

# Current Estimates of New York City's Population for July 2014

## Introduction

The U.S. Census Bureau prepares estimates of total population for all counties in the United States on an annual basis, using a demographic procedure known as the “administrative records method” (described below). This method assumes that post-census population change can be closely approximated by vital statistics data on births and deaths, along with other administrative and survey data that provide a picture of migration patterns.

## Census Bureau Estimates for July 1, 2014

### Total Population

According to Census Bureau population estimates, New York City’s population increased from 8,175,133<sup>1</sup> in April of 2010 to 8,491,079 in July of 2014. This is an increase of 315,900 residents or about 3.9 percent over the 2010 mark. The largest change in the city’s population occurred in Brooklyn, growing by 4.7 percent or 117,100 persons, followed by Queens (4.1 percent or 90,900 persons), the Bronx (3.8 percent or 53,100 persons), and Manhattan (3.2 percent or 50,400 persons). Staten Island (1.0 percent or 4,500 persons) showed the smallest gains over the 51 month period.

New York City’s population increase since April of 2010 represented 85.8 percent of the total increase in New York State, which raised the city’s share of the State’s population, from 42.2 percent to 43.0 percent.

<b>Change in Population, Census Bureau Estimates April 2010 to July 2014</b>				
	Census 2010	Census Estimates 2014	Change: Census 2010 and Estimates 2014	
			<u>Number</u>	<u>Percent</u>
<b>New York State</b>	19,378,102	19,746,227	368,125	1.9
<b>New York City</b>	<b>8,175,133</b>	<b>8,491,079</b>	<b>315,946</b>	<b>3.9</b>
<b>Bronx</b>	1,385,108	1,438,159	53,051	3.8
<b>Brooklyn</b>	2,504,700	2,621,793	117,093	4.7
<b>Manhattan</b>	1,585,873	1,636,268	50,395	3.2
<b>Queens</b>	2,230,722	2,321,580	90,858	4.1
<b>Staten Island</b>	468,730	473,279	4,549	1.0
<i>NYC as % of NYS</i>	42.2	43.0	85.8	

Source: 2010 Census; Census Bureau Current Estimates Program

### Components of Population Change

Demographers divide population change into components. *Natural increase* represents the difference between births and deaths. *Net migration* represents the balance between persons entering and leaving an area. Together, these components describe how populations change over time. The Census Bureau constructs population estimates for all counties in the United States by separately estimating the components of change. Births and deaths are compiled using data from the national vital statistics system. Net migration is calculated by estimating the rate of net migration for persons coming in from and leaving

for other counties in the 50 states (*net domestic migration*) and the balance of people who immigrate from and emigrate to other nations and Puerto Rico (*net international migration*). The net domestic migration rate is derived using income tax returns from the Internal Revenue Service and Medicare enrollment data from the Social Security Administration (see methods discussion below).

It is important to keep in mind that New York City has a very dynamic population, with several hundred thousand people coming and going each year. This “churn” has long characterized the city, and represents a fluidity that is difficult to characterize using the *net* migration measures presented herein. This dynamism is testimony to the city as a magnet for those seeking opportunities, then moving on, only to be replaced by the next set of individuals aspiring for a better life. This very vibrant picture is what makes New York City’s population extraordinary and different from most other places in the nation and, perhaps, the world.

The most recent estimates from the Census Bureau indicate the following:

- a) Positive natural increase – more births than deaths added 280,800 persons to New York City’s population between April of 2010 and July of 2014.
- b) Net migration was positive for the city overall, with a net migration gain of some 41,500 persons for the period. While small by the standards of the city’s overall population, this represents an important change in the longstanding pattern of population losses through migration. The recent gain through migration was the result of a net inflow of 348,300 persons through international migration, which offset a net domestic migration loss of 306,800 persons. Despite declines, immigration continues to be an important component of population growth. In addition, domestic migration losses have also declined, a result of a larger influx of young migrants from the 50 states.

Although estimates of net migration for the last decade are difficult to calculate because of issues surrounding the accuracy of the 2010 Census count, data from IRS tax returns (which are used as part of the Census Bureau’s estimation method – see below) and data from the American Community Survey (ACS) point to lower levels of net domestic loss since 2008. Further, ACS data point to fewer domestic out-migrants and a continuation of the steady in-migrant stream in the latter part of the last decade. Post-2010 net migration gains are indicative of a change in the pattern of migration to and from the city. The longstanding pattern of population losses through migration (offset by gains through natural increase) have changed, with post-2010 migration not retarding population growth.

- c) Every borough, except Staten Island, displayed positive net migration between April 2010 and July of 2014. Much of this is related to lower losses through net domestic migration relative to previous periods. As mentioned previously, outflows from New York City to the rest of the nation have been slowing for several years, while domestic inflows to the city have increased. Much of this inflow consists of young migrants to Brooklyn, Queens and Manhattan, where they live largely in non-family households. At the same time, the level of international migration continues to be positive and formidable.

Cumulative Estimates of the Components of Population Change for New York City and Counties: April 1, 2010 to July 1, 2014					
Geographic Area	Total Population Change	Natural Increase	Net Migration		
		(Births- Deaths)	Total	Net International Migration	Net Domestic Migration
<b>New York City</b>	315,946	280,849	41,455	348,303	-306,848
<b>Bronx</b>	53,051	52,224	1,194	67,359	-66,165
<b>Brooklyn</b>	117,093	111,974	6,688	99,123	-92,435
<b>Manhattan</b>	50,395	39,618	12,272	65,765	-53,493
<b>Queens</b>	90,858	68,658	24,550	110,618	-86,068
<b>Staten Island</b>	4,549	8,375	-3,249	5,438	-8,687

Note: The estimated components of population change will not equal the numerical population change because of a small residual after controlling to the national totals.

Source: Population Division, U.S. Census Bureau

### Census Bureau Population Estimates Methodology

Each year, the U.S. Census Bureau produces estimates of the population for states, counties, cities and other places, as well as for the nation as a whole. They utilize data from a number of sources to estimate the change in the population for each year since the most recent decennial census. These population estimates use the 2010 Census counts as a base.

The Census Bureau subtracts the number of resident deaths from the number of resident births annually for each county in the U.S., to derive growth due to *natural increase*. Births are tabulated by residence of the mother, regardless of where the birth occurred. Similarly, deaths are tabulated by the most recent residence of the decedent, not where the death occurred. Birth and death certificates from the National Center for Health Statistics are used as the data source. The data on births and deaths are generally considered to be the most reliable part of the components of change analysis.

**Net domestic migration** represents the net exchange between a county and other counties in the 50 states. This component is estimated for three age groups (0 to 17, 18-64 years and 65 years and older). For those 0 to 64, the Bureau uses data on filers and dependents from Federal income tax returns supplied by the Internal Revenue Service (IRS). In-migrants and out-migrants between counties, and non-movers are identified by comparing the addresses of income tax filers from year-to-year to determine residence at two points in time. For example, to produce the July 1, 2014 estimates, the addresses of tax filers are compared for 2012 and 2013. In-migrants to a county were defined as those with an address in the county in 2013, but outside the county in 2012; out-migrants are those with an address in the county in 2012, but outside the county in 2013; and individuals who filed tax returns at the same address at both points in time are non-migrants. Since every U.S. resident may not file or be claimed as an exemption on a tax return, these data cannot be used to directly estimate the number of county-to- county migrants. Instead a net domestic migration **rate** needs to be calculated by taking the difference between the numbers of in- and out-migrants (net-migrants) and dividing it by the sum of the non-movers and out-migrants.<sup>2</sup> Because many retired persons do not file tax returns, the Census Bureau uses addresses from Medicare enrollment data in much the same way as they use IRS data to determine domestic migration for the population 65 years and over.

**Net International Migration** is the result of net flows to and from foreign countries and Puerto Rico and is estimated in the following parts: immigration of the foreign-born, emigration of the foreign- as well as native-born, and net migration between the U.S. and Puerto Rico. Immigration of the foreign-born is estimated using the ACS question on residence in the prior year. Foreign-born persons who indicated that they lived abroad in the prior year are considered immigrants.

Emigration of the foreign-born is estimated using the residual method. For example, the foreign-born population is aged forward to obtain the expected population in the year 2014. The expected population is then compared to the population estimated in the 2014 ACS. Subtracting the estimated from the expected populations provides the residual, which then serves as the basis of emigration rates for the foreign-born. Emigration rates of the native-born are based on research by Schachter (2008) using data from over 80 countries.<sup>3</sup> This work compares estimates of U.S. citizens living overseas measured for two consecutive time periods and uses the difference to develop estimates of net native migration.

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<sup>1</sup> While there is little doubt that New York City has experienced a substantial population increase post-2010, it is probably overstated. Brooklyn and Queens likely experienced an undercount in the 2010 Census, the result of misclassifying housing units as vacant. A conservative estimate is that this problem understated the population of the two boroughs by 65,000 persons. This means that the population of the city in 2010 was easily in excess of 8,240,000 – and not the 8,175,100 base from the 2010 enumeration that is used in the calculations of change.

See 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*, 32(5), 729-751. <http://link.springer.com/article/10.1007/s11113-013-9298-1>

<sup>2</sup> One reason why small changes in estimates need to be interpreted with caution relates to the effects that tumultuous events can have on the administrative data used to create population estimates. Such is the case with super storm Sandy and its impact on the utility of tax return data to estimate migration levels for the boroughs.

<sup>3</sup> Schachter, Jason. 2008. “Estimating Native emigration from the United States,” Memorandum dated December 24, delivered to the US. Census Bureau.