

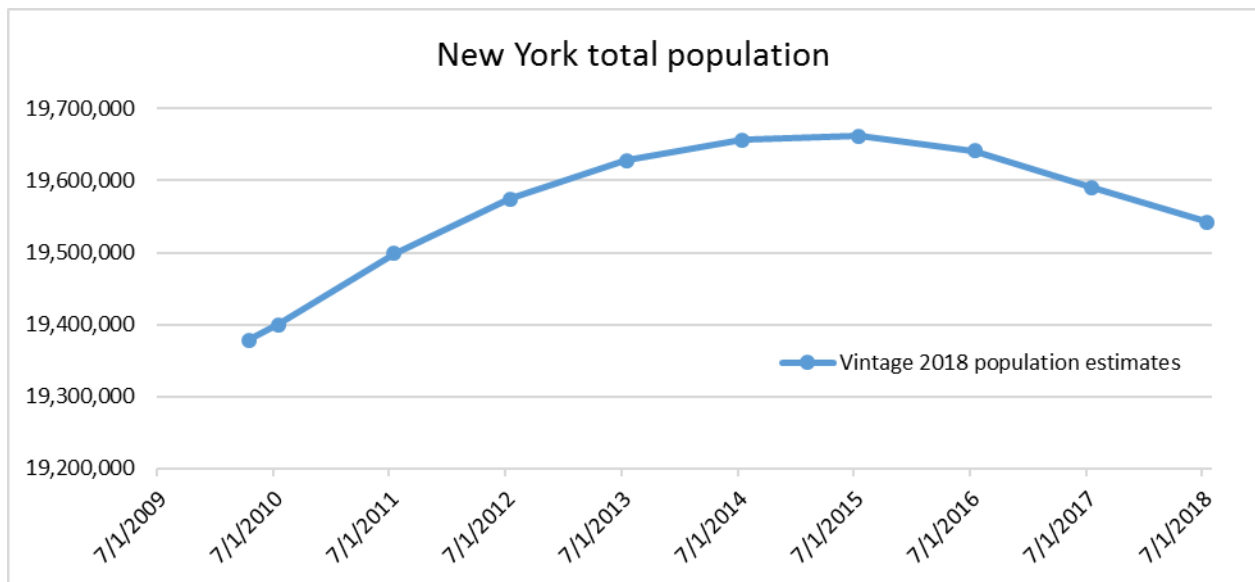
## Vintage 2018 NY State population estimates (total, 18+ and components of change)

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

	Total population	Change since 4/1/2010		Change since previous year	
		Count	%	Count	%
4/1/2010	19,378,124				
7/1/2010	19,400,080	21,956	0.1%		
7/1/2011	19,498,514	120,390	0.6%	98,434	0.5%
7/1/2012	19,574,549	196,425	1.0%	76,035	0.4%
7/1/2013	19,628,043	249,919	1.3%	53,494	0.3%
7/1/2014	19,656,330	278,206	1.4%	28,287	0.1%
7/1/2015	19,661,411	283,287	1.5%	5,081	0.0%
7/1/2016	19,641,589	263,465	1.4%	-19,822	-0.1%
7/1/2017	19,590,719	212,595	1.1%	-50,870	-0.3%
7/1/2018	19,542,209	164,085	0.8%	-48,510	-0.2%

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 of 9 states that lost population in the last year of estimates.



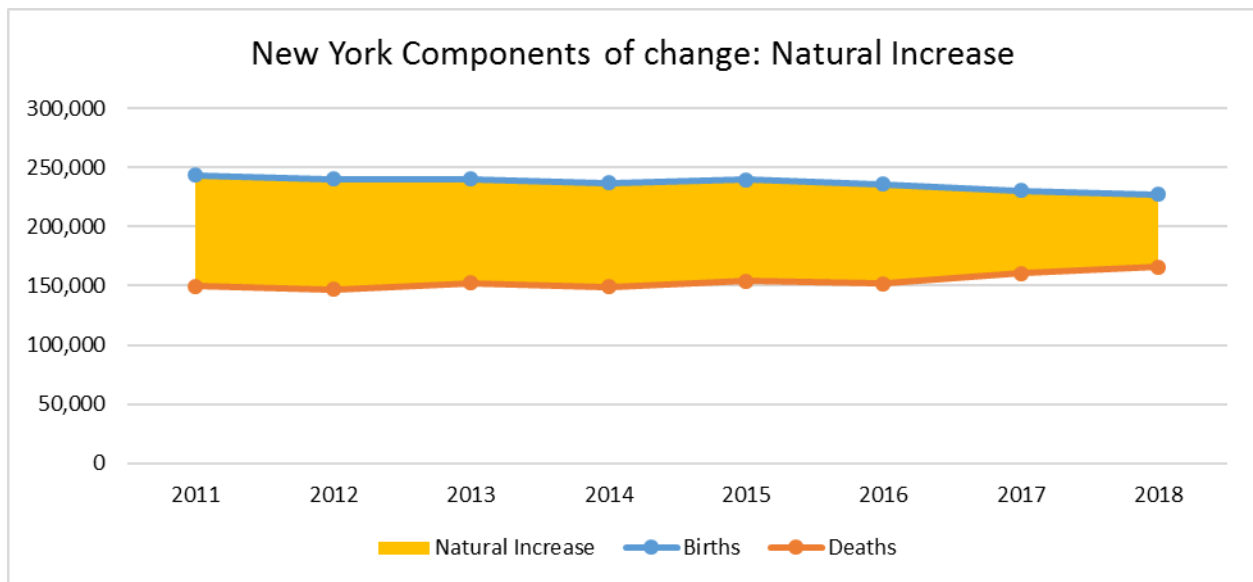
Population age over and under 18

	Population 18+		Population 0-17	
	Count	% Change	Count	% Change
4/1/2010	15,053,173		4,324,929	
7/1/2018	15,474,107	2.8%	4,068,102	-5.9%

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

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

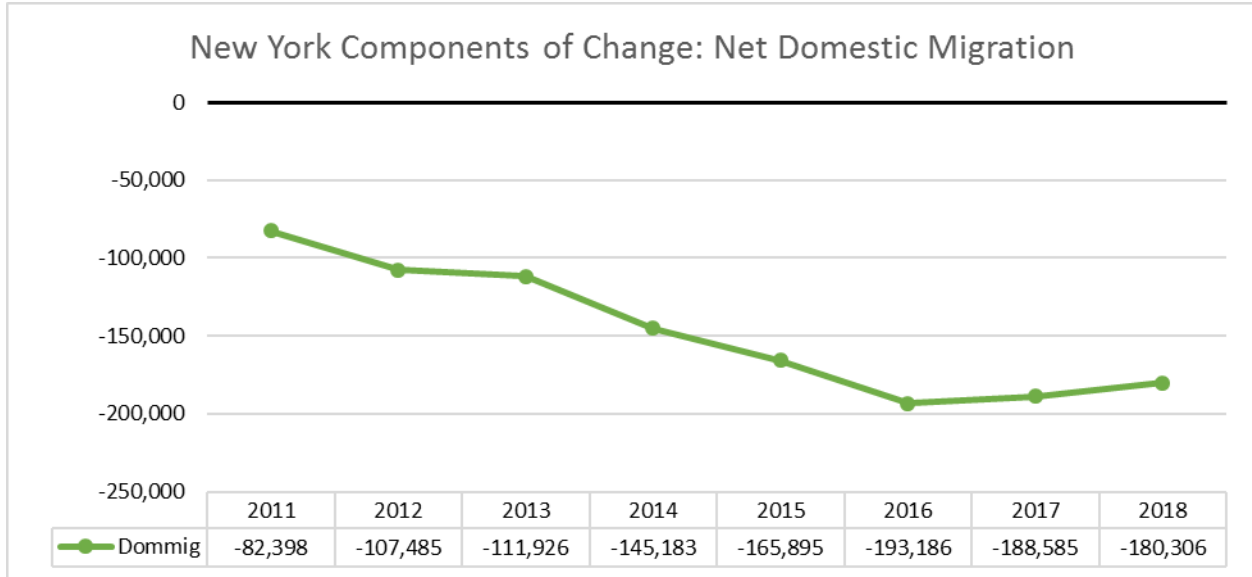


The estimated number of births in New York has been declining this decade and the number of deaths has been rising.

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

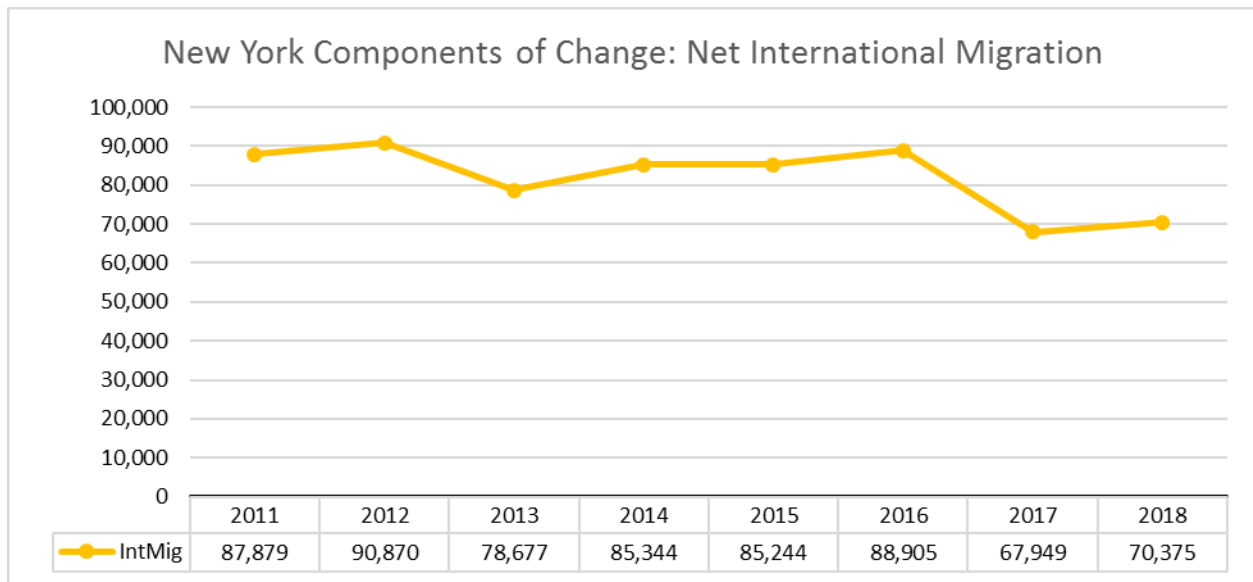


Net domestic migration is the number of people moving into New York from elsewhere in the United States minus the number of people leaving New York to move to elsewhere in the United States.

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.

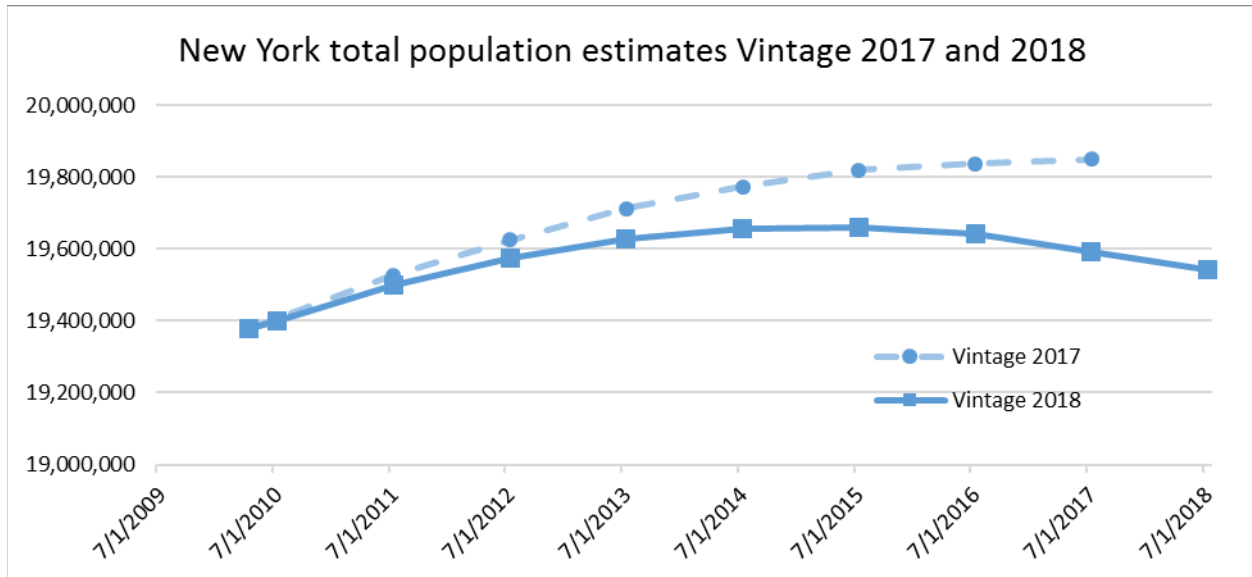
This vintage, the estimate on people moving into New York is largely based on American Community Survey (ACS) data on the question on previous place of residence. The number of people leaving New York to go abroad is based on national estimates of emigration and estimated shares for New York. The size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

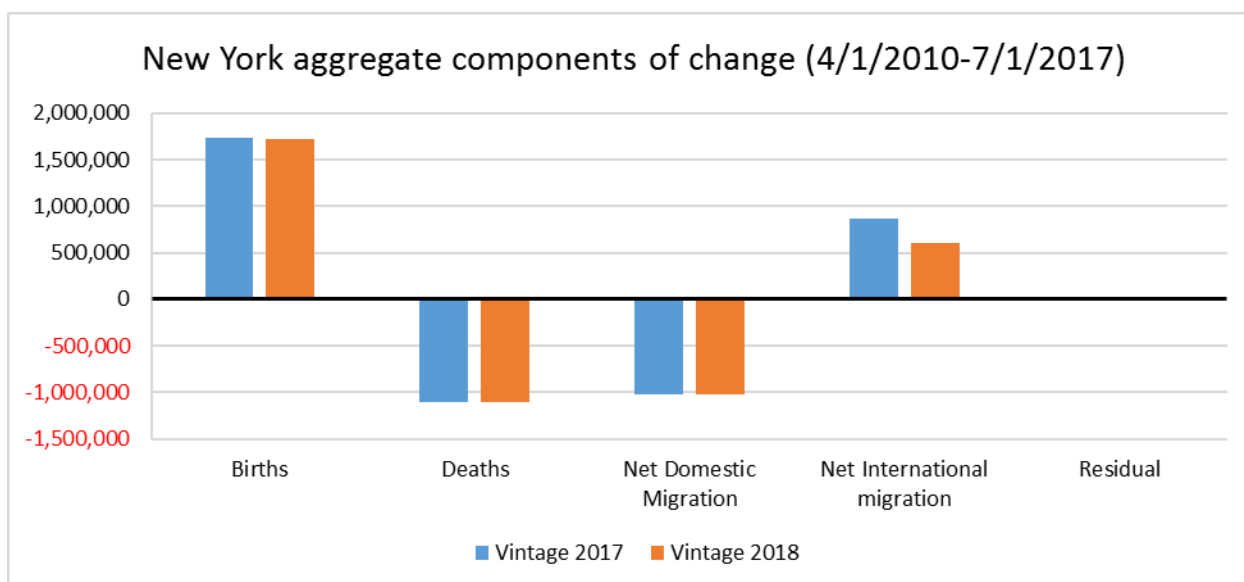
	Vintage 2017	Vintage 2018	% difference
4/1/2010	19,378,110	19,378,124	0.0%
7/1/2010	19,405,185	19,400,080	0.0%
7/1/2011	19,526,372	19,498,514	-0.1%
7/1/2012	19,625,409	19,574,549	-0.3%
7/1/2013	19,712,514	19,628,043	-0.4%
7/1/2014	19,773,580	19,656,330	-0.6%
7/1/2015	19,819,347	19,661,411	-0.8%
7/1/2016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



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)

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



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>

<https://www2.census.gov/programs-surveys/popest/datasets/2010-2018/national/totals/nst-est2018-alldata.csv>

<https://www2.census.gov/programs-surveys/popest/datasets/2010-2018/state/detail/SCPRC-EST2018-18+POP-RES.csv>

Documentation:

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