

New York City's Census Challenge

NYC's 2010 Census Enumeration and DCP Adjusted Population

Overview

The Census Bureau, in cooperation with the Department of City Planning, had estimated the city's population to be around 8.4 million as of July 2010. The 2010 Census enumerated New York City's population at 8,175,133, well short of the estimate and, we believe, indicative of an undercount of the city's population. This was partly due to the 2010 Census reporting an increase of 82,000 vacant units in New York City, or a 46 percent rise since 2000. A disproportionate share of this increase was found in two local census offices (LCOs) covering southern Brooklyn and northwest Queens, both vibrant sections of the city. The huge concentration of vacant units in these areas cannot be explained by new construction or foreclosures; nor is it consistent with other survey and administrative data. The City of New York challenged these census findings under the Census Bureau's Count Question Resolution (CQR) Program.

In April of 2012, The Census Bureau determined that New York City's CQR challenge of August 2011 would not result in a change in the City's official 2010 population. The Census Bureau's examination of the addresses City Planning submitted did not reveal errors admissible under CQR. Admissible errors are only those concerning geographic boundaries and the processing of data already collected in the census enumeration; the Census Bureau does not change numbers produced from an enumeration, unless the error falls into those categories. The CQR process did not consider other types of errors in the 2010 Census that may have affected the city's population count, including anomalies in the census count that we identified in portions of Brooklyn and Queens. These anomalies revealed significant shortcomings in Census Bureau procedures, which resulted in growing neighborhoods being undercounted. Therefore, we believe that it is important to provide those who develop policies, assess needs, plan programs and deliver services with revised, and albeit unofficial, populations for Brooklyn and Queens, based on a revision of the numbers for the two problematic areas. The revision also will be incorporated into the base population used to launch the next round of population projections for New York City.

It is important to note that the Census Bureau showed a real willingness to work with the City and carefully examined our appeal, but it is unfortunate that no mechanism currently exists to rectify the errors we identified. City Planning's demographers and technical specialists will continue to engage with their counterparts at the Census Bureau to examine what occurred and to improve census procedures, thereby helping to ensure a more accurate count of New Yorkers in the 2020 Census.¹

DCP's Adjustment of the 2010 Population in Brooklyn and Queens

While there is no way of knowing the true impact on the characteristics of the population developed from the decennial census data and the American Community Survey,² we have taken steps to adjust the population to at least partially compensate for the vacant unit problem in Brooklyn and Queens.

The 2008 New York City Housing and Vacancy Survey (HVS), the standard for measurement of vacancy, was used to estimate the true number of vacant units.³ The 2010 Census reported that Brooklyn LCO 2227 had 11 percent of housing units vacant, compared to 4 percent in the 2008 HVS. In Queens, LCO 2235 reported nearly 8 percent of all units vacant in the 2010 Census, compared to 5 percent in the 2008 HVS. We applied the 2008 HVS vacancy percentages to the total housing units from the 2010 Census to create a more realistic number of vacant units; the difference between the 2010 Census and the estimate using the 2008 HVS was treated as the excess number of vacant units reported in the decennial census.⁴ The 2010 Census average household size was then applied to these excess units to obtain the population that was missed. This calculation added 48,211 people to LCO 2227 and 8,160 persons to LCO 2235.

In LCO 2235, there was also an issue of adding-in population for units that were erroneously deleted. We first compared the 2010 DCP estimate of total housing units with the 2010 Census count. By subtracting the 2010 Census housing units from the DCP total housing units, we were able to determine the possible deleted units in the LCO. To be conservative, we treated only 35 percent of these units as erroneous deletions. The deleted units were then multiplied by the average household size to obtain the population that was missed. This added another 11,120 persons to LCO 2235.

Thus, our estimates of the people who were missed due to erroneous vacancies in Brooklyn and vacancies and deleted units in Queens added 48,211 people to the total population in Brooklyn and 19,280 to the total population of Queens. The additional population brought New York City's 2010 total population from 8,175,133 up to 8,242,624.

2010 Census Enumeration and DCP Adjusted Population				
	2010 Population		Difference	
	Census Enumeration	DCP Adjusted	Number	Percent
New York City	8,175,133	8,242,624	67,491	0.8
Bronx	1,385,108	1,385,108	-	-
Brooklyn	2,504,700	2,552,911	48,211	1.9
Manhattan	1,585,873	1,585,873	-	-
Queens	2,230,722	2,250,002	19,280	0.9
Staten Island	468,730	468,730	-	-

Source: 2010 Census, U.S. Census Bureau; Population Division- New York City Department of City Planning

The additional population was calculated for the census tracts in each LCO and then summed to the PUMA and borough levels.

Additional Population by PUMA	
PUMA	Additional Population
LCO 2227	48,211
4009	2,994
4012	18
4013	12,129
4014	4,427
4015	3,795
4016	10,824
4017	11,733
4018	2,291
LCO 2235	19,280
4101	8,437
4102	5,272
4107	1,494
4109	4,077

Census Challenge Documentation

Census Challenge Documentation provided below are: the initial submission under this program; evidence underscoring the City’s contention that these areas could not have experienced the type of concentrated vacancy reported; and the final determination in the CQR process from the Census Bureau.

- April 1, 2012 -
 - [!\[\]\(aca6fcc8bd95e8255b9ea1b1d08ef300_img.jpg\) CQR - Response to New York](#)
 - [!\[\]\(0083087c61cec498ac803a4aec5bb1bd_img.jpg\) CQR - Table](#)
- August 10, 2011 - [Mayor Bloomberg Submits City's Formal Challenge to 2010 Census Results](#)
 - [!\[\]\(2e94242fda9f31152eb2b29146bfce46_img.jpg\) New York City's Census Challenge: Initial Submission under the Count Question Resolution Program that Documents the Misclassification of Housing Units as Vacant in Portions of Brooklyn and Queens](#)
 - [!\[\]\(680c68b4e62fe5ec9774c1168e904fbf_img.jpg\) Sources for New York City's Count Question Resolution Submission](#)
 - [!\[\]\(0012cbbec5c5a1cf6c111135ad58ebc0_img.jpg\) Briefing Booklet for NYC's Census Challenge](#)

¹ Salvo, J.J. and A.P. Lobo. 2013. "Misclassifying New York's Hidden Units as Vacant in 2010: Lessons Gleaned for the 2020 Census." *Population Research and Policy Review*, Vol. 32: 729-751.

² The American Community Survey (ACS) sample weights and adjustments for nonresponse are developed using 2010 Census data, and may thus be subject to the problems and limitations of the decennial census.

³ The HVS is conducted every three years under a contract with the Census Bureau, to estimate vacancy in order to comply with state and city laws aimed at a periodic evaluation of rent regulations in the city. Since the primary purpose of the HVS is to estimate vacancy in the city, it is considered the gold standard for such purposes.

⁴ The percent vacant from the New York City HVS for each sub-borough area was applied to the 2010 Census count of housing units in each census tract within the LCOs.