

Is New York City's Millennial Population Really Shrinking?

A Demographic Perspective on Changes in Population Estimates

We'd like to set the record straight on recent reports stating that younger residents are leaving New York City. New York City has grown by 224,000 people since 2010, including those aged 25 to 39 gaining ground. Indeed, there are 133,000 more New Yorkers age 25 to 39 than there were in 2010.

Many recent news articles claim that New York City is losing its younger population. However, these findings are based on problematic methods that lead to misinformation. For instance, it has been reported that New York City lost 38,000 persons age 25 to 39 between 2017 and 2018, and that this loss is larger than in previous years.¹

There are three major issues with these assertions:

- 1) First, such claims are problematic because they compare absolute numbers across different "vintages" of estimates, which are annually released series of revised population data that are not comparable due to different estimation methodologies.² Each annual vintage includes new population estimates for each year back to the most recent decennial census. Comparisons can be made between years within a vintage, but not between estimates from different vintages.
- 2) Second, estimated population changes from one year to the next are subject to uncertainty, making short-term changes hard to interpret. We advise users of population data to focus on longer-term trends rather than yearly population changes.
- 3) Finally, some of the changes across time might be due to so-called cohort effects rather than actual migration dynamics. In other words, the aging of people into and out of certain age groups is not accounted for when comparing numbers over time.

The "Vintage Problem"

Each year, the Census Bureau develops a revised series of population estimates, or "vintages." Since these numbers are revised annually back to the previous decennial census year, population estimates from different vintages may not be consistent, even when estimating for the same time point.

For the Vintage 2018 population estimates, the Census Bureau changed the methodology used to calculate international migration. As a result, the estimated population of New York City for

¹ <https://www.wsj.com/articles/millennials-continue-to-leave-big-cities-11569470460>.

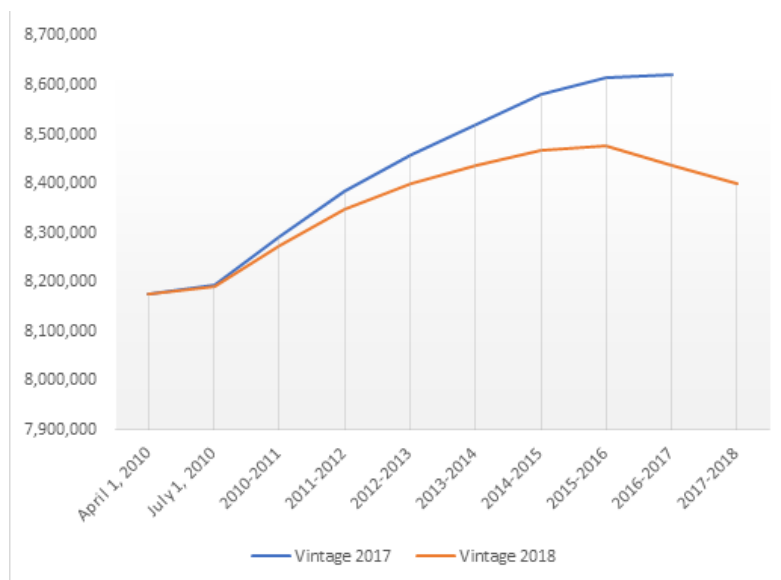
² For more information on vintages, please visit the U.S. Census Bureau's website at <https://www.census.gov/programs-surveys/popest/data/data-sets.html>.

2017 was adjusted down by roughly 200,000 people in the Vintage 2018 estimates (see Figure 1 below). This has big implications for American Community Survey (ACS) data broken down by characteristics, such as age or race. Each year, the latest ACS is benchmarked only to the new vintage population estimates. However, while new vintage estimates are released for the entire decade, previously released estimates for individual years from the ACS are not re-benchmarked to these new numbers. **That means that absolute numbers from the 2018 and 2017 ACS are based on different vintages, and changes from one ACS to the next could be due to changes in estimation methodologies between vintages, making the interpretation of differences from each one-year ACS to the next problematic.**

The claim that New York experienced a population decline of 38,000 among those age 25 to 39 than was larger than in previous years is based on reported residence one year ago (ROYA) in multiple years of ACS data that are not comparable.

The graph below shows a dramatic difference in estimates of the New York City population between the 2017 and 2018 Vintages – a difference which is not attributable to actual changes on the ground but only to changes in methodology.

Figure 1. Population Trajectories for New York City, Vintages 2017 and 2018



Source: United States Census Bureau, Population Estimates Program, 2017 and 2018

For more reliable comparisons, we suggest using population estimates within the same vintage available from the Census Bureau.³ Based on comparisons within Vintage 2018, the population of those age 25 to 39 in New York City decreased by 9,000 (0.4 percent) between 2017 and

³ <https://www.census.gov/data/tables/time-series/demo/popest/2010s-counties-detail.html>

2018, roughly the same change experienced between 2016 and 2017 (8,000 persons or 0.4 percent). New York experienced an increase in population in this age group between 2015 and 2016 (15,000 persons or 0.7 percent) and between 2014 and 2015 (21,000 persons or 1.0 percent). All of these changes are negligible when expressed relative to the population estimate for 25-39-year-olds, which has been in the range of 2.1 million persons. Also, all estimates are subject to a degree of uncertainty, and even more so when estimating small changes in subpopulations over short time periods or estimating population change based on a question in the ACS with a relatively high level of non-response (in the range of 18 percent in the 2018 data for ROYA). The only thing we know for sure is that these numbers are too small and unstable to serve as the basis for defining a trend.

A Longer-Term Perspective

The estimated decrease in the population age 25 to 39 must be evaluated in a broader context than year-to-year changes. The Vintage 2018 population estimates show that the City's population increased by over 224,000 persons since 2010, with sharp increases earlier in the decade that have slowed or declined slightly as the decade progressed. For a city the size of New York, population growth in the range of 0.9 percent in the early years of this decade was very large. Among those age 25 to 39, the population of New York City increased by 133,000, or a 6.7 percent increase since 2010, which again is the result of migration, mortality and the size of the population entering and exiting the age group. Whether the emerging pattern of slight loss for the last two years is indicative of the population "leveling-off" or some other pattern remains to be seen.

The Cohort Problem

Changes in the size of the population age 25 to 39 in New York City are due not only to migration, but also to birth cohorts of varying sizes aging into and out of this age group, as well as mortality. Comparing age group estimates across time introduces this issue of cohort effects, or the fact that the overall number of 25-39-year-olds will be different from one year to another. Unfortunately, since population estimates from the Census Bureau are presented in five-year age groups, we are not able to account for cohort effects in our estimates of change in population for one-year time intervals.

Still, it is still important to look at overall population size within age groups to better understand issues such as the supply of labor. **Migration is only one component of population change, and an analysis of age-specific population changes without accounting for cohort effects cannot claim that differences in population size are due solely to migration.**