjustments to Benefits Payable.

#### **SECTION IV**

### **SUMMARY OF OPEB PLAN PROVISIONS**

Following is a summary of the employer-provided Other Postemployment Benefits available to eligible retirees and other eligible beneficiaries covered under the Program. The OA believes that these provisions form the "Substantive Plan" as defined in Paragraph 34.a(1) of GASB43 and 13.a(1) of GASB45 and that the OA's understanding of the Substantive Plan is derived from the Administrative Code of the City of New York (ACNY), the New York City Health Benefits Program Summary Program Description, meetings with City officials and a review of historical information. This information has been augmented this year by a review of the recent negotiated agreement regarding health savings<sup>3</sup>, along with a more recent report on progress made regarding health savings<sup>4</sup>.

Note: The OPEB actuarial valuation results presented in this Report show the value of OPEB in effect during each fiscal year and do not represent an obligation of the City or the Component Units to continue, modify or eliminate OPEB in the future.

ACNY Section 12-126 defines OPEB payable to include:

- Health Insurance.
- Medicare Part B Premium Reimbursement.

Welfare Fund benefits are provided through Welfare Fund arrangements agreed upon, in most cases, through collective bargaining.

### **Covered Benefits**

The City and certain Component Units provide OPEB through the New York City Health Benefits Program (Program). In addition, the City provides certain Program benefits through the Stabilization Fund. The City and certain Component Units contribute to various Welfare Funds, generally negotiated with and administered by various labor organizations. The City and certain Component Units also reimburse Medicare Part B Premiums paid by eligible retirees and other eligible beneficiaries.

<sup>&</sup>lt;sup>3</sup> 2014 MLC-NYC Health Savings Agreement, Agreement found at http://www.nyc.gov/html/olr/downloads/pdf/collective\_bargaining/2014MLCNYCHealthSavingsAgreement.pdf.

Report on Status of Healthcare Savings Q3 Fiscal 2015 sent to Bill de Blasio April 1, 2015, http://www1.nyc.gov/office-of-the-mayor/news/207-15/de-blasio-administration-details-400-million-health-savings-fy15-track-even-greater.

It is the understanding of the OA that no other OPEB, such as life insurance or long-term care benefits, are directly subsidized by the City through its general account<sup>5</sup>. The City and the Component Units (except CUNY for certain retirees and ECF) generally provide most death and disability benefits through the NYCRS. Those benefits are measured as part of the obligations of the NYCRS and are not subject to GASB43 or GASB45.

Therefore, the OPEB actuarial valuation results presented herein reflect projected benefit costs only for the retiree health insurance, Welfare Fund contributions and Medicare Part B Premium reimbursements outlined in this Report.

Certain former New York State Court employees, who are covered under the New York State Health Insurance Program (NYSHIP), are not included in the OPEB actuarial valuation. The cash cost for these benefits paid from the Plan during Fiscal Year 2015 was less than \$1 million.

Note: The OPEB provisions applicable to ECF and CUNY TIAA retirees were provided by ECF and CUNY staff, respectively.

### **Eligibility for OPEB**

### Retirees:

- At least 10 years of credited service as a member of NYCRS (five years of credited service if employed on or before December 27, 2001, 15 years of service if a member of TRS or BERS, represented by the United Federation of Teachers and employed after April 27, 2010, and no service requirement for disability retirements) and be working at least 20 hours a week at termination of active service, plus
- Receives a pension check from a NYCRS (or is eligible for certain Deferred Retirement benefits). Payability date varies by System and group.

#### Terminated Vested Members:

• Eligible for OPEB the same as retirees once in receipt of a pension benefit if the other eligibility rules for retirees are satisfied.

Members Eligible for Certain Deferred Retirement Benefits:

Certain members of NYCERS, TRS and BERS who have at least 20 years of credited service
are eligible for up to five years of OPEB coverage prior to commencement of pension
benefits.

<sup>&</sup>lt;sup>5</sup> Such benefits may be funded through the mechanisms of the Welfare Benefit Funds.

### Members Terminated for Other than Immediate Retirement:

 Members who do not have retiree medical coverage under the retiree medical provisions are eligible to continue coverage under COBRA provisions. COBRA continuation coverage is generally limited to certain maximum periods (generally to the end of 36 months under New York State insurance law).

### Surviving Spouses and Other Dependents:

- Dependent coverage is terminated when a retiree dies, except in the following situations:
  - i. Lifetime coverage is provided to the surviving spouse or domestic partner and to children (coverage to age 26 based on legislative mandates under National Health Care Reform) of uniformed members of the Police or Fire Departments who die in the Line of Duty.
  - ii. Effective November 13, 2001, other surviving spouses of retired uniformed members of the Police and Fire Departments may elect to continue coverage for life by paying 102% of stated premium.
  - iii. Effective August 31, 2010, surviving spouses of retired uniformed members of the Departments of Correction and Sanitation may elect to continue coverage for life by paying 102% of stated premium.

### **ECF and CUNY TIAA Benefit Provisions**

The OPEB available to ECF and to CUNY TIAA retirees are described in Appendix E and Appendix F, respectively.

### **Basic Coverage**

The City and certain Component Units currently provide Basic Medical Coverage (Basic Coverage) at no cost if a non-Medicare-eligible retiree participates in HIP HMO or GHI/EBCBS indemnity arrangement, or a Medicare-eligible retiree participates in HIP HMO or GHI/EBCBS Senior Care. The same coverage arrangement applies to individuals (active employees and retirees) who are not included in this OPEB actuarial valuation. The premiums for these individuals are paid by their current or former employer, which may be a New York City Payroll Agency (as listed on Table IV-1), or another entity (either governmental or non-governmental).

Basic Coverage includes hospital and physician coverage and excludes coverage for prescription drugs. GHI/EBCBS Senior Care coordinates with Medicare Part A and Medicare Part B on a supplement basis. Under the HIP HMO, Medicare-eligible retirees generally participate in a Medicare Advantage Plan under Medicare Part C. Cost sharing provisions (e.g., deductibles, co-payments) are assumed to change over time to contain the overall cost of coverage.

Basic Coverage under other plans may require additional retiree contributions.

Other plans available to non-Medicare-eligible retirees for Fiscal Year 2015 include Aetna HMO, CIGNA, Empire HMO Empire EPO, GHI HMO, HIP Prime HMO, HIP Prime POS, MetroPlus Gold and Vytra Health Plans.

Other plans available to Medicare-eligible retirees for Fiscal Year 2015 include Medicare supplemental plans, such as Empire Medicare-Related Coverage, Aetna Medicare PPO with Extended Service Area, and DC 37 Med-Team Senior Care, as well as various Medicare Advantage arrangements.

Retirees of the Component Units herein, except for ECF, have the same coverage as City retirees. It is the understanding of the OA that ECF retirees are covered by NYSHIP.

Retirees may waive Basic Coverage. It is the understanding of the OA that many of those who waive Basic Coverage are dependents of other active or retired City employees. The City and the Component Units do not provide both subscriber and dependent coverage for the same individual.

### **Other OPEB Coverage**

The valuation reflects an estimate for the cost of the implicit subsidy provided to terminated employees who elect COBRA. Effective January 1, 2014 under NHCR, terminated employees who do not elect employer-provided COBRA coverage are eligible for coverage on the State-specific health insurance exchanges (known as Marketplaces). Individuals with low or moderate income may be eligible for federal subsidies in purchasing coverage through the Marketplaces. This may result in a reduction in COBRA elections in the future. This valuation does not directly reflect the possibility of reduced COBRA elections, as there is not yet significant data indicating such reduction in COBRA election.

The OA understands that the City and certain Component Units currently provide certain supplementary healthcare coverage through the mechanism of the Stabilization Fund discussed later in this Section.

Otherwise, the OA understands that medical benefits not provided under the Basic Coverage, such as prescription drug coverage, may be provided through optional riders. These optional riders may provide separately rated coverage with stand-alone premiums. Alternatively, the rider may provide prescription drug coverage integrated with medical coverage other than the benchmark HIP coverage or GHI/EBCBS. This includes HMO coverage and other integrated alternatives offered by the City. The City does not directly fund the cost of the separately rated riders. The cost of riders which are not integrated with HMOs are either fully paid by the employees or retirees who enroll in that benefit, or are provided through various Welfare Funds.

### **Health Care Cost Savings**

The Municipal Labor Committee (MLC) agreed to generate cumulative healthcare savings of \$3.4 billion over the course of Fiscal Years 2015 through 2018, through a variety of initiatives, which were not fully defined at the time of the agreement, and an additional \$1.3 billion of recurring savings every year thereafter. This valuation reflects as part of the Substantive Plan being measured only initiatives that had been defined as of Fiscal Year 2015. According to a Report of Status of Healthcare Savings dated April 1, 2015<sup>6</sup>, there had been eight specific strategies defined at that point. These strategies are listed below, along with how each is reflected in this valuation:

- 1. Funding structure change of GHI to minimum premium plan—assumed reflected in GHI premium rate for fiscal year 2015.
- 2. EBCBS reduction of fiscal year 2015 administrative charges—assumed reflected in EBCBS premium rate for fiscal year 2015.
- 3. Dependent Eligibility Verification Audit—no dependents were dropped from the roles of the Program prior to the measurement date for census information. Numbers of dependents of retirees affected were not separately provided to OA. Given that some dependents who initially were dropped from the roles are being restored based on administrative challenge, the Actuary feels that it is premature to estimate any long term savings that would result to the OPEB plan.
- 4. Mental Health Parity Relief—assumed to affect only historic costs, and not directly reflected in the measurement of Plan obligations.
- 5. Change to Care Management program—estimated full fiscal year 2016 savings reflected by reducing the age-adjusted fiscal year 2015 per capita costs assumed for non-Medicare GHI/EBCBS.
- 6. Specialty Drugs (PICA) Program changes—estimated full fiscal year 2016 savings reflected by reducing the age-adjusted fiscal year 2015 per capita costs assumed for non-Medicare GHI/EBCBS.
- 7. HIP Rate Savings—2.89% rate increase for fiscal year 2016 reflected in non-Medicare HIP costs and assumed HIP benchmark for non-Medicare HMOs.
- 8. Premiums for GHI Senior Care Plan for fiscal year 2015—assumed reflected in GHI premium rate for fiscal year 2015.

Sent to Bill de Blasio and Anthony Shorris from Robert Linn and Claire Levitt, retrieved at <a href="http://www1.nyc.gov/office-of-the-mayor/news/207-15/de-blasio-administration-details-400-million-health-savings-fy15-track-even-greater">http://www1.nyc.gov/office-of-the-mayor/news/207-15/de-blasio-administration-details-400-million-health-savings-fy15-track-even-greater</a>.

In addition to the savings initiatives discussed above, the 2014 MLC NYC Health Savings Agreement reflected that there would be amounts contributed to the Welfare Funds from the Stabilization Fund for the life of the agreement. These additional funds represented an increase of \$25 for fiscal year 2015, plus an additional increase for fiscal year 2016 (to a total additional amount of \$50), plus an additional \$25 more each in fiscal year 2017 and 2018. For the June 30, 2014 OPEB actuarial valuation, these increases are reflected directly, and are assumed for all Welfare Funds, whether the union running the Fund had agreed to the 2015 MLC NYC Health Savings Agreement as of the date of this valuation or not. As of the most recent information provided to the OA by OLR, over 85% of retirees with Welfare Fund coverage are covered by unions that have signed the agreement.

### **Health Care Benefits Per Capita Costs**

Based on current practice (the Substantive Plan), the City and certain Component Units pay the full cost of coverage for retirees who elect Basic Coverage. The costs of Basic Coverage are reflected in the OPEB actuarial valuations herein by using age-adjusted premium amounts. Beginning with the June 30, 2012 OPEB actuarial valuation, an estimated age and gender distribution of the covered population was used with the premiums for the HIP HMO and the non-Medicare GHI/EBCBS arrangement. For the GHI/EBCBS Medicare arrangement, enrollment information from OLR was compared with census information included in the valuation. The comparison indicated that over 95% of the participants of this group are included in the census data for this valuation. For the age adjustments used beginning with the June 30, 2007 OPEB actuarial valuation, the actual age distribution of the GHI/EBCBS Medicare participants was used.

Claims data were generally not provided to the OA for the HIP coverage. OLR provided a copy of the claims component of the Fiscal Year 2015 GHI and Fiscal Year 2015 Empire Blue Cross renewals. For the non-Medicare participants, retiree claims were not segregated from active claims. The claims information provided was compared to the premium rates provided. Based on examination of the renewals and discussions with employees of OMB, it is understood that the GHI and Empire Blue Cross premiums that were applied to the active and non-Medicare retiree population had, in recent years, included a margin to provide amounts in excess of those expected to be needed to support the current level of coverage. These amounts were expected to ultimately be refunded.

Complete information about the financial arrangement was not available to the OA, nor were claims data segregated for the group reflected in the OPEB actuarial valuation. However, the OA is aware that a Minimum Premium Arrangement (MPA) was implemented for the EBCBS benefit during Fiscal Year 2010, and a Minimum Premium Arrangement was implemented for the GHI benefit during Fiscal Year 2014. The general practice of using the age-adjusted premiums for valuation measurement has been continued.

Beginning with the June 30, 2008 OPEB actuarial valuation, an estimate of the margin was removed from the GHI non-Medicare premium before age adjustment to better reflect the understanding about the cost of the underlying coverage. For the June 30, 2012 OPEB actuarial valuation, an estimate of the margin was also removed from the EBCBS non-Medicare premium before age adjustment.

For the June 30, 2013 OPEB actuarial valuation, based on the fact that premium rates for Fiscal Year 2014 for the GHI/EBCBS arrangement had been frozen at the Fiscal Year 2013 level, and based on examination of current year renewals, the OA had assumed that the margin had been removed from the Fiscal Year 2014 premiums. However, the OA was later informed by OLR and OMB that the margin had continued to be reflected in the Fiscal Year 2014 and Fiscal Year 2015 premiums. Based on that information, for the June 30, 2014 OPEB actuarial valuation, the practice of adjusting the premiums to remove the estimated margin was reinstated.

GASB45 provides that costs for retirees should be segregated from costs for actives in developing per capita costs for valuation purposes, either via use of segregated claims experience or, as is done in this OPEB actuarial valuation, by approximation with age-adjusted premium rates. However, GASB45 provides an exception allowing community-rated plans to use unadjusted net premium rates charged for both active employees and retirees, based on the language in the version of Actuarial Standard of Practice No. 6, *Measuring Retiree Group Benefit Obligations* (old ASOP 6) effective for valuations with measurement dates prior to March 31, 2015. The measurement date is the valuation date, (i.e., June 30, 2014) for the current OPEB actuarial valuation. Under the terms of GASB 45, and old ASOP 6, an employer could use the community-rated exception if an actuary determines that the insurer/health program would offer the same premium to that employer if only the non-Medicare eligible retirees of that employer were covered (and not its active employees).

The Actuary has determined that the New York City Health Benefits Program premiums for HIP and GHI/EBCBS members would not be the same if the premiums for those programs were determined based on a population that excluded the active employees included in the OPEB actuarial valuation. Therefore, the community-rated exception is not available for the HIP and GHI/EBCBS premiums and the valuation uses age-adjusted estimated costs. The community-rated exception is being applied in this valuation to the costs measured for other HMOs and for the NYSHIP benefits provided to ECF retirees.

This OPEB actuarial valuation includes liabilities for Component Units that are separate legal entities from the City. In issuing this OPEB actuarial valuation report, the Actuary is not opining on whether each Component Unit that participates in the New York City Health Benefits Program, when looked at from its own perspective, would have the same premiums if only their non-Medicare-eligible retirees were covered. That is, the Actuary is not opining on whether the community-rated exception would be appropriate for use in the June 30, 2014 OPEB actuarial valuation for any Component Unit.

A retiree who elects basic medical coverage other than the benchmark HIP and GHI/EBCBS plans is required to contribute any amount by which the selected arrangement's premium exceeds the Basic Coverage cost benchmarks. The OPEB actuarial valuations herein reflect the benchmark premiums without age adjustment for retirees who elect options other than HIP and EBCBS, assuming that all such arrangements are community rated. Gross and net employer premium contributions for the various options were provided to the OA by OLR, providing the OA information about the contributions required for these options and allowing the OA to confirm that net employer premiums were consistent with the benchmark rates and stated policy regarding other coverage. Detailed information on financial arrangements was not provided for other options. It is the understanding of the OA that many of these options are subject to New York State insurance law community-rating mandates.

Only a small portion of the New York City retirees are covered by these other options where the Actuary cannot determine if costs are dependent upon the experience of New York City participants, either as a result of the financial arrangement, or as a result of the New York City participants representing a non-trivial portion of the covered population. Thus, the Actuary concluded that reflecting any potential impact of age-related morbidity on the non-community-rated arrangements would have only a *de minimis* impact on the valuations.

In May 2014, the Actuarial Standards Board issued a Revised Edition of Actuarial Standard of Practice No. 6, Measuring Retiree Group Benefits Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions, (new ASOP 6). The changes in the new ASOP 6 are effective for measurement dates (valuation dates) on or after March 31, 2015. The changes include additional guidance concerning retiree group benefit programs that participate in pooled health plans, including community-rated plans. This guidance effectively eliminates the so-called community-rated exception, and now provides that age-related costs should be used for these sorts of plans except in very limited circumstances. This will affect how costs are measured for the "Other HMOs" for City sponsored plans, and for the NYSHIP arrangement provided for ECF retirees. Because the participation in these arrangements is relatively small, the impact of reflecting age-adjusted costs for community-rated plans for future measurements (i.e., for measurements after March 31, 2015) is expected to be less than 5% of the overall obligation measured in this valuation. The impact could be much more significant for ECF as a separately measured entity. Since ECF is a Blended Component Unit of the City, the impact on the City results appears to remain of less significance.

It is the understanding of the OA that the City has filed for and is receiving the Medicare Part D Retiree Drug Subsidy (RDS) for a small number of retirees who make certain elections that include drug coverage. The value of the RDS is not knowingly reflected herein, in accordance with GASB Technical Bulletin No. 2006-1 on this issue.

### **Welfare Funds**

The City and certain Component Units pay annual per capita contributions directly to the various Welfare Funds that cover retirees for various health care benefits not provided through the Basic Coverage. Welfare Fund benefits may include (but are not limited to) prescription drug coverage, vision and dental coverage, sometimes with dollar limits. In addition, the Welfare Funds provide non-health related benefits such as life insurance, accidental death or disability (ADD) benefits, legal services, or short or long term disability benefits. The Welfare Funds are generally separate legal entities, often administered by various labor organizations. Information on the Welfare Funds is available in a Special Report issued by the Office of the Comptroller (Comptroller Report)<sup>7</sup>.

Analysis of the Financial and Operating Practices of Union-Administered Benefit Funds with Fiscal Years Ending in Calendar Year 2011, issued December 17, 2014. http://comptroller.nyc.gov/wp-content/uploads/documents/SR14\_100S.pdf, retrieved May 8, 2015.

Contributions are sometimes made for active employees to Welfare Funds that are combined with retirees. Alternatively, contributions are made to separate retiree only funds. The Welfare Funds' per capita contributions apply to retirees only without any additional funds for covered dependents. The contributions for retirees are generally made only on behalf of individuals who retired since 1971. In recent years, a portion of the Welfare Fund contributions has been reimbursed by the Stabilization Fund.

The City and certain Component Units also sponsor a Welfare Fund for management employees, which, for purposes of this Report, is being treated the same as other Welfare Funds.

The per capita contribution amounts change periodically based on negotiated contract provisions. The most recent collective bargaining agreements generally include a \$25 per year increase for each of the next four years starting July 1, 2014, to be paid out of the Stabilization Fund. In addition to prospective increases, the collective bargaining agreements have provided for ad hoc lump-sum payment amounts to the Welfare Funds. It is the understanding of the OA that the benefits provided from the Welfare Funds are adjusted from time to time so that costs to the Welfare Funds do not exceed available assets and income. Benefit type and levels provided to retirees also differ from benefits provided to active employees even within the same fund. For purposes of this Report, this understanding was not verified at source but was confirmed in conversations with OLR and OMB.

It is the understanding of the OA that some of the Welfare Funds have applied for and receive the Retiree Drug Subsidy under Medicare Part D. The calculations in this Report reflect only the net employer Welfare Fund contributions and do not reflect this or any other underlying financial mechanisms of the Welfare Funds.

The OA is not aware of any actuarial valuations performed by the individual Welfare Funds for measurement under GASB43 or other purposes<sup>8</sup>. The Comptroller Report indicated that a significant number of the funds received qualified opinions from their independent auditors because their financial statements did not include a measurement of postretirement benefit obligations<sup>9</sup>. The Comptroller's Office indicated that there was some mention of postretirement benefit obligations on 2 out of 18 sampled Welfare Fund reports, but these amounts did not necessarily appear to be based on actuarial valuations of government-provided benefits performed with parameters consistent with GASB 43. Thus, the OA has not considered the impact of any such calculations on the analyses herein.

Paragraph 13 of GASB45 provides that the employer should reflect the same assumptions and methods used by a plan if the amounts calculated would comply with the requirements of GASB45. Thus, any such analyses might require the use of differing assumptions for results under GASB45.

<sup>&</sup>lt;sup>9</sup> Table XXIV on page 34 of Comptroller Report.

A review of the historic per capita contributions to the Welfare Funds showed that there were sometimes temporary supplemental contributions, resulting in an apparent leveling of the Welfare Fund contributions or even an apparent decline in certain contribution rates for some groups. Beginning with the June 30, 2007 OPEB actuarial valuation, the actuarial assumptions for the starting Welfare Fund contributions were revised to reflect a three-year trended average of reported annual contribution amounts for current retirees. A trended average was used instead of a single reported Welfare Fund amount to smooth out negotiated variations. For the June 30, 2009 through June 30, 2013 OPEB actuarial valuations, certain lump-sum payments to the Welfare Funds on behalf of retirees were included in the three-year average. Furthermore, for the June 30, 2010 through June 30, 2013 OPEB actuarial valuations, retroactive adjustments to Welfare Fund contribution rates were used in the trended average as of the dates they were effective (i.e., using the retroactive date).

For the June 30, 2014 OPEB actuarial valuation, the current level of Welfare Fund contributions and the current schedule of \$25 increase amounts for the next four years starting July 1, 2014 is reflected as the assumed amount of Welfare Fund contribution required. Thereafter, the valuation assumes that the contribution amount to the Welfare Funds will increase at the Medicare Plans trend rates.

Appendix D addresses the assumptions in more detail.

### **Medicare Part B Premium Reimbursement**

Upon application, the City and certain Component Units reimburse the Medicare Part B Premium for all Medicare-eligible retirees and eligible covered dependents. The reimbursement includes the base Part B premium and any additional premium charged to high-income retirees via the Income Related Monthly Adjustment Amounts (IRMAA). The recently legislated change in the scheduled IRMAA amounts (MACRA) are reflected in the June 30, 2014 OPEB actuarial valuation.

Reimbursement is computed and paid on a calendar year basis. Due to administrative processing, reimbursement occurs during the following fiscal year. For example, Calendar Year 2013 Medicare Part B Premiums were generally reimbursed in August 2014, with IRMAA reimbursed during March 2015.

The June 30, 2014 OPEB actuarial valuation projects Medicare Part B Premium reimbursements for premiums to be paid starting July 1, 2014. The OA understands that the City takes into account for Fiscal Year 2015 an estimate of the Medicare Part B Premiums for the period from January 1, 2015 through June 30, 2015 as well as known Calendar Year 2014 costs.

It should also be noted that the Medicare Part B Premiums for retirees of certain Component Units and other entities are considered obligations of the City and have been included in the City results rather than as obligations of those particular Component Units.

Medicare Part B Premium reimbursement amounts have been updated to reflect actual premium rates announced for calendar years through 2015.

Additionally, experience shows that not all eligible retirees/dependents apply for Medicare Part B Premium reimbursement each year. Beginning with the June 30, 2008 OPEB actuarial valuation, this experience is reflected as a separate assumption (i.e., the percentage of eligible retirees/dependents assumed to apply for Medicare Part B Premium reimbursement). Effective with the June 30, 2010 OPEB actuarial valuation, OLR informed the OA that individuals who waive basic coverage are not permitted to apply for Medicare Part B Premium reimbursement.

For the June 30, 2013 and the June 30, 2012 OPEB actuarial valuations, OLR provided the OA with information regarding which individuals had requested Medicare Part B Premium reimbursement. The overall number indicated as receiving Medicare Part B Premium reimbursement was consistent with the valuation assumption. However, the detailed data was not fully consistent with the understanding of the OA regarding the benefit. The Actuary has concluded that the data was not sufficiently credible for this purpose, and that the benefit provision is appropriately reflected in the separate assumption regarding the percentage of retirees/dependents assumed to apply for Medicare Part B Premium reimbursement.

### **Stabilization Fund**

The City maintains and annually contributes to the Health Insurance Stabilization Reserve Fund (Stabilization Fund). Certain Component Units are understood to have contributed to the Stabilization Fund in situations where the GHI/EBCBS premiums paid would be lower than the HIP benchmark premium. In addition, the Stabilization Fund receives dividends from participating insurance carriers including the GHI/EBCBS arrangement.

The Stabilization Fund has been used for various purposes in the past. For example, when the non-Medicare GHI/EBCBS premium rate was greater than the non-Medicare HIP HMO premium rate for short periods historically, the Stabilization Fund made up the difference between the non-Medicare GHI/EBCBS premium rates and non-Medicare HIP HMO premium rates, until such time as the benefits provided under those arrangements were adjusted to bring the financing into balance. In recent years, the Stabilization Fund has been used to provide the following health related benefits, based on financial information on the Stabilization Fund provided to the OA by OLR:

- A GHI Home Care benefit for certain non-Medicare participants.
- Welfare Fund contributions for the Line-of-Duty Survivors.
- Injectables and Chemotherapy Drug plan for certain non-Medicare participants (formerly referred to as "PICA" but psychotropic and asthma drugs are not currently covered).
- New York County Health Services Review Organization for utilization review for the GHI/EBCBS arrangement.

• Healthline (Intracorp) providing pre-certification of hospitalization for GHI/EBCBS participants.

In addition, the Stabilization Fund has been used for the following purposes:

- Under the 2009 Health Benefits Agreement, certain funds were used by the City for purposes other than Program benefits.
- During Fiscal Year 2010, certain funds were used to set up a Minimum Premium Account for the Empire insurance arrangement. The Stabilization Fund was reimbursed for those monies by the City during Fiscal Year 2011. During Fiscal Years 2014 and 2015, certain funds were used to set up a Minimum Premium Account for the GHI insurance arrangement, with the Stabilization Fund reimbursed for a portion of those monies during Fiscal Year 2015.
- The Stabilization Fund has reimbursed the City, the various Component Units and various other entities participating in the Program for a portion of Welfare Fund contributions.
- Under the 2014 MLC Health Savings Agreement, the Stabilization Fund has conveyed to the City \$1 billion to be used to support wage increases. The agreement also provides for up to a total amount of \$150 million over the next four years to go to the Welfare Funds from the Stabilization Fund, as well as \$60 million a year thereafter.

The OA is not aware of any actuarial valuation performed by the Stabilization Fund for measurements under GASB43 or other purposes. Thus, the OA has not considered the impact of any such calculations on the analyses herein.

The City's current annual contribution of \$35 million to the Stabilization Fund provides benefits to both active and retired participants. In addition, the City can be considered to have historically contributed additional amounts to the Stabilization Fund each year via the mechanism of the margins on the GHI and EBCBS non-Medicare insured rates. These amounts exceed the amount that is estimated to be used to provide benefits to current retirees, including the amounts estimated to provide Welfare Fund contributions on behalf of retirees.

The calculations do not assume that any of the existing Stabilization Fund assets will be used for retiree benefits.

The amount reflected for the Stabilization Fund in the current OPEB actuarial valuation is based on an estimated allocation between active and retired participants of actual Fiscal Year 2015 Stabilization Fund benefits. The allocation reflects the fact that retirees are on average older and have more costly medical benefits than actives, and separates out Welfare Fund contribution reimbursements from other Stabilization Fund benefits. The allocation amount is used to develop a load that is only reflected in the OPEB actuarial valuation for the City.

The load of .6% used in the June 30, 2014 OPEB actuarial valuation was changed from .7% used in the prior valuation. Welfare Fund contributions reimbursed by the Stabilization Fund are considered a part of Welfare Fund benefits and are not included in the determination of the Stabilization Fund load.

The Stabilization Fund load is added to both the GASB45 results for the City and the GASB43 results of the Plan.

#### **OPEB Coverage Groupings**

The City subsidizes only some of the OPEB described herein for various groups of NYCRS retirees.

Table IV-1 on the next page presents, by payroll agency, those benefits assumed to be provided by the City for purposes of the June 30, 2014 OPEB actuarial valuation.

Table IV-2 on the succeeding page presents, by payroll agency, those benefits assumed to be provided by the City for purposes of the June 30, 2013 OPEB actuarial valuation.

There is no change in coverage from the prior OPEB actuarial valuation.

For the Component Units included in the OPEB actuarial valuation, the benefit categories not paid by the City are reflected in the results of the individual Component Units.

#### Table IV - 1

# New York City Retirement Systems Components of Post-Retirement Medical Benefits Paid By New York City Fiscal Year 2015

Payroll Agency	Health Insurance	Welfare Fund <sup>1</sup>	Medicare Part B
Charter Schools	Yes	Yes	Yes
Custodial Engineer	Yes	Yes	Yes
CUNY - Senior Colleges	No*	Yes <sup>2</sup>	Yes
CUNY - Community Colleges	Yes	Yes	Yes
Correction Department	Yes	Yes	Yes
CP Engineers	No*	No	No
Courts (State)	Yes	Yes	Yes
DA Investigators	Yes	Yes	Yes
Department of Education	Yes	Yes	Yes
HSG Develop Corp	No	No	No
Health and Hospital Corp	No*	No	Yes
Housing Authority	No*	No	No*
Housing Police (Retirees Only)	Yes	Yes	No*
Regular	Yes	Yes	Yes
REMIC	NA	NA	NA
Sanitation	Yes	Yes	Yes
School Construction Authority	Yes	No	Yes
State Housing	No	No	No
Transit Authority	No*	No	No
Transit Police (Retirees Only)	Yes	Yes	Yes
Triboro Bridge	No	No	No
Water Finance Authority	No*	No	Yes
POLICE	Yes	Yes	Yes
FIRE	Yes	Yes	Yes
TIAA - Senior Colleges	No*	No	Yes
TIAA - Community Colleges	Yes	Yes	Yes
ECF	No	No	No
LOD Survivors	Yes	No	Yes

<sup>\*</sup> The City pays these benefits upfront, not out of the NYCRHBT, and then is reimbursed.

 $<sup>^{1} \ \ \</sup>text{Welfare Fund coverage not available to pre-1/1/1971 retirees. LOD death beneficiary coverage provided through Stabilization Fund.}$ 

 $<sup>^{\</sup>rm 2}\,$  The City pays the Welfare Fund for non-pedagogical CUNY Senior Colleges retirees.

#### Table IV - 2

# New York City Retirement Systems Components of Post-Retirement Medical Benefits Paid By New York City Fiscal Year 2014

Payroll Agency	Health Insurance	Welfare Fund <sup>1</sup>	Medicare Part B
Charter Schools	Yes	Yes	Yes
Custodial Engineer	Yes	Yes	Yes
CUNY - Senior Colleges	No*	Yes <sup>2</sup>	Yes
CUNY - Community Colleges	Yes	Yes	Yes
Correction Department	Yes	Yes	Yes
CP Engineers	No*	No	No
Courts (State)	Yes	Yes	Yes
DA Investigators	Yes	Yes	Yes
Department of Education	Yes	Yes	Yes
HSG Develop Corp	No	No	No
Health and Hospital Corp	No*	No	Yes
Housing Authority	No*	No	No*
Housing Police (Retirees Only)	Yes	Yes	No*
Regular	Yes	Yes	Yes
REMIC	NA	NA	NA
Sanitation	Yes	Yes	Yes
School Construction Authority	Yes	No	Yes
State Housing	No	No	No
Transit Authority	No*	No	No
Transit Police (Retirees Only)	Yes	Yes	Yes
Triboro Bridge	No	No	No
Water Finance Authority	No*	No	Yes
POLICE	Yes	Yes	Yes
FIRE	Yes	Yes	Yes
TIAA - Senior Colleges	No*	No	Yes
TIAA - Community Colleges	Yes	Yes	Yes
ECF	No	No	No
LOD Survivors	Yes	No	Yes

<sup>\*</sup> The City pays these benefits upfront, not out of the NYCRHBT, and then is reimbursed.

 $<sup>^{1} \ \ \</sup>text{Welfare Fund coverage not available to pre-1/1/1971 retirees. LOD death beneficiary coverage provided through Stabilization Fund.}$ 

 $<sup>^{\</sup>rm 2}\,$  The City pays the Welfare Fund for non-pedagogical CUNY Senior Colleges retirees.

#### **Subsequent Events**

#### National Healthcare Reform

Annually, the Actuary reviews the OPEB actuarial assumptions employed to estimate the impact of NHCR on OPEB measured in the valuation. The Actuary believes that no changes in the approach to measuring the impact of NHCR are required at this time. At some future date, should other provisions of the NHCR laws be modified, delayed or repealed, in whole or in part, the implications would be evaluated and reflected in future OPEB actuarial valuations.

#### **Union Contracts**

As discussed in Section II, the OPEB results contained herein for Fiscal Year 2015 were based on the data used in the June 30, 2014 pension actuarial valuations of the NYCRS to develop Preliminary Fiscal Year 2016 employer contributions under One-Year-Lag Methodology (OYLM).

The June 30, 2014 salaries were adjusted by the Actuary to reflect contract settlements with retroactive effect and the assumption of pattern bargaining.

As of June 30, 2013, a large majority of the NYCRS members were working under expired union contracts. In May 2014, the United Federation of Teachers (UFT) settled its contract with ratification occurring during June 2014. Several other unions settled contracts subsequent to June 30, 2014. Some ratified before the publication of the Ninth Annual OPEB Report, others were pending ratification. All contracts contain retroactive wage increases.

The June 30, 2013 (Lag) pension actuarial valuation census data used in the June 30, 2013 OPEB actuarial valuation did not include either the retroactive wage increases contained in the settled contracts or an estimate of any anticipated settlements (pattern bargaining).

As OPEB is not pay-related, these retroactive wage increases have no impact on the APVB.

However, under the Entry Age Actuarial Cost Method, reflecting these wage increases could have impacted the AAL and the Normal Cost. An estimate of the impact was not made but was deemed to be immaterial.

#### GASB 74 and 75

GASB has issued GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (GASB 74), and GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (GASB75). The provisions of GASB74 are effective for financial statements for fiscal years beginning after June 15, 2016. The provisions of GASB75 are effective for fiscal years beginning after June 15, 2017. The Actuary has not yet evaluated the impact of these new standards on the calculations included in this valuation. Revisions in accounting standards could result in significant changes in the measurements produced by the valuation.

#### Mortality Improvement

There has been significant research in the area of mortality improvement.

In September 2012, the Society of Actuaries' Retirement Plans Experience Committee (RPEC) published a paper on mortality improvement<sup>10</sup>. The paper stated that the actual rates of mortality improvement "differed quite substantially from those predicted by Scale AA," which is currently the most commonly used scale of improvement, and was the mortality improvement assumption used in constructing the mortality assumptions used in this valuation. The RPEC found Scale AA rates to be "lower than the actual improvement rates for most ages over 55." The RPEC developed a new mortality improvement Scale BB, to be used on an interim basis prior to the completion of a full mortality study.

In February 2014, the RPEC published two separate exposure drafts, one on recent uninsured pension mortality, and one on mortality improvement<sup>11</sup>. In the draft paper on mortality improvement, RPEC recommended that "Scale MP-2014 be used to project mortality rates beyond 2014 for all retirement programs in the United States." The improvement scale reflected additional data above that which had been used in constructing Scale BB, but verified the basic conclusion that mortality has been improving faster than assumed by Scale AA.

In October 2014, RPEC finalized the papers on uninsured pension mortality and on mortality improvement, with additional material on mortality improvement published in November 2014<sup>12</sup>. In the mortality improvement paper, RPEC introduced the concept of the RPEC\_2014 parameterized model, which allowed a user to vary certain subjective parameters and produce a range of different improvement assumptions. RPEC opined that "Scale MP-2014 (or an appropriately parameterized RPEC\_2014 model) is a reasonable basis for the projection of future pension-related mortality rates in the United States."

Society of Actuaries Mortality Improvement Scale BB Report, <a href="https://www.soa.org/Research/Experience-Study/Pension/research-mortality-improve-bb.aspx">https://www.soa.org/Research/Experience-Study/Pension/research-mortality-improve-bb.aspx</a>.

RP-2014 Mortality Tables Exposure Draft, <a href="https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-tables.aspx">https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-tables.aspx</a> and Mortality Improvement Scale MP-2014 Exposure Draft, <a href="https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-imp-scale.aspx">https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-imp-scale.aspx</a>.

https://www.soa.org/Research/Experience-Study/pension/research-2014-mp.aspx.

The Actuary has not yet evaluated the impact of this research on the mortality assumptions used in this valuation. It is possible that this research, in conjunction with the results of the NYC Charter-mandated Experience Study of the NYCRS, currently underway, may warrant a review of the mortality assumption used in subsequent valuations. Such a study would examine recently published information about mortality improvement and compare the results to observed improvement in NYCRS mortality, if any. As the measurement of retiree medical benefits is very sensitive to the mortality improvement assumption, this could result in a significant increase in the OPEB liabilities measured.

#### **SECTION V**

#### **ACTUARIAL ASSUMPTIONS AND METHODS**

The actuarial assumptions used in the OPEB actuarial valuations are classified as those used in the NYCRS pension actuarial valuations and those specific to the OPEB actuarial valuations.

The OPEB-specific actuarial assumptions and methods used in the June 30, 2014 OPEB actuarial valuation are generally the same as those used in the June 30, 2013 OPEB actuarial valuation, except that:

- The following have been reviewed and updated as necessary to reflect more recent experience:
  - Per capita claims costs.
  - Welfare Fund contributions.
  - Medicare Part B Premiums.
  - ° The Stabilization Fund load (.6%, changed from .7%).
  - ° The estimated margin amounts on non-Medicare premiums expected to be returned and thus not reflected in the age-adjusted cost of coverage.
  - ° Assumptions for demographic characteristics of dependents where data is unavailable.
  - Assumption for percent of Active/Inactive members ultimately eligible for OPEB (40%, unchanged).
- The factor applied to HIP Medicare HMO costs in addition to medical trend, to reflect expected changes in Medicare Advantage reimbursements, was modified to reflect actual Calendar Year 2015 HIP premiums.
- Welfare Fund contributions have been updated to reflect recent contribution rates.
   Recently negotiated amounts including scheduled increases for Fiscal Years 2015 through 2018 were reflected. In recent OPEB actuarial valuations, a three-year trended average of reported annual contribution amounts for retirees was used.
- Medicare Part B Premium reimbursement amounts have been updated to reflect actual premium rates announced for calendar years through 2015, as well as a legislated change to scheduled IRMAA.

• Aging – For the June 30, 2014 OPEB actuarial valuation, the age adjustment for the non-Medicare GHI/EBCBS premium reflects a 5% reduction in the GHI portion of the premium and a 3% reduction in the EBCBS portion of the premium for the estimated margin anticipated to be returned. For the June 30, 2013 valuation, there was no reduction made for estimated margin.

The actuarial assumptions used to value the NYCRS 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 Years 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.

The NYCRS pension actuarial assumptions used in the June 30, 2014 OPEB actuarial valuation are unchanged from those used in the June 30, 2013 OPEB actuarial valuation.

Those demographic assumptions requiring Board approval for determining pension obligations were adopted by each Board of Trustees during Fiscal Year 2012. All other demographic and salary increase assumptions are reflected in the June 30, 2014 OPEB actuarial valuation.

Additional details regarding the actuarial assumptions and certain methods used in the June 30, 2014 OPEB actuarial valuation are set forth in Appendices D, E and F.

#### **Actuarial Cost Method**

The Entry Age Actuarial Cost Method (one of the Actuarial Cost Methods set forth in GASB43 Paragraph 34.d and GASB45 Paragraph 13.d) is used to determine the Annual Required Contribution (ARC) and the Unfunded Actuarial Accrued Liability (UAAL). The method is unchanged from the method used in the previous OPEB actuarial valuation.

Under this method, as used in this OPEB actuarial valuation, the Actuarial Present Value (APV) of Benefits (APVB) of each individual included in the actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The employer portion of this APVB allocated to a valuation year is the Employer Normal Cost. The portion of this APVB not provided for at a valuation date by the APV of Future Employer Normal Costs or future member contributions is the Actuarial Accrued Liability (AAL).

The excess, if any, of the AAL over the Actuarial Asset Value (AAV) is the Unfunded Actuarial Accrued Liability (UAAL).

Under this method, actuarial gains (losses), as they occur, reduce (increase) the UAAL and are explicitly identified and amortized.

Increases (decreases) in obligations due to benefit changes, actuarial assumption changes and/or actuarial method changes are also explicitly identified and amortized.

Note: For the June 30, 2012 OPEB actuarial valuation, all actuarial gains (losses) that occurred prior to the adoption of the Entry Age Actuarial Cost Method were effectively included in the measurement of the change in Actuarial Cost Method.

For subsequent OPEB actuarial valuations, the Unfunded Actuarial Accrued Liability due to accumulated funding deficiencies (e.g., not having funded previously measured Annual Required Contribution amounts) is separately identified and amortized over a one-year period.

The OPEB actuarial valuation reflects the covered earnings of a participant only once, based on the participant's employer on the valuation date. This method is consistent with the method used in the previous valuation. For individuals who are not in one of the Component Units included in the Report but who have only partial City–provided benefits, their covered earnings are not included.

#### **Actuarial Asset Valuation Method**

The Actuarial Value of Assets is equal to the Market Value of Assets. The method is unchanged from the previous OPEB actuarial valuation.

#### **Amortization of Transition Liability**

The Transition Liability was amortized over an open one-year period.

#### **Amortization of Changes to UAAL**

All changes in the Unfunded Actuarial Accrued Liability as of June 30, 2014 are being amortized over a one-year period for purposes of calculating the ARC except for the amount of change in UAAL attributable to the change in the Actuarial Cost Method, established as of June 30, 2012, which is being amortized over a closed 10-year period using level-dollar amortization. This is the minimum period permitted in cases where there is a significant reduction in the UAAL in accordance with Paragraph 13.f(3) of GASB45.

GASB45 requires the calculation of the ARC, but does not require that an employer actually contribute its "required" contribution. Amounts "required" but not actually set aside to pay for these benefits are accumulated on the employer's books as the Net OPEB Obligation (NOO).

Except for the UAAL established in conjunction with the change in the Actuarial Cost Method as of June 30, 2012, the City and Component Units, in consultation with their auditors, have elected to amortize the Initial UAAL and any subsequent UAAL bases over a one-year period. The use of a one-year amortization period is essentially equivalent to recognizing the entire UAAL into the ARC immediately.

The "known amount" (e.g., a separately identified actual amount that is included in the ARC related to the amortization of past employer contribution deficiencies), has been used to calculate the ARC Adjustment for purposes of the AOC. This approach is consistent with the language of GASB45 Paragraph 16 which states that the ARC Adjustment should be calculated using the same amortization period that was used in determining the ARC for the year. This approach was confirmed in GASB Technical Bulletin No. 2008-1 issued December 15, 2008.

The OA understands that there were no obligations for Other Postemployment Benefits on the books of the City or the Component Units as of Transition. Therefore, for Fiscal Year 2006, the Annual OPEB Cost was equal to the Annual Required Contribution.

#### **Implicit Rate Subsidy**

These results reflect, beginning Fiscal Year 2009, employer contributions for the City and certain Component Units, toward the Annual OPEB Cost that include certain expenditures that had previously been nominally allocated to active costs rather than retiree costs. The Fiscal Year 2009 employer contributions reflected the cumulative impact of the nominal re-allocation of these expenditures, retroactive to Fiscal Year 2006.

The Implicit Rate Subsidy is the difference between the age-adjusted premiums approximating retiree claims costs and the actual cash premiums paid on behalf of retirees. The concept of age-adjusted premiums is explained in Appendix D. The Implicit Rate Subsidy is assumed to be the additional cost for coverage of retirees that, in this case, had initially been allocated to active costs because the cash premiums do not vary by age of the covered individual.

For Fiscal Years 2006 through 2009, the Implicit Rate Subsidy was estimated using information provided to the New York City Office of the Actuary (OA) by the New York City Office of Management and Budget (OMB). For Fiscal Years beginning 2010, the Implicit Rate Subsidy was estimated by the OA directly from the assumptions and data used in the respective OPEB actuarial valuations, reflecting as cash premium costs both amounts directly paid for Basic Benefits and amounts paid to the Stabilization Fund in lieu of the benchmark HIP premium. The age-adjusted premiums used in this OPEB actuarial valuation assume that the stated premiums have a margin, which effectively reduces the estimated Implicit Rate Subsidy amount. For Fiscal Year 2014, the age-adjusted premiums used in the valuation for the GHI/EBCBS arrangement did not reflect an assumed margin. This resulted in an assumption of a greater Implicit Rate Subsidy for Fiscal Year 2015 than had been assumed for prior periods and than would be assumed for Fiscal Year 2015. As noted above, for Fiscal Year 2015 the age-adjusted premiums used in the valuation for the GHI/EBCBS arrangement reflect an assumed margin.

#### **SECTION VI**

#### PRINCIPAL RESULTS UNDER GASB43

For the New York City OPEB Plan, the principal results of the June 30, 2014 and June 30, 2013 OPEB actuarial valuations, prepared in accordance with the requirements of GASB43, are summarized in the following Table VI-1:

#### **TABLE VI-1**

## PRINCIPAL RESULTS OF THE GASB43 ACTUARIAL VALUATIONS FOR THE NEW YORK CITY OPEB PLAN AS OF JUNE 30, 2014 AND JUNE 30, 2013

(\$ Millions)

Valuation Date	June 30, 2014		June 30, 2013			
Fiscal Year	2015		2015		:	2014
Actuarial Present Value of Benefits (APVB)	\$	116,944.9	\$	120,172.5		
Actuarial Asset Value (AAV)	\$	2,378.1	\$	1,363.1		
Unfunded Actuarial Accrued Liability <sup>1</sup> (UAAL)	\$	67,985.2	\$	69,956.0		
Annual Required Contribution (ARC)  Normal Cost – BOY  UAAL Payment <sup>2</sup> – BOY  UAAL Payment <sup>3</sup> – BOY  Interest to EOY  Total ARC	\$ \$	3,454.1 84,022.9 (2,290.4) 3,407.5 88,594.1	\$ \$	3,633.7 87,667.4 (2,290.4) <u>3,560.4</u> 92,571.1		

<sup>&</sup>lt;sup>1</sup> Based on Entry Age Actuarial Cost Method.

<sup>&</sup>lt;sup>2</sup> Based on One-Year Amortization.

<sup>3</sup> Based on a Closed 10-Year Amortization Period.

Detailed results of the June 30, 2014 GASB43 actuarial valuation of the OPEB Plan are shown in Appendix C-7.

In Fiscal Years 2006, 2007 and 2008, financial statements under GASB43 were prepared for the NYCRHBT. Beginning in Fiscal Year 2009, NYCRHBT accounting was replaced by OPEB Plan accounting. As such, all GASB43 results are equal to the applicable GASB45 results shown in Table VII-1 and in Appendix C-6 of this Report.

GASB43 requires significant disclosures. One portion of this is the Required Supplementary Information including the Schedule of Funding Progress. These disclosures are also presented in Appendix C-7.

#### **SECTION VII**

#### PRINCIPAL RESULTS UNDER GASB45

For the City of New York (City) and certain of its Component Units, the principal results of the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations, prepared in accordance with the requirements of GASB45, are summarized in the following Table VII-1:

#### **TABLE VII-1** PRINCIPAL RESULTS OF THE GASB45 ACTUARIAL VALUATIONS AS OF JUNE 30, 2014 AND JUNE 30, 2013 (\$ Millions) **Valuation Date** June 30, 2014 June 30, 2013 2014 2015 **Fiscal Year** Component Component Units1 Units1 **Entity** City Total City Total **Actuarial Present** \$ 120,172.5 Value of Benefits (APVB) \$ 116,944.9 \$ 9,778.8 \$ 126,723.7 \$ 10,203.5 \$ 130,376.0 2,378.1 2,378.1 \$ 0.0 1,363.1 \$ 0.0 1,363.1 Actuarial Asset Value (AAV)2 **Unfunded Actuarial Accrued** Liability3 (UAAL) 67,985.2 \$ 5,736.4 73,721.6 69,956.0 5,842.6 75,798.6 3,454.1 \$ 322.7 3,776.8 3,633.7 343.0 3,976.7 Normal Cost<sup>3</sup> Annual Required Contribution (ARC) 3,454.1 229.2 3,683.3 3,633.7 242.6 3,876.3 Normal Cost - BOY UAAL Payment4 - BOY 84,022.9 4,526.6 88,549.5 87,667.4 4,658.1 92,325.5 (2,407.5)(2,290.4)(117.1)(2,407.5)UAAL Payment<sup>5</sup> - BOY (2.290.4)(117.1)Interest to EOY 3,407.5 <u> 185.6</u> 3,593.1 3,560.4 <u> 191.3</u> 3,751.7 88,594.1 93,418.4 92,571.1 4,974.9 97,546.0 4,824.3 Total ARC6 Net OPEB Obligation at End \$ 85,458.2 4,703.9 \$ 90,162.1 89,456.7 4,854.1 94,310.8

Of Fiscal Year<sup>6</sup>

<sup>1</sup> ECF, HHC, NYCHA, SCA and WFA.

<sup>&</sup>lt;sup>2</sup> Reflects Revisions for Fiscal Year 2014 as noted in Appendix A.

<sup>&</sup>lt;sup>3</sup> Based on Entry Age Actuarial Cost Method.

Based on One-Year Amortization.

Based on a Closed 10-Year Amortization Period.

Excludes NYCHA.

Detailed results of the June 30, 2014 GASB45 actuarial valuation for the City and certain Component Units are shown in Appendices C-1 through C-6.

GASB45 requires significant disclosures. One portion of this is the Required Supplementary Information including the Schedule of Funding Progress. These disclosures are also presented in Appendices C-1 through C-6.

#### **SECTION VIII**

#### **ACTUARIAL CERTIFICATION**

This Report presents the results of the June 30, 2014 actuarial valuation of the Other Postemployment Benefits (OPEB) provided under the New York City Health Benefits Program (Program).

A comparison with the June 30, 2013 OPEB actuarial valuation results is also provided. For information on the June 30, 2013 OPEB actuarial valuation, see "Report on the Ninth Annual Actuarial Valuation of Other Postemployment Benefits Provided under the New York City Health Benefits Program," dated September 24, 2014 (Ninth Annual OPEB Report).

These OPEB actuarial valuation results are intended to form the basis for financial reporting under Governmental Accounting Standards Board (GASB) Statement No. 43 (GASB43) for the New York City OPEB Plan (the Plan) and for accounting and financial reporting under GASB Statement No. 45 (GASB45) for the City of New York (City) and certain non-City entities (Component Units) for Fiscal Year 2015.

Beginning with the June 30, 2008 OPEB actuarial valuation, the determination of annual employer contributions includes certain non-trust activity for the City and certain expenditures that had previously been nominally allocated to active costs rather than retiree costs (i.e., an approximate value of the Implicit Rate Subsidy) for HHC. These determinations were retroactive to Fiscal Year 2006 and the cumulative impact was included in Fiscal Year 2009 PAYG employer contributions and in the June 30, 2009 Net OPEB Obligation.

Beginning with Fiscal Year 2010, the determination of annual employer contributions also includes certain non-trust activity for the City and an approximate value of the Implicit Rate Subsidy for HHC. For Fiscal Year 2009, the Implicit Rate Subsidy was estimated by the New York City Office of Management and Budget (OMB). For subsequent fiscal years, the Implicit Rate Subsidy was estimated directly from the assumptions and data used in the respective OPEB actuarial valuations.

The results contained in this Report are based upon census data and financial information provided by the City and certain Component Units.

The data used for the June 30, 2014 OPEB actuarial valuation is that of the New York City Retirement Systems (NYCRS)<sup>13</sup> with supplemental data provided by the New York City Office of Labor Relations (OLR), ECF and CUNY.

<sup>&</sup>lt;sup>13</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 Fire Department Pension Fund (FIRE)

Effective with the June 30, 2007 OPEB actuarial valuation, the City is responsible for payment of Welfare Fund benefits to certain non-pedagogical CUNY Senior College retirees of the NYCRS. The data for current CUNY retirees identified which individuals were non-pedagogical retirees (Welfare Funds other than 275, 276 and 277). Since a Union Welfare Fund code is not available in the active, active/inactive and deferred vested data, it was not possible to directly segregate pedagogical and non-pedagogical CUNY Senior College staff in these populations. An adjustment was made to estimate these populations' Welfare Fund liabilities for the City. For the three systems (NYCERS, BERS and TRS) with CUNY Senior College non-retiree participants, the CUNY Senior College Welfare Fund liability was allocated between CUNY and the City based on the ratio of each System's actual non-pedagogical to total CUNY Senior College retirees headcounts.

Effective with the June 30, 2007 OPEB actuarial valuation, the City is responsible for payment of medical benefits and Welfare Fund contributions for CUNY TIAA Community College retirees. The data for current active employees identified which individuals were Senior versus Community College employees. For the June 30, 2007 through the June 30, 2012 OPEB actuarial valuations, a Senior versus Community College code was not available in the retiree data and, therefore, it was not possible to directly segregate these populations. An adjustment was made allocating retiree and deferred vested liabilities between CUNY and the City based on the historic ratio of CUNY Senior College and Community College employees in CUNY TIAA and information provided by CUNY to Buck about the portion of existing retirees that were Senior vs. Community College participants.

The data provided by OLR to the OA for the June 30, 2013 OPEB actuarial valuation for CUNY TIAA retirees included a Senior/Community College indicator and gender code for the vast majority of these retirees. Of the 2,542 retirees, 11 were missing the Senior/Community College indicator and 59 were missing the gender indicator. Consistent with the assumption used for missing data in the June 30, 2012 OPEB actuarial valuation, it was assumed that 75% of the 11 retirees were Senior College retirees and 25% were Community College retirees and it was assumed that all 59 retirees missing the gender indicator are female. All of the records provided for the CUNY TIAA retirees as of June 30, 2014, contained both a Senior/Community College and a gender indicator.

Effective with the June 30, 2010 OPEB actuarial valuation, results for the New York City Off-Track Betting Corporation (OTB) are not included in GASB45 results. It is the understanding of the Actuary that, effective May 26, 2011, neither the City nor the Plan has any OPEB obligation for current or future OTB retirees.

The Office of the Actuary (OA) and Buck Consultants, LLC (Buck) performed tests on this census data for reasonability and, on the basis of these tests, the Actuary believes the data is sufficiently complete and appropriate for use in the June 30, 2014 OPEB actuarial valuation.

The following discusses the June 30, 2014 census data for certain Component Units:

• ECF provided separate data directly to the OA. The ECF employees and retirees are not members of the NYCRS.

- HHC and WFA confirmed that the number of participants used in the OPEB actuarial valuation was reasonable for purposes of measuring OPEB costs.
- SCA confirmed that the number of participants used in the OPEB actuarial valuation was reasonable for purposes of measuring OPEB costs.

However, employer contribution (i.e., PAYG) information provided to the OA indicated that the number of SCA retirees identified in the OA census data as in receipt of Welfare Fund benefits is less than the number of retirees for whom SCA is paying OLR.

This discrepancy remains under investigation.

The overall impact of this discrepancy is modest relative to the overall results for SCA, apparently less than 5% of the total Actuarial Present Value of Benefits (APVB), if the problem is limited to current retirees. It should be noted that the impact could be greater, perhaps 20% to 25% of APVB, if data issues of similar magnitude as historic discrepancies affect the identification of future as well as current retirees. However, it appears that many of the retirees in question are being valued elsewhere in the OPEB actuarial valuation and are being assumed to be charged to the City. Moreover, as a percentage, the discrepancy seems to be decreasing over time. Since SCA is a Blended Component Unit of the City, the impact on the City results appears to be negligible.

• NYCHA was provided counts for the census data used for its OPEB actuarial valuation. NYCHA essentially confirmed that the number of participants used in the OPEB actuarial valuation was within 1.6% of those used for measuring OPEB costs. After investigation, the Actuary concluded that the data was reasonable for this purpose.

The actuarial assumptions outlined in this Report were selected for use for the City of New York rather than based on the experience of any individual entity. The obligations for OPEB for any individual Component Unit might differ if determined under its own, separate, OPEB actuarial valuation.

The determination of GASB43 and GASB45 costs and obligations have been made on the basis of the understanding of the OA regarding the Program (Substantive Plan) and on the interpretation by the OA of the requirements of GASB43 and GASB45. Beginning with the June 30, 2008 OPEB actuarial valuation, the requirements of GASB43 and GASB45 have been interpreted to take into account the Question and Answer (Q&A) 2009-8.81.4 of the GASB Comprehensive Implementation Guide.

The results contained in this report take into account the OA's current understanding of the enactment of National Health Care Reform (NHCR) (i.e., the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA), signed into law on March 30, 2010), along with certain subsequently issued guidance.

The impact of NHCR has been reflected, beginning with the June 30, 2009 OPEB actuarial valuation, in changes in certain benefits and actuarial assumptions.

This Report has been prepared in accordance with generally accepted actuarial principles and procedures as of the valuation date. The actuarial assumptions used in the development of the GASB43 and GASB45 obligations include those used by the Chief Actuary of the New York City Office of the Actuary (Actuary) in her capacity as the Actuary for the NYCRS, to value the benefits payable by the NYCRS. These NYCRS pension actuarial assumptions are unchanged from those used in the June 30, 2013 OPEB actuarial valuation.

Note: Separate actuarial assumptions shown in Appendix E and Appendix F were used to value OPEB for ECF participants and for CUNY TIAA participants, respectively.

While the Actuary believes that the assumptions are reasonable for financial reporting purposes, it should be understood that there is a range of assumptions that could be deemed reasonable that would yield different results. Moreover, while the Actuary considers the assumption set to be reasonable based on prior plan experience, it should be understood that future actuarial measurements may differ significantly from the current measurements presented in this Report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions, changes in assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period) and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. Because of the limited scope of this measurement, this Report contains no analysis of the potential range of such future differences.

The Entry Age Actuarial Cost Method used to determine the Annual Required Contribution (ARC), the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) is one of the Actuarial Cost Methods permitted under GASB43 Paragraph 34.d and GASB45 Paragraph 13.d. The method is unchanged from the previous OPEB actuarial valuation.

The use of a one-year amortization of the Unfunded Actuarial Accrued Liability (UAAL), where permitted under GASB45, is included in this actuarial valuation. This period was chosen by the City and the Component Units included in this OPEB actuarial valuation in consultation with their respective auditors. The UAAL established as of June 30, 2012 in connection with the change in funding method is being amortized over a closed ten-year period which is the minimum amortization period in accordance with GASB45 Paragraph 13.f(3) where there is a significant reduction in the UAAL. The level dollar approach is used for the 10-year amortization.

GASB45 Paragraph 13.f(1) provides that an equivalent single amortization period should be calculated when components are amortized over different periods, and that the equivalent single amortization period calculated should not exceed 30 years. As the amortization amount required for the City and the Component Units included in this OPEB actuarial valuation exceeds the UAAL in all cases, the equivalent single amortization period would be less than 1 and meets the maximum amortization period requirement.

In preparing this Report, the staff of the OA has been assisted by and collaborated with the staff of Buck.

The Actuary states that this Report, and its attachments, is a Statement of Actuarial Opinion (SAO). The Actuary takes overall responsibility for the results herein.

The actuaries whose signatures appear below are Members of the American Academy of Actuaries (AAA) and, together, meet the Qualification Standards of the AAA to render this SAO. The actuaries certify that the assumptions in the aggregate used in this Report are reasonable for the purposes of measurement of the obligations under GASB43 and GASB45 contained herein.

Sherry S. Chan, ASA, FCA, MAAA Chief Actuary New York City Office of the Actuary

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John R. Gibney, Jr., MSPA, FCA, MAAA, EA

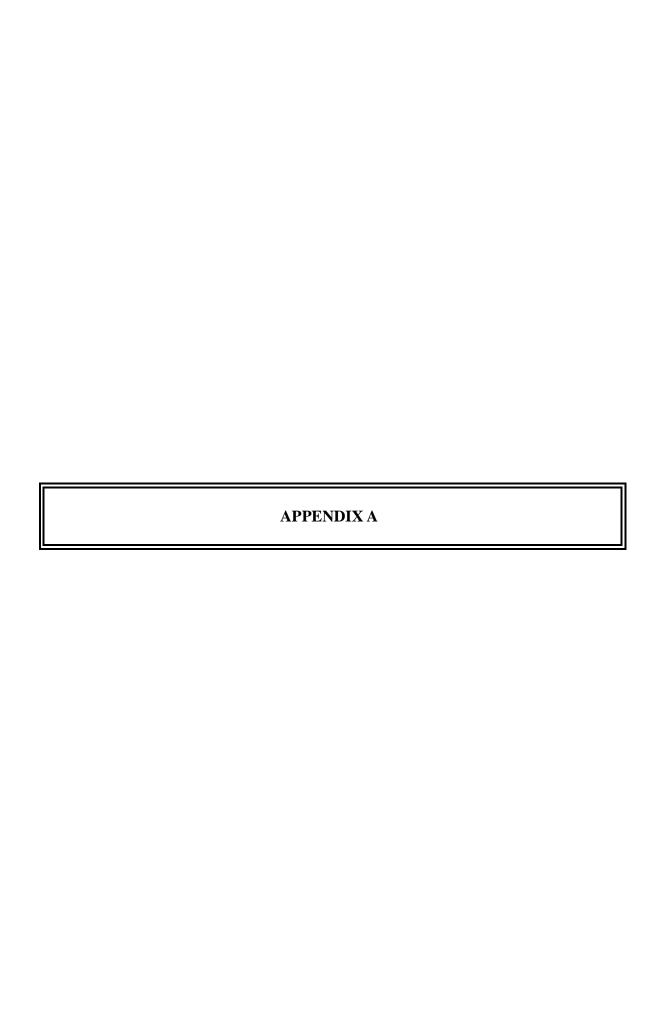
Deputy Chief Actuary

New York City Office of the Actuary

Robin B. Simon, FSA, FCA, MAAA, EA, JD

Principal, Consulting Actuary and Chief Actuary, Health Practice

Buck Consultants, LLC



#### Appendix A - Table 1

#### **NEW YORK CITY HEALTH BENEFITS PROGRAM**

#### **New York City Other Postemployment Benefits Plan**

#### **Statement of Net Position**

#### As of June 30, 2015 and June 30, 2014

	June 30, 2015 <sup>1</sup>	June 30, 2014 <sup>2</sup>
ASSETS		
Cash		
Settled Cash	\$ 1,155,652,316	\$ (62,106)
Receivables		
Trust	2,749,044	328,025
DOE Welfare Fund	0	0
Medicare Part D	205,105	272,086
Payables		
Investment Securities Purchased	(109,710,750)	<u>0</u>
Total Cash	\$ 1,048,895,715	\$ 538,005
Cash Equivalents		
US Treasury Bills	\$ 349,105,667	\$ 0
Commercial Paper	307,993,958	2,358,366,972
Asset-Backed Securities	10,002,800	0
Short Term Funds	57,759,952	35,916,617
Government Agency	49,829,375	<u>0</u>
Total Cash Equivalents	\$ 774,691,752	\$ 2,394,283,589
Fixed Income		
Corporate Bonds and Notes	\$ 65,054,879	\$ 29,613,808
Government and Agencies	2,032,481,335	<u>513,313,961</u>
Total Fixed Income	\$ 2,097,536,214	\$ 542,927,769
Prepaid Benefits / Expenses	\$ 222,295	\$ 43,465
Total Prepaid	\$ 222,295	\$ 43,465
Total Assets	\$ 3,921,345,976	\$ 2,937,792,828
LIABILITIES		
Medicare Part B	\$ 157,640,930	\$ 151,000,373
Benefits Payable	367,098,685	408,611,061 <sup>3</sup>
Trustee Fees Payable	46,902	17,702
Audit Fees Payable	<u>15,921</u>	20,000
Total Liabilities	\$ 524,802,438	\$ 559,649,136
NET POSITION		
Held in Trust for Benefit Payments	\$ 3,396,543,538	\$ 2,378,143,692 <sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Based on Information Provided by OMB on August 20, 2015.

 $<sup>^{2}\,</sup>$  Based on Information Provided by OMB on September 18, 2014 and Post-Publication Adjustments.

 $<sup>^{\</sup>rm 3}$  Reflects Post-Publication Adjustments to Benefits Payable.

#### Appendix A - Table 2

#### **NEW YORK CITY HEALTH BENEFITS PROGRAM**

#### **New York City Other Postemployment Benefits Plan**

#### **Statement of Changes in Net Position**

#### As of June 30, 2015 and June 30, 2014

	June 30, 2015 <sup>1</sup>	June 30, 2014 <sup>2</sup>
ADDITIONS		
Employer Contributions		
Pay-As-You-Go		
Trust	\$ 2,943,663,268 <sup>3</sup>	\$ 2,891,426,525 <sup>4</sup>
Non-Trust	192,233,438	222,902,394
Other	<u>0</u>	<u>0</u>
Total Contributions	\$ 3,135,896,706	\$ 3,114,328,919
Earned Income		
Interest Income	\$ 5,778,245	\$ 6,106,622
Net Accrued Income	2,421,019	(1,073,906)
Net Realized Gain / (Loss)	694,942	<u>1,800,005</u>
Total Investment Income	\$ 8,894,206	\$ 6,832,721
Net Unrealized Gain / (Loss)	<u>1,135,616</u>	<u>1,374,068</u>
TOTAL ADDITIONS	\$ 3,145,926,528	\$ 3,122,535,708
DEDUCTIONS		
Benefit Payments		
Trust	\$ 1,934,788,988 <sup>3</sup>	\$ 1,884,189,652 <sup>4,5</sup>
Non-Trust	192,233,438	222,902,394
Sub-Total	\$ 2,127,022,426	\$ 2,107,092,046
Expenses		
Administrative Expenses	\$ (4,079)	\$ 20,000
Legal Fees	0	0
Trustee Fees	<u>508,335</u>	<u>352,901</u>
Sub-Total	\$ 504,256	\$ 372,901
TOTAL DEDUCTIONS	\$ 2,127,526,682	\$ 2,107,464,947
CHANGE IN NET POSITION	\$ 1,018,399,846	\$ 1,015,070,761
NET POSITION HELD IN TRUST FOR BENEFIT PAYMENTS		
Beginning of Year	\$ 2,378,143,692	\$ 1,363,072,931
End of Year	\$ 3,396,543,538	\$ 2,378,143,692 <sup>5</sup>

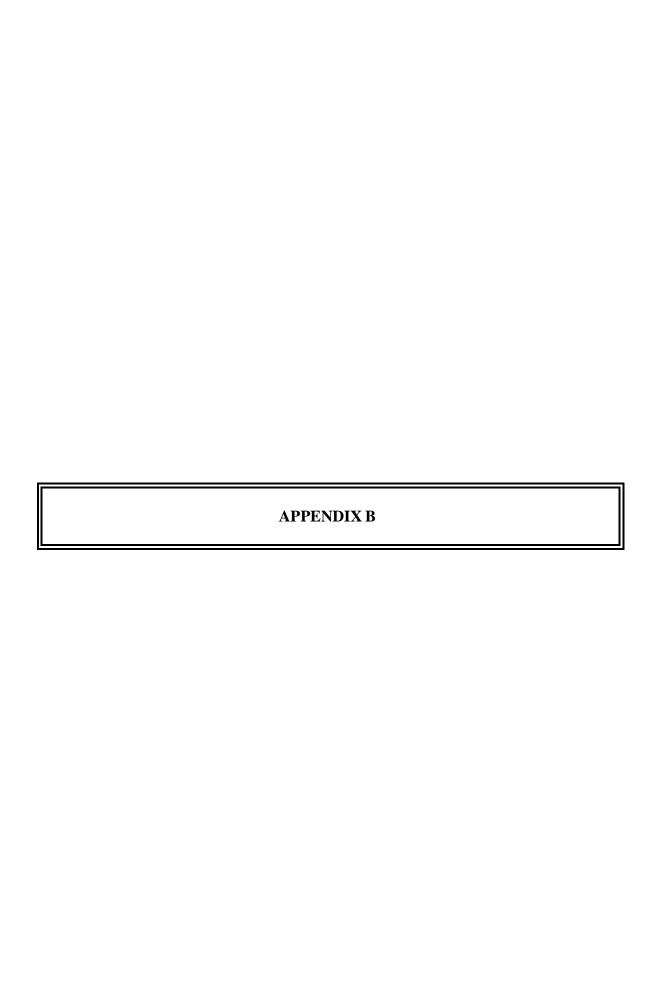
<sup>&</sup>lt;sup>1</sup> Based on Information Provided by OMB on August 20, 2015.

 $<sup>^{2}\,</sup>$  Based on Information Provided by OMB on September 18, 2014 and Post-Publication Adjustments.

<sup>&</sup>lt;sup>3</sup> Net of the Interfund Transfer of \$533,568,289 in Fiscal Year 2015.

 $<sup>^{\</sup>rm 4}$   $\,$  Net of the Interfund Transfer of \$457,118,093 in Fiscal Year 2014.

<sup>&</sup>lt;sup>5</sup> Reflects Post-Publication Adjustments.



## Appendix B - Table 1a New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - NYCERS**

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City*	14,299	4,192	909	804	20,204
Component Units:					
HHC	2,444	639	122	93	3,298
NYCHA	1,261	572	71	65	1,969
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	нір нмо	Other HMO	Waived	Total
City*	33,926	9,087	2,306	2,750	48,069
Component Units:					
HHC	12,225	3,048	569	916	16,758
NYCHA	4,010	1,151	199	326	5,686
WFA	1	1	0	0	2

<sup>\*</sup>The City headcounts include SCA retirees since the City is responsible for SCA's health insurance coverage.

### Appendix B - Table 1b New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - TRS**

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	10,761	1,130	268	993	13,152
Component Units:					
ННС	1	0	0	0	1
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	НІР НМО	Other HMO	Waived	Total
City	52,443	3,961	1,430	2,686	60,520
Component Units:					
HHC	4	0	0	1	5
NYCHA	2	1	0	0	3
WFA	0	0	0	0	0

### Appendix B - Table 1c New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - BERS**

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City*	1,608	388	34	184	2,214
Component Units:					
HHC	0	0	0	0	0
NYCHA	3	0	1	1	5
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	НІР НМО	Other HMO	Waived	Total
City*	9,722	2,040	196	772	12,730
Component Units:					
HHC	4	1	1	0	6
NYCHA	8	1	1	0	10
WFA	0	0	0	1	1

<sup>\*</sup>The City headcounts include SCA retirees since the City is responsible for SCA's health insurance coverage.

### Appendix B - Table 1d New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - POLICE**

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	22,790	2,498	1,430	1,201	27,919
Component Units:					
ннс	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	15,943	2,048	1,023	485	19,499
Component Units:					
HHC	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0

### Appendix B - Table 1e New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - FIRE**

Pre-Medicare Headcounts	GHI Indemnity	нір нмо	Other HMO	Waived	Total
City	5,432	690	617	106	6,845
Component Units:					
ннс	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	7,440	1,206	521	190	9,357
Component Units:					
HHC	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0

### Appendix B - Table 1f New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - TIAA**

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	25	1	3	0	29
Component Units:					
ннс	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	651	39	23	0	713
Component Units:					
ннс	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0

### Appendix B - Table 1g New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation

#### **PLAN PARTICIPATION - LODW**

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	41	8	3	0	52
Component Units:					
ннс	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	НІР НМО	Other HMO	Waived	Total
City	591	106	20	0	717
Component Units:					
HHC	0	0	0	0	0
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0

## Appendix B - Table 2a New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - NYCERS

			6/30/12	6/30/13	6/30/14
UWF	Description	Count <sup>1</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>
001	NYC MANAGEMENT WELFARE FUND	7,412	\$1,640	\$1,640	\$1,640
005	ALLIED BUILDING INSPECTORS	359	1,640	1,640	1,640
010	ASST DEP WARDENS ASSC SBF	388	1,490	1,490	1,490
030	CORRECTION CAPTAINS ASSOC	1,702	1,490	1,490	1,490
035	CORRECT OFFICRS BEN ASSOC	7,804	1,640	1,640	1,640
040	NYS COURT OFFICERS ASSOC	1	830	830	830
045	CWA LOCAL 1182 RETIREE SBF	373	1,640	1,640	1,640
046	CWA L1181 SEC BEN FND RET	285	1,640	1,640	1,640
048	DETECT END ASSN RET FUND	6	1,523	1,523	1,523
049	DET END ASSN RET FUND (T)	172	1,523	1,523	1,523
050	DET END ASSN RET FUND (H)	124	1,523	1,523	1,523
055	DEA RET FND(PBA OF THE DA)	115	1,523	1,523	1,523
060	DISTRICT COUNCIL 37	35,271	1,640	1,640	1,640
061	DC 37 - (TAPD CIVILIANS)	13	1,640	1,640	1,640
066	DC 37 MEBA - FERRYBOATS	114	1,640	1,640	1,640
070	DOCTORS CNCL RET WELF FND	471	1,540	1,540	1,540
075	LCL 3 IBEW ELECTR INSPECT	26	1,640	1,640	1,640
080	FIRE ALARM DSP BEN ASSOC	162	1,640	1,640	1,640
100	LPN RETIREE WELFARE FUND	632	1,640	1,640	1,640
105	OSA SUPV.EMG.MED.SVC.SPEC	26	1,640	1,640	1,640
106	OSA WELF FND-SCHOOL SEC/T	33	1,640	1,640	1,640
107	OSA WELF FUND -SAN CHIEFS	56	1,540	1,540	1,540
108	ORG OF STAFF ANALYSTS	1,893	1,640	1,640	1,640
109	LCL 14 MUN W F-CRANE OPER	39	1,640	1,640	1,640
110	L144 DIV OF L1199 NHHSEU	513	1,590	1,590	1,590
115	LOCAL 306 RETIR HLTH WELF	7	1,640	1,640	1,640
120	LOCAL 333 DOCKHANDS	190	1,640	1,640	1,640
129	UNKNOWN	222	1,640	1,640	1,640
130	LOCAL 832 RETIREES	52	1,840	1,840	1,840
131	UNKNOWN	60	1,640	1,640	1,640
135	RET CWA L1183 DOE H&W FND	131	1,753	1,753	1,753
140	1199 NHHSEU	332	1,640	1,640	1,640
155	LCL 1180 CWA RET BENE FND	5,764	1,675	1,675	1,675
156	L1180 RET BEN FD-TAPD CIV	1	1,675	1,675	1,675
160	NYC DEPY SHER ASS RET SBF	54	1,365	1,365	1,365
162	UFT WELFARE FUND	26	1,720	1,720	1,720
163	UFT WELFARE FUND	43	1,720	1,720	1,720
164	COUNCIL OF SUPERVISORS AND ADMINISTRATORS	8	1,720	1,720	1,720
165	RET WELF FND AUTO SVC WKR	36	1,640	1,640	1,640
170	PBA (NYPD)	8	1,579	1,579	1,579
171	PBA (NYPD) (TA)	1,576	1,579	1,579	1,579
172	PBA (NYPD) (HA)	554	1,579	1,579	1,579
185	NYS NURSES ASSOCIATION	3,038	1,640	1,640	1,640
187	PAVERS & RDBULDERS INSPCT	35	1,640	1,640	1,640
190	UNITED PROBATION OFFICERS	389	1,723	1,723	1,723
200	SANITATION OFF RET WEL FN	2,460	1,390	1,390	1,390
225	SOC NYPD LT BENEV ASSOCIA	2	1,565	1,565	1,565
226	SOC NYPD CAPT ENDOW ASSOC	8	1,565	1,565	1,565
228	SOC NYPD LT BENEV ASSO(T)	108	1,565	1,565	1,565
229	SOC NYPD CAPT END ASS (T)	36	1,565	1,565	1,565
		228	1,740	1,740	1,740
230	SBA HLTH&WELF FUND/RET(T)		•		
231	SOC NYPD LT BENEV ASSO(H)	76	1,565	1,565	1,565
231 232	, , ,	76 42	1,565 1,565	1,565	1,565 1,565
231 232 233	SOC NYPD LT BENEV ASSO(H)	76 42 125	1,565	•	1,565 1,565 1,740
231 232	SOC NYPD LT BENEV ASSO(H) SOC NYPD CAPT END ASSN(H)	76 42	1,565 1,565	1,565	1,565 1,565

## Appendix B - Table 2a New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - NYCERS

			6/30/12	6/30/13	6/30/14
UWF	Description	Count <sup>1</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>
251	UNKNOWN	224	1,640	1,640	1,640
260	LCL 300 RETIREE WELF FUND	382	1,640	1,640	1,640
261	LEEBA RETIRED EES WELF FD	5	1,640	1,640	1,640
275	PROFESSIONAL STAFF CONGRESS	222	1,865	1,865	1,865
276	PROFESSIONAL STAFF CONGRESS	5	1,865	1,865	1,865
277	SBA HLTH & WELF FND/RETIR	1	1,865	1,865	1,865
555	CIVILIAN, TRANSIT POLICE DEPT. NYC TRANSIT	27	1,640	1,640	1,640
556	UNKNOWN	7	1,640	1,640	1,640
604	ASSCR WEL FND OF RETIREES	1	785	785	785
605	NYSCCA SEC BEN FND RETIRE	3	930	930	930
700	LCL 237 RWF(L621 SUP MEC)	228	1,640	1,640	1,640
701	LCL 237 RWF(L621 SUP I W)	10	1,640	1,640	1,640
702	LOCAL 237 RWF(L621 DDMEM)	7	1,640	1,640	1,640
703	L237 BRCKLYR RETIREES	104	2,040	1,840	1,840
704	L1969(L806 BRDG PAINTERS)	27	1,640	1,640	1,640
705	L.40 361&417 JT UN SEC FD	41	1,540	1,540	1,540
706	LCL 3 IBEW COMMUN ELEC ET	58	1,540	1,540	1,540
709	L237RWF (L621 ADFM)	3	1,640	1,640	1,640
712	LCL 3 IBEW ELCTRCN SUP HL	427	1,640	1,640	1,640
713	UNKNOWN	27	1,640	1,640	1,640
714	LCL 237 ELEV MECH RETIREE	258	1,840	1,840	1,840
715	LCL237MASON'S HLPS RETIRE	24	1,840	1,840	1,840
717	LOCAL 1969, GLAZIERS	38	1,640	1,640	1,640
720	DC37 LOCKSMITH SUPV LKSMT	38	1,540	1,540	1,540
724	RET H&W FD L3 IBEW-SUP.ME	70	1,540	1,540	1,540
725	UNKNOWN	58	1,640	1,640	1,640
727	LCL 2 CIVIL SVC PLUMBERS	403	1,640	1,640	1,640
728	LCL 1969 NYC PAINTERS	300	1,640	1,640	1,640
730	PAVERS RDBLDR DC PAVERS	3	1,340	1,340	1,340
731	LCL 237 ROOF RETIREES	25	2,040	1,840	1,840
732	LCL237PLASTERERS RETIREES	175	2,040	1,840	1,840
736	RET.WF AUTO MECH-UPSTATE	8	1,640	1,640	1,640
738	RET WELF FND AUTO MECHNYC	842	1,640	1,640	1,640
739	RET WELF FUND-TRACT OPERS	5	1,640	1,640	1,640
741	RET WELFARE FUND MOTOR GRA OPERATOR	17	1,640	1,640	1,640
742	LCL 14 PILE DRIVING ENGNR	3	1,640	1,640	1,640
743	DC 37 HIGHWAY REPAIRERS	322	1,640	1,640	1,640
744	DC 37 FURNIT MAINTAINER	2	1,640	1,640	1,640
745	DC37 CYLD PRESS OPERATOR	17	1,640	1,640	1,640
746	LCL 300 HIGHWAY REPAIRERS	27	1,640	1,640	1,640
747	PAVERS RDBLDRS HW SP HW R	19	1,640	1,640	1,640
748	LCL 14-RETIR. GAS RLR ENG	15	1,640	1,640	1,640
749	DC37SUPERVISOR HIGHWAY RE	88	1,540	1,540	1,540
7 <del>4</del> 9 750	LCL300 SUPV.HWY REPAIRER	10	1,540 1,540	1,540 1,540	1,540 1,540
751	PAVERS & RDBULDERS - SUPERVISOR HIGHWAY RE	6	1,540 1,540	1,540 1,540	1,540 1,540
751 753	DC37 COMPOSITOR (JOB)	11	1,540 1,640	1,640	1,540 1,640
753 754	RET WEL FUND CARRGE UPHOL		·		1,640
754 756		3 49	1,640	1,640 1,840	•
756	LCL 237 CEMENT MAS RETIRE PATROLMEN'S BENEVOLENT ASSOCIATION (LINE-OF-	49	2,040	1,840	1,840
777	•	4	0	0	0
777 782	DUTY SURVIVORS)	4	1 840	1 840	1 840
782 786	LCL 237 HORSE/HARN RETIRE	3	1,840	1,840 1,640	1,840
786 787	DC37 CITY LABORERS	567	1,640	1,640	1,640
787	DC37 CONSTRUCTION LABORER	277	1,640	1,640	1,640
804	LCL 237 MAINT WKR RETIREE	954	1,840	1,840	1,840
808	LCL 30, OILER	177	1,640	1,640	1,640
812	DC37 RADIO REPAIR MECHANI	44	1,640	1,640	1,640

## Appendix B - Table 2a New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - NYCERS

			6/30/12	6/30/13	6/30/14
UWF	Description	Count <sup>1</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>
814	LCL 246 RWF RUBR TIRE REP	13	1,640	1,640	1,640
816	DC37 SEWAGE TRTMT WKRS	389	1,640	1,640	1,640
818	RET WEL FND SGN PTRS/LTRS	4	1,640	1,640	1,640
820	LCL 30 STAT ENG SR ST ENG	436	1,640	1,640	1,640
823	NYC DIST.COUNCIL OF CARPS	399	1,640	1,640	1,640
825	NYC DIST COUNCIL OF CARPS	4	1,640	1,640	1,640
826	LCL 3 IBEW SR STAT ENGR E	93	1,640	1,640	1,640
827	RET WEL FND SHEET MTL WKR	51	1,640	1,640	1,640
828	LCL 3 IBEW STATN ENGR ELE	192	1,640	1,640	1,640
832	DC 37 HI-PRESS PLANT TEND	121	1,640	1,640	1,640
837	LCL LDG 5 BLKSMTH HLP SUP	51	2,583	2,583	2,583
838	NYC DIST. COUNCIL OF CARP	32	1,640	1,640	1,640
839	LCL LDG 5 BOLRMKR HLP SUP	18	860	860	860
842	LCL 638 STMFTRS HLPR SUPR	69	1,640	1,640	1,640
843	LOCAL 15-GASOLINE RLR ENG	23	1,640	1,640	1,640
844	LOCAL 15-BASIN MACH OPERS	1	1,115	1,115	1,115
845	LCL 15 WELDERS FD	61	1,640	1,640	1,640
847	LCL 15 HIPRESS OPER.	3	965	965	965
848	LCL 15 TRACTOR OPER(SANI)	111	1,640	1,640	1,640
888		304	0	0	0
948	Either not entitled to Welfare Fund Benefits or UWF	1	0	0	0
950	contribution is not funded by the City. Medicare Part B	9	0	0	0
960	reimbursement.	4	0	0	0
999	rempuisement.	70	0	0	0
Blank		4,177	0	0	0

Total Count: 100,656

<sup>&</sup>lt;sup>1</sup> Data includes entire population provided by OLR and supplemented by the OA, including Component Units and other groups not attributable to the City for GASB45 purposes.

<sup>&</sup>lt;sup>2</sup> Rates used as of June 30, 2012, June 30, 2013, and June 30, 2014, include any known one-time Welfare Fund payments paid during the Fiscal Year following the date of the rate. Also reflected are any known retroactive increases as of their effective date. Effective rates and information on one-time payments are based on information supplied by OLR. The rate for DC37 was used for UWFs without a reported rate. Rates for Professional Staff Congress came from its website. An additional \$25 was added to each amount as of 7/1/2014, assuming that any welfare funds who have not yet negotiated the increase will do so in the future.

## Appendix B - Table 2b New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - TRS

			6/30/12	6/30/13	6/30/14
UWF	Description	Count <sup>1</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>
001	NYC MANAGEMENT WELFARE FUND	184	<b>\$1</b> ,640	\$1,640	\$1,640
035	CORRECT OFFICRS BEN ASSOC	1	1,640	1,640	1,640
045	CWA LOCAL 1182 SEC BEN FUND	1	1,640	1,640	1,640
048	DETECT END ASSN RET FUND	1	1,523	1,523	1,523
055	DEA RET FUND (PBA OF THE DA)	1	1,523	1,523	1,523
060	DISTRICT COUNCIL 37	637	1,640	1,640	1,640
100	LPN RETIREE WELFARE FUND	1	1,640	1,640	1,640
108	ORG OF STAFF ANALYSTS	4	1,640	1,640	1,640
155	LCL 1180 CWA RET BENE FND	31	1,675	1,675	1,675
163	UFT	63,334	1,720	1,720	1,720
164	COUNCIL OF SUPERVISORS AND ADMINISTRATORS	7,048	1,720	1,720	1,720
185	NYS NURSES ASSOCIATION	1	1,640	1,640	1,640
190	UNITED PROBATION OFFICERS	1	1,723	1,723	1,723
200	SANITATION OFF RET WEL FN	1	1,390	1,390	1,390
235	L237 RETIREE BENE FND-CW	12	1,840	1,840	1,840
275	PROFESSIONAL STAFF CONGRESS	2,447	1,865	1,865	1,865
276	PROFESSIONAL STAFF CONGRESS	35	1,865	1,865	1,865
277	SBA HLTH & WELF FND/RETIR	1	1,865	1,865	1,865
724	RET H&W Fd, L3, IBEW-SUP, ME	1	1,540	1,540	1,540
888	Either not entitled to Welfare Fund Benefits or UWF	31	0	0	0
940	contribution is not funded by the City. Medicare Part B	1	0	0	0
999	reimbursement.	44	0	0	0
Blank	rembursement.	1,806	0	0	0

Total Count: 75,624

<sup>&</sup>lt;sup>1</sup> Data includes entire population provided by OLR and supplemented by the OA, including Component Units and other groups not attributable to the City for GASB45 purposes.

<sup>&</sup>lt;sup>2</sup> Rates used as of June 30, 2012, June 30, 2013, and June 30, 2014, include any known one-time Welfare Fund payments paid during the Fiscal Year following the date of the rate. Also reflected are any known retroactive increases as of their effective date. Effective rates and information on one-time payments are based on information supplied by OLR. The rate for DC37 was used for UWFs without a reported rate. Rates for Professional Staff Congress came from its website. An additional \$25 was added to each amount as of 7/1/2014, assuming that any welfare funds who have not yet negotiated the increase will do so in the future.

# Appendix B - Table 2c New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - BERS

			6/30/12	6/30/13	6/30/14
UWF	Description	Count <sup>1</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>
001	NYC MANAGEMENT WELFARE FUND	527	\$1,640	\$1,640	\$1,640
035	CORRECT OFFICRS BEN ASSOC	1	1,640	1,640	1,640
045	CWA LOCAL 1182 SEC BEN FUND	1	1,640	1,640	1,640
060	DISTRICT COUNCIL 37	11,137	1,640	1,640	1,640
075	LCL 3 IBEW ELECTR INSPECT	1	1,640	1,640	1,640
106	OSA WELF FND-SCHOOL SEC/T	8	1,640	1,640	1,640
108	ORG OF STAFF ANALYSTS	19	1,640	1,640	1,640
115	LOCAL 306 RETIR HLTH WELF	10	1,640	1,640	1,640
130	LOCAL 832 RETIREES	301	1,840	1,840	1,840
131	DISTRICT COUNCIL 37	517	1,640	1,640	1,640
135	RET CWA L1183 DOE H&W FND	1	1,753	1,753	1,753
155	LCL 1180 CWA RET BENE FND	464	1,675	1,675	1,675
162	UFT WELFARE FUND	19	1,720	1,720	1,720
163	UFT WELFARE FUND	660	1,720	1,720	1,720
164	COUNCIL OF SUPERVISORS AND ADMINISTRATION	7	1,720	1,720	1,720
165	RET WELF FND AUTO SVC WKR	2	1,640	1,640	1,640
185	NYC RET HLTH&WEL FD-NYSNA	6	1,640	1,640	1,640
235	L237 RETIREE BENE FND-CW	413	1,840	1,840	1,840
260	LCL 300 RETIREE WELF FUND	57	1,640	1,640	1,640
275	PROFESSIONAL STAFF CONGRESS	11	1,865	1,865	1,865
555	CIVILIAN, TRANSIT POLICE DEPT. NYC TRANSIT	1	1,640	1,640	1,640
700	LCL 237 RWF(L621 SUP MEC)	7	1,640	1,640	1,640
703	L237 BRCKLYR RETIREES	1	2,040	1,840	1,840
708	LOCAL 246, DEPT OF EDUCATION	3	1,640	1,640	1,640
711	LCL 3 IBEW ELECTRON WEST	1	1,640	1,640	1,640
712	LCL 3 IBEW ELCTRCN SUP HL	33	1,640	1,640	1,640
714	LCL 237 ELEV MECH RETIREE	4	1,840	1,840	1,840
717	LOCAL1969 GLAZIERS	13	1,640	1,640	1,640
720	DC37 LOCKSMITH SUPV LKSMT	4	1,540	1,540	1,540
724	RET H&W FD L3 IBEW-SUP.ME	19	1,540	1,540	1,540
727	LCL 2 CIVIL SVC PLUMBERS	40	1,640	1,640	1,640
728	LCL 1969 NYC PAINTERS	26	1,640	1,640	1,640
731	LCL 237 ROOF RETIREES	7	2,040	1,840	1,840
732	LCL237PLASTERERS RETIREES	7	2,040	1,840	1,840
738	RET WELF FND AUTO MECHNYC	26	1,640	1,640	1,640
740	RET WELF FND GEN MECHANIC	2	1,190	1,190	1,190
744	DC 37 FURNIT MAINTAINER	6	1,640	1,640	1,640
745	DC37 CYLD PRESS OPER	1	1,640	1,640	1,640
756	LCL 237 CEMENT MAS RETIRE	1	2,040	1,840	1,840
760	LOCAL 246, DEPT OF EDUCATION	9	1,640	1,640	1,640
786	DC37 CONSTRUCT LABORER	16	1,640	1,640	1,640
787	DC37 CONSTRUCTION LABORER	2	1,640	1,640	1,640
804	LCL 237 MAINT WKR RETIREE	18	1,840	1,840	1,840

# Appendix B - Table 2c New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - BERS

			6/30/12	6/30/13	6/30/14
UWF	Description	Count <sup>1</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>	Rate <sup>2</sup>
812	DC37 RADIO REPAIR MECHANI	5	1,640	1,640	1,640
820	LCL 30 STAT ENG SR ST ENG	5	1,640	1,640	1,640
823	NYC DIST.COUNCIL OF CARPS	90	1,640	1,640	1,640
826	LCL 3 IBEW SR SSTAT ENGR E	1	1,640	1,640	1,640
827	RET WEL FND SHEET MTL WKR	8	1,640	1,640	1,640
832	DC 37 HI-PRESS PLANT TEND	1	1,640	1,640	1,640
838	NYC DIST. COUNCIL OF CARP	24	1,640	1,640	1,640
839	LOCAL LODGE 5	1	860	860	860
842	LCL 638 STMFTRS HLPR SUPR	24	1,640	1,640	1,640
845	LCL 15 WELDERS FD	2	1,640	1,640	1,640
888	Either not entitled to Welfare Fund Benefits or UWF	12	0	0	0
950		1	0	0	0
999	contribution is not funded by the City. Medicare Part B	36	0	0	0
Blank	reimbursement.	380	0	0	0

Total Count: 14,999

<sup>&</sup>lt;sup>1</sup> Data includes entire population provided by OLR and supplemented by the OA, including Component Units and other groups not attributable to the City for GASB45 purposes.

<sup>&</sup>lt;sup>2</sup> Rates used as of June 30, 2012, June 30, 2013, and June 30, 2014, include any known one-time Welfare Fund payments paid during the Fiscal Year following the date of the rate. Also reflected are any known retroactive increases as of their effective date. Effective rates and information on one-time payments are based on information supplied by OLR. The rate for DC37 was used for UWFs without a reported rate. Rates for Professional Staff Congress came from its website. An additional \$25 was added to each amount as of 7/1/2014, assuming that any welfare funds who have not yet negotiated the increase will do so in the future.

# Appendix B - Table 2d New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - POLICE

			6/30/12	6/30/13	6/30/14
UWF	Description	Count	Rate <sup>1</sup>	Rate <sup>1</sup>	Rate <sup>1</sup>
001	NYC MANAGEMENT WELFARE FUND	115	\$1,640	\$1,640	\$1,640
048	DETECT END ASSN RET FUND	11,564	1,523	1,523	1,523
170	PBA (NYPD)	22,659	1,579	1,579	1,579
225	SOC NYPD LT BENEV ASSOCIATION	3,594	1,565	1,565	1,565
226	SOC NYPD CAPT ENDOW ASSOCIATION	1,367	1,565	1,565	1,565
227	SBA HLTH & WELF FND/RETIR	7,172	1,740	1,740	1,740
	PATROLEMEN'S BENEVOLENT ASSOCIATION (LINE-OF-				
777	DUTY SURVIVORS)	224	0	0	0
888		488	0	0	0
901		1	0	0	0
926		12	0	0	0
927	Either not entitled to Welfare Fund benefits or UWF	39	0	0	0
930		20	0	0	0
931	contribution is not funded by the City. Medicare Part B	1	0	0	0
948	reimbursement.	74	0	0	0
949		2	0	0	0
999		1	0	0	0
Blank		85	0	0	0

Total Count: 47,418

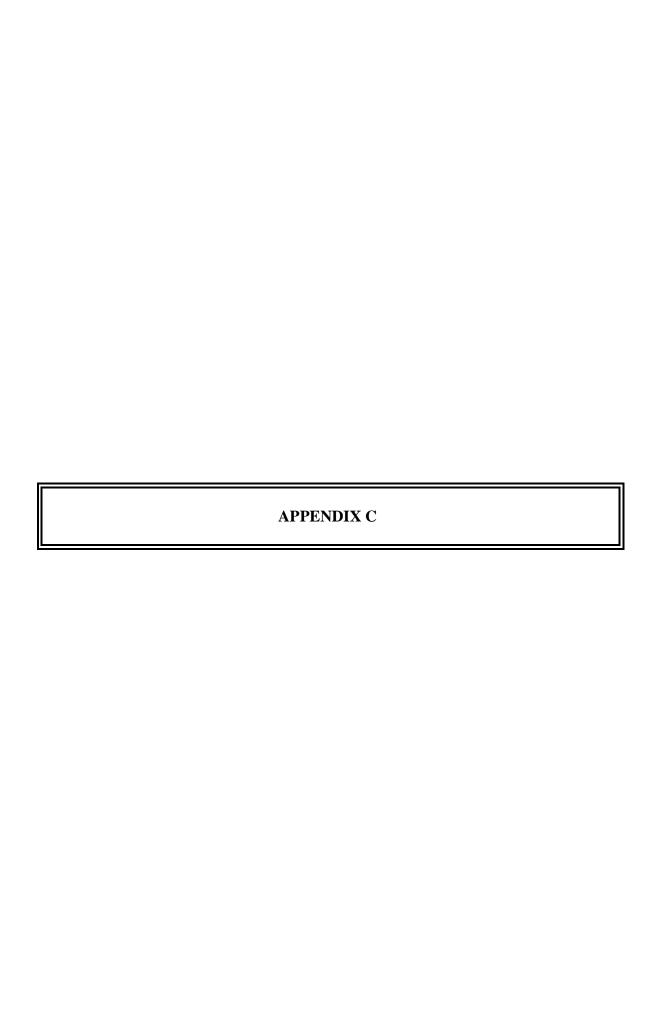
<sup>&</sup>lt;sup>1</sup> Rates used as of June 30, 2012, June 30, 2013, and June 30, 2014 include any known one-time Welfare Fund payments paid during the Fiscal Year following the date of the rate. Also reflected are any known retroactive increases as of their effective date. Effective rates and information on one-time payments are based on information supplied by OLR. The rate for DC37 was used for UWFs without a reported rate. An additional \$25 was added to each amount as of 7/1/2014, assuming that any welfare funds who have not yet negotiated the increase will do so in the future.

# Appendix B - Table 2e New York City Health Benefits Program June 30, 2014 OPEB Actuarial Valuation ANNUAL WELFARE FUND CONTRIBUTIONS - FIRE

			6/30/12	6/30/13	6/30/14
UWF	Description	Count	Rate <sup>1</sup>	Rate <sup>1</sup>	Rate <sup>1</sup>
001	NYC MANAGEMENT WELFARE FUND	72	\$1,640	\$1,640	\$1,640
060	DISTRICT COUNCIL 37	1	1,640	1,640	1,640
065	DC 37 UNIF MARINE ENGR	113	1,660	1,660	1,660
121	LCL 333 UNIFORMED WIPER	1	1,570	1,570	1,570
163	UFT WELFARE FUND	1	1,720	1,720	1,720
170	PBA (NYPD)	1	1,579	1,579	1,579
205	RETIRED FIREFIGHTERS SBF	10,351	1,720	1,720	1,720
206	RET FIREFIGHTRS SBF-WIPER	9	1,570	1,570	1,570
240	UFOA LOCAL 854 RETIREES	4,765	1,595	1,595	1,595
888		314	0	0	0
901		1	0	0	0
905	Either not entitled to Welfare Fund Benefits or UWF	331	0	0	0
940	contribution is not funded by the City. Medicare Part B	187	0	0	0
941	reimbursement.	1	0	0	0
999		1	0	0	0
Blank		53	0	0	0

Total Count: 16,202

<sup>&</sup>lt;sup>1</sup> Rates used as of June 30, 2012, June 30, 2013, and June 30, 2014 include any known one-time Welfare Fund payments paid during the Fiscal Year following the date of the rate. Also reflected are any known retroactive increases as of their effective date. Effective rates and information on one-time payments are based on information supplied by OLR. The rate for DC37 was used for UWFs without a reported rate. An additional \$25 was added to each amount as of 7/1/2014, assuming that any welfare funds who have not yet negotiated the increase will do so in the future.



#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Educational Construction Fund (ECF)**

#### **Summary of Data**

1. Actives	
a. Number	3
b. Salary	\$344,574
c. Average Age	53.01
d. Average Service	6.31
e. Average Salary	\$114,858
2. Inactives	
a. Number	0
b. Average Age	NA
c. Average Service	NA
3. Deferreds (Includes Deferred Retirees, if any)	
a. Number	1
b. Average Age	42.34
4. Retirees	
a. Total*	
i. Number	6
ii. Average Age	80.42
b. By Benefit	Participant / Spouse
i. Pre-Medicare**	0/0
ii. Medicare Eligible**	5/2
iii. Welfare Fund**	NA / NA
iv. Medicare Part B <sup>#</sup>	6/3

- \* Retirees eligible for at least one benefit from ECF.
- \*\* Retirees currently eligible for benefit from ECF.
- # Retirees eligible for benefit from ECF now or in the future.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Educational Construction Fund (ECF)

#### **Results of the Actuarial Valuation**

1. Total Present Value of Projected Benefits							
		Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
	a. Active <sup>1</sup>	\$72,298	\$591,565	\$0	\$127,858	\$126,379	\$918,100
	b. Deferred <sup>2</sup>	126,702	176,257	0	40,324	54,206	397,489
	c. Retired	<u>0</u>	<u>616,533</u>	<u>0</u>	<u>159,561</u>	<u>17,131</u>	793,225
	d. TOTAL	\$199,000	\$1,384,355	\$0	\$327,743	\$197,716	\$2,108,814
2. Ent	ry Age Actuarial Accrued Liability						
	a. Active <sup>1</sup>	\$29,136	\$233,744	\$0	\$50,529	\$49,956	\$363,365
	b. Deferred <sup>2</sup>	126,702	176,257	0	40,324	54,206	397,489
	c. Retired	<u>0</u>	616,533	<u>0</u>	<u>159,561</u>	<u>17,131</u>	793,225
	d. TOTAL	\$155,838	\$1,026,534	\$0	\$250,414	<b>\$121,293</b>	<b>\$1</b> ,554,079
3. Act	uarial Value of Assets						\$0
4. Unf	runded Actuarial Accrued Liability (UAAL)						\$1,554,079
5. Ent	ry Age Normal Cost						\$54,150
6. Sal	ary of Active Participants						\$344,574
7. Noi	rmal Cost Percentage [5. / 6.]						15.715%

<sup>&</sup>lt;sup>1</sup> Includes Total Present Value of Projected Benefits for Inactives, if any.

<sup>&</sup>lt;sup>2</sup> Includes Deferred Retirees, if any.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Educational Construction Fund (ECF)**

#### Development of the Annual Required Contribution (ARC) For the Fiscal Year Ending June 30, 2015

1. Entry Age Normal Cost at June 30, 2014	\$54,150
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>1,690,157</u>
3. Subtotal	\$1,744,307
4. Interest to June 30, 2015 at 4.0%	<u>69,772</u>
5. Annual Required Contribution (ARC)	\$1,814,079

\$1,593,433

#### **New York City Health Benefits Program**

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Educational Construction Fund (ECF)**

# Development of the Annual OPEB Cost (AOC) and Development of the Net OPEB Obligation (NOO)

#### For the Fiscal Year Ending June 30, 2015

#### 1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2014	\$1,593,433
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$54,150
ii. UAAL Amortization Payment	1,690,157
iii. Interest to End of Year	<u>69,772</u>
iv. Total	<b>\$1,814,079</b>
c. ARC Adjustment	<b>\$1</b> ,657, <b>1</b> 70
d. Interest on Net OPEB Obligation	\$63,737
e. Fiscal Year 2015 Annual OPEB Cost (AOC) (1b.iv1c.+1d.)	\$220,646

#### 2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2014

b. Fiscal Year 2015 Annual OPEB Cost (AOC)	\$220,646
c. Fiscal Year 2015 Employer Contributions	<b>\$56,139</b> *
d. Net OPEB Obligation (NOO) at June 30, 2015	<b>\$1,757,940</b>
(2a.+ 2b2c.)	

<sup>\*</sup> Employer Contributions provided by ECF.

June 30, 2014 OPEB Actuarial Valuation

**New York City Educational Construction Fund (ECF)** 

Required Supplementary Information (RSI) and Additional Note Disclosure For the Fiscal Year Ending June 30, 2015

## Required Supplementary Information Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
June 30, 2014 <sup>1</sup>	\$0	\$1,554,079	\$1,554,079	0.0%	\$344,574	451.0%
June 30, 2013 <sup>1</sup>	\$0	\$1,380,469	\$1,380,469	0.0%	\$344,574	400.6%
June 30, 2012 <sup>1</sup>	\$0	\$1,153,280	\$1,153,280	0.0%	\$373,329	308.9%
June 30, 2011 <sup>2</sup>	\$0	\$1,372,315	\$1,372,315	0.0%	\$373,329	367.6%
June 30, 2010 <sup>2</sup>	\$0	\$1,333,593	\$1,333,593	0.0%	\$373,579	357.0%
June 30, 2009 <sup>2</sup>	\$0	\$1,306,382	\$1,306,382	0.0%	\$337,908	386.6%
June 30, 2008 <sup>2</sup>	\$0	\$1,199,232	\$1,199,232	0.0%	\$332,908	360.2%
June 30, 2007 <sup>2</sup>	\$0	\$1,174,692	\$1,174,692	0.0%	\$158,408	741.6%
June 30, 2006 <sup>2</sup>	\$0	\$1,111,366	\$1,111,366	0.0%	\$158,408	701.6%
June 30, 2005 <sup>2</sup>	\$0	\$954,749	\$954,749	0.0%	\$148,770	641.8%

 $<sup>^{\</sup>mathtt{1}}$   $\;\;$  Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

## Additional Note Disclosure Annual OPEB Cost and Net OPEB Obligation

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
June 30, 2015	\$220,646	25.4%	\$1,757,940
June 30, 2014	\$274,860	21.0%	\$1,593,433
June 30, 2013	\$23,912	251.4%	\$1,376,273
June 30, 2012	\$98,634	59.3%	\$1,412,476
June 30, 2011	\$95,755	59.6%	\$1,372,315
June 30, 2010	\$156,176	27.8%	\$1,333,593
June 30, 2009	\$57,166	65.9%	\$1,220,855
June 30, 2008	\$66,593	44.8%	\$1,201,354
June 30, 2007	\$147,549	0.0%	\$1,164,573
June 30, 2006*	\$1,017,024	0.0%	\$1,017,024

<sup>\*</sup> As published.

Based on Frozen Entry Age Actuarial Cost Method.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Educational Construction Fund (ECF)**

#### **Derivation of Unfunded Actuarial Accrued Liability**

1. Unfunded Actuarial Accrued Liability at June 30, 2013	<b>\$1,380,469</b>
2. Entry Age Normal Cost at June 30, 2013	54,515
3. Interest on 1. and 2. @ 4.00%	57,399
4. Expected Employer Contributions - Fiscal Year 2014	1,651,133
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+34.)	(158,750)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2014	57,700 <sup>1</sup>
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+36.)	1,434,683
8. Actuarial (Gain) / Loss - Experience	(82,207)
9. Change in Assumptions <sup>2</sup>	201,603
10. Unfunded Actuarial Accrued Liability at June 30, 2014 (7.+8.+9.)	<b>\$1</b> ,55 <b>4</b> ,079
(11.01.01)	<b>4</b> -,00 .,0.0

<sup>&</sup>lt;sup>1</sup> Employer Contributions provided by ECF.

Pre-Retirement Mortality for Age 62 and Older, Post Retirement Mortality, Retirement Rates and Termination Rates.

<sup>&</sup>lt;sup>2</sup> Income-Related Medicare Part B Premium Increases.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Educational Construction Fund (ECF)**

#### **Schedule of Unfunded Actuarial Accrued Liability Bases**

Base	Date Established	Original Amount		Initial / Remaining Amortization Period	Jı	June 30, 2014 Balance		ne 30, 2014 mortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$	(191,245)	10-Years / 8-Years	\$	(158,750)	\$	(22,672)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2014	\$	1,593,433	1-Year / 1-Year	\$	1,593,433	\$	1,593,433
3. Actuarial (Gain) / Loss - Experience	June 30, 2014	\$	(82,207)	1-Year / 1-Year	\$	(82,207)	\$	(82,207)
4. Change in Assumptions	June 30, 2014	\$	201,603	1-Year / 1-Year	\$	201,603	\$	201,603
TOTAL		\$	1,521,584			\$1,554,079	\$	1,690,157

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Health and Hospitals Corporation (HHC)

#### **Summary of Data**

	NYCERS	TRS BER		TOTAL
1. Actives				
a. Number	32,638	0	4	32,642
b. Salary	\$2,137,760,188	\$0	\$248,156	\$2,138,008,344
c. Average Age	49.38	NA	55.00	49.38
d. Average Service	10.66	NA	16.50	10.66
e. Average Salary	\$65,499	NA	\$62,039	\$65,499
2. Inactives				
a. Number	3,692	0	0	3,692
b. Average Age	44.65	NA	NA	44.65
c. Average Service	5.63	NA	NA	5.63
3. Deferreds (Includes Deferred Retirees, if any	)			
a. Number	1,838	1	0	1,839
b. Average Age	54.20	66.00	NA	54.21
4. Retirees				
a. Total*				
i. Number	20,056	6	6	20,068
ii. Average Age	73.25	74.01	79.88	73.25
b. By Benefit				Participant / Spouse
i. Pre-Medicare**				3,299 / 1,876
ii. Medicare Eligible**				16,769 / 4,022
iii. Welfare Fund**				18,821 / NA
iv. Medicare Part B <sup>#</sup>				NR / NR

Retirees eligible for at least one benefit from HHC.

NR Benefit not the responsibility of HHC.

<sup>\*\*</sup> Retirees currently eligible for benefit from HHC.

<sup>#</sup> Retirees eligible for benefit from HHC now or in the future.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Health and Hospitals Corporation (HHC)**

#### **Results of the Actuarial Valuation**

1. Total Present Value of Projected Benefits	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active <sup>1</sup>	\$1,856,125,880	\$1,610,930,809	\$1,278,649,171	\$0	\$38,281,564	\$4,783,987,424
b. Deferred <sup>2</sup>	123,636,531	96,986,405	75,434,066	0	260,864	296,317,866
c. Retired	285,015,372	695,515,948	<u>450,306,611</u>	<u>0</u>	<u>150,448</u>	1,430,988,379
d. TOTAL	\$2,264,777,783	\$2,403,433,162	\$1,804,389,848	\$0	\$38,692,876	\$6,511,293,669
2. Entry Age Actuarial Accrued Liability						
a. Active <sup>1</sup>	\$666,154,804	\$742,694,377	\$543,192,894	\$0	\$8,715,384	\$1,960,757,459
b. Deferred <sup>2</sup>	123,636,531	96,986,405	75,434,066	0	260,864	296,317,866
c. Retired	285,015,372	695,515,948	<u>450,306,611</u>	<u>0</u>	<u>150,448</u>	1,430,988,379
d. TOTAL	\$1,074,806,707	\$1,535,196,730	\$1,068,933,571	\$0	\$9,126,696	\$3,688,063,704
3. Actuarial Value of Assets						\$0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$3,688,063,704
5. Entry Age Normal Cost						\$227,986,792
6. Salary of Active Participants						\$2,138,008,344
7. Normal Cost Percentage [5. / 6.]						10.664%

 $<sup>^{\</sup>mathbf{1}}$  Includes Total Present Value of Projected Benefits for Inactives, if any.

<sup>&</sup>lt;sup>2</sup> Includes Deferred Retirees, if any.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Health and Hospitals Corporation (HHC)**

## Development of the Annual Required Contribution (ARC) For the Fiscal Year Ending June 30, 2015

1. Entry Age Normal Cost at June 30, 2014	\$227,986,792
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	4,384,016,780
3. Subtotal	\$4,612,003,572
4. Interest to June 30, 2015 at 4.0%	<u>184,480,143</u>
5. Annual Required Contribution (ARC)	\$4,796,483,715

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Health and Hospitals Corporation (HHC)**

Development of the Annual OPEB Cost (AOC) and Development of the Net OPEB Obligation (NOO)

For the Fiscal Year Ending June 30, 2015

#### 1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2014	\$4,824,784,625
b. Annual Required Contribution (ARC)	
I. Entry Age Normal Cost	\$227,986,792
ii. UAAL Amortization Payment	4,384,016,780
iii. Interest to End of Year	<u> 184,480,143</u>
iv. Total	\$4,796,483,715
c. ARC Adjustment	\$5,017,776,010
d. Interest on Net OPEB Obligation	<b>\$192,991,385</b>
e. Fiscal Year 2015 Annual OPEB Cost (AOC) (1b.iv1c.+1d.)	(\$28,300,910)

#### 2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2014	\$4,824,784,625
b. Fiscal Year 2015 Annual OPEB Cost (AOC)	(\$28,300,910)
c. Fiscal Year 2015 PAYG Employer Contributions	\$119,949,867 *
d. Net OPEB Obligation (NOO) at June 30, 2015 (2a.+2b2c.)	\$4,676,533,848

<sup>\*</sup> Employer Contributions include amounts provided by HHC and the FY2015 Implicit Rate Subsidy.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Health and Hospitals Corporation (HHC)

Required Supplementary Information (RSI) and Additional Note Disclosure For the Fiscal Year Ending June 30, 2015

#### Required Supplementary Information Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
June 30, 2014 <sup>1</sup>	\$0	\$3,688,063,704	\$3,688,063,704	0.0%	\$2,138,008,344	172.5%
June 30, 2013 <sup>1</sup>	\$0	\$3,732,883,451	\$3,732,883,451	0.0%	\$2,105,659,504	177.3%
June 30, 2012 <sup>1</sup>	\$0	\$3,544,019,201	\$3,544,019,201	0.0%	\$2,083,348,902	170.1%
June 30, 2011 <sup>2</sup>	\$0	\$4,234,109,641	\$4,234,109,641	0.0%	\$2,026,170,345	209.0%
June 30, 2010 <sup>2</sup>	\$0	\$3,984,256,215	\$3,984,256,215	0.0%	\$2,043,062,682	195.0%
June 30, 2009 <sup>2</sup>	\$0	\$3,464,071,831	\$3,464,071,831	0.0%	\$1,989,955,487	174.1%
June 30, 2008 <sup>2</sup>	\$0	\$3,010,302,429	\$3,010,302,429	0.0%	\$1,830,957,842	164.4%
June 30, 2007 <sup>2</sup>	\$0	\$2,722,879,773	\$2,722,879,773	0.0%	\$1,741,623,721	156.3%
June 30, 2006 <sup>2</sup>	\$0	\$2,418,075,620	\$2,418,075,620	0.0%	\$1,610,130,192	150.2%
June 30, 2005 <sup>2</sup>	\$0	\$2,019,525,531	\$2,019,525,531	0.0%	\$1,521,870,266	132.7%

Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

## Additional Note Disclosure Annual OPEB Cost and Net OPEB Obligation

Fiscal Year Ended	Annual OPEB Cost	Percentage of OPEB Cost Contributed	Net OPEB Obligation
June 30, 2015	(\$28,300,910)	ND <sup>1</sup>	\$4,676,533,848
June 30, 2014	\$221,539,466	54.3%	\$4,824,784,625
June 30, 2013	\$314,956,434	36.0%	\$4,723,533,633
June 30, 2012	\$319,164,228	34.5%	\$4,521,852,936
June 30, 2011	\$636,600,580	16.6%	\$4,312,816,427
June 30, 2010	\$617,623,160	16.1%	\$3,781,633,121
June 30, 2009	\$359,891,470	28.7% ²	\$3,263,573,474
June 30, 2008	\$428,212,562	17.5%	\$3,007,038,589
June 30, 2007	\$396,996,705	18.8%	\$2,653,902,496
June 30, 2006	\$2,398,590,675	2.8%	\$2,331,404,675

Not Determined due to the Annual OPEB Cost being less than Zero.

Based on Frozen Entry Age Actuarial Cost Method.

Includes cumulative adjustment for approximate Implicit Rate Subsidy amounts for Fiscal Years ending 6/30/06, 6/30/07 and 6/30/08.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Health and Hospitals Corporation (HHC)**

#### **Derivation of Unfunded Actuarial Accrued Liability**

1.	Unfunded Actuarial Accrued Liability at June 30, 2013	3,732,883,451
2.	Entry Age Normal Cost at June 30, 2013	241,316,117
3.	Interest on 1. and 2. @ 4.00%	158,967,983
4.	Expected Employer Contributions - Fiscal Year 2014	4,945,073,099
5.	Expected Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+34.)	(811,905,548)
6.	Actual (PAYG) Employer Contributions - Fiscal Year 2014	120,288,474 <sup>1</sup>
7.	Preliminary Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+36.)	4,012,879,077
8.	Actuarial (Gain) / Loss - Experience	(214,114,151)
9.	Change In Assumptions <sup>2</sup>	(110,701,222)
10.	Unfunded Actuarial Accrued Liability at June 30, 2014 (7.+8.+9.)	3,688,063,704

<sup>&</sup>lt;sup>1</sup> Employer Contributions provided by HHC and the FY2014 Implicit Rate Subsidy.

<sup>&</sup>lt;sup>2</sup> Income-Related Medicare Part B Premium Increases. Welfare Fund Rates 2015-2018 Inclusive.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Health and Hospitals Corporation (HHC)

#### Schedule of Unfunded Actuarial Accrued Liability Bases

Base	Date Established	Original Amount	Initial / Remaining Amortization Period	June 30, 2014 Balance	June 30, 2014 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (978,097,552)	10-Years / 8-Years	\$ (811,905,548)	\$ (115,952,472)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2014	\$ 4,824,784,625	1-Year / 1-Year	\$ 4,824,784,625	\$ 4,824,784,625
3. Actuarial (Gain) / Loss - Experience	June 30, 2014	\$ (214,114,151)	1-Year / 1-Year	\$ (214,114,151)	\$ (214,114,151)
4. Change in Assumptions	June 30, 2014	\$ (110,701,222)	1-Year / 1-Year	\$ (110,701,222)	\$ (110,701,222)
TOTAL		\$ 3,521,871,700		\$3,688,063,704	\$ 4,384,016,780

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Housing Authority (NYCHA)

#### **Summary of Data**

NYCERS	TRS	BERS	TOTAL
10,334	1	36	10,371
\$634,160,099	\$85,908	\$2,494,007	\$636,740,014
47.98	66.00	52.11	48.00
14.55	27.00	16.00	14.56
\$61,366	\$85,908	\$69,278	\$61,396
1,040	0	8	1,048
44.71	NA	49.38	44.75
8.94	NA	6.25	8.92
667	0	0	667
53.97	NA	NA	53.97
8,586	3	15	8,604
71.02	80.57	70.34	71.02
			Participant / Spouse
			1,974 / 1,386
			5,699 / 1,962
			7,323 / NA
			8,604 / 3,913
	10,334 \$634,160,099 47.98 14.55 \$61,366 1,040 44.71 8.94 667 53.97	10,334 1 1 \$634,160,099 \$85,908 47.98 66.00 14.55 27.00 \$61,366 \$85,908 1,040 0 44.71 NA 8.94 NA 667 0 53.97 NA	10,334 1 36 \$634,160,099 \$85,908 \$2,494,007 47.98 66.00 52.11 14.55 27.00 16.00 \$61,366 \$85,908 \$69,278  1,040 0 8 44.71 NA 49.38 8.94 NA 6.25  667 0 0 53.97 NA NA  8,586 3 15

<sup>\*</sup> Retirees eligible for at least one benefit from NYCHA.

<sup>\*\*</sup> Retirees currently eligible for benefit from NYCHA.

<sup>#</sup> Retirees eligible for benefit from NYCHA now or in the future.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Housing Authority (NYCHA)

#### **Results of the Actuarial Valuation**

1. Actuarial Present Value of Benefits						
	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active <sup>1</sup>	\$843,729,918	\$553,166,718	\$422,813,814	\$347,102,343	\$18,399,553	\$2,185,212,346
b. Deferred <sup>2</sup>	54,150,435	36,284,574	26,248,513	22,850,233	133,874	139,667,629
c. Retired	223,205,441	291,199,547	196,650,970	199,032,434	109,296	910,197,688
d. TOTAL	\$1,121,085,794	\$880,650,839	\$645,713,297	\$568,985,010	\$18,642,723	\$3,235,077,663
2. Entry Age Actuarial Accrued Liability						
a. Active <sup>1</sup>	\$343,993,644	\$271,552,767	\$189,366,376	\$170,054,247	\$4,332,273	\$979,299,307
b. Deferred <sup>2</sup>	54,150,435	36,284,574	26,248,513	22,850,233	133,874	139,667,629
c. Retired	223,205,441	291,199,547	196,650,970	199,032,434	109,296	910,197,688
d. TOTAL	\$621,349,520	\$599,036,888	\$412,265,859	\$391,936,914	\$4,575,443	\$2,029,164,624
3. Actuarial Value of Assets						\$0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$2,029,164,624
5. Entry Age Normal Cost						\$93,536,110
6. Salary of Active Participants						\$636,740,014
7. Normal Cost Percentage [5. / 6.]						14.690%

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  Includes Actuarial Present Value of Benefits for Inactives, if any.

<sup>&</sup>lt;sup>2</sup> Includes Deferred Retirees, if any.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City School Construction Authority (SCA)**

#### **Summary of Data**

	NYCERS	BERS	TOTAL
1. Actives			
a. Number	56	557	613
b. Salary	\$6,017,071	\$54,110,222	\$60,127,293
c. Average Age	53.64	52.13	52.27
d. Average Service	19.71	11.44	12.20
e. Average Salary	\$107,448	\$97,146	\$98,087
2. Inactives			
a. Number	3	30	33
b. Average Age	53.33	50.57	50.82
c. Average Service	11.33	6.97	7.37
3. Deferreds (Includes Deferred Retirees, if any)			
a. Number	9	3	12
b. Average Age	55.22	53.33	54.75
4. Retirees			
a. Total*			
i. Number	40	189	229
ii. Average Age	70.03	72.32	71.92
<ul> <li>b. By Benefit</li> <li>i. Pre-Medicare**</li> <li>ii. Medicare Eligible**</li> <li>iii. Welfare Fund**</li> <li>iv. Medicare Part B*</li> </ul>			Participant / Spouse NR / NR NR / NR 229 / NA NR / NR

<sup>\*</sup> Retirees eligible for at least one benefit from SCA.

NR Benefit not the responsibility of SCA.

<sup>\*\*</sup> Retirees currently eligible for benefit from SCA.

<sup>#</sup> Retirees eligible for benefit from SCA now or in the future.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City School Construction Authority (SCA)

#### **Results of the Actuarial Valuation**

1. Total Present Value of Projected Benefits	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active <sup>1</sup>	\$0	\$0	\$21,463,905	\$0	\$0	\$21,463,905
b. Deferred <sup>2</sup>	0	0	476,205	0	0	476,205
c. Retired	<u>0</u>	<u>0</u>	5,850,214	<u>0</u>	<u>0</u>	5,850,214
d. TOTAL	<b>\$</b> 0	\$0	\$27,790,324	\$0	<b>\$</b> 0	\$27,790,324
2. Entry Age Actuarial Accrued Liability						
a. Active <sup>1</sup>	\$0	\$0	\$10,389,408	\$0	\$0	\$10,389,408
b. Deferred <sup>2</sup>	0	0	476,205	0	0	476,205
c. Retired	<u>0</u>	<u>0</u>	<u>5,850,214</u>	<u>0</u>	<u>0</u>	<u>5,850,214</u>
d. TOTAL	\$0	\$0	\$16,715,827	\$0	\$0	\$16,715,827
3. Actuarial Value of Assets						\$0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$16,715,827
5. Entry Age Normal Cost						\$1,028,883
6. Salary of Active Participants						\$60,127,293
7. Normal Cost Percentage [5. / 6.]						1.711%

 $<sup>^{\</sup>mathbf{1}}$  Includes Total Present Value of Projected Benefits for Inactives, if any.

<sup>&</sup>lt;sup>2</sup> Includes Deferred Retirees, if any.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City School Construction Authority (SCA)**

#### Development of the Annual Required Contribution (ARC) For the Fiscal Year Ending June 30, 2015

1. Entry Age Normal Cost at June 30, 2014	\$1,028,883
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	23,047,813
3. Subtotal	\$24,076,696
4. Interest to June 30, 2015 at 4.0%	963,068
5. Annual Required Contribution (ARC)	\$25,039,764

(\$1,767,440)

\$24,619,407

\$420,357 \*

#### **New York City Health Benefits Program**

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City School Construction Authority (SCA)**

# Development of the Annual OPEB Cost (AOC) and Development of the Net OPEB Obligation (NOO)

#### For the Fiscal Year Ending June 30, 2015

#### 1. Annual OPEB Cost (AOC)

I. Almaai of Eb oost (Aoo)	
a. Net OPEB Obligation at June 30, 2014	\$26,807,204
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$1,028,883
ii. UAAL Amortization Payment	23,047,813
iii. Interest to End of Year	963,068
iv. Total	\$25,039,764
TVI TOTAL	420,000,104
c. ARC Adjustment	\$27,879,492
d. Interest on Net OPEB Obligation	<b>\$1,072,288</b>
e. Fiscal Year 2015 Annual OPEB Cost (AOC) (1b.iv1c.+1d.)	(\$1,767,440)
2. Net OPEB Obligation (NOO)	
a. Net OPEB Obligation at June 30, 2014	\$26,807,204

b. Fiscal Year 2015 Annual OPEB Cost (AOC)

c. Fiscal Year 2015 Employer Contributions

(2a.+ 2b.-2c.)

d. Net OPEB Obligation (NOO) at June 30, 2015

<sup>\*</sup> Employer Contributions provided by SCA.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City School Construction Authority (SCA)

Required Supplementary Information (RSI) and Additional Note Disclosure For the Fiscal Year Ending June 30, 2015

#### Required Supplementary Information Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
June 30, 2014 <sup>1</sup>	\$0	\$16,715,827	\$16,715,827	0.0%	\$60,127,293	27.8%
June 30, 2013 <sup>1</sup>	\$0	\$17,899,625	\$17,899,625	0.0%	\$58,362,537	30.7%
June 30, 2012 <sup>1</sup>	\$0	\$16,826,855	\$16,826,855	0.0%	\$60,120,590	28.0%
June 30, 2011 <sup>2</sup>	\$0	\$24,365,855	\$24,365,855	0.0%	\$58,348,442	41.8%
June 30, 2010 <sup>2</sup>	\$0	\$22,158,714	\$22,158,714	0.0%	\$58,293,409	38.0%
June 30, 2009 <sup>2</sup>	\$0	\$19,569,767	\$19,569,767	0.0%	\$56,771,493	34.5%
June 30, 2008 <sup>2</sup>	\$0	\$18,369,464	\$18,369,464	0.0%	\$49,129,270	37.4%
June 30, 2007 <sup>2</sup>	\$0	\$17,352,451	\$17,352,451	0.0%	\$40,937,457	42.4%
June 30, 2006 <sup>2</sup>	\$0	\$16,039,618	\$16,039,618	0.0%	\$36,506,304	43.9%
June 30, 2005 <sup>2,3</sup>	\$0	\$9,936,653	\$9,936,653	0.0%	\$33,827,738	29.4%

- Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.
- Based on Frozen Entry Age Actuarial Cost Method.
- Provided by SCA on July 24, 2007.

## Additional Note Disclosure Annual OPEB Cost and Net OPEB Obligation

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
June 30, 2015	(\$1,767,440)	ND <sup>1</sup>	\$24,619,407
June 30, 2014	\$625,260	62.1%	\$26,807,204
June 30, 2013	<b>\$1,198,193</b>	29.5%	\$26,570,496
June 30, 2012	\$2,568,768	13.1%	\$25,725,875
June 30, 2011	\$3,019,804	10.0%	\$23,492,627
June 30, 2010	\$1,523,772	20.9%	\$20,774,586
June 30, 2009	\$1,473,093	18.5%	\$19,569,767
June 30, 2008	\$1,292,276	21.3%	\$18,369,464
June 30, 2007	\$6,270,529	0.0%	\$17,352,451
June 30, 2006	\$11,081,922	0.0%	\$11,081,922

Not Determined due to the Annual OPEB Cost being less than Zero.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City School Construction Authority (SCA)**

#### **Derivation of Unfunded Actuarial Accrued Liability**

1. Unfunded Actuarial Accrued Liability at June 30, 2013	\$17,899,625
2. Entry Age Normal Cost at June 30, 2013	1,147,298
3. Interest on 1. and 2. @ 4.00%	761,877
4. Expected Employer Contributions - Fiscal Year 2014	27,195,756
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+34.)	(7,386,956)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2014	388,552 <sup>1</sup>
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+36.)	19,420,248
8. Actuarial (Gain) / Loss - Experience	(961,234)
9. Change in Assumptions <sup>2</sup>	(1,743,187)
10. Unfunded Actuarial Accrued Liability at June 30, 2014 (7.+8.+9.)	<b>\$16,715,827</b>

<sup>&</sup>lt;sup>1</sup> Employer Contributions provided by SCA.

<sup>&</sup>lt;sup>2</sup> Income-Related Medicare Part B Premium Increases. Welfare Fund Rates 2015-2018 Inclusive.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City School Construction Authority (SCA)

#### **Schedule of Unfunded Actuarial Accrued Liability Bases**

Base	Date Established	Original Amount	Initial / Remaining Amortization Period	June 30, 2014 Balance	June 30, 2014 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (8,899,020)	10-Years / 8-Years	\$ (7,386,956)	\$ (1,054,970)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2014	\$ 26,807,204	1-Year / 1-Year	\$ 26,807,204	\$ 26,807,204
3. Actuarial (Gain) / Loss - Experience	June 30, 2014	\$ (961,234)	1-Year / 1-Year	\$ (961,234)	\$ (961,234)
4. Change in Assumptions	June 30, 2014	\$ (1,743,187)	1-Year / 1-Year	\$ (1,743,187)	\$ (1,743,187)
TOTAL		\$ 15,203,763		\$16,715,827	\$ 23,047,813

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Municipal Water Finance Authority (WFA)**

#### **Summary of Data**

	NYCERS	BERS	TOTAL
1. Actives			
a. Number	14	0	14
b. Salary	<b>\$1,213,165</b>	NA	\$1,213,165
c. Average Age	43.79	NA	43.79
d. Average Service	6.43	NA	6.43
e. Average Salary	\$86,655	NA	\$86,655
2. Inactives			
a. Number	1	0	1
b. Average Age	34.00	NA	34.00
c. Average Service	1.00	NA	1.00
3. Deferreds (Includes Deferred Retirees, if any)			
a. Number	0	0	0
b. Average Age	NA	NA	NA
4. Retirees			
a. Total*			
i. Number	2	1	3
ii. Average Age	71.83	70.81	71.49
b. By Benefit			Participant / Spouse
i. Pre-Medicare**			N/A / NA
ii. Medicare Eligible**			3/1
iii. Welfare Fund**			3 / NA
iv. Medicare Part B <sup>#</sup>			NR / NR

- \* Retirees eligible for at least one benefit from WFA.
- \*\* Retirees currently eligible for benefit from WFA.
- # Retirees eligible for benefit from WFA now or in the future.
- NR Benefit not the responsibility of WFA.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Municipal Water Finance Authority (WFA)

#### **Results of the Actuarial Valuation**

1. Total Present Value of Projected Benefits	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active <sup>1</sup>	\$1,045,558	\$714,123	\$572,654	\$0	\$18,511	\$2,350,846
b. Deferred <sup>2</sup>	0	0	0	0	0	0
c. Retired	<u>0</u>	67,179	<u>78,150</u>	<u>0</u>	<u>10</u>	<u>145,339</u>
d. TOTAL	\$1,045,558	\$781,302	\$650,804	\$0	<b>\$18,521</b>	\$2,496,185
2. Entry Age Actuarial Accrued Liability						
a. Active <sup>1</sup>	\$287,839	\$240,903	\$178,333	\$0	\$3,143	\$710,218
b. Deferred <sup>2</sup>	0	0	0	0	0	0
c. Retired	<u>0</u>	<u>67,179</u>	<u>78,150</u>	<u>0</u>	<u>10</u>	<u>145,339</u>
d. TOTAL	\$287,839	\$308,082	\$256,483	\$0	\$3,153	\$855,557
3. Actuarial Value of Assets						<b>\$</b> 0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$855,557
5. Entry Age Normal Cost						\$106,881
6. Salary of Active Participants						\$1,213,165
7. Normal Cost Percentage [5. / 6.]						8.810%

 $<sup>^{\</sup>mathbf{1}}$  Includes Total Present Value of Projected Benefits for Inactives, if any.

<sup>&</sup>lt;sup>2</sup> Includes Deferred Retirees, if any.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Municipal Water Finance Authority (WFA)**

#### Development of the Annual Required Contribution (ARC) For the Fiscal Year Ending June 30, 2015

1. Entry Age Normal Cost at June 30, 2014	\$106,881
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>856,989</u>
3. Subtotal	\$963,870
4. Interest to June 30, 2015 at 4.0%	<u>38,555</u>
5. Annual Required Contribution (ARC)	<b>\$1,002,425</b>

\$950,812

#### **New York City Health Benefits Program**

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Municipal Water Finance Authority (WFA)**

# Development of the Annual OPEB Cost (AOC) and Development of the Net OPEB Obligation (NOO)

#### For the Fiscal Year Ending June 30, 2015

#### 1. Annual OPEB Cost (AOC)

• •	
a. Net OPEB Obligation at June 30, 2014	\$950,812
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$106,881
ii. UAAL Amortization Payment	856,989
iii. Interest to End of Year	<u>38,555</u>
iv. Total	\$1,002,425
c. ARC Adjustment	\$988,844
d. Interest on Net OPEB Obligation	\$38,032
e. Fiscal Year 2015 Annual OPEB Cost (AOC) (1b.iv1c.+1d.)	\$51,613

#### 2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2014

b. Fiscal Year 2015 Annual OPEB Cost (AOC)	<b>\$51,613</b>
c. Fiscal Year 2015 Employer Contributions	<b>\$13,832</b> *
d. Net OPEB Obligation (NOO) at June 30, 2015	\$988,593
(2a.+ 2b2c.)	

<sup>\*</sup> Employer Contributions provided by WFA.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Municipal Water Finance Authority (WFA)

Required Supplementary Information (RSI) and Additional Note Disclosure For the Fiscal Year Ending June 30, 2015

#### Required Supplementary Information Schedule of Funding Progress

Actuariai Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
June 30, 2014 <sup>1</sup>	\$0	\$855,557	\$855,557	0.0%	\$1,213,165	70.5%
June 30, 2013 <sup>1</sup>	\$0	\$819,390	\$819,390	0.0%	\$1,107,246	74.0%
June 30, 2012 <sup>1</sup>	\$0	\$793,124	\$793,124	0.0%	\$1,063,872	74.6%
June 30, 2011 <sup>2</sup>	\$0	\$662,361	\$662,361	0.0%	\$918,579	72.1%
June 30, 2010 <sup>2</sup>	\$0	\$562,510	\$562,510	0.0%	\$1,026,437	54.8%
June 30, 2009 <sup>2</sup>	\$0	\$430,799	\$430,799	0.0%	\$675,808	63.7%
June 30, 2008 <sup>2</sup>	\$0	\$317,005	\$317,005	0.0%	\$728,732	43.5%
June 30, 2007 <sup>2</sup>	\$0	\$242,193	\$242,193	0.0%	\$486,052	49.8%
June 30, 2006 <sup>2</sup>	\$0	\$172,974	\$172,974	0.0%	\$306,155	56.5%
June 30, 2005 <sup>2</sup>	\$0	\$308,348	\$308,348	0.0%	\$1,041,223	29.6%

Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

## Additional Note Disclosure Annual OPEB Cost and Net OPEB Obligation

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
June 30, 2015	\$51,613	26.8%	\$988,593
June 30, 2014	\$41,314	27.3%	\$950,812
June 30, 2013	\$144,665	9.5%	\$920,759
June 30, 2012	\$99,259	8.8%	\$789,801
June 30, 2011	\$171,309	3.3%	\$699,268
June 30, 2010	\$143,130	3.1%	\$533,688
June 30, 2009	\$86,374	8.6%	\$395,026
June 30, 2008	\$87,656	1.1%	\$316,060
June 30, 2007	(\$168,612)	0.0%	\$229,398
June 30, 2006*	\$398,010	0.0%	\$398,010

<sup>\*</sup> As published.

Based on Frozen Entry Age Actuarial Cost Method.

#### June 30, 2014 OPEB Actuarial Valuation

#### **New York City Municipal Water Finance Authority (WFA)**

#### **Derivation of Unfunded Actuarial Accrued Liability**

1	. Unfunded Actuarial Accrued Liability at June 30, 2013	\$819,390
2	. Entry Age Normal Cost at June 30, 2013	104,074
3	. Interest on 1. and 2. @ 4.00%	36,939
4	. Expected Employer Contributions - Fiscal Year 2014	962,073
5	Expected Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+34.)	(1,670)
6	. Actual (PAYG) Employer Contributions - Fiscal Year 2014	11,261 <sup>1</sup>
7	. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+36.)	949,142
8	. Actuarial (Gain) / Loss - Experience	(66,510)
9	. Change in Assumptions <sup>2</sup>	(27,075)
10	. Unfunded Actuarial Accrued Liability at June 30, 2014 (7.+8.+9.)	855,557

<sup>&</sup>lt;sup>1</sup> Employer Contributions provided by WFA.

<sup>&</sup>lt;sup>2</sup> Income-Related Medicare Part B Premium Increases. Welfare Fund Rates 2015-2018 Inclusive.

#### June 30, 2014 OPEB Actuarial Valuation

#### New York City Municipal Water Finance Authority (WFA)

#### Schedule of Unfunded Actuarial Accrued Liability Bases

Base	Date Established	Original Amount	Initial / Remaining Amortization Period	June 30, 2014 Balance	une 30, 2014 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (2,011)	10-Years / 8-Years	\$ (1,670)	\$ (238)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2014	\$ 950,812	1-Year / 1-Year	\$ 950,812	\$ 950,812
3. Actuarial (Gain) / Loss - Experience	June 30, 2014	\$ (66,510)	1-Year / 1-Year	\$ (66,510)	\$ (66,510)
4. Change in Assumptions	June 30, 2014	\$ (27,075)	1-Year / 1-Year	\$ (27,075)	\$ (27,075)
TOTAL		\$ 855,216		\$855,557	\$ 856,989

# June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units) Summary of Data

#### By System Not Including Component Units <sup>1</sup>

	NYCERS	TRS	BERS	POLICE	FIRE	NYCRS TOTAL
1. Actives	MIOLIO	111.5	DENO	1 OLIOL	11116	MIONS IOIAL
a. Number	97,859	108,181	24,573	34,402	10.319	275.334
b. Salary	\$6,622,910,231	\$8,084,833,045	\$983,765,710	\$3,618,095,284	\$1,150,389,645	\$20,459,993,915
c. Average Age	46.75	43.96	50.63	37.62	41.23	44.65
d. Average Age	12.33	11.35	9.57	11.61	14.62	11.69
e. Average Salary	\$67,678	\$74,734	\$40,034	\$105,171	\$111,483	\$74,310
c. Average calary	Ψ01,010	Ψ14,104	Ψ10,001	Ψ100,171	Ψ222,400	Ψ14,0 <u>1</u> 0
2. Inactives						
a. Number	8,889	8,474	3,966	1,369	16	22,714
b. Average Age	43.23	45.44	48.13	36.92	37.38	44.53
c. Average Service	7.19	11.64	5.88	2.89	10.25	8.36
3. Deferreds (Includes Deferred Re	atirees if any)					
a. Number	5.292	8,557	183	522	35	14,589
b. Average Age	54.05	50.88	57.62	41.97	44.83	51.78
b. Average Age	54.05	50.66	57.02	41.97	44.63	51.76
4. Retirees						
a. Total <sup>3</sup>						
i. Number	68,231	73,672	14,755	47,418	16,202	220,278
ii. Average Age	69.85	72.47	74.18	61.01	66.51	68.87
	B .: / 0	D :::		D .:	D .:	D ::: : / 0
b. By Benefit*	Participant / Spouse	Participant / Spouse		Participant / Spouse	Participant / Spouse	Participant / Spouse
i. Pre-Medicare**	20,204 / 13,335	13,152 / 6,029	2,214 / 990	27,919 / 21,321	6,845 / 6,486	70,334 / 48,161
ii. Medicare Eligible**	48,069 / 15,766	60,520 / 17,798	12,730 / 4,137	19,499 / 10,854	9,357 / 5,365	150,175 / 53,920
iii. Welfare Fund**	67,523 / NA	71,808 / NA	14,349 / NA	46,471 / NA	15,314 / NA	215,465 / NA
iv. Medicare Part B#	89,647 / 35,253	75,621 / 24,706	14,982 / 5,097	47,418 / 32,175	16,202 / 11,851	243,870 / 109,082
	TIAA	LODW				GRAND TOTAL
1. Actives						
a. Number	2,348	0				277,682
b. Salary	\$192,315,786	0				\$20,652,309,701
c. Average Age	50.67	NA				44.70
d. Average Service	14.24	NA				11.71
e. Average Salary	\$81,906	NA				\$74,374
O Impositions						
2. Inactives	440	•				00.000
a. Number	116	0				22,830
b. Average Age	57.92	NA				44.60
c. Average Service	20.43	NA				8.42
3. Deferreds (Includes Deferred Re	etirees, if any)					
a. Number	85 <sup>2</sup>	0				14,674
b. Average Age	54.86	NA				51.80
4. Retirees						
a. Total						
i. Number	742	769				221.789
ii. Average Age	75.44	78.87				68.93
b. By Benefit*	Participant / Spouse	Participant / Spouse				Participant / Spouse
i. Pre-Medicare**	29 / 56	52 / 0				70,415 / 48,217
ii. Medicare Eligible**	713 / 263	717 / 8				151,605 / 54,191
iii. Welfare Fund**	742 / NA	NA / NA				216,207 / NA
iv. Medicare Part B#	2,607 / 1,152	769 / 8				247,246 / 110,242

City results also include Medicare Part B coverage for 47,754 actives, 4,894 inactives, 26,388 retirees and 2,278 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 613 actives, 33 inactives, 1,162 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,048 actives, 503 inactives, 3,027 retirees and 77 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

Estimate due to lack of data.

<sup>&</sup>lt;sup>3</sup> Retirees eligible for receipt of Health Insurance, excluding Component Units.

<sup>\*</sup> Includes Component Unit participants with City-provided benefits.

<sup>\*\*</sup> Retirees currently eligible for benefit.

<sup>\*</sup> Retirees eligible for benefit now or in the future.

## June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units) Results of the Actuarial Valuation

1. Actuarial Present Value of Pr	rojected Benefits <sup>1</sup> Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
	Fre-Medicare	Medicare	Wellare rullus	rait & Freiiliuiii	Caullac Tax	Total
a. Active <sup>2</sup>	\$33,004,982,136	\$17,068,250,002	\$13,410,110,643	\$12,035,360,762	\$1,177,664,491	\$76,696,368,034
b. Deferred <sup>3</sup>	1,834,560,264	924,442,457	776,059,088	656,323,463	10,883,716	\$4,202,268,988
c. Retired	12,662,697,885	9,969,276,799	6,827,095,649	6,574,686,938	12,535,252	<u>\$36,046,292,523</u>
d. TOTAL	\$47,502,240,285	\$27,961,969,258	\$21,013,265,380	\$19,266,371,163	\$1,201,083,459	<b>\$116,944,929,545</b>
2. Entry Age Actuarial Accrued	Liability					
a. Active <sup>2</sup>	\$12,120,683,402	\$7,227,970,688	\$5,376,332,562	\$5,138,410,801	\$251,372,916	\$30,114,770,369
b. Deferred <sup>3</sup>	1,834,560,264	924,442,457	776,059,088	656,323,463	10,883,716	\$4,202,268,988
c. Retired	12,662,697,885	9,969,276,799	6,827,095,649	6,574,686,938	12,535,252	<u>\$36,046,292,523</u>
d. TOTAL	\$26,617,941,551	\$18,121,689,944	\$12,979,487,299	\$12,369,421,202	\$274,791,884	\$70,363,331,880
3. Actuarial Value of Assets						<b>\$2,378,143,692</b>
						<b>,_,</b> _,_,_,_
4. Unfunded Actuarial Accrued	Liability (UAAL) [2d 3.]					\$67,985,188,188
5. Entry Age Normal Cost						\$3,454,097,115
6. Salary of Active Participants						\$20,652,309,701
7. Normal Cost Percentage [5. / 6.]						16.725%

<sup>&</sup>lt;sup>1</sup> City results also include Medicare Part B coverage for 47,754 actives, 4,894 inactives, 26,388 retirees and 2,278 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 613 actives, 33 inactives, 1,162 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,048 actives, 503 inactives, 3,027 retirees and 77 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

 $<sup>^{\</sup>rm 2}\,$  Includes Actuarial Present Value of Projected Benefits for Inactives, if any.

<sup>&</sup>lt;sup>3</sup> Includes Deferred Retirees, if any.

# June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units) Development of the Annual Required Contribution (ARC) For the Fiscal Year Ending June 30, 2015

1. Entry Age Normal Cost at June 30, 2014	\$3,454,097,115
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>81,732,510,425</u>
3. Subtotal	\$85,186,607,540
4. Interest to June 30, 2015 at 4.0%	3,407,464,302
5. Annual Required Contribution (ARC)	\$88,594,071,842

\$89,456,721,543

#### **New York City Health Benefits Program**

# June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units) Development of the Annual OPEB Cost (AOC) and Development of the Net OPEB Obligation (NOO)

#### For the Fiscal Year Ending June 30, 2015

#### 1. Annual OPEB Cost (AOC)

a. Net OPER Obligation at June 30, 2014

a. Net OPED Obligation at Julie 30, 2014	<del>Ф</del> 89,490,721,943
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$3,454,097,115
ii. UAAL Amortization Payment	81,732,510,425
iii. Interest to End of Year	<u>3,407,464,302</u>
iv. Total	\$88,594,071,842
c. ARC Adjustment	\$93,034,990,405
d. Interest on Net OPEB Obligation	\$3,578,268,862
e. Fiscal Year 2015 Annual OPEB Cost (AOC) (1b.iv1c.+1d.)	(\$862,649,701)

#### 2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2014	\$89,456,721,543
b. Fiscal Year 2015 Annual OPEB Cost (AOC)	(\$862,649,701)
c. Fiscal Year 2015 Employer Contributions	\$3,135,896,706 <sup>1</sup>
d. Net OPEB Obligation (NOO) at June 30, 2015 (2a.+2b2c.)	\$85,458,175,136

Employer Contributions include amounts provided by OMB including the effect of non-trust activity for Fiscal Year 2015.

## June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units)

Required Supplementary Information (RSI) and Additional Note Disclosure For the Fiscal Year Ending June 30, 2015

### Required Supplementary Information Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
June 30, 2014 <sup>1</sup>	\$2,378,143,692	\$70,363,331,880	\$67,985,188,188	3.4%	\$20,652,309,701	329.2%
June 30, 2013 <sup>1</sup>	\$1,363,072,931	\$71,319,105,968	\$69,956,033,037	1.9%	\$20,193,923,609	346.4%
June 30, 2012 <sup>1</sup>	\$2,115,846,394	\$71,399,272,700	\$69,283,426,306	3.0%	\$20,202,358,642	342.9%
June 30, 2011 <sup>2</sup>	\$2,631,584,347	\$85,945,756,187	\$83,314,171,840	3.1%	\$19,854,039,496	419.6%
June 30, 2010 <sup>2</sup>	\$3,022,624,061	\$82,040,359,975	\$79,017,735,914	3.7%	\$19,672,460,069	401.7%
June 30, 2009 <sup>2</sup>	\$3,103,186,200	\$73,653,281,314	\$70,550,095,114	4.2%	\$19,412,072,236	363.4%
June 30, 2008 <sup>2</sup>	\$3,186,139,468	\$65,144,934,748	\$61,958,795,280	4.9%	\$18,672,219,289	331.8%
June 30, 2007 <sup>2</sup>	\$2,594,451,907	\$62,116,926,083	\$59,522,474,176	4.2%	\$17,314,779,336	343.8%
June 30, 2006 <sup>2</sup>	\$1,001,331,648	\$56,060,000,324	\$55,058,668,676	1.8%	\$16,510,165,373	333.5%
June 30, 2005 <sup>2</sup>	\$0	\$50,523,014,097	\$50,523,014,097	0.0%	\$15,703,554,657	321.7%

 $<sup>^{\</sup>mbox{\scriptsize 1}}$   $\,$  Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

### Additional Note Disclosure Annual OPEB Cost and Net OPEB Obligation <sup>1</sup>

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
June 30, 2015	(\$864,196,495)	ND <sup>2</sup>	\$85,484,552,483
June 30, 2014	\$78,551,000	3,965.3% <sup>3</sup>	\$89,485,122,000
June 30, 2013	\$5,542,845,000	21.6% <sup>3</sup>	\$92,521,346,000
June 30, 2012	\$5,707,001,000	25.2% <sup>3</sup>	\$88,174,139,000
June 30, 2011	\$10,494,993,000	15.0% <sup>3</sup>	\$83,906,953,000
June 30, 2010	\$11,021,425,000	14.3% <sup>3</sup>	\$74,984,832,000
June 30, 2009	\$3,937,583,000	42.8% 4	\$65,544,361,000
June 30, 2008	\$7,419,205,000	25.5%	\$63,290,218,000 <sup>5</sup>
June 30, 2007	\$7,164,986,000	40.6%	\$57,761,938,000
June 30, 2006	\$55,690,322,000	3.9%	\$53,507,451,000

<sup>&</sup>lt;sup>1</sup> Amounts shown for Fiscal Years prior to Fiscal Year 2015 are as published in the City CAFR. Includes amounts for ECF and SCA.

Based on Frozen Entry Age Actuarial Cost Method.

Not Determined due to the Annual OPEB Cost being less than Zero.

Includes non-trust activity.

Includes cumulative adjustment for approximate non-trust activity for Fiscal Years ending 6/30/06, 6/30/07 and 6/30/08.

<sup>&</sup>lt;sup>5</sup> As published. Correct amount should be \$63,289,913,000.

## June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units) Derivation of Unfunded Actuarial Accrued Liability

1. Unfunded Actuarial Accrued Liability at June 30, 2013	69,956,033,037
2. Entry Age Normal Cost at June 30, 2013	3,633,671,002
3. Interest on 1. and 2. @ 4.00%	2,943,588,162
4. Expected Employer Contributions - Fiscal Year 2014	92,571,050,462
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+34.)	(16,037,758,261)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2014	3,114,328,919 <sup>1</sup>
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+36.)	73,418,963,282
8. Actuarial (Gain) / Loss - Experience	(4,188,972,267)
9. Change in Assumptions <sup>2</sup>	(1,244,802,827)
10. Unfunded Actuarial Accrued Liability at June 30, 2014 (7.+8.+9.)	67,985,188,188

<sup>&</sup>lt;sup>1</sup> Employer Contributions include amounts provided by OMB including the effect of non-trust activity for Fiscal Year 2014.

Welfare Fund Rates 2015 - 2018 Inclusive.

<sup>&</sup>lt;sup>2</sup> Income-Related Medicare Part B Premium Increases.

## June 30, 2014 OPEB Actuarial Valuation GASB45 Results for the City of New York (Excluding Component Units) Schedule of Unfunded Actuarial Accrued Liability Bases

Base	Date Established	Original Amount	initial / Remaining Amortization Period	June 30, 2014 Balance	June 30, 2014 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (19,320,587,398)	10-Years / 8-Years	\$ (16,037,758,261)	\$ (2,290,436,024)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2014	\$ 89,456,721,543	1-Year / 1-Year	\$ 89,456,721,543	\$ 89,456,721,543
3. Actuarial (Gain)/Loss - Experience	June 30, 2014	\$ (4,188,972,267)	1-Year / 1-Year	\$ (4,188,972,267)	\$ (4,188,972,267)
4. Change in Assumptions	June 30, 2014	\$ (1,244,802,827)	1-Year / 1-Year	\$ (1,244,802,827)	\$ (1,244,802,827)
TOTAL		\$ 64,702,359,051		\$ 67,985,188,188	\$ 81,732,510,425

## June 30, 2014 OPEB Actuarial Valuation GASB43 Results for the City of New York (Excluding Component Units) Summary of Data

#### By System Not Including Component Units <sup>1</sup>

	NYCERS	TRS	BERS	POLICE	FIRE	NYCRS TOTAL
1. Actives						
a. Number	97,859	108,181	24,573	34,402	10,319	275,334
b. Salary	\$6,622,910,231	\$8,084,833,045	\$983,765,710	\$3,618,095,284	\$1,150,389,645	\$20,459,993,915
c. Average Age	46.75	43.96	50.63	37.62	41.23	44.65
d. Average Service	12.33	11.35	9.57	11.61	14.62	11.69
e. Average Salary	\$67,678	\$74,734	\$40,034	\$105,171	<b>\$111</b> ,483	\$74,310
2. Inactives						
a. Number	8,889	8,474	3,966	1,369	16	22,714
b. Average Age	43.23	45.44	48.13	36.92	37.38	44.53
c. Average Service	7.19	11.64	5.88	2.89	10.25	8.36
3. Deferreds (Includes Deferred Re	tirees, if any)					
a. Number	5,292	8,557	183	522	35	14,589
b. Average Age	54.05	50.88	57.62	41.97	44.83	51.78
4. Retirees						
a. Total <sup>3</sup>						
i. Number	68,231	73,672	14,755	47,418	16,202	220,278
ii. Average Age	69.85	72.47	74.18	61.01	66.51	68.87
b. By Benefit*	Participant / Spouse	Participant / Spouse I	Participant / Spouse	Participant / Spouse	Participant / Spouse	Participant / Spouse
i. Pre-Medicare**	20,204 / 13,335	13,152 / 6,029	2,214 / 990	27,919 / 21,321	6,845 / 6,486	70,334 / 48,161
ii. Medicare Eligible**	48,069 / 15,766	60,520 / 17,798	12,730 / 4,137	19,499 / 10,854	9,357 / 5,365	150,175 / 53,920
iii. Welfare Fund**	67,523 / NA	71,808 / NA	14,349 / NA	46,471 / NA	15,314 / NA	215,465 / NA
iv. Medicare Part B#	89,647 / 35,253	75,621 / 24,706	14,982 / 5,097	47,418 / 32,175	16,202 / 11,851	243,870 / 109,082
	TIAA	LODW				GRAND TOTAL
1. Actives						
a. Number	2,348	0				277,682
b. Salary	\$192,315,786	0				\$20,652,309,701
c. Average Age	50.67	NA				44.70
d. Average Service	14.24	NA				11.71
e. Average Salary	\$81,906	NA				\$74,374
2. Inactives						
a. Number	116	0				22,830
b. Average Age	57.92	NA				44.60
c. Average Service	20.43	NA				8.42
3. Deferreds (Includes Deferred Re						
a. Number	85	0				14,674
b. Average Age	54.86	NA				51.80
4. Retirees						
a. Total						
i. Number ii. Average Age	742 75.44	769 78.87				221,789 68.93
b. By Benefit*	Participant / Spouse	Participant / Spouse				Participant / Spouse
i. Pre-Medicare**	29 / 56	52 / 0				70,415 / 48,217
ii. Medicare Eligible**	713 / 263	717 / 8				151,605 / 54,191
iii. Welfare Fund**	742 / NA	NA / NA				216,207 / NA
iv. Medicare Part B#	2,607 / 1,152	769 / 8				247,246 / 110,242

City results also include Medicare Part B coverage for 47,754 actives, 4,894 inactives, 26,388 retirees and 2,278 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 613 actives, 33 inactives, 1,162 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,048 actives, 503 inactives, 3,027 retirees and 77 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

Estimate due to lack of data.

Retirees eligible for receipt of Health Insurance, excluding Component Units.

<sup>\*</sup> Includes Component Unit participants with City-provided benefits.

<sup>\*\*</sup> Retirees currently eligible for benefit.

Retirees eligible for benefit now or in the future.

## June 30, 2014 OPEB Actuarial Valuation GASB43 Results for the City of New York (Excluding Component Units) Results of the Actuarial Valuation

1. Actuarial Present Value of Pre	<u>-</u>					
	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active <sup>2</sup>	\$33,004,982,136	\$17,068,250,002	\$13,410,110,643	\$12,035,360,762	\$1,177,664,491	\$76,696,368,034
b. Deferred <sup>3</sup>	1,834,560,264	924,442,457	776,059,088	656,323,463	10,883,716	\$4,202,268,988
c. Retired	12,662,697,885	9,969,276,799	6,827,095,649	6,574,686,938	<u>12,535,252</u>	<u>\$36,046,292,523</u>
d. TOTAL	\$47,502,240,285	\$27,961,969,258	\$21,013,265,380	\$19,266,371,163	<b>\$1,201,083,459</b>	\$116,944,929,545
2. Entry Age Actuarial Accrued L	Liability					
a. Active <sup>2</sup>	\$12,120,683,402	\$7,227,970,688	\$5,376,332,562	\$5,138,410,801	\$251,372,916	\$30,114,770,369
b. Deferred <sup>3</sup>	1,834,560,264	924,442,457	776,059,088	656,323,463	10,883,716	\$4,202,268,988
c. Retired	12,662,697,885	9,969,276,799	6,827,095,649	6,574,686,938	12,535,252	\$36,046,292,523
d. TOTAL	\$26,617,941,551	\$18,121,689,944	<b>\$12,979,487,299</b>	\$12,369,421,202	\$274,791,884	\$70,363,331,880
3. Actuarial Value of Assets						\$2,378,143,692
						<b>***</b>
4. Unfunded Actuarial Accrued L	LIADIIITY (UAAL) [203.]					\$67,985,188,188
5. Entry Age Normal Cost						\$3,454,097,115
6. Salary of Active Participants						\$20,652,309,701
7. Normal Cost Percentage [5. / 6.]						16.725%

<sup>&</sup>lt;sup>1</sup> City results also include Medicare Part B coverage for 47,754 actives, 4,894 inactives, 26,388 retirees and 2,278 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 613 actives, 33 inactives, 1,162 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,048 actives, 503 inactives, 3,027 retirees and 77 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

<sup>&</sup>lt;sup>2</sup> Includes Actuarial Present Value of Projected Benefits for Inactives, if any.

<sup>&</sup>lt;sup>3</sup> Includes Deferred Retirees, if any.

# June 30, 2014 OPEB Actuarial Valuation GASB43 Results for the City of New York (Excluding Component Units) Development of the Annual Required Contribution (ARC) For the Fiscal Year Ending June 30, 2015

1. Entry Age Normal Cost at June 30, 2014	\$3,454,097,115
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>81,732,510,425</u>
3. Subtotal	\$85,186,607,540
4. Interest to June 30, 2015 at 4.0%	3,407,464,302
5. Annual Required Contribution (ARC)	\$88,594,071,842

## June 30, 2014 OPEB Actuarial Valuation GASB43 Results for the City of New York (Excluding Component Units)

Required Supplementary Information (RSI) and Additional Note Disclosure For the Fiscal Year Ending June 30, 2015

## Required Supplementary Information Schedule of Funding Progress

Actuariai Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
June 30, 2014 <sup>1</sup>	\$2,378,143,692	\$70,363,331,880	\$67,985,188,188	3.4%	\$20,652,309,701	329.2%
June 30, 2013 <sup>1</sup>	\$1,363,072,931	\$71,319,105,968	\$69,956,033,037	1.9%	\$20,193,923,609	346.4%
June 30, 2012 <sup>1</sup>	\$2,115,846,394	\$71,399,272,700	\$69,283,426,306	3.0%	\$20,202,358,642	342.9%
June 30, 2011 <sup>2</sup>	\$2,631,584,347	\$85,945,756,187	\$83,314,171,840	3.1%	\$19,854,039,496	419.6%
June 30, 2010 <sup>2</sup>	\$3,022,624,061	\$82,040,359,975	\$79,017,735,914	3.7%	\$19,672,460,069	401.7%
June 30, 2009 <sup>2</sup>	\$3,103,186,200	\$73,653,281,314	\$70,550,095,114	4.2%	\$19,412,072,236	363.4%
June 30, 2008 <sup>2</sup>	\$3,186,139,468	\$65,144,934,748	\$61,958,795,280	4.9%	\$18,672,219,289	331.8%
June 30, 2007 <sup>2</sup>	\$2,594,451,907	\$62,116,926,083	\$59,522,474,176	4.2%	\$17,314,779,336	343.8%
June 30, 2006 <sup>2</sup>	\$1,001,331,648	\$56,060,000,324	\$55,058,668,676	1.8%	\$16,510,165,373	333.5%
June 30, 2005 <sup>2</sup>	\$0	\$50,523,014,097	\$50,523,014,097	0.0%	\$15,703,554,657	321.7%

Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

#### **Schedule of Employer Contributions**

Fiscal Year Ended	Annual Required Contribution	Percentage Contributed
June 30, 2015	\$88,594,071,842	3.5% 1
June 30, 2014	\$92,571,050,462	3.4% 1
June 30, 2013	\$93,688,623,719	1.3% 1
June 30, 2012	\$89,586,423,101	1.6% 1
June 30, 2011	\$85,454,602,423	1.8% 1
June 30, 2010	\$76,543,317,158	2.1% 1
June 30, 2009	\$67,206,700,283	2.5% <sup>2</sup>
June 30, 2008	\$65,161,266,615	2.9%
June 30, 2007	\$60,653,920,448	4.8%
June 30, 2006	\$55,665,901,829	3.9%

Includes non-trust activity.

Based on Frozen Entry Age Actuarial Cost Method.

Includes cumulative adjustment for approximate non-trust activity for Fiscal Years ending 6/30/06, 6/30/07, 6/30/08 and 6/30/09.

## June 30, 2014 OPEB Actuarial Valuation GASB43 Results for the City of New York (Excluding Component Units) Derivation of Unfunded Actuarial Accrued Liability

1. Unfunded Actuarial Accrued Liability at June 30, 2013	69,956,033,037
2. Entry Age Normal Cost at June 30, 2013	3,633,671,002
3. Interest on 1. and 2. @ 4.00%	2,943,588,162
4. Expected Employer Contributions - Fiscal Year 2014	92,571,050,462
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+34.)	(16,037,758,261)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2014	3,114,328,919 <sup>1</sup>
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2014 (1.+2.+36.)	73,418,963,282
8. Actuarial (Gain) / Loss - Experience	(4,188,972,267)
9. Change in Assumptions <sup>2</sup>	(1,244,802,827)
10. Unfunded Actuarial Accrued Liability at June 30, 2014 (7.+8.+9.)	67,985,188,188

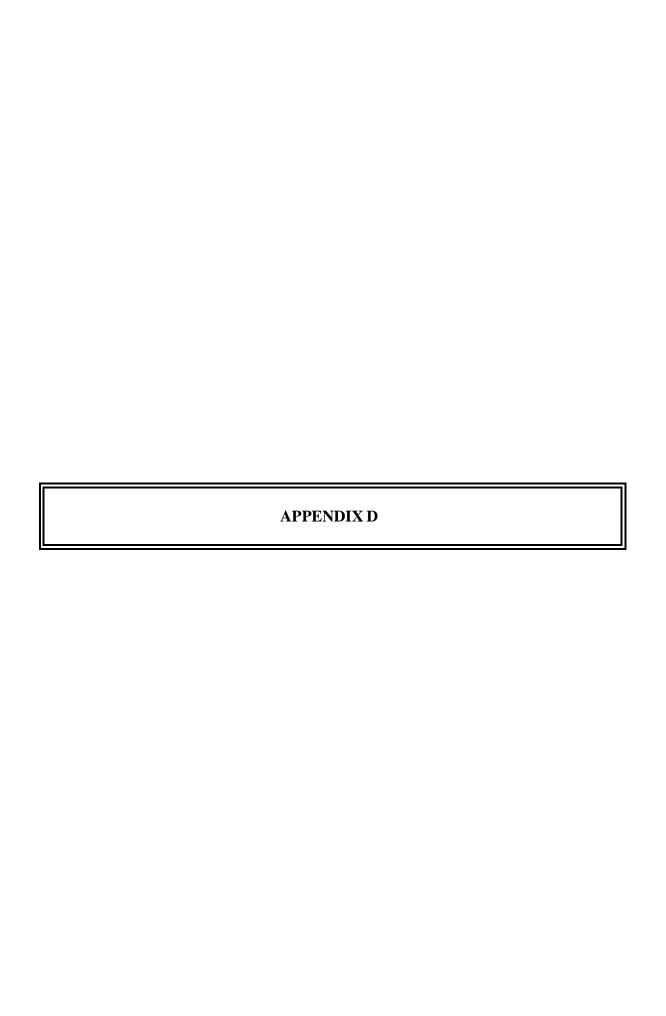
<sup>&</sup>lt;sup>1</sup> Employer Contributions include amounts provided by OMB including the effect of non-trust activity for Fiscal Year 2014.

Welfare Fund Rates 2015 - 2018 Inclusive.

<sup>&</sup>lt;sup>2</sup> Income-Related Medicare Part B Premium Increases.

## June 30, 2014 OPEB Actuarial Valuation GASB43 Results for the City of New York (Excluding Component Units) Schedule of Unfunded Actuarial Accrued Liability Bases

Base	Date Established	Original Amount	initial / Remaining Amortization Period	June 30, 2014 Balance	June 30, 2014 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (19,320,587,398)	10-Years / 8-Years	\$ (16,037,758,261)	\$ (2,290,436,024)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2014	\$ 89,456,721,543	1-Year / 1-Year	\$ 89,456,721,543	\$ 89,456,721,543
3. Actuarial (Gain)/Loss - Experience	June 30, 2014	\$ (4,188,972,267)	1-Year / 1-Year	\$ (4,188,972,267)	\$ (4,188,972,267)
4. Change in Assumptions	June 30, 2014	\$ (1,244,802,827)	1-Year / 1-Year	\$ (1,244,802,827)	\$ (1,244,802,827)
TOTAL		\$ 64,702,359,051		\$ 67,985,188,188	\$ 81,732,510,425



#### APPENDIX D

#### NEW YORK CITY HEALTH BENEFITS PROGRAM

#### DETAILS OF ACTUARIAL ASSUMPTIONS AND CERTAIN METHODS

#### **Actuarial Assumptions**

The actuarial assumptions used in the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations are classified as those used in the NYCRS pension actuarial valuations and those specific to the OPEB actuarial valuations.

#### **NYCRS Valuations**

The actuarial assumptions used to value the NYCRS are generally unchanged from the actuarial assumptions used in the June 30, 2013 OPEB actuarial valuation and are provided in the following five reports (the Silver Books) available on the website of the Office of the Actuary (www.nyc.gov/actuary):

- 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, 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 Teachers' Retirement System, 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 Board of Education Retirement System, 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 Police Pension Fund, 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 Fire Department Pension Fund, dated February 10, 2012.

The probability of retirement set out in each of the Silver Books is assumed to be 100% at either age 63 or 70, depending upon the program of benefits for the individual employee. For purposes of valuing pension obligations under NYCRS, 100% of the individuals remaining in service at and after these ages are assumed to retire with their currently accrued pension, whether or not they have attained the service requirement for vesting in their particular program of pension benefits. For purposes of the OPEB actuarial valuation, 100% of the individuals remaining in service at these ages are assumed to either retire with a benefit or to terminate employment without a benefit, depending upon whether they have attained the requisite five, ten or 15 years of service required for eligibility for OPEB.

For purposes of determining pension obligations, the demographic assumptions requiring Board approval were adopted by each NYCRS Board of Trustees during Fiscal Year 2012. Chapter 3 of the Laws of 2013 enacted those actuarial assumptions and methods that require New York State legislation.

The other actuarial assumptions and methods used in the OPEB actuarial valuation are set forth in this Report.

Also Note: The actuarial assumptions used in the OPEB actuarial valuation of ECF and CUNY TIAA members are set forth in Appendices E and F, respectively.

#### **OPEB-Specific Assumptions**

Valuation Date .....

The OPEB-specific actuarial assumptions used in the June 30, 2014 OPEB actuarial valuation of the Program are as follows:

June 30, 2014.

Age adjustment based on actual age distribution of the GHI/EBCBS Medicare covered population.

distribution of covered population used for non-Medicare

retirees and HIP HMO Medicare retirees.

Insured premiums without age adjustment for other basic coverage. All reported premiums assumed to include administrative costs.

<sup>&</sup>lt;sup>1</sup> 2.5% CPI, 1.5% real rate of return on short-term investments.

Employers' premium contribution schedules for the month of July 2014 and January 2015 were reported by OLR. In most cases, the premium contributions remained the same throughout the year. HIP HMO Medicare rates varied by date and by specific Plan option. These variations are the result of differing Medicare Advantage reimbursements. The various monthly rates were blended by proportion of enrollment. For other rates, where the January 2015 premium rate was different than the July 2014 premium rate, the valuation assumed that the January 2015 premium rate was more representative of the long-range cost of the arrangement.

Initial monthly premium rates used in valuations are shown in the following tables:

	MONTHLY RATES				
Plan	FY15 <sup>1</sup>		FY14 <sup>2</sup>		
HIP HMO					
Non-Medicare Single	\$	586.10	\$	579.04	
Non-Medicare Family	\$	1,435.95	\$	1,418.66	
Medicare	\$	157.55	\$	149.42	
GHI/EBCBS					
Non-Medicare Single	\$	507.79 <sup>3</sup>	\$	459.63	
Non-Medicare Family	\$	1,319.83 <sup>3</sup>	\$	1,194.24	
Medicare	\$	160.86	\$	159.69	
Others					
Non-Medicare Single	\$	586.10	\$	579.04	
Non-Medicare Family	\$	1,435.95	\$	1,418.66	
Medicare	\$	160.86	\$	159.69	

<sup>&</sup>lt;sup>1</sup> Used in June 30, 2014 OPEB actuarial valuation.

<sup>&</sup>lt;sup>2</sup> Used in June 30, 2013 OPEB actuarial valuation.

For June 30, 2014 valuation, GHI/EBCBS Pre-Medicare premiums decreased 2.05% to reflect 2014 Health Savings agreement change to Care Management program and specialty drug (PICA) changes.

For the June 30, 2014 valuation, the Welfare Fund contribution reported for Fiscal Year 2015, (including any reported retroactive amounts) was used as the per capita cost for valuation purposes. The amount used included the \$25 increase effective July 1, 2014 under the 2014 MLC-NYC Health Savings Agreement, as well as further \$25 annual increases effective July 1, 2015, July 1, 2016 and July 1, 2017. It is assumed that all Welfare Funds will ultimately be subject to that agreement, whether or not the union running the particular Welfare Fund has currently signed.

For the June 30, 2013 valuation, the Welfare Fund contributions reflected a three-year trended average of reported annual contribution amounts for current retirees. A trended average was used instead of a single reported Welfare Fund amount to smooth out negotiated variations. The Welfare Fund rates reported for the previous two valuations were trended to current levels based on a historic increase rate of 1.57% for Fiscal Year 2014 (used in calculating the impact of the negotiated Welfare Fund change), 1.64% for Fiscal Year 2013, and 2.33% for Fiscal Year 2012, approximating overall recent growth of Welfare Fund contributions.

For the June 30, 2013 OPEB actuarial valuation, certain lump-sum amounts had been included in calculating the three-year trended average. Furthermore, retroactive adjustments to Welfare Fund contribution rates were used in the trended average as of the dates they were effective (i.e., using the retroactive date).

Reported annual contribution amounts for the last three years are shown in Appendix B, Tables 2a to 2e. The amounts shown for Fiscal Year 2015 as of June 30, 2014, increased by \$25 as of July 1, 2014, are used for current retirees.

Welfare Fund rates based on actual reported Union Welfare Fund code for current retirees. Where Union Welfare Fund code was missing, the most recently reported union code was reflected.

Weighted average annual contribution rates used for future retirees are shown in the following table. These averages were developed based on Welfare Fund enrollment of recent retirees (during the five years prior to the valuation).

	Annual Rate			
	FY15	FY14		
NYCERS	\$1,693	\$ 1,700		
TRS	1,746	1,754		
BERS	1,677	1,683		
POLICE	1,614	1,620		
FIRE	1,707	1,712		

Contributions were assumed to increase by Medicare Plans trend rates. For the June 30, 2014 OPEB actuarial valuation, the assumed increases were replaced by the negotiated \$25 increase for the next 3 fiscal years.

For Welfare Fund contribution amounts reflected in the June 30, 2013 OPEB actuarial valuation for current retirees, see the Ninth Annual OPEB Report.

Calendar Year	<u>Month</u>	<u>ily Premium</u>
2012	\$	99.90
2013	\$	104.90
2014	\$	104.90
2015	\$	104.90*

<sup>\*</sup> Reflected only in June 30, 2014 OPEB actuarial valuation.

2015 Medicare Part B Premium assumed to increase by Medicare Part B trend rates.

. . . . . . . . . . . . .

Medicare Part B Premium reimbursement amounts have been updated to reflect actual premium rates announced for Calendar Years through 2015. The actual 2016 Medicare Part B Premium was not announced at the time these calculations were prepared and, thus, was not reflected in the valuation. Social Security cost-of-living adjustment for calendar year 2016 benefits was not announced as of the time these calculations were prepared. Thus, Social Security benefits were assumed to increase such that Medicare Part B Premiums were not frozen at 2015 levels based on Social Security benefit amounts.

For the June 30, 2013 OPEB actuarial valuation (i.e., Fiscal Year 2014), the annual premium used (i.e., \$1,258.80) equaled 6 months of the Calendar Year 2013 premium plus 6 months of the Calendar Year 2014 premium.

For the June 30, 2014 OPEB actuarial valuation (i.e., Fiscal Year 2015), the annual premium used (i.e., \$1,258.80) equals 6 months of the Calendar Year 2014 premium (i.e., \$104.90) plus 6 months of the Calendar Year 2015 premium (i.e., \$104.90).

Future Calendar Year Medicare Part B Premium rates are projected from the Calendar Year 2015 rate of \$104.90 using the assumed Medicare Part B Premium trend.

Overall Medicare Part B Premium amounts are assumed to increase by the following percentages to reflect the income-related increases in Medicare Part B Premiums for high income individuals. The percentages assumed for the June 30, 2014 OPEB actuarial valuation have been increased to reflect revisions to the income-related Part B Premium provisions as adopted in the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Percentages assumed based on CMS income distribution published statistics and provisions of Social Security Act related to Medicare Part B Premium amounts, both before and after MACRA changes. Percentage amount compared to actual IRMAA payments reported by OLR through calendar year 2012.

	Income-Related Medicare Part B Increase			
Fiscal Year	June 30, 2014 Valuation	June 30, 2013 Valuation		
2014	NA	3.7%		
2015	3.8%	3.8%		
2016	3.9%	3.9%		
2017	4.0%	4.0%		
2018	4.5%	4.1%		
2019	5.0%	4.2%		
2020	5.2%	4.3%		
2021	5.3%	4.4%		
2022	5.4%	4.5%		
2023	5.5%	4.6%		
2024	5.6%	4.7%		
2025	5.8%	4.8%		
2026	5.9%	4.9%		
2027 and later	6.0%	5.0%		

For the June 30, 2014 OPEB actuarial valuation, 90% of Medicare participants are assumed to claim reimbursement (unchanged from last year). Percentage based on claim counts reported by OLR for calendar years 2007 through 2013.

Health Care Cost Trend Rate (HCCTR).....

Covered medical expenses are assumed to increase by the following percentages (unchanged from the last valuation). For purposes of measuring entry age calculations, actual historic plan increases are reflected to the extent known, with further historic trend rates based on the trend assumed for Fiscal Year 2015 (initial trend).

HCCTR ASSUMPTIONS					
Pre-Medicare Year Ending¹ Plans Medicare Plans Part B Premiu					
20152	9.0%	5.0%	6.0%		
2016 <sup>3</sup>	8.5%	5.0%	5.5%		
2017	8.0%	5.0%	5.0%		
2018	7.5%	5.0%	5.0%		
2019	7.0%	5.0%	5.0%		
2020	6.5%	5.0%	5.0%		
2021	6.0%	5.0%	5.0%		
2022	5.5%	5.0%	5.0%		
2023 and Later	5.0%	5.0%	5.0%		

<sup>1</sup> Fiscal Year for Pre-Medicare Plans and Medicare Plans and Calendar Year for Medicare Part B Premiums.

<sup>&</sup>lt;sup>2</sup> For the June 30, 2014 OPEB actuarial valuation, rates shown for 2015 were not reflected since actual values for the Fiscal Year 2015 per capita costs, Fiscal Year 2015 Welfare Fund contributions and Calendar Year 2015 Medicare Part B Premium amounts were used.

<sup>&</sup>lt;sup>3</sup> For the June 30, 2014 OPEB actuarial valuation, HIP and HMO Pre-Medicare trend assumed to be 2.89% based on 2014 Health Care Savings Agreement initiatives.

The premiums are age adjusted for HIP HMO and GHI/EBCBS participants. Beginning with the June 30, 2012 OPEB actuarial valuation, the premiums are also adjusted for gender.

Beginning with the June 30, 2012 OPEB actuarial valuation, the assumed relative costs of coverage are consistent with information presented in *Health Care Costs - From Birth to Death*, prepared by Dale H. Yamamoto<sup>2</sup> (Yamamoto Study).

For non-Medicare costs, relative factors were based on graduated 2010 PPO/POS data as presented in Chart 28 of the Yamamoto Study. The resultant relative factors, normalized to the male age 65 rate, used for non-Medicare costs are as follows:

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.170	0.225	43	0.325	0.480
21	0.157	0.227	44	0.340	0.487
22	0.147	0.236	45	0.355	0.495
23	0.143	0.252	46	0.372	0.505
24	0.143	0.274	47	0.391	0.519
25	0.146	0.301	48	0.412	0.536
26	0.151	0.329	49	0.437	0.556
27	0.157	0.357	50	0.463	0.576
28	0.165	0.384	51	0.491	0.597
29	0.173	0.408	52	0.519	0.616
30	0.181	0.428	53	0.547	0.635
31	0.190	0.444	54	0.577	0.653
32	0.199	0.456	55	0.608	0.671
33	0.208	0.463	56	0.641	0.690
34	0.217	0.466	57	0.676	0.710
35	0.227	0.466	58	0.711	0.732
36	0.237	0.465	59	0.747	0.756
37	0.249	0.464	60	0.783	0.783
38	0.261	0.464	61	0.822	0.813
39	0.274	0.465	62	0.864	0.846
40	0.286	0.467	63	0.909	0.881
41	0.299	0.471	64	0.957	0.917
42	0.312	0.475			

Children costs were assumed to represent a relative factor of .229.

http://www.healthcostinstitute.org/files/Age-Curve-Study\_0.pdf. Retrieved July 15, 2013. The Study was sponsored by the Society of Actuaries and is part of the Health Care Cost Institute's Independent Report Series.

For Medicare costs, relative factors based on the Yamamoto Study for net Medicare costs for 2010 for inpatient, outpatient and professional costs were blended. Prescription drug costs were not reflected as NYCHBP excludes most drugs from coverage. Professional costs were weighted at 64%, based on the GHI portion of the combined GHI/EBCBS premiums reported historically. Inpatient costs were weighted as twice as prevalent as outpatient costs based on the relative allocation suggested in the Yamamoto Study. Costs prior to age 65 were approximated using the non-Medicare data, but assuming that individuals under age 65 on Medicare had an additional disability-related morbidity factor. The resultant Medicare relative factors are as follows:

Age	Males	<u>Female</u>	Age	Males	<u>Female</u>
20	0.323	0.422	60	1.493	1.470
21	0.297	0.426	61	1.567	1.526
22	0.280	0.443	62	1.646	1.588
23	0.272	0.474	63	1.731	1.653
24	0.272	0.516	64	1.822	1.721
25	0.278	0.565	65	0.919	0.867
26	0.288	0.618	66	0.917	0.864
27	0.300	0.671	67	0.918	0.864
28	0.314	0.721	68	0.924	0.867
29	0.329	0.766	69	0.933	0.875
30	0.346	0.804	70	0.946	0.885
31	0.363	0.834	71	0.961	0.898
32	0.380	0.856	72	0.978	0.911
33	0.397	0.869	73	0.996	0.925
34	0.414	0.875	74	1.013	0.939
35	0.432	0.876	75	1.032	0.953
36	0.452	0.874	76	1.049	0.967
37	0.474	0.872	77	1.067	0.982
38	0.497	0.871	78	1.085	0.996
39	0.521	0.873	79	1.103	1.012
40	0.545	0.878	80	1.122	1.029
41	0.569	0.885	81	1.141	1.047
42	0.594	0.893	82	1.161	1.065
43	0.620	0.902	83	1.180	1.083
44	0.647	0.914	84	1.199	1.100
45	0.676	0.929	85	1.217	1.116
46	0.708	0.949	86	1.234	1.130
47	0.744	0.975	87	1.250	1.143
48	0.785	1.007	88	1.264	1.155
49	0.832	1.043	89	1.277	1.164
50	0.883	1.082	90	1.287	1.169
51	0.935	1.120	91	1.295	1.171
52	0.988	1.156	92	1.301	1.167
53	1.042	1.191	93	1.305	1.156
54	1.099	1.225	94	1.306	1.139
55	1.159	1.260	95	1.304	1.113
56	1.222	1.295	96	1.299	1.077
57	1.288	1.333	97	1.292	1.033
58	1.355	1.374	98	1.281	0.978
59	1.423	1.419	99 +	1.281	0.978

For the June 30, 2013 and June 30, 2014 OPEB actuarial valuations, an actual age and gender distribution based on reported census information was used for Medicare-eligible participants. For the June 30, 2013 and June 30, 2014 OPEB actuarial valuations, the Medicare participants in the HIP Medicare Advantage arrangement were assumed to have the same age and gender distribution as the data underlying the Yamamoto Study.

For the June 30, 2013 and June 30, 2014 OPEB actuarial valuations, the age and gender of non-Medicare eligible participants were based on the following assumed distribution table, assuming a total of 2,354 single contracts and 2,492 family contracts.

#### **Members Used**

Age Range	<u>Male</u>	<u>Female</u>
00-00	64	64
01-01	67	67
02-04	210	210
05-09	373	373
10-14	403	403
<b>15-19</b>	388	371
20-24	310	323
25-29	338	357
30-34	431	447
35-39	481	499
40-44	495	530
45-49	446	486
50-54	392	422
55-59	271	272
60-64	173	166
65+	89	76

For the June 30, 2014 OPEB actuarial valuation, the age adjustment for the non-Medicare GHI/EBCBS premium reflects a 5% reduction in the GHI portion of the monthly premium (with the GHI portion representing \$247.74 out of \$507.79 single and \$657.40 out of \$1,319.83 Family) and a 3% reduction in the EBCBS portion of the premium (with the EBCBS portion representing the remainder of the \$507.79 and \$1,319.83 premiums) for the estimated margin anticipated to be returned.

No adjustment was assumed for margin for the June 30, 2013 valuation.

The morbidity factors are used to age-adjust the reported premiums for the HIP and GHI/EBCBS arrangements. The stated premiums provided to OA by OLR reflect average cost of retirees and actives of the Program, not all of whom are included in this valuation report. The assumed underlying cost of the benefit provided to retirees is developed by taking the stated premiums, removing any known margin to get to underlying expected cost of benefits provided (including administrative costs), adjusting for any plan changes, and then finally adjusting for the age and gender of the particular retiree. The age and gender is compared to a distribution for the age and gender of the overall population reflected in developing the stated premium. The distribution can reflect the actual age and gender of the covered population, or can be an estimate if the actual data is not available.

The age-adjusted premiums for HIP HMO Medicareeligible retirees were multiplied by the following factors to reflect actual Calendar Year 2015 premiums and future anticipated changes in Medicare Advantage reimbursement rates. As of June 30, 2009, the factors had been updated to reflect that Medicare Advantage reimbursement rates are expected to be significantly reduced over the next several years. The reductions in the reimbursement rates were part of the NHCR legislation and are likely to be most significant in areas where medical costs are greater, such as New York City. In developing the adjustment factors for the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations, it was assumed that the cost of HIP coverage would not be allowed to exceed the cost of GHI/EBCBS coverage for Medicare retirees. Since for the June 30, 2014 valuation, the reported calendar year 2015 HIP Medicare Advantage premium is within 1/2% of the Fiscal Year 2015 GHI/EBCBS Medicare rate, the assumption that HIP would not be allowed to exceed the GHI/EBCBS rate has resulted in a factor of 1.0 for all future years. The adjustment factors used as of June 30, 2013 are shown for comparative purposes.

	Factor*								
Fiscal Year	6/30/14 Valuation	6/30/13 Valuation							
2014	1.00	1.00							
2015	1.00	1.03							
2016	1.00	1.04							
Thereafter	1.00	1.04							

Includes anticipated impact of National Health Care Reform

Modicoro	ledicare																	
Miculcale																		

Medicare is assumed to be the primary payer over age 65 and for retirees currently on Medicare. For future disability retirements, Medicare is assumed to start 2.5 years after retirement for the following portion of retirees:

Proportion based on portion of recent disability retirees who have been retired at least 2 ½ years who are reported with Medicare.

#### Valuation as of June 30

	<u> 2014</u>	<u> 2013</u>
NYCERS	35%	35%
TRS	45%	45%
BERS	45%	45%
POLICE	<b>15</b> %	<b>15</b> %
FIRE	20%	20%

Active participation assumptions based on current retiree elections. Actual elections for current retirees. Portions of current retirees not eligible for Medicare are assumed to change elections upon attaining age 65 based on patterns of elections of Medicare-eligible retirees. Detailed assumptions appear in the following tables (while two tables are shown, the participation assumptions were the same in both years):

#### PLAN PARTICIPATION ASSUMPTIONS June 30, 2014 Valuation **Benefits** POLICE NYCERS **TRS BERS FIRE** Pre-Medicare 65% 83% 76% - GHI/EBCBS 73% 71% 22% 6% 16% 13% 16% - HIP HMO **12**% - Other HMO 8% 4% 3% 9% - Waiver 5% 7% 8% 2% 1% Medicare - GHI 72% 87% 78% 82% 77% - HIP HMO 21% 9% 16% 12% 16% 4% 4% - Other HMO 2% 2% 6% 2% 3% 2% 4% 1% - Waiver Post-Medicare Migration 50% 0% 33% 50% 50% - Other HMO to GHI 0% 0% 0% 0% - HIP HMO to GHI 0% - Pre-Med. Waiver 0% **13**% 35% 50% 0% \*\* To GHI @ 65 \*\* To HIP @ 65 13% 35% 0% 0% 0%

PLAN PARTICIPATION ASSUMPTIONS											
		June 30, 2013 Valuation									
Benefits	NYCERS	TRS	BERS	POLICE	FIRE						
Pre-Medicare											
- GHI/EBCBS	65%	83%	73%	76%	71%						
- HIP HMO	22%	6%	16%	13%	16%						
- Other HMO	8%	4%	3%	9%	12%						
- Waiver	5%	7%	8%	2%	1%						
Medicare											
- GHI	<b>72</b> %	87%	78%	82%	77%						
- HIP HMO	<b>21</b> %	9%	16%	<b>12</b> %	<b>16</b> %						
- Other HMO	4%	2%	2%	4%	6%						
- Waiver	3%	2%	4%	2%	1%						
Post-Medicare Migration											
- Other HMO to GHI	<b>50</b> %	0%	33%	50%	50%						
- HIP HMO to GHI	0%	0%	0%	0%	0%						
- Pre-Med. Waiver											
** To GHI @ 65	<b>13</b> %	35%	50%	0%	0%						
** To HIP @ 65	<b>13</b> %	35%	0%	0%	0%						

Waivers are assumed to include participants who do not qualify for coverage because they were working less than 20 hours a week at termination.

Dependent coverage is assumed to terminate when a retiree dies, except as noted in Section IV. For survivors of POLICE and FIRE who die other than in the Line of Duty (assumed to be all who terminate with Accidental Death Benefits), and for all survivors of uniformed members of the Departments of Correction and Sanitation, the valuation assumes that 30% of spouses eligible for survivor continuation will elect the benefit, with costs equal to 30% greater than the age-adjusted premiums for surviving spouses for HIP HMO and GHI/EBCBS participants. Beginning with the June 30, 2010 OPEB actuarial

valuation, the valuation includes an estimate of the value of benefits provided to existing survivors of POLICE and FIRE retirees who died other than in the Line of Duty, who qualified for lifetime continuation coverage prior to the valuation date, based on the assumptions outlined above. Beginning with the June 30, 2012 OPEB actuarial valuation, the valuation includes an estimate of the value of benefits provided to existing survivors of retired uniformed members of the Departments of Correction and Sanitation who qualified for lifetime continuation coverage prior to the valuation date, based on the assumptions outlined above.

The valuation includes the entire cost of additional surviving spouse benefits for basic coverage and Medicare Part B Premium reimbursement for Line of Duty survivors, although the OA understands that some of this amount may be reimbursed through Welfare Funds.

Dependent assumptions based on distribution of coverage of recent retirees are shown in the following tables. Actual spouse data for current retirees. Child dependents of current retirees are assumed to receive coverage until age

Beginning with the June 30, 2012 valuation, based on experience under the Plan, for NYCERS, TRS and BERS employees, male retirees were assumed to be four (4) years older than their wives, and female retirees were assumed to be two (2) years younger than their husbands; for POLICE and FIRE employees, husbands are assumed to be two (2) years older than their wives.

Children are assumed to be covered for eight (8) years after retirement. For employees eligible to retire based only on service, children are assumed to be covered for an additional five (5) years.

DEPENDENT COVERAGE ASSUMPTIONS										
		June 30, 2014 Valuation								
Group	NYCERS	TRS	BERS	POLICE	FIRE					
Male - Single Coverage - Spouse - Child/No Spouse - Spouse and Child Total	30% 40% 5% 25%	45% 35% 5% 15%	35% 55% 2% 8% 100%	15% 15% 5% 65%	10% 20% 5% 65%					
Female - Single Coverage - Spouse - Child/No Spouse - Spouse and Child Total	70% 20% 5% 5% 100%	60% 32% 3% 5% 100%	60% 35% 2% 3% 100%	45% 10% 25% 20%	10% 20% 5% 65%					

Note: For accidental death, 80% of POLICE and FIRE members are assumed to have family coverage.

DEPENDENT COVERAGE ASSUMPTIONS										
		June 30, 2013 Valuation								
Group	NYCERS	TRS	BERS	POLICE	FIRE					
Male - Single Coverage - Spouse - Child/No Spouse - Spouse and Child Total	30% 40% 5% 25% 100%	45% 35% 5% 15%	35% 55% 2% 8% 100%	15% 15% 5% 65% 100%	10% 20% 5% 65%					
Female - Single Coverage - Spouse - Child/No Spouse - Spouse and Child	70% 20% 5% 5% 100%	60% 32% 3% 5% 100%	60% 35% 2% 3% 100%	45% 10% 25% 20%	10% 20% 5% 65%					

Note: For accidental death, 80% of POLICE and FIRE members are assumed to have family coverage.

Demographic Assumptions	The same assumptions that were used to value the pension benefits of the NYCRS for determining employer contributions for fiscal years beginning 2012 adopted by the Boards of Trustees (see the Silver Books).
	For assumptions used in the June 30, 2013 OPEB actuarial valuation, see the Ninth Annual OPEB Report.
COBRA Benefits	Although COBRA beneficiaries pay 102% of "premiums," typical claim costs for COBRA participants run about 50% greater than other participants.
	There is no cost to the City for COBRA beneficiaries who enroll in community-rated HMO's, including HIP, since these individuals pay their full community rate. However, the City's costs under the experience-rated GHI/EBCBS coverage are affected by the claims for COBRA-covered individuals.
	In order to reflect the cost of COBRA coverage, the cost of excess claims for GHI covered individuals and families is estimated assuming 15% of employees not eligible for other benefits included in the valuation elect COBRA coverage for 15 months. These assumptions are based on experience of other large employers. This percentage is applied to the overall enrollment in the active plan and reflects a load for individuals not yet members of the retirement systems who are still eligible for COBRA benefits. This results in an assumption in the June 30, 2014 OPEB actuarial valuation of a lump-sum COBRA cost of \$875 for terminations during Fiscal Year 2015 (\$800 lump-sum cost during Fiscal Year 2014 was assumed in the June 30, 2013 OPEB actuarial valuation). The \$875 (\$800) lump-sum amount is increased by the Pre-Medicare HCCTR for future years but is not adjusted for age-related morbidity.
Cadillac Tax	Effective June 30, 2012, the OPEB actuarial valuation includes an explicit calculation of the high-cost plan excise tax (Cadillac Tax) that will be imposed beginning in 2018 under NHCR.

The tax is 40% of the excess of (a) over (b) where (a) is the cost of medical coverage, and (b) is the statutory limits (\$10,200 for single coverage and \$27,500 for family coverage), adjusted for the following:

- The limit will first be increased by the excess of accumulated trend for the period from 2010 through 2018 over 55% (reflecting the adjustment for excess trend on the standard Federal Blue Cross/Blue Shield option). The calculation reflects actual trend on the standard Federal Blue Cross/Blue Shield option for 2010 through 2015. Trend was estimated using the Pre-Medicare trend for the period from 2015 through 2018 and actual Federal Blue Cross/Blue Shield trend for the period 2010-2015.
- For Pre-Medicare retirees above the age of 55, the limit will be further increased by \$1,650 for single coverage; \$3,450 for family coverage.
- For 2019, the 2018 limit was increased by CPI + 1% (e.g. 3.5%). For each year after 2019, the limit is further increased by CPI (2.5%).

The impact of the Cadillac Tax for the NYCHBP benefits is calculated based on the following assumptions about the cost of medical coverage:

- Benefit costs were based on Pre-Medicare and Medicare plan premiums as stated, without adjustment for age.
- For Medicare participants, the cost of reimbursing the Medicare Part B premium was reflected based on average cost assumed in the valuation, including IRMAA.
- The cost for each benefit option (GHI, HIP, or other HMO, combined with Medicare Part B premium reimbursement, if applicable) was separately compared to the applicable limit.
- The additional Cadillac Tax due to the riders or optional benefit arrangements is assumed to be reflected in the contribution required for the rider or optional benefit.
- The additional Cadillac Tax due to amounts provided by Welfare Fund benefits is assumed to be absorbed by the Welfare Fund or by lower net Welfare Fund contribution amounts.

- There is no assumption of additional amounts required from the various benefit administrators due to the fact that the Cadillac Tax is not deductible to tax-paying entities. Instead, it is assumed that by 2018, financial arrangements are structured such that the tax exempt status of the City results in no need to gross up the cost of the Cadillac Tax for additional taxes.
- The additional amount for Pre-Medicare retirees above age 55 is available to Medicare retirees or retirees who are younger than age 55 for plans sponsored by an employer where the majority of employees are engaged in high-risk professions including law enforcement officers and fire fighters. It has been assumed that the majority of the employees of the City are not engaged in such professions and have not extended the adjustment to these additional ages.

In cases where the City provides only a portion of the OPEB benefits which give rise to the Cadillac Tax, the calculated Cadillac Tax is allocated to the appropriate paying entity in proportion to the OPEB liabilities for relevant OPEB benefits.

Beginning with the June 30, 2010 OPEB actuarial valuation, it was assumed that the liability for the Active/Inactive members should be 40% of the measured liability of the Active/Inactive population. This is roughly equivalent to assuming that 60% of the Active/Inactive members will terminate membership prior to vesting and not receive OPEB. Beginning with the June 30, 2012 OPEB actuarial valuation, the Entry Age Actuarial Accrued Liability is assumed to include

benefits.

A .6% load is applied on all City GASB45 obligations (.7% last year). The same loads apply to the GASB43 obligations in the current and preceding valuation. The

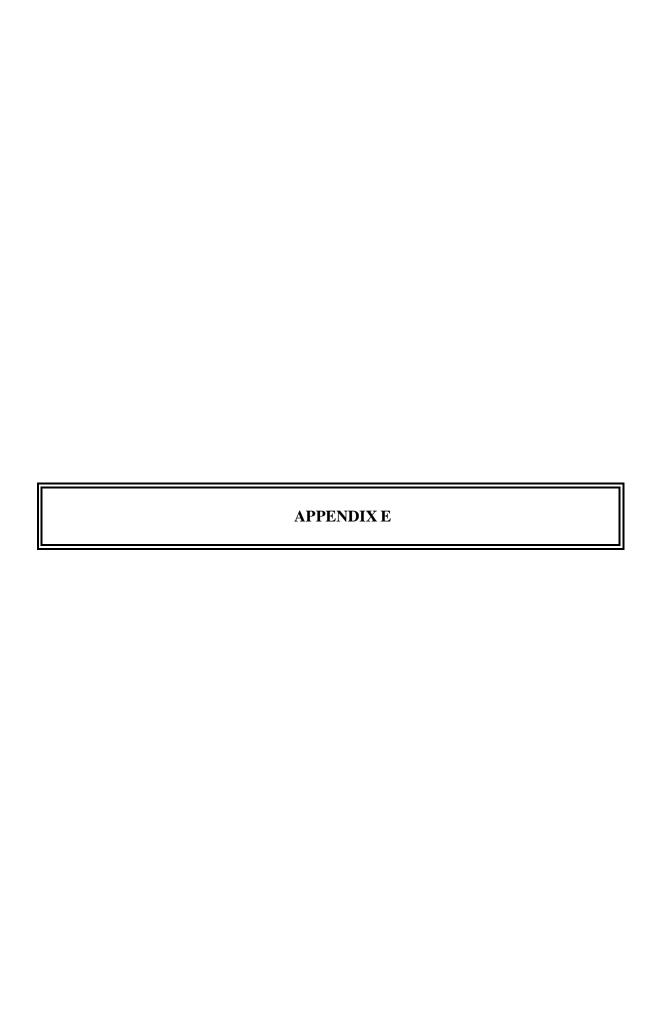
the 40% of the measured present value of projected

load is not applicable to Component Units.

The actuarial assumptions used for determining GASB45

obligations for ECF are shown in Appendix E.

CUNY TIAA..... The actuarial assumptions used for determining obligations for CUNY TIAA are shown in Appendix F.



#### **APPENDIX E**

#### **EDUCATIONAL CONSTRUCTION FUND**

#### ACTUARIAL ASSUMPTIONS AND METHODS AND PLAN PROVISIONS

The demographic assumptions used for the Educational Construction Fund (ECF) June 30, 2014 OPEB actuarial valuation presented in this Report are based on a report on the "Development of Recommended Actuarial Assumptions Participating Agency Version," dated June 2015, prepared by Aon Hewitt (2014 State Report)<sup>1</sup>. The demographic assumptions used for the ECF June 30, 2013 OPEB actuarial valuation were based on a report on the "Development of Recommended Actuarial Assumptions for New York State/SUNY GASB45 Valuation – Participating Agency Version," dated December 27, 2012, prepared by Buck Consultants, LLC (2012 State Report)<sup>2</sup>.

Since ECF employees and retirees participate in the New York State and Local Employees' Retirement System (NYSLERS) and the New York State Health Insurance Program (NYSHIP), the Actuary adopted assumptions based on the recommendations of the 2014 State Report for this valuation. These assumptions reflect revisions to the demographic assumptions used in the June 30, 2013 OPEB actuarial valuation, which had been based on the recommendations of the 2012 State Report.

Following is an overview of the key elements of the plan provisions and actuarial assumptions and methods used for the ECF OPEB actuarial valuation:

- Eligibility for Benefits: ECF employees are eligible for retirement and OPEB at age 55 with 10 years of service. Termination after 10 years of service entitles employees to deferred pension benefits and OPEB. Disability retirement with OPEB is available after 10 years of service. Unlike the New York City Health Benefits Program, ECF is assumed to offer retiree health coverage that continues for dependents after the death of the retiree. ECF employees who retire after 1995 are also eligible for dental insurance.
- NYSHIP health benefits consist of a hospital program, a medical program covering amounts after copayment at participating providers, a managed mental health and substance abuse program, and a card-based prescription drug program. NYSHIP requires retirees to enroll in Medicare Part A and Medicare Part B and mandates that participants be reimbursed for Medicare Part B Premiums. Beginning Fiscal Year 2013, NYSHIP provides drug coverage to Medicare eligible participants through a Medicare Part D Employer Group Waiver Plan (EGWP). Previously, NYSHIP filed for the Medicare Part D Retiree Drug Subsidy on behalf of Participating Agencies.

The report is available at http://www.cs.ny.gov/GASB/2014-PA-Assumption-Report-Aon.pdf.

<sup>2.</sup> The report is available at http://www.cs.ny.gov/GASB/2012PAReport.pdf.

- Per Capita Plan Costs: As suggested as an alternative in the State Reports, the ECF OPEB actuarial valuation uses premium amounts unadjusted for age. The premiums reported to the OA by ECF for health coverage are consistent with the 2015 and 2014 Participating Agency rates for the Empire Plan offering, as follows:
  - ° Empire Plan (Pre-Medicare)
    - Individual \$805.05 monthly (\$771.54 last year).
    - Family \$1,808.86 monthly (\$1,714.19 last year).
  - ° Empire (Medicare)
    - Individual \$401.84 monthly (\$408.77 last year).
    - Family Two Medicares \$1,002.46 monthly (\$988.69 last year).
    - 65% of the Empire Plan (Medicare) premium is assumed to reflect the cost for prescription drug benefits in developing the trend applied to the Medicare premium (unchanged from the last valuation).
- ECF also provided information for dental premiums of \$34 per month (unchanged) for single coverage, \$65 per month for two-persons coverage (unchanged) and \$87 per month for family coverage (unchanged).
- Calculations reflect actual coverage for current retirees, except that individuals now under age 65 are assumed to qualify for Medicare and receive Medicare Part B Premium reimbursement when they reach age 65.
- Dependents: Beginning with the June 30, 2014 OPEB actuarial valuation, based on the 2014 State Report, 60% of males and 50% of females are assumed to cover a spouse at retirement. For the June 30, 2013 OPEB actuarial valuation, based on the 2012 State Report, 60% of males and 35% of females are assumed to cover a spouse at retirement. For both valuations, female dependent spouses are assumed to be 3 years younger than their husbands. Male dependent spouses are assumed to be 2 years older than their wives.
- Elections: Future retirees are assumed to continue in the health and dental insurance programs.
- Cost Sharing: No retiree contributions are assumed.
- Interest Rate: For the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations, 4.0% per annum.

• Trend: Covered medical, dental and Medicare Part B Premiums are assumed to increase by the following percentages:

ECF HCCTR Assumptions¹					
Fiscal Year Ending June 30 <sup>2</sup>	Pre-Medicare, Dental and Drug Benefits	Medicare Medical Benefits	Medicare Part B Premiums		
2015 <sup>3</sup>	9.00%	5.00%	6.00%		
2016	8.50%	5.00%	5.50%		
2017	8.00%	5.00%	5.00%		
2018	7.50%	5.00%	5.00%		
2019	7.00%	5.00%	5.00%		
2020	6.50%	5.00%	5.00%		
2021	6.00%	5.00%	5.00%		
2022	5.50%	5.00%	5.00%		
2023+	5.00%	5.00%	5.00%		

<sup>1</sup> Includes anticipated impact of National Health Care Reform.

- Medicare Part B Premiums: Overall Medicare Part B Premium amounts are assumed to increase as outlined in Appendix D. 100% of ECF participants are assumed to receive reimbursements of Medicare Part B Premiums, since there is no obligation on the part of eligible participants to claim such reimbursement.
- Demographic Assumptions: Beginning with the June 30, 2014 OPEB actuarial valuation, the actuarial valuation assumptions that apply to NYSLERS as modified in the 2014 State Report are used. For the June 30, 2013 OPEB actuarial valuation, the actuarial valuation assumptions that apply to NYSLERS as modified in the 2012 State Report are used.
- Salary Scale: Beginning with the June 30, 2012 OPEB actuarial valuation, the salary scale as described in the 2012 State Report for NYSLERS participants is used. This salary scale remained unchanged as described in the 2014 State Report for NYSLERS participants.

<sup>&</sup>lt;sup>2</sup> Fiscal Year for medical and dental premiums and Calendar Year for Medicare Part B Premiums.

<sup>&</sup>lt;sup>3</sup> For the June 30, 2014 OPEB actuarial valuation, rates shown for 2015 were not reflected since actual values for the Fiscal Year 2015 medical and dental premiums and Calendar Year 2015 Medicare Part B Premium amounts were used.

• Medicare Part D: As described in the 2012 State Report, the value of the Medicare Part D Retiree Drug Subsidy is not reflected in the OPEB actuarial valuation, in accordance with GASB Technical Bulletin No. 2006-1 on this issue. It is the understanding of the OA that NYSHIP had historically applied for the subsidy for participating agencies such as ECF and provided these amounts to the agencies as a separate credit on their bills.

Beginning Fiscal Year 2013, NYSHIP is providing drug coverage for Medicare retirees through an EGWP. As noted in the 2012 State Report, "The value of the Federal Subsidies and Pharmaceutical Manufacturers' brand discounts under the EGWP are allowed to be reflected in GASB 45 calculations." The OA understands that New York State adopted the EGWP for Participating Agencies like ECF part way through Fiscal Year 2013, and thus the premium rates presumably reflect the savings associated with the EGWP for a portion of the year. Premiums charged during Fiscal Year 2015 are assumed to fully reflect the savings associated with the EGWP arrangement.

- Cadillac Tax: Beginning in 2018, National Health Care Reform will impose an excise tax on providers of certain "high cost plans" with total health care benefit values above certain thresholds (commonly referred to as Cadillac Tax). The June 30, 2014 and the June 30, 2013 OPEB actuarial valuations include an estimate of the cost of the tax. The tax, which starts in Calendar Year 2018, is 40% of the excess of (a) over (b) where (a) is the sum of the medical, drug and Medicare Part B Premiums, and (b) is the statutory limits (\$10,200 for single coverage and \$27,500 for family coverage), adjusted for the following:
  - ° The limit will first be increased by the excess of the accumulated Pre-Medicare trend for the period from 2010 through 2018 over 55% (reflecting the adjustment for excess trend on the standard Federal Blue Cross/Blue Shield option);
  - ° For Pre-Medicare retirees, the limit will be further increased by \$1,650 for single coverage; \$3,450 for family coverage;
  - ° Limits will increase from 2018 to 2019 by CPI plus 1%; and
  - Limits will increase thereafter by CPI.

For purposes of estimating the Cadillac Tax, CPI was assumed to be 2.5% for the June 30, 2014 and for the June 30, 2013 OPEB actuarial valuations.

- Actuarial Cost Method: Entry Age, described in Section V.
- Actuarial Asset Valuation Method: Market Value, described in Section V.

• Amortization of UAAL: All UAAL are being amortized over an open one-year period except for the change in the Actuarial Accrued Liability due to the change in the Actuarial Cost Method, established as of June 30, 2012, which is being amortized over a closed 10-year period using level dollar amortization. This is the minimum period permitted in cases where there is a significant reduction in the Unfunded Actuarial Accrued Liability as provided in GASB45 Paragraph 13.f(3). The portion of the Unfunded Actuarial Accrued Liability related to previous accumulated deficiencies in funding and any actuarial gains or losses due to experience are being amortized over a one-year period.



### **APPENDIX F**

### **CUNY TIAA**

### ACTUARIAL ASSUMPTIONS AND METHODS AND PLAN PROVISIONS

Employees and retirees of The City University of New York (CUNY) are eligible for the same health benefits (both in active service and in retirement, if eligible) as employees and retirees of the City. The health benefits are administered by OLR. The City is responsible for the cost of all OPEB for Community College retirees who retired under one of the NYCRS, for Medicare Part B Premiums for Senior College retirees who retired under one of the NYCRS and for Medicare Part B Premiums for all CUNY TIAA retirees. Effective with the June 30, 2007 OPEB actuarial valuation, it is understood that the City is also responsible for all OPEB for Community College retirees who retired under TIAA–CREF and for Welfare Fund contributions for non-pedagogical Senior College retirees.

The actuarial assumptions used for CUNY members of the NYCRS are the same as those used for City members of the applicable retirement system, except that the assumption for members of TRS electing the optional 55/25 Plan does not apply to CUNY because its employees were not eligible to opt into that plan. According to the data used in the OPEB actuarial valuation, there are CUNY employees covered by NYCERS, TRS and BERS.

For the June 30, 2006 OPEB actuarial valuation, CUNY provided Buck with snapshot data of active City (Community College) and State (Senior College) employees as of June 30, 2002, 2003, 2004, 2005 and 2006 and provided a file of all terminations during the period July 1, 2001 through June 30, 2006. Based on the data provided, assumptions were developed for probabilities of termination (withdrawal) and retirement for TIAA–CREF members of CUNY. These probabilities of termination and retirement continued to be used for all subsequent OPEB actuarial valuations.

The assumptions used for mortality, disability and salary increase are the same as those used for TRS (i.e., the Silver Books) and are unchanged from the June 30, 2013 OPEB actuarial valuation.

The table on the following page outlines these demographic assumptions.

Except as noted below, all other assumptions (e.g., discount rate, per capita claims costs, health care cost trend rates, Medicare Part B Premiums, age-related morbidity) are the same as those used for members of TRS.

Dependent Coverage.	For the June 30, 2014 and June 30, 2013 OPEB actuarial valuations, 50% of future retirees are assumed to be married with spousal coverage. Actual spouse data is used for current retirees. Dependent coverage is assumed to terminate when a retiree dies.		
	For the June 30, 2014 and June 30, 2013 OPEB actuarial valuations, male retirees were assumed to be four (4) years older than their wives, and female retirees were assumed to be two (2) years younger than their husbands.		
Participation	Active participation assumption based on current retiree elections, as shown in the following table. Actual elections for current retirees.		

PLAN PARTICIPATION ASSUMPTIONS					
	June 30, 2014 Valuation		June 30, 2013 Valuation		
Benefits	Pre-Medicare	Medicare	Pre-Medicare	Medicare	
GHI/EBCBS HIP HMO Other HMO Waiver	90% 6% 4% 0%	90% 6% 4% 0%	90% 6% 4% 0%	90% 6% 4% 0%	

The same as those used for the TRS, except for the following:

Demographic Assumptions.....

Withdrawal		Retirement		
Years of Service	Probability	Age	Probability	
0	15.0%	55	2.0%	
1	12.0%	56	2.0%	
2	11.0%	57	2.0%	
3	10.0%	58	2.0%	
4	9.0%	59	2.0%	
5	7.0%	60	3.0%	
6	6.0%	61	3.0%	
7	6.0%	62	4.0%	
8	6.0%	63	5.0%	
9	4.0%	64	6.0%	
10	4.0%	65	10.0%	
11	3.0%	66	5.0%	
12	3.0%	67	5.0%	
13	2.0%	68	5.0%	
14-19	2.0%	69	10.0%	
20+	1.0%	70	100.0%	

The following is an outline of the eligibility provisions for OPEB for CUNY TIAA participants:

Retirement with Immediate OPEB Eligibility:

- Hired before July 1, 1976: Age 55 with 10 years of service.
- Hired between July 1, 1976 and August 31, 1985: Age 62 with 15 years of service.
- Hired on or after September 1, 1985: Age 62 with 15 years of service.

Exception for Executive Compensation Plan (ECP) employees: Age 55 with 10 years of service.

# Termination with Deferred OPEB Eligibility:

- Hired before July 1, 1976: Terminate with 15 years of service, payable at age 55.
- Hired between July 1, 1976 and August 31, 1985: Terminate with 10 years of service, payable at 62 with no subsequent full-time employment at another college, university or institution of post-secondary education.
- Hired on or after September 1, 1985: Terminate with 15 years of service, payable at 62 with no subsequent full-time employment at another college, university or institution of post-secondary education.

Exception for ECP Employees: Terminate with 10 years of service, payable at 55 with no subsequent full-time employment at another institution of post-secondary education.

Disability Retirement: A CUNY TIAA member who is disabled with at least 10 years of service and receiving a benefit from the Optional Retirement Program (TIAA-CREF) is entitled to retiree health benefits.

Note: The OPEB actuarial valuation also assumes:

• Terminated employees with the required number of years of service have no subsequent full-time employment at another college, university or institution of post-secondary education.

CUNY TIAA participants maintain any required TIAA-CREF account balances and/or annuity benefits.

# Data Used and Assumptions Made:

- Data for CUNY TIAA retirees were provided by OLR. For the June 30, 2013 valuation, gender was provided for all but 59 retirees. Retirees for whom a gender identifier was not provided were assumed to be female. For the June 30, 2014 valuation gender was provided for all. A Senior/Community College identifier was provided on the data for the June 30, 2014 and June 30, 2013 valuations. For the June 30, 2013 valuation, the Senior/Community identifier was not provided for 11 retirees. We assumed that 75% of the CUNY TIAA retirees missing the code had been employed by Senior Colleges, and 25% had been employed by Community Colleges. For the June 30, 2014 OPEB actuarial valuation, all CUNY TIAA retiree data had Senior/Community College indicators.
- Data for active CUNY TIAA participants as of June 30, 2014 were provided by CUNY. The 15 active employees and 3 active/inactive employees who were identified as covered by the Cultural Institutions Retirement System (CIRS) were valued using the CUNY TIAA provisions.

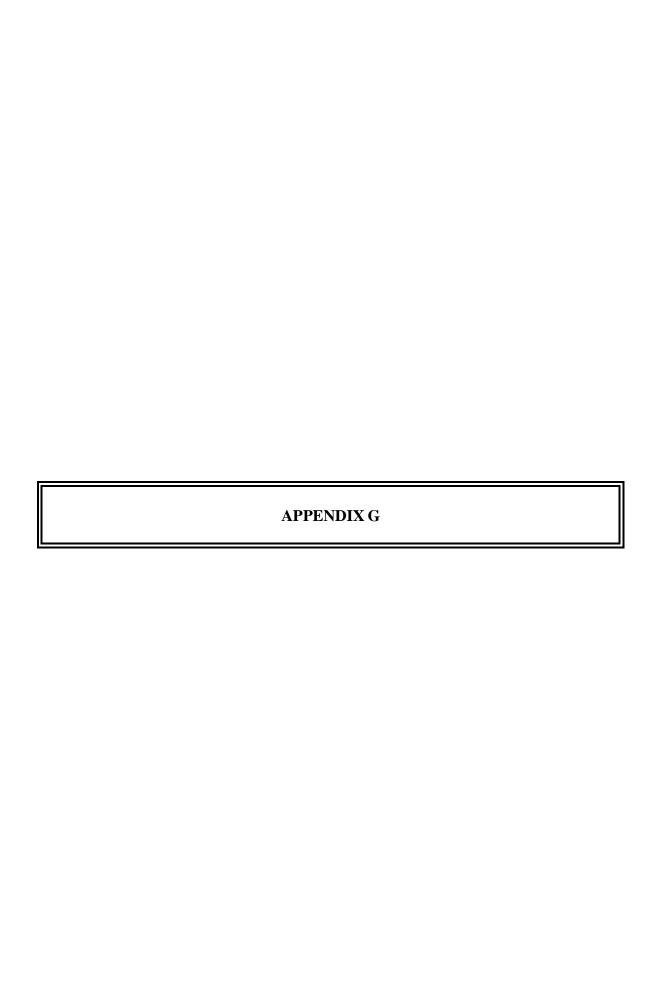
- The annual Welfare Fund contribution rate assumed for CUNY TIAA future retirees is \$1,890 (\$1,900 in the previous OPEB actuarial valuation.)
- CUNY has not historically maintained a database of terminated employees who will be entitled to OPEB in the future. Based on the data provided for the experience study to develop assumptions and updated with data reported for subsequent OPEB actuarial valuations, Buck identified 346 employees who terminated in the last 12 years and could be eligible for OPEB. Based on this information, Buck estimated the number, demographic distribution and liability of possible terminated members entitled to future OPEB.

# CUNY TIAA Community College Retirees – Payment Responsibility:

 Beginning with the June 30, 2007 OPEB actuarial valuation for CUNY, the cost of basic medical and Welfare Fund benefits for CUNY Community College TIAA retirees is allocated to the City.

Note: The data that OLR uses to bill CUNY for its responsibilities for OPEB has not historically contained information identifying TIAA–CREF retirees as either Senior or Community College. Thus, this reallocation of responsibilities was not immediately implemented.

It is understood by the Actuary that CUNY has recently upgraded their recordkeeping system and has been able to identify CUNY TIAA retirees as attributable to either Senior College or Community College. The data submitted for the June 30, 2014 OPEB actuarial valuation contained the College indicator for all of TIAA retirees. A review of CUNY's payment allocation for Fiscal Year 2015 shows that the reallocation of responsibilities was implemented during Fiscal Year 2015, with the City billing CUNY only for Senior College CUNY TIAA retirees.



### **APPENDIX G**

# **ACKNOWLEDGEMENTS**

The Actuary acknowledges and expresses appreciation to the following individuals and organizations for their efforts in support of the development of the GASB43 and GASB45 results and the production of this Report:

- The staff of the New York City Office of the Actuary for developing the results, preparing this Report and coordinating the entire OPEB project.
- The staff of Buck Consultants, LLC who collaborated closely with the OA to develop and run the programs that produced the final results. The Actuary also thanks the Buck staff for their consultation and advice, their tireless efforts to meet very tight deadlines and their access and availability to the OA.
- The staff of the Office of Labor Relations for providing supplemental data needed to value the OPEB provided under the Program.
- The staff of the Office of the Comptroller for their insights, cooperation and support.
- The staff of the Office of Management and Budget for the OPEB Plan financial information and for their insights, cooperation and support.
- The staffs of the Component Units for their cooperation and responsiveness.
- The auditors for the City and the Component Units for their cooperation and assistance.