

**Report on the Ninth Annual Actuarial Valuation
Of Other Postemployment Benefits
Provided under the New York City Health Benefits Program**

**Prepared as of June 30, 2013 In Accordance with
Governmental Accounting Standards Board
Statements No. 43 and 45**

For Fiscal Year Ended June 30, 2014

New York City Office of the Actuary

**Robert C. North, Jr.
Chief Actuary**

September 24, 2014



OFFICE OF THE ACTUARY

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ROBERT C. NORTH, JR.
CHIEF ACTUARY

September 24, 2014

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, 2013 actuarial valuation of the Other Postemployment Benefits (“OPEB”) provided under the New York City Health Benefits Program (the “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 2014 (i.e., July 1, 2013 to June 30, 2014) for the City of New York (the “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 (the “OPEB Plan” or the “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, 2013 actuarial valuations of the New York City Retirement Systems ("NYCRS")¹ to produce Preliminary Fiscal Year 2015 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 2014 provided to the OA by OLR.
- Welfare Fund contribution rates as of June 30, 2013, June 30, 2012 and June 30, 2011, as well as information about lump-sum and retroactive payments made on behalf of retirees to Welfare Funds for Fiscal Years 2014, 2013 and 2012, provided to the OA by OLR.
- Certain Actuarial Assumptions² 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.

¹ 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")

² See Appendix D - Details of Actuarial Assumptions and Certain Methods.

- Information on the Stabilization Fund provided by OLR and OMB.

The results presented in this Report continue to take into account the current understanding of the Chief Actuary of the NYCERS (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 does not 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.

Respectfully submitted,



Robert C. North, Jr.
Chief Actuary

RCN/bs

cc: OA

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Mr. S.H. Rumley

OMB

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Mr. D. Fuleihan
Mr. K.J. Godiner
Mr. J.P. Grathwol
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Mr. D. Frydberg- NYCHA
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Mr. J.A. Pagelson - NYCHA
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For Fiscal Year Ended June 30, 2014

SECTION I

EXECUTIVE SUMMARY

- 1. This actuarial report was prepared as of June 30, 2013 and presents the results of an actuarial valuation of the Other Postemployment Benefits (“OPEB”) provided by the City of New York (the “City”) and certain entities (“Component Units”) to eligible retirees and beneficiaries through the New York City Health Benefits Program (the “Program”).**

A comparison with the June 30, 2012 OPEB actuarial valuation results is also provided. For information on the June 30, 2012 OPEB actuarial valuation, see “Report on the Eighth Annual Actuarial Valuation of Other Postemployment Benefits Provided under the New York City Health Benefits Program,” dated September 19, 2013 (the “Eighth Annual OPEB Report”).

The OPEB for which the City has financial responsibility are referred to as the OPEB Plan (the “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 2014 (i.e., July 1, 2013 to June 30, 2014) 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 2014 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, 2013. NYCHA 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 decision of the U.S. Supreme Court in June 2012 to uphold major parts of the law, the decision of the Obama administration in July 2013 to delay implementation of certain provisions of NCHR, 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, 2013 and the June 30, 2012 OPEB actuarial valuations:

TABLE I-1						
SUMMARY OF PRINCIPAL GASB45 RESULTS OF THE OPEB ACTUARIAL VALUATIONS ¹						
AS OF JUNE 30, 2013 AND JUNE 30, 2012						
(\$ Millions)						
Valuation Date	June 30, 2013			June 30, 2012		
Fiscal Year ¹	2014			2012		
Entity	City	Component Units ²	Total	City	Component Units ²	Total
Actuarial Present Value of Benefits (APVB)	\$ 120,172.5	\$ 10,203.5	\$ 130,376.0	\$ 121,876.4	\$ 10,085.6	\$ 131,962.0
Actuarial Accrued Liability (AAL) ³	\$ 71,319.1	\$ 5,842.6	\$ 77,161.7	\$ 71,399.3	\$ 5,616.9	\$ 77,016.2
Actuarial Asset Value (AAV)	\$ 1,363.1	\$ 0.0	\$ 1,363.1	\$ 2,115.8	\$ 0.0	\$ 2,115.8
Unfunded Actuarial Accrued Liability (UAAL)	\$ 69,956.0	\$ 5,842.6	\$ 75,798.6	\$ 69,283.4	\$ 5,616.9	\$ 74,900.3
Normal Cost ³	\$ 3,633.7	\$ 343.0	\$ 3,976.7	\$ 3,771.6	\$ 353.9	\$ 4,125.5
Annual Required Contribution (ARC) ⁴	\$ 92,571.1	\$ 4,974.9	\$ 97,546.0	\$ 93,688.6	\$ 4,866.1	\$ 98,554.7
Net OPEB Obligation at End of Fiscal Year ⁴	\$ 89,456.7	\$ 4,854.1	\$ 94,310.8	\$ 92,493.4	\$ 4,752.4	\$ 97,245.8

¹ For GASB43 results, see Section VI.

² Includes ECF, HHC, NYCHA, SCA and WFA.

³ Based on Entry Age Actuarial Cost Method.

⁴ Excludes NYCHA. Reflects Revised PAYG for Fiscal Year 2013 as noted in Appendix A.

6. **Section II of this Report provides a summary of the census data used to prepare the June 30, 2013 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, 2013 and the June 30, 2012 OPEB actuarial valuations and used in the determination of the Net OPEB Obligation (“NOO”) under GASB45 as of June 30, 2014 and June 30, 2013.**

8. **Section IV of this Report summarizes the OPEB provisions used in the June 30, 2013 OPEB actuarial valuation. The OPEB provisions as of June 30, 2013 remain unchanged from the provisions reflected in the prior actuarial valuation except for 15-year vesting for UFT members. Under this provision, UFT members of TRS or BERS who were employed after April 27, 2010 are required to have 15 years of service in order to be eligible for OPEB (not applicable to disability retirees). The June 30, 2013 OPEB actuarial valuation continues to include the assumption that the OPEB provisions will ultimately be amended to comply with any legislative mandates under NHCR.**

9. **Section V of this Report describes the actuarial assumptions and methods employed in the June 30, 2013 OPEB actuarial valuation, including any changes in assumptions and methods since the June 30, 2012 OPEB actuarial valuation.**

10. Section VI of this Report presents the results of the June 30, 2013 OPEB actuarial valuation and the development of the Fiscal Year 2014 Annual Required Contribution (“ARC”) in accordance with GASB43. Section VI also provides a comparison with Fiscal Year 2013 results.

11. Section VII of this Report presents the results of the June 30, 2013 OPEB actuarial valuation and the development of the Fiscal Year 2014 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 2013 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 (the “Actuary”) who serves as the Actuary for the New York City Retirement Systems (“NYCRS”)¹. 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”).

¹ 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, 2014 and June 30, 2013.
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, 2013 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, 2013 OPEB actuarial valuation with comparisons to the actuarial assumptions and methods used in the June 30, 2012 OPEB actuarial valuation, where different.

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

The OPEB-specific actuarial assumptions used in the June 30, 2013 OPEB actuarial valuation are generally the same as those used in the June 30, 2012 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.
- Welfare Fund contributions have been updated to reflect recent contribution rates.
- The factors used to adjust the premiums for HIP HMO Medicare-eligible retirees were updated to reflect actual Calendar Year 2014 HIP premiums and anticipated changes in Medicare Advantage reimbursement rates.
- Medicare Part B Premium reimbursement amounts have been updated to reflect actual premium rates announced for calendar years through 2014.
- 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 of .7% is unchanged from the last OPEB actuarial valuation.
- Aging - For the June 30, 2012 OPEB actuarial valuation, the age adjustment for the non-Medicare GHI/EBCBS premium reflected 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 NYCERS actuarial valuations were unchanged from the assumptions used in the June 30, 2012 OPEB actuarial valuation. Those demographic assumptions requiring Board approval for determining pension obligations were adopted by each NYCERS Board of Trustees during Fiscal Year 2012.

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

The Actuarial Cost Method (the 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, 2013 OPEB actuarial valuation for the New York City Educational Construction Fund ("ECF"), including references to a December 27, 2012 report entitled "Development of Recommended Actuarial Assumptions for New York State/SUNY GASB 45 Valuations – Participating Agency Version" that has been used as a basis for those actuarial assumptions. A comparison to the assumptions used in the June 30, 2012 OPEB actuarial valuation is shown, where different.
18. Appendix F of this Report presents information on the actuarial assumptions and methods used in the June 30, 2013 OPEB actuarial valuation for CUNY TIAA employees. A comparison to the assumptions used in the June 30, 2012 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, 2013 OPEB actuarial valuation is based upon the census data used in the June 30, 2013 (Lag) actuarial valuations of the NYCERS to determine Preliminary Fiscal Year 2015 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 NYCERS.

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 NYCERS.

In addition to the participants of NYCERS and CUNY TIAA, the OPEB actuarial valuation also includes 18 active CUNY employees and 4 active/inactive CUNY employees covered under the Cultural Institutions Retirement System (“CIRS”), who were also assumed to ultimately be eligible for certain OPEB outlined in this Report.

The Office of the Actuary (“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.

On March 16, 2012, the New York State Governor signed into law Chapter 18 of the Laws of 2012 (“Chapter 18/12”), generally referred to as Tier VI, for employees who join a NYCERS on or after April 1, 2012. The June 30, 2012 valuation data originally provided to the OA by NYCERS contained only two Tier VI members. It is the understanding of the Actuary that there was a delay at NYCERS in processing Tier VI membership applications. Subsequent to processing the June 30, 2012 (Lag) actuarial valuation data, the OA received partial information on approximately 1,000 Tier VI members, not all of whom are believed to be eligible for the OPEB Plan. The June 30, 2012 OPEB actuarial valuation results contained herein do not reflect these Tier VI members. It is the understanding of the Actuary that the processing delay did not affect data provided as of June 30, 2013.

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 the data, by employee group, in addition to 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, 2013 and June 30, 2012 OPEB actuarial valuations, HHC and WFA confirmed the number of participants used in the valuation for the purposes of measuring OPEB costs. For the June 30, 2013 and the June 30, 2012 OPEB actuarial valuation, NYCHA confirmed that the overall number of participants was within 1.5% and 1.0%, respectively, of the number of participants used in the valuation. For the June 30, 2011 OPEB actuarial valuation, NYCHA noted an overall count of participants that was 2.2% larger than the count of participants provided by the OA, with the active count noted by NYCHA 3.4% larger than the active count noted by the OA. For the June 30, 2008, the June 30, 2009 and the June 30, 2010 OPEB actuarial valuations, NYCHA confirmed that the overall number of participants was within 1% of the number of participants used in the valuation. NYCHA did not confirm the counts of the participants provided by the OA for the June 30, 2007 valuation.

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

Beginning with 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, June 30, 2011, June 30, 2012 and June 30, 2013 OPEB actuarial valuations, with the following table providing a comparison of the OA census data with the number of retirees implied by the monthly PAYG reported amounts.

COMPARISON OF SCA RETIREE CENSUS DATA USED IN OPEB ACTUARIAL VALUATIONS WITH ESTIMATED NUMBER FOR WHOM CONTRIBUTIONS ARE BEING MADE		
OPEB ACTUARIAL VALUATION DATE	RETIREE CENSUS USED	ESTIMATED NUMBER FOR WHOM DISTRIBUTIONS ARE BEING MADE
June 30, 2009	140	170
June 30, 2010	151	187
June 30, 2011	173	192
June 30, 2012	176	207
June 30, 2013	204*	223

* 206 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. Since SCA is a Blended Component Unit of the City, the impact on the City results appears to be negligible.

PAYG amounts for Fiscal Years 2010 through 2014 and the Net OPEB Obligation as of June 30, 2010, June 30, 2011, June 30, 2012, June 30, 2013 and June 30, 2014 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 NYCERS 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, 2013 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 and 740 such part-time retirees as of June 30, 2013. 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 as of June 30, 2011, June 30, 2012 and June 30, 2013 .

The census data is broken into the following major classifications as used in the NYCERS valuations:

- **Actives (in payroll status as of the valuation date).**
- **Active/Inactives (generally, still a NYCERS 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 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 7,800 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 11 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.

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 continued to enhance 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.

² Source: Statistics published by the CUNY Office of Institutional Research and Assessment.

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 last 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.

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 NYCERS. The proportion of retirees reported with spouse and children covered was significantly lower than previously reported. 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 Retirement System represents the same proportion that had been measured in the June 30, 2012 OPEB actuarial valuation. Data did not appear to be missing from eligible retirees who were not receiving NYCERS benefits (e.g., TIAA and LOD retirees), so no adjustments were made to those results.

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

- Tables 1a-1g Plan Participation.
- Tables 2a-2e Welfare Fund Contributions.

Except for the Educational Construction Fund (“ECF”), generally all of the census data for the Component Units is included in the NYCERS census data. The majority of those participants in the Component Units who are included in the NYCERS 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-1 presents a summary of the census data used in the June 30, 2013 and June 30, 2012 OPEB actuarial valuations:

TABLE II-1						
SUMMARY OF CENSUS DATA USED IN THE						
JUNE 30, 2013 AND JUNE 30, 2012						
OPEB ACTUARIAL VALUATIONS						
Valuation Date	June 30, 2013			June 30, 2012		
Fiscal Year	2014			2013		
Group	City	Component Units#	Total	City	Component Units#	Total
Active	280,354	44,492	324,846	284,133	43,712	327,845
Active/Inactive	20,886	4,604	25,490	22,625	4,717	27,342
Deferred Vested	14,296	2,645	16,941	13,642	2,395	16,037
Retired	<u>216,471</u>	<u>27,174</u>	<u>243,645</u>	<u>213,574</u>	<u>27,630</u>	<u>241,204</u>
Total	532,007	78,915	610,922	533,974	78,454	612,428
* Includes ECF, HHC, NYCHA, SCA and WFA.						

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, 2014 and June 30, 2013.

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 2014 and 2013.

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

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, 2014 or June 30, 2013.

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 BENEFITS*				
(\$ Millions)				
FYE June 30	2014	2013	2012	2011
Assets	\$ 2,937.8	\$ 1,834.1	\$ 2,556.1	\$ 3,081.3
Liabilities	\$ <u>517.1</u>	\$ <u>471.0</u>	\$ <u>440.3</u>	\$ <u>449.7</u>
Net Assets	\$ 2,420.7	\$ 1,363.1	\$ 2,115.8	\$ 2,631.6
* Source: Wells Fargo Statements and information from OMB.				

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 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.

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 (the "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.

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. The City and the Component Units (except CUNY for certain retirees and ECF) generally provide most death and disability benefits through the NYCERS. Those benefits are measured as part of the obligations of the NYCERS 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 2014 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 NYCERS (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 NYCERS (or is eligible for certain Deferred Retirement benefits). Payability date varies by System and group.**

Note: The United Federation of Teachers negotiated that individuals in those unions who are members of TRS and BERS who were hired after April 27, 2010 must have 15 years of service in order to qualify for OPEB. The June 30, 2012 OPEB actuarial valuation did not reflect this provision, as the OA had understood that the revised provision had not yet been adopted as part of the New York City Administrative Code. The OA subsequently learned that the provision had been adopted. This OPEB actuarial valuation reflects this provision.

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.

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. 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 2014 include Aetna HMO, CIGNA, Empire HMO Empire EPO, GHI HMO, HIP POS, MetroPlus and Vytra Health Plans.

Other plans available to Medicare-eligible retirees for Fiscal Year 2014 include Medicare supplemental plans, such as Empire Medicare-Related Coverage, Humana, SecureHorizons Health Plans, 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 most 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 will be eligible for coverage on the newly established 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, since there is still some doubt as to the effectiveness of the Marketplace option.

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 are either fully paid by the retirees or are provided through various Welfare Funds.

Health Care Benefits Cost-Sharing Arrangement

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 available to the OA for the HIP coverage. OLR provided a copy of the claims component of the Fiscal Year 2014 GHI and Fiscal Year 2014 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 the New York City Office of Management and Budget ("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 premium 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 assumed that the margin had been removed from the Fiscal Year 2014 premiums.

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 currently effective version of Actuarial Standard of Practice No. 6, *Measuring Retiree Group Benefit Obligations*. An employer can currently 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 currently being applied 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 GASB45 measurement for any Component Unit.

A retiree who elects other basic medical coverage 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 other options. Net employer premium contributions for the various options were provided to the OA by OLR, allowing the OA to confirm that employer premiums were consistent with the 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 those arrangements would have only a *de minimis* impact on the valuations.

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 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. The Welfare Funds are generally separate legal entities, often administered by various labor organizations.

The Welfare Funds' per capita contributions apply to retirees only without any additional funds for covered dependents. The contributions are generally made 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. In addition, the collective bargaining agreements provide 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. For purposes of this Report, this understanding was not verified at source but was confirmed in conversations with OLR.

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 purposes³. Thus, the OA has not considered the impact of any such calculations on the analyses herein.

³ 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.

A review of the 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 is used instead of a single reported Welfare Fund amount to smooth out negotiated variations. For the June 30, 2013, June 30, 2012, June 30, 2011, June 30, 2010 and June 30, 2009 OPEB actuarial valuations, certain lump-sum payments to the Welfare Funds on behalf of retirees are included in the three-year average. Furthermore, for the June 30, 2013, June 30, 2012, June 30, 2011 and June 30, 2010 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).

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. 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 2012 Medicare Part B Premiums were generally reimbursed in August 2013, with Income Related Monthly Adjustment Amounts ("IRMAA") reimbursed during March 2014.

The June 30, 2013 OPEB actuarial valuation projects Medicare Part B Premium reimbursements for premiums to be paid starting July 1, 2013. The OA understands that the City takes into account for Fiscal Year 2014 an estimate of the Medicare Part B Premiums for the period from January 1, 2014 through June 30, 2014 as well as known Calendar Year 2013 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 2014.

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 (the "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 Year 2014, certain funds were used to set up a Minimum Premium Account for the GHI insurance arrangement.**
- **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.**

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 \$35 million contribution amount can be considered as a cap on employer contributions to the Stabilization Fund. Under Q&A 71 in the "Guide to Implementation of GASB Statements 43 and 45 on Other Postemployment Benefits" published by GASB in June 2005, such a cap is not considered part of the definition of benefits to be provided to retirees, and should not be considered in the projection of benefits until such a cap alters the established pattern of cost sharing as defined in the Substantive Plan. Thus, the calculations presented herein reflect an estimate of the current level of benefits provided by the Stabilization Fund directly to the 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 2014 Stabilization Fund benefits. This amount is used to develop a load that is only reflected in the OPEB actuarial valuation for the City.

The load of .7% used in the June 30, 2013 OPEB actuarial valuation was unchanged from 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 NYCERS 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, 2013 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, 2012 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 2014

Payroll Agency	Health Insurance	Welfare Fund ¹	Medicare Part B
Charter Schools	Yes	Yes	Yes
Custodial Engineer	Yes	Yes	Yes
CUNY - Senior Colleges	No*	Yes ²	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

* The City pays these benefits upfront, not out of the NYCRRHT, and then is reimbursed.

¹ Welfare Fund coverage not available to pre-1/1/1971 retirees. LOD death beneficiary coverage provided through Stabilization Fund.

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 2013

Payroll Agency	Health Insurance	Welfare Fund ¹	Medicare Part B
Charter Schools	Yes	Yes	Yes
Custodial Engineer	Yes	Yes	Yes
CUNY - Senior Colleges	No*	Yes ²	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

* The City pays these benefits upfront, not out of the NYCRRBT, and then is reimbursed.

¹ Welfare Fund coverage not available to pre-1/1/1971 retirees. LOD death beneficiary coverage provided through Stabilization Fund.

² The City pays the Welfare Fund for non-pedagogical CUNY Senior Colleges retirees.

Subsequent Events

Annually, the Actuary reviews 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. 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.

As discussed in Section II, the OPEB results contained herein are based on the data used in the June 30, 2013 actuarial valuation of the New York City Retirement Systems to develop Preliminary Fiscal Year 2015 employer contributions under One-Year-Lag Methodology ("OYLM").

As of June 30, 2013, a large majority of the NYCERS 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 this Report, others are pending ratification. All contracts contain retroactive wage increases.

The census data used in the June 30, 2013 (Lag) actuarial valuation does not contain 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 potentially impact the AAL and the Normal Cost. An estimate of the impact has not been made but is deemed to be immaterial.

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*, ("ASOP 6"). The revisions to ASOP 6 will be effective for measurement dates on or after March 31, 2015. The revision includes additional guidance concerning retiree group benefit programs that participate in pooled health plans, including community-rated plans. This guidance could have a significant impact on how costs are measured for the "Other HMOs" for City sponsored plans, for the NYSHIP arrangement provided for ECF retirees and for the Welfare Funds. The Actuary has not yet evaluated this guidance as it relates to the benefits included in this valuation.

There has been significant research in the area of mortality improvement, with the expectation of imminent further publication in this area.

In September 2012, the Society of Actuaries' Retirement Plans Experience Committee ("RPEC") published a paper on mortality improvement⁴. 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 improvement⁵. 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. RPEC has announced that a final version of the research is to be published during October 2014.

⁴ Society of Actuaries Mortality Improvement Scale BB Report, <https://www.soa.org/Research/Experience-Study/Pension/research-mortality-improve-bb.aspx>.

⁵ RP-2014 Mortality Tables Exposure Draft, <https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-tables.aspx> and Mortality Improvement Scale MP-2014 Exposure Draft, <https://www.soa.org/Research/Experience-Study/Pension/research-2014-mort-imp-scale.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 NYCERS, 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 NYCERS mortality. 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 NYCERS actuarial valuations and those specific to the OPEB actuarial valuations.

The OPEB-specific actuarial assumptions and methods used in the June 30, 2013 OPEB actuarial valuation are generally the same as those used in the June 30, 2012 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 (.7%, unchanged).
 - 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 2014 HIP premiums and anticipated changes in Medicare Advantage reimbursement.
- Welfare Fund contributions have been updated to reflect recent contribution rates. As with the previous OPEB actuarial valuation, a three-year trended average of reported annual contribution amounts for current retirees was used. The Welfare Fund rates reported for the previous two OPEB actuarial valuations were trended to current levels based on a historic increase rate of 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 and June 30, 2012 OPEB actuarial valuations, certain lump-sum amounts have 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).
- Medicare Part B Premium reimbursement amounts have been updated to reflect actual premium rates announced for calendar years through 2014.
- Aging – For the June 30, 2012 OPEB actuarial valuation, the age adjustment for the non-Medicare GHI/EBCBS premium reflected 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.

In addition, certain refinements in procedures were made in these calculations. These refinements included adjustments to the assumed ages of benefit commencement for deferred vested participants to be more consistent with assumptions used in the NYCRS valuations.

The actuarial assumptions used to value the NYCERS 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 NYCERS actuarial assumptions used in the June 30, 2013 OPEB actuarial valuation are unchanged from those used in the June 30, 2012 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, 2013 OPEB actuarial valuation.

Additional details regarding the actuarial assumptions and certain methods used in the June 30, 2013 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 the June 30, 2013 OPEB actuarial valuation, 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.

Note: The method as used for determining covered earnings is somewhat complicated by the fact that the same individual could be earning benefits under the City and under a Component Unit at the same time (e.g., an HHC retiree will receive Medicare Part B Premium reimbursement from the City and Basic Medical and Welfare Fund benefits paid by HHC).

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, 2013 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 ("N00").

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 premium 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. For Fiscal Year 2014, the age-adjusted premiums used in the valuation for the GHI/EBCBS arrangement no longer reflect an assumed margin. This results in an assumption of a greater Implicit Rate Subsidy for Fiscal Year 2014 than had been assumed for prior periods.

SECTION VI

PRINCIPAL RESULTS UNDER GASB43

For the New York City OPEB Plan, the principal results of the June 30, 2013 and June 30, 2012 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, 2013 AND JUNE 30, 2012		
(\$ Millions)		
Valuation Date	June 30, 2013	June 30, 2012
Fiscal Year	2014	2013
Actuarial Present Value of Benefits (APVB)	\$ 120,172.5	\$ 121,876.4
Actuarial Asset Value (AAV)	\$ 1,363.1	\$ 2,115.8
Unfunded Actuarial Accrued Liability ¹ (UAAL)	\$ 69,956.0	\$ 69,283.4
Annual Required Contribution (ARC)		
Normal Cost - BOY	\$ 3,633.7	\$ 3,771.6
UAAL Payment ² - BOY	87,667.4	88,604.0
UAAL Payment ³ - BOY	(2,290.4)	(2,290.4)
Interest to EOY	<u>3,560.4</u>	<u>3,603.4</u>
Total ARC	\$ 92,571.1	\$ 93,688.6
¹ Based on Entry Age Actuarial Cost Method. ² Based on One-Year Amortization. ³ Based on a Closed 10-Year Amortization Period.		

Detailed results of the June 30, 2013 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 (the "City") and certain of its Component Units, the principal results of the June 30, 2013 and the June 30, 2012 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, 2013 AND JUNE 30, 2012						
(\$ Millions)						
Valuation Date	June 30, 2013			June 30, 2012		
Fiscal Year	2014			2013		
Entity	City	Component Units ¹	Total	City	Component Units ¹	Total
Actuarial Present Value of Benefits (APVB)	\$ 120,172.5	\$ 10,203.5	\$ 130,370.6	\$ 121,876.4	\$ 10,085.6	\$ 131,962.0
Actuarial Asset Value (AAV)	\$ 1,363.1	\$ 0.0	\$ 1,363.1	\$ 2,115.8	\$ 0.0	\$ 2,115.8
Unfunded Actuarial Accrued Liability ² (UAAL)	\$ 69,956.0	\$ 5,842.6	\$ 75,798.6	\$ 69,283.4	\$ 5,616.9	\$ 74,900.3
Normal Cost ²	\$ 3,633.7	\$ 343.0	\$ 3,976.7	\$ 3,771.6	\$ 353.9	\$ 4,125.5
Annual Required Contribution (ARC)						
Normal Cost - BOY	\$ 3,633.7	\$ 242.6	\$ 3,876.3	\$ 3,771.6	\$ 246.0	\$ 4,017.6
UAAL Payment ³ - BOY	87,667.4	4,658.1	92,325.5	88,604.0	4,550.0	93,154.0
UAAL Payment ⁴ - BOY	(2,290.4)	(117.1)	(2,407.5)	(2,290.4)	(117.1)	(2,407.5)
Interest to EOY	<u>3,560.4</u>	<u>191.3</u>	<u>3,751.7</u>	<u>3,603.4</u>	<u>187.2</u>	<u>3,790.6</u>
Total ARC ⁵	\$ 92,571.1	\$ 4,974.9	\$ 97,546.0	\$ 93,688.6	\$ 4,866.1	\$ 98,554.7
Net OPEB Obligation at End Of Fiscal Year ⁵	\$ 89,456.7	\$ 4,854.1	\$ 94,310.8	\$ 92,493.4	\$ 4,752.4	\$ 97,245.8

¹ ECF, HHC, NYCHA, SCA and WFA.

² Based on Entry Age Actuarial Cost Method.

³ Based on One-Year Amortization.

⁴ Based on a Closed 10-Year Amortization Period.

⁵ Excludes NYCHA. Reflects Revised PAYG for Fiscal Year 2013 as noted in Appendix A.

Detailed results of the June 30, 2013 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, 2013 actuarial valuation of the Other Postemployment Benefits (“OPEB”) provided under the New York City Health Benefits Program (the “Program”).

A comparison with the June 30, 2012 OPEB actuarial valuation results is also provided. For information on the June 30, 2012 OPEB actuarial valuation, see “Report on the Eighth Annual Actuarial Valuation of Other Postemployment Benefits Provided under the New York City Health Benefits Program,” dated September 19, 2013 (the “Eighth 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 (the “City”) and certain non-City entities (“Component Units”) for Fiscal Year 2014.

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, 2013 OPEB actuarial valuation is that of the New York City Retirement Systems (“NYCRS”)⁶ with supplemental data provided by the New York City Office of Labor Relations (“OLR”), ECF and CUNY.

⁶ 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 NYCERS. 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. Based on trends indicated in this information, the June 30, 2012 valuation assumed a greater portion of the population to be former Community College employees (and hence having their benefits the responsibility of the City) than had previously been assumed.

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 last 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.

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, 2013 OPEB actuarial valuation.

The following discusses the June 30, 2013 census data for certain Component Units:

- ECF provided separate data directly to the OA. The ECF employees and retirees are not members of the NYCERS.
- 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. 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 1.5% of those used for measuring OPEB costs. On this basis, 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 (the "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 letter 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. 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 (the "Actuary") in his capacity as the Actuary for the NYCERS, to value the benefits payable by the NYCERS. These NYCERS actuarial assumptions are unchanged from those used in the June 30, 2012 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.

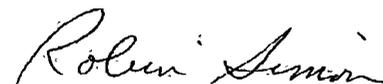
The actuaries whose signatures appear below are Members of the American Academy of Actuaries ("AAA") and, together, meet the Qualification Standards of the AAA to render this SAO. The actuaries certify that they believe that the assumptions used in this Report are reasonable for the purposes of measurement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



Robert C. North, Jr. FSA, FSPA, FCA, MAAA, EA
Chief Actuary
New York City Office of the Actuary



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

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, 2014 and June 30, 2013

	June 30, 2014 ¹		June 30, 2013 ²	
ASSETS				
Cash				
Settled Cash	\$	(62,106)	\$	0
Receivables				
Trust		328,025		1,423,778
DOE Welfare Fund		0		10,655
Medicare Part D		272,086		229,229
Payables				
Investment Securities Purchased		<u>0</u>		<u>(37,575,847)</u>
Total Cash	\$	538,005	\$	(35,912,185)
Cash Equivalents				
US Treasury Bills	\$	0	\$	24,960,616
Commercial Paper		2,358,366,972		1,033,625,788
CDS and Savings Certificates		0		0
Short Term Funds		35,916,617		4,871,418
Government Agency		<u>0</u>		<u>24,947,354</u>
Total Cash Equivalents	\$	2,394,283,589	\$	1,088,405,176
Fixed Income				
Corporate Bonds and Notes	\$	29,613,808	\$	279,722,685
Government and Agencies		<u>513,313,961</u>		<u>501,636,956</u>
Total Fixed Income	\$	542,927,769	\$	781,359,641
Prepaid Benefits / Expenses				
Total Prepaid	\$	43,465	\$	203,448
Total Assets	\$	2,937,792,828	\$	1,834,056,080
LIABILITIES				
Medicare Part B	\$	151,000,373	\$	140,540,877
Benefits Payable		366,056,813		330,398,975
Trustee Fees Payable		17,702		23,297
Audit Fees Payable		<u>20,000</u>		<u>20,000</u>
Total Liabilities	\$	517,094,888	\$	470,983,149
NET POSITION				
Held in Trust for Benefit Payments	\$	2,420,697,940	\$	1,363,072,931

¹ Based on Information Provided by OMB on September 18, 2014.

² Based on Information Provided by OMB on September 11, 2013 and on Revised Information Provided by OMB on October 4, 2013.

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, 2014 and June 30, 2013

	June 30, 2014 ¹		June 30, 2013 ²	
ADDITIONS				
Employer Contributions				
Pay-As-You-Go				
Trust	\$	2,891,426,525 ³	\$	1,021,625,671 ⁴
Non-Trust		222,902,394		173,598,682 ⁵
Other		0		0
Total Contributions	\$	3,114,328,919	\$	1,195,224,353
 Earned Income				
Interest Income	\$	6,106,622	\$	11,047,406
Net Accrued Income		(1,073,906)		(827,631)
Net Realized Gain / (Loss)		1,800,005		(1,381,844)
Total Investment Income	\$	6,832,721	\$	8,837,931
 Net Unrealized Gain / (Loss)		1,374,068		(1,263,918)
 TOTAL ADDITIONS	\$	3,122,535,708	\$	1,202,798,366
 DEDUCTIONS				
Benefit Payments				
Trust	\$	1,841,635,404 ³	\$	1,781,566,998 ⁴
Non-Trust		222,902,394		173,598,682 ⁵
Sub-Total	\$	2,064,537,798	\$	1,955,165,680
Expenses				
Administrative Expenses	\$	20,000	\$	20,000
Legal Fees		0		0
Trustee Fees		352,901		386,149
Sub-Total	\$	372,901	\$	406,149
 TOTAL DEDUCTIONS	\$	2,064,910,699	\$	1,955,571,829
 CHANGE IN NET POSITION	\$	1,057,625,009	\$	(752,773,463)
 NET POSITION HELD IN TRUST FOR BENEFIT PAYMENTS				
Beginning of Year	\$	1,363,072,931	\$	2,115,846,394
End of Year	\$	2,420,697,940	\$	1,363,072,931

¹ Based on Information Provided by OMB on September 18, 2014.

² Based on Information Provided by OMB on September 11, 2013 and on Revised Information Provided by OMB on October 4, 2013.

³ Net of the Interfund Transfer of \$457,118,093 in Fiscal Year 2014.

⁴ Net of the Interfund Transfer of \$446,057,108 in Fiscal Year 2013.

⁵ Reflects OMB Revision of \$7,273,730.

APPENDIX B

**Appendix B - Table 1a
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation**

PLAN PARTICIPATION - NYCERS

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City*	14,241	4,225	944	838	20,248
Component Units:					
HHC	2,384	640	119	94	3,237
NYCHA	1,249	569	76	64	1,958
WFA	1	0	0	0	1
Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City*	32,936	8,853	2,241	2,762	46,792
Component Units:					
HHC	11,800	2,929	557	915	16,201
NYCHA	3,884	1,129	192	330	5,535
WFA	0	1	0	0	1

*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, 2013 OPEB Actuarial Valuation

PLAN PARTICIPATION - TRS

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	11,557	1,065	311	1,101	14,034
Component Units:					
HHC	1	0	0	0	1
NYCHA	0	0	0	0	0
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	49,760	3,809	1,378	2,496	57,443
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, 2013 OPEB Actuarial Valuation**

PLAN PARTICIPATION - BERS

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City*	1,582	360	40	171	2,153
Component Units:					
HHC	0	0	0	0	0
NYCHA	1	0	1	1	3
WFA	0	0	0	0	0
Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City*	9,365	1,963	192	744	12,264
Component Units:					
HHC	5	1	1	0	7
NYCHA	10	1	0	0	11
WFA	0	0	0	1	1

*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, 2013 OPEB Actuarial Valuation**

PLAN PARTICIPATION - POLICE

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	21,861	2,460	1,398	1,124	26,843
Component Units:					
HHC	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	15,714	2,050	1,008	487	19,259
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, 2013 OPEB Actuarial Valuation

PLAN PARTICIPATION - FIRE

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	5,273	701	607	124	6,705
Component Units:					
HHC	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	7,506	1,240	537	188	9,471
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, 2013 OPEB Actuarial Valuation

PLAN PARTICIPATION - TIAA

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	40	0	4	0	44
Component Units:					
HHC	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	596	35	22	0	653
Component Units:					
HHC	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, 2013 OPEB Actuarial Valuation

PLAN PARTICIPATION - LODW

Pre-Medicare Headcounts	GHI Indemnity	HIP HMO	Other HMO	Waived	Total
City	38	8	4	0	50
Component Units:					
HHC	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	587	109	22	0	718
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, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - NYCERS

UWF	Description	Count ¹	6/30/11 Rate ²	6/30/12 Rate ²	6/30/13 Rate ²
001	NYC MANAGEMENT WELFARE FUND	7,148	\$1,640	\$1,640	\$1,640
005	ALLIED BUILDNG INSPECTORS	363	1,640	1,640	1,640
010	ASST DEP WARDENS ASSC SBF	383	1,490	1,490	1,490
030	CORRECTION CAPTAINS ASSOC	1,690	1,440	1,490	1,490
035	CORRECT OFFICRS BEN ASSOC	7,625	1,640	1,640	1,640
040	NYS COURT OFFICERS ASSOC	2	830	830	830
045	CWA LOCAL 1182 RETIREE SBF	358	1,640	1,640	1,640
046	CWA L1181 SEC BEN FND RET	276	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)	175	1,523	1,523	1,523
050	DET END ASSN RET FUND (H)	128	1,523	1,523	1,523
055	DEA RET FND(PBA OF THE DA)	102	1,523	1,523	1,523
060	DISTRICT COUNCIL 37	34,752	1,640	1,640	1,640
061	DC 37 - (TAPD CIVILIANS)	14	1,640	1,640	1,640
066	DC 37 MEBA - FERRYBOATS	113	1,640	1,640	1,640
070	DOCTORS CNCL RET WELF FND	466	1,540	1,540	1,540
075	LCL 3 IBEW ELECTR INSPECT	28	1,640	1,640	1,640
080	FIRE ALARM DSP BEN ASSOC	154	1,640	1,640	1,640
100	LPN RETIREE WELFARE FUND	638	1,640	1,640	1,640
105	OSA SUPV.EMG.MED.SVC.SPEC	19	1,640	1,640	1,640
106	OSA WELF FND-SCHOOL SEC/T	31	1,640	1,640	1,640
107	OSA WELF FUND -SAN CHIEFS	50	1,540	1,540	1,540
108	ORG OF STAFF ANALYSTS	1,769	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	494	1,590	1,590	1,590
115	LOCAL 306 RETIR HLTH WELF	7	1,640	1,640	1,640
120	LOCAL 333 DOCKHANDS	189	1,640	1,640	1,640
129	UNKNOWN	232	1,640	1,640	1,640
130	LOCAL 832 RETIREES	53	1,840	1,840	1,840
131	UNKNOWN	60	1,640	1,640	1,640
135	RET CWA L1183 DOE H&W FND	133	1,753	1,753	1,753
140	1199 NHHSEU	322	1,640	1,640	1,640
155	LCL 1180 CWA RET BENE FND	5,685	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	46	1,365	1,365	1,365
162	UFT WELFARE FUND	22	1,720	1,720	1,720
163	UFT WELFARE FUND	42	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	38	1,640	1,640	1,640
170	PBA (NYPD)	8	1,579	1,579	1,579
171	PBA (NYPD) (TA)	1,605	1,579	1,579	1,579
172	PBA (NYPD) (HA)	579	1,579	1,579	1,579
185	NYS NURSES ASSOCIATION	2,897	1,640	1,640	1,640
187	PAVERS & RDBULDERS INSPCT	36	1,640	1,640	1,640
190	UNITED PROBATION OFFICERS	388	1,723	1,723	1,723
200	SANITATION OFF RET WEL FN	2,457	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)	38	1,565	1,565	1,565
230	SBA HLTH&WELF FUND/RET(T)	236	1,740	1,740	1,740

Appendix B - Table 2a
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - NYCERS

UWF	Description	Count ¹	6/30/11 Rate ²	6/30/12 Rate ²	6/30/13 Rate ²
231	SOC NYPD LT BENEV ASSO(H)	78	1,565	1,565	1,565
232	SOC NYPD CAPT END ASSN(H)	44	1,565	1,565	1,565
233	SBA HLTH&WELF FUND/RET(H)	129	1,740	1,740	1,640
235	L237 RETIREE BENE FND-CW	6,431	1,840	1,840	1,840
250	USA RETIREES' WELFARE FND	7,132	1,909	1,909	1,909
251	UNKNOWN	229	1,640	1,640	1,640
260	LCL 300 RETIREE WELF FUND	378	1,640	1,640	1,640
261	LEEBA RETIRED EES WELF FD	5	1,640	1,640	1,640
275	PROFESSIONAL STAFF CONGRESS	227	1,865	1,865	1,865
276	PROFESSIONAL STAFF CONGRESS	7	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	7	930	930	930
700	LCL 237 RWF(L621 SUP MEC)	217	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	105	1,840	2,040	1,840
704	L1969(L806 BRDG PAINTERS)	28	1,640	1,640	1,640
705	L.40 361&417 JT UN SEC FD	38	1,540	1,540	1,540
706	LCL 3 IBEW COMMUN ELEC ET	59	1,540	1,540	1,540
709	L237RWF (L621 ADFM)	3	1,640	1,640	1,640
712	LCL 3 IBEW ELCTRCN SUP HL	397	1,640	1,640	1,640
713	UNKNOWN	28	1,640	1,640	1,640
714	LCL 237 ELEV MECH RETIREE	261	1,840	1,840	1,840
715	LCL237MASON'S HLPS RETIRE	25	1,840	1,840	1,840
717	LOCAL 1969, GLAZIERS	37	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	67	1,540	1,540	1,540
725	UNKNOWN	63	1,640	1,640	1,640
727	LCL 2 CIVIL SVC PLUMBERS	391	1,640	1,640	1,640
728	LCL 1969 NYC PAINTERS	300	1,640	1,640	1,640
730	PAVERS RDBLDR DC PAVERS	5	1,340	1,340	1,340
731	LCL 237 ROOF RETIREES	26	1,840	2,040	1,840
732	LCL237PLASTERERS RETIREES	161	1,840	2,040	1,840
738	RET WELF FND AUTO MECHNYC	827	1,640	1,640	1,640
739	RET WELF FUND-TRACT OPERS	4	1,640	1,640	1,640
741	RET WELFARE FUND MOTOR GRA OPERATOR	18	1,640	1,640	1,640
742	LCL 14 PILE DRIVING ENGR	3	1,640	1,640	1,640
743	DC 37 HIGHWAY REPAIRERS	316	1,640	1,640	1,640
744	DC 37 FURNIT MAINTAINER	3	1,640	1,640	1,640
745	DC37 CYLD PRESS OPERATOR	17	1,640	1,640	1,640
746	LCL 300 HIGHWAY REPAIRERS	30	1,640	1,640	1,640
747	PAVERS RDBLDRS HW SP HW R	24	1,640	1,640	1,640
748	LCL 14-RETIR. GAS RLR ENG	15	1,640	1,640	1,640
749	DC37SUPERVISOR HIGHWAY RE	86	1,540	1,540	1,540
750	LCL300 SUPV.HWY REPAIRER	10	1,540	1,540	1,540
751	PAVERS & RDBULDERS - SUPERVISOR HIGHWAY RE	6	1,540	1,540	1,540
753	DC37 COMPOSITOR (JOB)	11	1,640	1,640	1,640
754	RET WEL FUND CARRGE UPHOL	5	1,640	1,640	1,640

Appendix B - Table 2a
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - NYCERS

UWF	Description	Count ¹	6/30/11 Rate ²	6/30/12 Rate ²	6/30/13 Rate ²
756	LCL 237 CEMENT MAS RETIRE PATROLMEN'S BENEVOLENT ASSOCIATION (LINE-OF- DUTY SURVIVORS)	52	1,840	2,040	1,840
777		4	0	0	0
782	LCL 237 HORSE/HARN RETIRE	3	1,840	1,840	1,840
786	DC37 CITY LABORERS	598	1,540	1,640	1,640
787	DC37 CONSTRUCTION LABORER	275	1,640	1,640	1,640
804	LCL 237 MAINT WKR RETIREE	935	1,840	1,840	1,840
808	LCL 30, OILER	167	1,640	1,640	1,640
812	DC37 RADIO REPAIR MECHANI	45	1,640	1,640	1,640
814	LCL 246 RWF RUBR TIRE REP	9	1,640	1,640	1,640
816	DC37 SEWAGE TRTMT WKRS	377	1,640	1,640	1,640
818	RET WEL FND SGN PTRS/LTRS	3	1,640	1,640	1,640
820	LCL 30 STAT ENG SR ST ENG	430	1,640	1,640	1,640
823	NYC DIST.COUNCIL OF CARPS	382	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	86	1,640	1,640	1,640
827	RET WEL FND SHEET MTL WKR	46	1,640	1,640	1,640
828	LCL 3 IBEW STATN ENGR ELE	178	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	54	1,640	1,640	2,583
838	NYC DIST. COUNCIL OF CARP	33	1,640	1,640	1,640
839	LCL LDG 5 BOLRMKR HLP SUP	16	860	860	860
842	LCL 638 STMFTRS HLP SUPR	70	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	59	1,640	1,640	1,640
847	LCL 15 HIPRESS OPER.	4	965	965	965
848	LCL 15 TRACTOR OPER(SANI)	114	1,640	1,640	1,640
888		339	0	0	0
948		1	0	0	0
950	Either not entitled to Welfare Fund Benefits or UWF contribution is not funded by the City. Medicare Part B reimbursement.	7	0	0	0
960		3	0	0	0
999		79	0	0	0
Blank		3,778	0	0	0
Total Count:		98,663			

¹ 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.

² Rates used as of June 30, 2011, June 30, 2012, and June 30, 2013, 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.

Appendix B - Table 2b
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - TRS

UWF	Description	Count ¹	6/30/11 Rate ²	6/30/12 Rate ²	6/30/13 Rate ²
001	NYC MANAGEMENT WELFARE FUND	183	\$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
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	605	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	33	1,675	1,675	1,675
163	UFT	61,377	1,720	1,720	1,720
164	COUNCIL OF SUPERVISORS AND ADMINISTRATORS	6,955	1,720	1,720	1,720
185	NYS NURSES ASSOCIATION	2	1,640	1,640	1,640
190	UNITED PROBATION OFFICERS	1	1,723	1,723	1,723
200	SANITATION OFF RET WEL FN	2	1,390	1,390	1,390
235	L237 RETIREE BENE FND-CW	13	1,840	1,840	1,840
275	PROFESSIONAL STAFF CONGRESS	2,498	1,865	1,865	1,865
276	PROFESSIONAL STAFF CONGRESS	43	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	41	0	0	0
999	contribution is not funded by the City. Medicare Part B	52	0	0	0
Blank	reimbursement.	1,687	0	0	0
Total Count:		73,502			

¹ 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.

² Rates used as of June 30, 2011, June 30, 2012, and June 30, 2013, 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.

Appendix B - Table 2c
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - BERS

UWF	Description	Count ¹	6/30/11 Rate ²	6/30/12 Rate ²	6/30/13 Rate ²
001	NYC MANAGEMENT WELFARE FUND	504	\$1,640	\$1,640	\$1,640
035	CORRECT OFFICRS BEN ASSOC	2	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
060	DISTRICT COUNCIL 37	10,688	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	6	1,640	1,640	1,640
108	ORG OF STAFF ANALYSTS	19	1,640	1,640	1,640
115	LOCAL 306 RETIR HLTH WELF	11	1,640	1,640	1,640
130	LOCAL 832 RETIREES	283	1,840	1,840	1,840
131	DISTRICT COUNCIL 37	512	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	470	1,675	1,675	1,675
162	UFT WELFARE FUND	17	1,720	1,720	1,720
163	UFT WELFARE FUND	620	1,720	1,720	1,720
164	COUNCIL OF SUPERVISORS AND ADMINISTRATION	8	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	4	1,640	1,640	1,640
235	L237 RETIREE BENE FND-CW	411	1,840	1,840	1,840
260	LCL 300 RETIREE WELF FUND	53	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	1,840	2,040	1,840
708	LOCAL 246, DEPT OF EDUCATION	3	1,640	1,640	1,640
712	LCL 3 IBEW ELCTRCN.SUP HL	31	1,640	1,640	1,640
714	LCL 237 ELEV MECH RETIREE	4	1,840	1,840	1,840
717	LOCAL1969 GLAZIERS	14	1,640	1,640	1,640
720	DC37 LOCKSMITH SUPV LKSMT	3	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	32	1,640	1,640	1,640
728	LCL 1969 NYC PAINTERS	23	1,640	1,640	1,640
731	LCL 237 ROOF RETIREES	6	1,840	2,040	1,840
732	LCL237PLASTERERS RETIREES	6	1,840	2,040	1,840
738	RET WELF FND AUTO MECHNYC	25	1,640	1,640	1,640
740	RET WELF FND GEN MECHANIC	2	1,190	1,190	1,190
744	DC 37 FURNIT MAINTAINER	7	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	1,840	2,040	1,840
760	LOCAL 246, DEPT OF EDUCATION	9	1,640	1,640	1,640
786	DC37 CONSTRUCT LABORER	15	1,540	1,640	1,640
787	DC37 CONSTRUCTION LABORER	2	1,640	1,640	1,640
804	LCL 237 MAINT WKR RETIREE	16	1,840	1,840	1,840

Appendix B - Table 2c
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - BERS

UWF	Description	Count ¹	6/30/11 Rate ²	6/30/12 Rate ²	6/30/13 Rate ²
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	86	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
838	NYC DIST. COUNCIL OF CARP	25	1,640	1,640	1,640
839	LOCAL LODGE 5	1	860	860	860
842	LCL 638 STMFTRS HLPTR SUPR	21	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 contribution is not funded by the City. Medicare Part B reimbursement.	12	0	0	0
950		1	0	0	0
999		44	0	0	0
Blank		407	0	0	0
Total Count:		14,471			

¹ 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.

² Rates used as of June 30, 2011, June 30, 2012, and June 30, 2013, 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.

Appendix B - Table 2d
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - POLICE

UWF	Description	Count	6/30/11 Rate ¹	6/30/12 Rate ¹	6/30/13 Rate ¹
001	NYC MANAGEMENT WELFARE FUND	107	\$1,640	\$1,640	\$1,640
048	DETECT END ASSN RET FUND	11,156	1,523	1,523	1,523
170	PBA (NYPD)	21,999	1,579	1,579	1,579
225	SOC NYPD LT BENEV ASSOCIATION	3,486	1,565	1,565	1,565
226	SOC NYPD CAPT ENDOW ASSOCIATION	1,369	1,565	1,565	1,565
227	SBA HLTH & WELF FND/RETIR	6,993	1,740	1,740	1,740
777	PATROLEMEN'S BENEVOLENT ASSOCIATION (LINE-OF-DUTY SURVIVORS)	222	0	0	0
888		571	0	0	0
901		1	0	0	0
926		11	0	0	0
927	Either not entitled to Welfare Fund benefits or UWF	40	0	0	0
930	contribution is not funded by the City. Medicare Part B	18	0	0	0
948	reimbursement.	70	0	0	0
949		1	0	0	0
999		1	0	0	0
Blank		57	0	0	0
Total Count:		46,102			

¹ Rates used as of June 30, 2011, June 30, 2012, and June 30, 2013 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.

Appendix B - Table 2e
New York City Health Benefits Program
June 30, 2013 OPEB Actuarial Valuation
ANNUAL WELFARE FUND CONTRIBUTIONS - FIRE

UWF	Description	Count	6/30/11 Rate ¹	6/30/12 Rate ¹	6/30/13 Rate ¹
001	NYC MANAGEMENT WELFARE FUND	69	\$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
155	LCL 1180 CWA RET BENE FND	1	1,675	1,675	1,675
170	PBA (NYPD)	1	1,579	1,579	1,579
205	RETIRED FIREFIGHTERS SBF	10,292	1,720	1,720	1,720
206	RET FIREFIGHTRS SBF-WIPER	8	1,570	1,570	1,570
240	UFOA LOCAL 854 RETIREES	4,764	1,595	1,595	1,595
888		346	0	0	0
901		1	0	0	0
905	Either not entitled to Welfare Fund Benefits or UWF	344	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		47	0	0	0
Total Count:		16,176			

¹ Rates used as of June 30, 2011, June 30, 2012, and June 30, 2013 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.

APPENDIX C

New York City Health Benefits Program

June 30, 2013 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		52.01
d. Average Service		5.31
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		41.34
4. Retirees		
a. Total*		
i. Number		6
ii. Average Age		79.42
b. By Benefit		<u>Participant / Spouse</u>
i. Pre-Medicare**		0 / 0
ii. Medicare Eligible**		5 / 2
iii. Welfare Fund**		NA / NA
iv. Medicare Part B [#]		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.

New York City Health Benefits Program

June 30, 2013 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 ¹	\$74,022	\$616,282	\$0	\$114,463	\$107,102	\$911,869
b. Deferred ²	126,978	160,148	0	33,490	53,908	374,524
c. Retired	0	547,605	0	133,243	10,399	691,247
d. TOTAL	\$201,000	\$1,324,035	\$0	\$281,196	\$171,409	\$1,977,640
2. Entry Age Actuarial Accrued Liability						
a. Active ¹	\$27,089	\$211,495	\$0	\$39,274	\$36,840	\$314,698
b. Deferred ²	126,978	160,148	0	33,490	53,908	374,524
c. Retired	0	547,605	0	133,243	10,399	691,247
d. TOTAL	\$154,067	\$819,248	\$0	\$206,007	\$101,147	\$1,380,469
3. Actuarial Value of Assets						\$0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$1,380,469
5. Entry Age Normal Cost						\$54,515
6. Salary of Active Participants						\$344,674
7. Normal Cost Percentage [5. / 6.]						15.821%

¹ Includes Total Present Value of Projected Benefits for Inactives, if any.

² Includes Deferred Retirees, if any.

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City Educational Construction Fund (ECF)

Development of the Annual Required Contribution (ARC)
For the Fiscal Year Ending June 30, 2014

1. Entry Age Normal Cost at June 30, 2013	\$54,515
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>1,533,113</u>
3. Subtotal	\$1,587,628
4. Interest to June 30, 2014 at 4.0%	<u>63,505</u>
5. Annual Required Contribution (ARC)	\$1,651,133

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2013	\$1,376,273
b. Annual Required Contribution (ARC)	
I. Entry Age Normal Cost	\$54,515
II. UAAL Amortization Payment	1,533,113
III. Interest to End of Year	<u>63,505</u>
iv. Total	\$1,651,133
c. ARC Adjustment	\$1,431,324
d. Interest on Net OPEB Obligation	\$55,051
e. Fiscal Year 2014 Annual OPEB Cost (AOC) (1b.iv.-1c.+1d.)	\$274,860

2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2013	\$1,376,273
b. Fiscal Year 2014 Annual OPEB Cost (AOC)	\$274,860
c. Fiscal Year 2014 Employer Contributions	\$57,700 *
d. Net OPEB Obligation (NOO) at June 30, 2014 (2a.+ 2b.-2c.)	\$1,593,433

* Employer Contributions provided by ECF.

New York City Health Benefits Program

June 30, 2013 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, 2014**

**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, 2013 ¹	\$0	\$1,380,469	\$1,380,469	0.0%	\$344,574	400.6%
June 30, 2012 ¹	\$0	\$1,153,280	\$1,153,280	0.0%	\$373,329	308.9%
June 30, 2011 ²	\$0	\$1,372,315	\$1,372,315	0.0%	\$373,329	367.6%
June 30, 2010 ²	\$0	\$1,333,593	\$1,333,593	0.0%	\$373,579	357.0%
June 30, 2009 ²	\$0	\$1,306,382	\$1,306,382	0.0%	\$337,908	386.6%
June 30, 2008 ²	\$0	\$1,199,232	\$1,199,232	0.0%	\$332,908	360.2%
June 30, 2007 ²	\$0	\$1,174,692	\$1,174,692	0.0%	\$158,408	741.6%
June 30, 2006 ²	\$0	\$1,111,366	\$1,111,366	0.0%	\$158,408	701.6%
June 30, 2005 ²	\$0	\$954,749	\$954,749	0.0%	\$148,770	641.8%

¹ Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

² Based on Frozen 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, 2014	\$274,860	21.0%	\$1,593,433
June 30, 2013	\$23,912	251.4%	\$1,376,273
June 30, 2012	\$98,634	69.3%	\$1,412,476
June 30, 2011	\$95,755	69.6%	\$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

* As published.

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City Educational Construction Fund (ECF)

Derivation of Unfunded Actuarial Accrued Liability

1. Unfunded Actuarial Accrued Liability at June 30, 2012	\$1,153,280
2. Entry Age Normal Cost at June 30, 2012	59,289
3. Interest on 1. and 2. @ 4.00%	48,503
4. Expected Employer Contributions - Fiscal Year 2013	1,436,388
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-4.)	(175,316)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2013	60,115 ¹
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-6.)	1,200,957
8. Actuarial Loss - Accumulated Deficiency	1,376,273
9. Actuarial (Gain) / Loss - Experience	179,512
10. Unfunded Actuarial Accrued Liability at June 30, 2013 (5.+8.+9.)	\$1,380,469

¹ Employer Contributions provided by ECF.

New York City Health Benefits Program

June 30, 2013 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	June 30, 2013 Balance	June 30, 2013 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (191,245)	10-Years / 9-Years	\$ (175,316)	\$ (22,672)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2013	\$ 1,376,273	1-Year / 1-Year	\$ 1,376,273	\$ 1,376,273
3. Actuarial (Gain) / Loss - Experience	June 30, 2013	\$ <u>179,512</u>	1-Year / 1-Year	\$ <u>179,512</u>	\$ <u>179,512</u>
TOTAL		\$ 1,364,540		\$ 1,380,469	\$ 1,533,113

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City Health and Hospitals Corporation (HHC)

Summary of Data

	NYCERS	TRS	BERS	TOTAL
1. Actives				
a. Number	33,108	0	3	33,111
b. Salary	\$2,105,452,768	\$0	\$206,736	\$2,105,659,504
c. Average Age	49.21	NA	58.33	49.21
d. Average Service	10.35	NA	19.00	10.35
e. Average Salary	\$63,593	NA	\$68,912	\$63,594
2. Inactives				
a. Number	3,538	0	0	3,538
b. Average Age	44.98	NA	NA	44.98
c. Average Service	5.66	NA	NA	5.66
3. Deferreds (Includes Deferred Retirees, if any)				
a. Number	1,933	1	0	1,934
b. Average Age	53.77	65.00	NA	53.78
4. Retirees				
a. Total*				
i. Number	19,438	6	7	19,451
ii. Average Age	73.17	73.01	80.43	73.17
b. By Benefit				<u>Participant / Spouse</u>
i. Pre-Medicare**				3,238 / 1,868
ii. Medicare Eligible**				16,213 / 3,861
iii. Welfare Fund**				18,302 / NA
iv. Medicare Part B [#]				NR / NR

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

New York City Health Benefits Program
June 30, 2013 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 ¹	\$1,952,572,046	\$1,605,289,609	\$1,391,632,089	\$0	\$46,168,309	\$4,995,662,053
b. Deferred ²	132,863,222	101,467,650	88,391,152	0	477,954	323,199,978
c. Retired	<u>284,123,287</u>	<u>689,794,084</u>	<u>483,145,834</u>	0	<u>293,829</u>	<u>1,437,356,834</u>
d. TOTAL	\$2,369,558,555	\$2,376,551,343	\$1,963,168,875	\$0	\$46,930,092	\$6,759,208,865
2. Entry Age Actuarial Accrued Liability						
a. Active ¹	\$658,344,719	\$718,747,871	\$585,658,372	\$0	\$9,575,677	\$1,972,326,639
b. Deferred ²	132,863,222	101,467,650	88,391,152	0	477,954	323,199,978
c. Retired	<u>284,123,287</u>	<u>689,794,084</u>	<u>483,145,834</u>	0	<u>293,829</u>	<u>1,437,356,834</u>
d. TOTAL	\$1,075,331,228	\$1,490,009,605	\$1,157,195,158	\$0	\$10,347,460	\$3,732,883,481
3. Actuarial Value of Assets						\$0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$3,732,883,481
5. Entry Age Normal Cost						\$241,316,117
6. Salary of Active Participants						\$2,105,659,504
7. Normal Cost Percentage [5. / 6.]						11.460%

¹ Includes Total Present Value of Projected Benefits for Inactives, if any.

² Includes Deferred Retirees, if any.

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Entry Age Normal Cost at June 30, 2013	\$241,316,117
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>4,513,561,863</u>
3. Subtotal	\$4,754,877,980
4. Interest to June 30, 2014 at 4.0%	<u>190,195,119</u>
5. Annual Required Contribution (ARC)	\$4,945,073,099

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2013	\$4,723,533,633
b. Annual Required Contribution (ARC)	
I. Entry Age Normal Cost	\$241,316,117
II. UAAL Amortization Payment	4,513,561,863
III. Interest to End of Year	<u>190,195,119</u>
iv. Total	\$4,945,073,099
c. ARC Adjustment	\$4,912,474,978
d. Interest on Net OPEB Obligation	\$188,941,345
e. Fiscal Year 2014 Annual OPEB Cost (AOC) (1b.iv.-1c.+1d.)	\$221,539,466

2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2013	\$4,723,533,633
b. Fiscal Year 2014 Annual OPEB Cost (AOC)	\$221,539,466
c. Fiscal Year 2014 PAYG Employer Contributions	\$120,288,474 *
d. Net OPEB Obligation (NOO) at June 30, 2014 (2a.+2b.-2c.)	\$4,824,784,625

* Employer Contributions include amounts provided by HHC and the FY2014 Implicit Rate Subsidy.

New York City Health Benefits Program

June 30, 2013 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, 2014**

**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, 2013 ¹	\$0	\$3,732,883,451	\$3,732,883,451	0.0%	\$2,105,659,504	177.3%
June 30, 2012 ¹	\$0	\$3,544,019,201	\$3,544,019,201	0.0%	\$2,083,348,902	170.1%
June 30, 2011 ²	\$0	\$4,234,109,641	\$4,234,109,641	0.0%	\$2,026,170,345	209.0%
June 30, 2010 ²	\$0	\$3,984,256,215	\$3,984,256,215	0.0%	\$2,043,062,882	195.0%
June 30, 2009 ²	\$0	\$3,464,071,831	\$3,464,071,831	0.0%	\$1,989,955,487	174.1%
June 30, 2008 ²	\$0	\$3,010,302,429	\$3,010,302,429	0.0%	\$1,830,957,842	164.4%
June 30, 2007 ²	\$0	\$2,722,879,773	\$2,722,879,773	0.0%	\$1,741,623,721	156.3%
June 30, 2006 ²	\$0	\$2,418,075,620	\$2,418,075,620	0.0%	\$1,610,130,192	150.2%
June 30, 2005 ²	\$0	\$2,019,525,531	\$2,019,525,531	0.0%	\$1,521,870,266	132.7%

¹ Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

² Based on Frozen 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, 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%*	\$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

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

New York City Health Benefits Program

June 30, 2013 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, 2012	\$3,544,019,201
2. Entry Age Normal Cost at June 30, 2012	244,613,959
3. Interest on 1. and 2. @ 4.00%	151,545,326
4. Expected Employer Contributions - Fiscal Year 2013	4,836,809,370
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-4.)	(896,630,884)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2013	113,275,737 ¹
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-6.)	3,826,902,749
8. Actuarial Loss - Accumulated Deficiency	4,723,533,633
9. Actuarial (Gain) / Loss - Experience	(94,019,298)
10. Unfunded Actuarial Accrued Liability at June 30, 2013 (5.+8.+9.)	3,732,883,451

¹ Employer Contributions provided by HHC.

New York City Health Benefits Program

June 30, 2013 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, 2013 Balance	June 30, 2013 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (978,097,552)	10-Years / 9-Years	\$ (896,630,884)	\$ (115,952,472)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2013	\$ 4,723,533,633	1-Year / 1-Year	\$ 4,723,533,633	\$ 4,723,533,633
3. Actuarial (Gain) / Loss - Experience	June 30, 2013	\$ (94,019,298)	1-Year / 1-Year	\$ (94,019,298)	\$ (94,019,298)
TOTAL		\$ 3,651,416,783		\$ 3,732,883,451	\$ 4,513,561,863

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City Housing Authority (NYCHA)

Summary of Data

	NYCERS	TRS	BERS	TOTAL
1. Actives				
a. Number	10,710	1	37	10,748
b. Salary	\$632,251,890	\$83,382	\$2,815,992	\$635,151,264
c. Average Age	47.56	65.00	50.89	47.57
d. Average Service	14.11	27.00	15.14	14.12
e. Average Salary	\$59,034	\$83,382	\$76,108	\$59,095
2. Inactives				
a. Number	1,014	0	4	1,018
b. Average Age	45.95	NA	50.50	45.97
c. Average Service	9.26	NA	4.00	9.24
3. Deferreds (Includes Deferred Retirees, if any)				
a. Number	698	0	0	698
b. Average Age	53.62	NA	NA	53.62
4. Retirees				
a. Total*				
I. Number	7,493	3	14	7,510
II. Average Age	70.67	79.57	71.99	70.68
b. By Benefit				<u>Participant / Spouse</u>
I. Pre-Medicare**				1,961 / 1,453
II. Medicare Eligible**				5,549 / 1,892
III. Welfare Fund**				7,199 / NA
IV. Medicare Part B ^o				8,478 / 3,949

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

New York City Health Benefits Program

June 30, 2013 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 ¹	\$906,624,102	\$666,982,635	\$479,291,035	\$358,676,035	\$22,867,428	\$2,394,441,235
b. Deferred ²	57,969,463	37,772,029	30,646,546	23,969,720	244,101	150,601,859
c. Retired	<u>229,785,174</u>	<u>284,079,733</u>	<u>215,066,723</u>	<u>198,370,814</u>	<u>219,101</u>	<u>927,521,548</u>
d. TOTAL	\$1,194,378,739	\$888,834,397	\$724,904,304	\$581,016,569	\$23,330,630	\$3,412,464,639
2. Entry Age Actuarial Accrued Liability						
a. Active ¹	\$355,959,463	\$270,359,310	\$209,598,735	\$170,655,730	\$4,984,018	\$1,011,557,256
b. Deferred ²	57,969,463	37,772,029	30,646,546	23,969,720	244,101	150,601,859
c. Retired	<u>229,785,174</u>	<u>284,079,733</u>	<u>215,066,723</u>	<u>198,370,814</u>	<u>219,101</u>	<u>927,521,548</u>
d. TOTAL	\$643,714,100	\$592,211,072	\$455,211,004	\$392,996,264	\$5,447,220	\$2,089,580,660
3. Actuarial Value of Assets						\$0
4. Unfunded Actuarial Accrued Liability (UAAL)						\$2,089,580,660
5. Entry Age Normal Cost						\$100,408,635
6. Salary of Active Participants						\$635,151,264
7. Normal Cost Percentage [5. / 6.]						15.809%

¹ Includes Actuarial Present Value of Benefits for Inactives, if any.

² Includes Deferred Retirees, if any.

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City School Construction Authority (SCA)

Summary of Data

	NYCERS	BERS	TOTAL
1. Actives			
a. Number	57	560	617
b. Salary	\$5,703,185	\$52,659,352	\$58,362,537
c. Average Age	53.82	52.12	52.28
d. Average Service	19.84	11.10	11.91
e. Average Salary	\$100,056	\$94,035	\$94,591
2. Inactives			
a. Number	9	38	47
b. Average Age	51.67	50.84	51.00
c. Average Service	12.78	7.61	8.60
3. Deferreds (Includes Deferred Retirees, if any)			
a. Number	9	3	12
b. Average Age	54.89	52.33	54.25
4. Retirees			
a. Total*			
i. Number	35	169	204
ii. Average Age	70.42	71.95	71.69
b. By Benefit			<u>Participant / Spouse</u>
i. Pre-Medicare**			NR / NR
ii. Medicare Eligible**			NR / NR
iii. Welfare Fund**			204 / NA
iv. Medicare Part B [#]			NR / NR

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

New York City Health Benefits Program

June 30, 2013 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 ¹	\$0	\$0	\$24,063,195	\$0	\$0	\$24,063,195
b. Deferred ²	0	0	533,073	0	0	533,073
c. Retired	0	0	<u>5,772,607</u>	0	0	<u>5,772,607</u>
d. TOTAL	\$0	\$0	\$30,368,875	\$0	\$0	\$30,368,875

2. Entry Age Actuarial Accrued Liability

a. Active ¹	\$0	\$0	\$11,593,945	\$0	\$0	\$11,593,945
b. Deferred ²	0	0	533,073	0	0	533,073
c. Retired	0	0	<u>5,772,607</u>	0	0	<u>5,772,607</u>
d. TOTAL	\$0	\$0	\$17,899,625	\$0	\$0	\$17,899,625

3. Actuarial Value of Assets

\$0

4. Unfunded Actuarial Accrued Liability (UAAL)

\$17,899,625

5. Entry Age Normal Cost

\$1,147,298

6. Salary of Active Participants

\$58,362,537

**7. Normal Cost Percentage
[5. / 6.]**

1.966%

¹ Includes Total Present Value of Projected Benefits for Inactives, if any.

² Includes Deferred Retirees, if any.

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City School Construction Authority (SCA)

Development of the Annual Required Contribution (ARC)
For the Fiscal Year Ending June 30, 2014

1. Entry Age Normal Cost at June 30, 2013	\$1,147,298
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>25,002,467</u>
3. Subtotal	\$26,149,765
4. Interest to June 30, 2014 at 4.0%	<u>1,045,991</u>
5. Annual Required Contribution (ARC)	\$27,195,756

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2013	\$26,570,496
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$1,147,298
ii. UAAL Amortization Payment	25,002,467
iii. Interest to End of Year	<u>1,045,991</u>
iv. Total	\$27,195,756
c. ARC Adjustment	\$27,633,316
d. Interest on Net OPEB Obligation	\$1,062,820
e. Fiscal Year 2014 Annual OPEB Cost (AOC) (1b.iv.-1c.+1d.)	\$625,260

2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2013	\$26,570,496
b. Fiscal Year 2014 Annual OPEB Cost (AOC)	\$625,260
c. Fiscal Year 2014 Employer Contributions	\$388,552 *
d. Net OPEB Obligation (NOO) at June 30, 2014 (2a.+ 2b.-2c.)	\$26,807,204

* Employer Contributions provided by SCA.

New York City Health Benefits Program

June 30, 2013 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, 2014**

**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, 2013 ¹	\$0	\$17,899,625	\$17,899,625	0.0%	\$58,362,537	30.7%
June 30, 2012 ¹	\$0	\$16,826,855	\$16,826,855	0.0%	\$60,120,590	28.0%
June 30, 2011 ²	\$0	\$24,365,855	\$24,365,855	0.0%	\$58,348,442	41.8%
June 30, 2010 ²	\$0	\$22,158,714	\$22,158,714	0.0%	\$58,293,409	38.0%
June 30, 2009 ²	\$0	\$19,569,767	\$19,569,767	0.0%	\$56,771,493	34.5%
June 30, 2008 ²	\$0	\$18,369,464	\$18,369,464	0.0%	\$49,129,270	37.4%
June 30, 2007 ²	\$0	\$17,352,451	\$17,352,451	0.0%	\$40,937,457	42.4%
June 30, 2006 ²	\$0	\$16,039,618	\$16,039,618	0.0%	\$36,506,304	43.9%
June 30, 2005 ^{2,3}	\$0	\$9,936,653	\$9,936,653	0.0%	\$33,827,738	29.4%

¹ Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

² Based on Frozen Entry Age Actuarial Cost Method.

³ 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, 2014	\$626,260	62.1%	\$26,807,204
June 30, 2013	\$1,198,193	29.5%	\$26,670,496
June 30, 2012	\$2,568,768	13.1%	\$25,726,875
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	\$6,270,629	0.0%	\$17,352,451
June 30, 2006	\$11,081,922	0.0%	\$11,081,922

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City School Construction Authority (SCA)

Derivation of Unfunded Actuarial Accrued Liability

1. Unfunded Actuarial Accrued Liability at June 30, 2012	\$16,826,855
2. Entry Age Normal Cost at June 30, 2012	1,217,622
3. Interest on 1. and 2. @ 4.00%	721,779
4. Expected Employer Contributions - Fiscal Year 2013	26,924,068
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-4.)	(8,157,812)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2013	353,572 ¹
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-6.)	18,412,684
8. Actuarial Loss - Accumulated Deficiency	26,570,496
9. Actuarial (Gain) / Loss - Experience	(513,059)
10. Unfunded Actuarial Accrued Liability at June 30, 2013 (5.+8.+9.)	\$17,899,625

¹ Employer Contributions provided by SCA.

New York City Health Benefits Program

June 30, 2013 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, 2013 Balance	June 30, 2013 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (8,899,020)	10-Years / 9-Years	\$ (8,157,812)	\$ (1,054,970)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2013	\$ 26,570,496	1-Year / 1-Year	\$ 26,570,496	\$ 26,570,496
3. Actuarial (Gain) / Loss - Experience	June 30, 2013	\$ (513,059)	1-Year / 1-Year	\$ (513,059)	\$ (513,059)
TOTAL		\$ 17,158,417		\$17,899,625	\$ 25,002,467

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation

New York City Municipal Water Finance Authority (WFA)

Summary of Data

	NYCERS	BERS	TOTAL
1. Actives			
a. Number	13	0	13
b. Salary	\$1,107,246	NA	\$1,107,246
c. Average Age	43.31	NA	43.31
d. Average Service	5.85	NA	5.85
e. Average Salary	\$85,173	NA	\$85,173
2. Inactives			
a. Number	1	0	1
b. Average Age	33.00	NA	33.00
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	70.83	69.81	70.49
b. By Benefit			<u>Participant / Spouse</u>
i. Pre-Medicare**			1 / NA
ii. Medicare Eligible**			2 / 1
iii. Welfare Fund**			3 / NA
iv. Medicare Part B [#]			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.

New York City Health Benefits Program

June 30, 2013 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 ¹	\$1,045,000	\$656,183	\$565,890	\$0	\$21,227	\$2,288,300
b. Deferred ²	0	0	0	0	0	0
c. Retired	0	69,269	90,031	0	21	159,321
d. TOTAL	\$1,045,000	\$725,452	\$655,921	\$0	\$21,248	\$2,447,621

2. Entry Age Actuarial Accrued Liability

a. Active ¹	\$267,271	\$212,926	\$176,555	\$0	\$3,317	\$660,069
b. Deferred ²	0	0	0	0	0	0
c. Retired	0	69,269	90,031	0	21	159,321
d. TOTAL	\$267,271	\$282,195	\$266,586	\$0	\$3,338	\$819,390

3. Actuarial Value of Assets

\$0

4. Unfunded Actuarial Accrued Liability (UAAL)

\$819,390

5. Entry Age Normal Cost

\$104,074

6. Salary of Active Participants

\$1,107,246

**7. Normal Cost Percentage
[5. / 6.]**

9.399%

¹ Includes Total Present Value of Projected Benefits for Inactives, if any.

² Includes Deferred Retirees, if any.

New York City Health Benefits Program**June 30, 2013 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, 2014**

1. Entry Age Normal Cost at June 30, 2013	\$104,074
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>820,996</u>
3. Subtotal	\$925,070
4. Interest to June 30, 2014 at 4.0%	<u>37,003</u>
5. Annual Required Contribution (ARC)	\$962,073

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2013	\$920,759
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$104,074
ii. UAAL Amortization Payment	820,996
iii. Interest to End of Year	<u>37,003</u>
iv. Total	\$962,073
c. ARC Adjustment	\$957,589
d. Interest on Net OPEB Obligation	\$36,830
e. Fiscal Year 2014 Annual OPEB Cost (AOC) (1b.iv.-1c.+1d.)	\$41,314

2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2013	\$920,759
b. Fiscal Year 2014 Annual OPEB Cost (AOC)	\$41,314
c. Fiscal Year 2014 Employer Contributions	\$11,261 *
d. Net OPEB Obligation (NOO) at June 30, 2014 (2a.+ 2b.-2c.)	\$950,812

* Employer Contributions provided by WFA.

New York City Health Benefits Program

June 30, 2013 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, 2014**

**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, 2013 ¹	\$0	\$819,390	\$819,390	0.0%	\$1,107,246	74.0%
June 30, 2012 ¹	\$0	\$793,124	\$793,124	0.0%	\$1,063,872	74.6%
June 30, 2011 ²	\$0	\$662,361	\$662,361	0.0%	\$918,579	72.1%
June 30, 2010 ²	\$0	\$562,510	\$562,510	0.0%	\$1,026,437	54.8%
June 30, 2009 ²	\$0	\$430,799	\$430,799	0.0%	\$675,808	63.7%
June 30, 2008 ²	\$0	\$317,005	\$317,005	0.0%	\$728,732	43.5%
June 30, 2007 ²	\$0	\$242,193	\$242,193	0.0%	\$486,052	49.8%
June 30, 2006 ²	\$0	\$172,974	\$172,974	0.0%	\$306,155	56.5%
June 30, 2005 ²	\$0	\$308,348	\$308,348	0.0%	\$1,041,223	29.6%

¹ Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

² Based on Frozen 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, 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

* As published.

New York City Health Benefits Program

June 30, 2013 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, 2012	\$793,124
2. Entry Age Normal Cost at June 30, 2012	103,628
3. Interest on 1. and 2. @ 4.00%	35,870
4. Expected Employer Contributions - Fiscal Year 2013	934,466
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-4.)	(1,844)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2013	13,707 ¹
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-6.)	918,915
8. Actuarial Loss - Accumulated Deficiency	920,759
9. Actuarial (Gain) / Loss - Experience	(99,525)
10. Unfunded Actuarial Accrued Liability at June 30, 2013 (5.+8.+9.)	819,390

¹ Employer Contributions provided by WFA.

New York City Health Benefits Program

June 30, 2013 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, 2013 Balance	June 30, 2013 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (2,011)	10-Years / 9-Years	\$ (1,844)	\$ (238)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2013	\$ 920,759	1-Year / 1-Year	\$ 920,759	\$ 920,759
3. Actuarial (Gain) / Loss - Experience	June 30, 2013	\$ (99,525)	1-Year / 1-Year	\$ (99,525)	\$ (99,525)
TOTAL		\$ 819,223		\$ 819,390	\$ 820,996

New York City Health Benefits Program

**June 30, 2013 OPEB Actuarial Valuation
GASB45 Results for the City of New York (Excluding Component Units)
Summary of Data**

By System Not Including Component Units ¹

	NYCERS	TRS	BERS	POLICE	FIRE	NYCRS TOTAL
1. Actives						
a. Number	98,800	109,164	25,235	34,775	10,182	278,156
b. Salary	\$6,532,406,364	\$7,878,350,202	\$977,376,560	\$3,524,803,978	\$1,099,785,552	\$20,012,721,656
c. Average Age	46.55	44.49	50.15	37.62	41.18	44.76
d. Average Service	12.13	11.36	9.09	11.59	14.55	11.57
e. Average Salary	\$66,117	\$72,170	\$38,731	\$101,360	\$108,013	\$71,948
2. Inactives						
a. Number	8,918	6,456	4,083	1,287	17	20,761
b. Average Age	43.71	40.30	49.67	36.74	37.12	43.38
c. Average Service	7.44	8.11	6.31	2.98	9.59	7.15
3. Deferreds (Includes Deferred Retirees, if any)						
a. Number	5,387	7,946	177	667	32	14,209
b. Average Age	53.66	50.83	57.15	42.02	44.22	51.55
4. Retirees						
a. Total ³						
i. Number	67,003	71,477	14,248	46,102	16,176	215,006
ii. Average Age	69.69	72.24	74.16	61.00	66.23	68.71
b. By Benefit*	<u>Participant / Spouse</u>					
i. Pre-Medicare**	20,248 / 13,711	14,034 / 6,671	2,153 / 969	26,843 / 21,256	6,705 / 6,667	69,983 / 49,274
ii. Medicare Eligible**	46,792 / 15,234	57,443 / 16,939	12,264 / 3,956	19,269 / 10,555	9,471 / 5,334	145,229 / 52,018
iii. Welfare Fund**	66,507 / NA	69,718 / NA	13,807 / NA	46,110 / NA	15,249 / NA	210,391 / NA
iv. Medicare Part B ⁴	87,778 / 34,890	73,499 / 24,539	14,456 / 4,933	46,102 / 31,811	16,176 / 12,001	238,011 / 108,174
	TIAA	LODW				GRAND TOTAL
1. Actives						
a. Number	2,198	0				280,354
b. Salary	\$181,201,953	0				\$20,193,923,609
c. Average Age	51.44	NA				44.81
d. Average Service	14.86	NA				11.60
e. Average Salary	\$82,439	NA				\$72,030
2. Inactives						
a. Number	125	0				20,886
b. Average Age	56.30	NA				43.46
c. Average Service	19.87	NA				7.23
3. Deferreds (Includes Deferred Retirees, if any)						
a. Number	87 ²	0				14,296
b. Average Age	54.74	NA				51.57
4. Retirees						
a. Total						
i. Number	697	768				216,471
ii. Average Age	74.88	78.27				68.78
b. By Benefit*	<u>Participant / Spouse</u>	<u>Participant / Spouse</u>				<u>Participant / Spouse</u>
i. Pre-Medicare**	44 / 62	50 / 0				70,077 / 49,336
ii. Medicare Eligible**	653 / 248	718 / 8				146,600 / 52,274
iii. Welfare Fund**	697 / NA	NA / NA				211,088 / NA
iv. Medicare Part B ⁴	2,542 / 1,132	768 / 8				241,321 / 109,314

¹ City results also include Medicare Part B coverage for 47,919 actives, 4,671 inactives, 25,818 retirees and 2,371 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 617 actives, 47 inactives, 1,174 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,095 actives, 446 inactives, 3,078 retirees and 83 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

² Estimate due to lack of data.

³ Retirees eligible for receipt of Health Insurance, excluding Component Units.

* Includes Component Unit participants with City-provided benefits.

** Retirees currently eligible for benefit.

⁴ Retirees eligible for benefit now or in the future.

New York City Health Benefits Program

**June 30, 2013 OPEB Actuarial Valuation
GASB45 Results for the City of New York (Excluding Component Units)
Results of the Actuarial Valuation**

1. Actuarial Present Value of Projected Benefits ¹	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active ²	\$34,262,985,000	\$17,022,281,294	\$14,974,214,836	\$12,083,051,025	\$1,279,565,469	\$79,612,077,624
b. Deferred ³	1,799,754,970	892,572,906	836,896,611	643,992,185	13,649,262	\$4,188,668,934
c. Retired	<u>12,719,338,845</u>	<u>9,754,611,497</u>	<u>7,397,815,919</u>	<u>6,484,435,690</u>	<u>17,307,581</u>	<u>\$38,373,507,532</u>
d. TOTAL	\$48,772,086,815	\$27,669,466,697	\$23,208,927,366	\$19,211,478,900	\$1,310,522,312	\$120,172,481,090
2. Entry Age Actuarial Accrued Liability						
a. Active ³	\$12,327,000,322	\$7,125,452,327	\$5,941,405,198	\$5,088,982,838	\$275,891,817	\$30,758,732,502
b. Deferred ³	1,799,754,970	892,572,906	836,896,611	643,992,185	13,649,262	\$4,188,668,934
c. Retired	<u>12,719,338,845</u>	<u>9,754,611,497</u>	<u>7,397,815,919</u>	<u>6,484,435,690</u>	<u>17,307,581</u>	<u>\$38,373,507,532</u>
d. TOTAL	\$26,846,092,137	\$17,772,838,730	\$14,176,117,728	\$12,217,410,713	\$308,848,680	\$71,319,108,968
3. Actuarial Value of Assets						\$1,363,072,931
4. Unfunded Actuarial Accrued Liability (UAAL) [2d. - 3.]						\$69,956,033,037
5. Entry Age Normal Cost						\$9,633,671,002
6. Salary of Active Participants						\$20,183,923,609
7. Normal Cost Percentage [5. / 6.]						17.994%

¹ City results also include Medicare Part B coverage for 47,919 actives, 4,671 inactive, 25,818 retirees and 2,371 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 617 actives, 47 inactive, 1,174 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,095 actives, 446 inactive, 3,078 retirees and 83 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

² Includes Actuarial Present Value of Projected Benefits for inactive, if any.

³ Includes Deferred Retirees, if any.

New York City Health Benefits Program

**June 30, 2013 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, 2014**

1. Entry Age Normal Cost at June 30, 2013	\$3,633,671,002
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>85,376,954,442</u>
3. Subtotal	\$89,010,625,444
4. Interest to June 30, 2014 at 4.0%	<u>3,560,425,018</u>
5. Annual Required Contribution (ARC)	\$92,571,050,462

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Annual OPEB Cost (AOC)

a. Net OPEB Obligation at June 30, 2013	\$92,493,399,366
b. Annual Required Contribution (ARC)	
i. Entry Age Normal Cost	\$3,633,671,002
ii. UAAL Amortization Payment	85,376,954,442
iii. Interest to End of Year	<u>3,560,425,018</u>
iv. Total	\$92,571,050,462
c. ARC Adjustment	\$96,193,135,341
d. Interest on Net OPEB Obligation	\$3,699,735,975
e. Fiscal Year 2014 Annual OPEB Cost (AOC) (1b.iv.-1c.+1d.)	\$77,651,096

2. Net OPEB Obligation (NOO)

a. Net OPEB Obligation at June 30, 2013	\$92,493,399,366 ¹
b. Fiscal Year 2014 Annual OPEB Cost (AOC)	\$77,651,096
c. Fiscal Year 2014 Employer Contributions	\$3,114,328,919 ²
d. Net OPEB Obligation (NOO) at June 30, 2014 (2a.+2b.-2c.)	\$89,456,721,543

¹ Reflects Revised PAYG for Fiscal Year 2013 as noted in Appendix A.

² Employer Contributions include amounts provided by OMB including the effect of non-trust activity for Fiscal Year 2014.

New York City Health Benefits Program

**June 30, 2013 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, 2014**

**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, 2013 ¹	\$1,363,072,931	\$71,319,105,968	\$69,956,033,037	1.9%	\$20,193,923,609	346.4%
June 30, 2012 ¹	\$2,115,846,394	\$71,399,272,700	\$69,283,426,306	3.0%	\$20,202,358,642	342.9%
June 30, 2011 ²	\$2,631,584,347	\$85,945,756,187	\$83,314,171,840	3.1%	\$19,854,039,496	419.6%
June 30, 2010 ²	\$3,022,624,061	\$82,040,359,975	\$79,017,735,914	3.7%	\$19,672,460,069	401.7%
June 30, 2009 ²	\$3,103,186,200	\$73,653,281,314	\$70,550,095,114	4.2%	\$19,412,072,236	363.4%
June 30, 2008 ²	\$3,186,139,468	\$65,144,934,748	\$61,958,795,280	4.9%	\$18,672,219,289	331.8%
June 30, 2007 ²	\$2,594,451,907	\$62,116,926,083	\$59,522,474,176	4.2%	\$17,314,779,336	343.8%
June 30, 2006 ²	\$1,001,331,648	\$56,060,000,324	\$55,058,668,676	1.8%	\$16,510,165,373	333.5%
June 30, 2005 ²	\$0	\$50,523,014,097	\$50,523,014,097	0.0%	\$15,703,554,657	321.7%

¹ Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

² Based on Frozen Entry Age Actuarial Cost Method.

**Additional Note Disclosure
Annual OPEB Cost and Net OPEB Obligation ¹**

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
June 30, 2014	\$78,551,216	3,965.3% ²	\$89,485,122,180
June 30, 2013	\$5,542,845,000	21.6% ²	\$92,521,346,000
June 30, 2012	\$5,707,001,000	25.2% ²	\$88,174,139,000
June 30, 2011	\$10,494,993,000	15.0% ²	\$83,906,953,000
June 30, 2010	\$11,021,425,000	14.3% ²	\$74,984,832,000
June 30, 2009	\$3,937,583,000	42.8% ³	\$65,544,361,000
June 30, 2008	\$7,419,205,000	25.5%	\$63,290,218,000 ⁴
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

¹ Amounts shown for Fiscal Years prior to Fiscal Year 2014 are as published in the City CAFR. Includes amounts for ECF and SCA.

² Includes non-trust activity.

³ Includes cumulative adjustment for approximate non-trust activity for Fiscal Years ending 6/30/06, 6/30/07 and 6/30/08.

⁴ As published. Correct amount should be \$63,289,913,000.

New York City Health Benefits Program

June 30, 2013 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, 2012	\$69,283,426,306
2. Entry Age Normal Cost at June 30, 2012	3,771,637,434
3. Interest on 1. and 2. @ 4.00%	2,922,202,550
4. Expected Employer Contributions - Fiscal Year 2013	93,688,623,719
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-4.)	(17,711,357,429)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2013	1,195,224,353 ¹
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-6.)	74,782,041,937
8. Actuarial Loss - Accumulated Deficiency	92,493,399,366
9. Actuarial (Gain) / Loss - Experience	(4,785,804,867)
10. Actuarial (Gain) - UFT Vesting	(40,204,033)
11. Unfunded Actuarial Accrued Liability at June 30, 2013 (5.+8.+9.+10.)	69,956,033,037

¹ Employer Contributions include amounts provided by OMB including the effect of non-trust activity for Fiscal Year 2013.

New York City Health Benefits Program

**June 30, 2013 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, 2013 Balance	June 30, 2013 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (19,320,587,398)	10-Years / 9-Years	\$ (17,711,357,429)	\$ (2,290,436,024)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2013	\$ 92,493,399,366	1-Year / 1-Year	\$ 92,493,399,366	\$ 92,493,399,366
3. Actuarial (Gain) - Experience	June 30, 2013	\$ (4,785,804,867)	1-Year / 1-Year	\$ (4,785,804,867)	\$ (4,785,804,867)
4. Actuarial (Gain) - UFT Vesting	June 30, 2013	\$ (40,204,033)	1-Year / 1-Year	\$ (40,204,033)	\$ (40,204,033)
TOTAL		\$ 68,346,803,068		\$ 69,956,033,037	\$ 85,376,954,442

New York City Health Benefits Program

June 30, 2013 OPEB Actuarial Valuation
GASB43 Results for the City of New York (Excluding Component Units)
Summary of Data

By System Not Including Component Units ¹

	NYCERS	TRS	BERS	POLICE	FIRE	NYCRS TOTAL
1. Actives						
a. Number	98,800	109,184	25,235	34,775	10,182	278,156
b. Salary	\$6,532,406,364	\$7,878,350,202	\$977,375,560	\$3,524,803,978	\$1,099,785,552	\$20,012,721,656
c. Average Age	46.55	44.49	50.15	37.62	41.18	44.76
d. Average Service	12.13	11.36	9.09	11.59	14.55	11.57
e. Average Salary	\$66,117	\$72,170	\$38,731	\$101,360	\$108,013	\$71,948
2. Inactives						
a. Number	8,918	6,456	4,083	1,287	17	20,761
b. Average Age	43.71	40.30	49.67	36.74	37.12	43.38
c. Average Service	7.44	8.11	6.31	2.98	9.59	7.15
3. Deferreds (Includes Deferred Retirees, If any)						
a. Number	5,387	7,946	177	667	32	14,209
b. Average Age	53.66	50.83	57.15	42.02	44.22	51.55
4. Retirees						
a. Total ³						
i. Number	67,003	71,477	14,248	46,102	16,176	215,006
ii. Average Age	69.69	72.24	74.16	61.00	66.23	68.71
b. By Benefit*	<u>Participant / Spouse</u>					
i. Pre-Medicare**	20,248 / 13,711	14,034 / 8,671	2,153 / 969	26,843 / 21,256	6,705 / 6,667	69,983 / 49,274
ii. Medicare Eligible**	46,792 / 15,234	57,443 / 16,939	12,264 / 3,956	19,259 / 10,555	9,471 / 5,334	145,229 / 52,018
iii. Welfare Fund**	66,507 / NA	69,718 / NA	13,807 / NA	45,110 / NA	15,249 / NA	210,391 / NA
iv. Medicare Part B ⁶	87,778 / 34,890	73,499 / 24,539	14,456 / 4,933	46,102 / 31,811	16,176 / 12,001	238,011 / 108,174
	TIAA	LODW				GRAND TOTAL
1. Actives						
a. Number	2,198	0				280,354
b. Salary	\$181,201,953	0				\$20,193,923,609
c. Average Age	51.44	NA				44.81
d. Average Service	14.86	NA				11.60
e. Average Salary	\$82,439	NA				\$72,030
2. Inactives						
a. Number	125	0				20,886
b. Average Age	56.30	NA				43.46
c. Average Service	19.87	NA				7.23
3. Deferreds (Includes Deferred Retirees, If any)						
a. Number	87 ²	0				14,296
b. Average Age	54.74	NA				51.57
4. Retirees						
a. Total						
i. Number	697	768				216,471
ii. Average Age	74.88	78.27				68.76
b. By Benefit*	<u>Participant / Spouse</u>	<u>Participant / Spouse</u>				<u>Participant / Spouse</u>
i. Pre-Medicare**	44 / 82	50 / 0				70,077 / 49,336
ii. Medicare Eligible**	653 / 248	718 / 8				146,600 / 52,274
iii. Welfare Fund**	697 / NA	NA / NA				211,088 / NA
iv. Medicare Part B ⁶	2,542 / 1,132	768 / 8				241,321 / 109,314

¹ City results also include Medicare Part B coverage for 47,919 actives, 4,671 inactives, 25,818 retirees and 2,371 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 617 actives, 47 inactives, 1,174 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,095 actives, 446 inactives, 3,078 retirees and 83 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

² Estimate due to lack of data.

³ Retirees eligible for receipt of Health Insurance, excluding Component Units.

* Includes Component Unit participants with City-provided benefits.

** Retirees currently eligible for benefit.

⁶ Retirees eligible for benefit now or in the future.

New York City Health Benefits Program

**June 30, 2013 OPEB Actuarial Valuation
GASB43 Results for the City of New York (Excluding Component Units)
Results of the Actuarial Valuation**

1. Actuarial Present Value of Projected Benefits ¹	Pre-Medicare	Medicare	Welfare Funds	Part B Premium	Cadillac Tax	Total
a. Active ²	\$34,252,965,000	\$17,022,281,294	\$14,974,214,836	\$12,083,051,025	\$1,279,565,469	\$79,612,077,624
b. Deferred ³	1,799,754,970	892,572,906	836,896,611	643,992,185	13,649,262	\$4,186,865,934
c. Retired	<u>12,719,336,845</u>	<u>9,754,611,497</u>	<u>7,397,815,919</u>	<u>6,484,435,690</u>	<u>17,307,581</u>	<u>\$38,373,507,532</u>
d. TOTAL	\$48,772,056,815	\$27,669,465,697	\$23,208,927,366	\$19,211,478,900	\$1,310,522,312	\$120,172,451,090
2. Entry Age Actuarial Accrued Liability						
a. Active ²	\$12,327,000,322	\$7,125,452,327	\$5,941,405,198	\$5,088,982,838	\$275,891,817	\$30,758,732,502
b. Deferred ³	1,799,754,970	892,572,906	836,896,611	643,992,185	13,649,262	\$4,186,865,934
c. Retired	<u>12,719,336,845</u>	<u>9,754,611,497</u>	<u>7,397,815,919</u>	<u>6,484,435,690</u>	<u>17,307,581</u>	<u>\$38,373,507,532</u>
d. TOTAL	\$26,846,092,137	\$17,772,836,730	\$14,176,117,728	\$12,217,410,713	\$306,848,660	\$71,319,105,968
3. Actuarial Value of Assets						\$1,363,072,831
4. Unfunded Actuarial Accrued Liability (UAAL) [2d. - 3.]						\$69,956,033,037
5. Entry Age Normal Cost						\$3,633,671,002
6. Salary of Active Participants						\$20,193,923,809
7. Normal Cost Percentage [5. / 6.]						17.994%

¹ City results also include Medicare Part B coverage for 47,919 actives, 4,671 inactive, 25,818 retirees and 2,371 deferred participants in HHC, SCA, WFA and CUNY Senior Colleges and Health Insurance coverage for 617 actives, 47 inactive, 1,174 retirees and 12 deferred participants in NYCHA (Housing Police retirees only) and SCA and Welfare Fund coverage for 4,095 actives, 446 inactive, 3,078 retirees and 83 deferred participants in NYCHA (Housing Police retirees only) and CUNY Senior Colleges (non-pedagogical).

² Includes Actuarial Present Value of Projected Benefits for inactive, if any.

³ Includes Deferred Retirees, if any.

New York City Health Benefits Program

June 30, 2013 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, 2014

1. Entry Age Normal Cost at June 30, 2013	\$3,633,671,002
2. Amortization of Unfunded Actuarial Accrued Liability - BOY	<u>85,376,954,442</u>
3. Subtotal	\$89,010,625,444
4. Interest to June 30, 2014 at 4.0%	<u>3,560,425,018</u>
5. Annual Required Contribution (ARC)	\$92,571,050,462

New York City Health Benefits Program

**June 30, 2013 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, 2014**

**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, 2013 ¹	\$1,363,072,931	\$71,319,106,968	\$69,956,033,037	1.9%	\$20,193,923,609	346.4%
June 30, 2012 ¹	\$2,115,846,394	\$71,399,272,700	\$69,283,426,306	3.0%	\$20,202,358,642	342.9%
June 30, 2011 ²	\$2,631,584,347	\$85,945,756,187	\$83,314,171,840	3.1%	\$19,854,039,496	419.6%
June 30, 2010 ²	\$3,022,624,061	\$82,040,359,975	\$79,017,735,914	3.7%	\$19,672,460,069	401.7%
June 30, 2009 ²	\$3,103,186,200	\$73,653,281,314	\$70,550,095,114	4.2%	\$19,412,072,236	363.4%
June 30, 2008 ²	\$3,186,139,468	\$65,144,934,748	\$61,958,795,280	4.9%	\$18,672,219,289	331.8%
June 30, 2007 ²	\$2,594,451,907	\$62,116,926,083	\$59,522,474,176	4.2%	\$17,314,779,336	343.8%
June 30, 2006 ²	\$1,001,331,648	\$56,060,000,324	\$55,058,668,676	1.8%	\$16,510,165,373	333.5%
June 30, 2005 ²	\$0	\$50,523,014,097	\$50,523,014,097	0.0%	\$15,703,554,657	321.7%

¹ Beginning June 30, 2012 based on Entry Age Actuarial Cost Method.

² Based on Frozen Entry Age Actuarial Cost Method.

Schedule of Employer Contributions

Fiscal Year Ended	Annual Required Contribution	Percentage Contributed
June 30, 2014	\$92,571,060,462	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% ²
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%

¹ Includes non-trust activity.

² 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.

New York City Health Benefits Program

June 30, 2013 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, 2012	\$69,283,426,306
2. Entry Age Normal Cost at June 30, 2012	3,771,637,434
3. Interest on 1. and 2. @ 4.00%	2,922,202,550
4. Expected Employer Contributions - Fiscal Year 2013	93,688,623,719
5. Expected Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-4.)	(17,711,357,429)
6. Actual (PAYG) Employer Contributions - Fiscal Year 2013	1,195,224,353 ¹
7. Preliminary Unfunded Actuarial Accrued Liability at June 30, 2013 (1.+2.+3.-6.)	74,782,041,937
8. Actuarial Loss - Accumulated Deficiency	92,493,399,366
9. Actuarial (Gain) / Loss - Experience	(4,785,804,867)
10. Actuarial (Gain) - UFT Vesting	(40,204,033)
11. Unfunded Actuarial Accrued Liability at June 30, 2013 (5.+8.+9.+10.)	69,956,033,037

¹ Employer Contributions include amounts provided by OMB including the effect of non-trust activity for Fiscal Year 2013.

New York City Health Benefits Program

**June 30, 2013 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, 2013 Balance	June 30, 2013 Amortization Payment
1. Change in Actuarial Cost Method	June 30, 2012	\$ (19,320,587,398)	10-Years / 9-Years	\$ (17,711,357,429)	\$ (2,290,436,024)
2. Actuarial Loss - Accumulated Deficiency	June 30, 2013	\$ 92,493,399,366	1-Year / 1-Year	\$ 92,493,399,366	\$ 92,493,399,366
3. Actuarial (Gain) - Experience	June 30, 2013	\$ (4,785,804,867)	1-Year / 1-Year	\$ (4,785,804,867)	\$ (4,785,804,867)
4. Actuarial (Gain) - UFT Vesting	June 30, 2013	\$ (40,204,033)	1-Year / 1-Year	\$ (40,204,033)	\$ (40,204,033)
TOTAL		\$ 68,346,803,068		\$ 69,956,033,037	\$ 85,376,954,442

APPENDIX D

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, 2013 and the June 30, 2012 OPEB actuarial valuations are classified as those used in the NYCERS actuarial valuations and those specific to the OPEB actuarial valuations.

NYCERS Valuations

The actuarial assumptions used to value the NYCERS are generally unchanged from the actuarial assumptions used in the June 30, 2012 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 NYCERS, 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 NYCERS 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

The OPEB-specific actuarial assumptions used in the June 30, 2013 OPEB actuarial valuation of the Program are as follows:

Valuation Date.....	June 30, 2013.
Discount Rate.....	4.0% per annum. ¹
Actuarial Cost Method.....	Entry Age calculated on an individual basis with the Actuarial Value of Projected Benefits allocated on a level basis over earnings from hire through age of exit.
Per-Capita Claims Costs.....	HIP HMO and GHI/EBCBS benefit costs reflect age adjusted premiums. Age adjustments based on assumed age distribution of covered population used for non-Medicare retirees and HIP HMO Medicare retirees. Age adjustment based on actual age distribution of the GHI/EBCBS Medicare covered population. Insured premiums without age adjustment for other coverage. Premiums assumed to include administrative costs.

¹ 2.5% CPI, 1.5% real rate of return on short-term investments.

Employers premium contribution schedules for the month of July 2013 and January 2014 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 2014 premium rate was different than the July 2013 premium rate, the valuation assumed that the January 2014 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:

Plan	MONTHLY RATES	
	FY14 ¹	FY13 ²
HIP HMO		
Non-Medicare Single	\$ 579.04	\$ 550.50
Non-Medicare Family	\$ 1,418.66	\$ 1,348.75
Medicare	\$ 149.42	\$ 140.37
GHI/EBCBS		
Non-Medicare Single	\$ 459.63	\$ 459.68
Non-Medicare Family	\$ 1,194.24	\$ 1,194.29
Medicare	\$ 159.69	\$ 159.69
Others		
Non-Medicare Single	\$ 579.04	\$ 550.50
Non-Medicare Family	\$ 1,418.66	\$ 1,348.75
Medicare	\$ 159.69	\$ 159.69
¹ Used in June 30, 2013 OPEB actuarial valuation. ² Used In June 30, 2012 OPEB actuarial valuation.		

Welfare Funds.....

Welfare Fund contributions reflect a three-year trended average of reported annual contribution amounts for current retirees. A trended average is 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 1.64% for Fiscal Year 2013 and 2.33% for Fiscal Year 2012, approximating overall recent growth of Welfare Fund contributions.

For the June 30, 2013 and the June 30, 2012 OPEB actuarial valuations, certain lump-sum amounts have 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 shown in Appendix B, Tables 2a to 2e, for Fiscal Year 2014 used for current retirees.

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	
	FY14	FY13
NYCERS	\$ 1,700	\$ 1,703
TRS	1,754	1,762
BERS	1,683	1,690
POLICE	1,620	1,638
FIRE	1,712	1,720

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.

Contributions were assumed to increase by Medicare Plans trend rates.

For Welfare Fund contribution amounts reflected in the June 30, 2012 OPEB actuarial valuation for current retirees, see the Eighth Annual OPEB Report.

Medicare Part B Premiums.....	<u>Calendar Year</u>	<u>Monthly Premium</u>
	2012	\$ 99.90
	2013	\$ 104.90
	2014	\$ 104.90*

* Reflected only in June 30, 2013 OPEB actuarial valuation.

2014 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 2014. The actual 2015 Medicare Part B Premium was not announced at the time these calculations were prepared and, thus, was not reflected in the valuation.

For the June 30, 2012 OPEB actuarial valuation (i.e., Fiscal Year 2013), the annual premium used (i.e., \$1,228.80) equals 6 months of the Calendar Year 2012 premium plus 6 months of the Calendar Year 2013 premium.

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 (i.e., 104.90) plus 6 months of the Calendar Year 2014 premium (\$104.90).

Future Calendar Year Medicare Part B premium rates are projected from the Calendar Year 2014 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.

Fiscal Year	Income-Related Medicare Part B Increase	
	June 30, 2013 Valuation	June 30, 2012 Valuation
2013	NA	3.6%
2014	3.7%	3.7%
2015	3.8%	3.8%
2016 and Later	Increasing by .1% per year to a maximum of 5.0%	Increasing by .1% per year to a maximum of 5.0%

Medicare Part B Premium Reimbursement

Assumption.....

For the June 30, 2013 OPEB actuarial valuation, 90% of Medicare participants are assumed to claim reimbursement (unchanged from last year).

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 2014 (Initial trend).

HCCTR ASSUMPTIONS			
Year Ending¹	Pre-Medicare Plans	Medicare Plans	Medicare Part B Premiums
2014²	9.5%	5.0%	6.5%
2015	9.0%	5.0%	6.0%
2016	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%

¹ Fiscal Year for Pre-Medicare Plans and Medicare Plans and Calendar Year for Medicare Part B Premiums.

² For the June 30, 2013 OPEB actuarial valuation, rates shown for 2014 were not reflected since actual values for the Fiscal Year 2014 per capita costs, Fiscal Year 2014 Welfare Fund contributions and Calendar Year 2014 Medicare Part B Premium amounts were used.

Age- and Gender-Related Morbidity.....

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. Yamamoto² (“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:

Age	Male	Female	Age	Male	Female
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			

² 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.

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

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:

<u>Age</u>	<u>Males</u>	<u>Female</u>	<u>Age</u>	<u>Males</u>	<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, 2012 and June 30, 2013 OPEB actuarial valuations, an actual age and gender distribution based on reported census information was used for Medicare-eligible participants. For the June 30, 2012 and June 30, 2013 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, 2012 and June 30, 2013 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

<u>Age Range</u>	<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
15-19	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, 2012 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, 2012 OPEB actuarial valuation, separate GHI and EBCBS components to the rate were not provided. The GHI component was estimated to represent 48% of the combined premium based on historic information.

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

Medicare Advantage Adjustment

Factors.....

The age-adjusted premiums for HIP HMO Medicare-eligible retirees were multiplied by the following factors to reflect actual Calendar Year 2014 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, 2013 and the June 30, 2012 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. The adjustment factors used as of June 30, 2012 are shown for comparative purposes.

Fiscal Year	Factor*	
	6/30/13 Valuation	6/30/12 Valuation
2014	1.00	1.03
2015	1.03	1.08
2016	1.04	1.11
Thereafter	1.04	1.11

* Includes anticipated impact of National Health Care Reform

Medicare.....

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:

Valuation as of June 30

	2013	2012
NYCERS	35%	35%
TRS	45%	45%
BERS	45%	45%
POLICE	15%	15%
FIRE	20%	20%

Participation.....

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					
Benefits	June 30, 2013 Valuation				
	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	72%	87%	78%	82%	77%
- HIP HMO	21%	9%	16%	12%	16%
- Other HMO	4%	2%	2%	4%	6%
- Waiver	3%	2%	4%	2%	1%
Post-Medicare Migration					
- Other HMO to GHI	50%	0%	33%	50%	50%
- HIP HMO to GHI	0%	0%	0%	0%	0%
- Pre-Med. Waiver					
** To GHI @ 65	13%	35%	50%	0%	0%
** To HIP @ 65	13%	35%	0%	0%	0%

PLAN PARTICIPATION ASSUMPTIONS					
Benefits	June 30, 2012 Valuation				
	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	72%	87%	78%	82%	77%
- HIP HMO	21%	9%	16%	12%	16%
- Other HMO	4%	2%	2%	4%	6%
- Waiver	3%	2%	4%	2%	1%
Post-Medicare Migration					
- Other HMO to GHI	50%	0%	33%	50%	50%
- HIP HMO to GHI	0%	0%	0%	0%	0%
- Pre-Med. Waiver					
** To GHI @ 65	13%	35%	50%	0%	0%
** To HIP @ 65	13%	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.....

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.

Dependents.....

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 26.

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

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

DEPENDENT COVERAGE ASSUMPTIONS					
Group	June 30, 2012 Valuation				
	NYCERS	TRS	BERS	POLICE	FIRE
Male					
- Single Coverage	30%	45%	35%	15%	10%
- Spouse	40%	35%	55%	15%	20%
- Child/No Spouse	5%	5%	2%	5%	5%
- Spouse and Child	25%	15%	8%	65%	65%
Total	100%	100%	100%	100%	100%
Female					
- Single Coverage	70%	60%	60%	45%	10%
- Spouse	20%	32%	35%	10%	20%
- Child/No Spouse	5%	3%	2%	25%	5%
- Spouse and Child	5%	5%	3%	20%	65%
Total	100%	100%	100%	100%	100%

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 NYCERS 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, 2012 OPEB actuarial valuation, see the Eighth 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, 2013 OPEB actuarial valuation of a lump-sum COBRA cost of \$800 for terminations during Fiscal Year 2014 (\$800 lump-sum cost during Fiscal Year 2013 was assumed in the June 30, 2012 OPEB actuarial valuation). The \$800 (\$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 2014. Trend was estimated using the Pre-Medicare trend for the period from 2014 through 2018 and actual Federal Blue Cross/Blue Shield trend for the period 2010-2014.
- 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.

Active/Inactives Liabilities.....	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 the 40% of the measured present value of projected benefits.
Stabilization Fund.....	A .7% load is applied on all City GASB45 obligations (unchanged). The same loads apply to the GASB43 obligations in the current and preceding valuation. The load is not applicable to Component Units.
Educational Construction Fund.....	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

APPENDIX E

EDUCATIONAL CONSTRUCTION FUND

ACTUARIAL ASSUMPTIONS AND METHODS AND PLAN PROVISIONS

The demographic assumptions used for the Educational Construction Fund (“ECF”) June 30, 2013 and the June 30, 2012 OPEB actuarial valuations presented in this Report are 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”)⁶.

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 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.

⁶ The report is available at <http://www.cs.ny.gov/GASB/2012PARReport.pdf>.

- **NYSHIP health benefits consist of a first dollar hospital program, a medical program covering 100% 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.**

- **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 2014 and 2013 Participating Agency rates for the Empire Plan offering, as follows:**
 - **Empire Plan (Pre-Medicare)**
 - **Individual - \$771.54 monthly (\$767.98 last year).**
 - **Family - \$1,714.19 monthly (\$1,686.56 last year).**

 - **Empire (Medicare)**
 - **Individual - \$408.77 monthly (\$399.33 last year).**
 - **Family – Two Medicares - \$988.69 monthly (\$949.28 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 \$34.00 per month (unchanged) for single coverage, \$65.00 per month for two-persons coverage (unchanged) and \$87.00 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, 2012 OPEB actuarial valuation, based on the 2012 State Report, 60% of males and 35% of females are assumed to cover a spouse at retirement. 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, 2013 and the June 30, 2012 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 30²	Pre-Medicare, Dental and Drug Benefits	Medicare Medical Benefits	Medicare Part B Premiums
2014 ³	9.50%	5.00%	6.50%
2015	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%

¹ Includes anticipated impact of National Health Care Reform.

² Fiscal Year for medical and dental premiums and Calendar Year for Medicare Part B Premiums.

³ For the June 30, 2013 OPEB actuarial valuation, rates shown for 2014 were not reflected since actual values for the Fiscal Year 2014 medical and dental premiums and Calendar Year 2014 Medicare Part B Premium amounts were used.

- **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, 2012 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.
- **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 2014 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, 2013 and the June 30, 2012 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, 2013 and for the June 30, 2012 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

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 NYCERS, for Medicare Part B Premiums for Senior College retirees who retired under one of the NYCERS 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 NYCERS 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, 2012 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, 2013 and June 30, 2012 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, 2013 and June 30, 2012 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				
Benefits	June 30, 2013 Valuation		June 30, 2012 Valuation	
	Pre-Medicare	Medicare	Pre-Medicare	Medicare
GHI/EBCBS	90%	90%	90%	90%
HIP HMO	6%	6%	6%	6%
Other HMO	4%	4%	4%	4%
Waiver	0%	0%	0%	0%

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

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, 2012 valuation, gender was not provided on the data. 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. A Senior/Community College identifier was provided on the data for the June 30, 2013 valuation. The identifier had not been provided for the June 30, 2012 OPEB actuarial valuation, when it was assumed that 75% of CUNY TIAA retirees had been employed by Senior Colleges and 25% had been employed by Community Colleges.**

- **Data for active CUNY TIAA participants as of June 30, 2013 were provided by CUNY. The 18 active employees and 4 active/inactive employees who were identified as covered by the Cultural Institutions Retirement System (“CIRS”) were valued using the CUNY TIAA provisions.**
- **The weighted average annual Welfare Fund contribution rate assumed for CUNY TIAA future retirees is \$1,900 (\$1,909 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 323 employees who terminated in the last 11 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 most CUNY TIAA retirees as attributable to either Senior College or Community College. The data submitted for the June 30, 2013 OPEB actuarial valuation contained the College indicator for the vast majority (2,531 out of 2,542) of TIAA retirees. However, it appears the payment allocation was not implemented by the end of Fiscal Year 2014. The current OPEB actuarial valuation continues to assume that the appropriate payment allocation will be implemented in the near future.

APPENDIX G

APPENDIX G

ACKNOWLEDGEMENTS

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