

# What is Causing the U.S. Population to Grow so Fast?

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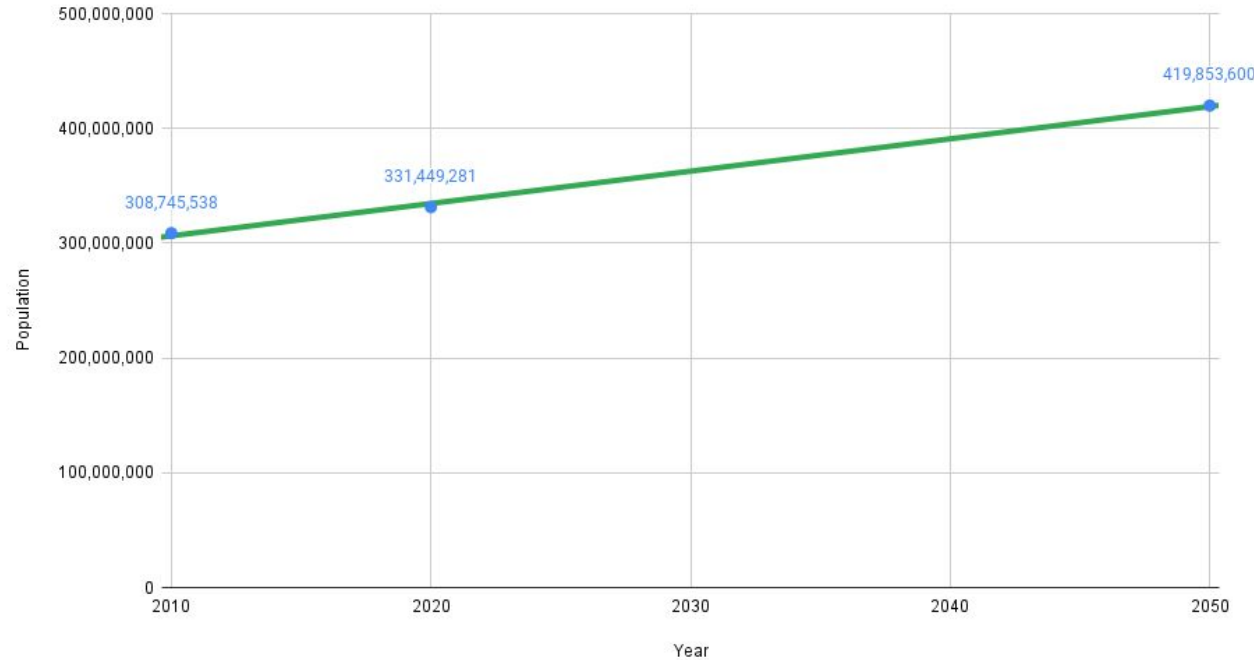
# Issue

*“...improvements in nutrition, water, medical care and other technological advances have contributed to a sharp decline in deaths while births continue to increase, resulting in population growth.”*

- Study Session 2 Population Growth<sup>[6]</sup>

- CDC estimates U.S. population to grow at faster rate from 2020-2050 compared to census in 2010-2020
- Hypothesis: Thanks to advanced medicine and other technology, birth rates have become the primary contributor to the growing U.S. population

Population According to the U.S. Census and CDC



# U.S. Birth Trends

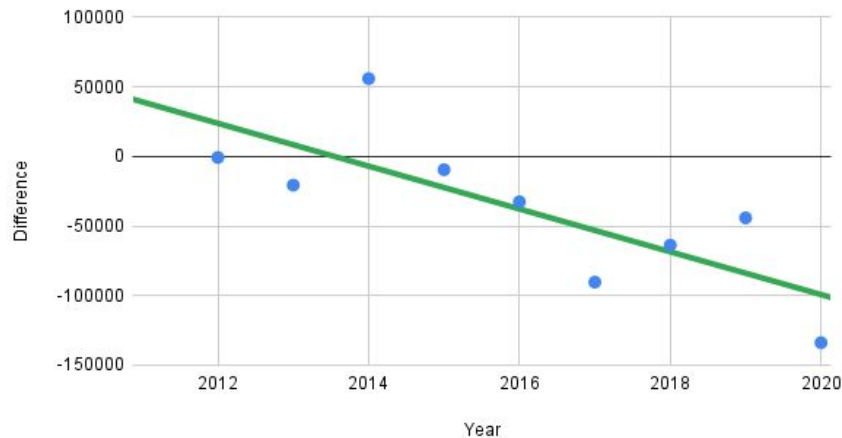
Population and Birth Data

- CDC birth data between 2011-2020<sup>[4]</sup>
  - 2010 and 2020 census data<sup>[1], [2]</sup> (for [approximate] population)
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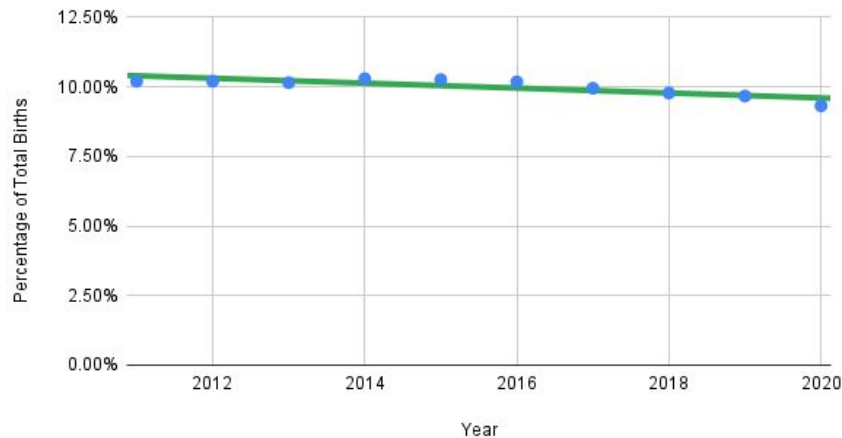
## 2011-2020 Birth Data

- 2014 is the only year with an **increase** in births from the previous year
- On average, a 37,771 **decrease** in live births from each previous year

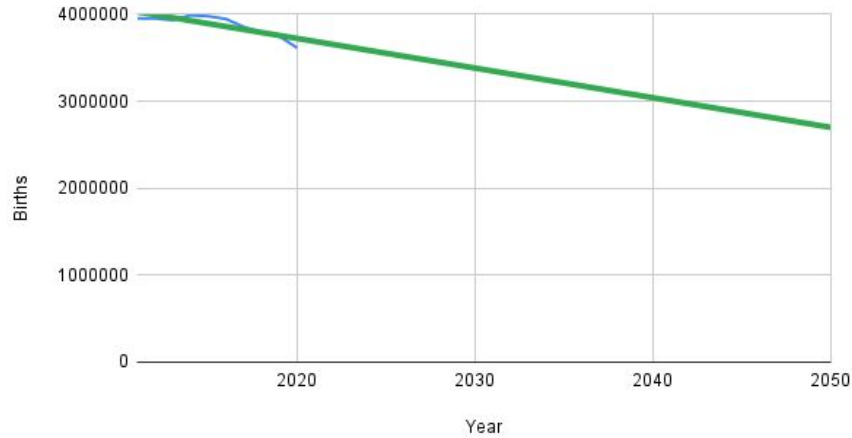
Difference In Births By Year



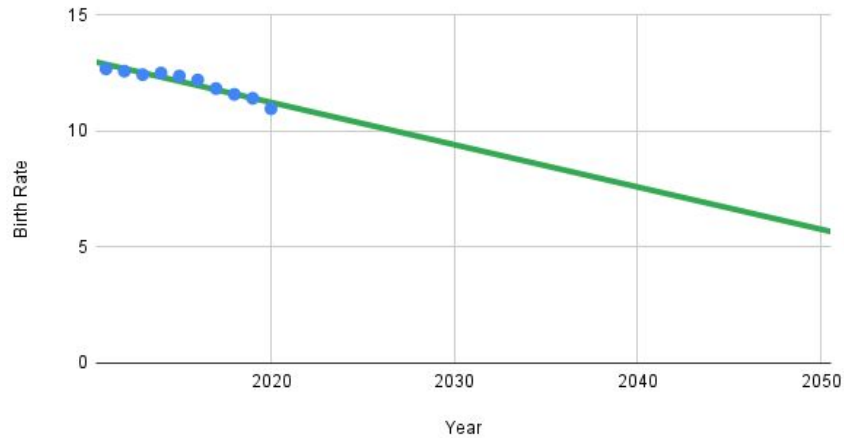
Percentage Of Total Births Each Year



Births Per Year



Birth Rate vs. Year



## Trajectory for 2050

- Data estimates **less than 3 million births**
- Data estimates birth rate to be **only 6.9, about half of 12.69** in 2011

Birth rate  $\square$  - ratio of live births to total population [in that year], multiplied by 1000

But Population Still Increases Rapidly?

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# Is Immigration the Primary Contributor?

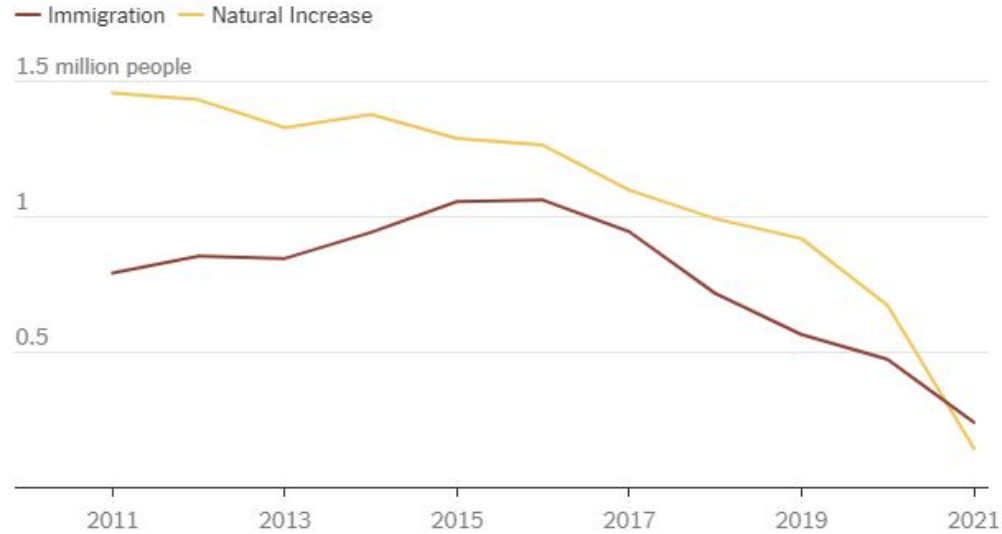
*“Immigration, even at reduced levels, is for the first time making up a majority of population growth.*

*In part this is because Americans are dying at higher rates and having fewer babies, trends accelerated during the coronavirus pandemic. But it’s also because there are signs that immigration is picking up again.”*

- New York Times<sup>[5]</sup>

- The two factors contributing towards population are immigration and natural increase (difference in births and deaths)<sup>[5]</sup>

**Annual Change in Population by Category**

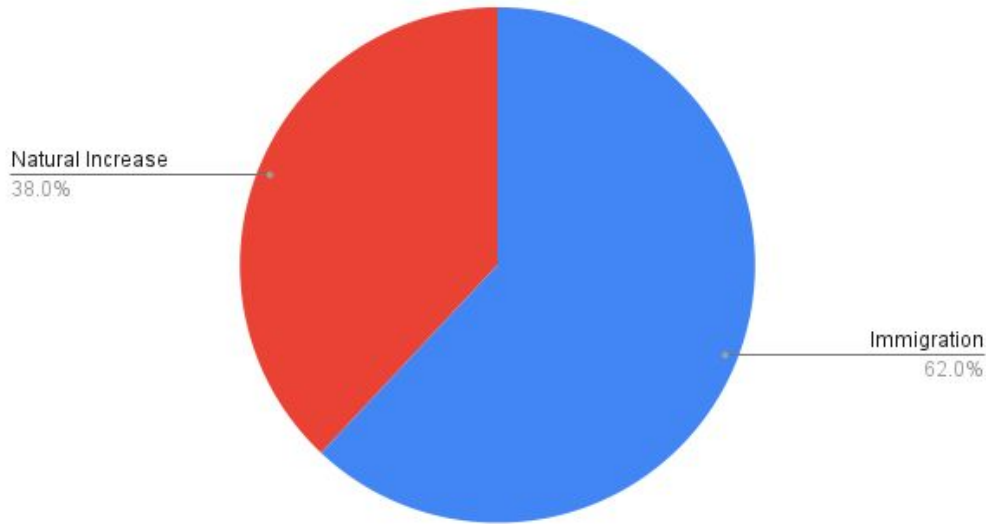


Source: U.S. Census Bureau, Population Estimates Program By The New York Times

# So What is the Primary Population Contributor?

- **Hypothesis:** Birth rates are the primary contributor to the growing U.S. population

Contribution to U.S. Population in July 2020 - July 2021



- **Conclusion:** While birth rates previously were on the high end, they are NOT the primary contributor anymore
- Birth rates decreased over 37,771 a year on average between 2011 and 2020
- Increasing immigration trends will potentially result in a 2-to-1 ratio of population contribution compared to natural increase

“With the aging of America’s overall population and baby boomers reaching the oldest ages, deaths are expected to increase more rapidly than births. Consequently, by mid-century immigration is expected to be contributing twice as many people to America’s population as natural increase.”

- Joseph Chamie (The Hill)<sup>[5]</sup>



# References and Appendix

## DATA

[1] Bureau, U. S. C. (n.d.). Explore census data. Retrieved October 30, 2022, from <https://data.census.gov/cedsci/table?q=us+population+2010&tid=DECENNIALPLNAT2010.P1>

[2] Bureau, U. S. C. (n.d.). Explore census data. Retrieved October 30, 2022, from <https://data.census.gov/cedsci/table?q=us+population+2020&tid=DECENNIALPL2020.P1>

[4] Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Natality on CDC WONDER Online Database. Data are from the Natality Records 2007-2020, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/natality-current.html> with requested records 2011-2020 on Oct 29, 2022 5:51:00 PM.

## QUOTES

[3] Causes and consequences of overpopulation. Sustainability for all. (n.d.). Retrieved October 30, 2022, from [https://www.activesustainability.com/sustainable-development/causes-consequences-overpopulation/?\\_adin=02021864894](https://www.activesustainability.com/sustainable-development/causes-consequences-overpopulation/?_adin=02021864894)

[5] Joseph Chamie, opinion contributor. (2022, January 11). For the foreseeable future, immigration will fuel US population growth. The Hill. Retrieved October 31, 2022, from <https://thehill.com/opinion/immigration/589178-for-the-foreseeable-future-immigration-will-fuel-us-population-growth/>

[6] *Study session 2 population growth*. Study Session 2 Population Growth: View as single page. (n.d.). Retrieved October 31, 2022, from <https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=79927&printable=1>

[7] World Health Organization. (n.d.). Indicator metadata registry details. World Health Organization. Retrieved October 31, 2022, from <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/1139#:~:text=The%20ratio%20between%20the%20number,year%2C%20usually%20multiplied%20by%201%2C000.>

Thank You.