Vintage 2018 NY State population estimates (total, 18+ and components of change)

On December 19, 2018 the Census Bureau released National and State population estimates for the time period 4/1/2010 through 7/1/2018.

### Total population

<table>
<thead>
<tr>
<th>Date</th>
<th>Total population</th>
<th>Change since 4/1/2010</th>
<th>Change since previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/2010</td>
<td>19,378,124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7/1/2010</td>
<td>19,400,080</td>
<td>21,956</td>
<td>98,434</td>
</tr>
<tr>
<td>7/1/2011</td>
<td>19,498,514</td>
<td>120,390</td>
<td>53,494</td>
</tr>
<tr>
<td>7/1/2012</td>
<td>19,574,549</td>
<td>196,425</td>
<td>76,035</td>
</tr>
<tr>
<td>7/1/2013</td>
<td>19,628,043</td>
<td>249,919</td>
<td>53,494</td>
</tr>
<tr>
<td>7/1/2014</td>
<td>19,656,330</td>
<td>278,206</td>
<td>28,287</td>
</tr>
<tr>
<td>7/1/2015</td>
<td>19,661,411</td>
<td>283,287</td>
<td>5,081</td>
</tr>
<tr>
<td>7/1/2016</td>
<td>19,641,589</td>
<td>263,465</td>
<td>-19,822</td>
</tr>
<tr>
<td>7/1/2017</td>
<td>19,590,719</td>
<td>212,595</td>
<td>-50,870</td>
</tr>
<tr>
<td>7/1/2018</td>
<td>19,542,209</td>
<td>164,085</td>
<td>-48,510</td>
</tr>
</tbody>
</table>

The Census Bureau estimates that New York had 19,542,209 residents at 7/1/2018, which is an increase of 0.8% since the last Census date. The estimates show small increases in the beginning of the decade and small decreases in most recent years. New York was one if 9 states that lost population in the last year of estimates.
Population age over and under 18

<table>
<thead>
<tr>
<th></th>
<th>Population 18+</th>
<th>Population 0-17</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>% Change</td>
</tr>
<tr>
<td>4/1/2010</td>
<td>15,053,173</td>
<td>3</td>
</tr>
<tr>
<td>7/1/2018</td>
<td>15,474,107</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

The estimated population 18 and older has increased by 420,934 since 4/1/2010 (2.8%), but the population under age 18 has decreased with 256,827 in the same period (-5.9%).

Components of Change: Natural Increase

<table>
<thead>
<tr>
<th>Year</th>
<th>Births</th>
<th>Deaths</th>
<th>Natural Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>243,113</td>
<td>149,752</td>
<td>93,361</td>
</tr>
<tr>
<td>2012</td>
<td>239,922</td>
<td>146,900</td>
<td>93,022</td>
</tr>
<tr>
<td>2013</td>
<td>239,872</td>
<td>152,576</td>
<td>87,296</td>
</tr>
<tr>
<td>2014</td>
<td>237,032</td>
<td>148,844</td>
<td>88,188</td>
</tr>
<tr>
<td>2015</td>
<td>239,363</td>
<td>153,820</td>
<td>85,543</td>
</tr>
<tr>
<td>2016</td>
<td>235,826</td>
<td>151,568</td>
<td>84,258</td>
</tr>
<tr>
<td>2017</td>
<td>230,364</td>
<td>160,681</td>
<td>69,683</td>
</tr>
<tr>
<td>2018</td>
<td>227,099</td>
<td>165,728</td>
<td>61,371</td>
</tr>
</tbody>
</table>

The estimated number of births in New York has been declining this decade and the number of deaths has been rising.

Natural increase is the difference between births and deaths and has been declining this decade.
These estimates are based on vital records collected by the NY Department of Health and by the National Center of Health Statistics, but for 2017 and 2018 these administrative data were not yet available at the time of production and other estimation models were used.

Components of change: Net Domestic Migration

Net domestic migration is the number of people moving into New York from elsewhere in the United States minus the number of people leaving New York to move to elsewhere in the United States.

These estimates are mainly derived from matching sequential tax and Medicare records and registering change in filing address.

For many decades New York has lost more people to other states than received. This decade the negative effect got larger in the first half of the decade, but seems to have stayed stable in more recent years.
Components of change: Net International Migration

Net International Migration is the number of people moving into New York from abroad minus the people leaving the state to go abroad.

The methodology for estimating this component has changed this year. More on that in the next section.

This vintage, the estimate on people moving into New York is largely based on American Community Survey (ACS) data on the question on previous place of residence. The number of people leaving New York to go abroad is based on national estimates of emigration and estimated shares for New York. The size (and change in size) of the foreign born population as measured in the ACS are important for these estimates.

The estimated Net International Migration for New York has been almost flat up till 2016. The estimate for the last two year show a significant drop.
Comparison of Vintage 2017 and 2018: total population

Estimates methodology changes can cause revisions to the whole time series since the jump-off point of 4/1/2010. There was a major change in the estimation of Net International Migration this year.

<table>
<thead>
<tr>
<th></th>
<th>Vintage 2017</th>
<th>Vintage 2018</th>
<th>% difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/2010</td>
<td>19,378,110</td>
<td>19,378,124</td>
<td>0.0%</td>
</tr>
<tr>
<td>7/1/2010</td>
<td>19,405,185</td>
<td>19,400,080</td>
<td>0.0%</td>
</tr>
<tr>
<td>7/1/2011</td>
<td>19,526,372</td>
<td>19,498,514</td>
<td>-0.1%</td>
</tr>
<tr>
<td>7/1/2012</td>
<td>19,625,409</td>
<td>19,574,549</td>
<td>-0.3%</td>
</tr>
<tr>
<td>7/1/2013</td>
<td>19,712,514</td>
<td>19,628,043</td>
<td>-0.4%</td>
</tr>
<tr>
<td>7/1/2014</td>
<td>19,773,580</td>
<td>19,656,330</td>
<td>-0.6%</td>
</tr>
<tr>
<td>7/1/2015</td>
<td>19,819,347</td>
<td>19,661,411</td>
<td>-0.8%</td>
</tr>
<tr>
<td>7/1/2016</td>
<td>19,836,286</td>
<td>19,641,589</td>
<td>-1.0%</td>
</tr>
<tr>
<td>7/1/2017</td>
<td>19,849,399</td>
<td>19,590,719</td>
<td>-1.3%</td>
</tr>
<tr>
<td>7/1/2018</td>
<td></td>
<td>19,542,209</td>
<td></td>
</tr>
</tbody>
</table>

The vintage 2017 estimates showed an increase in population over the whole series, albeit a very slow growth in the end. As we have seen earlier in this document the Vintage 2018 estimates show a slight decline in the last three years.
Comparison of Vintage 2017 and 2018: Components of change (aggregate 4/1/2010-7/1/2017)

<table>
<thead>
<tr>
<th>Components of change</th>
<th>Vintage 2017</th>
<th>Vintage 2018</th>
<th>% difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/1/2010 population</td>
<td>19,378,110</td>
<td>19,378,124</td>
<td>0.0%</td>
</tr>
<tr>
<td>Births</td>
<td>1,728,230</td>
<td>1,726,912</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Deaths</td>
<td>-1,102,746</td>
<td>-1,099,267</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Net Domestic Migration</td>
<td>-1,022,071</td>
<td>-1,017,294</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Net International migration</td>
<td>869,570</td>
<td>604,009</td>
<td>-30.5%</td>
</tr>
<tr>
<td>Residual</td>
<td>-1,694</td>
<td>-1,765</td>
<td>4.2%</td>
</tr>
<tr>
<td>7/1/2017 population</td>
<td>19,849,399</td>
<td>19,590,719</td>
<td>-1.3%</td>
</tr>
</tbody>
</table>

The aggregated components of change explain how the estimate from 4/1/2010 changes to the 7/1/2017 estimate. All components are re-estimated every vintage and it is normal to see small changes between vintages. As mentioned before the estimation methodology for Net International migration has changed significantly this vintage and resulted in a revised estimate that was 30% lower over the 7 ¼ years.

Comparison of Vintage 2017 and 2018: Net International Migration

Two major methodology changes were introduced in the Vintage 2018 estimates:

- The estimate of the number of people moving from abroad to New York is now largely based on the “Residence One Year Ago” question, whereas in Vintage 2017 answers to the “Year of Entry” question were a main driver for these estimates. For New York that made a big difference and further analyses of the differences and similarities between ACS estimates for the “Residence One Year Ago” and the “Year of Entry” questions is necessary to better understand the international migration in and out of New York and the closely related foreign born population.
- The estimate for people that left New York State to go abroad was also revised by using a different set of life tables for the foreign born population. Life tables are used in a residual method, where emigration is the residual when analyzing change in number of foreign born over time.

Resources

Cornell Program on Applied Demographics
https://pad.human.cornell.edu/index.cfm

Census Bureau’s Population Estimates Program
https://www.census.gov/programs-surveys/popest.html

Data sets:
https://factfinder.census.gov/bkmk/table/1.0/en/PEP/2018/PEPANNRES

Documentation:
https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2010-2018/