



# NEW YORK CITY'S CURRENT POPULATION ESTIMATES AND TRENDS

New York City Department of City Planning, Population Division  
March 2023

# Overview

- Recent administrative indicators suggest NYC is back to its pre-pandemic demographic trends: moderate net out-migration mitigated by natural increase.
- But for net domestic outflows, these trends were largely reflected in the Census Bureau's July 2021 to July 2022 components of population change, which also include births, deaths, and net international flows.
- These components resulted in an estimated NYC population of 8,335,897 as of July 2022. This was a drop of 123,104 between July 2021 and July 2022, compared to a decline of 281,646 between July 2020 and July 2021, a substantial diminution of population losses.
- Population estimation is inherently uncertain, including for the Census Bureau. This uncertainty is reflected in the Census Bureau's annual revisions to its estimates, despite robust methods and access to the highest quality data sources.
- Post-2020 Covid-related population decline is likely a short-term anomaly in the long-term trajectory of New York City's population growth.

# Indicators of a Return to Pre-pandemic Trends

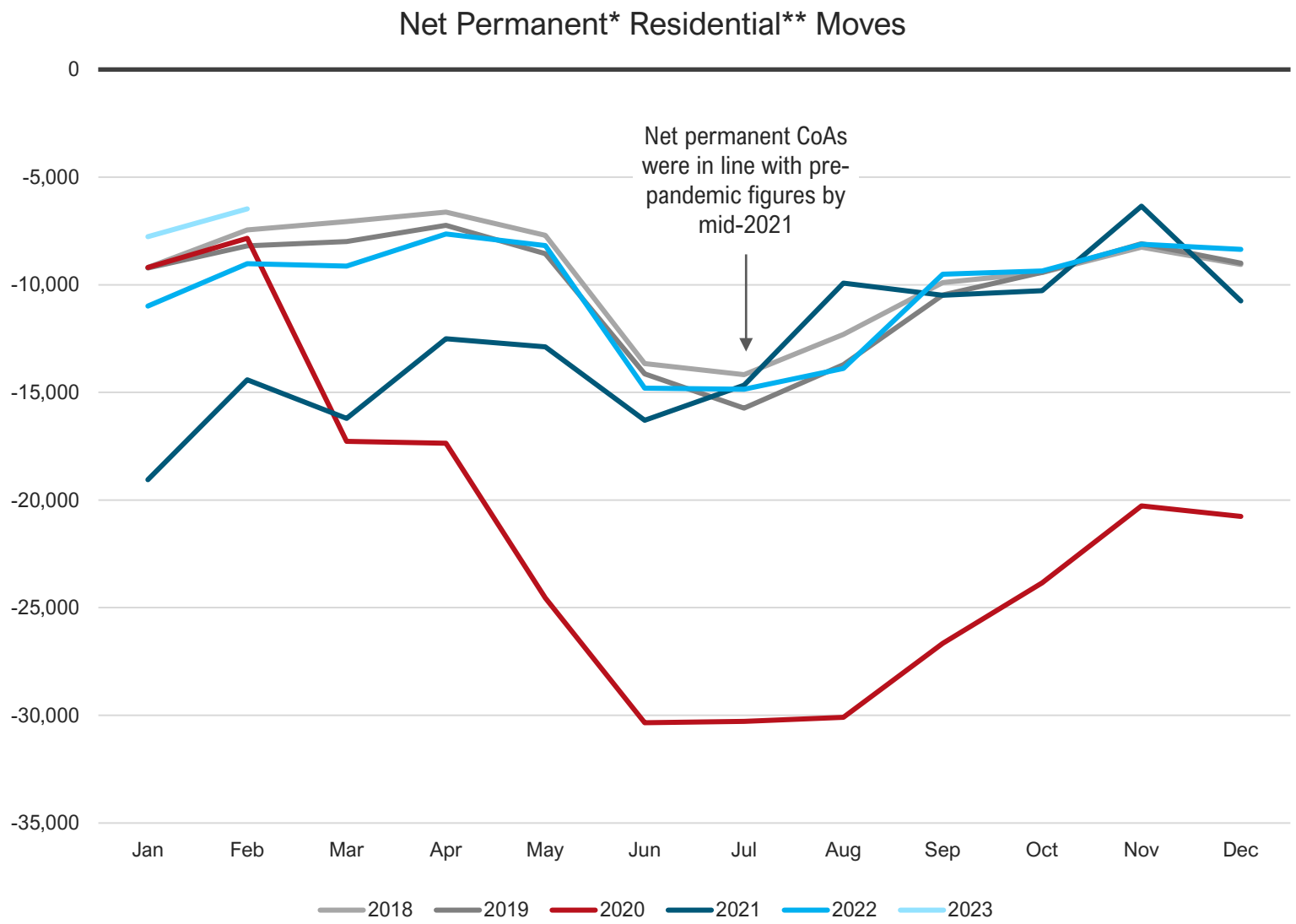
# USPS Net Residential Moves Have Rebounded to Pre-pandemic Levels

- Since the 1940s, more people have moved out of NYC than have moved in. NYC’s population grows through an excess of births over deaths, and immigration.
- Immediately after the onset of the pandemic, losses suggested by net changes-of-address (CoA) were far greater than 2018/2019 levels.
- CoAs were back in line with the pre-pandemic volume of losses by the second half of 2021.
- CoA data come with many caveats. See appendix for more details.

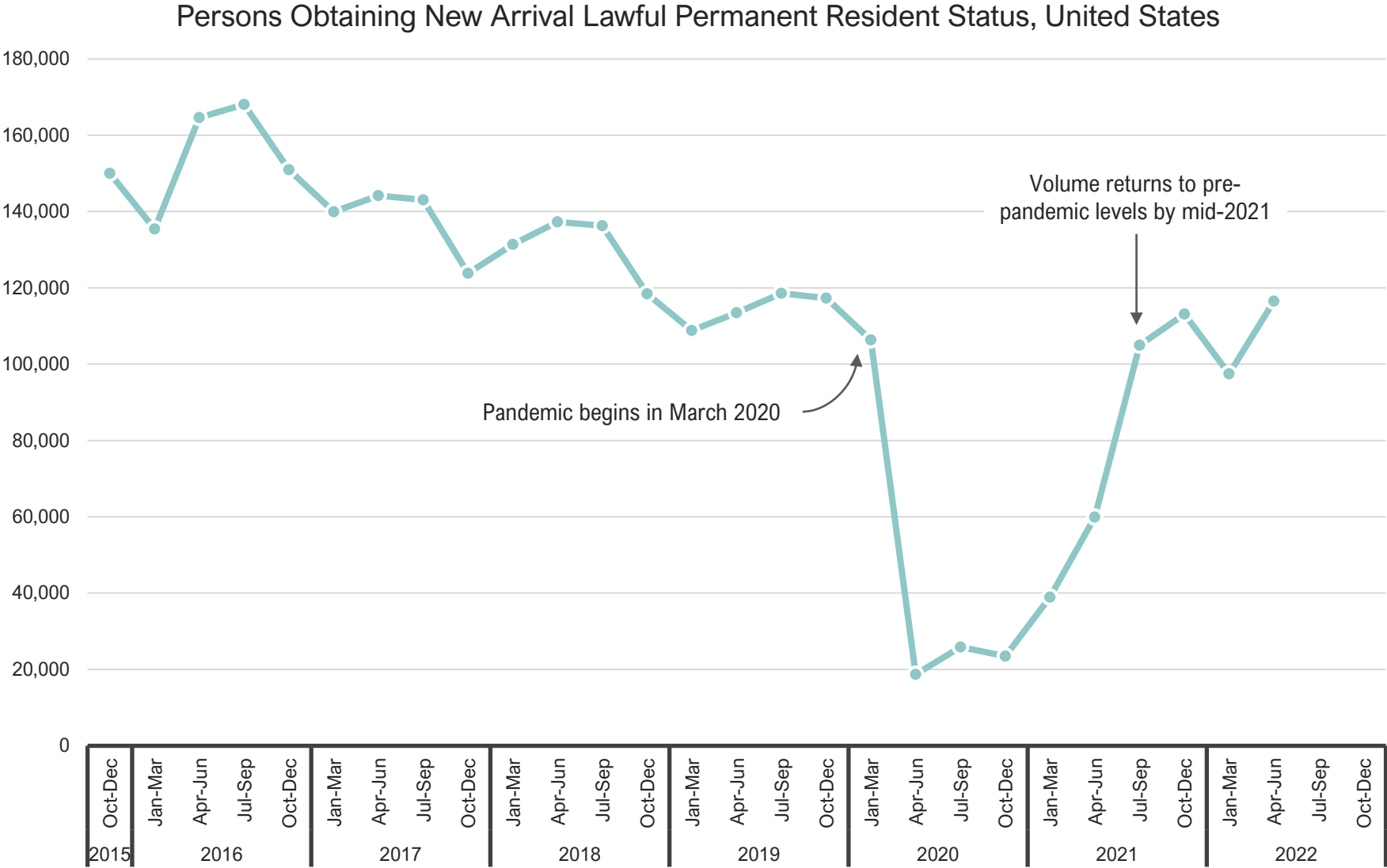
Notes

\* USPS does not provide data on number of permanent and temporary changes-of-address by individual/family/business filing. The proportion of total permanent/temporary filings by ZIP code and month are applied to estimate permanent and temporary residential CoAs.

\*\* "Residential" includes individual and family changes-of-address. Figures include an adjustment to estimate number of people captured by family CoAs. CoAs do not capture all relocations, and some relocations are counted multiple times. Figures are an estimate of those captured by CoAs.



# International Migration to the United States Has Returned to Pre-pandemic Levels

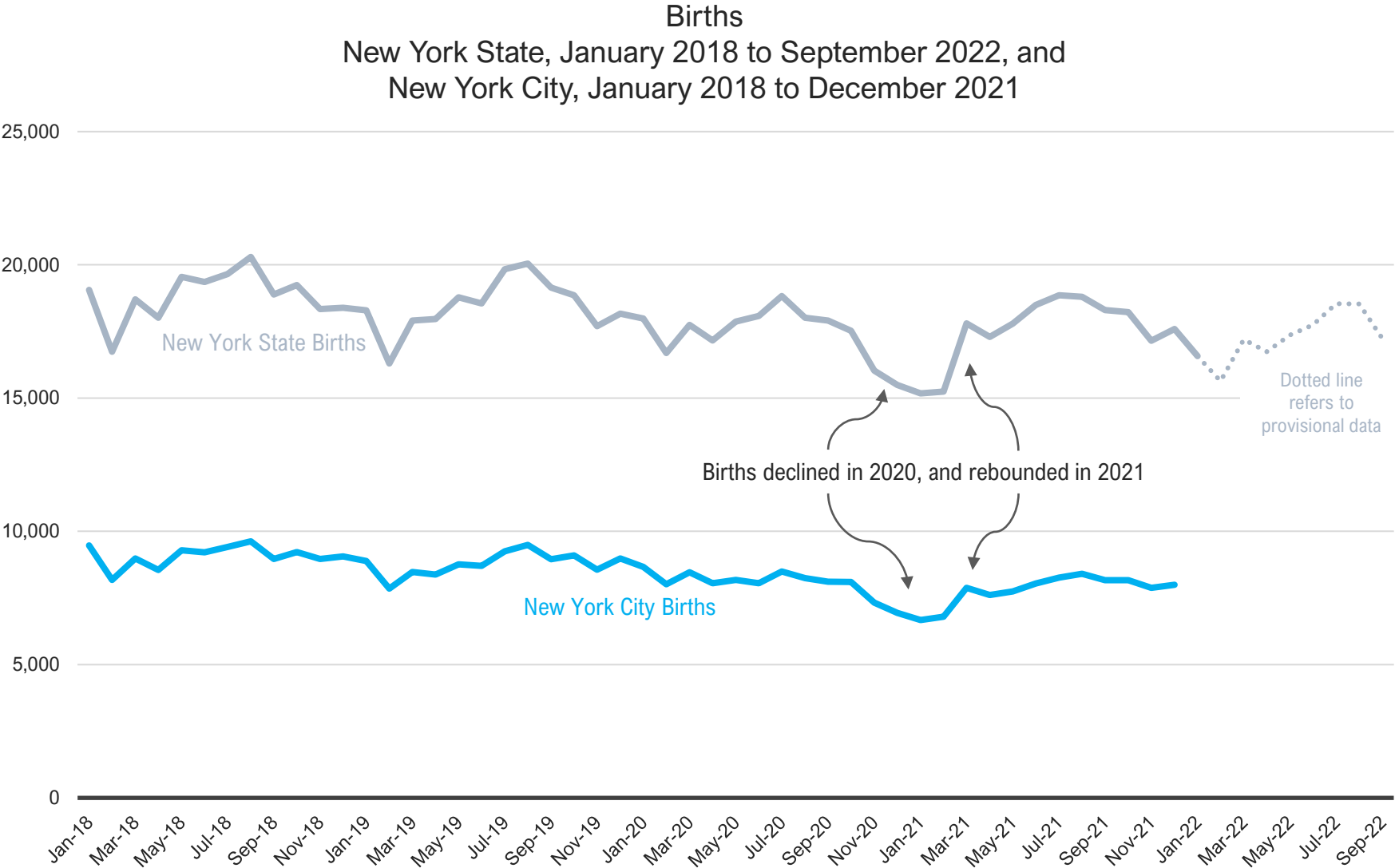


- New immigrant arrivals to the United States dropped precipitously at the start of the pandemic.
- By the second half of 2021, new arrivals were roughly in line with pre-pandemic levels.
- Patterns of immigration to NYC are likely to mirror national trends.

Source: U.S. Department of Homeland Security, data available at <https://www.dhs.gov/immigration-statistics>



# Births Have Rebounded to Pre-pandemic Levels

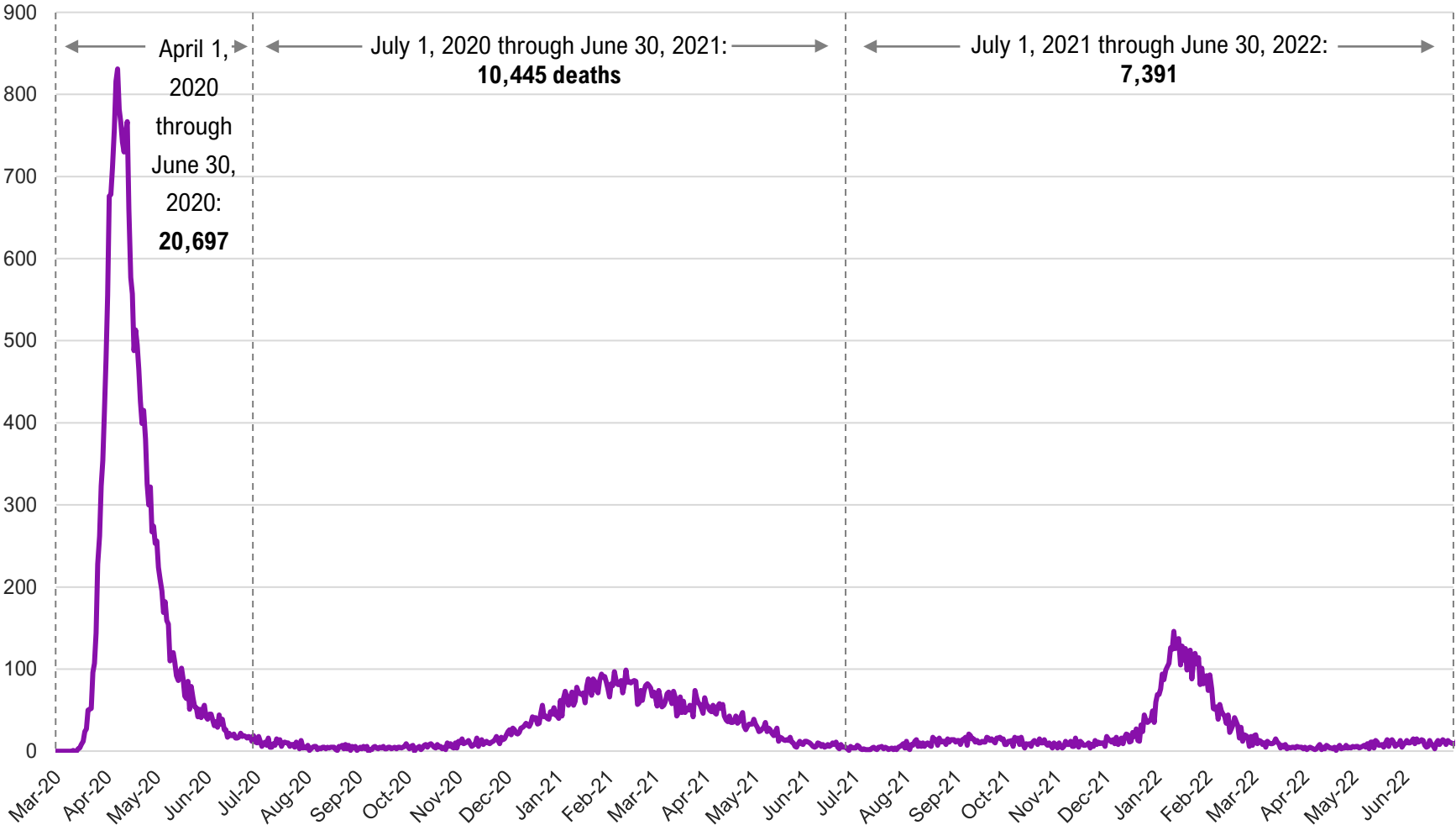


- Births in NYC and NYS dipped in the second half of 2020 and first half of 2021, but rebounded by mid-2021.
- Provisional data for New York State indicate a continued rebound of births into 2022.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, CDC WONDER Online Database. Available at <http://wonder.cdc.gov/natality-expanded-current.html>; Provisional data from the National Vital Statistics System, National Center for Health Statistics, CDC. Available at <https://www.cdc.gov/nchs/nvss/vsrr/provisional-tables.htm>; NYC Department of City Planning, Population Division

# Covid-19 Related Deaths Have Decreased

Daily Covid-19 Deaths  
New York City, March 2020 through June 2022



- Covid-19 deaths in NYC spiked early in the pandemic, peaking in April 2020, and have remained much lower since.
- From April 1, 2020 through June 30, 2021, there were 31,142 coronavirus deaths in NYC.
- Between July 1, 2021 and June 30, 2022, there were 7,391 coronavirus deaths in NYC.
- Covid-19 deaths had the largest impact on natural increase in the months immediately after the 2020 Census.

Source: NYC Department of Health and Mental Hygiene, data available at <https://www1.nyc.gov/site/doh/covid/covid-19-data-totals.page>

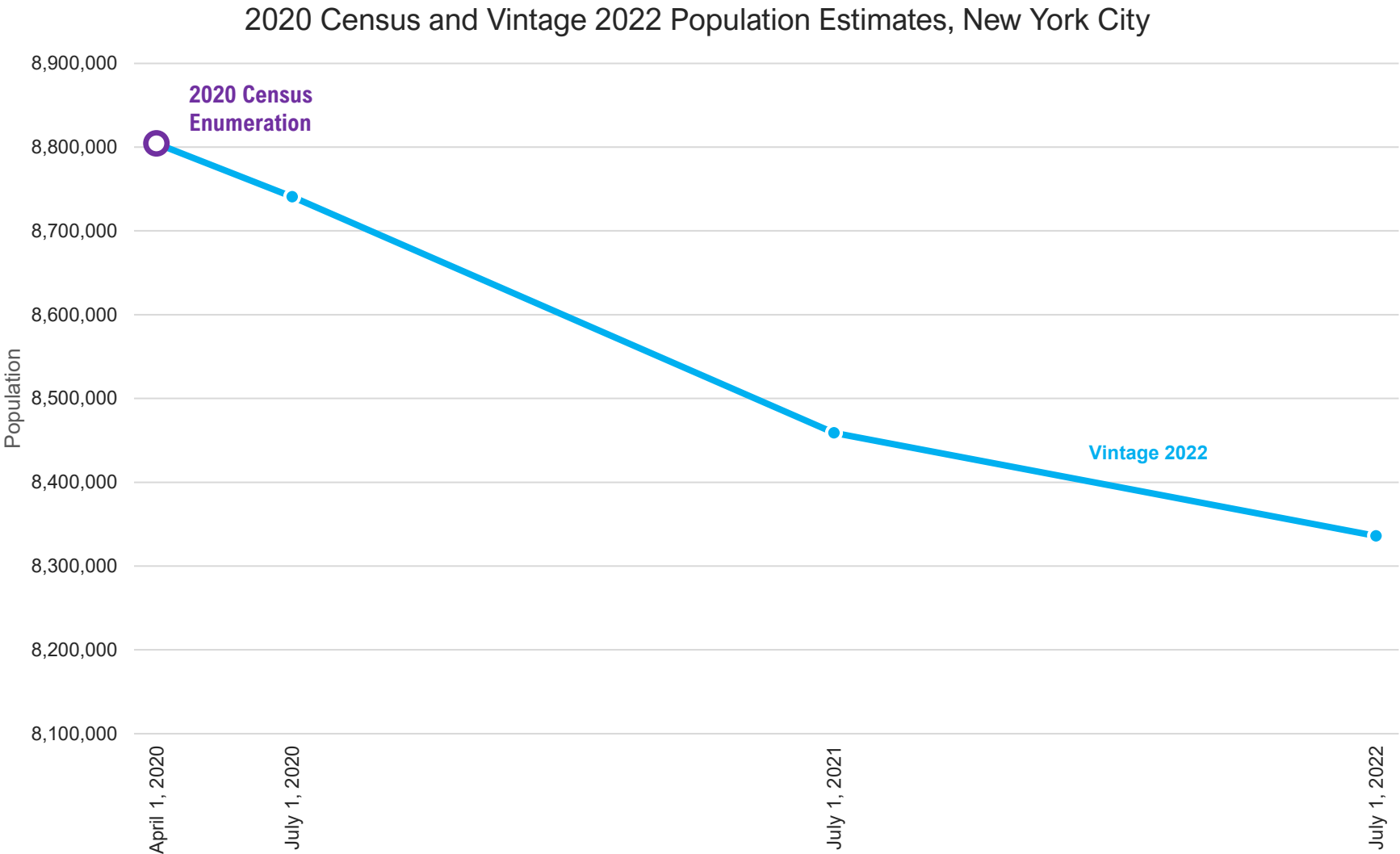
# Indicators Show Population Trends are Reverting to Pre-pandemic Patterns

- New York City's population decreased during the pandemic due to larger domestic outflows, smaller international inflows, lower levels of births, and higher levels of deaths than before the pandemic.
- The pandemic-related shock to population processes is likely to have been short-lived.
  - USPS net changes-of-address returned to pre-pandemic patterns by mid-2021, suggesting that net domestic outflows have returned to more typical volumes.
  - After a brief, but substantial, decrease, international migration to the United States has rebounded to pre-pandemic volumes, according to data from the U.S. Department of Homeland Security, and NYC likely mirrored this trend.
  - Births in New York City have rebounded to pre-pandemic levels.
  - While deaths due to Covid-19 in New York City continue, the volume is much lower than during earlier waves of the pandemic.
- The previously shown administrative indicators each point to a reversion to pre-pandemic population patterns. As the next section shows, the Census Bureau's Population Estimates Program also indicates that components of change for New York City have moved towards pre-pandemic patterns.
- No single data source paints a complete picture, all data sources come with some level of uncertainty, and some data sources are more accurate as proxies for population processes than others.



**The Census Bureau's  
Vintage 2022 Population Estimates**

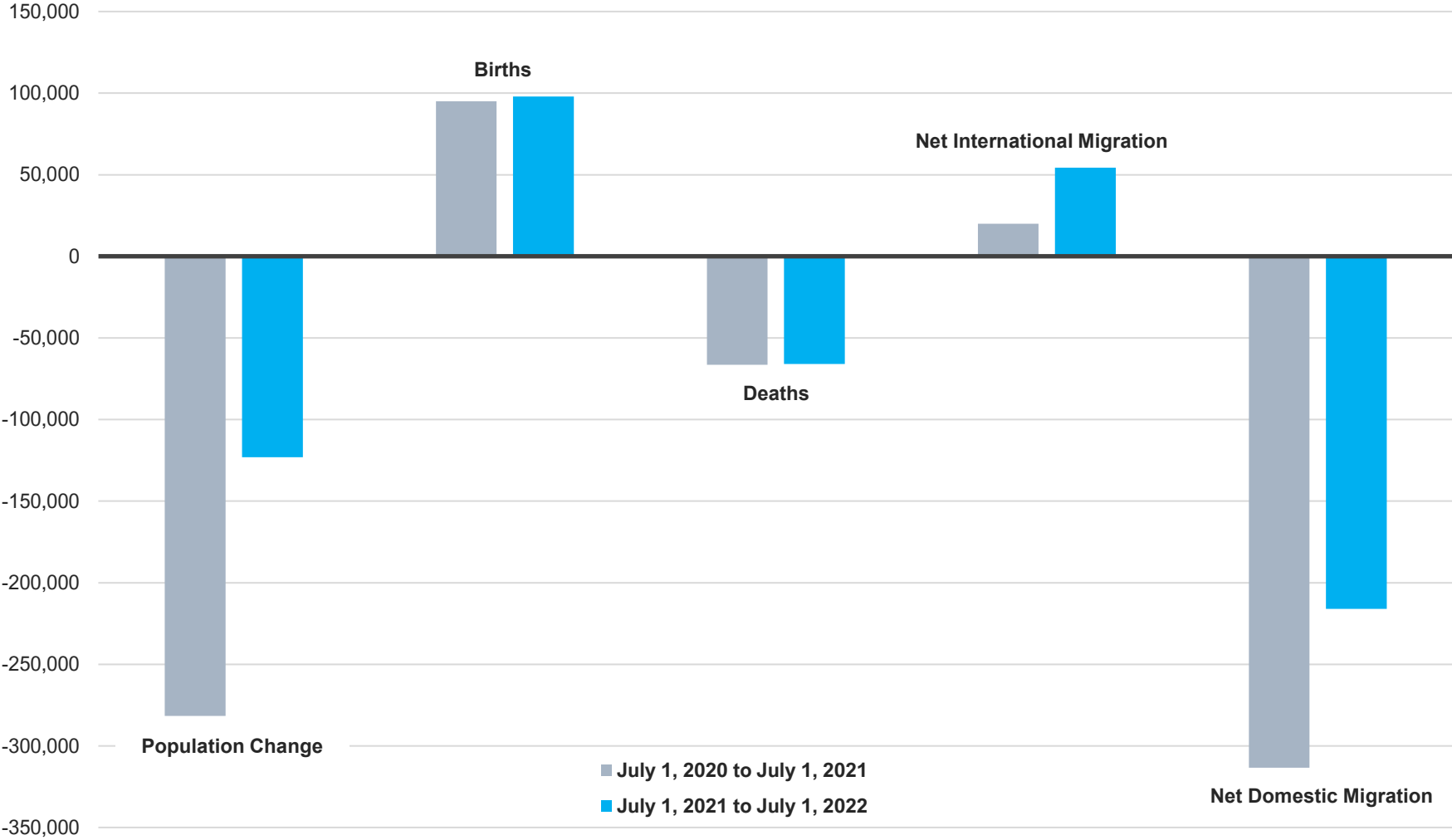
# The Census Bureau Estimates Population Decline Through July 2022



- The Census Bureau estimated NYC’s population at 8,335,897 on July 1, 2022.
- This reflects a decline of 123,104 since July 1, 2021, compared to a decrease of 281,646 between July 1, 2020 and July 1, 2021.

# Mitigated Net Domestic Outflows Drove a Reduction in Population Decline

Components of Population Change, New York City 2020 to 2021 and 2021 to 2022

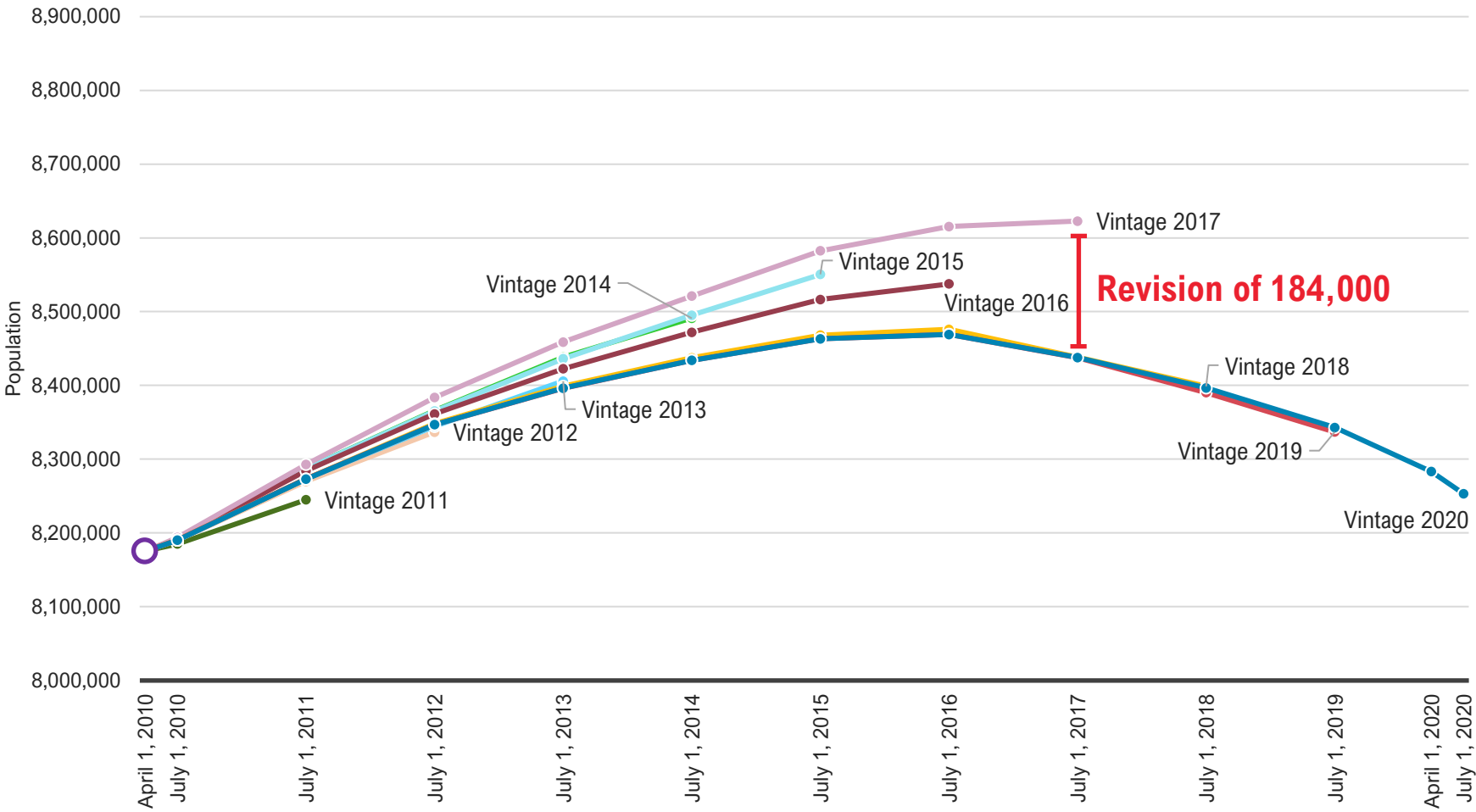


- Population losses were substantially smaller between July 1, 2021 and July 1, 2022, compared to the year prior.
- Smaller population losses were driven by mitigated net domestic outflows and a return to pre-pandemic volumes of net international migration.

**Census Bureau's Population Estimates in the 2010s,  
and the Uncertainty Associated with Estimates**

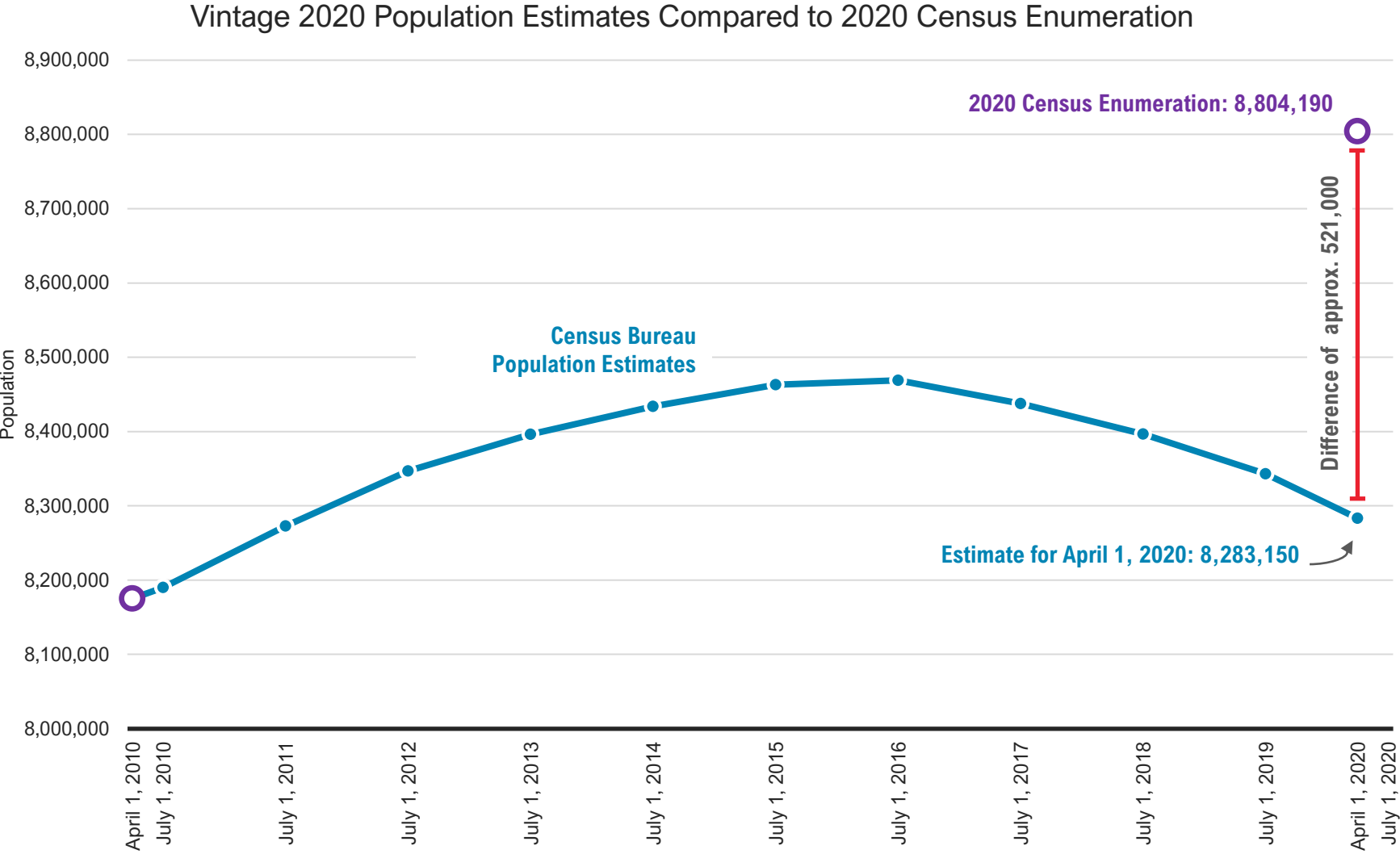
# Estimates are Subject to Revision, and Estimates for the Same Time Point Can Vary Widely across Vintages

Census Bureau's Population Estimates Program Estimates for New York City  
Vintages 2011 through 2020



- With each annual release of estimates, or vintage, the Census Bureau revises all previous estimates back to the most recent decennial census.
- The 2018 vintage revised the 2017 population down by a substantial 184,000.
- As a result of this revision, modest estimated growth between 2016 and 2017 changed to population decline, highlighting uncertainty in the estimates.

# The Census Bureau's 2020 Estimate was Off the Mark by Over One-half Million People



- The 2020 Census provided an opportunity to evaluate the accuracy of population estimates.
- The Census Bureau's Vintage 2020 estimates for NYC were off the mark by 521,000 (5.9%), highlighting the uncertainty associated with population estimates.

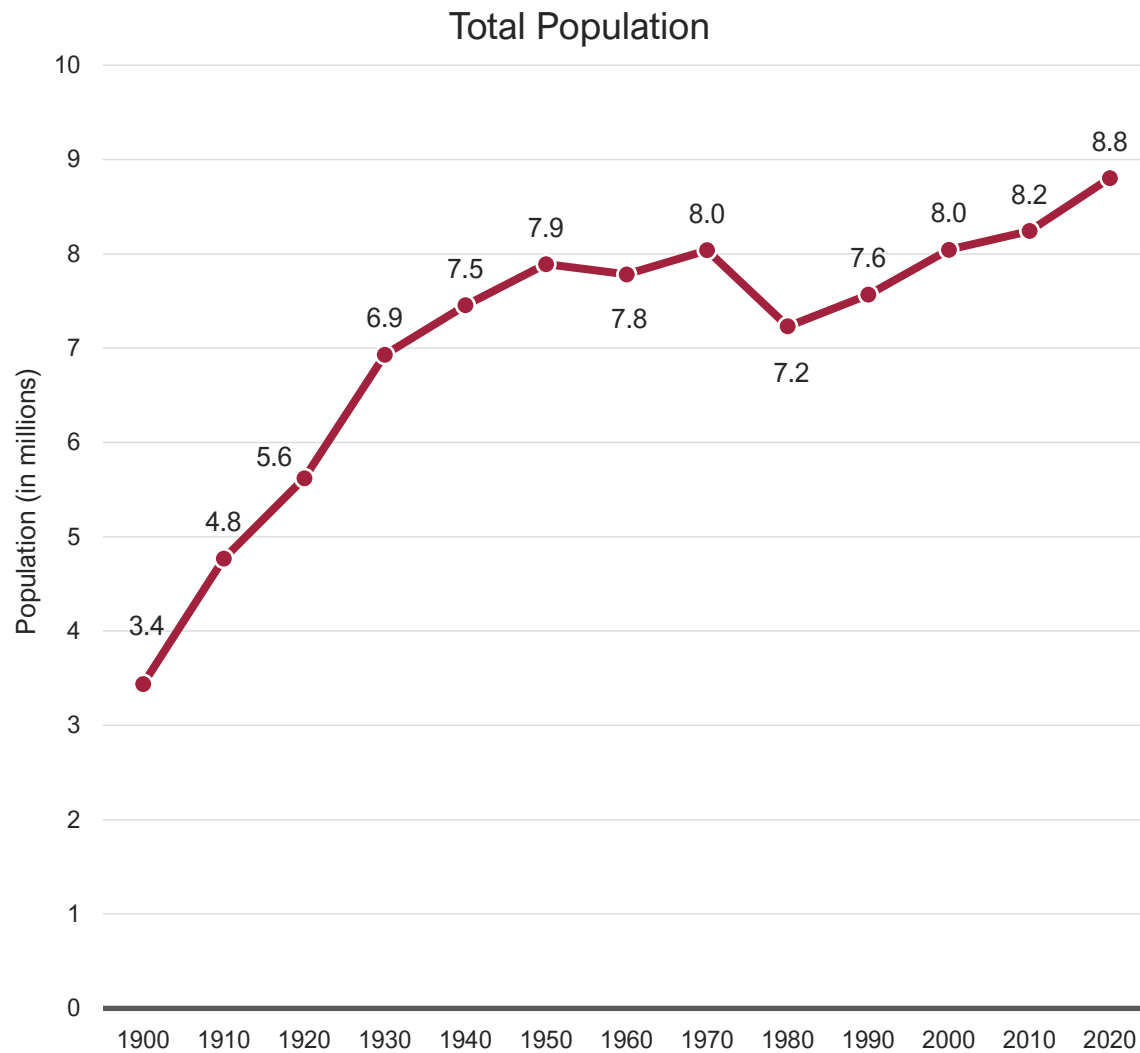
# Population Estimates are Uncertain, and Future Vintages may Reduce Stated Population Losses for the 2021 to 2022 Period

- Population estimates are always an uncertain endeavor, even when produced with the best data and most robust methods.
  - Reflecting uncertainty, the Census Bureau's estimates are revised each year with updated data and adjusted methods.
- Alternative data sources offer another window into population change and trends, but are also subject to uncertainty and can only be used as broad-brush indicators.
  - Indicators of domestic migration, international migration, births, and deaths all suggest realignment with pre-pandemic trends.
  - While the Census Bureau's estimates point to population decline, alternative indicators suggest net domestic outflows, and therefore population decline, may be overstated.
- It is important to keep in mind that there is a level of uncertainty in the Census Bureau's population estimates as well as alternative indicators of population trends.

**A Broader Perspective:  
New York City's Long-term Population Trajectory**



# New York City's Long-term Trajectory of Population Growth



- Since the turn of the last century (1900), the city has experienced steady growth.
- 2010-2020: New York City's population increased by 6.8 percent, or 562,000 (from 8,243,000 to 8,804,000).
- This was the fastest pace of growth since the 1930s.
- Covid-related population decline is likely a short-term anomaly in the long-term trajectory of population growth.
- Currently, there are 120,000 permitted housing units slated for construction, an excellent indicator of near-term population growth.

# Appendix

# Caveats in Using USPS Change-of-Address Data

- USPS change of address (CoA) data are a useful indicator of trends in domestic population movement, but should not be conflated with migration, and cannot provide a total number of movers or migration events.
  - CoAs do not have a 1:1 match with migration events, and do not align closely with official estimates of domestic migration.
    - Not all movers file a CoA, and some movers file more than one CoA.
    - The timing of CoA filings may not coincide with the timing of a corresponding move (e.g., forwarding mail before or after a move, renewing a CoA, rerouting a previous CoA).
- USPS reports the number of CoAs filed, not number of people captured by filings.
  - Family CoAs forward mail for at least two people, but USPS does not report how many.
  - Those who file more than once are counted multiple times (e.g., consolidating multiple addresses, CoA renewals).
- The number of filings in/out by ZIP code is reported, but without origin-destination pairs, which limits the ability to analyze borough-, neighborhood-, and ZIP code-level net CoAs, as well as inflows and outflows separately.
  - Within-NYC changes-of-address net out at the city-level.
  - Within-NYC net CoAs cannot be separated out from movement to/from the rest of the country at the borough-, neighborhood-, and ZIP code-levels.
  - It is not possible to isolate inflows and outflows to/from NYC from non-NYC ZIP codes.
- While it is possible to forward mail internationally, this is likely only a small fraction of CoAs. USPS does not report mail forwarded to the US from international origins.
- USPS uses data suppression for ZIP codes/filing types with few changes-of-address.

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