

CURRENT ESTIMATES OF NEW YORK CITY'S POPULATION FOR JULY 2019

Summary

The U.S. Census Bureau has estimated New York City's population at 8,336,817, as of July 1, 2019. This represented an increase of 161,684 residents (or 2.0 percent) over the April 1, 2010 decennial census count of 8,175,133. Post-2010 growth translates into an average annual gain of about 17,500 persons, or .2 percent compounded annually. Population growth has been fueled by the continued surplus of births over deaths, which has been partially offset by net outflows from the city.

While the city grew by roughly 161,700 persons since 2010, New York State grew only by 75,500 people due to a decline of 86,200 persons in counties outside the city. Of the State's 62 counties, 48 lost population since 2010. In contrast, each of the city's five boroughs registered gains in population. Manhattan saw the largest increase, up 2.7 percent, followed by the Bronx (2.4 percent), Brooklyn (2.2 percent), and Staten Island (1.6 percent); Queens showed the smallest gain (1.0 percent) over the 111-month period.

While the city's population has shown an overall increase since 2010, these estimates also reveal a pattern of population losses in each of the last three years. It is important to remember that New York does not always have an upward growth trajectory. In some years, the city has experienced high population growth – In the first years of this decade, growth averaged around 1 percent, which the city had not seen for nearly a century, and was unsustainable in the long term. In the past three years, the city has experienced population declines. However, despite the current decline in the city's population, there has been substantial growth since 2010. This post-2010 growth is only slightly below the growth of 166,900 persons experienced in the prior decade, 2000-2010.

The recent decline in the city's population is closely related to sharp declines in immigration to the U.S. that are linked, most recently, to federal policies. Net international flows to the city have fallen by 46 percent since they peaked in 2016 at 62,000. This mirrors the 43 percent decline in net international migration to the U.S. during the same period. Net domestic outflows from the city, which are similar to those seen in the last decade, have not changed much in the past three years.

Another big reason for the recent decline in population has to do with natural increase (the difference between births and deaths), which has dropped by over one-third since it peaked in 2011 at 68,200 – with the largest declines occurring over the last three years. This is similar to the overall pattern for the U.S. Declining births in the city are partly a result of the slowdown in immigration – immigrants, who tend to be younger, account for over one-half of all resident births. Just as important, however, is the aging of New York City’s population, which has increased the number of deaths.

Thus, the recent declines in the city’s population are a result of changes in federal immigration policy that have resulted in fewer immigrants (and also lowered births), and an aging population that has increased the number of deaths. The level of net domestic outflows from the city are relatively unchanged from the prior decade.

COMPLETE ANALYSIS OF U.S. CENSUS BUREAU ESTIMATES FOR JULY 1, 2019

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 using vital statistics data on births and deaths, along with other administrative and survey data that provide a picture of migration patterns.

Population estimates are most useful in identifying patterns of change in the city’s population. It is important to keep in mind that the Census Bureau’s methodology is not robust enough to precisely quantify the magnitude of year-to-year changes.

Total Population

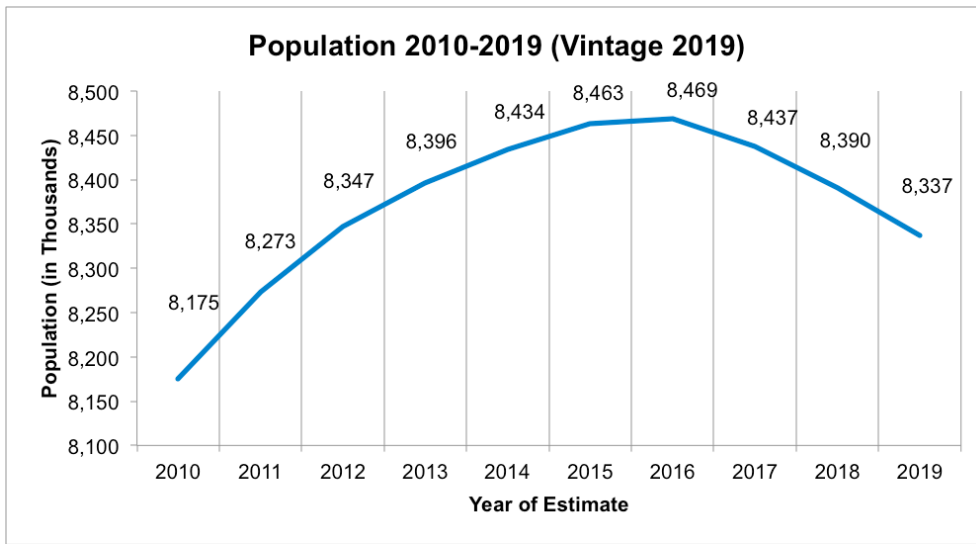
According to U.S. Census Bureau population estimates, New York City’s population increased from 8,175,133 in April of 2010 to 8,336,817 in July of 2019. This is an increase of about 161,700 residents over the 2010 mark, or 2.0 percent. Among the boroughs, Manhattan saw the largest increase, growing by 2.7 percent or 42,800 persons, followed by the Bronx (2.4 percent or 33,100 persons), Brooklyn (2.2 percent or 55,200 persons), and Staten Island (1.6 percent or 7,400 persons); Queens showed the smallest gain (1.0 percent or 23,100 persons) over the 111-month period.

**Change in Population, Census Bureau Estimates
April 2010 to July 2019**

	Census 2010	Estimates 2019	Change: Census 2010 and Estimates 2019	
			Number	Percent
New York State	19,378,102	19,453,561	75,459	0.4
New York City	8,175,133	8,336,817	161,684	2.0
Bronx	1,385,108	1,418,207	33,099	2.4
Brooklyn	2,504,700	2,559,903	55,203	2.2
Manhattan	1,585,873	1,628,706	42,833	2.7
Queens	2,230,722	2,253,858	23,136	1.0
Staten Island	468,730	476,143	7,413	1.6
<i>NYC as % of NYS</i>	42.2	42.9	214.3	

Source: 2010 Census; Census Bureau Current Estimates Program

While the city’s population has shown an overall increase since 2010, these estimates also reveal a pattern of population losses in each of the last three years. New York does not always have an upward growth trajectory. In some years, the city has experienced high population growth – In the first years of this decade, growth averaged around 1 percent, which the city had not seen for nearly a century, and was unsustainable in the long term. In the past three years, the city has experienced population declines. It is important to note that the Census Bureau’s estimation methodology is not robust enough to precisely quantify the magnitude of these year-to-year changes. However, despite the recent declines in the city’s population, there has been substantial growth since 2010. This post-2010 growth is only slightly below the growth of 166,900 persons experienced in the prior decade, 2000-2010.



Although the city grew by roughly 161,700 persons since 2010, New York State grew only by 75,500 people due to a population decrease of 86,200 for the counties outside the city. Of the State's 62 counties, 48 lost population since 2010.

COMPONENTS OF POPULATION CHANGE, 2010-2019

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 U.S. 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 a summation of two flows: migration of 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.

New York City has a 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 capture using the net migration measures presented herein. This dynamism is a testament to the city being 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 vibrancy is one aspect of 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 U.S. Census Bureau indicate the following for the 2010-2019 period:

- a) Positive natural increase — The surplus of births over deaths added 565,200 persons to New York City's population between April 2010 and July 2019.
- b) Net out-migration — In a return to its customary pattern of migration, New York City experienced a net loss through migration during the 2010-2019 period. This loss totaled 403,700, the net result of domestic losses (899,800) offset by international gains (496,100).
- c) Variation in migration flows by borough — Much of these migration losses were concentrated in Brooklyn (172,200), followed by net migration losses in Queens and the Bronx (118,300 and 73,800, respectively).

Estimates of the Components of Population Change for New York City and Counties: April 1, 2010 to July 1, 2019					
Geographic Area	Total Population Change*	Natural Increase	Net Migration		
		(Births- Deaths)	Total	Net Domestic Migration	Net International Migration
New York City	161,684	565,205	-403,736	-899,806	496,070
Bronx	33,099	106,368	-73,764	-188,926	115,162
Brooklyn	55,203	227,925	-172,268	-301,161	128,893
Manhattan	42,833	73,521	-30,560	-127,991	97,431
Queens	23,136	141,037	-118,347	-266,505	148,158
Staten Island	7,413	16,354	-8,797	-15,223	6,426

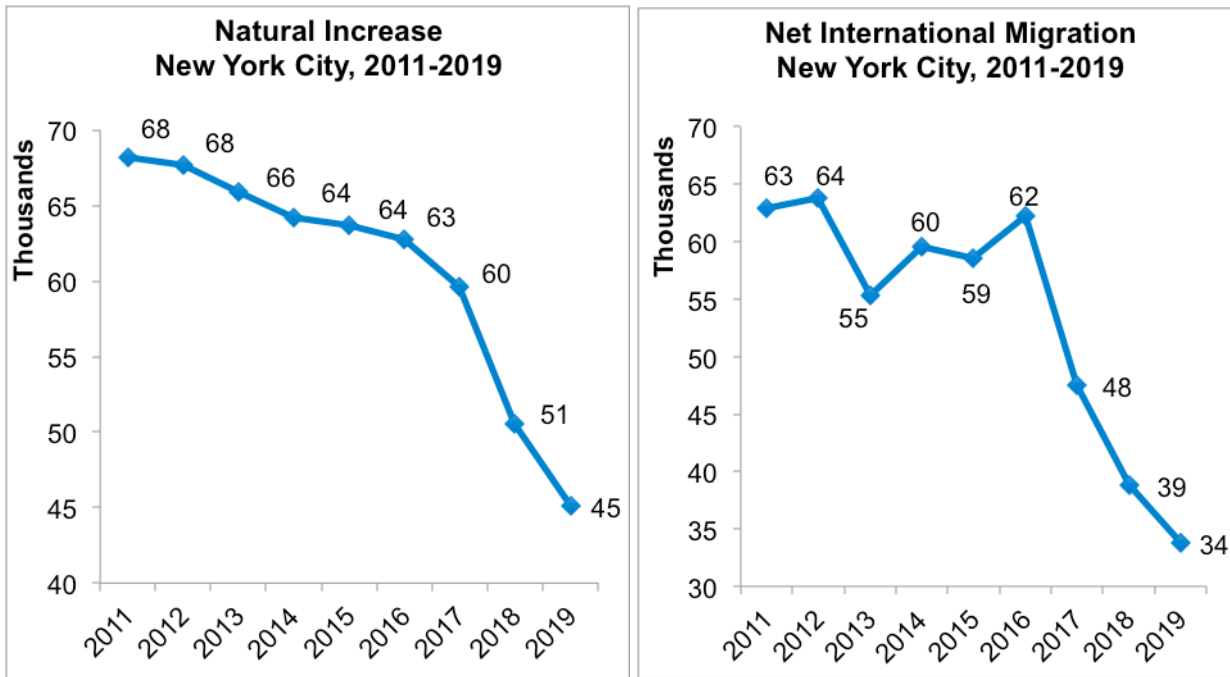
*Note: Population change was calculated using the 2010 Decennial Census (as opposed to the 2010 Estimates Base) and the 2019 Population Estimate. The estimated components of population change will not equal the numerical population change also because of a small residual after controlling to the national totals.

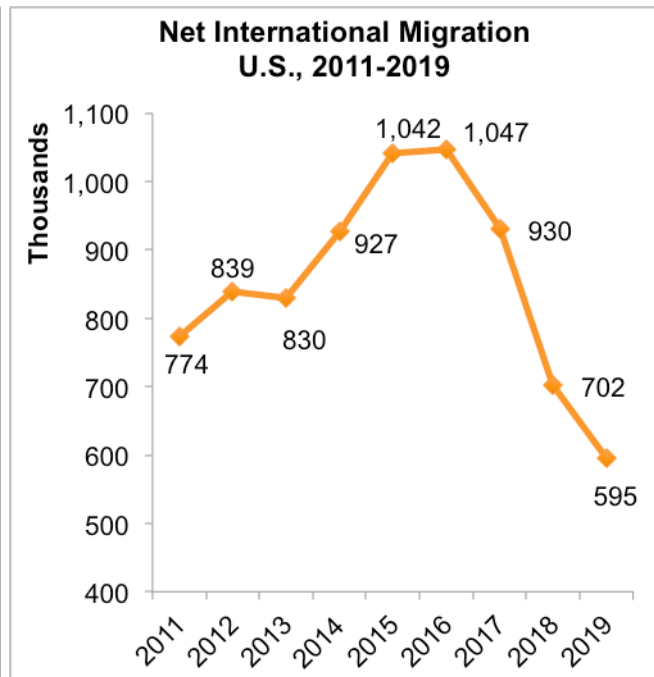
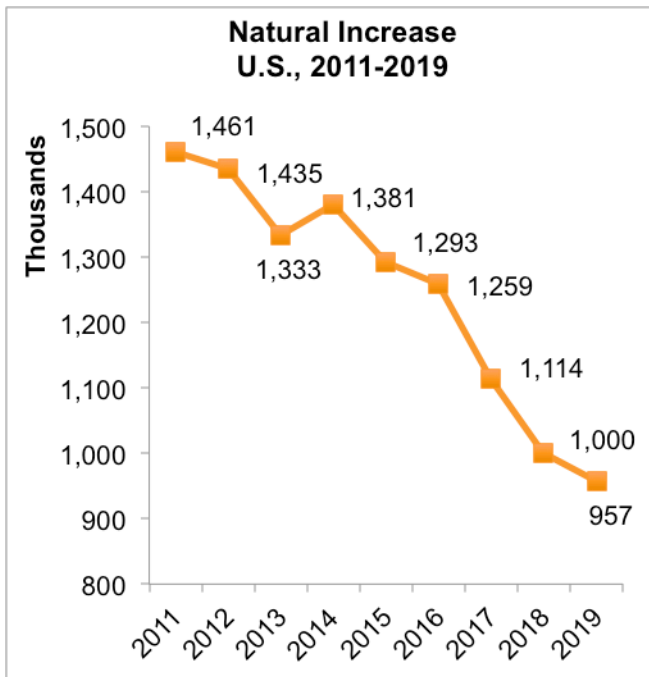
Source: 2010 Census; Census Bureau Current Estimates Program

Declines in the city's population over the past three years are closely related to a sharp drop in immigration to the U.S., linked most recently to changes in federal immigration policies. Net international flows to the city have fallen by 46 percent since they peaked in 2016 at 62,000. This mirrors the 43 percent decline in net international migration to the U.S. during the same period. Net domestic outflows

from the city, however, have not changed much in the past three years and are largely similar to outflows in the prior decade.

Another reason for the recent decline in population has to do with natural increase. Year-on-year changes in natural increase between 2010 and 2019 show that it has declined by over one-third since it peaked in 2011 at 68,200 –with the largest declines occurring over the last three years. Natural increase in the U.S. has also declined substantially since 2011. The decline in NYC has been fueled by increases in deaths due to an aging population, and a decrease in births over time, which is closely related to a drop in immigration.





COMPONENTS OF POPULATION CHANGE, 2018-2019

While year-on-year population change and components of change for the 2018-2019 period are reported below, it is important to keep in mind that these are estimates, which are subject to a degree of error. Due to the limitations of the population estimation methodology, it is better to look at longer-term trends as described above, as opposed to change for a single year shown in the table below.

**Estimates of the Components of Population Change for
New York City and Counties: July 1, 2018 to July 1, 2019**

Geographic Area	Total Population Change*	Natural Increase	Net Migration		
		(Births- Deaths)	Total	Net Domestic Migration	Net International Migration
New York City	-53,264	45,142	-98,448	-132,266	33,818
Bronx	-13,880	8,529	-22,506	-31,203	8,697
Brooklyn	-18,171	19,568	-37,742	-45,945	8,203
Manhattan	-349	4,797	-5,003	-11,730	6,727
Queens	-20,747	11,073	-31,906	-41,789	9,883
Staten Island	-117	1,175	-1,291	-1,599	308

*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: 2010 Census; Census Bureau Current Estimates Program

U.S. 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 use data from multiple sources to estimate annual population change since the last decennial census in 2010. For each county in the U.S., the Census Bureau subtracts the annual number of resident deaths from the annual number of resident births to derive annual growth due to **natural increase**.¹ 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, regardless where the death occurred. Birth and death certificates from the National Center for Health Statistics are used as the data source.

Net Domestic Migration represents the net exchange between one county and other counties in the 50 states. This component is estimated for three age groups (0-17, 18-64, and 65 years of age and older). For ages 0 to 64, the U.S. Census 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, as well as non-migrants, are identified by comparing the addresses of income tax filers from one year to the next to determine residence at two points in time. For example, to produce the July 1, 2019 estimates, the addresses of tax filers in 2018 and 2019 are compared. In-migrants to a given county are defined as those with an address in the county in 2019, but outside the county in 2018; out-migrants as those with an address in the county in 2018, but outside the county in 2019; and non-migrants as individuals who filed tax returns in the same county at both points in time. Since not every U.S. resident files or is 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-migrants and out-migrants. Because many retired persons do not file tax returns, the U.S. Census Bureau compares addresses from one year to another in the individual Medicare enrollee records in much the same way as they use IRS data to determine domestic migration for the population 65 years of age and older.

¹ Data on births and deaths are generally considered to be the most reliable part of the components of change analysis.

Net International Migration is the balance of migration flows to and from foreign countries and Puerto Rico. These flows are sub-divided into three 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.

The Census Bureau relies on the ACS Residence-One-Year-Ago (ROYA) question to estimate foreign-born immigration at the national level, using 1-year ACS files. Below the country level, it uses 1-year ACS data on ROYA to distribute the national foreign-born population to the state level.

In general, emigration of the foreign-born is estimated using the residual method. For example, the foreign-born population in 2010 is survived forward to obtain the expected population in the year 2019. The expected population is then compared to the population estimated in the 2019 ACS. Subtracting the estimated from the expected populations provides the residual, which then serves as the basis of emigration rates for the foreign-born. Due to the difference in native and foreign-born mortality, the Census Bureau uses Hispanic life tables to survive the Hispanic foreign-born population, given that Hispanic life tables more accurately reflect the mortality rates experienced by the foreign-born population compared to life tables for the total U.S. population as a whole.